

# DOCTOR OF PHILOSOPHY

# Related party transactions, corporate governance and accounting quality in Greece

Moataz Elhelaly

2014

**Aston University** 



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# Moataz Nashaat Elhelaly Doctor of Philosophy

# Aston University April 2014

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#### **Aston University**

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**PhD** 

#### 2014

#### Thesis Summary

Related Party Transactions (RPTs) have been considered recently in research as a phenomenon which is associated with several financial scandals, shareholder's wealth expropriation and is used for earnings management (EM) purposes by the reporting entity. This study aimed to: (i) assess the extent of EM and RPTs in Greece; (ii) investigate the association between RPTs and EM; (iii) investigate the association between corporate governance and EM; (iv) investigate the association between corporate governance and RPTs; and (v) investigate the impact of RPTs on Accounting Quality. Greece was selected for this study as it provides a special context due to poor investor protection, high levels of EM and unhealthy financial reporting environment where wealth extraction and EM are more likely. This study examines the relationship between earnings management and RPTs for the firms listed on the Athens Stock Exchange (ASE). Moreover, It examines the association between earnings management and corporate governance activities. The results show a negative and significant relationship between EM and RPTs. This finding does not support the conclusion that RPTs are necessarily conducted to mask fraud or the extraction of firm resources. The results show that firms audited by one of the Big 4 audit firms are associated with less EM. Additionally, the study investigates the relationship between RPTs and accounting quality. The findings show that that there is no significant difference in accounting quality between RPTs firms and non-RPTs firms. This study contributes to the EM, accounting quality and corporate governance literatures. This research suggests recommendations for researchers, data providers and policy makers on ways to reduce the problems associated with RPTs.

**Keywords:** Accounting Quality, Agency Theory, Corporate Governance, Earnings Management, Greece, Investor Protection, Related Party Transactions.

# To my Parents

All words seem inadequate to thank you

My Wife Basma

Without you, I would have never made it

&

My Daughter Zeina

I hope one day will you will be proud that I am your Dad

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#### **List of Abbreviations**

ASE Athens Stock Exchange

BOD Board of Directors

CAR Cumulative Abnormal Return

CEO Chief Executive Officer
COGS Cost of Goods Sold
EM Earnings Management

GAAP Generally Accepted Accounting Principles

IAS International Accounting Standards

IASB International Accounting Standards Board

ICD Internal Control Deficiency

IFRS International Financial Reporting Standards

IPO Initial Public Offering

ITC International Trade Commission

NAF Non-audit fees

OLS Ordinary Least Squares

PRP Potentially Responsible Party
PPE Property, Plant and Equipment

ROA Return on Assets
ROE Return on Equity

RPTs Related Party Transactions

SFAS Statement of Financial Accounting Standards

SOX Sarbanes Oxley Act

TCE Transaction Cost Economics

UK United Kingdom

USA United States of America

#### **Chapter One**

#### Research Background, Objectives and Structure

#### 1.1 Introduction

Most of the firms all over the world have concentrated ownerships or are controlled by a family, financial institution, or the Government (La Porta et al., 1998). Controlling shareholders, family, institution or Government are usually referred to as insiders whether other shareholders are often referred to as outside shareholders or minority shareholders. These insiders usually use their concentrated ownership stakes and enjoy control rights that exceeds their cash flow rights and this provides insiders with additional opportunities to expropriate outside shareholders through firm's operating and financing decisions (Gopalan and Jayaraman, 2012).

Related party transactions (RPT) are a potential means that could be used by insiders to expropriate outside shareholders (Ryngaert and Thomas, 2012) and have been directly associated with several cases of financial fraud scandals and declined earnings quality (Ge et al., 2010). Prior research have investigated the relationship between RPTs and expropriation of firms' resources by controlling shareholders. These studies found evidence on the association between expropriation and RPTs (Djankov et al., 2008; Johnson et al., 2000) which is consistent with the argument that managers can manage reported earnings by structuring RPTs (Healy and Whalen, 1999). Other studies have found evidence

that RPTs can represent conventional transactions and are not necessarily conducted to manage earnings or to expropriate firms' resources but play a role as legitimate commercial transactions. For example, Chien and Hsu (2010) argue that RPTs might lead to lower transaction costs and enable the firm to utilise its assets more efficiently.

According to US GAAP Statement of Financial Accounting Standards 57 (SFAS 57) and International Accounting Standard 24 (IAS 24), Related Party Transactions are defined as transactions between a company and its subsidiaries, affiliates, principal owners, officers or their families, directors or their families, or entities owned or controlled by its officers or their families. Transactions between related parties include sales and acquisitions of assets, sales of goods and services, cash payments, loan guarantees and other types of transactions (IAS 24). The presence of an accounting standard governing the presentation of RPTs in the financial statements aims at reflecting changes in financial position caused by those transactions (PricewaterhouseCoopers, 2010).

Despite the continuous efforts of the regulatory bodies and accounting standards setters to further develop accounting standards governing the transactions between connected parties, the research on RPTs shows significant evidence that problems associated with RPTs and with their appropriate disclosures are significant. A number of large corporate scandals have brought attention to the potential for accounting manipulations associated with RPTs. Also academic

research shows that RPTs are associated with a decline in the quality of reported earnings (Ge et al., 2010). Djankov et al., (2008) mentions that RPTs may provide direct opportunities for related parties to extract cash from listed companies (Johnson et al., 2000). Gordon and Henry (2005), Cheung et al., (2006, 2009), Berkman et al., (2009), Chen at al., (2009), Chalevas (2011), Ge et al., (2010), Lei and Song (2011) and others, recorded a significant relationship between the presence and the volume of RPTs and inflated earnings, decline of minority shareholder wealth, decline in firm value, and negative excess returns.

According to agency theory, RPTs are viewed as a facet of conflict of interest that can compromise management's agency responsibility to shareholders or board of director's monitoring function. RPTs are transactions within the firm involving 'insiders' and RPTs may present opportunities to expropriate firm resources. If a firm's executives or board members engage in RPTs to expropriate firm resources, then they have an incentive to manage earnings to mask the extraction of the firm's resources impacting earnings quality (Gordon and Henry, 2005).

Contrariwise RPTs may play a role as a natural part of business transactions not necessarily related to accounting or financial fraud (Gordon et al., 2007). RPTs can rationally fulfil other economic demands for the company, or are a mechanism that bonds the related party to the company. In this case there would be no need to manage earnings nor to offset the RPTs as they were not conducted to mask an extraction of firm's resources as in the agency view. Consequently,

this view does not expect a relation between EM and RPTs (Gordon and Henry, 2005). Prior literature suggests that the assumption that RPTs are a facet of conflict of interest should be implemented with caution. Gordon and Henry (2005) and Ryngaert and Thomas (2012) suggest that the assumption that RPTs reflects opportunism or agency problem should not be generalised as some RPTs have proven to be innocuous from the conflict of interest assumption.

Hence, the effect of RPTs on EM remains an empirical question. The reason for this void in the literature is twofold. First, prior studies investigating the association between EM and RPTs were conducted either in the US (Gordon and Henry, 2005) or in Asian economies (Jian and Wong, 2010; Lo et al., 2011). Both settings (US and Asia) have unique institutional factors that are likely to make the results obtained from those studies not generalised to other economies (Gordon and Henry, 2005; Cheung et al., 2006). Second, studies that investigated the association between EM and RPTs in several cases have used indirect proxies of EM. For example Chen et al. (2011) and Aharony et al. (2010) used the changes in ROA around IPOs as an indicator of EM in Chinese firms.

The main question that needs to be empirically investigated is whether RPTs are systematically related to EM or not. In responding to this issue this research investigates whether RPTs are associated with EM behaviour that is aimed to mask wealth extraction by managers and controlling shareholders.

It is also important to investigate the relationship between EM and corporate governance. Corporate governance is assumed to restrict any EM behaviour by the management. Prior studies found evidence that good corporate governance activities can improve the company's reporting quality (Beasley 1996; Dechow et al. 1996; Klein 2002; Peansell et al. 2005). Corporate governance can also limit opportunistic behaviour of management, increase the value of a firm and increase the efficiency of RPTs and decrease the conflict of interest in those transactions (Denis and McConnell, 2003; Gordon and Henry, 2005; Bhagat and Bolton, 2008; Chien and Hsu, 2010 and Abdulwahab et al., 2010). Thus, corporate governance is assumed to constrain the negative effects of RPTs. Finally, this research examines the relationship between RPTs and accounting quality and whether firms engaging in RPTs exhibit lower accounting quality or not compared to firms that are not actively undertaking RPTs.

I investigate the relationship between RPTs, EM and corporate governance and also the effect of RPTs on accounting quality during the period from 2009 to 2011 for companies listed on the Athens Stock Exchange (ASE). Luez et al. (2003) examined systematic differences in EM across 31 countries. Among 31 countries Greece scores the highest EM score. This indicates that Greece reflects the highest level of EM across all sample countries. Greece has often been in the spotlight for the inadequate quality of financial reporting (Tsipouridou and Spathis, 2012). Other empirical studies of international comparison among countries have illustrated that Greece exhibits the highest levels of EM

(Bhattacharya et al., 2003). This study aims to investigate the relationship between EM and RPTs in a country with poor investor protection, low accounting quality and unhealthy financial reporting environment where wealth extraction via RPTs is more likely.

This chapter (Chapter One) is organised as follows: Section 1.2 discusses how this study contributes to knowledge. Section 1.3 presents the research objectives and questions, and Section 1.4 presents the organisation of the study.

#### 1.2 Contributions of the Study

This study contributes to the rapid growing literature on EM. Prior studies have provided evidence that executives engage in EM through accruals (Healy, 1985; Healy and Whalen 1999; Kothari, 2001; Fields, 2001) or through the manipulation of real activities (Roychowdhury, 2006). Moreover, Healy and Whalen (1999) argue that RPTs could be used to manage earnings, but the evidence on the link between EM and RPTs is scant. This study aims to provide empirical evidence whether RPTs are normal transactions conducted for solely business purposes or a tool to manipulate financial statements and mask extraction of firm resources.

This study also contributes to the corporate governance literature examining the link between internal governance activities and EM. Although prior work has provided some evidence that corporate governance is an important determinant of EM, the results of these studies remain contradictory (Garcia-Meca and

Scanchez-Ballesta, 2009) and not sufficient to draw substantive conclusions (Larcker et al., 2007). This study provides evidence on the association between EM and corporate governance in Greece. The results show that audit quality is associated with lower levels of income smoothing and hence, EM. Additionally, it shows that the negative association between EM and RPTs is robust only to the subsample of companies that have their financial statements audited by Big-4 audit firms. This shows that audit quality plays a major role in the association between EM and RPTs.

There are three main differences between the current study and related prior studies. This study differs from the studies conducted by Cheung et al. (2009), Jian and Wong (2010) and Lo et al. (2010) in the institutional setting. The latter studies were conducted in the Chinese context which is affected by the concentrated ownership and controlling shareholders motives to expropriate shareholders and the inferences deduced from these studies do not necessarily apply to other markets (Gordon and Henry, 2005). The vast majority of RPTs studies were conducted using samples from Asian countries which enjoy a unique and different institutional setting which suggests that those results are not generalisable for other settings (Gordon and Henry, 2005).

This study applies different measures from the ones used by Gordon and Henry (2005). I refrain from following Gordon and Henry (2005) measuring RPTs using monetary values as this includes nontrivial measurement error (Ryngaert and

Thomas, 2012). I also avoid following them in the usage of the Jones (1991) model to estimate discretionary accruals to avoid measurement error as well (Dechow et al., 2010). Finally, this study also differs from the study conducted by Ryngaert and Thomas (2012) which investigates whether ex-ante RPTs have different impact on firm's value than ex-post RPTs in the US relying on the historical dimension of the transaction and providing evidence from a strong investor protection environment.

This study extends the literature on RPTs by examining the relationship between accounting quality and RPTs. Prior studies have investigated and found evidence on the association between earnings management and RPTs (Chen et al., 2011; Jian and Wong, 2010; Aharony et al 2010). Those studies have used indirect measures of earnings management that could not be attributed to accounting quality or financial reporting system. They used changes in ratios like ROA or price earnings (Chen et al., 2011; Aharony et al., 2010) or operating profits (Jian and Wong, 2010) as an indication of earnings manipulation around IPOs without investigating accounting quality attributes. Therefore, the question whether RPTs are associated with lower accounting quality remains an empirical question with insufficient evidence.

Finally, this study contributes to accounting quality literature. Prior accounting quality literature studied the overall impact of accounting standards (IAS) on accounting quality. This study extends the accounting quality literature and

examines if firms that conduct RPTs exhibit a difference in accounting quality compared to their counterparts.

#### 1.3 Research Objectives

The current research has achieved the following objectives:

- 1. Assess the extent of EM and RPTs in Greece
- 2. Investigate the association between the existence of RPTs and EM in Greece.
- 3. Investigate the association between corporate governance and EM in Greece.
- 4. Investigate the association between corporate governance and RPTs in Greece
- 5. Investigate the impact of RPTs on the quality of accounting reports in Greece.

#### 1.4 Organisation of the Thesis

This thesis is organised into seven chapters. Figure 1.1 shows the organisation of the study.

This Chapter (Chapter One) has given a background to the study, and has mainly focused on outlining the research problem, highlighting the relevance and the intended contribution of the study.

Chapter Two discusses the Greek context its special peculiarities of the that are relevant to the scope of this study. Accounting and financial reporting are affected by the several variables that vary across different countries. Chapter Two is devoted to discussing several contextual factors that have an impact on financial reporting like ownership structure and investor protection, accounting

standards, financial reporting quality, audit quality corporate governance and the legal enforcement.

Chapter Three sets out the theoretical background of the study. This chapter discusses the main theories underpinning this research. First, I discuss Agency Theory which is widely regarded as the major theory contributing to our current knowledge of corporate governance. This discussion goes on to shed light on the application of Agency Theory in RPTs and corporate governance research. I also consider the application of Transaction Cost Economics Theory and its relationship with RPTs.

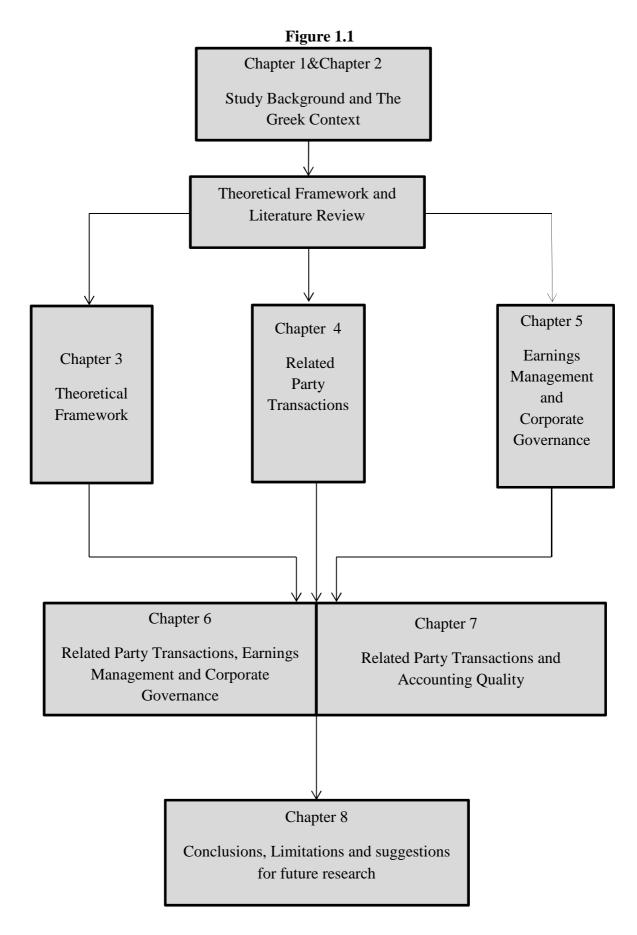
Chapter Four reviews the literature on RPTs. In this chapter, I begin with a discussion on RPTs and how it has been associated with corporate scandals and shareholder's wealth expropriation. Then I present the definition of RPTs as defined in accounting standards and describe the main types of different RPTs as discussed in prior literature. Further, I present and discuss the proxies used to opertionalise RPTs and comment on the weaknesses of those proxies. I also accumulate and present evidence on the determinants and consequences of RPTs and compare and contrast the findings or prior studies. Finally, I discuss the weaknesses and challenges of RPTs research and explain how these challenges contribute to significant gaps in the literature to date.

Chapter Five reviews the literature on earnings management. First, I present different definitions of earnings management and highlight the differences

between the opportunistic and informative perspectives of earnings management. Further, I discuss the consequences of earnings management on firm value and performance. Finally, I explain and discuss the different proxies used to measure earnings management.

Chapter Six examines the relationship between earnings management and RPTs for the firms listed on the Athens Stock Exchange (ASE). I examine EM using income smoothing and assess whether income smoothing is systematically related to RPTs. Moreover, I examine the association between earnings management and corporate governance activities, namely, audit quality as measured by audit firm size, size of the board of directors and independence of board members. The results show a negative and significant relationship between EM and RPTs. This finding does not support the conclusion that RPTs are necessarily conducted to mask fraud or the extraction of firm resources. The results show that firms audited by one of the Big 4 audit firms are associated with less EM.

Chapter Seven investigates the relationship between RPTs and accounting quality for the firms listed on the Athens Stock Exchange (ASE). In particular, in this chapter I compare accounting quality across two groups of firms. The first group contains firms that conduct material RPTs and the second group contains firms that do not conduct material RPTs.



The findings show that that there is no significant difference in accounting quality between RPTs firms and non-RPTs firms.

Chapter Eight recaps the objectives of the study and provides a summary of the findings. Furthermore, I discuss the contribution of the study and the implications of the findings, highlight the limitations of the study and provide suggestions for future research.

#### **Chapter Two**

#### **The Greek Context**

#### 2.1 Introduction

This chapter aims to discuss the Greek context and its special peculiarities that are relevant to the scope of this study. Accounting and financial reporting are affected by the several variables that vary across different countries (Barth et al., 2008). There are several contextual factors that have an impact on financial reporting like ownership structure and investor protection (Leuz et al., 2003) accounting standards (Barth et al., 2008), financial reporting quality (Tsipouridou and Spathis, 2012), audit quality (Caramanis and Lennox, 2008), corporate governance (Dimitropoulos and Asteriou, 2010) and the legal enforcement (Hope, 2003; Hail and Leuz; 2006; Mertzanis, 2011). This chapter is devoted to shed light on these factors.

This chapter will be organised as follows: Section 2.2 discusses the ownership structure and investor protection in Greece. Section 2.3 addresses the Greek accounting environment. Section 2.4 will present the Greek audit market and the regulatory framework for auditing in Greece. Section 2.5 will discuss corporate governance in Greece. Finally, Section 2.6 summarises the chapter.

#### 2.2 Ownership Structure and Investor Protection In Greece

Greece is a French-civil law country (LaPorta et al., 1998). La Porta et al., (1998) examined legal rules covering protection of corporate shareholders and creditors in 49 countries and the results indicate that in French-civil law countries, such as Greece, creditor and investor protection and enforcement are weak. LaPorta et al. (1998) developed the investor protection index based on measures of shareholder protection. These measures are the shareholder rights index that captures several rights provided to the shareholders, creditor rights index that summarises legal creditor protection variables, efficiency of judicial system, corruption and accounting transparency and disclosure.

Poor legal protection of investors usually correlates with high ownership concentration. Controlling shareholders may wish to keep controlling a firm in a country with poor investor protection as receiving private control benefits will be more attainable (LaPorta et al., 1999). High ownership concentration applies to Greece (Tsalavoutas et al., 2012). According to Spanos et al. (2005) each Greek company had an average of three shareholders owning at least 5% of the company's shares and that theses shareowners on average owned 49% of the total shares. Additionally, Spanos et al. (2005) found that large families controlled many of the companies and that the state controls large percentages of votes in a significant number of listed companies.

The interaction between weak investor protection and high ownership concentration provides incentives for the controlling shareholders to expropriate

wealth from minority shareholders (Gopalan and Jayaraman, 2012). Therefore, in Greece or in any poor investor protection environment, insiders are more likely to manage earnings to conceal their private benefits from outsiders to avoid the disciplinary actions that might be taken by outsiders if those benefits were detected (Shelifer and Vishny, 1997; Leuz et al., 2003). This could create an incentive for the controlling shareholders to construct RPTs that would enable them to conceal any private control benefits or shareholder expropriation (Ryngaert and Thomas, 2012).

#### 2.3 The Greek accounting environment

Greek culture, politics and economics have been influenced by many international forces. During the last few decades the traditional corporatism has been modified by neo-liberal, free market influences (Caramanis, 2005). However, Greece is characterised as a country with low trust society (Ballas et al., 1998), high statutory control, uniformity, conservatism, uncertainty avoidance (Hoefstede 1980, 1991; Gray 1988), high power distance (Ballas et al., 2010) and a secretive culture (Hope et al., 2008).

The family firm has been an important component of the Greek economy, where ownership is concentrated and closely tied to a group of people (Spanos et al., 2005). Hence, family members are involved in the direct management of the firm (Spanos et al., 2005). In family firms managers can report the firms' performance directly to the owners of the firm without relying on financial statements (Tzovas, 2006).

Banks are the major source of financing (Tzovas, 2006). However, ASE has been considered a developed market since 2000 indicating an increase in the importance of raising finance through equity markets as well. However, in many cases banks could obtain all the financial reports without having to rely upon publicly disclosed data using their connections with managers and shareholders. Moreover, banks consider several variables rather than the financial data when taking a financing decision. Therefore, the importance of public accounting is relatively diminished (Tzovas, 2006).

The Greek accounting system has been stakeholder oriented, tax-driven and conservative (Ballas et al., 2004). The income taxes in Greece are unfairly high which leads to tax avoidance and evasion as well managing earnings. Empirical evidence shows that in multi-country studies, Greece exhibits the highest level of earnings management (Bhattacharya et al., 2003; Leuz et al., 2003).

From 1 January, 2005, IFRS have been compulsory for all Greek listed companies. The transition to IFRS in Greece has been challenging due to the huge difference between the two accounting regimes (Tsalavoutas et al., 2012). Greece was among the first adopters of IFRS in EU (Ballas et al., 2010). Usually countries with weak shareholder protection bond themselves to superior accounting standards to improve the disclosure policies and accounting systems and enhance the integration of domestic markets into world markets and to accelerate economic growth (Hope et al., 2006).

Higher quality standards do not automatically lead to higher accounting quality (Ball, 2001). IFRS has only minor impact on the value relevance, conditional conservatism of accounting income (Karampinis and Hevas, 2011). This suggests that the legal enforcement mechanisms of IFRS in Greece were weak. This view is supported by Li (2010), as they show that Greece has the lowest score of legal enforcement mechanisms regarding IFRS implementation. IFRS adoption should be accompanied by enforcement regulations to improve the overall quality of accounting reports (Christensen et al., 2013).

#### 2.4 The Greek Audit Market

Corporate auditing in Greece began in 1955 with the establishment of a state-controlled body of Sworn-In Accountants (BSA). In 1979, the international accounting firms established a rival organisation, the Society of Certified Accountants-Auditors (SCAA), which lobbied for the termination of BSA's monopoly (Caramanis and Lennox, 2008). The government eliminated BSA in 1992 and liberalized the Greek auditing profession. The government then created a new accounting body, SOEL, to self-regulate the audit profession (Caramanis and Lennox, 2008). Many of BSA's former employees formed together a very large Greek audit firm, SOL SA. Meanwhile, smaller Greek firms were formed and began to supply statutory audit services with international audit firms (Caramanis and Lennox, 2008).

The Greek Auditing Standards (GAS) were developed according to the IAS. The Greek legislation, with law 3639/2008, is in full compliance with Directive 2006/43/EC on statutory audits of annual and consolidated accounts (Tsipouridou and Spathis, 2012).

The Greek Ministry of Economy established the Committee of Accounting Standardization and Auditing (ELTE) in 2003. The committee was supposed to conduct random annual inspections on listed firms' financial statements. In cooperation with the Hellenic Capital Market Commission (HCMC), ELTE attempted to act as a supervisory body in order to mitigate concerns over audit quality of financial reporting in Greece ((Tsipouridou and Spathis, 2012). Yet, concerns over accounting quality and auditors' potential opportunistic behaviour persist.

#### 2.5 Corporate Governance in Greece

The upgrade of the Greek capital market to a mature market status in 2000 and the global competition for capital increased the importance of corporate governance for all firms listed on the ASE and for the market participants and led the Greek government to introduce a specific legislative framework in order to secure the efficient functioning of the market (Dimitropoulos and Asteriou, 2010).

Greek listed firms are governed by Law 3016/2002. That law specifies detailed instructions about the firm's corporate governance and specifically the structure

of the board of directors (Dimitropoulos and Asteriou, 2010). The legislation aimed to promote corporate governance activities to respond to the increased importance of corporate governance as a tool for investor protection (Dimitropoulos and Asteriou, 2010).

In terms of corporate governance codes, the Capital Market Commission initiated the Committee on corporate governance in Greece. The committee developed a set of principles and best practices rules published on October 1999. The committee recognised that existing Greek legislation did not reduce problems related to disclosure, minority shareholder rights, mergers and acquisitions and executive compensation (Pierce, 2010). It was argued that the corporate governance framework in Greece is outdated and it is better to establish a regulatory framework that would positively affect accounting and disclosure quality (Pierce, 2010). In 2001, The Federation of Greek industries developed and published the principles of corporate governance. This is the current corporate governance code and it makes extensive use of the concepts and principles first developed in 1999. The code follows the "Comply or Explain" approach.

A major problem with the Greek governance code or any other law is the lack of enforcement. According to Lazarides (2010) there is an observed inefficiency in the enforcement of rules and regulations by the Hellenic Capital Market Commission. He argues that although a number of violations committed by firms

have been spotted and documented, yet, no penalties or other actions have been imposed.

#### 2.6 Summary

This chapter has provided a discussion about the institutional and contextual setting in Greece. The focus has been on ownership structure and investor protection, the Greek accounting environment, the Greek audit market and regulatory framework and corporate governance regulations and its developments in Greece. The concentrated ownership, weak enforcement and the poor investor protection environment in Greece are associated with observed criticisms on the accounting and audit quality which negatively affects the quality of accounting reports regardless of the efforts exerted to develop sound corporate governance codes.

#### **Chapter Three**

#### **Theoretical Framework**

#### 3.1 Introduction

The aim of this chapter is to articulate the appropriate theories relevant to this research. Corporate governance is influenced by many other disciplines. The main theories that affected the development of corporate governance are agency theory, transaction cost economics, stakeholder theory, and stewardship theory (Mallin, 2010). RPTs are always perceived either as opportunistic transactions that reflect a conflict of interest between controlling and minority shareholders (Agency Theory) or a normal part of business process that have economic benefits for the firm (Transaction Cost Economics). This chapter will be organised as follows: Section 3.2 discusses agency theory; section 3.3 discusses transaction cost economics theory and, finally section 3.4 summarises and concludes the chapter.

#### 3.2 Agency Theory

Agency theory has played a major role in studies of corporate governance (Bryant and Davis, 2012). Agency theory is based on the relationship between the principals or the owners of the firm and the agents or the managers. From the agency perspective, the separation of ownership and control in modern corporations in the developed capital is considered the root of the agency problem

(Fama and Jensen, 1983). However, there are also benefits for separating ownership and control.

"These benefits are the reason for the persistence of this organisational form for decades. Individuals are not necessarily endowed with both managerial talent and financial capital. The ability to separate ownership and control allows the holder of either type of endowment to earn a return on it. In addition, the ability to raise capital from outside investors allows firms to take advantage of the benefits of size, despite managerial wealth constrains or managerial risk aversion" (Dennis and McConnell, 2003:1).

