The Effect of Corporate Governance on Firm Performance in Jordan

By

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A thesis submitted in partial fulfilment for the requirements for the degree of PhD, at the University of Central Lancashire

September 2014

DECLARATION

I declare that this thesis is the result of my own work and has not been submitted for any other degree at the University of Central Lancashire or any other institutions.

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ABSTRACT

Due to widespread corporate scandals and failures around the world, there has been a renewed interest in the effect of corporate governance on firm performance. The majority of research concerning corporate governance and its effect on firm performance has been undertaken in developed countries and markets, particularly the UK and the US, but relatively little evidence is provided in the Middle East, specifically Jordan. This study investigates the effect of the corporate governance on firm performance of the Jordanian industrial and services companies during the period 2000 to 2010. This study primarily employs the agency theory to investigate the relationship between corporate governance and firm performance. The agency theory is concerned with the agency problem between principals and agents (i.e. shareholders and managers, respectively), which undermines value maximization. It has been argued that the board of directors, ownership concentration and managerial ownership are efficient corporate governance mechanisms to solve the agency problem between shareholders and management.

Multiple regression panel data analysis is the main tool of analysis in this study. The statistical method used to test this impact is Generalised Least Square (GLS) Random Effects models. The study is based on the three sets of data: (1) a sample of 115 firms listed in the Amman Stock Exchange; (2) corporate governance data collected from Osiris database; and (3) data generated through the annual reports of the firms.

Empirical investigation reveals a mixed set of results. Our findings fail to reveal any significant impact for the board size on firm performance. However, CEO duality tends to have a positive effect on the firm performance, which indicates that the Jordanian firms perform better if the chairman and the CEO roles are combined in a single individual. It was also found that NEDs have a negative impact on firm performance, which is inconsistent with the monitoring hypothesis of agency theory, which holds that the NEDs play an important role in the board as a source of experience, monitoring services, reputation and expert knowledge with the likelihood to improve firm performance. Furthermore, our findings report positive and negative impacts of managerial ownership and ownership concentration on firm performance (respectively). Finally, our findings reveal a positive relationship between foreign ownership and firm performance.

Key words: Corporate governance, Jordan, Amman Stock Exchange, Industrial companies, Services companies, Board size, CEO duality, Duality effect, Incentive effect, Ownership structure, Shareholder nationality, Financial performance.

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ACKNOWLEDGEMENTS

In the Name of Allah, the Most Merciful, the Most Magnificent

I would like to start my acknowledgments in gratitude to **ALLAH** for having bestowed the blessing and His mercy on me to complete this thesis successfully, **ALHAMDU LILLAH RABB ALALAMEEN**.

I would like to express my sincere thanks to Dr Philip Kostov and Professor Thankom Arun for their valuable feedback, expert guidance and constant support through all stages of my doctoral study. I express my deepest gratitude for them.

I would like to take the opportunity to thank the research office members for their help, guidance and encouragement during writing my thesis.

Special thanks are also due to my friends Abdallah Shedeafat, Ahmad Al Utaibi, Hamza Alzyoot, Hamidreza Soltani, Kamal Alawamleh, Marjan Femili, Mohammad Khataybeh, Mohammad Al Qadery, Rateb Qatamin, Safwan Marashdeh, Sufian Khwaldeh, Dr Samer Al Rjoob, Yousef Barahmeh, Zaid Al Jazi for their support and encouragements.

Last but not least, my special thanks and love to my sisters Amal, Abeer and Rasha, my brothers Khaled, Saad and Zaid and my brother-in-law Khalifa, Rami and Mohammadwho have supported me with their good wishes and prayers. My deepest appreciation and love goes to my Mam and my kids for their waiting, love, and moral support which provided me the resolve to complete this thesis.

DEDICATION

In memory of my model father, **MOHAMMAD** Saad Marashdeh (2nd.April, 2013) and my dearly beloved wife **SANA** Marashded (20th.July, 2012), both of whom I lost during the process of working on this thesis.

I also extend this dedication to my affectionate mother and lovely children: **KHALED**, **ABDAL RAHMAN** and **WARD**, who are the apple of their father's eyes. I can only say, inadequately, thank you **UM-KHALED** for your prayers and taking care of my boys during my long absence from home.

ABBREVIATIONS

AFM	Amman Financial Market
ASE	Amman Stock Exchange
ATV	Advertising TV
AVG	Average
BOD	Board of Directors
BP	Brush Pagan
CA	Current Assets
CB	Central Bank
CEO	Chief Executive Officer
CEOCFO	Chief Executive Officer is also Chief Financial Officer
CEOCM	Chief Executive Officer is also Chairman
CEOGM	Chief Executive Officer is also General Manager
CEOSH	Chief Executive Officer is also Shareholder
CFO	Chief Financial Officer
CFOGM	Chief Financial Officer is also General Manager
CGC	Corporate Governance Code
CL	Current Liabilities
CLSA	Credit Lyonnais Securities Asia
CM	Chairman
CMSH	Chairman is also Shareholder
CR	Current Ratio
EU	European Union
FDI	Foreign Direct Investment
FEAS	Federation of Euro-Asian Stock Exchanges
FRC	Financial Reporting Council
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GLS	Generalized Least Square
GM	General Manager
GMSH	General Manager is also Shareholder
GNI	Gross National Income
ICT	Information and Communications Technology
IFRS	International Financial Reporting Standards
ILO	International Labour Office
IOSCO	International Organisation for Securities Commissions
IT	Information Technology
JACPA	Jordanian Association of Certified Public Accounting
JCCD	Jordanian Companies Control Department

JCCG	Jordanian Code of Corporate Governance
JCL	Jordanian Company Law
JD	Jordanian Dinar
JIB	Jordan Investment Board
JSC	Jordanian Security Commission
JTV	Jordan TV
LM	Lagrange Multiplier
MENA	Middle East and North Africa
MLE	Maximum Likelihood Estimator
MOICT	Ministry of Information and Communications Technology
MTC	Mobile Telecommunications Company
NED	Non-Executive Director
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Square
PM	Profit Margin
QAIA	Queen Alia International Airport
QIZ	Qualifying Industrial Zones
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
ROSC	Report on the Observance of Standards and Cods
SDC	Security Depository Centre
SEC	Securities Exchange Commission
TA	Total Assets
TV	Television
UAE	United Arab Emirates
UK	United Kingdom
UNDP	United Nation Development Programme
US	United States
USD	United States Dollar
VIF	Variance Inflation Factor
WFE	World Federation of Exchanges

CHAPTER 1: BACKGROUND

1.1 Introduction

This study aims to investigate the impact of corporate governance on firm performance in Jordan. Corporate governance has been an important research area, which deals with the various governance arrangements used to control the corporation within the objective of maximizing shareholders (owners) wealth. A literature review reveals this importance, and highlights problems with conflict of interest between shareholders and the management (Jensen and Meckling, 1976). When there are asymmetric information problems and imperfect contractual relations between managers and shareholders, managers have incentives to pursue their own objectives at the expense of shareholders. For example, managers might implement financial and investment strategies or may spend more on luxury projects for their own interests rather than increasing the value of the company. Furthermore, this conflict may result in transfer pricing, whereby assets of the company that they manage are sold to another company that they own below the market value.

Effective corporate governance should fundamentally guarantee shareholders' value by ensuring the appropriate use of firms' resources, enabling access to capital and improving investor confidence (Denis and McConnell, 2003). This is related both to internal organisation and external market conditions; firm's responsiveness to external conditions is largely dependent on the way the firm is managed as well as the efficacy of the firm's governance structure (Gregory and Simms, 1999). Some authors (e.g. Rwegasira, 2000; Nam et al., 2004) have argued that good corporate governance prevents the expropriation of company resources by managers, ensuring better decision making and efficient management. This results in better allocation of company resources and, ultimately, improved performance.

The majority of research concerning corporate governance and its effect on firm performance has been undertaken in developed countries and markets, particularly the UK and the US, but relatively little is known about corporate governance in the Middle East, where different cultural and economic considerations prevail. In recent years, despite the conflict within the Middle East as a whole, considerable progress has been witnessed in the Jordanian economy. In the 1990s and 2000s, significant effort was made by the government of Jordan to attract investors and help the economy of the country integrate with the global economy; for example, capital markets were

liberalised and structures of corporate governance were reformed (ASE, 2007).Furthermore, three major institutions were established in Jordan to make the regulatory environment more robust, to improve transparency, accountability and disclosure, and to enhance the quality of the corporate governance overall; namely, the Securities Depository Centre (SDC), the Jordanian Securities Commission (JSC) and the Amman Stock Exchange (ASE). Thus, using 115 Jordanian listed firms in Amman Stock Exchange during the period from 2000 to 2010, this research has the aim of providing an investigation of the impact of corporate governance on firm performance in Jordanian industrial and services companies.

1.2 Theoretical framework

This study employs the agency theory as the main theory to investigate the relationship between corporate governance and firm performance. The agency theory is concerned with the interests of the shareholders by reducing the agency problem which will lead to increase value maximization. Therefore, agency theory provides a direct link between corporate governance and financial performance. The overarching interest of shareholders is from value maximization. Therefore, with a view to the objective of the thesis to investigate the impact of corporate governance on firm performance, the narrow definition is more relevant since it provides a direct link between corporate governance and financial performance. Both the narrow definition of corporate governance and the agency theory provide theoretical justification for the link between corporate governance and firm performance and allow the testable hypotheses on the different corporate governance mechanisms in terms of improved financial performance. Further details are provided in Chapter 2.

1.3 Research questions

Liu and Fong (2010) state that one of the most important mechanisms of corporate governance is the board of directors. In many researches, independence is recognized as one of characters of a good board (Fama and Jensen, 1983; Gillan, 2006). Members of the board of directors are representatives of the shareholders and their responsibility is to make sure that managers are working in the best interests of the owners (Liu and Fong, 2010). Corporate governance frameworks should ensure the strategic guidance of company and the effective monitoring of management by the board (OECD, 2004). The board of directors is responsible for monitoring managerial behaviour to reduce the

conflict between the shareholders and managers to achieve adequate returns for the shareholders (OECD, 2004). Therefore, the board of directors is accountable for acting in the best interests of shareholders and managers. Accordingly, an effective and independent board is more likely to monitor the top management to align the interests of the shareholders and managers. Thus, if interests are aligned, this will reduce the conflict between managers and the shareholders leading to better firm performance. With the development of the Jordanian market, and because of the increase in the number of listed companies on the Amman Stock Exchange (ASE), efforts were/are required to enhance the effectiveness of the boards of Jordanian companies. Clearly, the impact of the board of directors upon the performance of a firm is a salient consideration and so the first research question for this study is to provide an investigation of:

> The impact of the board of directors (namely board size, CEO duality and non-executive directors) on firm performance of the Jordanian companies.

Jensen and Meckling (1976) argued that the ownership structure of a corporation, especially the role of equity ownership of managers, is a mechanism to align the manager's interest with that of owners. In developing countries, the ownership is highly concentrated, where the rights of the shareholders is weak due to insufficient regulations or the absence of them within the relevant laws (Shleifer and Vishny, 1997; La Porta et al., 1999). Jenson and Meckling (1976) argued that higher ownership concentration could induce the prioritisation of self-interest by large shareholders and the consequent expropriation of firm resources (i.e. wealth), resulting in increased conflict and decreased firm performance. However, Shleifer and Vishny (1986) and Brown et al. (2011) argued that, from the efficient monitoring perspective, large shareholders who hold large proportion of shares have the ability and the incentive to exert control and to compel the management to take action and, as a result, decrease the conflict in order to maximize the owners' value and, thereby, improve company performance. In Jordan, it is common that most of the shares are concentrated in the hands of controlling large shareholders (e.g. individuals/family shareholders or companies) (ROSC Jordan, 2004). In this regard, then, the second question for this study to investigate:

> The impact of the concentrated ownership/large shareholders on firm performance.

Moreover, literature on corporate governance has argued that the identity, objective function, nature and behaviour of shareholders varies for different types of owners, which might affect firm performance (Shleifer and Vishny, 1997; Thomsen and Pedersen; Douma et al., 2006). Different types of investors are characterised by differences in wealth, risk aversion and, correspondingly, in the importance they attach to shareholder value in relation to other objectives. Shareholder interests have impacts on investment decisions and owner preferences (Cubbin and Leech, 1982; Hill and Jones, 1982; Hansmann, 1988, 1996; Nickel, 1997). Conflicts of interest can arise when owners' economic interests and relations with the firm become misaligned with the fundamental firm objective of value maximisation. For instance, dual roles can occur, such as when governments are owners and regulators, or when banks are both owners and lenders (Thomsen and Pedersen, 1997). Consequently, such stakeholders have numerous objectives that can compromise the more basic role of stakeholders as principals. Thus, in addition to the impact of the large shareholder, it is also important to know who this shareholder is (e.g. individual/family, companies or government). In this regard, then, the third question is to investigate:

> The impact of the identity of the shareholder (individual/family, companies and government) on firm performance.

Finally, it has been argued that foreign investment in emerging markets is special. This is because foreign investors transfer managerial skills and better technology and allow firms to access financial resources easily (Taylor, 1990; Ghazali, 2010; Sulong and Mat Nor, 2010). This might help in reducing the conflict between managers and shareholders and affect firm performance. The liberalisation of the Jordanian market is among the most advanced in the MENA, having been on-going since the mid-1990s (OECD, 2006). Thus, the effects of foreign investment can be uniquely assayed for Jordanian firms, more than for comparable MENA markets. The Jordanian market has a notably high proportion of foreign investors; indeed, the Jordanian capital market has some of the highest foreign investment rates in the world (OECD, 2006). Mohamed and Sidiropoulos (2010) reported that Jordan was in the top three countries in the MENA in terms of attracting foreign investment. Al-Muhtaseb (2009) observed that average Arab foreign investment in Jordan is one of the highest in the region. Mansur (2008) points out that, according to Jordan Vision 2020, to maintain a nominal GDP growth rate of 8 percent per annum, Jordan needs to attract over US$119.29 billion in investment over

twenty years, or US$5.96 billion per year. Therefore, the last research question is to investigate:

The impact of the foreign investors on firm performance.

1.4 Significance of the study

The Jordanian setting is particularly interesting for a number of reasons. Firstly, this study might help us to enhance our understanding of corporate governance in term of agency theory in developing country specifically, in Jordanian industrial and services companies, and if there any possible improvements that could be made to deal with. Secondly, Jordan is a developing country, thus the findings of this study may benefit many other developing countries with similar political, cultural, environmental and economic conditions, particularly in MENA. Thirdly, following the financial crises around the world and increasing the number of companies listed in ASE from 161 in 2000 to 277 by 2013, the Jordanian financial sector regulations have been strengthened by issuing different laws and the Corporate Governance Code. Therefore, such reforms might strength the financial environment and affect the firm performance. Fourthly, the liberalisation of the Jordanian market is among the most advanced in MENA, having been on-going since the mid-1990s. Thus the effects of foreign investment can be uniquely assayed for Jordanian firms, more than for comparable MENA markets. The Jordanian market has a notably high proportion of foreign investors; indeed, the Jordanian capital market has some of the highest foreign investment rates in worldwide (OECD, 2006). Finally, the findings of this study also provide a window into the prevailing situation of corporate governance in Jordan which is of interest to local and international investors, managers and academic researchers considering the roles of corporate governance frameworks.

1.5 Research approach

The theoretical overview aims clarifying what the adopted theoretical model that the agency theory suggests as likely answers to our research questions. The empirical literature on the effects of corporate governance is reviewed to establish the state of knowledge about what has been empirically established with regards to these specific research questions and the plausible explanations for the results. This empirical review helps to better positive the study and is used in several distinct ways. First, the alternative explanations for differing results complement. The theoretical framework in

that they provide alternative explanations for possible empirical results with regard to the research questions. These alternative theories are building sketched in the theoretical overview. Second, the empirical studies provide a starting point for conceptualisation of the underlying issues and suggest possible way to measure the different facets of corporate governance mechanisms. These measurement issues are later discussed in details in the empirical chapter. Finally, the empirical review builds upon the theory in providing a preliminary conceptual model for investigating the research questions.

The chapter on the corporate governance in Jordan helps identifying the workings of corporate governance and clarifying the relevance of the research questions. This overview chapter is designed to allow re-examinations of the research themes and the intended corporate governance mechanisms. Where appropriate these will be reviewed and amended to allow for reliable examination of the research questions. The conceptual issues of the measurement of the corporate governance variables are addressed through a critical review of theory, empirical literature and the Jordanian experience. The discussion further leads to an empirical model used in the study.

1.6 Thesis outline

The rest of the thesis is structured into seven chapters and organised as follows. Chapter two presents the definition of corporate governance from a narrow and a broad perspective. The chapter reviews the theoretical framework, and it identified that agency theory provides a testable hypothesis that might help in the investigation of the agency conflicts and in the possible solutions to reduce governance problems. The chapter also reviews stewardship theory and resource dependence theory as alternative explanations for corporate governance mechanisms. A review of corporate governance issues in developing countries is then presented and corporate governance models in the West are explored.

Chapter three reviews the theoretical and the empirical literature that studied the effect of internal corporate governance mechanisms on firm performance. There is a large body of finance literature that investigated the impact of corporate governance mechanisms on firm performance; however, confusion still exists over the findings as to whether specific corporate governance mechanisms can maximize shareholder wealth and improve firm performance. This chapter reviews the effect of the Board of Directors (board size, CEO duality, and non-executive directors), and the ownership structure

(concentrated ownership/large shareholders, the identity of shareholders' ownership - individual/family, companies, government ownership, managerial ownership and foreign ownership) on firm performance.

Chapter four reviews the Jordanian background in terms of the most important aspects of the Jordanian economic environment, as well as a review of the development of the industrial and services sector in Jordan (namely telecoms and IT, energy, transport and media and advertising). In addition, there is a review of the most important reforms by the government (JSC, ASE, SDC, disclosure, shareholders rights and the Jordanian Corporate Governance Code).

Chapter five describes the data used in this study. The data that relates to our research objectives was extracted from two sources: The Osiris database; and manually collected from the Jordanian companies' annual reports. The sample selection procedure is described and the criteria that have been adopted to construct the sample are explained. The variables are divided into three categories (firm performance, corporate governance variables, and control variables). For each category, the data sources, variables' construction and measurement are explained.

Chapter six explains the research philosophy, methodology and the specification tests that were used in the study.

Chapter seven comprises two main parts. The first part of the chapter presents a summary of the descriptive statistics of the dependent, independent and the control variables. The second part of the chapter will deal with the main inferences which were drawn from the analysis. The results are presented separately according to the research questions.

Chapter eight presents the conclusions and the recommendations of the thesis. In particular, the chapter focuses on the key findings, research limitations and potential areas for future research.

CHAPTER 2: THEORETICAL FRAMEWORK

2.1 Introduction

This chapter presents the various definitions of corporate governance introduced by different research scholars then reviews the theoretical framework of the study. The agency theory is the main theory used in this study, as the theoretical framework to investigate the effect of corporate governance on firm performance. Finally, literature pertaining to different corporate governance issues in developing countries and models is reviewed.

2.2 Definition of Corporate Governance

It is worth noting that the term corporate governance has become more popular recently from different perspectives such as professional bodies, regulators and academics. Further to this, due to the increasing concern of corporate fraud and fraudulent financial reporting, the concept became popular in both developed and developing economies. There is a considerable debate about the definition of corporate governance among researchers and scholars. In regard to the various definitions, researchers and scholars classify corporate governance definitions in either narrow or broad sense. Narrow definitions are based on satisfying the interests of the shareholders. However, broad definitions extend the previous definitions and are based on satisfying the interest of the stakeholders (i.e., employees, customers, suppliers and government) (Gillan, 2006; Letza et al., 2004; Sternberg, 2004).

The definition fundamentally relates to the epistemological assumptions involved (Gillan, 2006). For example, corporate governance can be viewed from the shareholders' perspective, which essentially means the principals' motivation to maximize their value, or from the organizational perspective, in terms of controlling mechanisms to regulate and maintain business operations (Zingales, 1997). Similarly, Tricker (1984, p.10) writes: "Governance is different from management; and involves setting the corporate direction, involvement in executive action, supervision and accountability." Thus corporate governance extends beyond the narrow confines of management, and comprise the systemic control, rules and regulations of companies according to Gillan and Starks (1998, p.382).

According to Shleifer and Vishny (1997), corporate governance "deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment". It is generally impossible for principals in a modern public firm to be charged with responsibility for corporate operations, hence they delegate agents to manage operations in their interests. Naturally in this milieu governance problems such as conflicts of interest occur, particularly if shareholders are disappointed by their return on investment. Principals must weigh the costs of monitoring and controlling agents (agency costs) against the costs they are likely to incur from negative managerial behaviours in the absence of efficient monitoring and control.

Thus, corporate governance issues arise due to the necessity of counteracting agency problems (Hart, 1995), and fundamentally from shareholders' attempts to protect themselves from the expropriation of their wealth (Shleifer and Vishny, 1997).Keasey et al. (2005, p.251) defined corporate governance as:

> "The set of mechanisms – both institutional and market based – that induce the self-interested controllers of a company (those that make decisions regarding how the company will be operated) to make decisions that maximize the value of the company to its owners (the suppliers of capital)".

This broad definition is based on the organizational context, which is too general. In other words, the broad definition does not provide theoretical frameworks that can establish testable hypotheses or relationships. A widely used framework to conceptualise the relationship between firm performance and organizational structure is agency theory, which was described by Denis and McConnell (2003) in terms of being an expression of property rights in corporate governance by principals; any understanding of firm structure must start with the proviso that shareholders are the principals (i.e. owners) in the organization. This study employed the agency theory as the main theory to investigate the relationship between corporate governance and firm performance. The agency theory deals with the interests of the shareholders with relation to the agency problem and the underlying target of value maximization. On the most basic level, reduced agency problems contribute to increasing share value and thus positive performance. This narrow conceptualisation emphasises the interests of the shareholders, whose overarching interest is value maximization. Therefore, with a view to the objective of the thesis to investigate the impact of corporate governance on firm performance, the narrow definition is more relevant since it provides direct link between corporate governance and financial performance. Both the narrow definition of

corporate governance and the agency theory provide theoretical justification for the link between corporate governance and firm performance and allow the testable hypotheses on the different corporate governance mechanisms in terms of improved financial performance.

2.3 Theoretical framework

The agency theory is the primary paradigm used in this study, as the theoretical framework to explore the effect of corporate governance (i.e. the relations between owners and managers) on firm performance. The agency theory deals with the interests of the shareholders by reducing the agency problem which leads to increased value maximization. The overarching interest of shareholders is value maximization.

A key advantage of agency theory is that it reduces the parameters of study to consideration of two parties: the agent and the principal. This renders the perspective of shareholders (i.e. principals) simpler for analysis, as they are primarily motivated by return on investment or firm value. The general view of the agency theory is that conflicts of interest arise in the relationship due to the divergence of managers' (assumed rational but opportunistic) from the shareholders' interest. The theory provides a powerful theoretical basis and testable hypotheses for explaining the relationships and suggesting solutions for the agency problems between shareholders and managers to mitigate agency conflicts and enhance shareholder returns, resulting in better firm performance (Fama and Jensen, 1983; Jensen and Meckling, 1976). According to literature, the sources of such problems are related, for instance, to managers' investment decisions – under investments or over-investments, free cash flow, earning retentions, shirking – that diverge from the positive net present value rule (Dhumale, 1998; Jensen, 1986, 1993; Jensen and Murphy, 1990; Shleifer and Vishny, 1986).

The ability of management to devise and implement strategic decision making is key to firm performance, and to motivate managerial personnel their compensation is generally high in terms of remuneration, consistent with the proviso of agency theory that managers are prone to act in their own interests, potentially at the expense of the interests of firms/shareholders, if their objectives are misaligned due to inadequate monitoring, bonding and compensation (Liu and Fong, 2010). In agency theory, corporate governance mechanisms play an important role in ensuring the alignment of

the interests of the principal and the agent, thus enriching the firm's capability to maximize shareholder wealth and thereby improve firm performance.

The ownership structure of firms, particularly in terms of the board of directors, is the main feature mitigating the inherent dichotomy between principals and agents to improve firm performance. Organizational factors affecting firm performance include board size, CEO duality and the presence of non-executive directors (NEDs), as well as mechanisms related to the ownership structure, such as large shareholders or concentrated ownership, the identity of shareholders (individual/family ownership, companies' ownership and government ownership) and managerial ownership.

Stewardship theory and resource dependence theory provide different explanations for the mechanisms by which the board of director's functions and how it affects firm performance and in some aspects there is overlap between these theories and agency theory. However, in terms of the effect of the ownership structure on firm performance, stewardship and resource dependence theories do not provide any testable hypotheses or explanations. The concept of the alignment of interests between principals and agents forms the crux of the agency theory perspective, which suggests that in order to align the interests of managers with shareholders it is important to create incentives for the managers to increase value maximization. Jensen and Meckling (1976) state that this incentive is expected to motivate agents' efforts to create total surplus. Hence, aligning the interests between the two parties can resolve the agency problem and achieve the main goal of the shareholders (value maximization).