The ultimate element in agency theory is the conflict of interest between principals and agents. A principal assigns an agent to have the decision making power in the firm and to execute his duties on behalf of the principal (Jensen and Meckling, 1976). If both parties in this relationship act opportunistically, there is a good reason to assume that the agent will not always act in the best interest of the principal. Additionally, in the current state of corporations where there is a huge number of principals (shareholders) that are not involved in decision making and appointing their agents (managers). The principal also can limit deviations from his interest by establishing appropriate incentives for the agent and by incurring monitoring costs designed to minimise the unusual activities of the agent (Jensen and Meckling, 1976).

Moreover, bonding costs are incurred by the principal to the agent to guarantee that no harm of the principal's interest will occur as a result of the agent's actions. When divergence occurs between the decisions of the agent and the best decision for the welfare of the principal the outcome is what is called a residual loss. Agency costs are defined as the sum of monitoring costs, bonding costs and the residual loss (Jensen and Meckling, 1976).

Agency theory is concerned with resolving two problems that can occur in agency relationships. The first happens when either the interest of agent and principal conflict or when it becomes difficult or expensive for the principal to verify what the agent is actually doing. The problem here is that the principal cannot verify that the agent has behaved properly (Eisenhardt, 1989). The second problem is the problem of risk sharing. This problem arises from the different views that each of the principal and agent have towards risk (Eisenhardt, 1989).

The conflict of interest between principals and agents can cause negative consequences to the firm. Walsh and Seward (1990:444) argued that "if a firm's managers entrench themselves with the sole objective of ensuring their power, prestige, and perquisites, the organization is likely to lose sight of its competitive environmental position and will fail." It is important to artificially align management goals with shareholder goals. This could be accomplished through structuring management incentives like shares or stock options, thus including

long-term behaviour and deterring short-run actions that harm future company value (Albrecht et al., 2004).

From its roots in information economics, agency theory has developed along two lines: positivist and principal-agent (Jensen, 1983). The two streams share a common unit of analysis which is the contract between the principal and the agent. They also share common assumptions about people, firms, and information. However, they differ in their mathematical rigor, dependent variable and style.

Positivist researchers focused on identifying situations in which the principal and the agent are likely to have conflicting interests and then describing governance mechanisms that limit the agent's self-serving behaviour. Theoretically, the positivist stream has been more concerned with describing those governance mechanisms that solve the agency problem (Eisenhardt, 1989).

Positivist agency theory can be regarded as enriching economics by offering a more complex view of organisations (Jensen, 1983). However, it has been criticised by organisational theorists as minimalist (Hirsch et al., 1987; Perrow, 1986) and by microeconomists as lacking rigour (Jensen, 1983). However, it should be mentioned that positivist agency theory has ignited considerable research and popular interest (Eisenhardt, 1989).

Principal-agent researchers are more concerned with a general theory of the principal-agent relationship, a theory that can be applied to employer-employee, lawyer-client, buyer-supplier, and other agency relationships (Harris and Raviv,

1978). The principal-agent paradigm involves careful specifications of assumptions, which are followed by deduction and mathematical proof (Eisenhardt, 1989).

In comparison to the positivist stream, principal-agent theory is abstract and mathematical, therefore, less accessible to organisational scholars. The most spoken critics of the theory (Perrow, 1986; Hirsch et al., 1987) have focused their attacks primarily on the more known positivist stream of agency theory. Also, the principal-agent stream has a broader focus and greater interest in theoretical implications that could be tested. On the contrary, the positivists have focused almost exclusively on the special case of the owner/CEO relationship in the large corporation (Eisenhardt, 1989).

It is also important to mention that in addition to the classic agency problem there is another problem as well. This problem is based on the conflict of interest between minority shareholders and controlling block holders (Berkman, et al., 2009). Literature has highlighted this problem that occurs when large owners use their power to oppress smaller ones (Miller and Saradis, 2011).

According to normative agency theory, corporations should increase incentive structures that align the interests of owners and managers (Fama and Jensen, 1983) and increase monitoring and control oversight of managers (Bryant and Davis, 2012). The solution for the agency problems caused by the separation of

ownership and control is a system that can act as the monitoring mechanisms which is provided by corporate governance.

Corporate governance is argued to deal with the ways in which suppliers of finance to corporations assure themselves of getting a return on investment and make sure that managers do not misappropriate the capital they supply. This problem is of particular significance in companies with concentrated ownership, because controlling shareholders have the power to expropriate minority shareholders (Shleifer and Vishny, 1997).

Previous studies suggested that corporate governance is an effective tool to control the opportunistic behaviours of management and reduce agency costs whether the governance mechanisms undertake are internal or external (e.g., Shleifer and Vishny, 1986; Williamson, 1988; Denis and McConnell, 2003; Bhagat and Bolton, 2008; Chen et al., 2009). Other studies like Lo et al. (2010) focused on how corporate governance techniques affect the actions of the CEO and top managers. Those studies used company ownership and board structures to explain management's attitudes on corporate restructuring, dividend decisions, and pricing of executive options.

Thus, agency theory views corporate governance mechanisms, especially the board of directors, as being an essential monitoring device aiming to ensure that any problems that may show up due to the nature of the principal-agent relationship are minimised. The board of directors is not only one of the internal

corporate governance mechanisms that are used to secure or facilitate the alignment of shareholders' and managers' interests and to control or remove ineffective managers (Park and Shin, 2004). According to Jensen (1993) it is the most outstanding governance mechanism of the internal control system. Therefore, the board of directors is perceived as a monitoring mechanism from the agency view. Blair (1996) mentioned that managers should be the agents of the owners; however managers must be monitored and institutional arrangements must provide some checks and balances to assure they do not abuse their power.

Perrow (1986) and others have criticised agency theory for being excessively narrow and having few testable implications. Eisenhardt (1989) argues that these criticisms might be extreme, but they do suggest that research should be undertaken in new areas through expanding to a richer and more complex range of contexts. For example, research can go beyond the pure forms of behaviour and outcome contracts to a broader range of contract alternatives and not to treat contracts as an opposition between behaviour and outcome. The richness and complexity of agency theory would be enhanced if researchers would consider the broader spectrum of possible contracts.

Hirsch et al. (1987) also recommended that agency theory should be used with other theories. The reason for this is that agency theory only presents a partial view of the world that is valid, but ignores the complexity of organisations. Several empirical studies discussed this criticism to agency theory. Kosnik (1987)

and Singh and Harinato (1989) studies support agency theory hypothesis, but they used complementary theories along. Also, the study by Eisenhardt (1988) combined institutional theory with agency theory.

According to (Chen and Zhang, 2012) taking agency theory into consideration, RPTs may be an indication for the presence of an agency problem. Prior research have investigated and found evidence on the association between Related Party Transactions (RPTs) and expropriation of firms' resources by controlling shareholders (Djankov et al., 2008; Johnson et al., 2000). The reason for this is that when concentrated ownership is dominating there is a conflict of interest between controlling shareholders and external shareholders. Controlling shareholders try to maximise the benefits they enjoy by managing earnings to conceal these benefits from outsiders (Leuz et al., 2003). Empirical evidence also shows that controlling shareholder can perform RPTs as a tool for EM to conceal their private control benefits from other shareholders (Dahya et al., 2008; Gao and Kling, 2008).

Corporate governance should mitigate EM, improve reporting quality and impede opportunistic behaviour (Dennis and McConnell, 2003; Gordon and Henry, 2005). This also matches the argument previously presented in Chapter 2 of the current research that related party transactions (RPTs) may be either an indication of an agency problem or just an efficient transaction that achieves an advantage for the firm.

#### 3.3 Transaction Cost Economics

The theoretical debate about the nature of related party transactions (RPTs) is whether they reflect an agency problem and they take place as a result of conflicting interests or a second hypothesis that views that as efficient transactions. The second hypothesis related to RPTs is the efficient transaction hypothesis which is derived from transaction cost economics theory (TCE) of Coase (1937) and Williamson (1975, 1986). TCE was developed by Williamson (1975). It emphasises that managers should have strong incentives to ensure that staff are tightly controlled so that they do what is expected of them. This theory is often viewed as closely related to agency theory.

TCE views the firm as a governance structure rather than a nexus of contracts as is the case with agency theory. Agency theory argument implies that there is a connected group of contracts must be established/designed to align the interests between the principal and the agent and that there is no way to have a contract that can align the interests of the principal and the agent (Mallin, 2010).

Williamson (1975) developed TCE from the work of Coase (1937) who mentioned that there are certain economic benefits to the firm undertaking transactions internally rather than externally. In contrast with the conflict of interest approach the efficient transaction hypothesis assumes that RPTs represent sound business exchanges, efficiently fulfilling underlying economic needs of the firm. Therefore, they do not harm the interests of shareholders and emerge as

efficient contracting arrangements with some benefits represented in facilitated coordination and convenient terms and conditions (Pizzo, 2013).

In this view, RPTs are a natural part of business and are not necessarily related to accounting or financial fraud (Gordon et al., 2007). Using RPTs firms may enhance efficiency by reducing transaction costs in internal capital and intermediate goods markets (Williamson, 1975). In particular, group structures and internal dealings may provide better allocation of financial resources, economies of scale, easier access to finance etc. (Pizzo, 2013). For example, Kohlbeck and Mayhew (2010) find that certain related party transactions with executives appear to fulfil economic needs to the firm. Yeh et al. (2012:756) also mentioned some potential benefits of RPTs:

"The benefits are better allocation and utilisation of assets, better coordination among different activities, quicker feedback, deeper reciprocal knowledge, and a reduction of the hold-up problems"

Where related party transactions are implemented appropriately, listed companies can make use of them to reduce transaction costs and achieve more efficient asset utilization (Chein and Hsu, 2010). The argument that RPTs might not always be harmful or maybe sometimes useful is supported by Chang and Hong (2000) who found that internal sales and purchases can positively influence firm profitability in the absence of cross-subsidisation.

Chang and Hong (2000) argued that business groups use their internal capital markets to subsidise poorly performing affiliates or new ventures. Cross subsidisation occurs when a multi-product firm prices one below average cost and makes up for the losses through revenues collected from the sales of other goods that are over-priced. In the same sense business groups can support financially troubled companies or related firms with great strategic importance. Although cross-subsidisation may take place in the form of unilateral transfer of wealth from one party to another, the most common way that business groups carry out cross-subsidisation is by various forms of internal transactions.

### 3.4 Summary

This chapter presented a detailed articulation of the theories related to the scope and context of this research. The two main theories related to RPTs (Agency Theory and Transaction Cost Economics) were explored in this chapter. Looking at RPTs as a source of conflict of interest implies that it is most commonly used by controlling shareholders to expropriate the wealth of minority shareholders or conceal private control benefits. On the other hand the Transaction Cost Economics theory looks at RPTs as a normal business process that achieves economic benefits to the firm and is a facet of the efficient transaction hypothesis.

## **Chapter Four**

### **Related Party Transactions**

#### 4.1 Introduction

Related party transactions (RPTs) are a potential means for insiders to expropriate shareholders and other investors/lenders (Ryngaert and Thomas, 2012). RPTs have been directly associated with several cases of financial scandals, fraud and declined earnings quality (Ge et al., 2010). In particular, they provide direct opportunities for managers, directors and related parties to extract resources from minority shareholders (Djankov et al., 2008; Johnson et al., 2000). Although RPTs are too often used by controlling shareholders for their self-interest, not all RPTs are designed or adopted for the purpose of expropriation and it is reported that a significant proportion of RPTs are conducted for solely business/commercial purposes as they can be used to improve asset utilisation and better allocation of resources (Gordon et al. 2004).

To address RPTs and the potential problems that could be caused by RPTs *International Accounting Standard 24* (IAS 24) was first introduced in 1984 and became effective for the first time on the 1<sup>st</sup> of January 1986. IAS 24 attempts to define and restrict the fraudulent use of RPTs.

The standard was reformulated in 1994. However, this revision does not appear to have effectively overcome the problems of RPTs. A report tabled at an IASB meeting in 2007 shows that the reformulation that took place in 1994 had merely excluded some transactions from the standard, such as agency agreements and

management contracts while including others – such as liability settlements by related parties. In 2009, a revised IAS 24 was issued. A report published by KPMG in November, 2009 titled "First Impressions: Revised IAS 24 Related Party Disclosures commented on the revision.

"This revision mainly amended the definition of a related party to remove some inconsistencies and to make it symmetrical and modified the disclosure requirements for government-related entities to enable them to limit the extent of details for disclosures about RPTs with the government or government-related entities" (P.6)

The objective of IAS 24 is to ensure that an entity's financial statements contain the disclosures necessary to draw attention to the possibility that the financial position or profit and loss may have been affected by the existence of RPTs and including outstanding balances, commitments with such parties (PricewaterhouseCoopers, 2010). Continuous efforts have been exerted by regulatory bodies and accounting standards setters to further develop IAS 24. IAS 24 governs the transactions between connected parties. Yet, the problems usually associated with RPTs remained persisting. Chong and Dean (1985) have conducted a preliminary evaluation of IAS 24 and SFAS 57 and found evidence that the standards only partially overcome the problems associated with RPTs. RPTs literature did not address the effectiveness of IAS 24 or SFAS 57 or the amendments that were added to the standards.

Research has associated RPTs with a number of corporate scandals. The corporate scandals have brought attention to the potential for accounting manipulations associated with RPTs to produce a decline in earnings quality (Ge et al., 2010). Djankov et al., (2008) argues that RPTs may provide direct opportunities for related parties to extract cash from listed companies (Johnson et al., 2000). Gordon and Henry (2005), Cheung et al., (2006, 2009), Berkman et al., (2009), Chen at al., (2009), Chalevas (2011), Ge et al., (2010), Lei and Song (2011) and others, all record a significant relationship between the presence and the volume of RPTs and inflated earnings, decline of minority shareholder wealth, decline in firm value, and negative excess returns.

That said, the literature on RPTs needs to be reviewed and compiled for a number of reasons that can explain the contribution of this chapter. First, there is an observable odd pattern in RPTs research in terms of sampled countries/firms that might be unhelpful. Hence, it is important to evaluate the studies and explain the possible justifications for this pattern. Explanations are attributed mainly to institutional setting. For example, RPTs research is common in studies investigating transactions in Asian economies. Asian economies are often typified by an extremely high concentrated ownership and concerns around controlling shareholder motivation to expropriate shareholders (Gordon and Henry, 2005). Additionally, corporate governance reforms after the Asian financial crisis in 1997 provided due attention to RPTs and created a special context for RPTs

studies in Asia (Cheung et al., 2006). Thus, inferences deduced from those studies may not necessarily apply to other markets (Gordon and Henry, 2005).

Nevertheless it might be considered surprising that RPTs did not receive similar attention from researchers in the US given the concerns over the presence of suspicious RPTs in recent high-profile accounting fraud scandals like Enron, Adelphia, WorldCom and Tyco (Gordon et al., 2007) nor in Europe regardless of scandals like Rundenwerke, Parmalat and Bremer Vulkan (Bennouri et al., 2011). This may be attributed to problems of data availability in regard to RPTs. This lack of available data may have posed a significant challenge and affected interest in RPTs research. RPTs are disclosed in financial statements footnotes and hence, most researchers who investigated RPTs have had to use hand-collected data which implies spending an extensive amount of time to collect the data and also restricts the sample sizes (Ryngaert and Thomas, 2012).

Second, the terms describing RPTs across the literature are various. Prior studies on RPTs show that there are a range of studies that use different terms such as RPTs, affiliated transactions, connected transactions, intercorporate loans and others to indicate the presence of what is described by accounting standards as RPTs. Therefore, it is important to accumulate the evidence provided by all studies regardless of the terminology used by each one to define RPTs. Third, this chapter presents a summary of RPTs research and discusses what we know based on RPTs research conducted to date, what issues that RPTs research needs to

address and what are the limitations that accompany the collection of data, research evidence and RPTs research.

The next section provides an evaluation of what we know about the definition of RPTs and the types of RPTs. Section 4.3 sheds light on the proxies used to measure RPTs. Section 4.4 discusses empirical evidence on the determinants of RPTs. Section 4.5 explores evidence on the different consequences that RPTs are said to produce. Section 4.6 discusses the weaknesses and challenges of RPTs research. Finally Section 4.7 summarises and concludes the chapter.

#### 4.2 What are Related Party Transactions

According to the US GAAP Statement of Financial Accounting Standards 57 (SFAS 57) Related Party Transactions are defined as transactions between a company and its subsidiaries, affiliates, principal owners, officers or their families, directors or their families, or entities owned or controlled by its officers or their families. The International Accounting Standards (IAS) definition of related parties is similar to that of the US GAAP. "As mentioned in paragraph 29.2, IAS 24 (revised) a related party can be a person, an entity, or an unincorporated business" (PricewaterhouseCoopers, 2010). The standard's definition is in two parts. The first part of the definition identifies general criteria that results in a person, or a close member of that person's family, being a related party from the perspective of the reporting entity. The second part of the definition identifies the conditions that result in an entity being related to the

reporting entity. The second part of the standard identifies whether a person or entity should be considered as a related party or not.

According to Ryngaert and Thomas (2012), Jian and Wong (2010) and Cheung et al. (2006) transactions between listed companies and their controlling shareholders can be classified into five major types: Sales and acquisitions of assets, asset swaps, sales of goods and services, direct cash payments (or loans or loan guarantees) and transactions with non-listed subsidiaries.

### 4.3 Measures or Proxies of Related Party Transactions

Prior studies used several proxies to measure RPTs. These proxies are designed to capture significant RPTs. Measures used in the prior literature can be identified under two categories, namely, normal and abnormal RPTs. RPTs are common transactions that can occur on a regular basis between a firm and its subsidiary, parent or affiliated firm.

RPTs are considered to be affected by external factors like industry, firm size or debt (Jian and Wong, 2010). The main difference between normal and abnormal RPTs is that abnormal RPTs measure try to capture those transactions that are not explained by other factors that affect the occurrence of RPTs, while the other studies try to control those factors that are expected to be associated with the level of RPTs. This section discusses the different proxies used to measure RPTs under each category.

#### 4.3.1 Abnormal RPTs

Similar to accounting accruals, the level of RPTs can be analysed as fitting into either a normal or abnormal categorisation for the firm (Jian and Wong, 2010). Using OLS regressions the normal components of RPTs that are associated with industry classifications or firm characteristics such as size, leverage and growth can be approximated and excluded from the analysis. In this case the residual term from running the regression equation (1) is the measure for RPTs. This measure was first used by Jian and Wong (2010). This measure isolates the effect of normal components of RPTs that might be associated with industry, size, leverage, and growth (Lo and Wong, 2011). Hence, it can be argued that the resulting measure can be a more valid proxy to capture RPTs that are not related to the main factors that could affect the volume of RPTs. This approach was also used by Lo and Wong (2011) and Yeh et al. (2012). Their model uses the following formulation.

$$RPTs = \alpha + \beta 1 SIZE + \beta 2 SALES GROWTH + \beta 3 LEV + \beta 3 MB + \varepsilon.$$
 (1)

Where:

RPTs = the dollar value of RPTs

Size = natural logarithm of totals assets

Sales Growth = the percentage of sales growth rate

Leverage = Total debt divided by total assets

*MB* = market value divided by book value of total equity

#### 4.3.2 Normal RPTs

Most RPTs studies did not isolate the normal component of RPTs from the abnormal component using the Jian and Wong (2010) approach. Instead they tried to control for these factors. Gordon and Henry (2005) used two measures to measure RPTs, namely, the total number and amounts of disclosed transactions. Chen et al. (2011) measured RPTs as the aggregate amount of absolute value of operating RPTs between a listed subsidiary and its controlling shareholders scaled by lagged total assets for a particular year. Gallery et al. (2008) measures RPTs using the monetary value of related party payments and loans deflated by average total assets. Nekhili and Cherif (2011) used the natural logarithm of the total number of RPTs. Similarly Cheung et al. (2009) uses the price of the RPTs included in the sample of the study.

Studies that did not use the Jian and Wong (2010) approach controlled for firm-performance and firm size variables. Although those studies control for normal components of RPTs in order to avoid measurement error by using a proxy that captures both normal and abnormal RPTs, it has been criticised for not isolating these components using OLS regressions following Jian and Wong (2010). On the other hand, controlling for (not isolating) the normal components of RPTs could be capable of avoiding potential endogeneity issues. Endogeneity bias is any situation that causes the error term to be correlated to one or more independent variables which might result from omitting some of the RPTs determinants from the analysis (Nikolaev and van Lent, 2005). According to

Chen at al. (2011) controlling for factors that might explain the variability of RPTs is favoured as this increases the possibility of avoiding potential endogeneity problems caused by complete isolation of independent variables that can contribute to the explanation of the dependent variable RPTs, and hence would increase the explanatory power of the regression model.

A further group of studies have used indicator variables that take the value of 1 to indicate that the firm has conducted RPTs to measure RPTs. Some of these studies used indicator variables by assigning to it the value of one to indicate the presence or the disclosure of RPTs (Balsam and Gifford, 2007; Dayha et al. 2008; Berkman et al. 2009; Ge et al. 2010; Kohlbeck and Mayhew, 2010 and Hwang et al. 2013). Other studies have used dummy indicators differently. For example Ryngaert and Thomas (2012) used a dummy variable that is equal to one if the total value of disclosed RPTs is more than 1% of the firms' total assets. In other studies that use transactions as a unit of analysis instead of firms or firm-years Lei and Song (2011) and Peng et al. (2011) use indicator variables to distinguish transactions conducted with related parties from other transactions. Ryngaert and Thomas (2012) argue that using dummy variables is preferable because assigning dollar values to RPTs involves nontrivial measurement error. Assigning dollar values is deceptive as it does not account for firm characteristics and thus might be misleading with regards to how material are the amounts of RPTs undertaken.

Finally, a limited number of studies have used other measures. Aharony et al. (2010) use change in related party sales and purchases to investigate the relationship between RPTs and earnings management around IPOs. Jiang et al. (2010) use the amounts under the item "other receivables" deflated by total assets to capture the amount of loans to related parties or inter-corporate loans as they refer to it.

### 4.4 Determinants of Related Party Transactions

This section reviews the literature on the determinants of RPTs. There are three categories of determinants: (1) firm characteristics, (2) capital market incentives and (3) governance and controls.

#### 4.4.1 Firm Characteristics

Several studies provide evidence on the relationship between RPTs and firm characteristics. Size has appeared to be positively correlated with RPTs (Yeh et al., 2012; Chen et al., 2011; Jian and Wong, 2010; Gordon and Henry, 2005). This may be due the fact that there is more value to be expropriated in large firms and that large firms are more likely to be the core of fund transferring in a business group. Moreover, market-to-book equity is positively correlated with related sales while negatively correlated with related lending and guarantee and related borrowing. This could be based on the idea that the opportunity cost of tunnelling funds through RPTs is higher for firms with high market-to-book ratios (Yeh et al., 2012). Ye et al. (2012) use market-to-book ratio as a proxy for the growth potential of the firm. They argue that this ratio is an indicator to the future

growth and performance of the firm. These results are different from the results reported in a study that used a sample of French firms by Nekhili and Cherif (2011) as they did not document any significant association between RPTs and firm size.

Jian and Wong (2010) find that leverage is negatively and significantly associated with related party sales in China. In USA Gordon and Henry (2005) report a negative association between RPTs and leverage. The RPTs literature is silent on justifications for the negative association between RPTs and leverage, but this is explained by the negative association between size and leverage as in Jian and Wong (2010) or in prior literature on the link between firm characteristics and capital structure similar to Titman and Wessels (1988) who find that leverage is negatively and significantly associated with firm size. Nekhili and Cherif (2011) provide evidence that cross listing is associated with transactions with subsidiaries and affiliated companies for French firms. This follows the evidence provided by Coffee (2002), Licht (2003) and Siegel (2009) for whom cross listing is not an indicator of less expropriation of shareholder wealth.

In Australia Gallery et al. (2008) show that firms with negative ROA have relatively higher values of RPTs. Researchers have investigated whether poor performing firms engage in accounting tactics to manage their earnings and found that weak performance provide incentives in earnings management (Dechow et

al., 2010). This can explain the negative association between firm performance/profitability and RPTs.

Empirical evidence from studies investigating loan guarantees to related parties provided support to the evidence provided by prior studies investigating RPTs in general. Berkman et al. (2009) provide evidence that firms are significantly less likely to issue loan guarantees when they are smaller which is consistent with the hypothesis that larger firms are more likely to be the targets for tunnelling. This result is also supported by Yeh et al. (2012) as they reported that firms are more likely to issue related guarantees when they are more profitable and when they have better growth opportunities.

This is consistent with the hypothesis of Berkman et al. (2009) that tunnelling is less likely when the firm is profitable and has good growth opportunities, as tunnelling can reduce the value of existing investments and growth opportunities, offsetting any gains to the controlling block holders. Moreover they provide evidence that tunnelling is less likely when the controlling firm is a State Non-Corporate entity.

Finally, La Porta et al. (2003) examined related lending by Mexican banks and found that related parties borrow at lower interest rates and for longer maturities than unrelated ones. They also post less collateral against their loans and offer fewer personal guarantees than normal creditors. Related parties borrow on

advantageous terms and default more frequently and have lower recovery rates.

This provides direct evidence on opportunistic RPTs.

# 4.4.2 Capital Market Incentives

Yeh et al. (2012) illustrate two factors that motivate the use of RPTs to manage earnings. The first one is to avoid reporting losses (Leuz et al., 2003) and the second one is when firms expect to issue seasoned equity (Bai et al., 2005). The reported earnings are more important for firms that plan to issue equity shares than firms that do not. The two factors combined indicate that the motive to manage earnings using RPTs is strong when firms expect to issue equity.

Yeh et al. (2012) find evidence on the association between RPTs and the condition that firms are willing to issue seasoned equity offerings in the following period in the Taiwanese stock market. This is one of the propping hypothesis where RPTs are assumed to be a tool to manage earnings upwards. Firms can use RPTs to inflate earnings in order to avoid reporting losses or to prop up accounting numbers prior to seasoned equity issuance when the reported earnings are crucial. Thus, firms are motivated to report RPTs to avoid reporting earnings lower than those of the preceding period (Yeh et al., 2012). Moreover, they report a negative association between the change in net working capital and related lending and guarantees. This implies that firms that are in need of funds reduce the level of related lending to or increase the level of related borrowing from other entities in the same business group. Jian and Wong (2010) provide evidence that Chinese firms manage earnings through related party sales when the firm

needs to achieve a certain ROE benchmark to qualify for issuance of new shares. Thomas et al. (2004) provide evidence that Japanese firms manage earnings using RPTs to avoid losses, earnings declines and negative forecast errors.

However, according to the evidence provided by Yeh et al. (2012) corporate governance affects the level of RPTs and it moderates the motives of using RPTs in Taiwan. According to Yeh et al. (2012) the quality of corporate governance is negatively correlated with the level of RPTs. Moreover, the level of RPTs is negatively correlated with the interaction term between corporate governance and the motives of managing earnings. This indicates that even in the presence of capital market incentives to manage earnings using RPTs, corporate governance can still mitigate RPTs to manage reported earnings. Similar conclusions on the role of governance where provided by Jian and Wong (2010) who found that the degree of managing earnings using RPTs is lower when economic institutions are stronger.

#### 4.4.3 Governance and Controls

Corporate governance and controls proved to have a positive interaction role and evidence shows that it can mitigate using RPTs for earnings management activities. Additionally, other studies provide further evidence on the link between RPTs and corporate governance.