The following sections discuss these theories and explain corporate governance mechanisms in terms of each theory. The following chapter presents a more comprehensive review of theoretical and empirical literature in order to explain how every corporate governance mechanisms might affect the firm performance.

2.3.1 Agency Theory

Large corporations, particularly publicly listed companies, generally have an organisational framework wherein there is a fundamental separation of ownership and control between principals and agents. In the relationship between them, the owners (principals) hire managers (agents) to run the firm in their best interests, compensating the latter for their efforts, generally in pecuniary form (e.g. salary and bonuses)(Hart, 1995; Jensen and Meckling, 1976; Sappington, 1991). Conflicts of interest can arise in

this relationship due to the divergence of the interests of managers and shareholders. The potentially problematic relationship between principals and agents has been conceptualised and explored using the agency theory (Fama and Jensen, 1983; Jensen and Meckling, 1976).

The fundamental premise of agency theory is that conflicts of interest arise in corporate relationships due to the divergence of the interests of managers and shareholders (whereby the agents are assumed to be rational but opportunistic). The core assumptions of agency theory are that: (1) managers may maximize their own utility instead of enhancing shareholder value (Demsetz, 1983; Jensen and Meckling, 1976); (2) contracts are not costless when writing and enforcing (Fama and Jensen, 1983); (3) information is distributed asymmetrically between principals and agents; and (4) the parties have limited or bounded rationality. Consequently, the theory holds that due to the asymmetric information distribution between managers and shareholders, principals cannot correctly measure the efforts of managers who know the details of the operations of the firm (i.e. it is at the expense of the shareholders, although both parties might incur some costs).

Agency costs include monitoring costs, bonding costs and residual losses (Jensen and Meckling, 1976). Monitoring costs are the costs incurred by shareholders for monitoring the conduct of managers. Bonding costs are financial or non-financial costs of setting up systems or structures intended to ensure that managers act in the best interests of the shareholders or compensate them accordingly if they do not (Jensen and Meckling, 1976). Residual losses occur due to the mismatch of actions promoting the self-interest of the principal and the agent, despite (i.e. due to the failure of) monitoring and bonding activities. Fama and Jensen (1983) stated that residual loss is in fact the value of profit lost because the contract's full enforcement costs exceed its benefits.

The agency theory views the relationship between shareholders and managers as the classical principal-agent relationship, in which owners hire managers to run the firm in the best interests of the former, while the latter is rewarded for their effort (Jensen and Meckling, 1976; Hart, 1995; Sappington, 1991). The performance or outcome depends on the extent of the agent's efforts and the risks involved, but the efforts of the agent are not fully observable to the principal, thus information asymmetry makes it difficult for the principal to measure the efforts made by and to correspondingly compensate the agent, which implies greater reward for the risk-averse agent due to less incentive to

make effort (Sappington, 1991). In this incentive-risk puzzle inherent in the agency relationship (Hart, 1995); the relevant issue is how to determine the optimal balance between efficiency and risk-bearing. The principal might thus employ other monitoring schemes in order to control the desired action of the agent and incur monitoring costs to reduce information asymmetry (Arnorld and De Lange, 2004; Sappington, 1991).

The problem of information asymmetry itself is related to adverse selection and moral hazard problems. Principals face adverse selection problem because they cannot correctly verify the skills or abilities the agent claims to possess at the time of contracting (i.e. hiring), thus they might not be able to select the best applicant or to know whether the agent is performing the related duties properly or not (Eisenhardt, 1989). The moral hazard agency problems, first proposed by Jensen and Meckling (1976), arise when managers might not make the required managerial efforts in the best interests of the principal. Since the principal might not know this fully, they need information to monitor the effort level and measure it in order to reward it correctly. According to literature, the sources of such problems are related to numerous factors, such as managers' investment decisions (under- or over-investments), free cash flow, earning retentions and shirking that diverge from the positive net present value rule (Dhumale, 1998; Jensen, 1986, 1993; Jensen and Murphy, 1990; Shleifer and Vishny, 1986). In practice, both principals and agents face a trade-off between incentives, whereby the agent should be motivated by creating attractive performance-based rewards; and risk sharing, whereby the agent needs to be protected from risk by low performance based incentive. Therefore, agency problem stems from the incentive-risk sharing puzzle (Hart, 1995).

Jensen and Meckling (1976) defined the principal-agent relationship and explored the ownership structure of corporation, especially the role of equity ownership of managers as a mechanism to align the manager's interest with that of owners. Moreover, Fama and Jensen (1983) described the role of the board of directors in monitoring the potential opportunism of executive managers in large corporations. Thus agency theory is mainly concerned with the institutional arrangements (ownership structure and organisational structures) that affect agency conflicts. This closely relates it to property rights, since the effects of the distribution of property rights are important in analysis of principal-agent relationships.

The salient features of the principal-agent paradigm are that it: (1) suggests explanations and the solutions to the different types of agency problems; and (2) provides both dispute avoidance approach by crafting incentive-alignments and conflict resolution approach of crafting governance mechanisms.

In terms of corporate governance mechanisms of the board of directors (board size, CEO duality and NEDs), agency theory proposes that NEDs play an important role in monitoring and supervising executives, due to the assumption that they are independent and concerned with their own reputations (Fama and Jensen, 1983). NEDs can thus add value to firms due to their external knowledge and expertise as well as their monitoring function (Fama, 1980; Fama and Jensen, 1983). Similarly, resource dependency theory attributes improved firm performance to NEDs due to their input for decision making (e.g. investment and strategic planning decisions), and their networking value with the external environment and other stakeholders. Thus, both agency theory and resource dependency theory predict a causal, positive relationship between firm performance and the presence of NEDs (i.e. board independence), while stewardship theory conversely holds that insider directors can better monitor management that NEDs due to their enhanced knowledge of firm operations (Baysinger and Hoskinsson, 1990). Additionally, stewardship theory holds that the part-time/ceremonial position of NEDs in many cases inhibits their monitoring function and renders their contribution to decision making negligible (Bozec, 2005). Thus, in contrast to agency and resource dependency theories, stewardship theory holds that NEDs are likely to affect firm performance negatively.

NEDs can also contribute to increasing the size of the board, which has the advantage of a wider pool of expertise but which contributes to poor decision-making and communication, reflected in the relatively poor performance of larger boards (Lipton and Lorsch, 1992; Jensen,1993). As board size increases, the problems of coordination and communication also increase, consequently decreasing the ability of the board to monitor the management and thereby exacerbating the agency problem (Eisenberg et al., 1998). Furthermore, agency theory proposes the separation of the chairman and CEO from the same position because the primary considerations of the former include remunerating the CEO and overseeing the board; thus the combination of these roles in one person can result in increasing agency problems by diluting the effectiveness of monitoring the CEO (Jensen, 1993). However, stewardship theory proposes that an effective management is based on the principle of the unity of command, thus it is

advisable for the chairman and the CEO to hold the same position according to this perspective. This is because when responsibilities and decisions are restricted to one person, this might facilitates greater understanding and knowledge of the company operations and better decisions which will result in reduce the agency problems and thereby impact the firm performance positively (Dalton and Kesner, 1987; Donaldson and Daives, 1991).

On the other hand, when considering the ownership structure mechanisms, agency theory posits that incentives for agents are necessary to align their interest with principals (i.e. to encourage managers to prioritise the maximisation of shareholder value). As managerial ownership increases the interests of the shareholders and managers become more aligned, thus the incentive for opportunistic behaviour decreases, thus agency problems decreased (Jensen, 1993; Jensen and Meckling, 1976). Furthermore, large and controlling shareholders contribute to the mitigation of the agency problems because they have the incentives, motivations and capacity to monitor the managers for the shared benefit of control (Vishny and Shliefer, 1986, 1997). Conversely, resource dependency and stewardship theories provide no testable hypothesis concerning the ownership structure. Therefore, resource dependency and stewardship theory will be included only where testable hypotheses are pertinent, while agency theory will be employed as the main theory guiding this analysis.

In short, agency theory suggests that due to the separation of ownership and control in modern firms, agents are less likely to always work in the interests of principals. To reduce this divergence of interests, shareholders will have to use internal corporate governance mechanisms to monitor managers and thus induces rational managers to fulfil their function of maximising the value of shareholders, improving firm performance. This latent structural factor must be complemented by deliberate efforts to monitor and control managers, with corporate governance mechanisms that identify any potential problems as well as rewarding positive behaviours and good performance by managers. The resultant costs of residual loss, bonding and monitoring agents (managers) are known as agency costs. Presuming that agency costs ensure that managers do not pursue their self-interest while neglecting shareholders' interests, agency costs reduce the agency problem and contribute to improved firm performance.

2.3.2 Stewardship Theory

Stewardship theory focuses on psychological and sociological methods of oversight, rather than the economic (pecuniary) tools of agency theory. The former holds that organisational members have some form of positive collective identity that engenders trustworthy behaviour (Davis and Donaldson, 1997). Muth and Donaldson (1998) concur in that financial gain is not necessarily the sole driver of managerial behaviour, and in addition managers require some discretion to effectively manage business for shareholders. Consequently, separate ownership is not viewed as a weakness in stewardship theory as cooperative behaviours are held to be the latent/intrinsic behaviour of managers (Davis et al., 1997; Donaldson and Davis, 1991), and they are subject to an array of motives in addition to financial gain (Muth and Donaldson, 1998). Fama and Jensen (1983a) observed that inside board member managers are more likely that outside directors in large organisations due to the deep insight into organisational activities enjoyed by the former. Stewardship theory posits that concern for their own reputations and career progression inhibits agents from acting against the interests of shareholders, thus agency costs should be inherently minimised (Donaldson and Davis, 1994). The contribution to firm performance of stewards relates to the context in terms of socio-cultural and psychological factors (Clarke, 2004). For example, managers are considered more likely to perform better with greater empowerment and job satisfaction, which is a psychological factor. Socially, managers (along with most personnel in a successful organisation) typically self-identify as organisational representatives and thus they consider the power accorded them by principals to be a tool to enable the organisation and other employees to achieve the organisational goals. In terms of the situational perspective, it is anticipated that managers perform optimally in an environment that is involvement-oriented (i.e. in which accomplishment of tasks, control and thinking are combined in a single process). If the organisational culture has a collectivist orientation, this will obviously have implications on the long-term relationship and loyalty managers have towards the firm (Clarke, 2004). Stewardship theory supports that an insider-dominated board is more effective due to more in-depth knowledge of organisational operations, such as access to data and technical expertise (Muth and Donaldson, 1998). Additionally, CEO-Chairman duality will make leadership and control, particularly regarding decision making and strategy (e.g. investment) more consistent, which is presumed to contribute to greater effectiveness (Donaldson and Davis, 1991).

Because the inside directors have more comprehensive and deep knowledge of daily operations within firms, their decisions are better informed. According to stewardship theory, they are therefore preferable to NEDs due to their more accurate knowledge of firm performance. With fewer inside directors, boards have reduced insight into the company's situation and progress, rendering them reliant on information furnished by the management, with little or no contextual knowledge to make any decisions independent of the recommendations of managers; NEDs suffer from this same lack of knowledge as the board in general. Reduced ability to monitor managers and the making of less informed decisions by boards comprising outsiders means that such boards are unlikely to improve firm performance to the same extent as boards with a larger number of insider directors according to stewardship theory.

2.3.3 Resource Dependence Theory

The perspective of the resource dependence theory is more materialist and less organization-centred. It is primarily concerned with firms' access to resources, such as expertise and capital. According to resource dependence theory, structures of corporate governance such as the board of directors affect firms' access to resources essential for firm performance (Pfeffer, 1973). Resource dependence theory particularly favours boards with a high composition of NEDs, due to the wider expertise and knowledge they can provide, as well as improved networking with the external environment and a generally improved reputation (Haniffa and Cooke, 2002; Haniffa and Hudaib, 2006). Thus NEDs can facilitate access to the political and business contacts, capital and information (Nicholson and Kiel, 2003), by enhancing networking with external stakeholders, including customers, governments and other companies (e.g. creditors, suppliers and buyers); thus NEDs improve access to resources (Nicholson and Kiel, 2003), which put simply enables cheaper access to inputs and thus positively affects firm performance.

Pfeffer (1972) and Pfeffer and Salancik (1978) argued that the diversity of the board size and the background of the outside directors are very important elements in managing the company needs for any capital in the future or to manage environment contingency. Pearce and Zahra (1992) also assert that diversifying the board will help the company to survive by benefiting from the exchange of company resources and its external environment. In addition, they report that the presence of the outside directors will result in improving the organization efficient strategies by providing the firm with

new viewpoints and perspectives, which will ultimately improve the financial performance. Carpenter and Westphal (2001) confirmed on Pearce and Zahra's (1992) study by pointing that firms' links help them secure their business interests in the event of environmental uncertainty.

In addition, the resource dependence theory clarifies the methods that firms use in order to gain access to financial resources. In terms of solvency problems companies are highly advised to appoint representatives of the financial institutions on their boards (Mizruchi and Stearns, 1988). However, if the firm is in high levels of bank debt, it is likely they will appoint an officer of the creditor bank inside the board to facilitate access to finance. In other words, it is an easier way of access to credit (Thompson and McEwen, 1958). Stearns and Mizruchi (1993) report that there is a significant relationship between the identities of the financial representatives and a firm's borrowing strategy.

Moreover, Kaplan and Minton (1994) identified that firms often wish to appoint financial directors on the board if the prices of the stocks or the performance of the company deteriorate. In addition, inside directors are recommended to be replaced with experienced outside directors when the firm performance worsens (Hermalin and Weishbach, 1988). The resource dependence theory uses the external linkages of the board in order to add value to the firm and improve the firm performance (Muth and Donaldson, 1998; Nicholson and Kiel, 2007). Hitt et al. (2000) argued that emerging market countries suffer from low availability of capital, high costs, poorly developed financial markets and volatility in economic development. These conditions produce a resource gap between firms in emerging markets and those in developed markets. Therefore, companies are forced to find a creative way to benefit from the external links of the board. In other words, in developing countries it is always important for companies to have links with external resources.

In conclusion, resource dependence theory holds that the operational environment of the firm is reflected in its board structure (Boyd, 1990; Hillman, et al, 2000; Pfeffer, 1972), which entails that directors are selected according to their ability to facilitate access to required resources. Thus, it should be possible to identify firm dependencies from the board composition; for example, the presence of financiers in the board of directors suggests that firms seek cheap access to capital, from which it can be inferred that they plan large investment or that they are in financial difficulty (Hillman, et al, 2000).

Generally, a board with diverse members with varied links to external resources can be expected to have greater access to such resources, which enhances firm performance and value.

Table 1: Summary of the role of the board of directors

Theory	Role of Board	Implications for board
Agency	Managerial control	Independent boards mechanism for shareholders to retain ownership, control rights and monitor performance
Stewardship	Managerial empowerment	The board controlled by management is empowered and manages
Resource Dependence	Search for external resources	Board with strong external links is aco-optation mechanism for firms to access external resources

2.4 Corporate Governance Issues in Developing Countries

Oman et al. (2004) and Allen (2005) argue that corporate governance in emerging markets has lately attracted much attention due to the weaknesses of corporate governance in developing countries, which was an important reason for a series of economic crises that affected these countries. Emerging markets tend to have quite well-developed physical financial infrastructure including central banks, commercial banks and stock exchanges, but to have less well-developed processes and systems of accounting, governance, regulation and other financial infrastructure, and less efficient markets with less liquidity than the world's most advanced systems. These differences lead to greater uncertainty and risk, and they enhance the international diversification possibilities for investors from all countries in the world (Kearney, 2012).

Tsamenyi et al. (2007) have argued that there are a multitude of problems facing developing economies, including risk and uncertainty, political instability, weak legislation, high levels of government intervention and low levels of protection for investors. As such, there is a necessity for effective structures of corporate governance to be adopted. There have been a number of suggested measures to help improve governance structures including improving the strength and transparency of capital market structures to increase the overall confidence of investors, improving the performance of domestic firms, and encouraging growth through the use of equity instead of debt (Reed, 2002).

Furthermore, the poor corporate governance and the close relationship between business, banks and government are one of the major problems that have led to crony capitalism (Singh and Zammit, 2006). Nenova (2009) points out that the main challenges in terms of corporate governance for the developing countries are: (1) value transfer (from non-controlling shareholders or stakeholders) to dominate large shareholders; (2) ineffective disclosure practices; (3) weak legal framework; and (4) audit problem.

A consensus has been reached amongst practitioners and scholars that the optimal form of governance is specific to the firm; as such, the context for the operations of a particular firm dictate the best structure for governance, even for firms that compete in the same sector of the market place (Ararat and Dallas, 2011). Numerous aspects of emerging markets have been shown to have fundamental importance in influencing the choices made with regard to the governance of a firm, such as the ownership structure, development of the financial market and the quality of the public governance (Fan et al., 2011; Ararat and Dallas, 2011; Claessens and Yurtoglu, 2013). The degree of enforcement of the law is affected by the quality of the public governance, and various forms of corruption can proliferate if public governance is weak. Corporate transparency and the quality of corporate governance are influenced by these factors and, overall, weakness in the legal context for business can often hamper the development of the financial market (Fan et al., 2011). Often, free cash is invested in new businesses controlled by shareholders as a result and this, obviously, can lead to expropriation of wealth by those shareholders and negative impacts on the financial health and performance of the firm (Ararat and Dallas, 2011). The challenges faced by corporations are determined, to a large extent, by the overall level of development of the political economy and the prevailing ownership structures for institutions (Claessens and Yurtoglu, 2013).

Shleifer and Vishny (1997) and La Porta et al. (1999) have argued that the concentration of ownership is high in emerging markets, where the rights of the shareholders is weak due to the lack, or inadequacy, of the regulations provided by the relevant laws. In countries where ownership is concentrated among just a handful of major shareholders, agency problems occur because of a misalignment of interests between managers and owners and, thus, agency problems are inherent with large or small shareholders. Agency problems can exist between one or more owners and managers and, furthermore, even if it is assumed that managers and large shareholders are the same

person, as is common in family companies, conflict still exists because of the potential misalignment of interests between managers and owners. Therefore, if it is assumed that the ownership is concentrated then agency theory can explain the conflict between managers and owners. Shleifer and Vishny (1986) argued that when the ownership structure is concentrated, large and controlling shareholders contribute to the mitigation of the agency problems because they have the incentives, motivations and capacity to monitor the managers for the shared benefit of control (i.e. to the mutual benefit of all shareholders, whether large or small). On the other hand, large controlling shareholders might collude with managers to expropriate the firm resources and work for their own benefit which will result in increasing the agency problems leading to lower firm performance (Johnson et al., 2000).

Moreover, it has been shown that the nature of the relationship between the board and business performance is determined by ownership structure (Claessens and Yurtoglu, 2013). The ability of a board to act on behalf of the shareholders and monitor managers effectively is of crucial importance for a corporation in emerging markets where corporate governance mechanisms tend to be weak (Douma et al., 2006). In listed firms in emerging economies, it is common for controlling families to occupy key managerial posts, and the succession planning of a firm is usually focused upon the appointment of other family members to managerial roles rather than external professionals (La Porta et al., 1998). The presence of family members on a company board, especially the founder, has been associated with better performance levels within certain countries; relationships can be of prime importance with tight connections amongst the business elite within countries such as Thailand. On the other hand, a more positive effect upon performance from the presence of outsiders has been shown within other markets, such as that in the Korean Republic (Fan et al., 2011). A high degree of independence for the board has been commonly recommended within corporate codes for governance, such as the UK Combined Code, and in the Cadbury Report. It is considered that there ought to be a high level of independence from the management within a board, with non-executive directors forming a high proportion of the members and the roles of chairman and Chief Executive Officer being split, so that monitoring can improve and agency problems can reduce (Fama and Jensen, 1983; Shleifer and Vishny, 1997). Ararat and Dallas (2011) have also argued that when family members dominate boards they can become ineffective as there is not enough constructive criticism directed at the controlling shareholders. Controlling shareholders can be inclined to pursue agendas

that are of little or no benefit to shareholders, with poor strategic decision-making having a negative impact upon the company.

Findings from research undertaken in emerging markets have been mixed, with the data focused on the relationship between the performance of a firm and the mechanisms of corporate governance being inconclusive. Arrangements for governance in one state could offer optimal protection for the investor, whereas it could be suboptimal elsewhere. The level of concentration of ownership likely to affect control of the management and, hence, business performance, changes between countries as a result of differing regulatory contexts and varied degrees of effectiveness of the enforcement mechanisms. In addition, as Ararat and Dallas (2011) have demonstrated, there may be more trust in knowledgeable external 'friends' than in 'independent' directors, in certain instances. Based on the aforementioned issues for the emerging market, this study will look more closely at measuring the impact of the ownership structure and the board of directors on firm performance in Jordan. Further details in the next chapter, supported by empirical studies, provide an explanation of these issues.

2.5 Corporate Governance: International Principles and Practices

Previous studies (Short et al., 1999; Franks and Mayer, 2001; Rosser, 2003; Solomon, 2010) identified two main models of corporate governance: the outsider (or Anglo-Saxon) model, which is used in US, UK, Canada, Australia and New Zealand; and the insider (or Continental) model, which is used in Germany, France, the Netherlands, Switzerland, Sweden, Austria, Denmark and Finland. The salient features of the insider and outsider models are shown below in **Table 2**.

The insider model of corporate governance is categorised by high reliance on bank finance, weak legal protection of minority shareholders, weak disclosure, concentrated ownership, a dominate part for the stakeholders in the ownership and management in the firms and limited freedom to merge or acquire (Rosser, 2003). Moreover, Solomon (2010) argues that the companies in the insider model are owned and controlled by a small number of major shareholders. He reports that those shareholders may be a small group of shareholders (e.g. lending banks), members of the companies (e.g. founding families) and the state. In addition, Solomon (2010) points out that the insider model referred also to relationship-based systems because of the close relationship between corporations and their dominant shareholders.

From first glance, it would appear that a close relationship between the management and the shareholders would limit the agency problem; there is little effort to align the interests of the company management and the shareholders if they are the largely same persons. However, other corporate governance problems appear to surface in such scenarios, such as with regard to the low level of separation of ownership and control (particularly in family companies) (Solomon, 2010). There may be an expropriation of the minority shareholders interest because of the problem of information asymmetry because the minority shareholders are unable to gain any information about the company operations due to lack of transparency. In such situations, vague financial transactions and the misuse of the assets are common (Solomon, 2010).

Table 2: Characteristics of insider and outsider corporate governance systems

Model	**Insider**	**Outsider**
Owners	Insider shareholders	Outsider shareholders
Ownership structure	Concentrated	Dispersed
Separation of ownership and control	Little	Separated
Control over management	Insider shareholders	Managers
Hostile takeover activity	Rare	Frequent
Protection of investors	Weak	Strong
Shareholders' rights	Potential for abuse of power	Potential for shareholder by majority shareholders democracy
Shareholders voting	Shareholder voting Majority of shareholders tend to have more voice in their investee companies	Shareholders characterized more by exit than by voice

Source: Solomon (2010, p. 196)

In contrast to the insider model the outsider model is characterised by high reliance on equity finance, strong legal protection of shareholders (especially minority shareholders), dispersed ownership, a diminished role for employees, creditors and other stakeholders, strong bankruptcy regulations, substantial freedom to merge and acquire and strong requirement for disclosure (Rosser, 2003). Albeit outside (Anglo-Saxon) model companies are owned by outside shareholders such as individuals or financial institutions, they are managed and controlled by their managers (Solomon, 2010). As a corollary, Berle and Means (1932) point out that this will result in separation of ownership and control. The agency problems resulting from this

separation have been explained previously in this chapter (subsection 2.3.1). Different researchers (Fukuyama, 1992; Hansmann and Kraakman, 2000; Rosser, 2003) argue that globalisation played a central role in merging the different corporate governance models across the globe and assimilating them to the Anglo-Saxon/outsider model. Therefore, all jurisdictions as a corollary can be expected to transfer to the Anglo-Saxon or the outsider legislative setup.

Singh (2003) reports that most emerging markets are imperfect. He points that these markets suffer from information asymmetry, accounting transparency, governance and corruption to a much greater extent than markets in developed countries. Bruner et al. (2002) argue that one of the most substantial reasons for the economic crises in the emerging markets is the weakness of the corporate governance practices. Singh and Zammit (2006) asserted on the above studies arguing that the most important imperfections of the emerging business are: (1) poor state of competition; (2) poor corporate governance; and (3) the close relationship between business, government and banks. Therefore, Singh (2003) believes that it necessary for emerging markets to improve their standards of corporate governance. Klapper and Love (2004) recommend that these markets to encourage companies to have good corporate governance practice.