An agency theory presumption that large boards negatively affect the effectiveness of the monitoring role of the board, has been argued to, support

reducing the number of board members (Jensen, 1993). Consistent with Jensen (1993), Nekhili and Cherif (2011), Kohlbeck and Mayhew (2010) and Gordon and Henry (2004) find that large boards are associated with more RPTs. Gordon and Henry (2004) argue that an increase in number of directors is an indicator of weak governance and is associated with higher occurrence of RPTs, in particular transactions involving executive directors.

In a cross-country study Dayha et al. (2008) finds evidence that board independence is negatively associated with RPTs which indicates that more independent directors reduce the likelihood of RPTs. Similar results are provided in China (Lo et al., 2010) and Australia (Gallery et al., 2008). This follows the general expectation in studying the association between board independence and RPTs is that independent directors act as more effective monitors than inside directors. Hence, board independence is expected to be negatively associated with RPTs (Chen et al. 2011).

Lo et al. (2010) have investigated other governance variables and their association with RPTs. They provide evidence that firms with a lower percentage of directors representing the parent company, have different people occupying the chair and CEO positions, have financial experts on their audit committees are less likely to use manipulated transfer prices in RPTs.

In a US study Balsam and Gifford (2008) show that insider ownership is associated with RPTs. In France, Nekhili and Cherif (2011) show that voting

rights held by the main shareholder is positively associated with RPTs. Voting rights provide expropriation opportunities to the main shareholders through RPTs. They do not find evidence on the relationship between the degree of separation between ownership and control nor the affiliation to a business group and RPTs.

### 4.5 Consequences of Related Party Transactions

Several prior studies investigated the consequences of RPTs. In particular, researchers have been interested in contributing to the debate about the nature of RPTs. There are two possible interpretations of RPTs. The first one is that they are a facet of conflict of interest and they are harmful to the company and the second is that they efficiently fulfil the economic needs of the firm (Gordon and Henry, 2005). To support one of the two views researchers needed and still need to investigate the consequences of RPTs. This section reviews the literature on the consequences of RPTs. There are three categories of consequences: (1) informativeness of financial reporting, (2) market valuations and (3) firm performance.

### 4.5.1 Informativeness of Financial Reporting

Previous studies provide empirical evidence that RPTs are used to manage earnings for financial reporting and tax purposes (Lo and Wong, 2011). Moreover, controlling shareholders can use RPTs to achieve private benefits at the cost of minority shareholders (Cheung et al., 2006; Dow and McGuire, 2009). In order for the insiders and managers to retain private control benefits they need to conceal those benefits (Leuz et al. 2003). A controlling party can appropriate

value for himself or herself only when this value is not verifiable, otherwise minority shareholders will be capable of providing evidence of appropriation and take legal action (Dyck and Zingales, 2004). Hence, insiders and managers use their discretion over financial reporting for their own benefit (Leuz et al. 2003). Therefore, if insiders and managers have incentives to conceal their private benefits this will affect the informativeness of financial statements and disclosures.

Empirical evidence on RPTs supports the argument that if RPTs were used as a tool for earnings manipulation the quality of financial statements and disclosures will decrease. For example in the USA Henry et al. (2004) find evidence that some types of RPTs have been associated with accounting misstatements and Gordon and Henry (2005) find evidence that earnings management measured by adjusted absolute normal accruals is positively associated with RPTs. Hwang et al. (2013) provide evidence on the positive association between RPTs and earnings management as measured by discretionary abnormal accruals in China and shows that this relationship was mitigated by enactment of the disclosure regulation in November 2000. Also in China Lo and Wong (2011) provide evidence of firms that are engaging in RPTs and have incentives to manage earnings are less likely to voluntarily disclose the pricing methods of purchasing/selling of raw materials, goods and services from to related parties. Finally, Cheung et al. (2009) find that RPTs conducted for expropriation purposes are accompanied by significantly less information disclosure. They find evidence on expropriation by examining the

valuation effects of these RPTs which appeared to be negatively affecting the cumulative abnormal returns.

#### 4.5.2 Market Valuation

Jensen and Meckling (1976) show that, in the extreme case, when a manager owns less than 100% of the firm she does not bear the full cost of any opportunistic consumption of corporate assets. Consequently, according to Kohlbeck and Mayhew (2010) the benefits to managers and other insiders engaged in RPTs will outweigh their costs and management will receive full benefits of the RPTs and will bear a minor cost.

Jensen and Meckling (1976) assume that investors anticipate this consumption and price protect against it (Kohlbeck and Mayhew, 2010) and consequently will not correct management's opportunistic actions. Therefore, insiders and managers will try to avoid RPTs or adapt monitoring mechanisms to avoid negative market implications of RPTs. However, when contracting is costly and managers own less that 100% of a firm it is possible that there might be an equilibrium of manager opportunism and investor price protection where managers benefit from RPTs and investors protect themselves against the consequences of expropriation of firm resources and such an equilibrium will generate negative market valuations (Kohlebeck and Mayhew, 2010).

Earlier studies provide evidence on the valuation effects of RPTs. Firms that conduct RPTs experience a reduction in firm value. For example, Cheung et al.

(2009), Lei and Song (2011) and Peng et al. (2011) report a negative association between RPTs and cumulative abnormal returns (CAR) and Ge et al. (2010) find that RPTs have negative effects on stock price. Similar results were found in Hong Kong by Cheung et al. (2006). In the US Gordon et al. (2004) provide evidence on the negative association between RPTs and industry adjusted returns and Ryngaert and Thomas (2012) find that RPTs are associated with share price declines and with the likelihood that the firm will enter a financial distress or deregister its securities.

Similarly, a number of studies provide empirical evidence on the negative association between RPTs and Tobin's Q. Dahya et al. (2008) find that the occurrences of RPTs is associated with lower Qs in a sample of 799 firms across 22 countries. The negative valuation effects for firms disclosing RPTs are confirmed by Kohlbeck and Mayhew (2010) in the US, Lei and Song (2011) in China and Nekhili and Cherif (2011) in France.

# 4.5.3 Firm Performance

The RPTs literature also shows that transactions, of this type, have a negative impact on firm performance. Although results show that firms use RPTs to manage earnings to mask their performance prior to IPOs, these transactions are likely to have a lagged negative effect on firm performance. Chen et al. (2011) provide empirical evidence that controlling shareholders in a sample of Chinese firms structure RPTs in pre-IPO period and these RPTs are associated with a

positive operating performance which is not persistent and causes a long-term underperformance and negative stock returns.

Similar results were provided in other studies examining other types of RPTs in China. For example, Aharony et al. (2010) provide the same conclusion for firms engaging in related party sales of goods and services in China. Jiang et al. (2010) show significant negative economic consequences for the shareholders of Chinese firms engaging in inter-corporate loans measured by the item "other receivables" on the balance sheet. They show that firms with high balances exhibit worse future operating performance, both in terms of lower accounting rates of return and higher likelihood of entering financial distress. Further, they show that firms with high balances for other receivables are more likely to acquire special treatment status which indicates that the firms has had two consecutive annual losses.

The negative relationship between RPTs and firm performance is supported by several studies and robust to several firm value measures. However, Chien and Hsu (2010) show that corporate governance have a positive moderating effect on the relationship between RPTs and firm value.

Although these results seems to suggest that RPTs are a facet of conflict of interest and information asymmetry problem, the RPTs literature clearly emphasises that not all types of RPTs have the same negative effects. This follows the findings of Gordon and Henry (2005) who argue that not all types of

RPTs are associated with earnings management. Similarly, Ryngaert and Thomas (2012) found some RPTs to be innocuous and not indicative of opportunistic behaviour. Those findings suggest that the assumption that RPTs are a facet of conflict of interest should not be taken for granted and should only be generalised with care. One explanation for the inconsistency in the conclusions deduced by the prior literature might be the explanation provided by Jian and Wong (2010). Jian and Wong (2010) provide evidence that in the presence of an incentive to manage earnings, managing earnings through conducting RPTs or through accruals can act as substitutes. This implies that the association between RPTs and earnings management when measured using an accruals-based measure might be insignificant or even negative.

One additional problem in the RPTs literature is that up to this point in time there is a clear scarcity in cross-country studies on RPTs that can explain whether the differences in empirical results that urged researchers to caution the implementation of the agency conflict hypothesis of RPTs are really valid or these different results are due to differences in institutional backgrounds, RPTs proxies, or even some other external factors that vary between one study and another. It is important to the field that cross-country research on RPTs is enhanced. This will help to disentangle the effect of institutional factors or measurement errors on the findings of RPTs studies.

## 4.6 Weaknesses and Challenges in RPTs research

The RPTs literature suffers from the following weaknesses. RPTs are mainly discussed as either a tool to expropriate minority shareholders or manage reported earnings. Although both investor expropriation and earnings management may be influenced by institutional background and investor protection (La Porta et al., 1999; Leuz et al., 2003), the RPTs literature is silent on the role of institutional differences among countries in examining the association between RPTs and shareholder expropriation (tunnelling) or earnings management. There is a severe scarcity of cross country comparative RPTs studies. With the exception of Dayha et al. (2008) who examine the relationship between RPTs, corporate governance and firm value no study covers RPTs in more than one country to the best of my knowledge. Although this helps researchers to remove external variables that might affect the investigated relationship, it also keeps RPTs literature with an observed weakness as there is no evidence on the variation of negative outcomes of RPTs that might be present due to differences in institutional background and investor protection. Thus, the role of institutional background on the effects of RPTs and its association with shareholders expropriation or earnings management and how this varies across different institutional backgrounds needs to be empirically investigated.

This weakness is also justified by another main weakness in RPTs research which is the availability of data. Similar to other disclosures, data on RPTs must be manually collected from annual reports. This might be one of the main reasons

that led to a scarcity in RPTs research that covers firms from different countries. RPTs are complicated transactions where disclosed transactions describe a lot of information like the type, value and parties of the transaction. I hope that the arguments I have made in this chapter could be used to encourage data providers to make more RPTs data available. The availability of detailed RPTs data will allow the pursuit of additional interesting research questions for RPTs studies.

Another limitation is that researchers always have to rely on information of RPTs disclosed by the firm. This implies that RPTs that are not disclosed or transactions with parties not known to the public or auditors could remain unobserved. Although the auditor's failure to recognise or to disclose a related party is cited as one of the most common ten audit deficiencies, in the financial scandals that are associated with RPTs, namely Adelphia and Enron, the auditors were clearly aware of RPTs and related parties (Gordon et al. 2007). These undisclosed transactions are more likely to be used for achieving private benefits by controlling shareholders as controlling shareholders always tend to conceal their private benefits so that external shareholders do not observe those benefits. Therefore, the nature of RPTs can provide opportunities for controlling shareholders to achieve private control benefits through undisclosed RPTs. This suggests that one solution that could possibly mitigate the effect of this problem is that auditors and not the firm, should disclose all relations and transactions with related parties they are aware of. This could help the public and the researchers to assess the degree of opportunism in the conducted RPTs.

Finally, the RPTs is silent on the effectiveness of IAS 24 in mitigating the negative effects of RPTs. Chong and Dean (1985) evaluated both IAS 24 and US GAAP SFAS 57 and show that the standards overcome only partially the problems associated with RPTs. This is supported by accounting quality studies that have investigated the effect of IFRS/IAS adoption as a whole on accounting quality like Barth et al. (2008) who provided evidence that accounting quality is improved in general due to the adoption of IAS. However other studies like Christensen et al. (2013) show that the problem is usually not with the standards, but in the country level enforcement. This suggests that RPTs need to be addressed in multi-country studies to investigate the impact of institutional factors as mentioned earlier and also to separately examine the effect of IAS 24 and the amendments taking place to try to disentangle the effect of IAS 24 on accounting quality from other IAS.

## 4.7 Summary and Conclusion

This chapter reviews the RPTs literature. I first start by defining RPTs and their types. Next, I try to explain the proxies used to measure RPTs. In the following sections I refer to studies where RPTs are featured as dependent variable to review the literature on the determinants of RPTs. I also refer to the studies where RPTs are featured as an independent variable to present the empirical evidence provided by the literature on the consequences of RPTs based on the empirical evidence provided to date.

Firm size is positively associated with RPTs, on the contrary leverage is negatively associated with RPTs as several studies indicate (Yeh et al., 2012; Chen et al., 2011; Jian and Wong, 2010; Gordon and Henry, 2005). RPTs also have shown positive association with firms' incentives to manage earnings, to inflate earnings or issue equity. Meanwhile, it has been shown that the presence of good corporate governance activities can mitigate the occurrence and the negative effects of RPTs (Yeh et al., 2012; Thomas et al., 2004).

Prior research (e.g. Henry et al., 2004; Gordon and Henry, 2005; Lo and Wong, 2011) partially supports the notion that RPTs are mainly a means of managing earnings. Evidence shows that RPTs are associated with earnings management when measured by discretionary abnormal accruals and adjusted abnormal accruals and they are also negatively associated with the quality of disclosures. In addition to earnings management and disclosure quality, evidence (e.g. Cheung et al., 2009; Lei and Song, 2011; Peng et al., 2011) shows that RPTs are negatively associated with firm value when measured by cumulative abnormal returns, Tobin's Q, industry adjusted returns and share price. Finally, RPTs literature shows that notwithstanding that RPTs are conducted to prop up earnings, they are associated with negative firm performance in the future as their positive impact on operating performance which is not persistent and causes a long-term underperformance and negative stock returns (Chen et al., 2011; Aharony et al., 2010).

Finally, I explain three main caveats that have been identified in the RPTs research. First is the lack of cross country studies that would enable the researcher to examine the effects of different institutional settings on the RPTs and other variables of interest. Second, the data for RPTs should be hand-collected which requires extensive effort and time to collect relevant data from annual reports. Finally, that the main feasible source of data on RPTs is the information disclosed by the management of the firm. This implies that whenever there is a transaction with an unknown related party or that the firm do not wish to disclose, these transactions are likely to remain unobservable and beyond the scope of auditors, regulators and researchers as well.

# **Chapter Five**

## **Earnings Management and Corporate Governance**

#### 5.1 Introduction

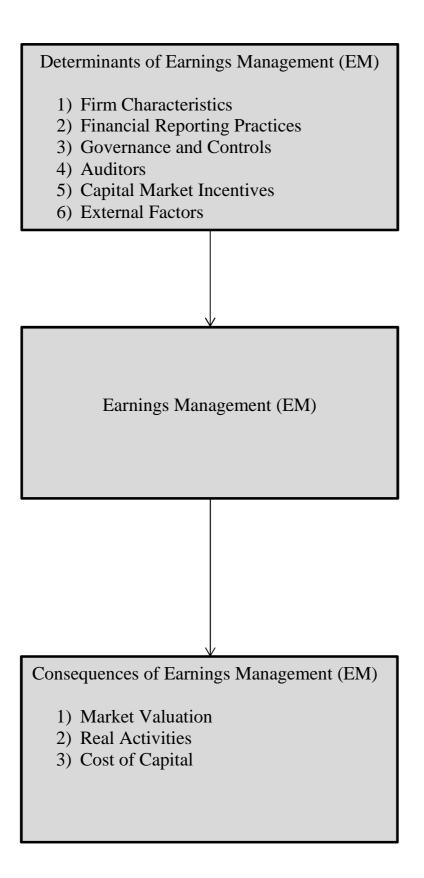
This chapter provides a general understanding of earnings management. There are several definitions, determinants and consequences for earnings management<sup>1</sup>. Thus, this chapter is designed to discuss the corner stones of the earnings management construct and how it is measured in the light of previous earnings management literature.

The organisation of this chapter is as follows: First, the next page displays Figure 5.1 that summarises the main determinants and consequences of the literature review. Section 5.2 aims to define earnings management by identifying the different definitions that have been developed and applied in prior research in the area. Section 5.3 discusses the different determinants of earnings management. Section 5.4 explores the different consequences and effects of earnings management according to prior research. Section 5.5 addresses the different measures used in prior research to measure earnings management. Finally, a summary for the chapter is presented in Section 5.6.

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<sup>&</sup>lt;sup>1</sup> The terms earnings management and earnings quality are used interchangeably. Earnings management expresses decreased informativeness of disclosed information. In other words earnings management leads to lower earnings quality.

Figure 5.1



# **5.2 Earnings Management**

Earnings management is considered to be a central concern affecting the quality of financial statements. The extent to which managers can manipulate earnings figures is seen as an indication the investors cannot rely on accounting reports (Aharony et al., 2010). The flexibility of accounting choices provided by accounting standards provides fertile ground for earnings management practices (Watts and Zimmerman, 1990).

According to Watts and Zimmerman (1990) and Fields et al. (2001), managers can exercise discretion over the accounting numbers. Such discretion can be either from an opportunistic perspective or a signalling perspective (Beneish, 2011). Managers have some opportunity to manipulate earnings to maximise their own interest or signal their private information, therefore they can influence and distort the information content of earnings (Healy, 1985).

Earnings management can be defined as the alteration of a firms' reported economic performance by insiders to mislead some groups of stakeholders and influence contractual outcomes (Healy and Whalen, 1999; Leuz et al., 2003) and this is known as an opportunistic exercising of discretion. In this case it is an intended misrepresentation or masking of true economic performance (McVay, 2006).

Opportunistic earnings management takes place when managers manipulate earnings to increase their compensation. Evidence on opportunistic earnings

management was provided by Healy (1985) who found that bonus schemes influence the accounting choices that managers seems to make towards maximising their bonus awards. His results showed a strong association between accruals and managers' income-based incentives in bonus contracts. Prior studies provide substantial evidence that executives engage in earnings management (Healy, 1985; Healy and Whalen 1999; Kothari, 2001; Fields, 2001; Cheng and Warfield, 2005; Bergstresser and Philippon, 2006; Chava and Purnanandam, 2010). On the other hand the information perspective of earnings management or discretion was first articulated by Holthausen and Leftwich (1983). Under this perspective managers use the discretion to signal their expectations about the firm's future cash flow. Accounting earnings are more reliable and more informative when the opportunistic behaviour of managers is controlled by monitoring systems (Dechow et al., 1996)

An alternative definition of earnings management is provided by Schipper (1999). Schipper (1999) defines earnings management as an intended intervention in the external financial reporting process. The aim of such intervention in many cases is attributed to obtaining private gains. This definition does not include managerial accounting reports or activities. However, other studies show that managers also can manipulate real activities during the year to meet certain earnings targets. Real activities manipulation can take place either through investment activities or operational activities (Roychowdhury, 2006). Also earnings can be managed by manipulation of accruals with no direct cash flow

consequences. Examples include under-estimating bad debts and delaying asset write-offs (Roychowdhury, 2006).

Taking the definitions provided by Schipper (1989) and Healy and Whalen (1999) into consideration, Dechow and Skinner (2000) show a discrepancy between the perceptions of both academics and practitioners towards earnings management. Dechow and Skinner (2000) argue that the difference between earnings management and fraud should be more obvious in definitions used by academic scholars. The definitions used by academics do not distinguish between intentional fraud and making use of one of the aims of accrual accounting which is to help investors assess the firm's performance during a period through the use of basic accounting principles such as revenue recognition and matching (Dechow and Skinner, 2000).

The current research defines earnings management in line with Healy and Whalen (1999) and Leuz et al. (2003) who assume that earnings management occurs as a result of an intention to mislead shareholders or any other stakeholders to achieve personal goals. This definition was used in recent studies (e.g., Garcia-Meca et al., 2009; Gopalan and Jayaraman 2012). Earnings management in the current context is affected by corporate governance and investor protection mechanisms (Leuz et al., 2003).

## **5.3 Earnings Management Determinants**

Earnings management is an important accounting issue for academics and practitioners alike. A large body of academic research examines the causes and consequences of earnings management (Dechow et al., 2012). Earnings management in several cases is recognised in the accounting and finance literature as a manifestation of opportunistic behaviours of management, where the quality of financial information disclosed is distorted by managers (Chen and Zhang, 2012). The quality of financial statements is affected by managers attempts to manipulate reported earnings (Aharony et al., 2000; McNichols, 2000).

The aim of this section is to provide a review of earnings management determinants. In particular this section discusses the relationship between earnings management and governance on one hand and the relationship between earnings management and other firm activities and characteristics on the other hand.

According to Dechow et al. (2010), six main factors can influence the earnings management behaviour of a company's management. Those are (1) firm characteristics, (2) financial reporting practices, (3) governance and controls, (4) auditors, (5) equity market incentives, and (6) external factors.

#### 5.3.1 Firm Characteristics

Previous studies find evidence that firm characteristics can affect earnings management proxies. Firm characteristics like debt (Dechow, 1994; Dechow and Dichev, 2002), growth (Gopalan and Jayaraman, 2012) and size (Hirbar and Nichols, 2007), have been discussed in prior literature as factors that can influence earnings management.

Several studies investigate the effect of firm performance on firms' earnings management practice. Kinney and McDaniel (1989), Petroni, (1992), Balsam et al. (1995), Defond and Park (1997), Keating and Zimmerman (1999) and Doyle et al. (2007) provide evidence that weak performance drives earnings management. On the other hand DeAngelo et al. (1994) and Francis et al. (1996) suggest that weak performance places limits on earnings management opportunities.

Debt and constraints around the use and acquisition of debt finance has been found to provide incentives for earnings management according to prior literature. Leverage increases the potential for earnings management through income increasing accruals and other income increasing accounting choices. Prior evidence shows that debt is positively associated with income-increasing earnings management when firms wish to reduce the probability of debt covenant violations and improve the firm's bargaining power during debt negotiations. Support for this position is provided by Sweeny (1994) who found that managers of firms approaching default, respond with income-increasing accounting changes and that the default costs imposed by lenders and the accounting flexibility

available to managers are important determinants of managers' accounting responses. The debt covenant hypothesis is also supported by Dichev and Skinner (2002). DeFond and Jiambavlo (1994) also examined the incidence of abnormal accruals in a sample of firms that reported debt covenant violations in annual reports and found that in the year prior to violation that abnormal levels of accruals were significantly positive (both total and working). Beatty and Weber (2003) examine whether the provisions of a firm's bank debt contracts affect its accounting choices. Findings show that borrowers whose bank debt contracts allow accounting method changes are more likely to engage in income increasing earnings management.

Other studies have investigated the role of growth in earnings management. Studies that measured growth using sales growth or net operating asset growth provide evidence that higher growth rates are associated with higher levels of earnings management (Nissim and Penman, 2001; Penmanm and Zhang, 2002). On the other hand, Lee et al. (2006) do not find significant association between growth and earnings management.

Firm size also has been suggested as a determinant of earnings management. Recent studies project that size will be positively associated with earnings quality and that larger firms will have lower levels of earnings management. Large firms have the capability to maintain an adequate internal control system and

experience less internal control deficiencies compared to smaller firms (Doyle et al., 2007).

The abovementioned studies show that firm characteristics can act as a determinant of earnings management and that different firm characteristics influence earnings quality in particular firm performance, debt, growth and size can influence manager's decisions and hence, could provide an incentive for an accounting choice that might entail earnings management. Although the evidence on the association between earnings management and firm characteristics is mixed, there is no doubt that they need to be considered as determinants of earnings management in firms. This explains the inclusion of several firm characteristics as control variables in earnings management studies. When a study investigates the association between earnings management and any other phenomenon, the researchers need to make sure that the change in earnings management is explained mainly by the independent variables and that results are not influenced by firm performance, size, growth or debt. This is shown in the discussion of earnings management measures in Section 3.5.

## 5.3.2 Financial Reporting practices

Prior literature highlights three features of financial reporting practices that researchers predict to affect earnings quality. Those features are classified as follows: the flexibility of accounting methods or principles, other financial reporting practices including financial statement classification and interim

reporting and finally, principles based versus rules based methods (Dechow et al., 2010).

Some early studies have provided evidence on the relation between accounting methods or principles and earnings management. For example the results of Barfield and Comiskey (1971) suggest that the choice of depreciation method can affect earnings smoothness. Also the results of the study conducted by Beidleman (1973) show that firms select certain accounting methods which provide them with increased discretion to influence reported earnings. However, Dechow et al. (2010) argues that the notion that accounting method choice leads to lower quality of earnings, does not have sufficient support.

The association between other financial reporting practices like financial statement classification and interim reporting have been examined by McVay (2006) and the results show that managers opportunistically shift expenses from core expenses that include cost of goods sold and selling, general, and administrative expenses to special items so that meeting analysts forecasts is attainable.

The effects of interim reporting on earnings management have only been thinly studied. Those studies indicate that firms time income recognition across periods within a fiscal year; this affects the quality of interim versus fourth quarter earnings (Dechow et al., 2010). However, the results were mixed whether firms manipulate earnings in years when there are high incentives for earnings

management (Kerstein and Rai, 2007; Jacob and Jorgensen, 2007) or when those firms need to avoid negative earnings surprise at quarters rather than fiscal years (Brown and Pinello, 2007).

The third feature of financial reporting that can be a determinant of earnings management is related to the adoption of particular accounting principles. According to Barth et al. (2008), principles-based standards have the advantage of removing allowable accounting treatments and requiring accounting measures that better reflect a firm's economic performance. This should increase accounting quality if these actions could limit the opportunistic discretion of management in determining accounting amounts. Thus, principles-based standards are assumed to provide higher earnings quality. However, these authors also argue that their predictions may not be substantiated. On one hand, principles-based standards limit managerial discretion relating to accounting alternatives which could eliminate a firm's ability to report accounting measurements that are more reflective of the firm's economic performance (Barth et al., 2008).

Dechow et al. (2010) indicate that the evidence on the impact of principles-based standards versus rules-based standards on earnings management is mixed. The results of Barth et al. (2008) indicate that IAS (principles-based standards) is associated with less earnings management. In contrast, Cuccia et al. (1995) and

Nelson et al. (2002) found that principles-based standards cannot alleviate opportunistic earnings management.

#### 5.3.3 Governance and controls

Internal controls include monitoring mechanisms chosen by the principal in the principal-agent relationship, as well as bonding mechanisms chosen by the agent at some cost (Jensen and Meckling, 1976). This section will discuss the governance and control mechanisms that can mitigate earnings management behaviour and enhance the informativeness of disclosed financial statements. The mechanisms that will be discussed are the characteristics of the board of directors (BOD) and internal control procedures, managerial share ownership and managerial compensation.

#### 5.3.3.1 Board of Directors

Boards consist of two different types of directors, executive and non-executive. Executive directors are responsible for daily management issues in the firm and they are directly responsible for all business strategies. The executive directors are the subordinates of the Chief Executive officer (CEO) (Weir and Liang, 2001); therefore, they are not in a strong position to monitor or discipline the CEO (Daily and Dalton, 1993). Cadbury (1992) identified the monitoring role as the primary role for non-executive directors. The board of directors is not only one of the internal corporate governance mechanisms that are used to secure or facilitate the alignment of shareholders' and managers' interests and to control or remove ineffective managers (Park and Shin, 2004).

According to Fama and Jensen (1983), the board of directors is a tool that could be used by shareholders to monitor top managers. Boards are not always capable of exercising this role effectively. This lack of effectiveness requires more analysis of some board issues (De Andres, et al., 2005). Prior research highlights the main board issues that are required to be addressed. Among those issues, the most important are board independence and board structure as shown by prior studies (Hermalin and Weisbach, 1991; Jensen, 1993; Huther, 1997; Rosenstein and Wyatt, 1997; Eisenberg, et al., 1998).

Studies that examine the association between earnings management and the structure of the Board of Directors (BOD) provide evidence that some BOD characteristics have proven to be successful in mitigating earnings management practices. Klein (2002) examined whether the presence of an audit committee and BOD independence are associated with less earnings management. The results have shown a significant negative relationship between the percentage of independent members of an audit committee and abnormal accruals (proxy for earnings management). Also, a negative relation is found between BOD independence and abnormal accruals.

These results suggest the enhancement of BOD independence as this increases the effectiveness of the monitoring process. Supporting evidence on the role of BOD in constraining earnings management is provided by several studies (Beasley,

1996; Abbott et al., 2004; Krishan, 2005; Karamanou and Vafeas, 2005; Farber, 2005; Vafeas, 2005).