As discussed later in chapter four, Jordan underwent widespread economic and political reforms from the 1990s and into the 2000s, in an effort to show that the Jordanian companies are well governed. In addition, an attempt was made to apply the corporate governance principles in their companies. This motivated the Jordan Securities Commission (JSC) to issue the JCGC in 2006 (more details are discussed about this in chapter four). The JCGC has implemented many different corporate governance principles and standards that already exist worldwide in the international codes. In particular, the recommendations of the JCGC were heavily extracted from those of the OECD and the UK's Cadbury Report (1992), particularly the suggestions and recommendations of the internal corporate governance structure. The JCGC was influenced by the Cadbury Report (1992) and the OECD guidelines (2004) with particular regard to:

1. Committees formed by the board of directors;
2. Shareholders rights;
3. Disclosure and transparency;
4. The duties and the power of the audit committees; and

5. The separation between the chairman and the CEO.

2.6 Summary

Corporate governance is the system by which firms are directed and controlled. It deals with the ways suppliers of finance can ensure that they will get a return on their investment (Cadbury Committee, 1992; Shleifer and Vishny, 1997). Because the literature includes several definitions to clarify the meaning of corporate governance from different perspectives and understandings, this chapter defined corporate governance from two perspectives: shareholder and stakeholder. With a view to the objective of the thesis to investigate the impact of corporate governance on firm performance, the narrow definition is more relevant since it provides direct link between corporate governance and financial performance. This chapter reviewed agency theory, resource dependence theory and stewardship theory. The study used the agency theory as the main theory for this study to explore the relationship between corporate governance and firm performance. The objective of reviewing these theories is to find how corporate governance mechanisms are explained from the perspective of every theory. Finally, the chapter reviews corporate issues in developing countries and models.

CHAPTER 3: LITERATURE REVIEW

3.1 Introduction

In the classic principal-agent model, the divergence of incentives whereby managers are prone to pursue their own interests at the expense of shareholder value maximization causes agency problems. The main reasons managers can be anticipated to expropriate shareholders (thus necessitating agency costs) are related to their own job security, status and remuneration; managerial behaviours in this regard are generally linked to company size rather than firm performance. In order to monitor the activities of agents, agency costs are incurred by principals (and overall by the firm, representing a costly burden to general performance) in order to reduce the information asymmetry and assay the level of effort and performance of managers. The most obvious component of agency costs in this regard is monitoring costs arising from gathering information on the behaviour and actions of managers. Managers also bear bonding costs, which are difficult for principals to practically observe, which thus result in making efforts at the expense of their own utility and implementing the contractual terms in order to reduce the agency conflict (Jensen and Meckling, 1976). Agency theory provides a useful tool for providing insight into the suggestions for corporate governance mechanisms or arrangements that would mitigate the agency problems to enhance the principal returns. It also provides insight into why agents might be rewarded with performance-based incentives in the form of share ownership, and the role of external significant owners in exerting monitoring control in order to mitigating agency problems (Fama and Jensen, 1983; Jensen and Meckling, 1976). Agency problems can be reduced by numerous corporate governance mechanisms in the agency model aiming to align the interests of owners and managers (Fama, 1980; Fama and Jensen, 1983; Jensen and Meckling, 1976). Internal governance mechanisms have been explored by numerous studies, particularly regarding board and ownership structures and the ways in which the intrinsic misalignment between the interests of shareholders and the managers can be aligned in order to improve firm performance. If agency problems resolved it is more likely the shareholders and managers interests are aligned thereby value maximization and better performance.

The mechanisms proposed to reduce agency problems and to increase managerial incentives to align the interests of shareholders and mangers are explored in this chapter. Specifically, the main mechanisms that have used in this study to achieve this

aim are; board structure (e.g., board size, CEO duality and the presence of NEDs) and ownership structure (e.g., large shareholders or concentrated ownership, the identity of shareholders and managerial ownership). In addition, the study will investigate the impact of foreign investors on firm performance.

3.2 Board of Directors

The fundamental role of the board of directors is to monitor the managerial side of the firm and to minimize the problems inherent in the principal-agent relationship. In this sense, principals are the owners, agents are the managers and the board of directors act as the monitoring mechanism. If the interests of the agent and the principal are misaligned, an agency problem exists. There is always the potential for agency problems, mainly that agents will pursue their own objectives at the expense of the principals, for which reason principals appoint members of the board of directors as well as agents to ensure that the firm is working in the interests of its owners. This divergence of interests and the need to oversee agents causes the firm to incur agency costs, including monitoring and bonding costs as well as and residual losses (Jensen and Meckling, 1976). Ultimately, the principals bear these costs, thus the reduction of agency costs is part of the duty of maximizing shareholders' value.

The board of directors is the apex of hierarchical corporate control systems, and its primary role is to monitor the management by agents on behalf of principals (shareholders) who elect its members. The more power and control the board exercises over managers, the less opportunity managers (agents) have for activities not geared to the maximization of shareholder value (Liu and Fong, 2010). Thus the board of directors is essentially a monitoring mechanism to protect principals' interests (Jensen and Meckling 1976). An independent board is generally viewed favourably as part of an efficient governance mechanism, because independence from management clearly enhances the ability of the board to exercise its function of overseeing the former on behalf of principals (Liu and Fong, 2010).

Consequently, the board of directors has the power to engage, dismiss and compensate top-level managers, to ratify and monitor important decisions (Fama and Jensen, 1983; Gillan, 2006; Yermack, 1996; Booth et al., 2002; Baranchuk and Dybvig, 2009) and to ensure that executive directors are pursuing the interests of principals. According to Fama (1980), the board of directors is viewed as important tool or devise to scrutinize

the company manager's decisions. From the agency theory viewpoint, the role of the board of directors is to provide the most effective device to attain corporate governance that ensures their interests; in other words, it is instituted primarily in order to mitigate agency problems (Fama, 1980). Resource dependency theory sees the board of directors as a co-optative mechanism with the role of calibrating the firm with external environmental demands (Aguilera and Cuervo-Cazurra, 2009). In the list it is 2009 Agency theory thus relies on a more basic understanding of human nature in contracting agreements and accords agents a more important role in firm performance.

Solomon (2010) recommended some principles to be complied in the construction of boards, to ensure the best structure: meeting frequently, effective communication between board members and shareholders, willingness to consider suggestions from each other, high level of integrity, concern about financial risks and awareness and rationale to solve financial problems, and to take any course of action to improve the efficiency of the company. Walker (2005) stated that a significant concern to which attention should be given in the construction of a board structure is the appropriate appointing and compensation of directors. Ingely and Walt (2002) supported the promotion of the diversity of the board by focusing on some criteria to select the appropriate directors: qualified individuals of both genders, and members with diversity of experience. The effectiveness of a board is measured by the extent to which it adds value to the company. These suggestions are reflected in acceptance governance practices, for example the UK Combined Code states that:

> "The board's role is to provide entrepreneurial leadership of the company within a frame work of prudent and effective controls which enables risk to be assessed and managed. The board should set the company's strategic aims, ensure that the necessary financial and human resources are in place for the company to meet its objectives and review management performance. The board should set the company's values and standards and ensure that its obligations to its shareholders and others are understood and met". (UK Combined Code, 2006, p. 3)

Directors' responsibilities have been classified into three groups: control, services and resource dependence. Because the managers' responsibility is to work in the best interest of shareholders, the control role demands the directors to be responsible to hire and fire the managers and the CEO and to make sure that managers are working in the best interests of the shareholders (Monks and Minow, 1995). The service role consist of directors counselling and advising the CEO and any top managers in relation to any administrative, managerial issues and framing the company strategies (Johnson and

Daily, 1996). Resource dependence theory holds that the board is a fundamental assistant of the company. It is important to contact external linkages to have more resources to improve firm success. In order to improve the success of the firm, it is important that directors satisfy this role by counsel or representation with other institutions (Pfeffer and Salancik, 1978).

As a solution to the conflict between the board and the CEO in general, Fama and Jensen (1983) suggest that the majority of board members should be NEDs, who are supposed as independent and can act as mediators in disagreements among top executives and search for the replacements of the internal managers. Hermalin and Weisbach (1988) propose that if the board of the director is independent, this will motivate the directors inside the board to monitor the CEO behaviours. Therefore, it is important for the directors to preserve for their independence to maintain their monitoring role in order to replace poor performing CEOs managers. Hermalin and Weisbach (1988) suggested that the major conflict within the boardroom is between the directors and the CEOs, since the latter have the incentive to control the board in order to maintain their positions and to increase their interests and benefits.

Following the prevailing theme elaborated upon above, namely the context in which the optimum boardroom is composed of executives to run the day-to-day operations of the firm and NEDs to monitor executives, the important research issue which emerges regarding the board is how to make the effectiveness of the board of the directors as an internal monitoring control mechanism. Affirming the importance of this issue, the Jordanian Corporate Governance Code (JCGC, 2006) provides recommendations that the board size should comprise between five and thirteen members, with a sufficient balance of skills and experience. The roles of the CEO and the chairman should be separated from each other (i.e. no CEO duality) and one-third of the board should be NEDs. Due to these JCGC (2006) specifications, the board size, CEO duality and the percentage of the NEDs were consequently chosen as variables for the board structure for this study.

An effective board successfully monitors the management and is an important tool to facilitate board members' commitment to firm strategies to reduce the managerial activities unaligned with shareholder interests. Consequently, the quality of the board decisions ultimately affects firm performance and value; better monitoring of management makes it more likely that managers will act in the best interests of the

shareholders, which means that profitability of operations will be increased along with the value of shares, reducing the agency conflict between managers and shredders. The major concern of shareholders is to maximise the return on their investment. The following sections discuss three different mechanisms (e.g. board size, CEO duality and non-executive directors) and their impacts on firm performance.

3.2.1 Board of directors' sub-committees

Corporate boards' efficiency is enhanced by board committees (Jiraporn et al., 2009). Harrison (1987) stated that there are two main board committee types: monitoring or oversight, and management supporting or operating. Operating board committees advise management and the board about major business decision. Their monitoring counterparts are intended to protect shareholder interests by providing objective, independent review of corporate executives and affairs. A key monitoring function of the board of directors according to the agency theory paradigm is to ensure proper auditing of corporate activities (e.g. Fama and Jensen, 1983a; Jensen and Meckling, 1976), as well as proper appointment and remuneration of senior management and directors (Chhaochharia and Grinstein, 2009; Jiraporn et al., 2009).

Concurring with the agency model, the Cadbury Report (1992) argued that board committees are an additional control mechanism to encourage increased accountability and optimum financial management of firms, with increased protection of shareholder interests (Cadbury, 1992). Harrison (1987) argues that shareholder protection and generally responsible behaviour can be induced in corporate boards due to the successful application of board committees. The specialist functions of board committees thus promote the credibility, legitimacy and accountability of corporate governance. Hence, the board committees will help in reducing the asymmetric information and the conflict between the principal and the agent leading to lower costs and higher returns for the shareholders and better firm value (Weir et al., 2002).

The practical implications of board committees are reflected in the fact that a significant proliferation in their use has occurred since the early 1980s (Harrison, 1987), and most corporate governance codes advocate such committees (e.g. Cadbury Report, 1992; Sarbanes-Oxley Act, 2002' UK Combined Code, 2006), mainly related to functions concerning nomination committees, remuneration and auditing. However, although some theoretical literature claims that such committees can positively affect

performance (e.g. Harrison, 1987; Sun and Cahan, 2009; Wild, 1994), and monitoring committees are increasingly prevalent in practice, their actual impacts on financial performance remain unclear.

Unlike operating committees, which are usually dominated by insiders, NEDs usually form the bulk of monitoring board committees, thus rendering them more reliable in protecting minority shareholders' interests (Klein, 1998; Vefeas, 1999b). Additionally, the smaller size of board committees means they can meet more frequently, enabling meaningful analysis and discussion, and promoting efficient decision-making (Karamanou and Vefeas, 2005). The prevalence of NEDs in board committees also incorporates external expertise and knowledge into the decision-making process of the board (Harrison, 1987), freeing the main board to focus on strategic interests. The specialist functions of board committees thus promote the credibility, legitimacy and accountability of corporate governance (Weir et al., 2002).

The audit committee mainly functions to regularly meet with auditors (internal and external) to review audit processes, financial statements and internal accounting controls. Clearly this contributes to the reduction of information asymmetry and consequently agency costs by allowing for the timely disclosure of verified accounting information to shareholders (Klein, 1998). The potential for financial fraud is minimised by audit committee monitoring, which consequently increases investor confidence and firm value. Audit committees require more transparency from management, thus enhancing the quality of financial disclosure (Klein, 1998), particularly to shareholders, thus reducing the agency problem. Understanding the internal control evaluation process is clearly essential for an audit committee to assay features such as audit plan and to discover negative behaviours (e.g. fraudulent activities) and errors (Caplan, 1999; DeZoort, 1998).