On the other hand a study conducted by Larcker et al. (2007) examined the association between fourteen corporate governance dimensions and earnings management. The results showing mixed associations with earnings management. Therefore, the evidence on the relationship between corporate governance and earnings management remain mixed.

#### 5.3.3.2 Internal control procedures

The evidence consistently suggests that stronger internal control procedures are associated with less earnings management (Dechow et al., 2010). Doyle et al. (2007) examined the relationship between accruals quality and internal controls and they provide evidence that weaknesses in the internal control environment is associated with higher levels of earnings management measured in terms of accruals quality. Further, they find that this relation between weak internal controls and lower accruals quality is driven by weakness in disclosures that are relevant to overall company-level controls and hence, may be more difficult to audit. They find no such relation for more auditable, account-specific weaknesses. In another study by Ashbaugh-Skaife et al. (2008), the effect of internal control

deficiencies on earnings management was investigated. They used the Sarbanes-Oxley Act mandated internal control deficiency (ICD) disclosure and external auditor opinion on internal control. They document lower quality of earnings for

firms with greater numbers of deficiencies in internal controls. Another internal control procedure that was examined in the same context is managerial turnover. Evidence shows that managerial turnover turned to be a disciplining mechanism that mitigates earnings management. Evidence on the association between less earnings management and managerial turnover is provided by several studies (Moore, 1973; DeAngelo, 1988; Collins and DeAngelo, 1990; Dechow and Sloan, 1991; Pourcriau, 1993, Geiger and North, 2006).

In general, it should be taken into consideration that the monitoring nature of internal controls can affect earnings quality positively at least in some cases. One of the main aims of internal controls is to ensure the informativeness of earnings and that the financial statements are reflecting a real picture of the firm's performance (Dechow et al., 2010).

#### 5.3.3.3 Managerial Ownership

Following the ideas introduced by Berle and Means (1932), finance and strategy researchers (Jensen and Meckling, 1976; Shleifer and Vishny, 1986; Gedajlovic and Shapiro, 1998; Thomsen and Pedersen, 2000) focused on the agency costs of professional managers that could result from the separation of ownership and control. Agency costs are often used to refer to the costs incurred by the principal to decrease the likelihood of the agent's (manager) to pursue his personal interests at the expense of the interests of shareholders.

Managerial ownership is traditionally viewed as providing a direct economic incentive for managers to engage in active monitoring and align ownership and control through stock ownership (Bhagat et al., 1999). In some firms, managers have limited power due to the large control power possessed by relational investors. The term relational investors is usually used to describe influential shareholders who hold large proportion of a company's stock for a long period of time and they actively monitor the firm's performance (Bhagat et al., 2004). It could be argued that relational investors are a substitute for corporate control (Jensen, 1986).

It is predicted that lower managerial ownership is associated with both contractual constraints that are often denominated in accounting numbers and consequent greater managerial motivation to either relax restrictions or capitalise on incentives. Moreover, lower managerial ownership is predicted to be associated with information asymmetry, informativeness of earnings or earnings management (Warfield et al., 1995). This argument is supported by empirical evidence which I discuss in the next three paragraphs.

Prior literature has shown that evidence on the association between earnings management and managerial ownership is mixed (Dechow at al., 2010). For example, Lafond and Roywchowdhry (2008) examine the effect of managerial ownership on financial reporting conservatism. They find that conservatism as measured by asymmetric timeliness of earnings declines with managerial

ownership. This is consistent with the conclusion provided by Smith (1976) that policy decisions by manger firms smoothed earnings significantly more than decisions made by owner firms. These studies are also consistent with Dhaliwal et al. (1982) as they examine the relationship between the ownership structure of the firms and the accounting methods they apply. Based on the ownership structure of the firms, they compare owner controlled versus management controlled firms and find that managerial ownership influences the choice of depreciation methods adopted for financial reporting. Similar evidence was provided by Dyl (1989) who found that managers of widely held firms are more likely to choose FIFO method for inventory valuation as it increases reported income.

Other studies find evidence that support the incentive alignment effect of managerial ownership. For example, Warfield et al. (1995) records a positive association between managerial ownership and earnings explanatory power for returns and negative association with the magnitude of accrual adjustments. Moreover, Gul et al. (2003) finds that managerial ownership is a moderator of the positive association between discretionary accruals and audit fees that can affect this relationship negatively.

## 5.3.3.4 Managerial Compensation

Finally, evidence on the relationship between characteristics of managerial compensation and earnings management is massive. Studies on managerial compensation and its relationship with earnings management included different

types of managerial compensation like bonus plans and earnings-based compensations, equity-based compensations including executive stock options and insider trading.

Examples of studies that used bonus plans and earnings-based payments include Hagerman and Zmijewski (1979), Bowen et al. (1981), Healy (1985), Skinner (1993), Holthausen et al. (1995), Gaver et al. (1995) and Guidry et al. (1999). Studies of equity-based compensation include Baker et al. (2003), Coles et al. (2006) Bergstresser and Philippon (2006), Burns and Keida (2006), Erickson et al. (2006), Efendi et al. (2007), McAnally et al. (2008), Johsnon et al. (2009) and Armstrong et al. (2010). Up to the best level of knowledge, three studies used insider trading to measure managerial compensation (Beneish, 1999; Summers and Sweeny, 1998; Darrough and Rangan, 2005).

According to Dechow et al. (2010), the results of these studies are mixed. Dechow et al. (2010) argue that it is not feasible to summarise and compare the results of those studies as each study identifies a specific form of compensation-related incentives to a specific earnings management objective (smoothing or meeting targeted earnings). Moreover, each study identifies a specific tool of earnings management. The degree of mixed evidence across the studies likely reflects the difficulty of correctly matching compensation incentives to the earnings management tools.

#### 5.3.4 Auditors

According to Arens et al. (2012) Auditing is defined as the accumulation and evaluation of evidence about quantifiable information of an economic entity to determine and report on the degree of correspondence between the information and established criteria. Auditing should be done by a competent independent person (Arens et al., 2012). The objective of an audit of financial statements prepared within a framework of recognized accounting policies is to enable an auditor to express an opinion on such financial statements. The auditor's opinion helps establish the credibility of the financial statements (International Audit Practices Committee, 1980).

It is expected that auditors and audit practices are a determining factor in earnings management because of their role in mitigating intentional and unintentional misstatements in the financial statements of the firm. The ability of the auditor to limit misstatements is dependent on the auditor's ability to detect material misstatements and to adjust for or report it (DeAngelo, 1981). It is hypothesised that the ability of the auditor to detect errors depends on the effort and the effectiveness of the auditor. It has also been argued that the auditor is usually driven by high standards ethicality, independence and reputation which require him to detect errors or fraud in the financial statements (Nelson et al., 2002).

Auditor effort or effectiveness can be measured using different proxies.

Caramanis and Lennox (2008) used the number of hours spent and Krishnan (2003) used auditor industry experience. This latter proxy measures attributes

based on the familiarity of the auditor with the industry in which the client operates. Solomon et al. (1999) argue that industry specialist auditor firms provide higher quality in the audit process. In the studies conducted by Caramanis and Lennox (2008) and Krishnan (2003) the results have shown negative association between audit effort/effectiveness and earnings management as measured by discretionary accruals.

Other measures for effort/effectiveness include auditor tenure. Johnson et al. (2002) examined whether audit tenure is associated with better financial reporting quality. The results have shown that short audit-firm tenures are associated with lower earnings quality. Those results are contradicting the results of the study conducted by Chen et al. (2008); the later study found that audit-firm tenure is associated with better earnings quality.

Evidence on the association between the auditor and earnings quality was sometimes based on the categorisation of audit firms by size. Big audit firms are hypothesised to provide better audit quality, and thus enhance reporting quality and the informativeness of financial statements and disclosures. For example, Becker et al. (1998) assume that big audit firms have higher audit quality and examine the association between audit quality and earnings management. Their results show that audit quality is negatively associated with earnings management. This evidence is consistent with Teoh and Wong (1993), DeFond and Subramaynam (1998) and Francis et al. (1999).

Finally, evidence on the relation between audit fees and earnings management is mixed and further depends on the type of fees whether they are audit or non-audit fees (NAF), sample firms and the specific measure of accruals quality. Several studies have been conducted in this context, but the results were not consistent (Frankel et al., 2002; Ashbaugh et al., 2003; Chung and Kallapur, 2003; Gul et al., 2003; Gul and Srinidhi, 2007).

## **5.3.5 Capital Market Incentives**

Regulators and investors have raised concerns that certain management incentives could lead to earnings management and this could negatively affect the informativeness of the financial statements and contribute to recent corporate scandals (Levitt 1998; cited in Cheng and Warfield, 2005). Earnings management is always a mean to an end, and uncovering the motives for earnings management is the key to explaining the issue (Chen et al., 2011).

Several studies provide evidence that a firm's need to raise capital is likely to affect the accounting choices it makes. This might lead to using opportunistic accounting choices. Therefore, the firm's accounting choices and thus its earnings quality may differ when a firm is raising capital (Dechow et al., 2010).

The academic literature has long been interested in earnings management by companies and how they use it to achieve capital market advantage. For example, Aharony et al. (2000) examine the earnings pattern of initial public offering (IPO)

firms in China and find significant evidence that sample firms use accruals-based earnings management to boost their earnings prior to an IPO.

A very important research question is "are accruals during IPO opportunistic?" In attempting to answer this question Teoh et al. (1998) find evidence that IPO firms, on average have high positive issue-year earnings and abnormal accruals, followed by poor long-run earnings and negative abnormal accruals. This evidence supports the argument that firms manage earnings when they need to raise capital. The motives offered in the literature for such opportunistic behaviour (e.g., Aharony et al., 1993; Friedlan, 1994; Teoh et al., 1998) suggest that such manipulation may be induced by the desire of managers to increase their wealth by increasing the value of stock retained and cash receipts from the partial disposition of existing stock.

Aharony et al. (2010) extend this motivation suggesting that inflating earnings in the pre- IPO period is motivated by the prospect of tunnelling opportunities in the post-IPO period. Johnson et al.'s (2000) define tunnelling as the transfer of assets and profits out of firms for the benefit of those who control them. Aharony et al. (2010) find evidence that Chinese firms manage earnings upwards in the pre-IPO period.

In a different context, Dietrich et al. (2000) examine whether raising capital in debt markets provides incentives for earning management. The findings show that managers select accounting methods that will yield in high reported earnings,

time asset sales to smooth earnings changes and smooth net asset changes and boost fair values prior to raising new debt.

#### 5.3.6 External Factors

In addition to all determinants of earnings management that were previously mentioned, there are other external factors that can influence the earnings management behaviour of a firm. Considerable evidence suggests that external factors like capital requirements, regulatory requirements or industry regulations are associated with accounting choices and earnings management behaviour (Dechow et al., 2010).

For example, under the 1996-1998 security regulations introduced in China, Return on Equity (ROE) has to be at least 10% for three consecutive years for a firm to qualify for stock rights offers (Haw et al., 2005). Therefore, managers manage earnings through income increasing accruals to meet regulatory ROE targets (Haw et al., 2005).

Jones (1991) investigates whether firms would manage earnings downwards to benefit from tariff increases and quota reductions during import relief investigations by the United States International Trade commission (ITC). The amount of relief granted to a firm depends to a great extent on accounting numbers, thus encouraging firms to manage earnings to increase the likelihood of obtaining an import relief or increase the amount of relief granted.

Han and Wang (1998) investigate whether oil companies that expect increases in earnings resulting from sudden price increases during the 1990 Persian Gulf crises use accounting accruals to reduce earnings or not. Iraq's invasion of Kuwait led to a sudden leap in world oil prices and in gasoline prices in the US. Oil firms were accused of price gouging which caused public anger and demand for appropriate government actions in the US. Arguing that firms might manage earnings to reduce earnings would help decreasing the sensitivity of the political situation, Han and Wang (1998) examine earnings management practices by firms that are expected to benefit from the sudden increases in oil prices. Results show that those companies that expect to profit from the crisis used accruals to reduce their reported quarterly earnings during the Gulf crisis.

## **5.4 Earnings Management Consequences**

Prior research has highlighted several consequences for earnings management. However, this section aims to discuss the consequences that are relevant to the context of this research. Therefore, this section explores the studies providing evidence for the following consequences of earnings management: market valuations, real activities, cost of equity capital and cost of debt capital.

### **5.4.1 Market Valuations**

Prior research shows that firms manage reported earnings to avoid earnings decreases and losses (Burhgstahler and Dichev, 1997) and meet analysts' forecasts (Burgstahler and Eames, 2003) and that firms manage both earnings and

expectations to meet or exceed analysts' earnings forecast as this will reward the firm with higher valuation (Kasznik and McNichols, 2002).

However, the literature provides evidence that managing earnings through discretionary loss reserves are not rewarded with higher firm valuations. Beaver and McNichols (1998) and Petroni et al. (2000) record a negative relationship between discretionary loss reserves and firm valuation. When firms subsequently fail to achieve a target, they are more likely to lose the extra valuation immediately (Skinner and Sloan, 2002). Dechow et al. (2010) provides two explanations for this. First, they argue that the market rewards some types of earnings management and not others. Second, there is a possibility that there is greater market mispricing of less transparent earnings management techniques.

#### 5.4.2 Real Activities

Earnings quality is positively associated with investment efficiency through reducing information asymmetry between managers and shareholders (Biddle and Hilary, 2006). McNichols and Stubben (2008) also examine the impact of earnings management on investment decisions. Their findings show that earnings management can influence internal decisions.

Other studies have suggested that voluntary disclosure decisions are affected by earnings quality. Lougee and Marquardt (2004) find that firms with low earnings informativeness are more likely to disclose pro forma earnings than other firms.

## 5.4.3 Cost of Capital

Francis et al. (2004) examined the relationship between the cost of equity capital and seven attributes of earnings (as proxies for earnings management). They find that firms with least favourable values of each attribute experienced a larger cost of equity than firms with more favourable values. Bhattacharya et al. (2003) document that an increase in earnings opacity (decreased earnings quality) in a country is linked to an economically significant increase in the cost of equity and an economically significant decrease in trading the stock market of that country. Jayaraman (2008) found that smoother earnings or earnings that are more volatile than cash flows are associated with more information asymmetry and higher bidask spreads. Further evidence is provided by Hribar and Jenkins (2004) who found that firms manage earnings through stock repurchases to avoid a potentially large negative stock price response. Also, Dechow et al. (1996) documented that firms manipulating earnings, experience significant increases in their cost of capital. When the earnings overstatements are recognised, investors will estimate the extent to which firm value was overstated and the stock price will decrease accordingly. Lower firm value implies more cost to raise capital.

Similar evidence also exists for debt capital market. The cost of debt capital is higher when earnings management (earnings quality) proxies are higher (lower). Francis et al. (2005) find that poor accruals quality is associated with higher cost of both debt and equity. Firms with poor accruals incurred higher interest expenses. Also, Bhojraj and Swaminathan (2007) find evidence that corporate

bonds of firms with high operating accruals underperform corporate bonds with low operating accruals.

#### 5.5 Earnings management measures

Prior studies used several proxies for earnings management. Some proxies are relevant to the properties of earnings like earnings smoothness and accrual-based earnings management. (Leuz et al., 2003; Gopalan and Jayaraman, 2012). Other proxies are either relevant to investor responsiveness to earnings (e.g., Holthausen and Verrechia 1988) or external indicators of earnings management (e.g., Dechow et al., 1996).

However, it is believed that measures that use accruals are most effective in measuring earnings management. These measures attempt to directly capture problems with the accounting measurement system and are so in particular relevant in the research context of earnings management and earnings manipulation (Dechow et al., 2010). Therefore, several studies have used accounting accruals to capture earnings management (e.g., Jones, 1991; Dechow et al., 1995; Dechow and Dichev, 2002; Leuz et al., 2003; Francis et al., 2005; Kothari et al., 2005; Gopalan and Jayaraman, 2012). This section discusses two streams of using accrual-based earnings management, namely, abnormal accruals derived from modelling the accrual process and earning smoothness.

## 5.5.1 Abnormal Accruals and Modelling the Accrual process

Abnormal accruals have been the focus of much empirical research in accounting. They have been used as a proxy of earnings management in most of the studies. The normal accruals reflect fundamental performance, but abnormal accruals are meant to capture distortions included by earnings management which are more likely to indicate opportunistic earnings management behaviour (Dechow et al., 2010).

The most widely used accruals models are Jones (1991), Modified Jones model by Dechow et al. (1995), performance matched discretionary accruals by Kothari et al. (2005), Dechow and Dichev (2002) approach, and discretionary estimation errors conducted by Francis et al. (2005). In a literature review of 300 earnings management studies, Dechow et al. (2010) summarised these models in an exhibit which is shown in Table 5.1.

## 5.5.1.1 Jones (1991) Model

The study conducted by Jones (1991) focuses on accruals to capture earnings management. In particular, the Jones (1991) model uses discretionary accruals to measure earnings manipulations. The contribution of the Jones (1991) model is that prior studies used the discretionary part of a single accrual account to capture earnings management as used in McNichols and Wilson (1988). However, Jones (1991) used the discretionary portion of total accruals to capture earnings management that are not mainly related to fundamental firm characteristics that are correlated to accruals.

Jones (1991) defines the accrual process as including working capital and depreciation as a function of sales growth and property, plant and equipment (hereafter PPE). Sales growth control non-discretionary working capital and PPE control non-discretionary depreciation expense (Bernard and Skinner, 1996). Total accruals are measured as the change in noncash working capital before income taxes payable less total depreciation expenses.

The goal of the discretionary accruals model is to separate total accruals into discretionary and non-discretionary accruals. First, the total accruals model is estimated, then the researcher uses forecasted values to estimate non-discretionary accruals and estimated discretionary accruals fall as the estimation error (Bernard and Skinner, 1996).

Jones (1991) model has been criticised for the low explanatory power; it only explains around 10% of the variation in accruals. The reason of the low explanatory power of the model could be attributed to the managers' discretion over the accrual process, which they use to mask fundamental performance (Dechow et al., 2010). Later studies have shown that the Jones (1991) model might be subject to Type I and Type II errors (Dechow et al., 2003, Dechow et al., 2005; Dechow et al., 2010). Type I errors classifies accruals as abnormal when they are a representation of fundamental performance. Type I error is suggested as the residuals are highly correlated with total accruals and with earnings

performance (Dechow et al., 1995). Type II errors classify accruals as normal when they are not.

**Table 5.1** *Accruals Models* 

Accrual Model	Theory	Notes
Jones (1991) model Acc= $\alpha+\beta\Delta Rev+\beta PPE+\epsilon$	Accruals are a function of revenue growth and depreciation is a function of PPE. All variables are scaled by total assets	Correlation on error with firm performance can bias tests. R Squared around 12%. Residual is correlated with accruals and cash flow
Modified Jones model (Dechow et al., 1995) $Acc=\beta(\Delta \text{ Rev-}\Delta \text{ Rec})+\beta PPE+\epsilon$	Adjusts jones model to exclude growth in credit sales in years identified as manipulation years	Provides some improvement in power in certain settings (when revenue is manipulated)
Performance matched (Kothari et al., 2005) DisAcc-Matched firms DissAcc	Matches firm-year observation with another from the same industry and year with the closest ROA. Discretionary accruals are from the Jones model (or the modified Jones model)	Can reduce power of test. Apply only when performance is an issue
Dechow and Dichev (2002) approach $\Delta$ WC= $\alpha$ + $\beta$ CFO (t-1)+ $\beta$ CFO (t-2)+ $\beta$ CFO (t-3)+ $\epsilon$	Accruals are modelled as a function of past, present, and future cash flows given their purpose to alter timing of cash flow recognition of earnings	$\sigma(\epsilon)$ or absolute $\epsilon$ proxies for accrual quality as an unsigned measure of the extent of accrual "errors". Focuses on short-term accruals does not address errors in long-term accruals
Discretionary estimation errors (Francis et al., 2005) $TCA = \alpha + \beta CFO \ (t-1) + \beta \ CFO \ (t) + \beta \ CFO \ (t+1) + \beta$ $\Delta Rev + \beta PPE + \epsilon$ $\sigma(\epsilon) = \alpha + \lambda \ Size \ \sigma CFO + \lambda \alpha (Rev) + \lambda log \ (opercycle) + \lambda Negearn + v$	Decomposes the standard deviation of the residual from the accruals model into an innate component that reflects the firm's operating environment and a discretionary component (v) that reflects managerial choice	Innate estimation errors are the predicted component from $\sigma(\epsilon)$ regression

# 5.5.1.2 Modified Jones Model (Dechow et al., 1995)

Dechow et al. (1995) modify the Jones model to adjust for growth in credit sales aiming to reduce Type II errors. If managers used their discretion to accrue revenues at year-end it could be argued that these revenues have really been earned and should be recognized. "The Jones model orthogonalises the total accruals with respect to revenues and will therefore extract this discretionary component of accruals, causing an estimate bias of earnings management" Dechow et al. (1995). This limitation is recognised by the author (Jones, 1991).

Dechow et al. (1995) presented a modified version of the Jones Model to be used in the empirical analysis. The modification was designed with the expectation that it will eliminate the measurement errors or biasness in the Jones Model. In the modified model, non-discretionary accruals are estimated during the periods in which the sampled firms has an extreme financial performance and hence it is expected that earnings have been managed.

This modification increased the explanatory power of the Jones Model and it better reflects earnings manipulation. The problem that remains unresolved after modifying the Jones Model is the presence of Type I error and even more likely than in the Jones Model as the model experiences high correlations between residuals and earnings performance (Dechow et al., 2010). Several studies have attempted to overcome the problems associated with the modified Jones Model by estimating the normal relationship between total sales and credit sales to control for non-discretionary credit sales. Dechow et al., (2003), DeFond and

Jiambavlo (1994) estimate the regression by industry rather than by firm to lessen firm-year requirements.

## 5.5.1.3 Performance Matched Discretionary Accruals (Kothari et al., 2005).

Empirical evidence suggests that estimated discretionary accruals are correlated with firm performance. Thus, it is important to control for financial performance when estimating discretionary accruals (Wan, 2013). Kothari et al. (2005) find that performance matching on return on asset controls for the effect of performance on measured discretionary accruals enhances the reliability and the explanatory power of an earnings management model. The evidence provided by Kothari et al. (2005) supports the use of ROA to match performance.

Kothari et al. (2005) identify a firm from the same industry and a close ROA to that of the sample firm and deduct the control firm's discretionary accruals from those of the sample firm to generate the performance matched discretionary residuals. The weakness of this model is that the models that are initially used to produce the residuals can only explain minimal amount of the variance in accruals. Therefore, this approach is likely to add noise to the measure of discretionary accruals and it can extract too much discretion when earnings are being managed and consequently have low power tests (Dechow et al., 2010).

#### 5.5.1.4 Dechow and Dichev (2002) Approach

Dechow and Dichev (2002) suggest a new measure of one aspect of the quality of working capital accruals and earnings. This measures model accruals as a

function of current, past and future cash flows because future cash flows can be expected through accruals. The results of this model show that firms with longer operating cycles, larger accruals, more volatile cash flows, accruals and earnings have lower accrual quality. The drawback of Dechow and Dichev (2002) is that it is an unsigned model which will lower the power of tests when the researcher predicts earnings management in a specific direction upwards or downwards. Using an unsigned measure of earnings management implies a lack of fit in estimation and produces biasness in the direction of rejecting the null hypothesis of no earnings management (Hribar and Nichols, 2007).

#### 5.5.1.5 Discretionary Estimation Errors (Francis et al., 2005)

McNichols (2002) suggested that adding the change in revenues and property, plant and equipment (PPE) will expand the Dechow and Dichev (2002) model to a broader measure with more explanatory variables. In this model, working capital accruals reflect managerial estimates of cash flows, and the extent to which those accruals do not map into cash flows, changes in revenues and PPE are an inverse measure of accruals quality due to estimation errors (Francis et al., 2005).

Francis et al. (2005) argue that Dechow and Dichev (2002) model is limited to current accruals. While applying the same model to total accruals might produce an accruals quality metric that comprehensively measures accruals uncertainty. Thus, Francis et al. (2005) considered proxies for accruals quality that are based

on the absolute value of abnormal accruals, where the abnormal accruals are estimated using the modified Jones Model used by Dechow et al. (1995).

According to Dechow et al. (2010), the discretionary estimated errors could still reflect estimation errors. These errors reduce the power of the test. Moreover, this model could induce bias in an unknown direction into the proxy for managerial discretion. However, more research is needed to evaluate the importance of these concerns.

## 5.5.2 Earning Smoothing

Earnings smoothing captures the degree to which managers use discretion over financial reporting to reduce the variability of earnings relative to the variability of cash flows (Gopalan and Jayaraman, 2012). This takes place by altering the accounting component of earnings, namely accruals (Leuz et al., 2003).

Smoother earnings may be more informative if it is not associated with an opportunistic incentive. On the other hand, a firm's accounting choices may be motivated by an opportunistic behaviour and this would impede the informativeness of earnings (Dechow et al., 2010).

Earnings smoothness is defined as the ratio of the standard deviation of operating income and the standard deviation of operating cash flows (Leuz et al., 2003; Gopalan and Jayaraman, 2012). Cash flow from operations is computed by subtracting the accrual component from earnings where accrual component is calculated following Dechow et al. (2005) as:

 $Accruals = (\Delta CA - \Delta Cash) - (\Delta CL - \Delta STD) - Dep$ 

Where:

 $\Delta CA$  = change in total current assets

 $\Delta Cash = \text{change in cash}$ 

 $\Delta CL$ = change in current liabilities

 $\Delta STD$ = change in short-term debt included in current liabilities

*Dep*= depreciation and amortisation expense

While prior studies do not provide a clear conclusion about smoothness as a proxy for earnings management, there is one main conclusion. In order to understand the consequences of smoothness, a measure of smoothness that is capable to distinguish artificial smoothness from the smoothness of the fundamental performance is needed (Dechow et al., 2010).

5.6 Summary

This chapter has presented a general understanding of earnings management. First, the definitions of earnings management were discussed. Afterwards, the different determinants of earnings management were presented accompanied with evidence from prior research on the importance of each of these determinants with regards to earnings management. This was followed by identifying the different consequences of earnings management in the light of earnings management literature. Finally, different models and proxies of measuring earnings management and their strengths and weaknesses were discussed.

# **Chapter Six**

# Earnings Management, Related Party Transactions and Corporate Governance

#### 6.1 Introduction

This chapter examines the relationship between earnings management (EM) and related party transactions (RPTs) for the firms listed on the Athens Stock Exchange (ASE). I examine EM using income smoothing and assess whether income smoothing is systematically related to RPTs. Moreover, I examine the association between earnings management and corporate governance activities, namely, audit quality as measured by audit firm size, size of the board of directors and independence of board members.

Related party transactions (RPT) are potential means for insiders to expropriate outside shareholders through self-dealing (Ryngaert and Thomas, 2012) and have been directly associated with several cases of financial fraud scandals and declined earnings quality (Ge et al., 2010). Moreover, they provide direct opportunities for related parties to extract resources from minority shareholders (Djankov et al., 2008; Johnson et al., 2000). Although RPTs are usually used by controlling shareholders for their self-interest, not all RPTs are for expropriation purpose and some RPTs are conducted for a solely business purpose (Gordon et al. 2004).