The determination of the compensation of senior personnel by the remuneration committeealso reduces the agency problem incentivising managers in alignment with shareholders' interests (Klein, 1998; Weir and Laing, 2000). Improper monitoring of remuneration for executives can induce them to conspire with the CEO to award themselves higher compensation, thus independent directors should be the sole arbiters of remuneration committees, both to protect shareholders and to ensure that remuneration is an instrument for improving performance (Gregory, 2002; Monks, 2001; Vafeas, 1999;Yermack, 1997). However, such independent directors often consult

external experts to inform their remuneration decisions, which can be undermined if this advice is delivered inappropriately (Monks, 2001).

The nominationcommitteeminimises agency conflict by improving board independence and the quality of appointed directors (Vefeas, 1999b; Vefeas and Theodorou, 1998). Nomination committees play an important role to strengthen the board composition via the director selection procedure (Cadbury Report, 1992). In this sense, the ability of the NEDs to perform their monitoring role on the management depends on the board recruitment process and their independence (Vafeas, 1999). The possibility of conflicts of interest for outside directors in evaluating CEOs arises due to a lack of nominating committees; clearly this scenario is prone to result in CEOs receiving excessive remuneration (Westphal and Zajac, 1995), consequently undermining firm performance (Harrison, 1987). This form of agency conflict can be reduced by improving the application of nominating committees (Fama and Jensen, 1983; Jensen, 1993).

However, other authors have declared that board committees can have negative impacts on firms' financial performance. Most obviously, board committees intrinsically result in extra costs by their very existence, costing firms in terms of remuneration and facilities for committee members, managerial time and travel expenses (Vefeas, 1999a). Secondly, extensive managerial supervision can undermine executive initiative and vision (Conger et al., 1998; Goodstein, *et al*., 1994; Vefeas, 1999a, 1999b). Thirdly, it could be superfluous by replicating the duties and responsibilities of corporate boards. Finally, the increasing lack of specific expertise among board members (i.e. greater heterogeneity) will promote conflicts and undermine boardroom cohesion.

There have been some empirical studies concerning the impacts of audit committees. Wild (1994) examined market reactions before and after their establishment with a sample of 260 US-listed firms from 1966 to 1980. He found a statistically significant improvement in share returns following audit committee establishment, suggesting that the committees increase managerial accountability to shareholders. Using a sample of 606 large US-listed firms, Vefeas (1999b) found a positive relationship between the quality of new director appointments and the establishment of nomination committees, suggesting that the latter improve board quality, consequently improving board effectiveness in monitoring and advisory functions. A sample of 220 large British-listed firms was used by Main and Johnston (1993) to study the role of remuneration committees. They found that remuneration committees were linked to higher executive

pay and reduced shareholder value. Using a sample of 486 US-listed firms for the period 1992-1993, Klein (1998) examined the connections between audit, compensation, and nomination committees' establishment and financial performance; she found no statistically significant relationships, and demonstrated the robustness of her results despite changes in committees' membership composition. Similarly, Bozec (2005) and Vefeas and Theodorou (1998) found no empirical relationship between financial performance and the presence of board committees.

Hence, every committee is linked to specific functions; if all committees in a firm fulfil their duties by oversee and monitor the management activities objectively this should decrease agency conflicts and improve the alignment of shareholder and manager interests, resulting in value maximization for the shareholder wealth and improved the firm performance.

This study does not examine the impact of board sub-committees for Jordanian companies because no data are available from annual reports and the Osiris database concerning them. The researcher endeavoured to contact the companies to conduct interviews by calling and emailing them in order to collect information regarding whether they have such committees and their composition. However, of 115 companies approached, only 19 responded, most of which stated that they do not have such committees within their board structure. This is because companies were voluntarily required to have board committees before 2006. In 2006 the JCGC stipulated that the board of directors must form audit, remuneration and nomination committees, which came into effect from the beginning of 2007. However, the concept and term of 'board committees' is still new for these companies, and few have tried to establish them. This is related to the nature of the company and complexity of the business. Furthermore, the JCGC is voluntary, so there is not statistical information available from the Jordanian company control department to ascertain the extent to which companies have actually implemented this recommendation.

Since this study began in 2000 the researcher was unable to examine the effect of these committees; however, it is clear that board committee structure in Jordan is a rich area for further investigations.

3.2.2 Board size

When the concept of boards is accepted, it can be intuitively assumed that a larger board is preferable, as this enables the inclusion of more diverse board members brining different areas of expertise; however, increased board size causes increased problems of coordination and communication, undermining board effectiveness in monitoring agents (Eisenberg et al., 1998; Jensen,1993; Lipton and Lorsch, 1992). Additionally, larger boards have been fodunt o be characterised by decreased ability of directors to criticise top managers and to analyse and discuss firm performance seriously (Lipton and Lorsch, 1992).

Jensen (1993) proposes that large boards are more likely to face high costs to monitor the firm and they are less likely to have effective function when the size of the board more than seven or eight people. The agency model suggests that as board size becomes large, the agency problem related to director freeriding increases and "the board becomes more symbolic and less a part of the management process" (Hermalin and Weisbach, 1998). In large boards it is more likely to be controlled by the CEO rather than the board monitor and control the management. This will give the managers the spaces to pursue their own interests instead of aligning the interests of the shareholders and managers leading to increase the agency problems and thereby lower firm performance (Hermalin and Weisbach, 1998). Kholief (2008) argues that as board size becomes larger it will be more difficult for board members to reach a consensus due to the more diverse opinions and ideas. Therefore, large boards are slower and less efficient in making decision. All of these actions might increase the agency conflict, because with less coordination and communications this will lead to decrease the board members ability to control and monitor management which might result in worse firm performance.

In the same vein, Ahmed et al. (2006) argue that formulating and adopting new ideas and agreeing on different opinions are less likely to take place in large boards, which will result in less improvement of the board function to provide the manages with good ideas and contributions. Thus, the conflict in the board means that board members are less likely to work in the interests of the shareholders therefore agency problem increase. Cascio (2004) concluded that to-date there is still a debate about the optimal size of the board. In other words there is no specific formula that should be adopted or followed to define the number of directors inside the board: some studies support the

smaller boards and other studies find larger boards are more beneficial. Yermack (1996) reported that large boards are characterised by less coherence and poorer communication which might decreased the board members ability to monitor the management efficiently. This cause greater agency problem and costs resulting in lower firm performance. This cause greater agency problem and costs resulting in lower firm performance. Thus, related to the agency problem, large boards lead to more directors' free-riding problems, increasing the sharing costs and internal conflicts among directors. Therefore, these problems will result in increasing the agency problem and thereby lower returns and worse firm performance.

However, CEO domination is characteristic of smaller boards, as the more powerful position of CEOs in such boards enables them to override decisions made by the board in accordance with their own interests, increasing agency problems and correspondingly undermining the performance of the firm (Miller, 2003). This result also confirms resource dependency theory's proposition, implying that large boards, due in part to their effective linkage (Pfeffer, 1972) and diversity (Goodstein et al., 1994), increased the likelihood of firm's performance by improving firm's ability to co-opt the turbulent environment (Hambrick and D'Aveni, 1988). This is in accordance with the aspect of resource dependency theory that affirms that the diversity and more effective cohesion of large boards boosts firm performance by transcending challenging market conditions (Goodstein et al., 1994; Hambrick and D'Aveni, 1988; Pfeffer, 1972); the shortfall in linkage among smaller boards can deny undermine their access to credit. Additionally, large boards mitigate the agency problem by performing their strategic function more effectively, which is essential during periods of financial turbulence or distress to reduce agency problems (Mintzberg, 1983). Under such circumstances, the lack of diversity in smaller boards increases uncertainty concerning strategic development (Goodsteing et al., 1994; Mintzberg, 1983; Pearce and Zahra, 1992). This ultimately increases the agency problem and undermines performance in firms with smaller boards.

Previous studies (Arosa et al., 2010; Dalton et al., 1999; Gales and Kesner, 1994; Haniffa and Hudaib, 2006; John and Senbet, 1998; Lehn et al., 2009; Yawson, 2006) found that large boards provide wider diversity of backgrounds, diversity in communications skills, experience and business contacts outside the company. Dalton et al. (1998) report that larger boards allow the directors to exchange more highly qualified counsels and presents extra scope for the possibility of correlation with different

external linkages. Large board also plays an important role in improving and enhancing the outcomes of the decisions because of sharing of ideas and contributions, which leads to provide the management with new ideas and opinions which might result in reducing the agency problem leading to better performance (Lehn et al., 2009).

Empirically, the evidence regarding the relationship between board size and firm performance is mixed. Anderson et al (2004) found a negative relationship between the board size and the firm value. They outlined that financial markets react positively to the announcement of a board downsizing. Conversely, the announcement of increasing the number of directors in the board leads to reducing the equity value. They stated that this is not the general outline that can be applied to all companies, as it is not a linear reaction. They concluded that the companies who were affected negatively were small- and medium-sized companies, while large companies did not suffer from the same problem.

Yermack (1996) found a negative relationship between the board size and firm performance, measured by Tobin's Q for 452 large US public firms during the period 1984 to 1991. He omitted the utility and financial companies from his sample because of the government regulations adopted by boards of directors in such companies. The study found that a small board has more favourable values for financial ratio. Also, Yermack (1996) stated that the incremental cost will increase as long the number of board members increases, and the company will have higher market value if the number of the board is smaller. He proved that corporations and companies are more valued in the capital markets by testing different independent variables, for instance board composition, the presence of growth opportunities, diversification and company age. All of those independent variables did not change the result that the small boards are better from the large ones in improving firm performance. Small boards have been found to be more productive than large ones, evidenced by decreased efficiency when board size increases, which is attributed to barriers in coordination and processes (Dahya et al., 2002; Guest, 2008; Haniffa and Hudaib, 2006; Jensen, 1993; Lipton and Lorsch, 1992; Yermack, 1996). However, Eisenberg et al., (1998) argued that Yermack's (1996) sample concentrating on large firms means that his findings cannot be transposed to smaller firms, which vary according to differences in the cultural environment. Eisenberg et al., 1998) studied 879 small- and medium-sized Finnish companies for the period 1992 to 1994, and found a negative relationship between the board size and the firm profitability measured by return on assets (ROA). In accordance with Yermack

(1996), different studies (Bozec, 2005; Cheng et al., 2008; Eisenberg et al., 1998; Guest, 2008 Vefeas, 1999a) confirmed that small boards are more likely to be associated with lower agency costs leading to better performance.

In contrast, other researchers reported that increased board size impacts the firm performance positively.Larmou and Vafeas (2010); Sheikh et al. (2012) found that when the board size increases the market responds favourably. In their study they report that large boards provide better monitoring for companies with poor operating performance due to their diversity of backgrounds and communications skills. Sanda et al., (2005) studying a sample of 93 Nigerian listed firms during the period 1996 to 1999, found a positive correlation between the board size and the firm profitability as measured by return on equity (ROE). Their results support that large boards have better access than smaller ones to the external environment by offering better chances to have wide resource for finance and raw materials. This is in line with resource dependence theory that large boards offer greater access to their firm external environment, which facilitate and secure critical resources (e.g. raw materials and finance) and reduces uncertainties (Pearce and Zahra, 1991). Haniffa and Hudaib (2006) found a positive relationship between the board size and the firm performance as measured by ROA, which is in contrast with their prior finding of a negative relationship between board size and the firm performance measured by Tobin's Q. The later result is consistent with Kiel and Nicholson (2003), Beiner et al., (2006) and Coles et al., (2008). This divergence takes place because of the perceptions of the investors and the management for the large boards which is based on large boards enhancing the knowledge of the business. Basically, Haniffa and Hudaib (2006) found that the wider knowledge base inherent in larger boards facilitates better business decisions to reduce the agency problem. Mangena and Tauringana (2007) also found a positive relationship between the board size and the firm performance of 72 Zimbabwean listed firms for the period 2002 to 2004. They demonstrated that their results stayed fixed and unchanged even if using inflation adjusted data. This indicates that large boards provide important role of effective monitoring in uncertain economic and political periods to reduce agency problems and improve firm performance. Finally, Ho and Williams (2003); Mangena and Chamisa (2008) and Topak (2011) reported that there is no relationship between the board size and firm performance.