There are two contrasting views regarding RPTs. The first one suggests that RPTs are opportunistic means to produce misleading results and affect minority

shareholders' wealth (Ge et al., 2010). The contrary view perceives RPTs as a widespread, long-standing form of business activity that can have positive effects. Where RPTs are conducted appropriately, companies can benefit from them by decreasing transaction costs and achieving better asset utilisation (Chien and Hsu, 2010). According to the Statement of Financial Accounting Standards 57 (SFAS 57) Related Party Transactions are defined as transactions between a company and its subsidiaries, affiliates, principal owners, officers or their families, directors or their families, or entities owned or controlled by its officers or their families. The International Accounting Standards (IAS) definition of related parties is similar to that of the US GAAP: "As mentioned in paragraph 29.2, IAS 24 (revised) a related party can be a person, an entity, or an unincorporated business". The standard's definition is in two parts. The first part of the definition identifies general criteria that result in a person, or a close member of that person's family, being a related party of the reporting entity. The second part of the definition identifies the conditions that result in an entity being related to the reporting entity.

Accounting research has long been interested in earnings management (EM) (Chen et al., 2011) and recent literature found evidence that firms structure RPTs as a source of EM (Thomas et al., 2004; Aharony et al., 2010; Jian and Wong 2010). Healy and Whalen (1999) point out that managers can manipulate reported earnings not only through accruals management, but also by structuring RPTs to alter a firm's apparent financial position and reports.

Those earlier mentioned studies measured EM activity through discretionary accrual practices which are associated with well recognised problems (Guay et al., 1996; Dechow et al., 2012) or through indirect measures of EM like changes in ROA pre and post IPO when investigating the association between EM and RPTs (Aharony et al., 2010; Jian and Wong 2010; Chen et al. 2011) and with a special focus on the Chinese setting which is unique in terms of ownership structure and regulations for RPTs (Jian and Wong, 2010). That said, the link between EM and RPTs is far from clear and remains an empirical question. The association between RPTs and a behaviour that would indicate EM (e.g. income smoothing) is not tested. In particular, if managers and controlling shareholders decided to structure RPTs to manage earnings or to extract private benefits they should conceal those benefits. Therefore, if RPTs are conducted to mask fraud or extraction they should be associated with EM.

Moreover, it is important to investigate the relationship between EM and corporate governance. Corporate governance is assumed to mitigate any EM behaviour by the management. Prior studies found evidence that good corporate governance activities can improve the company's reporting quality (Beasley 1996; Dechow et al. 1996; Klein 2002; Peansell et al. 2005). Corporate governance can also impede opportunistic behaviour of management, increase the value of a firm, reduce opportunistic RPTs and enhance efficient RPTs instead (Denis and McConnell, 2003; Gordon and Henry, 2005; Bhagat and Bolton, 2008; Chien and

Hsu, 2010 and Abdulwahab et al., 2010). Thus, corporate governance is assumed to mediate the relationship between EM and RPTs.

I investigate the relationship between RPTs and EM from 2009 to 2011 across 215 firm-year observations for companies listed on the Athens Stock Exchange (ASE). Luez et al. (2003) examined systematic differences in EM across 31 countries. Among 31 countries Greece scores the highest EM score (same score as Austria). This indicates that Greece reflects the highest level of EM across all sample countries. Greece has often been in the spotlight for the inadequate quality of financial reporting (Tsipouridou and Spathis, 2012). Other empirical studies of international comparison among countries have illustrated that Greece exhibits the highest levels of EM (Bhattacharya et al., 2003). Hence, this study aims to investigate the relationship between EM and RPTs in a country with poor investor protection, low accounting quality and unhealthy financial reporting environment.

The main concern is based on the notion that the absence of a positive significant association between EM as measured by income smoothing and RPTs in Greece would provide evidence that RPTs are not necessarily conducted to mask extraction and manipulate firm's earnings and performance. Since Greece is weak in terms of investor protection, therefore if managers and controlling block holders have incentives to conduct RPTs that are fraudulent and harmful to the firm they can simply do this by managing the reported earnings to conceal those RPTs.

I find a negative significant association between EM and RPTs. The dependent variable EM is measured by income smoothing following Gopalan and Jayaraman (2012). RPTs are measured by an indicator variable that is equal to one if the ratio of total RPTs to firm's total assets is greater than one and zero otherwise following Ryngaert and Thomas (2012). Additionally, audit quality measured by audit firm size has shown a negative and significant association with EM. This implies that RPTs are negatively associated with income smoothing and that RPTs are not concealed using EM behaviour.

This study contributes to the rapid growing literature on EM. Prior studies have provided evidence that executives engage in EM through accruals (Healy, 1985; Healy and Whalen 1999; Kothari, 2001; Fields, 2001) or through real activities manipulation (Roychowdhury, 2006). Moreover, Healy and Whalen (1999) that RPTs could be used to manage earnings, but the evidence on the link between EM when measured by an accrual based measure and RPTs to date is limited. This study aims to provide empirical evidence that whether RPTs are normal transactions conducted for solely business purposes, a mask to hide extraction of firm resources or a tool to manipulate financial statements.

This study also contributes to the corporate governance literature examining the link between internal governance activities and EM. Although prior work has provided some evidence that corporate governance is an important determinant of EM, the results of these studies remain contradicting (Garcia-Meca and

Scanchez-Ballesta, 2009) and not sufficient to draw substantive conclusions (Larcker et al., 2007). This study provides evidence on the association between EM and corporate governance in Greece. The results show that audit quality is associated with lower levels of income smoothing and hence, EM. Additionally, it shows that the negative association between EM and RPTs is robust only to the subsample of companies being audited by Big-4 firms. This shows that audit quality plays a major role in the association between EM and RPTs.

There are three main differences between the current study and related prior studies. This study differs from the studies conducted by Cheung et al. (2009), Jian and Wong (2010) and Lo et al. (2010) in the institutional setting. The latter studies were conducted in the Chinese context which is affected by the concentrated ownership and controlling shareholders motives to expropriate shareholders and the inferences deduced from these studies do not necessarily apply to other markets (Gordon and Henry, 2005). This study also uses different measures from the ones used by Gordon and Henry (2005). I refrain from following Gordon and Henry (2005) by measuring RPTs using monetary values as this includes nontrivial measurement error (Ryngaert and Thomas, 2012). I also avoid following them in the usage of the Jones (1991) model to estimate discretionary accruals to avoid measurement error as well (Dechow et al., 2010). Finally, this study also differs from the study conducted by Ryngaert and Thomas (2012) which investigates whether ex-ante RPTs have different impact on firm's

value than ex-post RPTs in the US relying on the historical dimension of the transaction and providing evidence from a strong investor protection environment.

The Chapter is organised as follows. Section 6.2 develops the hypothesis. In section 6.3, I delineate the research design and describe the data. Section 6.4 presents the main analysis and results. Section 6.5 discusses the main results and finally, Section 6.6 summarises and concludes the chapter.

# **6.2 Hypothesis Development**

Transactions between related parties have been highly considered in recent years. Corporate scandals have typically included non-arm's length transactions contrived between the reporting entity and related companies or affiliates. This resulted in a need for the relatively recent development of accounting standards on related party transactions (RPTs) (Chong and Dean 1985).

Despite the continuous efforts of the regulatory bodies and accounting standards setters to further develop accounting standards governing the transactions between connected parties, the research on RPTs shows significant evidence that a lot of problems are arising from the RPT and the disclosures of such transactions. The corporate scandals have brought attention to the potential for accounting manipulations associated with RPTs producing a decline in perceived earnings quality (Ge et al., 2010). Djankov et al., (2008) mentioned that RPTs may provide direct opportunities for related parties to extract cash from listed companies (Johnson et al., 2000). Gordon and Henry (2005), Cheung et al., (2006,

2009), Berkman et al., (2009), Chen at al., (2009), Chalevas (2011), Ge et al., (2010), Lei and Song (2011) and others, recorded a significant relationship between the presence and the volume of RPTs and inflated earnings, decline of minority shareholder wealth, decline in firm value, and negative excess returns.

Numerous studies have found an association between EM and RPTs. Chen et al. (2011) find evidence that controlling shareholders in Chinese firms structure RPTs in pre-IPO period and that RPTs are associated with accrual EM. Thomas et al. (2004) document that Japanese firms engage in earnings management using affiliated transactions in addition to accruals EM to avoid losses, earning declines and negative forecast errors. Moreover, Jian and Wong (2010) find that controlling owners of Chinese listed firms engage in earnings management through RP sales transactions. Finally, Aharony et al. (2010) provide evidence that 185 Chinese IPO firms used RPTs opportunistically during the period 1999-2001 to manage earnings. However, this evidence is not necessarily applicable to other markets. The main explanation for this is attributed to institutional background and recent institutional developments that took place in the late 1990 in Asia after the Asian financial crisis.

Corporate governance has been instrumental in the recovery from the Asian financial crisis in 1997-1998 (Abdul Wahab et al., 2010). This crisis affected the majority of the Asian countries mentioned above. Several studies tackled corporate governance issues within Asian countries like Japan, China, Hong

Kong, Indoniesa, Malaysia, Philippines, Singapore, South Korea, Taiwan and Thailand to investigate the state and role of corporate governance around the financial crises (Johnson et al., 2000; Lemmon and Lins, 2003; Joh 2003; and Baek et al., 2004). Local financial reporting and corporate governance regulations in these countries were assumed to be stricter after the crises in order to avoid any negative impacts of financial reporting or lack of corporate governance. Additionally, results from US studies are not necessarily generalisable to other countries either since US has strong investor protection (Leuz et al., 2003), securities regulation (LaPorta et al., 2006) and legal system (LaPorta et al., 1997). Thus, the link between RPTs and EM is far from clear.

According to agency theory, RPTs are viewed as a facet of conflict of interest that can compromise management's agency responsibility to shareholders or board of director's monitoring function. RPTs are transactions between firm insiders; RPTs present opportunities to expropriate firm resources. If a firm's executives or board members engage in RPTs to expropriate firm resources, then they have an incentive to manage earnings to mask the extraction of the firm's resources (Gordon and Henry, 2005).

Contrariwise, the other view shows RPTs as a natural part of business and that are not necessarily related to accounting or financial fraud (Gordon et al., 2007). RPTs can rationally fulfil other economic demands for the company, or are a mechanism that bonds the party to the company. In this case there would be no

need to manage earnings or to offset the RPTs as they were not conducted to mask an extraction of firm's resources as the agency view would suggest. Consequently, a relation between EM and RPTs would not be expected (Gordon and Henry, 2005).

Moreover, prior literature suggests that the assumption that RPTs are a facet of conflict of interest should be viewed with caution. Gordon and Henry (2005) and Ryngaert and Thomas (2012) suggest that the assumption that RPTs reflect opportunism or the agency problem should not be generalised as some RPTs have proven to be innocuous from the conflict of interest assumption.

Hence, the relationship between the existence of RPTs and EM, which implies that RPTs are suspicious, remains an empirical question. To address this question there are several variables that should be taken into consideration. It is worth mentioning that reporting quality, disclosure requirements, investor protection and legal enforcement of regulations can vary significantly across different countries (Hope, 2003; Hail and Leuz; 2006). Compared to single-country settings, factors like economic development, growth, and investment opportunities are likely to vary across countries. Moreover, country level institutional variation also introduces econometric issues that the researcher must address (Gordon et al. 2013), albeit it is not always possible to control for all variations across countries.

La Porta et al., (1998) examined legal rules covering protection of corporate shareholders and creditors in 49 countries and the results have shown that common-law countries have the strongest investor protection and those civil-law countries that include Greece, have the weakest legal protection for investors. Therefore, in Greece or in any poor investor protection environment, insiders manage earnings to conceal their private benefits from outsiders to avoid the disciplinary actions that might be taken by outsiders if those benefits were detected (Shelifer and Vishny, 1997; Leuz et al., 2003).

Greece was among the first adopters of IFRS in Europe (Ballas et al., 2010) to bond itself to superior accounting standards in order to improve disclosure policies and accounting system to enhance the integration of domestic markets into world markets and to accelerate economic growth (Hope et al., 2006). However, higher quality standards do not guarantee higher quality of financial reporting (Ball, 2001). The conclusion stated by Ball (2001) was empirically supported in Greece by Tsipouridou and Spathis (2012) who found that IFRS did not impede opportunistic behaviour and EM practice attributing this to the strong influence of the Greek context characteristics where the economic bonding of auditors with their clients is strong, investor protection is low and enforcement mechanisms are weak. Therefore, the special financial reporting environment in Greece is one of the main explanations of the high practice of EM in Greece. Thus, given the accounting quality, EM level and legal enforcement issues in Greece it is expected that high EM is associated with RPTs.

# H1: RPTs are positively associated with EM.

Prior studies found evidence that good corporate governance activities can improve the company's reporting quality (Beasley 1996; Dechow et al. 1996; Klein 2002; Peansell et al. 2005). Moreover, it can impede opportunistic behaviour of management, increase the value of a firm and move the RPTs from the conflict of interest to efficient transactions (Denis and McConnell, 2003; Gordon and Henry, 2005; Bhagat and Bolton, 2008; Chien and Hsu, 2010 and Abdulwahab et al., 2010). Hence, governance activities should be negatively associated with EM. Governance and control activities addressed in this study are auditors, board size and board independence respectively.

Auditors play in important role in mitigating intentional and unintentional misstatements in the financial statements of the firm. The ability of the auditor to limit misstatements is dependent on the auditor's ability to detect material misstatements and to adjust for or report it (DeAngelo, 1981). It is hypothesized that the ability of the auditor to detect errors depends on the effort and the effectiveness of the auditor. Also, the auditor is usually driven by ethical and independence standards and reputation which require him to detect errors or fraud in the financial statements (Nelson et al., 2002). Agency theory supports the view that audit quality should be associated with less EM. According to Agency theory the external audit process is a monitoring tool that can facilitate for the firm

reducing its agency costs and impede management opportunism (Jensen and Meckling, 1976).

Becker et al. (1998) assume that big audit firms have higher audit quality and examine the association between audit quality and EM. Their results show that audit quality is associated with lower EM. This evidence is consistent with Teoh and Wong (1993), DeFond and Subramaynam (1998) and Francis et al. (1999).

The effectiveness of the external audit function in Greece has been questioned on a number of occasions by finance institutions, investors, journalists and politicians (Leventis and Caramanis, 2005). However, these doubts are not empirically or theoretically supported. Following agency theory I expect that the external audit process is a monitoring tool that is aimed to enhance the reporting quality and thus impede EM.

H2: Firms audited by Big 4 auditors are associated with lower EM.

Agency theory assumption that large boards negatively affect the effectiveness of the monitoring role of the board that supports reducing the number of board members (Jensen, 1993). To date, many studies have documented negative association between EM and board size (Peasnell et al., 2005; Klein et al., 2002). Thus, I expect that larger boards will be associated by less EM.

H3: The number of the directors sitting on the board is negatively associated with EM.

Board independence is one of the most important characteristics of board structure (Hermalin and Weisbach, 1991; Jensen, 1993; Huther, 1997; Rosenstein and Wyatt, 1997; Eisenberg, et al., 1998). Higher degree of independence among directors will enhance the efficiency of their monitoring role (Bhagat and Black, 2002).

According to agency theory it should be expected that more independent directors sitting on the board could enhance the monitoring role of the board of directors. Therefore, it is assumed in the agency context that the presence of more independent directors will improve earnings quality and informativeness. Supporting evidence on the role of board independence in constraining EM is provided by several studies (Beasley, 1996; Abbott et al., 2004; Krishan, 2005; Karamanou and Vafeas, 2005; Farber, 2005; Vafeas, 2005). Moreover, agency theory assumes that increased board independence will improve earnings quality and thus impede EM.

The general expectation in studying the association between board independence and EM is that independent directors act as more effective monitors than inside directors. Hence, board independence is expected to be negatively correlated with EM. However, the evidence to date is mixed (Chen et al. 2011).

Prior studies have examined the association between board independence and EM using various proxies of EM. Using a sample of 692 firm-years, Klein (2002) finds that board independence is negatively correlated with EM measured by

abnormal accruals. Similar results were found by Garcia-Meca and Ballesta (2009) and Dimitropoulos and Asteriou (2010) in Greece who used a modified version of Jones model by Dechow et al. (1995) and Jones model (1991) measure of abnormal accruals as a proxy for EM.

These models have been associated with several problems as explained by Guay et al. (1996), Hribar and Nichols (2007) and Dechow et al. (1995). In a recent review of all EM proxies Dechow et al. (2010) highlighted a major drawback of models extracting abnormal or discretionary accruals from total accruals that they lack the power needed to isolate discretionary accruals from total accruals.

However, other studies found different results. For example Vafeas (2005) fails to report significant association between EM and board independence. Bowen et al. (2008) find that the proportion of executive directors is negatively correlated with the absolute value of normal accruals. Larcker et al (2007) fails to find a correlation between board independence and signed abnormal accruals.

H4: The percentage of independent directors sitting on the board is negatively related to EM.

## 6.3 Research Design

I employ a single country study to provide evidence on the association between RPTs and EM in Greece in which accounting quality has been always doubted since the firms possess too much discretions over their reported earnings (Tsipouridou and Spathis, 2012). Moreover, prior literature ranked Greece as

exhibiting the highest levels of EM (Leuz, et al. 2003) and the minimum level of disclosure requirement and legal enforcement (Hail and Leuz, 2006).

This study investigates the relationship between EM, RPTs and corporate governance. EM measured by income smoothing as the dependent variable. Thus, this study follows similar studies (Luez et al., 2003; Gopalan and Jayaraman, 2012) and other several studies (e.g., Garcia-Meca et al., 2009) and applies multiple regression technique. To establish evidence on the relationship between EM, RPTs and corporate governance, I run the following OLS regression.

EM=  $\alpha$  +  $\beta$ 1 x RPT+  $\beta$ 2 x Big 4+  $\beta$ 3 x Board Independence +  $\beta$ 4 x Board Size+  $\gamma$  x Controls +  $\epsilon$  (1)

# **6.3.1** *Sample*

The phenomenon of EM prevails in weaker investor protection countries. Greece follows the French civil law which is considered a weak system in investor protection. We use the index developed by Luez et al. (2003) and study the relationship between EM and RPT in a country with poor investor protection and high level of EM, thus the sample will include 215 firm year observations from the available firm-year data for the period 2009-2011 for firms listed in Athens Stock Exchange (ASE) in Greece. The population of listed firms in ASE is 237 firms. RPTs and corporate governance data are collected manually from annual reports. Data for EM and control variables are collected from Orbis database supplied by Bureau Van Dijk. I exclude financial firms and firms suspended from

ASE. This leads to a sample of 549 firm-year observations for 183 unique firms. I lose a further 334 observations of firms that do not provide annual reports in English for any year of the sampled period or firms that do not provide annual reports at all for any year in the sample period. The details of sampling procedures is shown in Panel A, Table 6.1. The industry distribution for companies and firm-year observations is shown in Panel B, Table 6.1.

Sample Distribution           Panel A         Firms (29) (29) (87)           Population Firms (29) (25) (75)         (25) (75)           Suspended Firms (25) (75)         (34)           Non-excluded Observations (334)         (334)           Missing Observations         (334)           Final Sample 84 215         215           Panel B           Industry Firms Observations Oil and Gas 1 3 3 8 8           Chemicals 3 8 8         8 8 8           Basic Resources 10 25         25           Construction and Materials 14 31 11         31 4 35           Industrial Goods and Services 14 35 7         35 8 22           Personal and Household Goods 10 28 10 28 11         38 8 22           Personal and Leisure 4 9 8         4 9 8           Retail 3 8 8 7         3 9 8           Travel and Leisure 6 16 16 16         16 16           Utilities 3 7 7         3 7 7           Technology 5 14         5 14           Total 84 215	Table 6.1						
Firms   Observations   Population   237   711							
Population         237         711           Financial Firms         (29)         (87)           Suspended Firms         (25)         (75)           Non-excluded         (334)         (334)           Observations         (334)           Final Sample         84         215           Panel B           Industry         Firms         Observations           Oil and Gas         1         3           Chemicals         3         8           Basic Resources         10         25           Construction and Materials         14         31           Industrial Goods and Services         14         35           Food and Beverage         8         22           Personal and Household Goods         10         28           Health Care         4         9           Retail         3         8           Travel and Leisure         6         16           Utilities         3         9           Real Estate         3         7           Technology         5         14	Panel A						
Financial Firms         (29)         (87)           Suspended Firms         (25)         (75)           Non-excluded         (334)           Observations         (334)           Final Sample         84         215           Panel B           Industry         Firms         Observations           Oil and Gas         1         3           Chemicals         3         8           Basic Resources         10         25           Construction and Materials         14         31           Industrial Goods and Services         14         35           Food and Beverage         8         22           Personal and Household Goods         10         28           Health Care         4         9           Retail         3         8           Travel and Leisure         6         16           Utilities         3         9           Real Estate         3         7           Technology         5         14		Firms	Observations				
Financial Firms       (29)       (87)         Suspended Firms       (25)       (75)         Non-excluded       (34)         Observations       (334)         Final Sample       84       215         Panel B         Industry       Firms       Observations         Oil and Gas       1       3         Chemicals       3       8         Basic Resources       10       25         Construction and Materials       14       31         Industrial Goods and Services       14       35         Food and Beverage       8       22         Personal and Household Goods       10       28         Health Care       4       9         Retail       3       8         Travel and Leisure       6       16         Utilities       3       9         Real Estate       3       7         Technology       5       14	Population	237	711				
Suspended Firms       (25)       (75)         Non-excluded       183       549         Missing Observations       (334)         Final Sample       84       215         Panel B         Industry       Firms       Observations         Oil and Gas       1       3         Chemicals       3       8         Basic Resources       10       25         Construction and Materials       14       31         Industrial Goods and Services       14       35         Food and Beverage       8       22         Personal and Household Goods       10       28         Health Care       4       9         Retail       3       8         Travel and Leisure       6       16         Utilities       3       9         Real Estate       3       7         Technology       5       14		(29)	(87)				
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Construction and Materials       14       31         Industrial Goods and Services       14       35         Food and Beverage       8       22         Personal and Household Goods       10       28         Health Care       4       9         Retail       3       8         Travel and Leisure       6       16         Utilities       3       9         Real Estate       3       7         Technology       5       14	Chemicals	3	8				
Industrial Goods and Services       14       35         Food and Beverage       8       22         Personal and Household Goods       10       28         Health Care       4       9         Retail       3       8         Travel and Leisure       6       16         Utilities       3       9         Real Estate       3       7         Technology       5       14	Basic Resources	10	25				
Food and Beverage       8       22         Personal and Household Goods       10       28         Health Care       4       9         Retail       3       8         Travel and Leisure       6       16         Utilities       3       9         Real Estate       3       7         Technology       5       14	Construction and Materials	14	31				
Personal and Household Goods       10       28         Health Care       4       9         Retail       3       8         Travel and Leisure       6       16         Utilities       3       9         Real Estate       3       7         Technology       5       14							
Health Care       4       9         Retail       3       8         Travel and Leisure       6       16         Utilities       3       9         Real Estate       3       7         Technology       5       14		_					
Retail       3       8         Travel and Leisure       6       16         Utilities       3       9         Real Estate       3       7         Technology       5       14		10					
Travel and Leisure  Utilities  Real Estate  Technology  6  16  9  7  17  18  19  19  19  10  10  10  10  10  10  10		•					
Utilities39Real Estate37Technology514			-				
Real Estate 3 7 Technology 5 14							
Technology 5 14			-				
			•				
Total 84 215	Technology	5	14				
	Total	84	215				

The nature of RPTs implies some limitations in terms of data. RPTs variable is calculated as the total value of RPTs between the listed company and its related parties. In another countries rather than Greece there was a problem arising from the unavailability of the transactions undertaken between a firm and its subsidiaries due to consolidation of financial statements. Therefore, due to the differences in financial reporting across countries and the underlying research question employ a single-country study. A single country study should not reduce the variability among corporate governance variables because those variables are not mandated by corporate governance codes in Greece.

## 6.3.2 The Dependent Variable Definition and Descriptive Statistics

Following Leuz et al. (2003) and Gopalan and Jayaraman (2012) EM can be proxied by income smoothing which is defined as the ratio of the standard deviation of operating income (scaled by lagged total assets) to the standard deviation of cash flows where both operating income and cash flows are scaled by lagged to totals assets, where standard deviations are calculated each year using a rolling windows of fine annual observations. Cash flows are computed by deducting accruals from earnings. Accruals are computed as:

$$ACC = [\Delta CA - \Delta Cash] - [\Delta CL - \Delta STD] - Dep$$
 (2)

Where:

 $\triangle$  CA=the change in total current assets

△ *Cash*=the change in cash/cash equivalents

 $\Delta$  *CL*= the change in total current liabilities

 $\Delta$  STD= the change in short-term debt included in current liabilities

 $\Delta$  *Dep*= the depreciation and amortization expense

Following Leuz et al. (2003) and Gopalan and Jayaraman (2012) the missing values of short-term debt are set to zero. Thus EM is defined as:

$$EM = \sigma(Income) / \sigma(CFO)$$
 (3)

Higher values in this case reflect lower levels of EM. Thus, I multiply EM by -1 so that higher values indicate more earnings as the volatility of earnings is lower than the volatility of cash flows (Gopalan and Jayraman, 2012). The reported median for EM in Greece shown in Table 6.2 is similar to the median reported for Greece by Leuz et al. (2003).

The median for EM in this study is -0.407 which is shown in Table 6.2, can closely compare to the median of Greece reported in Leuz et al. (2003) which is -0.415. The descriptive statistics of EM variable in this study also shows some variation in the practice of income smoothing within sampled Greek listed firms. The minimum value for EM is -2.741 which indicates a significant level of income smoothing; on the other hand the maximum value is -0.021 which indicates that the volatility in earnings is higher than the volatility of cash flows as discussed by Leuz et al. (2003) and Gopalan and Jayaraman (2012).

**Table 6.2**Descriptive Statistics

	<b></b>	3.61.1		3.6	3.6.11	G. I. D
	N	Minimum	Maximum	Mean	Median	Std. Deviation
EM	215	-2.741	-0.021	-0.468	-0.407	0.358
RPT	215	0.000	1.000	0.805	1.000	0.397
BIG4	215	0.000	1.000	0.405	0.000	0.492
Board Size	215	4.000	16.000	8.595	8.000	2.603
Board Independence	215	0.000	75.000	29.579	28.571	12.483
Log of assets	215	13.842	21.921	18.873	18.850	1.362
Loss	215	0.000	1.000	0.660	1.000	0.475
Capital Intensity	215	0.000	1.255	0.569	0.570	0.275
Leverage	215	0.000	0.614	0.188	0.163	0.156
Sales Growth	215	-91.000	103.000	-7.510	-7.577	29.617
Operating Cycle	215	0.000	79815.513	2636.988	1101.772	7316.189
Days Payable	215	-2167.62	7923.366	30.054	0.255	600.701

This table reports descriptive statistics for 215 firm-year observations for firms listed in Athens Stock Exchange (ASE). Data are obtained from the Orbis database supplied by Bureau Van Dijk. EM is the measure of income smoothing defined as the ratio of the standard deviation of operating income (scaled by lagged total assets) to the standard deviation of cash flows where both operating income and cash flows are scaled by lagged to totals assets), where standard deviations are calculated each year using a rolling windows of fine annual observations. Cash flows are computed by deducting accruals from earnings. Accruals are computed as the change in current assets minus the change in cash on hand less the change in current liabilities less depreciation. Standard deviations are calculated based on rolling windows of five annual observations. RPT represents related party transactions, is a dummy variable equal to 1 if RPT/Totals Assets > 1 and 0 otherwise. Big4 measures audit quality by audit firm size, is a dummy variable equal to 1 if the auditor is a Big 4 audit firm and 0 otherwise. Board size is the number of people sitting on the board of directors of the firm. Board independence is the ratio of independent members of the board of directors to the total number of directors. Log of assets is the natural logarithm of firm's total assets. Loss is a dummy variable that identifies years in which the firm reports a loss. Capital intensity is computed as long-term assets divided by lagged total assets. Leverage measures long-term debt and is calculated as the ratio of total longterm debt to the book value of total assets. Sales growth is the percentage of sales growth rate. Operating cycle is the length of the firm's operating cycle, defined as the number of days receivable plus the number of days inventory. Days receivable is computed as 360 divided by the ratio of average receivables to sales. Days inventory is defined as 360 divided by the ratio of average inventory to cost of goods sold. Days payable is defined as 360 divided by the ratio of average accounts payable to cost of goods sold.

# 6.3.3 The independent Variables Definition and Descriptive Statistics

To operationalise RPT, the current study applies the same measure used by Ryngaert and Thomas (2012). Ryngaert and Thomas (2012) measured RPT using a dummy variable equal to one if the sum of related party transactions disclosed in the annual report of the firm in the firm-year observation exceeds 1% of the firm's total asset for the same year, and zero otherwise. The mean for RPTs is 0.8 which reflects that most firms in Greece conduct RPTs with value more than 1% of the firm's total assets.

The Big 4 variable is also a dummy variable that equals one if the company is audited by one of the Big 4 audit firms and zero otherwise. The mean for this variable is 0.405. The percentage of firms assigning to one of the Big 4 audit firms to audit the company's financial statements is 40% of the companies in the sample. Caramanis and Lennox (2008) have found that only 34.5% of the Greek firms hire Big 4 audit firms for the financial statements audited in 2002. Their study showed that more than 60% of the firms appoint either international non-Big 4, or local audit firms. In another study, Tsipouridou and Spathis (2012) found that around 33% of the Greek firms' financial statements are audited by a Big 4 audit firm. Their study covers years 2005-2009 and that might provide an explanation for decreased number of firms hiring a Big 4 audit firm. A possible explanation for the increased number of audits conducted by a Big 4 audit firm-year observations are from an IFRS post-adoption period which is not the case neither with Caramanis and Lennox (2008) nor Tsipouridou and Spathis (2012) . Companies might have been motivated to switch the audit to a Big 4 over this period.

This explanation is supported by the study conducted on a Greek sample by Comprix et al. (2012). Their study provides empirical evidence that IFRS mandatory adoption can be linked to hiring Big 4 audit firms and other auditor-client relationship changes.

Considerable variation appeared in the numbers and percentages of independent directors serving on the board of directors. As shown in the Table 6.3, the minimum percentage of independent members serving on the board of directors is zero. This means that in one or more firms, all members of the board of directors are not independent. This could be explained by two facts. First, the minimum number of independent board members according to the Greek corporate governance code is two members. However, the strict compliance by the code is not mandatory as the code follows the "comply or explain" approach. On the other hand the mean for independence of board of directors' members is 29.5% and the maximum is 75%.

The previous reasons could also explain the reported average of independent members of the board of directors which is considered to be low. Meanwhile, none of the companies had all board of directors independent, where the max was 75%. The results show that the range of number of independent directors serving on the boards of sampled firms ranges from zero to eight members.

Another aspect of internal corporate governance is the size of the board of directors. The size of the board of directors varied within a range from 4 to 16 members and the mean (median) was 8.59 (8.0) members respectively. In a study investigating corporate governance in Greece, Dimitropoulos and Asteriou (2010) had a mean (median) of

7.81(7.00) members for a sample of Greek listed firms. Their study covered the time period 2000-2004.

### 6.3.4 Control Variables

Following the literature suggesting that EM measurement could be influenced by number of variables that should be controlled for (Dechow 1994; Dechow and Dichev 2002; Hribar and Nichols 2007). Those variables are: Length of firm *operating cycle*, defined as the number of days receivables plus the number of days inventory. *Days payable* measured as 360 divided by ratio of average accounts payable to COGS. *Capital intensity* measured as long-term assets divided by lagged total assets. *Leverage* is measured by long term debt. The percentage of *sales growth*. *Log of assets* as an indicator for firm size and *Loss* a dummy variable that identifies years in which the firm reports a loss to control for profitability. Additionally, all models control for industry and year.

## 6.4 Results

# 6.4.1 Univariate Analysis

Table 6.3 provides Pearson and Spearman correlation coefficients of all variables. Significant correlations are flagged. There is no association between EM and RPTs according to the correlation coefficients. Although this does not support the research hypothesis, these results are consistent with findings of a US study conducted by Gordon and Henry (2005) who failed to find a significant association between RPTs and EM.

Consistent with H2 Table 6.3 shows that EM is negatively associated with the variable Big 4. EM had a significant negative association with the variable Big 4; this means that a firm that hires one of the Big 4 audit firms to audit its financial statements usually have a lower level of EM. This means that audit quality and EM are negatively related. Also EM appeared to have a positive significant association with capital intensity and a negative significant relationship with the variable loss.

Corporate governance variables included in this study are Big 4, board size and board independence. With the exception of having the financial statements audited by one of the Big 4 audit firms, neither of the corporate governance activities studied show a significant association with either EM or the incidence of RPTs. These results are not consistent with Kohlbeck and Mayhew (2010) and Gordon et al. (2007) whose findings suggest that large boards can facilitate the making of RPTs. A possible explanation for this is that the higher the number of the directors sitting on the board, the more related parties the firm has and thus, RPTs might increase due to the increased number of the members of the board.

 Table 6.3

 Pearson's Correlation (below diagonal) and Spearman Rho's Correlation (above diagonal)

	EM	RPT	BIG4	Board Size	Bind	Log of assets	loss	Days Payable	Operating Cycle	Capital intensity	Leverage	Sales growth
EM	1	-0.066	-0.193**	-0.012	0.034	-0.034	$0.155^{*}$	-0.026	-0.166*	-0.184**	-0.044	-0.137*
EM		(0.337)	(0.004)	(0.863)	(0.621)	(0.625)	(0.023)	(0.709)	(0.015)	(0.007)	(0.524)	(0.045)
RPT	-0.102	1	0.095	0.035	0.012	0.088	.142*	0.004	.161*	-0.039	-0.068	-0.03
KP I	(0.137)		(0.163)	(0.612)	(0.866)	(0.198)	(0.037)	(0.954)	(0.018)	(0.571)	(0.319)	(0.661)
BIG4	-0.207**	0.095	1	$0.162^{*}$	-0.007	$0.162^{*}$	-0.009	0.061	0.254**	0.077	-0.111	0.053
BIG4	(0.002)	(0.163)		(0.017)	(0.923)	(0.017)	(0.893)	(0.373)	(0.000)	(0.258)	(0.105)	(0.437)
Doord Circ	-0.065	0.032	$0.143^{*}$	1	-0.510**	0.381**	$0.139^{*}$	-0.042	$0.144^{*}$	$0.136^{*}$	0.094	0.100
Board Size	(0.340)	(0.644)	(0.036)		(0.000)	0	(0.042)	(0.542)	(0.035)	(0.047)	(0.171)	(0.145)
Board	0.115	-0.002	0.017	383**	1	302**	-0.076	0.267	0.01	0.128	-0.01	-0.008
Independence	(0.094)	(0.980)	(0.800)	(0.000)		(0.000)	(0.267)	(-0.027)	(0.886)	(0.062)	(0.886)	(0.907)
I£4-	-0.083	0.032	0.076	.190**	164 <sup>*</sup>	1	-0.008	0.019	0.071	0.026	-0.038	0.069
Log of assets	(0.226)	(0.640)	(0.268)	(0.005)	(0.016)		(0.905)	(0.782)	(0.298)	(0.700)	(0.578)	(0.317)
Ī	$0.144^{*}$	.142*	-0.009	.153*	-0.072	-0.048	1	-0.011	.223**	0.046	0.115	.306**
Loss	(0.035)	(0.037)	(0.893)	(0.025)	(0.294)	(0.481)		(0.877)	(0.001)	(0.499)	(0.092)	(0.000)
D Dkl-	-0.009	0.039	-0.055	0.071	-0.027	206**	0.043	1	-0.06	-0.064	-0.066	.209**
Days Payable	(0.900)	(0.574)	(0.425)	(0.302)	(0.695)	(0.002)	(0.534)		(0.384)	(0.351)	(0.339)	(0.002)
Operating	0.02	-0.04	0.042	.182**	-0.042	306**	.139*	.374**	1	-0.031	-0.043	.185**
Cycle	(0.774)	(0.561)	(0.538)	(0.008)	(0.542)	(0.000)	(0.042)	(0.000)		(0.646)	(0.530)	(0.006)
Capital	-0.155*	-0.018	0.036	0.108	.142*	0.092	0.039	145*	139*	1	.340**	-0.027
intensity	(0.023)	(0.791)	(0.601)	(0.114)	(0.037)	(0.178)	(0.565)	(0.034)	(0.042)		(0.000)	(0.691)
Lavaraca	-0.035	-0.087	-0.077	0.117	0.015	-0.069	0.085	-0.093	-0.049	.300**	1	-0.024
Leverage	(0.609)	(0.205)	(0.261)	(0.086)	(0.822)	(0.313)	(0.217)	(0.176)	(0.473)	(0.000)		(0.727)
Calas amounth	0.081	-0.048	0.074	0.098	-0.026	0.03	.297**	0.018	0.08	-0.032	-0.03	1
Sales growth	(0.235)	(0.479)	(0.277)	(0.152)	(0.702)	(0.658)	(0.000)	(0.797)	(0.242)	(0.640)	(0.662)	

This table reports Pearson's (below diagonal) and Spearman's (above diagonal) correlations between all variables and significance levels (in parentheses). EM is the measure of income smoothing defined as the ratio of the standard deviation of operating income (scaled by lagged total assets) to the standard deviation of cash flows where both operating income and cash flows are scaled by lagged to totals assets), where standard deviations are calculated each year using a rolling windows of fine annual observations. RPT represents related party transactions, is a dummy variable equal to 1 if RPT/Totals Assets > 1 and 0 otherwise. Big4 measures audit quality by audit firm size, is a dummy variable equal to 1 if the auditor is a Big 4 audit firm and 0 otherwise. Board size is the number of people sitting on the board of directors of the firm. Board independence is the ratio of independent members of the board of directors to the total number of directors. Log of assets is the natural logarithm of firm's total assets. Loss is a dummy variable that identifies years in which the firm reports a loss. Capital intensity is computed as long-term assets divided by lagged total assets. Leverage measures long-term debt and is calculated as the ratio of total long-term debt to the book value of total assets. Sales growth is the percentage of sales growth rate. Operating cycle is the length of the firm's operating cycle, defined as the number of days receivable plus the number of days inventory. Days receivable is computed as 360 divided by the ratio of average receivables to sales. Days inventory is defined as 360 divided by the ratio of average inventory to cost of goods sold. Days payable is defined as 360 divided by the ratio of average accounts payable to cost of goods sold.

\* and \*\* indicate significance at the 5% and 1% respectively.

# 6.4.2 Regression Results

Table 6.4 reports the regression results of the model in Equation (1) and control for industry and year for 215 firm-year observations for firms listed in Athens Stock Exchange (ASE). The variables that have shown significance in the regression model are RPT and Big 4. Regression results show that RPTs have significant, negative association with EM. This implies that conducting RPTs is not associated with income smoothing, on the contrary, it is associated with lower levels of income smoothing in all regression models.

The Big 4 variable had a negative significant relationship with EM. This means that having one of the Big 4 auditors might be a factor that can reduce the occurrence of EM. These results can be linked to the results of Caramanis and Lennox (2008) who found out that Big 4 audit firms have higher audit quality and are more capable of constraining EM in Greek listed firms.

Additional regressions were run to check the robustness of the results. First, regression was run using the ratio of RPT to total assets instead of the RPT dummy variable used before to check whether the results are sensitive to another RPTs proxy or not. This model report similar results. These regression results are reported in column 2 Table 6.4.

 Table 6.4

 Earnings Management, Related Party Transactions and Corporate Governance

	1	2	3	4
RPT	-0.112*	-0.004**	-0.275*	-0.149**
1 1	(0.057)	(0.035)	(0.086)	(0.035)
BIG4	-0.126**	-0.100**	-0.267*	-0.232
	(0.012)	(0.055)	(0.052)	(0.093)*
Board Size	0.010	0.007	0.119	0.110
	(0.380)	(0.503)	(0.132)	(0.160)
Board	0.003	0.003	0.113	0.110
Independence	(0.158)	(0.220)	(0.136)	(0.147)
Log of assets	-0.000	-0.003	0.045	0.043
C	(0.998)	(0.884)	(0.545)	(0.559)
Loss	0.083	0.062	0.308**	0.286
	(0.132)	(0.250)	(0.039)	(0.053)*
Capital Intensity	-0.259***	-0.233**	-0.259***	-0.233***
-	(0.005)	(0.013)	(0.000)	(0.001)
Leverage	-0.030	-0.013	-0.003	-0.003
	(0.847)	(0.933)	(0.966)	(0.969)
Sales Growth	0.001	0.001	0.106	0.122*
	(0.440)	(0.223)	(0.143)	(0.088)
Operating Cycle	0.000	0.000	-0.174**	-0.172**
	(0.936)	(0.917)	(0.021)	(0.022)
Days Payable	0.000	0.000	-0.044	-0.029
	(0.757)	(0.804)	(0.499)	(0.659)
R Square	0.283	0.286	0.334	0.339
Durbin Watson	1.326	1.346	1.197	1.119
Regression	Untransformed data	RPT/Total Assets	Normal Scores of Continuous Variables	Normal Scores of Continuous Variables & RPT/TA

This table shows the regression results and the significance levels (in parentheses) relating EM to RPTs and corporate governance. EM is the measure of income smoothing defined as the ratio of the standard deviation of operating income (scaled by lagged total assets) to the standard deviation of cash flows where both operating income and cash flows are scaled by lagged to totals assets). Cash flows are computed by deducting accruals from earnings. Accruals are computed as change in current assets minus change in cash on hand less change in current liabilities less depreciation. Standard deviations are calculated based on rolling windows of five annual observations. RPT represents related party transactions, is a dummy variable equal to 1 if RPT/Totals Assets > 1 and 0 otherwise. Big4 measures audit quality by audit firm size, is a dummy variable equal to 1 if the auditor is a Big 4 audit firm and 0 otherwise. Board size is the number of people sitting on the board of directors of the firm. Board independence is the ratio of independent members of the board of directors to the total number of directors. Log of assets is the natural logarithm of firm's total assets. Loss is a dummy variable that identifies years in which the firm reports a loss. Capital intensity is computed as long-term assets divided by lagged total assets. Leverage measures long-term debt and is calculated as the ratio of total long-term debt to the book value of total assets. Sales growth is the percentage of sales growth rate. Operating cycle is the length of the firm's operating cycle, defined as the number of days receivable plus the number of days inventory. Days receivable is computed as 360 divided by the ratio of average inventory to cost of goods sold. Days payable is defined as 360 divided by the ratio of average inventory to cost of goods sold. All models control for industry and year.

\*,\*\*and \*\*\* indicate significance at 10%, 5% and 1%, respectively.

Second, regressing the normal scores of EM on the normal scores of all continuous variables with the dummy variables RPT and Big 4. This can give an indication of whether the results are affected by any abnormality in the variables. The motivation for running this specific regression is to avoid any bias that might be caused by skewness in the variable EM. Thus, it is better to check whether that normally distributed observations for EM will lead to the same results. The results of this regression are presented in column 3 of Table 6.4. Finally, for further assurance, a regression using normal scores for all continuous variables, dummy variables and normal scores for RPT scaled by total assets. The results are similar to prior results and are reported in column 4 of Table 6.4. The models run using normal scores of continuous variables have a higher explanatory power as shown in columns 3 and 4, Table 6.4.

#### 6.5 Discussion

## 6.5.1 Earnings Management

The median value for EM in Greece -0.407, which is high, compared to the scores of other countries studied by Leuz et al. (2003). There are several reasons that can explain the high level of EM score reported in Greece. The main explanations can be attributed to investor protection and accounting framework in Greece. Investor protection is a key institutional factor affecting corporate policy choices (Shleifer and Vishny, 1997) and EM (Leuz et al., 2003). Strong and well enforced outsider rights for shareholders can limit the insiders' (managers or controlling shareholders) incentives to manage earnings. Private control benefits range from

perquisite consumption to transfer of firm assets to other firms owned by insiders or their families (Luez et al., 2003). Therefore, it is expected that EM are more likely to occur in poor investor protection countries (Leuz et al., 2003).

Greece has often been in the spotlight for inadequate quality of financial reporting. Before the implementation of IFRS to all consolidated and individual accounts of publicly listed firms beginning on January 1, 2005, the quality of Greek accounting standards and disclosure practices had been criticised in the European financial press and investors' community (Tsipouridou and Spathis, 2012). Some of the complaints were that Greek accounting standards allowed firms to use too much discretion over their earnings, lacked detailed disclosures, permitted reporting that was too heavily influenced by tax avoidance strategies, and had no effective enforcement mechanisms (Tsipouridou and Spathis, 2012). This caused Greece to be empirically exhibiting the highest levels of EM (Luez et al., 2003) and earnings opacity (Bhattacharya et al., 2003).

According to Cohen et al. (2004) the practice of EM indicates a breakdown in the financial reporting process. When the users of the financial statements are in doubt, they turn their attention to the external auditor's report. However, the effectiveness of auditing in Greece has also been questioned by regulators and financial analysts (Leventis and Caramanis, 2005). Therefore, weak investor protection and the financial reporting environment are two main factors that can explain the high levels of EM in Greece.

## 6.5.2 Related Party Transactions

The negative significant relationship in the multiple regression models as shown in Table 6.4, suggests that RPTs can explain part of the variation in EM, however, not in the predicted direction. This negative association indicates that although RPTs might be used to manage earnings or mask firm resources extraction from shareholders, those transactions are not necessarily linked to income smoothing systematically. When RPTs are conducted to manipulate earnings or mask extraction of resources, this might affect accruals or cash flows, but it does not necessarily affect both (Chen et al., 2011).

The negative association might also be attributed to corporate governance activities. Denis and McConnell (2003) and Gordon and Henry (2005) specified corporate governance as a main factor that can mitigate the relationship between EM and RPTs and move RPTs from a facet of conflict of interest to an efficient transaction by providing efficient and effective monitoring. Independent auditors are one of monitoring tools that aims to assure that the financial statements reflect the economic reality of firms. The results of the current study indicates that Big 4 audit firms have higher audit quality and are associated with less EM. These results are significant and consistent with prior literature (Francis et al., 1993).

Therefore, the negative association between RPTs and EM could be related to audit quality. To test this conjecture I split the sample into two subsamples. Companies that are audited by Big 4 audit firms and companies that are audited by a non-Big 4 audit firms and run the model for each sample separately. The

results show that the negative and significant association between EM and RPTs is only robust to the first subsample. The results of these regressions are presented in Table 6.5. This means that RPTs are only negatively and significantly associated to EM when the firm is audited by one of the Big-4 audit firms. This implies that the conflict of interest view of agency theory is not supported and that RPTs are not associated with EM.

The conflict of interest view was not supported as all the multiple regression models failed to record any positive significant relationship between RPTs and EM. These results are consistent with the study conducted on a Greek sample by Antonios et al. (2011). Antonios et al. (2011) failed to find a positive association between RPTs and EM after 2005. They implemented their findings that the association between RPTs and EM are attributed to IFRS adoption especially that they record different results in the observations prior to IFRS adoption in 2005. The main difference between this study and Antonios et al. (2011) is that the later uses value relevance as a proxy for EM and hence the findings of Antonios et al. (2011) is not necessarily applicable to this study. The negative significant relationship between RPTs and EM in all regression models suggests that the hypothesis related to RPTs effect on EM (i.e. H1: There is a positive association between RPT and EM) should be rejected.

**Table 6.5** *Related Party Transactions and Corporate Governance* 

	•	-
	1	2
RPT	-0.452***	-0.036
	(0.003)	(0.573)
Board Size	0.038	0.003
	(0.155)	(0.845)
Board Independence	-0.001	0.002
-	(0.765)	(0.542)
Log of assets	0.025	-0.005
-	(0.712)	(0.864)
Loss	0.133	0.169**
	(0.175)	(0.014)
Capital Intensity	-0.094	-0.168
	(0.643)	(0.144)
Leverage	0.212	-0.210
	(0.524)	(0.280)
Sales Growth	-0.001	0.002
	(0.580)	(0.165)
Operating Cycle	0.000	0.000
	(0.536)	(0.277)
Days Payable	0.000	0.000
	(0.918)	(0.657)
R Square	0.496	0.306
Durbin Watson	1.640	1.167
Regression	Firms audited by Big-4	Firms audited by non-Big 4
-	auditors	auditors
Observations	87	128

This table compares the regression results and the significance levels (in parentheses) relating EM to RPTs and corporate governance for two subsamples, namely, companies audited by Big-4 audit firms and companies audited by non—Big 4 audit firms. EM is the measure of income smoothing defined as the ratio of the standard deviation of operating income (scaled by lagged total assets) to the standard deviation of cash flows where both operating income and cash flows are scaled by lagged to totals assets). Cash flows are computed by deducting accruals from earnings. Accruals are computed as change in current assets minus change in cash on hand less change in current liabilities less depreciation. Standard deviations are calculated based on rolling windows of five annual observations. RPT represents related party transactions, is a dummy variable equal to 1 if RPT/Totals Assets > 1 and 0 otherwise. Big4 measures audit quality by audit firm size, is a dummy variable equal to 1 if the auditor is a Big 4 audit firm and 0 otherwise. Board size is the number of people sitting on the board of directors of the firm. Board independence is the ratio of independent members of the board of directors to the total number of directors. Log of assets is the natural logarithm of firm's total assets. Loss is a dummy variable that identifies years in which the firm reports a loss. Capital intensity is computed as long-term assets divided by lagged total assets. Leverage measures long-term debt and is calculated as the ratio of total long-term debt to the book value of total assets. Sales growth is the percentage of sales growth rate. Operating cycle is the length of the firm's operating cycle, defined as the number of days receivable plus the number of days inventory. Days receivable is computed as 360 divided by the ratio of average receivables to sales. Days inventory is defined as 360 divided by the ratio of average inventory to cost of goods sold. Days payable is defined as 360 divided by the ratio of average accounts payable to cost of goods sold. All models control for industry and year.

\*,\*\*and \*\*\* indicate significance at 10%, 5% and 1%, respectively.

# 6.5.3 Corporate Governance

The results for the variable Big 4 which measures the audit firm size which could be referred to as audit quality as well show negative significant relationship with EM as Table 6.4 shows. This relationship implies that the presence of one of the Big 4 audit firms as an external auditor is associated with less EM. These results are consistent with the results of DeFond and Subramanyam (1998), Francis et al. (1999) and Becker et al. (2008) whose results suggested that significantly lower levels of EM are associated with the presence of a Big 4 auditor.

Similar results were found in Greece by prior studies. Leventis and Caramanis (2005) and Caramanis and Lennox (2008) tested the effect of audit effort on EM and they found that Big 4 audit firms exert more efforts in the audit process and provide better audit quality. Thus, they found that audits conducted by Big 4 audit firms are associated negatively with firms' attempts to manage earnings upwards to meet or beat their earnings benchmark.

Although Leventis and Caramanis (2005) and Caramanis and Lennox (2008) used the auditor's effort as the proxy for audit quality which is different from the proxy of the current study, but it can be argued that both proxies will yield the same results for two reasons. First, by definition audit quality is the probability that an existing material error is detected and reported by the auditor (DeAngelo, 1981). The auditing literature concludes that the audit quality of Big 4 auditors is superior to that of non-big 4 auditors (Lawrence et al., 2011). DeAngelo (1981) argues that accounting firm size is a proxy for audit quality, as no single client is

important to larger accounting firms and hence, larger accounting firms are less likely to compromise their independence. Second, the results of Caramanis and Lennox (2008) supported this by finding that big 4 audit firms exert more audit effort than their non-big 4 counterparts.

The results provide empirical evidence that Big 4 audit firms can have an impact on the level of EM in Greek listed firms. These results suggest that the hypothesis expecting a positive association between big 4 and EM should not be rejected: H2 There is a negative association between EM and Big 4.

The relationship between board size and EM appeared to be insignificant in all regression models. Hence, board size fails to explain any variation in the level of income smoothing as measured by EM in Greek listed firms. These results are consistent with the results of Dimitropoulos and Asteriou (2010) who examined the effect of board composition on the informativeness and quality of earnings in Greece and reported an insignificant relationship.

A plausible explanation that smaller boards are more efficient in constraining EM than large boards is that they have a higher level of membership coordination and communication efficiency and lower incidence of free-rider problems (Dimitripoulos and Asteriou, 2010). Moreover, independent directors are less likely to work effectively on large boards as it is more difficult for them to express their opinions which affect the efficiency of decision making and control (Jensen, 1993). Therefore, according to agency theory large boards impede the

efficiency and effectiveness of the monitoring role of the board which makes the theory in a position where smaller boards are more favoured.

The results of the current study do not provide any evidence to support agency theory concerning board size. Consequently, the hypothesis relevant to board size has to be rejected: H3 There is a positive association between board size and the variable EM.

Results of the regression models show that board independence had an insignificant relationship with EM in all models. The main phenomenon that should be discussed is the direction of association between board independence and EM. The results of the four regression models show a positive relationship between board independence and EM.

The findings of the current study fail to support agency theory and record a negative and insignificant relationship with EM. The mixed prior evidence makes it difficult to predict whether EM will decrease when board independence increases (Chen et al., 2011). Moreover, prior studies that examine cross-sectional correlation between EM and board independence could be subject to endogeneity issues as pointed out by Bowen (2008) and Bushman (2009) as having lower board independence and higher EM can be a part of a general equilibrium and is not a certain indication that board independence reduces EM.

The abovementioned endogeneity problem is mitigated to some extent because cross-sectional data was not used in this study. Higher EM in cross-sectional

studies might be due to endogenous variables affecting the dependent variable and not being controlled for in the study.

The significance of the variable board independence and the direction of the association provide empirical evidence that agency theory should not be supported with regards to board independence assumptions. Moreover, the relevant hypothesis should be rejected. H4: There is a positive association between board independence and the variable EM.

## 6.6 Summary and Conclusion

This chapter examines whether RPTs are associated with EM across a sample of 215 firm-year observations of companies listed on the Athens Stock Exchange (ASE). The existence of this link, between RPT and EM, is not obvious and depends on institutional factors and is affected by the proxy used to capture EM (Dechow et al. 2012). Using income smoothing as a proxy for EM, I do not find any significant association between EM and RPTs. Thus, my results do not provide evidence that RPTs are associated with EM as measured by income smoothing. The negative association between earnings management and RPTs is only significant for firms audited by Big-4 audit firms.

Further, I examine the relationship between EM and three corporate governance variables, namely, audit quality, size of the board of directors and board independence. Audit quality, as measured by the audit firm size showed a negative and significant association with EM. This implies that firms that hire Big

4 audit firms are less able to engage in income smoothing. On the other hand, board independence and board size did not record any significant relationship with EM.

Finally, several caveats should be highlighted. First, my study focuses on the link between RPTs and EM in the Greek context. The Greek context is special due to the relatively poor investor protection, enforcement mechanisms, and reporting quality. Hence, investigating the link between RPTs and EM in this context is important as it supports the notion that RPTs are not necessarily a mean for managing earnings. This implies that these results might not be generalisable to other countries. Second, as mentioned in prior studies (Ryngaert and Thomas, 2012; Gordon et al., 2005) studying RPTs is challenged by the availability of the data. Data on RPTs needs to be hand collected and requires extensive amounts of time and effort to be spent in analysing, identifying and collected data from annual reports. Finally, researchers studying RPTs must rely on transactions disclosed in the annual report issued by the firm. Therefore, it is still possible that there are RPTs that were not disclosed. Hence, the reporting entity can always decide which RPTs to disclose and which RPTs to hide.