As can be seen above from the mixed results, there is no consensus as to whether larger or smaller boards are better to monitor the firm. Thus, board size issue is primarily

concerned with the board ability to monitor and control managers. Therefore, if monitoring is implemented it is more likely managers' behaviours will be controlled and agency problems are reduced which might result in better firm performance. In other words, if the managers have restricted parameters to do what they are supposed to do, it is difficult for them to deviate from the interests of the owners due to the close monitoring from the board members which should lead to take decisions and actions to maximize the value of the shares and thereby better performance.

In Jordan, the JCGC was released in 2006 to build and develop the capital market and for improving the regulatory framework. It states that:

> "The administration of the Company is entrusted to a board of directors whose members shall be not less than five and not more than thirteen, as determined by the Company's memorandum of association." (JCGC, 2006, p. 7)

In Jordan, the legislators identified that the size of the board should be between five and thirteen. However, some companies may not follow these instructions and recommendations. This is because not all the companies have the same size and the same nature of work. Therefore, the size might vary from company to another company.

3.2.3 CEO duality

Another board of director variable that might increase or reduce the agency problem is CEO duality. CEO duality refers to the board leadership structure in terms of whether the CEO and the chairman are the same person or not. In order to study the impact of CEO duality on firm performance, two paradigms will be employed in this section: agency and stewardship theories. The agency theory supports the idea of separation between the CEO and the chairman, to increase board independence from management, which (theoretically) results in better performance due to better monitoring and overseeing (Jensen, 1993). On the other hand, stewardship theory argues against separation, because it is based on duality. According to the stewardship paradigm, effective management is based on the principle of the unity of command. . This is because when responsibilities and decisions are restricted to one person, this might facilitates greater understanding and knowledge of the company operations and better decisions which will result in reduce the agency costs and positive impact on firm performance (Adams et al., 2005; Arosa et al., 2012; Dalton and Kesner, 1987; Davis et

al., 1997; Donaldson and Daives, 1991; Finkelstein and D'Aveni, 1994; Peng et al., 2010).

From the agency theory perspective, the chairman has an important role and duties in the board in monitoring, running board meetings, making sure that all the issues that related to the company are listed in the agenda to be discussed in the board meeting, hiring and firing, and replacing the CEO if the latter is deemed to be negligent in serving the interests of the shareholders; the CEO ordinarily manages the company and is responsible for implementing the firm strategies and policies (Fama and Jensen, 1983). Due to this perspective, the chairman responsibilities and tasks inside the board remunerating the CEO and overseeing the board. So by combining these roles in one person can result in increasing agency problems by diluting the effectiveness of monitoring the CEO (Jensen, 1993). Mallette and Fowler (1992) pointed out that combining the two roles of the CEO and the chairman in same person will lead to increasing their control overall, and will reduce the power of the board. . In other words, CEO duality will lead to the entrenchment of managers or the CEO and curbs the independent director's ability to monitor and to fulfil their governance role. This will increase the conflict between the principal and agent therefore the CEO duality is more likely to affect the firm performance negatively. Therefore, to ensure the board independence it is recommended to split the two positions from each other by providing efficient checks and balances over the managerial behaviour (Lipton and Lorsch, 1992; Ehikioya, 2009; Van den Berghe and Levrau, 2004). This might help in preventing managers from pursuing their own benefits and self-interests to the advantage of the shareholders. Fama and Jensen (1983) argue that separation of the roles of the chairman and the CEO demarcates the boundaries between the management's decision control function and the monitoring function of the NEDs.

The UK Combined Code also recommends the separation of the role of CEO and chairman, stating that:

> "There should be a clear division of responsibilities at the head of the company between the running of the board and the executive responsibility for the running of the company's business. No one individual should have unfettered powers of decision". (UK Combined Code, 2006, p. 4)

On the other hand, from the stewardship theory perspective CEO duality might impact the firm performance positively as he has specific knowledge about the company, its

investment opportunities and its strategic direction it is more likely he can help to optimize decision-making (Weir et al., 2002). Brickley et al. (1997) and Adams and Ferreira (2007) suggest that if the chairman is also the CEO he will provide his knowledge to the directors, which will help them to play their advisory role more effectively therefore it is more likely duality will affect the firm performance positively. More decisive and cohesive strategic decisions can be made with CEO duality by circumventing conflicts between the CEO and chairman (Baliga et al., 1996; Brickley et al., 1997; Harris and Helfat, 1998

If the stewardship theory is accepted, the CEO is actively engaged and motivated to lead the firm effectively according to stewardship behaviour (Boyd, 1995), thus CEO duality is anticipated to benefit firms, particularly in complex or challenging conditions (Chahine and Tohme, 2009).CEO duality is more common in small firms due to them tending to have more concentrated ownership structures and corresponding integration of roles (Machold et al., 2011). Vafeas and Theodorou (1998) propose that CEO duality will help in reducing the costs that related to extra compensations or managerial remunerations. In addition, CEO duality improves the accountability of the firm by providing easier methods to identify and to blame the CEO with any poor performance (Bozec, 2005; Abor, 2007; Sheikh et al., 2012).

Empirically, Rechner and Dalton (1991) in their study of 141 large companies (Fortune 500 firms) used accounting measurements such as ROE, Profit Margin PM and ROI from 1978 to 1983 and found that firms with separated boards perform better than firms that have CEO duality in their boards. Dahya et al. (1996) investigated the CEO duality in the UK for listed companies; they found the stock market is more favourable when the two roles are split from each other. Haniffa and Hudaib (2006) studied the effect of the role of CEO duality on the firm performance for 347 Malaysian listed firms. They report that splitting the two roles from each other will result in better financial performance. Chahine and Tohme (2009) in their study of 127 initial price offerings (IPOs) firms used a sample from the Middle East and North Africa to investigate the relationship between initial under-pricing and the CEO duality, finding that firms that combine the two roles in same person have more potential to face under-pricing. These findings support the agency view that splitting the two roles will remove the constraints on the board members to perform their role effectively to monitor the management opportunistic behaviour. In other words, splitting the two roles will reduce the CEO

power to take advantage for his own interests rather than the interests of the shareholders' interests or the company.

In contrast, other studies (Boyd, 1995; Donaldson and Davis, 1991; Elsayed, 2007; Kiel and Nicholson, 2003) found a positive relationship between CEO duality and firm performance. Boyd (1995) reported that combining the roles leads to better decisions without interference by any other party. Donaldson and Davis (1991) claim that CEO duality provides a unified leadership of the firm that facilitates greater understanding and knowledge. These findings are consistent with the view that CEO duality enhances decision making by focusing on the firm objectives to improve performance. Finally, Bozec (2005) in his study of a sample of 25 Canadian firms from 1976 to 2000 did not find any impact on the sales, return on sales, assets turnover and sales efficiency. In addition, Haniffa and Hudaib (2006) did not find any significant relationship between the CEO duality and the firm performance measured by Tobin's Q for 347 Malaysian Listed firms. Similarly, Mangena and Chamisa (2008) did not find any impact for the CEO duality on the financial performance for 81 South African listed firms from 1999 to 2005.

As we shown above, the previous studies' results are mixed with regard to the CEO duality. From the agency perspective CEO duality might result in inefficient supervision of managerial opportunism, exacerbating the agency problem and facilitating CEO domination of the board, undermining the monitoring function of the latter, which affects firm performance negatively. On the other hand, CEO duality might be an advantage to the firm performance. This is because CEO duality might provide a unified leadership of the company that facilitate better knowledge and understanding of the company decisions and operations.

In Jordan, the recommendation of the JCGC 2006 recommended to split the two roles from each other.

3.2.4 Non-executive directors (NEDs)

The nature of board composition and its impact on performance is highly debatable. Directors can be classified either as executive (i.e. personnel simultaneously assuming the roles of managers and directors) or non-executive directors, and each category is characterised by different incentives and behaviours (De Andres et al., 2005). A combination of both is advised by most national and international corporate governance

codes (e.g. the Combined Code in the UK, the OECD Code and the Sarbanes-Oxley Act in the US). Agency theory affirms that sufficient monitoring mechanisms are necessary to protect shareholders from the self-interest of management, and the optimum regulators for this are NEDs. It is therefore expected that a higher proportion of NEDs in a board indicate improved monitoring and consequently reduced agency problems (Fama and Jensen, 1983; Shleifer and Vishny, 1997). Some authors have cited other features of NEDs (Adams and Ferreira, 2007; Harris and Raviv, 1988; Hermalin and Weisbach, 1998; Linck et al., 2008; Raheja, 2005). Raheja (2005) argued that executives are intrinsically beneficial to boards due to their experience and firm-specific information, but they can be motivated by self-interest at the expense of the firm and shareholders; conversely, NEDs provide independent monitoring and improve firm performance, but they have less detailed knowledge about the daily operations of firms compared to executives. The emergent consensus is that a diverse, vigilant and strong board of directors exerts a positive influence on firm value, particularly due to improved strategic decision-making and innovation (Gabrielsson, 2007a). The more effective monitoring role of NEDs and their function as disciplinarians of managers was acknowledged by Hermalin and Weisbach (1991), but they found no significant relationship between the proportion of NEDs in the board and firm performance. A greater proportion of NEDs improves boards' power over CEOs (Gabrielsson, 2007a) thus the monitoring function of boards under agency theory favours the presence of NEDs to safeguard shareholders' interest and to oversee executive activities (Fama and Jensen, 1983; Gabrielsson and Winlund, 2000).

Other theoretical perspectives (besides agency theory) have been invoked to explain the roles and composition of boards. The resource-based view focuses more on the service role, whereby boards are a strategic resource to secure critical firm requirements, and are responsible for the coordination of inter-organisational dependencies (Pfeffer, 1973; Pfeffer and Salancik, 1978). According to resource dependence perspective, the resources and capacities of firms' internal environment is essential for competitive advantage, and the board has a fundamental advisory role in this aspect (Daily and Dalton, 1993; Teece et al., 1997), particularly NEDs who can bring external knowledge and skills to the management team (Garcia et al., 2010; Machold et al., 2011). Fundamentally, NEDs under the resource dependency perspective function not to control managers but to enhance the resource and service needs of the CEO (Fiegener et al., 2000), including compensating for the deficiencies of the latter (Huse, 1990).

The advisory role of the board is therefore connected to the service role and strategic networks (Gabrielsson and Winlund, 2000). NEDs can thus be perceived as nodes linking the external and internal environments of firms to enhance managerial functions (Johnson et al., 1996; Zahra and Pearce, 1989). This explains why NEDs are typically powerful and notable people who exploit their personal networks to increase the reputation, legitimacy and ultimately value of firms (Pfeffer, 1973; Pfeffer and Salancik, 1978). NEDs can also overcome the human resources shortfall common among complex firms (Daily and Dalton, 1993), improving decision making as well as increasing supervision (Huse, 1990). Thus it can be expected that NEDs should function to mediate conflict/misalignment between managers and owners, maximizing shareholder wealth and ultimately improving firm performance.

Conversely, it is the view of stewardship theory that NEDs are less able to monitor managers than insider directors due to their lack of specialist knowledge of firms' internal operations. Baysinger and Hookisson (1990); Agrawal and Knoeber (1996); Weir and Laing (2000); Bozec (2005); Jiraporn et al., (2009) argue that the NEDs are commonly part-time workers, this will undermine their ability to monitor and advise the board because of the lack of the information that they have, and the lack of information concerning daily activities will reduce the NEDs' ability to apply their function efficiently. As a result, board dominated by high levels of NEDs will result in decisions with lower quality, and this in turn will result in negative impact on firm performance. Hermalin and Weisbach (1991); Hart (1995) argue that NEDs often lack information about the firm, do not bring the requisite skills to the job and they are too busy in their companies to contribute effectively. This might result in reduce their monitoring function to monitor the management behaviour who might start to work for their own interests rather than the interests of the shareholders and the company. This will increase the agency problem leading to negative impact on firm performance. Weir and Laing (2000) and Higgs Report (2003) report that because NEDs are part-time workers, they are unfamiliar with all the operations and business in the company, which results in their inability to comprehend the complications and difficulties that face the company. Lawrence and Stapledon (1999) argued that it is difficult for NEDs to improve the firm performance for different reasons. Firstly, in some companies it may be there some private connections between the chief executive director and the NEDs; therefore this reduces the contributions of the latter. Secondly, by appointing some NEDs in some boards for long periods, their incentive to perform their jobs in a positive way is

reduced. Finally, in some boards the NEDs could be executive directors in other companies, which also undermine their incentive to execute their role efficiently.