## **Chapter Seven**

# **Related Party Transactions and Accounting Quality**

#### 7.1 Introduction

This chapter investigates the relationship between related party transactions (RPTs) and accounting quality. RPTs have received considerable attention in the recent decade especially in Asian economies where concentrated ownership structure and insider controlled firms are dominating (La Porta et al., 2000). Prior research has investigated the relationship between RPTs and expropriation of firms' resources by controlling shareholders. These studies found evidence on the association between expropriation and RPTs (Djankov et al., 2008; Johnson et al., 2000) this evidence is consistent with the argument that managers can manage reported earnings by structuring RPTs (Healy and Whalen, 1999).

Other studies have found evidence that RPTs are conventional transactions and are not necessarily conducted to manage earnings or to expropriate firms' resources. For example, Chien and Hsu (2010) argue that RPTs might lead to lower transaction costs and enable the firm to utilise its assets more efficiently. Additionally, Ryngaert and Thomas (2012) find that not all RPTs are serving the interests of insiders or controlling shareholders. Their findings support the inferences provided by Gordon and Henry (2005) that the assumption that RPTs are a facet of conflict of interest should be implemented with caution and should not be generalised.

Accounting quality is the term used to describe the extent to which reported earnings reflect the financial performance of the reporting entity (Schipper and Vincent, 2003). Therefore, low accounting quality indicates that reported figures could be a tool used by managers and controlling shareholders to mislead other shareholders or to achieve private control benefits (Leuz et al., 2003).

The results presented in this chapter are based on a sample of 215 firm-year observations from 84 unique firms listed on Athens Stock Exchange (ASE). Greece is a country with special context. It is characterised by poor investor protection (Leuz et al., 2003), high earnings management levels (Bhattacharya et al., 2003) and inefficient accounting and auditing environment (Tsipouridou and Spathis, 2012). Accounting quality might be affected by the accounting standards adopted (Barth et al., 2008). This implies that if part of the sample firms are not adopting the same set of standards, the results might be biased. Although differences in accounting standards could be controlled for, studying the relationship between RPTs and accounting quality in Greece provides empirical evidence that it is less likely to be affected by applying different accounting standards or differences in institutional settings. In this case all firms are adopting IFRS and operate within the same economic environment and are exposed to the same institutional factors. Additionally, accounting quality is related to country level factors such as disclosure requirements, investor protection and legal enforcement of regulations (Hope, 2003; Hail and Leuz; 2006). This study is a single country study and these factors do not vary within the same country. Thus, these factors are controlled for within the context of this study.

In this study I compare accounting quality proxies for two groups of firms, namely, firms with RPTs worth more than 1% of their total assets (RPTs firms) and firms that have RPTs worth less than 1% of total assets (non-RPTs firms). The accounting quality proxies used control for differences in firm's reporting incentives by including factors that are more likely to affect voluntary accounting decisions like size, growth and leverage. The results do not provide evidence that non-RPTs firms have higher accounting quality compared to RPTs firms. In particular RPTs firms have similar variance of change in net income, ratio of the variances of change in net income and change of cash flows as non RPTs firms, and do not exhibit less negative correlation between accruals and cash flows nor lower frequency of small positive net income compared to non-RPTs firms.

This study extends the literature on RPTs by examining the relationship between accounting quality and RPTs. The contribution of this chapter to the RPTs literature is twofold. First, prior studies have investigated and found evidence on the association between accounting quality and RPTs (Chen et al., 2011; Jian and Wong, 2010; Aharony et al 2010). Those studies have used indirect measures that could not be attributed to accounting quality or financial reporting system. They used changes in ratios like ROA or price earnings (Chen et al., 2011; Aharony et al., 2010) or operating profits (Jian and Wong, 2010) as an indication of earnings

manipulation around IPOs without investigating accounting quality attributes. Second, the vast majority of RPTs studies were conducted using samples from Asian countries that enjoy a unique and different institutional setting. Those results are not generalisable for other settings as the Asian countries are characterised by concentrated ownership and hence, more motives for shareholders' wealth expropriation (Gordon and Henry, 2005). Therefore, the question whether RPTs are associated with lower accounting quality remains an empirical question with insufficient evidence.

This chapter also contributes to accounting quality literature. Prior accounting quality literature focuses almost entirely on comparing accounting quality between firms applying IFRS and their non-IFRS counterparts. Thus, this study aims to extend the scope of accounting quality literature by examining whether RPTs are associated with lower accounting quality.

The Chapter is organised as follows. Section 7.2 develops the hypothesis. In Section 7.3 I discuss the research design. Section 7.4 presents the results and Section 7.5 concludes.

#### 7.2 Hypothesis Development

In recent years, research in the areas of accounting and corporate governance has increasingly shifted focus from the conflict of interest between managers and diffuse shareholders to the conflict of interest between minority or external shareholders and insiders (Berkman et al., 2009). The reason for this is that in

most countries (excluding USA and UK) it is more common for firms to be controlled by insiders (La Porta et al., 1998). The insiders usually have concentrated ownership and enjoy rights that are far in excess to their cash flow rights (Gopalan and Jayaraman, 2012).

Insiders and managers have incentives and opportunities to expropriate outsider shareholders through firm's operating and financial decisions (Lins, 2003). In order for insiders and managers to enjoy private control benefits they need to conceal those benefits from outsiders; thus they have incentives to mask true firm performance to hide the private control benefits that they, as insiders have access to (Leuz et al., 2003). For example, insiders can use their financial reporting discretion to overstate earnings and avoid reporting losses that might prompt interference from outsiders. Insiders and managers can also use their accounting discretion to create reserves for future periods by understating earnings in years of good performance (Leuz et al., 2003).

Controlling shareholders in many companies resort to RPTs to achieve private benefits at the cost of minority shareholders (Cheung et al., 2006; Dahya et al. 2008; Gao and Kling, 2008; Dow and McGuire, 2009). Prior evidence shows an association between RPTs and earnings management (Chen et al., 2011; Thomas et al., 2004; Jian and Wong, 2010). Although several studies have examined the association between earnings management (as a measure of accounting quality) and RPTs recently, it is still possible to describe the empirical evidence on this

link as underdeveloped. The main reason for the lack of evidence is that most of the studies that attempted to examine the association between RPTs and EM were conducted in Asian countries which has a different institutional setting especially after the Asian financial crisis (Abdul Wahab et al., 2010). For example, Aharony et al. (2010) provide evidence that 185 Chinese IPO firms managed earnings upwards using RPTs during the period 1999-2001. Aharony et al. (2010) mention that China provides a unique institutional setting and RPT data and Chinese IPOs are required since 1997 to publish RPT information in their financial statements. Similar evidence was found in Hong Kong (Cheung et al., 2006), Japan (Thomas et al., 2004) and China (Chen et al., 2011; Jian and Wong, 2010).

Another study that tried to examine the association between RPTs and earnings management was conducted using a US sample by Gordon and Henry (2005). They did not find sufficient evidence on the association between earnings management and RPTs. That said, results from US studies are not necessarily applicable to other economies since the US is an outsider economy with dispersed ownership structure combined with strong investor protection (Leuz et al., 2003), securities regulation (La Porta et al., 2006), and an efficient legal system (La Porta et al., 1997)

Djankov et al. (2008) provide evidence that RPTs can serve managers and controlling shareholders incentives to expropriate minority shareholders through tunnelling activities. RPTs can also be used to manage earnings upwards to avoid

reporting losses (Friedman et al., 2003). Several studies have investigated the consequences of RPTs and found that they are associated with negative firm valuation effects (Djankov et al., 2008; Johnson et al., 2000; Gordon and Henry, 2005, Cheung et al., 2009) and have been associated with several corporate collapses such as Adelphia, Conrad Black's corporate group, Hollinger and the Riga family's corporate group (Ge et al., 2010). These corporate scandals raise a question of whether RPTs are associated with lower accounting quality for reporting firms.

Therefore, studying the association between RPTs and accounting quality in Greece provides evidence on the matter from a weak investor protection environment. When investor protection is weak, incentives for expropriation of minority shareholders by managers and controlling shareholders are higher. Therefore, with weak investor protection, a firm that conducts RPTs to mask wealth extraction and hide this by managing earnings an act that will affect accounting quality negatively, is less likely to face legal consequences. Thus, the absence of positive relation between RPTs and low accounting quality will support the argument the RPTs are conventional transactions that are mainly conducted for business purposes.

Although accounting quality is well researched, there is no widely accepted terminology for this construct (Sheipper and Vincent, 2003). Usually whether a study uses the term accounting quality or earnings quality it is referring to the

same construct. I use the definition provided by Dechow et al. (2010) that describes accounting quality as "the extent to which reported earnings are informative in reflecting the firm's financial performance". Several proxies have been used to measure accounting quality. These include properties of earnings (e.g. earnings persistence, abnormal accruals, earnings smoothness, timely loss recognition), investor responsiveness to earnings (e.g. earnings response coefficient), or external indicators of earnings misstatements.

I examine whether firms adopting RPTs exhibit lower accounting quality than their non-RPTs counterparts in Greece. I aim to provide empirical evidence on the association between RPTs and accounting quality. The main analysis of the study is based on the differences in accounting quality measures between RPTs and non-RPTs firms. Given the investor protection environment, financial reporting environment, efficiency of legal system in Greece and prior evidence on the link between RPTs and earnings management, I predict that firms having RPTs exhibit lower accounting quality compared to other firms listed in ASE. This prediction is based on the notion that firms that undertake RPTs are more likely to have incentives to manage reported earnings.

Greece is a country with high earnings management level (Bhattacharya et al., 2003; Leuz et al., 2003), poor investor protection and legal enforcement (La Porta et al., 1997) and a questioned quality of financial reporting environment (Tsipourdiou and Spathis, 2012). There are advantages associated with focusing

on individual countries relative to using a sample from many countries. For example, focusing on a particular country removes the need to control for potential effects of country-specific factors unrelated to the financial reporting system (Barth et al., 2008). Furthermore, I develop empirical procedures to mitigate the effects of factors unrelated to the financial reporting system like reporting incentives and economic environment.

I follow (Barth et al., 2008; Lang et al., 2006) and use earnings management as a proxy for accounting quality. Consistent with prior research firms with higher quality of earnings exhibit less earnings management. I examine two manifestations of earnings management, earnings smoothing and managing towards positive earnings. I expect that earnings of RPTs firms to be more managed than earnings of non-RPTs firms since prior evidence shows that firms that conduct RPTs are more likely to conduct them to manage earnings. This prediction is supported by several studies (Cheung et al., 2006; Dahya et al. 2008; Gao and Kling, 2008; Dow and McGuire, 2009). Prior research indicates that firms with more income smoothing exhibit less earnings variability (Lang et al. 2003; Leuz et al. 2003; Ball and Shivakumar 2005). To examine this relationship I use two metrics of earnings variability, namely, variability of change in net income and variability of change in net income relative to the variability of change in cash flow.

Firms with more income smoothing exhibit a more negative correlation between accruals and cash flows (Lang et al. 2003; Leuz et al. 2003). A more negative correlation between accruals and cash flows reflects more income smoothing as managers respond to negative cash flow outcomes by increasing accruals (Land and Lang, 2002; Myers et al. 2007). Ball and Shivakumar (2005) show that higher earnings quality, attenuates the negative correlation between accruals and cash flow. Therefore, It is expected that RPTs firms exhibit a more negative correlation between accruals and cash flows than non-RPTs firms.

The second manifestation of earnings management is managing earnings towards positive earnings and is measured by the frequency of small positive net income. Prior research uses the frequency of small positive net income as a metric to provide evidence of managing towards positive earnings. Firms prefer to report small positive net income rather that a negative net income (Barth et al. 2008). Therefore, firms with small positive net income are considered to be managing their earnings towards positive income. It is expected that RPTs firms report small positive net income more frequently than non-RPTs firms.

I expect firms that undertake RPTs to exhibit less accounting quality which is indicated by less variability of change of net income, less variability of change in net income relative to variability of change in cash flows, a more negative correlation between accruals and cash flows and report small positive net income more frequently than firms that do not undertake RPTs.

Hypothesis: RPTs firms exhibit less accounting quality than non-RPT firms.

7.3 Research Design

This section presents the research design used in the study. First, I introduce the

definition of the variable used to measure RPTs. Then, I discuss the proxies for

earnings management and how they are constructed. Finally, I describe the

sample of the study, present descriptive statistics for the variables used and

identify the sources of the data used in the analysis.

I measure accounting quality using different proxies of earnings management.

Measures of accounting quality reflect effects that are attributable to the financial

reporting system. However, they also include effects that could not be attributable

to the financial reporting system. These effects are due to differences in the

economic environment where firms operate or differences in incentives for firms

in terms of financial reporting (Barth et al., 2008). These differences are

controlled for in the current study for two reasons. First, I employ a single

country study. This indicates that all sample firms are operating in the same

economic environment. Second, when constructing accounting quality proxies

relating to earnings management, I include controls that are identified as

associated with firm's reporting incentives.

I interpret less managed earnings to be of higher accounting quality. My metrics

for earnings management are based on the variance of change in net income,

variance of change in net income to the variance of change in cash flows, the

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correlation between accruals and cash flows and the frequency of small positive net income. I interpret higher variance of the change in net income, higher ratio of the variances of the change in net income and change in cash flows, less negative correlation between accruals and cash flows and lower frequency of small positive less income as evidence of less earnings management.

### 7.3.1 Related Party Transactions

To operationalise RPT, the current study applies the same measure used by Ryngaert and Thomas (2012). In their study Ryngaert and Thomas (2012) measured RPT using a dummy variable equal to one if the sum of related party transactions conducted in the firm-year observation exceeds 1% of the firm's total assets for the same year, and zero otherwise to study US RPTs disclosed during 1999 and 2000 in 234 US companies.

Several studies used the total dollar amount to measure RPTs. For example, Gordon et al. (2004) measure RPTs differently in a sample with similar characteristics to this study (224 firm years). They rely more on the number and dollar value of RPTs collected from SEC filings for fiscal years 2000 and 2001. This study uses the measure defined by Ryngaert and Thomas (2012) because it is preferable to avoid the relying on assigning dollar values to RPTs as this involves potential and significant measurement error (Ryngaert and Thomas, 2012)

# 7.3.2 Earnings Management

I use four earnings management metrics, three for earnings smoothing and one for managing earnings towards a target. The first earnings smoothing measure is based on the variability of the change in net income scaled by total assets,  $\Delta NI$  (Lang et al. 2006). A smaller variance of the change in net income indicates more earnings smoothing. That said, it is important to control for other factors that can influence the change in net income rather than the financial reporting system (Barth et al. 2008). Therefore, for the earnings variability metric I use the residuals from the regression of the change in net income on control variables which results in the variable  $\Delta NI^*$ :

$$\Delta NI = \alpha + \beta 1 SIZE + \beta 2 SALES GROWTH + \beta 3 LEV + \beta 4 CF + \beta 5 BIG 4 + \varepsilon.$$
 (1)

Where:

*SIZE*= the natural logarithm of assets;

SALES GROWTH= percentage of change in sales;

LEV= end of year total liabilities divided by end of year equity book value;

CF= annual net cash flow from operating activities divided by end of year total assets;

*BIG 4*= an indicator variable that equals one if the firm is one of the Big 4 audit firms and zero otherwise.

I estimate equation (1) controlling for industry and year, then divide the companies into RPTs and non-RPTs firms and compare the variance in the residuals across the two groups. Regression results of equation (1) are presented in Column 1, Appendix 2.

My second earnings smoothing metric is based on the ratio of the variability of change in net income to the variability of change in cash flows,  $\Delta$ CF. Firms with more volatile cash flows typically have more volatile net income, and this metric controls for this effect. Firms that manage earnings are assumed to have less variability in net income than the variability in cash flows. Similar to  $\Delta$ NI,  $\Delta$ CF could be affected by other factors beside the financial reporting system. Therefore, I run a regression similar to equation (1) with  $\Delta$ CF as a dependent variable and controlling also for industry and year using dummy variables. The residuals of the regression will be used to calculate the variance of the change in operating cash flows  $\Delta$  CF\*. The resulting second metric is the ratio of the variability in  $\Delta$ NI\* to variability of  $\Delta$  CF\*. Regression results of equation (2) is presented in Column 2, Appendix 2.

$$\Delta CF = \alpha \ 0 + \beta \ 1 \ SIZE + \beta \ 2 \ SALES \ GROWTH + \beta \ 3 \ LEV + \beta \ 4 \ CF + \beta \ 5 \ BIG \ 4 + \varepsilon.$$
 (2)

The third earnings smoothing metric is based on the Spearman correlation between accruals and cash flows. I compute accruals as:

$$ACC = [\Delta CA - \Delta Cash] - [\Delta CL - \Delta STD] - Dep$$
(3)

Where:

 $\Delta CA$  = the change in total current assets

 $\Delta Cash$  = the change in cash/cash equivalents

 $\Delta CL$ = the change in total current liabilities

 $\Delta STD$ = the change in short-term debt included in current liabilities

*Dep*= depreciation and amortization expense

Similar to equations (1) and (2) and following Barth et al. (2008) I compare correlations of residuals from equations (4) and (5),  $CF^*$  and  $ACC^*$ , rather than correlations between cash flows and accruals directly. Both CF and ACC are regressed on control variables and industry and year dummy variables, but excluding CF:

Regression results of equations (4) and (5) are presented in Columns 3 and 4, Appendix 2.

$$CF = \alpha \ 0 + \beta \ 1 \ SIZE + \beta \ 2 \ SALES \ GROWTH + \beta \ 3 \ LEV + \beta \ 4 \ BIG \ 4 + \varepsilon.$$
 (4)

$$ACC = \alpha \ 0 + \beta \ 1 \ SIZE + \beta \ 2 \ SALES \ GROWTH + \beta \ 3 \ LEV + \beta \ 4 \ BIG \ 4 + \varepsilon.$$
 (5)

Following Ahmed et al. (2012) my metric for managing towards positive income is SPOS, an indicator variable equals one if net income scaled by average total assets is between 0.00 and 0.01. I estimate the following logistic regression including dummy variables to control for industry and year. I interpret a positive  $\beta$  1 as an indication that RPTs firms manage earnings towards small positive net

income to avoid reporting a loss. The regression coefficients of equation (6) are presented in column 5, Appendix 2.

$$SPOS = \alpha \ 0 + \beta \ 1 \ RPT + \beta \ 2 \ SIZE + \beta \ 3 \ SALES \ GROWTH + \beta \ 4 \ LEV + \beta \ 5 \ BIG \ 4 + \varepsilon. \tag{6}$$

#### 7.3.3 Data and Sample

The sample comprises of 215 firm-year observations for firms listed in Athens Stock Exchange (ASE) between 2009 and 2011. Data for accounting quality proxies and control variables are obtained from Orbis data base which is supplied by Bureau Van Dijk. RPTs data are collected from companies' annual reports available at the investor relations section on companies' websites.

I start the analysis by obtaining the list of listed firms from ASE website. The number of total listed firms is 237. I exclude suspended firms, firms without websites and firms that do not provide financial statements in English. I also exclude firms in the financial sector. Next, I identify firm-years that have sufficient information to obtain RPTs data in years between 2009 and 2011. The final sample is 215 firm-year observations from 84 unique firms listed in ASE. The details of sampling procedures is shown in Panel A, Table7.1. The industry distribution for companies and firm-year observations is shown in Panel B, Table 7.1.

Table 7.1							
Sample Distribution							
Panel A							
	Firms	Observations					
Population	237	711					
Financial Firms	(29)	(87)					
Suspended Firms	(25)	(75)					
Non-excluded							
Observations	183	183 549					
Missing Observations		(334)					
Final Sample	84	215					
Panel B							
Industry	Firms	Observations					
Oil and Gas	1	3					
Chemicals	3	8					
Basic Resources	10	25					
Construction and Materials	14	31					
Industrial Goods and Services	14	35					
Food and Beverage	8	8 22					
Personal and Household Goods	10	28					
Health Care	4	9					
Retail	3	8					
Travel and Leisure	6	16					
Utilities	3	9					
Real Estate	3	7					
Technology	5	14					
Total	84	215					

Table 7.2 presents descriptive statistics relating to variables used in the analysis. Table 7.2 shows that non-RPTs firms have fewer incidents of small positive earnings and more incidents of large negative earnings than do RPTs firms. Although, these descriptive statistics do not control for other factors, they suggest that RPTs firms are more likely than non-RPTs firms to manage earnings towards a target and are less likely to recognise losses in a timely manner. Descriptive statistics for control variables show that RPTs firms are larger, less highly levered and are more likely to be audited by one of the Big 4 audit firms. RPTs firms achieve a more negative sales growth than their non-RPTs counterparts.

**Table 7.2**Descriptive Statistics

	RPTs N=173			Non-RPTs N= 42		
			Standard			Standard
	Mean	Median	Deviation	Mean	Median	Deviation
Test Variables						_
$\Delta NI$	-0.017	-0.012	0.061	-0.017	-0.006	0.064
$\Delta \mathrm{CF}$	-0.010	-0.013	0.199	-0.039	-0.017	0.191
ACC	-0.065	-0.054	0.144	-0.031	-0.012	0.150
CF	0.086	0.068	0.162	0.034	0.024	0.174
SPOS	0.104	0.000	0.306	0.095	0.000	0.297
Control Variables						
SIZE	18.895	18.901	1.400	18.785	18.504	1.206
SALES GROWTH	-8.220	-7.978	28.249	-4.588	-6.807	34.930
LEV	0.184	0.163	0.146	0.204	0.158	0.156
CF	0.086	0.068	0.162	0.034	0.024	0.174
BIG 4	0.428	0.000	0.496	0.310	0.000	0.468

This table reports descriptive statistics for 215 firm-year observations for firms listed in Athens Stock Exchange (ASE). Data obtained from Orbis database supplied by Bureau Van Dijk. ΔNI is the change in annual earnings, where earnings is scaled by total assets; ΔCF is the change in annual net cash flow, CF where cash flow is scaled by total assets; ACC is ACC=[ΔCA-ΔCash]-[ΔCL-ΔSTD]-Dep, where CA is current assets, CL is current liabilities, STD is short-term debt and Dep is depreciation and amortization expense; SPOS is an indicator that equals 1 for observations with annual earnings scaled by total assets between 0 and 0.01; SIZE is the natural logarithm of firm's total assets; SALES GROWTH is the percentage of sales growth rate; LEV is long-term debt and is calculated as the ratio of total long-term debt to the book value of total assets; BIG 4 is an indicator that equals 1 if the auditor is one of the large international audit firms.

#### 7.4 Results

Table 7.3 presents results comparing the quality of accounting amounts for RPTs and non-RPTs firms in the period between 2009 and 2011. It shows that firms conducting RPTs generally do not evidence more earnings management than non-RPTs.

The first finding relating to earnings management indicates that RPTs firms do not exhibit higher variability of change in net income. Table 7.3 shows that there is no difference in variance between RPTs and non-RPTs firms. If the variance was less for RPTs this would have provided evidence of more income smoothing

than the non-RPTs firms. The variance reported for RPTs and non-RPTs is 0.004. Hence, The difference of residual variances of net income,  $\Delta NI$  represents 0% of the total variance in the change in net income (0.000/0.004).

The second finding is consistent with the first in that it indicates that the ratio of the variance of change in net income,  $\Delta NI^*$ , to the variance of change in cash flow,  $\Delta CF^*$ , is not significant. Although, the variance is lower for RPTs firms than for non-RPTs firms, the difference is insignificant and is not sufficient to support the hypothesis that RPTs have lower quality of accounting. The ratios are 0.100 for RPTs and 0.111 for non-RPTs.

The third finding indicates that correlation between accruals,  $ACC^*$ , and cash flow,  $CF^*$ , is less negative for RPTs firms -0.647 than for non-RPTs firms -0.784.

 Table 7.3

 Comparison of RPTs and non-RPTs Firms Accounting Quality

	RPT	Non-RPT	Difference
Earnings Management Metric			
VAR ΔNI*	0.004	0.004	0
VAR $\Delta$ NI*/VAR $\Delta$ CF*	0.100	0.111	-0.011
Corr (ACC*, CF*)	-0.647	-0.784	0.137
Small Positive NI (SPOS)	-0.79	03	

This table presents comparative statistics between RPTs and non-RPTs firms (T-Tests for VAR  $\Delta$ NI\* and VAR  $\Delta NI^*/VAR$   $\Delta$  CF\* and Z-Test for Corr (ACC\*, CF\*) .Variables denoted with an asterix (\*) are residuals from regressions of each respective variable on a set of controls. VAR  $\Delta$ NI\* is the variance of  $\Delta$ NI\*. VAR  $\Delta$ NI\*/VAR  $\Delta$  CF\* is the variance of  $\Delta$ NI\* divided by the variance of  $\Delta$  CF\*. Corr (ACC\*, CF\*) is the spearman correlation between ACC\* and CF\*. I regress SPOS using a logistic regression on RPT and controls. SPOS is an indicator variable that equals when annual net income scaled by total assets is between 0 0.01difference **RPTs** non-RPTs 10% level \*Indicates significance between and at \*\*Indicates significantly different from zero at the 10% level

The difference is not significant and the results show that RPTs firms do not exhibit more negative correlation between accruals and cash flows. This shows that the hypothesis that RPTs firms smooth earnings more likely compared to non-RPTs firms should be rejected. Finally, the relationship between RPTs and SPOS is negative -0.703 and insignificant, which suggests that RPTs firms do not report small positive earnings more frequently which does not provide evidence of managing earnings towards an earning target.

In general, this study provides evidence that RPTs are not associated with lower quality of reported earnings as measured by smoothing of earnings and managing

earnings towards a target. The results show that there is no significant differences in accounting quality between RPTs firms, which are firms that conduct RPTs valuing more that 1% of the value of the firm's total assets and non-RPTs. The results of this study does not provide evidence to support the argument that RPTs is a facet of conflict of interest that reflects and agency problem. These results support the arguments made by Ryngaert and Thomas (2012) and Gordon and Henry (2005) about the nature of RPTs.

## 7.5 Summary and Conclusion

Using a sample of 215 firm-year observations from 84 unique firms listed in Athens Stock Exchange I examine the association between RPTs and accounting quality. Evidence do not show any indication that RPTs firms are more likely to engage in earnings management. This is indicated by failure to find any significance of earnings management measures; a smaller variance of the change in net income, smaller variance of the ratio of change in net income to the change of cash flows, more negative correlation between accruals and cash flows for RPTs firms.

My results provide evidence that accounting quality of Greek firms that engage in RPTs is not different when compared to that of firms do not conduct RPTs. In particular the reported results have shown that non-RPTs firms do not exhibit less income smoothing, or that they are less likely to manage earnings towards a benchmark and report large losses more frequently. Accounting quality measures do not show any significant differences between the two groups.

My results also do not show that RPTs firms are more likely to manage their earnings towards a target. This is indicated by a lower frequency of reporting small positive net income within RPTs firms compared to non-RPTs firms. This shows that RPTs are not associated with trials to avoid reporting losses by the reporting firm.

In spite of employing a single country research design which eliminates the need to control for the differences in the economic environment in which the sampled firms operate, there is still other factors that could influence the results which are relevant to specific firms' reporting incentives. These firm-specific effects are controlled for by the research design features. However, as indicated by Barth et al. (2008) the researcher cannot be sure that the findings are solely attributable to financial reporting factors rather than changes in firms' incentives or economic environment.

Finally, this study is subject to limitations. First the sample size might be considered relatively small. However, sample sizes of similar studies are closely compared to my sample.<sup>2</sup> The relatively small sample size is due to the lack of data. As mentioned earlier, some firms did not have websites nor an alternative source frim where data on RPTs could be obtained. Moreover, other firms did not supply annual reports in English. Second, my study focuses Greece. Greece has a special institutional background. Greece witnesses highest levels of earnings management (Leuz et al., 2003), earnings opacity (Bhattacharya et al., 2003) and

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<sup>&</sup>lt;sup>2</sup> See Ryngaert and Thomas (2012) and Gordon and Henry (2005)

investor protection. Both reasons limit the possibility to widely generalise the findings to other settings.

Similar to Asian countries findings from studies that are based on a Greek sample do not necessarily apply everywhere else. However, this special context also opens up a new stream of literature where focusing on whether the link between accounting quality and RPTs is significantly affected by the institutional background and investor protection environment or not. Studies using data from several countries where the comparison between institutional settings and how they could affect the results is attainable is needed to fill in this void in the literature.

Future research should focus on a research setting that mainly allows for variation in investor protection regulations as this will affect or mitigate firms' incentives to manage earnings (Leuz et al., 2003) and hence, it will be useful to investigate how the association between earnings management and RPTs vary depending on the effectiveness of investor protection regulations. I intend to leave this for future research.

## **Chapter Eight**

# **Summary and Conclusion**

#### 8.1 Introduction

This chapter provides an overview of the research conducted. The next section provides a brief overview of the research project. Section 8.3 recaps the objectives and research questions of the study and presents a summary of the key findings. Section 8.4 discusses the contribution of the study and the implications of the findings. Section 8.5 highlights the limitations of the study and suggestions for future research.

## 8.2 Overview of the Current Study

This study investigates whether Related Party Transactions (RPTs) are associated with Earnings Management (EM) practices in Greece. A number of prior empirical studies that have provided international comparisons among countries have consistently found that Greece to exhibit high levels of EM (Leuz et al., 2003; Bhattacharya et al., 2003), and low levels of investor protection (La Porta et al. 1998). Given the institutional and investor protection background prevalent in Greece insiders are anticipated to manage earnings to conceal their private benefits from outsiders to avoid the disciplinary actions that might be taken by the outside financial stakeholders if those benefits were detected (Shelifer and Vishny, 1997; Leuz et al., 2003).

In spite of the reported low investor protection Greece was among the first adopters of IFRS in Europe (Ballas et al., 2010). It is possible that this was

intended to enable the countries financial markets to adopt superior accounting standards in order to improve disclosure policies and accounting system. Consequently, this might be expected to enhance the integration of domestic Greek markets into world markets and accelerate economic growth (Hope et al., 2006). However, higher quality standards do not guarantee higher-quality of financial reporting (Ball, 2001). The concerns stated by Ball (2001) were supported by empirical evidence based on sample of firms from Greece by Tsipouridou and Spathis (2012) who found that IFRS did not appear to reduce opportunistic behaviour and EM practice. This was mainly attributed to the strong influence of the Greek context characteristics where the economic bonding of auditors with their clients is strong, investor protection is low and enforcement mechanisms are weak. Therefore, the special financial reporting environment in Greece is one of the main explanations of the high practice of EM.

This study investigates whether RPTs are associated with EM in Greece, where due to weaknesses in institutional environment, investor protection and financial reporting, controlling shareholders are more likely to expropriate minority shareholders' wealth. In order to examine this prediction this study investigates the association between EM and RPTs to seek evidence whether EM is conducted to mask the extraction of resources resulting from RPTs or not. An association between EM and RPTs provides evidence that managers and controlling shareholders extract firm resources by conducting RPTs and they aim to conceal this extraction using EM.

I start by introducing the study and setting the background in Chapter One. Next, I discuss the Greek context and its relevant peculiarities in Chapter Two which discusses the investor protection environment, accounting environment, audit market and regulation and corporate governance and its developments in Greece.

In Chapter Three, the theoretical background of the study was detailed and explained. The main overarching theories discussed where Agency Theory and Transaction Cost Economics as they are considered to be opposing theoretical underpinnings that explain the nature of RPTs. Additionally, Stakeholder and Stewardship theories were discussed as alternatives to Agency theory.

A review of the RPTs literature was provided in Chapter Four. In this chapter, I begin with a discussion on RPTs, how these activities have been associated with corporate scandals and the expropriation of shareholder wealth. I present the definition of RPTs, the main types of different RPTs, the proxies used to operationalise RPTs and comment on the weaknesses of those proxies. I also accumulate and present evidence on the determinants and consequences of RPTs and discuss the weaknesses and challenges of RPTs research. A review of the EM literature was provided in Chapter Five. This chapter discussed different definitions, determinants, consequences and proxies used to measure earnings management.

In Chapter Six, I investigate the association between RPTs and EM. Chapter Six examines the relationship between EM and RPTs for the firms listed on the

Athens Stock Exchange (ASE). Moreover, it examines the association between earnings management and various identifiable corporate governance activities.

In Chapter Seven I investigate the relationship between RPTs and accounting quality for the firms listed on the ASE. In particular, in this chapter I compare accounting quality across two groups of firms. The first group consists of firms that conduct material RPTs and the second sample group was constructed of firms that do not conduct RPTs valuing more than 1% of the firm's total assets.

## 8.3 Research Objectives, Questions and Findings

Based on the review of the RPTs literature this research aimed to achieve specific objectives to fill in the gaps in the literature. The current research had the following objectives:

- 1. Assess the extent of EM and RPTs in Greece
- 2. Investigate the association between the existence of RPTs and EM in Greece.
- 3. Investigate the association between corporate governance and EM in Greece.
- 4. Investigate the association between corporate governance and RPTs in Greece.
- 5. Investigate the impact of RPTs on the quality of accounting reports in Greece.

The current study applies the same measure used by Ryngaert and Thomas (2012). Ryngaert and Thomas (2012) measured RPT using a dummy variable equal to one if the sum of related party transactions disclosed in the annual report of the

firm in the firm-year observation exceeds 1% of the firm's total asset for the same year, and zero otherwise. The mean for RPTs is 0.8 as shown in Chapter Six, Table 6.2, which is reflects that 80% of the firms in Greece conduct RPTs with an aggregate value exceeding 1% of the firm's total assets.

The median for EM in this study is -0.407 which is shown in Chapter Six, Table 6.2. EM is measured using the income smoothing measure used in Gopalan and Jayaraman (2012). The descriptive statistics associated with the EM variable show a degree of variation in the practice of income smoothing within sampled Greek listed firms as discussed by Leuz et al. (2003) and Gopalan and Jayaraman (2012). The minimum value for EM which is -2.741 indicates that the volatility in earnings is higher than the volatility of cash flows. On the other hand the maximum value is -0.021 which indicates a significant level of income smoothing.

Regarding the second research objective, univariate and multivariate analysis in Chapter Six and in particular Tables 6.3 and 6.4 show a negative and significant association between RPTs and EM. The significant and negative relationship in the multiple regression models as shown in Table 6.4, suggests that RPTs can explain part of the variation in EM, however, not in the predicted direction. This negative association indicates that although RPTs might be used to manage earnings or mask the extraction of firm resources from shareholders, those transactions are not necessarily linked systematically to income smoothing. When

RPTs are conducted to manipulate earnings or mask extraction of resources, this might affect accruals or cash flows, but it does not necessarily affect both together (Chen et al., 2011). The results of the current study does not indicate an association between RPTs and income smoothing behaviour.

The negative association might also be attributed to legitimate corporate governance activities. Denis and McConnell (2003) and Gordon and Henry (2005) specified corporate governance as a main factor that can mitigate the relationship between EM and RPTs and move RPTs from a facet of conflict of interest to an efficient transaction by providing efficient and effective monitoring. Independent auditors can be seen to act as one of the monitoring tools that has the aim of assuring that financial statements reflect the economic reality of firms. The results of the current study indicates that Big 4 audit firms have higher audit quality and are associated with less EM. These results are significant and consistent with prior literature (Francis et al., 1993). Additionally, this study provides evidence that the negative association between RPTs and EM is attributed to audit quality. Results in Table 6.5 in Chapter Six, show the results of this test.

The relationship between corporate governance and EM in Greece raised by the third research objective is also presented in Chapter Six in Table 6.4. The results for the variable Big 4 which measures audit quality as well show negative significant relationship with EM. This relationship implies that the presence of one of the Big 4 audit firms as external auditor is associated with lower values of

EM. This means that Big 4 audit firms are associated with lower levels of income smoothing represented by the low value of the variable EM. These results are consistent with the results of DeFond and Subramanyam (1998), Francis et al. (1999) and Becker et al. (2008) whose results suggested that significantly lower levels of EM are associated with the presence of a Big 4 auditor. Results for board size and board independence are insignificant.

The fourth research objective was to investigate whether RPTs are associated with corporate governance or not. Table 6.3 in Chapter Six also shows that RPTs are not correlated to any of the corporate governance activities examined with the exception of having a Big 4 auditor. This was not in line with prior literature (e.g. Gordon et al., 2007; Kohlbeck and Mayhew, 2010). These contradicting results might be due to the differences in investor protection environment. Prior research shows that the effectiveness of corporate governance activities is affected by the investor protection environment (La Porta et al., 2000).

Finally, the fifth research objective is achieved in Chapter Seven. Table 7.1 in Chapter Seven presents results comparing the quality of accounting reports for RPTs and non-RPTs firms in the period between 2009 and 2011. It shows that firms having RPTs do not exhibit less accounting quality than non-RPTs. The first finding in this Chapter indicates that RPTs firms do not exhibit higher variability of change in net income.

The second finding in Chapter Seven is consistent with the first in that it indicates that the ratio of the variance of change in net income, ΔNI\*, to the variance of change in cash flow, ΔCF\*, is not significantly lower for RPTs firms than for non-RPTs firms. The third finding indicates that correlation between accruals, ACC\*, and cash flow, CF\*, is more highly negative for non-RPTs firms. This shows that the hypothesis that the likelihood that RPTs firms take actions to smooth earnings more than non-RPTs firms should be rejected. Finally, the relationship between RPTs and SPOS is negative -0.703 and insignificant, which suggests that RPTs firms do not report small positive earnings more frequently. This does not provide evidence of managing earnings towards an earning target. This indicates that firms that conduct RPTs with material amounts (equal to 1% or more of the firms' total assets) are as likely to report small positive earnings as their non-RPTs counterparts.

The findings reported in Chapter Seven support the findings reported in Chapter Six and shows that the results of the study are robust for alternative proxies of RPTs and EM. Additionally, the results are robust across normal scores of continuous variables as shown in Table 6.4, Chapter Six.

# 8.4. Contributions and Implications of Research

The research makes theoretical contributions and has policy implications. First, the research contributes to several streams of literature. This research contributes to EM and RPTs literature by investigating the link between them in a unique context with poor investor protection. Moreover, it contributes to corporate

governance literature and extends the literature on accounting quality. Second, this research has policy implications related to the disclosure of related parties and RPTs that would allow more transparency and protection for the investors. Theoretical contributions are discussed in Section 8.4.1 while policy implications are discussed in Section 8.4.2.

#### 8.4.1 Theoretical Contributions

There are three main differences between the current study and related prior studies. This study differs from the studies conducted by Cheung et al. (2009), Jian and Wong (2010) and Lo et al. (2010) in the institutional setting. These studies were conducted in the Chinese context which is affected by highly concentrated ownership and the tendency for controlling shareholders to expropriate shareholders. The inferences deduced from these Chinese studies do not necessarily apply to other markets (Gordon and Henry, 2005). The vast majority of RPTs studies to date have been conducted using samples from Asian countries which exhibit a unique and different institutional setting which suggests that those results may not be generalisable to other settings (Gordon and Henry, 2005). Therefore, investigating the relationship in different settings provides a contribution to the literature by addressing this limitation.

This study also uses different measures from those adopted by Gordon and Henry (2005). I refrain from following Gordon and Henry (2005) measuring RPTs using monetary values as this includes nontrivial measurement errors (Ryngaert and Thomas, 2012). I also avoid following them in the usage of the Jones (1991)

model to estimate discretionary accruals also in an attempt to avoid or reduce measurement errors (Dechow et al., 2010). Finally, this study also differs from the study conducted by Ryngaert and Thomas (2012) which investigates whether ex-ante RPTs have a differential impact on firm value compared to ex-post RPTs in the US context. Their study relying on the historical dimension of the transaction to categorise RPTs and provides evidence from a strong investor protection environment.

This study contributes to a growing literature on EM. Prior studies have provided evidence that executives engage in EM through accruals (Healy, 1985; Healy and Whalen 1999; Kothari, 2001; Fields, 2001) or through the manipulation of real activities (Roychowdhury, 2006). Healy and Whalen (1999) argue that while RPTs could be used to manage earnings, the evidence on the link between EM when measured by an accrual based measure and RPTs is limited. This aim of this study has been to provide empirical evidence on whether RPTs are normal transactions conducted solely for normal business and corporate governance purposes, or a mask that may be used to hide the extraction of firm resources or to manipulate financial statements.

This study contributes to the corporate governance literature by examining the link between internal governance activities and EM. Although prior work has provided some evidence that corporate governance is an important determinant of EM, the results of these studies remain contradicting (Garcia-Meca and

Scanchez-Ballesta, 2009) and not sufficient to draw substantive conclusions (Larcker et al., 2007). This study provides further evidence on the association between EM and corporate governance in Greece. The results suggest that audit quality is associated with lower levels of income smoothing and hence, EM. Additionally, it shows that the negative association between EM and RPTs is robust only to the subsample of companies being audited by Big-4 firms. This indicates that audit quality plays a major role in the association between EM and RPTs.

This study also extends the literature on RPTs by examining the relationship between accounting quality and RPTs. Prior studies have investigated and found evidence of an association between earnings management and RPTs (Chen et al., 2011; Jian and Wong, 2010; Aharony et al 2010). Those studies have used indirect measures of earnings management that could not be attributed to accounting quality or financial reporting system. They used changes in ratios such as ROA or price earnings (Chen et al., 2011; Aharony et al., 2010) operating profits (Jian and Wong, 2010) as an indicator of earnings manipulation involving IPOs without investigating accounting quality attributes. Therefore, the question whether RPTs are associated with lower accounting quality was not empirically investigated by earlier studies.

Finally, prior accounting quality literature focuses almost entirely on comparing accounting quality between firms applying IFRS and their non-IFRS counterparts.

Thus, this study aims to extend the scope of accounting quality literature by examining whether RPTs are associated with lower accounting quality.

# **8.4.2 Policy Implications**

Researchers always have to rely on information of RPTs disclosed by the firm. This implies that RPTs that are not disclosed or transactions with parties who are not known to the public or auditors remain unobserved. Although auditor failure to recognise or to disclose a related party is cited as one of the most common ten audit deficiencies, in the biggest related party transactions, namely Adelphia and Enron, the auditors were clearly aware of RPTs and related parties in these contexts (Gordon et al. 2007). These undisclosed transactions are more likely to be used for achieving private benefits by controlling shareholders as controlling shareholders are likely to be motivated to conceal their private benefits so that external shareholders do not observe those benefits. Therefore, the nature of RPTs can provide opportunities for controlling shareholders to achieve private control benefits through undisclosed RPTs. This suggests that one solution that could possibly mitigate the effect of this problem is that the regulations and accounting standards oblige auditors and not the firm, to disclose all relations and transactions with related parties they are aware of. This could help the public and the researchers to assess the degree of opportunism in the conducted RPTs.

## 8.5. Limitations and Suggestions for Future Research

The RPTs literature suffers from the several weaknesses. This section sheds the light on this weaknesses of RPTs research and presents some suggestions to

constrain these weaknesses in the future. Moreover, this section discusses the main limitation of the current study.

The main problems in the RPTs research are the lack of multi-county studies and international comparisons and the insufficient coverage of RPTs by research databases. The main limitation in the current study is that the sample size and the context of the research do not allow the results to be generalisable. I discuss these weaknesses and limitations hereafter.

First, RPTs are mainly discussed as either a tool to expropriate minority shareholders or manage reported earnings. Although the incidence of both investor expropriation and earnings management depend on the institutional background and investor protection (La Porta et al., 1999; Leuz et al., 2003), the RPTs literature is silent on the role of institutional and contextual differences across countries in examining the association between RPTs and shareholder expropriation or earnings management.

There is dearth of studies comparing RPTs evidence across countries. With the exception of Dayha et al. (2008) who examine the relationship between RPTs, corporate governance and firm value no study covers RPTs in more than one country to the best of the researcher's knowledge. Although this helps researchers to remove external variables that might affect the investigated relationship, it also keeps RPTs literature with an observed weakness as there is no evidence on how the negative outcomes of RPTs might vary as the institutional background and

investor protection environment changes. Similar to corporate governance, it is possible that the institutional background can play significant role in constraining the negative effects of RPTs and ensure that RPTs are efficient transactions that are conducted solely for business purposes. For example, more evidence on the effect of the interaction between RPTs and investor protection on firm value, stock returns and ROA needs to be presented. The main problem now that persists with the current state of RPTs research is the lack of evidence on the determinants of the effect of RPTs on firm value and shareholders' wealth.

Second, another main weakness in RPTs research which might be contributing to the first weakness is the availability of data. Similar to other disclosures, data on RPTs must be manually collected from annual reports. This might be one of the main difficulties of collecting cross country data for RPTs as RPTs are complicated transactions where disclosed transactions describe a lot of information like the type, value and parties of the transaction. I hope that this study will encourage data providers to make more RPTs data available. The availability of detailed RPTs data will allow the pursuit of additional interesting research questions for RPTs studies. Additionally, this research was constrained by data availability as a result of the lack of similar data sets across countries. For example, in this research several attempts were made to include other countries with weak investor protection laws similar to Greece. These attempts were not successful because of the large number of firms in countries such as France, Spain, Netherlands and Italy that publish only consolidated financial statements.

The availability of consolidated financial statements only eliminates data on transactions between subsidiaries and retains only final balances for the parent firm. Careful examination of the accounting information available in these countries indicated that only a trivial number of firm-year observations could be found severely reducing the usefulness of attempting cross-country comparison. This has made a cross-country comparison a very difficult venture.

Finally, the main limitation for this study is that it focuses on the link between RPTs and EM in the Greek context. The Greek context can be considered distinctive because of the reported relatively poor investor protection, enforcement mechanisms, and reporting quality( Leuz et al., 2003; Hail and Leuz, 2006). Hence, investigating the link between RPTs and EM in this context is important as it supports the notion that RPTs are not necessarily a mean for managing earnings. This implies that these results might not be generalisable to other countries. More research needs to be conducted on a cross country level to assess the impact of institutional factors on RPTs and their effects so that the generation of more generalisable conclusions might be made possible.

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## Appendices

## Appendix 1

		Related Party Transactions Literature: Summary of Findings			
Authors	Country	Findings			
Hwang et al. (2013)	China	Disclosure regulation reduces discretionary abnormal accruals of firms engaging in RPTs.			
Yeh et al. (2012)	Taiwan	Good governance constraints RPTs, related sales is correlated with seasoned equity offerings and the condition of capital issuance.			
Ryngaert and Thomas (2012)	USA	Overall RPTs are not significantly associated with Tobin's Q, Ex ante RPTs are not associated with operating profitability and are positively related to Tobin's Q.			
		Ex-Post RPTs are negatively associated with profitability, declined share prices upon disclosure, increased likelihood that the firm will enter financial distress or deregister.			
Lei and Song (2011)	Hong Kong	Firm value is negatively associated with RPTs.			
Peng et al. (2011)	China	When a firm is in a healthy financial position, controlling shareholders are more likely to use RPTs to tunnel from the listed firm to benefit other member firms.  When a firm is in poor financial condition, controlling shareholders are more likely to use RPTs to prop up the listed firm.			
Lo and Wong (2011)	China	Firms that make voluntary disclosure of the pricing methods of RPTs are negatively associated with earnings management (abnormal RPTs) and RPTs incentives (performance-linked bonuses and earning targets. They are positively associated with independent directors and governmental ownership.			

Chen et al. (2011)	China	Controlling shareholders structure operating RPTs in pre-IPO period and these RPTs are associated with firm performance followed by a negative future performance.
Nekhili and Cherif (2011)	France	RPTS are mainly influenced by voting rights of controlling shareholder, board size, independence of audit committee, Big 4 auditors, debt ratio. RPTs negatively affect firm value.
Kohlbeck and Mayhew (2010)	USA	RP firms have significantly lower valuations and marginally lower subsequent returns than non-RP firms.
Jian and Wong (2010)	China	Firms prop up earnings by using abnormal related sales to their controlling owners.
Lo et al. (2010)	China	Firms with independent board, duality, experts on audit committee are less likely to engage in transfer pricing manipulations through RPTs.
Aharony et al. (2010)	China	RP sales could be used opportunistically to manage earnings upwards in the pre-IPO period non-repayment by Chinese parent company of net outstanding corporate loans. Earnings management via abnormal sales.
Ge et al. (2010)	China	Reported earnings of firms selling goods or assets to related parties exhibit a lower valuation coefficient that other firms. This result is only observed after a new fair value measurement rule for RPTs came into effect.

Jiang et al. 2010	China	Results show the widespread use of corporate loans by controlling shareholders to extract funds from listed firms. These loans are of long term nature and made to related parties. Firms with large other receivables experience worse future operating performance and are much more likely to become candidates for delisting.
Cheung et al. (2009a)	Hong Kong	Publicly listed firms enter deals with RP at unfavourable prices compared t similar arms' length deals. Firm acquire assets from RP by paying a higher price compared to similar arms' length deals. In contrast, when they sell assets to related parties, they receive a lower price. With the exception of the presence of an audit committee, corporate governance have limited impact on transaction prices. Firms with AC pay lower prices to RP for acquisitions and receive higher from RP from divestments.
Cheung et al. (2009b)	China	Minority shareholders seem to be subject to expropriation through tunnelling but also gain from propping up from RPTs. On balance, there seems to be more tunnelling than propping up. Both types of firms have larger state ownership compared to the rest of Chinese market but firms are larger and have larger state ownership than firms subject to tunnelling. Propped up firms are more likely to have foreign shareholders and to be cross listed abroad compared to firms that are subject to tunnelling. Propped up firms also tend to have worse operating performance in the fiscal year preceding the announcement of the related party transaction. Finally, related part transactions representing tunnelling are accompanied by less information disclosures compared to related party transactions representing propping.

Berkman et al (2009)	China	Issuance of Related Guarantees is less likely at smaller firms, at more profitable firms with higher growth prospects. They also find that the identity and ownership of block holders affect the likelihood of expropriation. Q, ROA and dividend yield are significantly lower, and that leverage is significantly higher, at firms that issued related guarantees.
Gao and Kling (2008)	China	Independent board members, audit without non-clean opinion and dispersed ownership prevent tunnelling, 2) Belonging to a business group issuing B or H share enhances tunnelling. Institutional ownership does not prevent embezzlement of assets. Governance mechanisms
Gallery et al. (2008)	Australia	They find only weak evidence on the association between strong governance and RPTs. The results show that financial condition dominates the decision to engage in RPTs and suggests that external monitoring (associated with larger firm size and the quarterly reporting phase) are a more effective restraint on the magnitude of RPTs
Dayha et al. (2008)	22 countries	Firm values are lower for RPT firms and independent directors reduce the occurrence of RPTs
Balsam and Gifford (2007)	USA	RPTs are positively associated with CEO tenure, insider ownership, excess CEO compensation. RP loans which are prohibited by SOX act 2002 decline post SOX
Cheung et al. (2006)	Hong Kong	Firms announcing connected transactions earn significant excess returns, significantly lower than firms announcing similar arms' length transactions. Investors cannot predict expropriation and revalue firms only when expropriation does occur
Gordon and Henry (2005)	USA	Adjusted absolute abnormal accruals are positively associated with RPTs

Appendix 2

Regressions Accounting Quality Measures

RPTs	1	2	3	4	<b>5</b> -0.657
Size	0.004	0.041	-0.004	032	0.050
Sales growth	0.001	0.000	0.002	.000	-0.009
Leverage	0.043	0.079	0.067	096	1.579
CF	0.054	0.872			
BIG4	0.007	-0.031	-0.020	.051	0.254
Technology	0.020	-0.052	-0.085	.126	-0.025
Real Estate	0.008	-0.035	0.068	018	18.881
Utilities	-0.004	0.023	-0.010	.013	19.262
Travel	-0.007	-0.053	.002	.099	20.039
Retail	-0.005	-0.024	-0.118	.171	-0.037
Health Care	-0.055	-0.070	-0.029	048	18.986
Personal	-0.005	-0.031	-0.052	.094	18.877
Food and Beverage	-0.005	0.040	-0.031	.031	18.251
Construction	-0.010	-0.019	-0.029	.032	19.074
Basic Materials	0.007	-0.045	-0.066	.055	19.102
Chemicals	0.006	0.047	-0.063	.065	17.766

Oil and Gas	0.004	0.133	-0.054	051	19.462
R Square	0.223	0.069	0.144	0.199	0.142
<b>Durbin Watson</b>	2.243	2.607	2.621	1.964	
Dependent Variable	ΔΝΙ	$\Delta CF$	ACC	CF	SPOS

This table reports the regression results of equations 1,2,4,5 and 6 of Chapter Six. Those regressions were run to construct accounting quality proxies used in the study. All models control for year. Column 1 shows the regression coefficients of equation (1):  $\Delta NI = \alpha + \beta 1$  SIZE+  $\beta$  2 SALES GROWTH+  $\beta$  3 LEV+  $\beta$  4 CF+  $\beta$  5 BIG 4+  $\epsilon$ . The variance of the residuals from this equation constructed  $\Delta NI^*$ the first proxy for accounting quality. Column 2 shows the regression coefficients of equation (2):  $\Delta CF = \alpha \ 0+ \beta \ 1 \ SIZE + \beta \ 2 \ SALES \ GROWTH + \beta \ 3 \ LEV + \beta \ 4 \ CF + \beta \ 5 \ BIG \ 4 + \epsilon$ . The variance of the residuals of this regression is the variability of  $\Delta$  CF\*. The ratio of variability of  $\Delta NI^*$  to the variability of  $\Delta CF^*$  is the second proxy for accounting quality. Columns and 4 shows the regression coefficients of equations (4) CF=  $\alpha$  0+  $\beta$  1 SIZE+  $\beta$  2 SALES GROWTH+  $\beta$  3 LEV+  $\beta$  4 BIG 4+  $\epsilon$  and (5) ACC=  $\alpha$  0+  $\beta$  1 SIZE+  $\beta$  2 SALES GROWTH+  $\beta$  3 LEV+  $\beta$  4 BIG 4+  $\epsilon$ , respectively. The third proxy for accounting quality is based on Spearman's correlation between accruals and cash flows. The residuals of the regression of each of accruals and cash flows are used to assess the correlation between accruals and cash flows. Column 5 shows the regression coefficients of the logistic model in equation (6): SPOS=  $\alpha$  0+ $\beta$  1 RPT+  $\beta$  2 SIZE+  $\beta$  3 SALES GROWTH+ $\beta$  4 LEV+ β 5 BIG 4+ε. SPOS is the fourth proxy for accounting quality. This model examines whether RPTs firms have are more likely to report small positive income. RRPT represents related party transactions, is a dummy variable equal to 1 if RPT/Totals Assets > 1 and 0 otherwise. Size is the natural logarithm of firm's total assets. Sales growth is the percentage of sales growth rate. Leverage measures long-term debt and is calculated as the ratio of total long-term debt to the book value of total assets. CF is the annual net cash flow from operating activities divided by end of year total assets and BIG 4 is an indicator variable that equals one if the firm is one of the Big 4 audit firms and zero otherwise. Industry dummies are indicators that receive the value of 1 when the firm is operating in the industry dummy. All models control for year. \*, \*\* and \*\*\* indicate significance at 10%, 5% and 1%, respectively.