Although agency theory suggests that NEDs' representation improves firm performance, empirical evidence shows mixed results (Baranchuk and Dybvig, 2009; Gordini, 2012; Haniffa and Hudaib, 2006). Gordini (2012) examined the effect of outsiders on firm performance measured by ROA and ROI for a sample of 950 Italian small family firms (SFFs) from 2007 to 2009. Gordini reported a positive relationship between them and reports that the NEDs improved firm performance and added value to the firm through their contributions such as skills, experiences and their linkage to the external resources. Khan and Awan (2012) found a positive significant relationship between the outside directors and the firm performance measured by ROA, ROE and Tobin's Q. They conclude that the greater the percentage of outsiders in the board will result in better firm performance and add value to the firm. This is because of the close monitoring and their valuable advices and contribution to the company. These findings are consistent with the view of agency theory and resource dependence theory, namely that NEDs are effective monitors and a disciplining device for managerial behaviour. Conversely, Agrawal and Knoeber (1996), Bozec (2005) and Yermack (1996) provided evidence of a negative relationship between the NEDs and some performance measures. The third stream of this relationship provides evidence for no relationship between NEDs and firm performance (e.g. Arosa et al., 2012; Baysinger and Hoskinsson, 1990; Hermalin and Weisbach, 1991; Kumar and Singh, 2012). Thus, from an agency perspective, the NEDs are essential for the monitoring function as a safeguard for the shareholders' interests to monitor the manager's behaviours to reduce the agency problems to improve firm performance. This notion was supported also from the resource dependence theory view; NEDs provide the board with external experience, skills, knowledge and linkages to external network relationship. This will compensate for the skills of the internal directors and contribute with more ideas and knowledge. This might help in reducing the agency problem and affect the performance positively. As a result, if the NEDs perform their monitoring tasks and duties effectively, the likelihood of preventing management from expropriating the firm assets will be increased. This underlines the appropriateness of NEDs as a trustworthy regulatory mechanism in boards to ensure that managers function to maximise shareholders' wealth.

On the other hand, according to the stewardship theory perspective, due to the lack of the information that the NEDs have and because they are part time workers the proponents for this view, it can be assumed that this will reduce their ability to apply their function efficiently, and thereby impact the firm performance negatively. The boards in Jordanian firms have a one-tier board structure; both executive and non-executive directors sit on the same board. According to the JCGC (2006), the board size should range from 5 to 13 members and an NED is defined as "an employee of the Company nor receiving a salary therefrom". In addition, according to the Code "at least 1/3 of the board members must be non-executive, to comply with the board committees requirements".

3.3 Ownership Structure

The modern understanding of the principal-agent relationship can be traced to the seminal work of Berle and Means (1932). They observed that during the late-19th and early 20th centuries, traditional family ownership had been supplanted as the predominant modus operandi of US business by modern publicly traded companies, and that this had the effect of separating ownership from control of companies. A new class of managers had emerged in control of US firms, meaning that the dispersed small shareholders were effectively powerless. This work was particularly pressing in the context of the 1930s Great Depression, as corporate governance and managerial behaviour were key issues in the Wall Street Crash of 1929. Thus from the inception of modern studies of corporate governance, it has been assumed that a latent divergence exists between the interests of shareholders and of managers, and that without proper structure capricious managers can act at the expense of principals, based on the premise that corporate governance fundamentally determines firm outcomes (Berle and Means, 1932).

Agency theory posits that managers are agents of shareholders (principals) and they run the firm on behalf of the owners, thus engaging in a principal-agent relationship. Extensive literature indicates that there is an intrinsic conflict of interest between shareholders and managers, because the latter being engaged by the former to serve their own objectives of value maximization. It has been frequently observed that managers diverge from shareholders' interest and reduce and/or appropriate shareholders' wealth for their own interests (Jensen and Meckling, 1976; Fama and Jensen, 1985; Shleifer and Vishny, 1997; La Porta et al., 1998, 1999).

Agency theory provides deeper analysis of the conflict between shareholders and managers, which provided a framework to explain the reduction of shareholder wealth in the settings of the principal-agent relationship, whereby owners (principals) delegate managers (agents) to run firms on their behalf, leading to agency problems or conflicts since both parties are utility maximizers in their own interests, and the interests of managers often diverge from their contractual obligation of maximizing shareholder returns (Jensen and Meckling, 1976). Grossman and Hart (1986) argued that when the ownership structure of a firm is overly diffused, shareholders are less likely to monitor management decisions closely, because they have less incentive to do so given that the potential benefits of such monitoring are outweighed by the agency costs of monitoring; clearly this situation is likely to undermine performance.

On the other hand, Shleifer and Vishny (1986) argued that when the ownership structure is concentrated, large and controlling shareholders contribute to the mitigation of the agency problems because they have the incentives, motivations and capacity to monitor the managers for the shared benefit of control (i.e. the mutual benefit of all shareholders, whether large or small). Moreover, Demsetz and Lehn (1985) observed that as ownership concentration increases, the degree to which benefits and costs are borne by the same owner increases, hence it can be inferred that large shareholders are more likely to be active in corporate governance to prevent information asymmetry between principals and agents due to their larger stakes in firms due to the greater risk incurred by their larger ownership. Thereby, if agency costs decreased it is more likely shareholders will get higher retunes on their shares and more profit.

However, Jenson and Meckling (1976) argued that according to agency theory, major shareholders with high ownership concentration can prioritise their own interests, which can cause agency problems between managers and shareholders. Jenson and Meckling (1976) suggested that managerial ownership can be a solution to this agency problem, circumventing conflicts between management and shareholders by rendering both parties a single entity. Managerial interests can clearly be presumed to achieve greater alignment with those of shareholders with significant managerial ownership. However, Demsetz (1983) cautioned that when managers own a large stake this could lead them to take decisions preferential to their own individual interests as a large shareholders rather than in the interests of other (smaller) shareholders (entrenchment effect).

Furthermore, the pertinent literatures on corporate governance consider the issue of shareholder identity (Shleifer and Vishny, 1997; Thomsen and Pedersen, 2000; Douma et al., 2006; Xu and Wang, 1997). The cited authors argue that the identity, objective function, nature and behaviour of the shareholder vary for different types of owners. This fundamentally relates to the root issue in agency problems, the different interests of different parties (e.g. decision-making opportunities, investment objectives and resource endowments), which *"determine their relative power, incentives and ability to monitor managers"* (Douma et al., 2006). The interests and actions of the identity of shareholders preference might have significant impacts on corporate strategy, operations and performance (Douma et al., 2006; Thomsen and Pedersen, 2000; Tihanyi et al., 2003). Thus, in addition to how much equity a shareholder owns, it is also important to know who this shareholder is (e.g. individual/family, company or government). Different types of investors are characterised by differences in wealth, risk aversion and correspondingly in the importance they accord to shareholder value in relation to other objectives. Shareholder interests have impacts on investment decisions and owner preferences (Cubbin and Leech, 1982; Hansmann, 1988). Conflicts of interest can arise when owners' economic interests and relations with the firm become misaligned with the fundamental firm objective of value maximisation. For instance, dual roles can occur, such as when governments are owners and regulators, or when banks are both owners and lenders (Thomsen and Pedersen, 1997). Consequently, such stakeholders have numerous objectives that can compromise the more basic role of stakeholders as principals.

For example, small shareholders might be interested in capital gains, whereas companies might be interested in control and dividends. However, if companies are pension funds or insurance companies, they might be interested in fixed income to cover their cash flow requirements. Moreover, James (1999) states that family companies may exert control over the firm because they act on their own behalf. This is because the problems will be solved by the family loyalty. In addition, he states that family ownerships also invest in firm-specific human capital. This will increase the company value, thereby, increasing the firm performance. On the other hand, family firms might be risk averse due to the large amount of capital they have in the company which will reduce firm value and firm performance. Similarly, government ownership in a company might incentive them to pursue non-economic goals and political goals which might reduce the firm performance. However, Eckel and Vermaelen (1986)

propose that government ownership might benefit minority shareholders. This is because when government owned firms that mean they are concerned over long-term investment which will result in lower cost of capital and improve firm performance.

Business organisations in Middle Eastern countries (including Jordan) are characterised by high concentration of ownership, often in the form of family-controlled businesses. In this context and based on the agency perspective outlined above (the managers-shareholders conflict), this study aim to measure the effect of ownership concentration (large shareholders), managerial ownership and the identity of the ownership on firm performance of Jordanian industrial and services firms listed on Amman Stock Exchange for the period 2000 to 2010. Corporate governance and investor protection are lower in Jordan than in the developed countries. Hence, we hope that the findings of this study in terms of ownership structure might add contribution to the relation between the above mentions variables and firm performance in a developing country namely Jordan. The following sections review the relationship of the large shareholders, the identity of shareholders (i.e. individuals/families, companies and government) and managerial/director ownership on firm performance.

3.3.1 Ownership concentration (large shareholders)

Ownership concentration is higher in developing countries, where investors have less protection (La Porta et al., 1999;Shleifer and Vishny, 1997). This can imply a stronger incentive and ability of principals to monitor agents, reducing managerial opportunism (La Porta et al., 1999;Shleifer and Vishny, 1997).Alchian and Demsetz (1972) argued that the equity of ownership has been suggested as a control mechanism to control managers by shareholders to mitigate agency conflicts within the firm. They state that this internal control mechanism is significant in determining the shareholders wealth, firm objective and the level of discipline of managers. In such a context, a large shareholder appears as the shareholders best way to control and monitor the managers.

Shleifer and Vishny (1986) argued that when the ownership structure is concentrated, large and controlling shareholders contribute to the mitigation of the agency problems because they have the incentives, motivations and capacity to monitor the managers for the shared benefit of control (i.e. the mutual benefit of all shareholders, whether large or small). High concentration of ownership is not necessarily a disadvantage to firm performance. As mentioned previously, shareholders with greater stakes in a company

have greater incentive to control and monitor managers or insiders (Holderness, 2003). This represents the positive outcome of the self-interest of large shareholders, known as the shared benefits of control hypothesis. For example, large shareholders may exert influence in the appointment of independent directors or have advisory voting on executive pay packages.

Grossman and Hart (1986) suggested that large shareholders bear monitoring costs, and their share of benefits will be proportionate to their cash flow rights (dividends or capital gains), and the pursuant benefits of monitoring by large shareholders is accrued by all shareholders proportional to cash flow rights. Other factors being constant, a rise in blockholder stake endows large shareholders with a greater interest in increasing firm value (Holderness, 2003). Indeed, it has even been argued that in such situations small shareholders "free-ride" firm success achieved by larger shareholders while bearing no monitoring costs, thus obtaining benefits disproportionate with their input to the firm. Different studies in developed and developing countries (e.g. Hiraki et al., 2003 for Japanese firms, Gorton and Schmid, 2000 for German companies, Claesses and Djankov, 1999 for Czech companies, Xu and Wang, 1999 for Chinese listed firms and Barberis et al., 1996 for Russian firms) found a positive relationship between concentrated ownership and frim performance. The result of the positive relationship might support the idea of Shleifer and Vishny (1997) and La Porta et al. (1998), who stated that since the investor protections is weak in emerging markets, ownership concentration might play an alternative corporate governance mechanism in these markets. Therefore, concentrated ownership means more control in the hands of large shareholders, which translates into better monitoring of managers in the interest of all shareholders.

However, Jenson and Meckling (1976) with regard to agency theory observed that higher ownership concentration could induce the prioritisation of self-interest by large shareholders and the consequent expropriation of firm resources (i.e. wealth), resulting in decreased firm performance. Clearly when there is a higher risk of expropriation there is more incentive for majority/dominant shareholders to avoid information disclosure and such firms are likely to have weak monitoring controls (which facilitate expropriation). The expropriation effect arises because majority shareholders are motivated “not only the benefits [they] derived from pecuniary returns but also the utility generated by various non-pecuniary aspects of [their] entrepreneurial activities” (Jensen and Meckling, 1976). A clear example of this in family-controlled firms is the

desire of majority shareholders to pass on control and majority ownership of the firm to subsequent generations (Bhaumik and Gregoriou, 2010). In developing economies, majority ownership of large firms is often used by concentrations of power (e.g. families) to create what called "non-pecuniary income", such as “the ability to deploy resources to suit one’s personal preferences” (Demsetz and Lehn (1985). In addition to having concentrated ownership of firms, majority shareholders are able to dominate the executive and management structure of firms by filling key positions; such owner-managers are in a position to execute activities that benefit them but which may be detrimental to the interests of minority shareholders and the firm performance. Thus, the fundamental problem of concentrated ownership is the opportunities for nepotism that arise from it.

Grossman and Hart (1980) suggested that the private benefits of control that are not shared by small shareholders are more pertinent to large shareholders than general firm success. The private benefits of control are related to the expropriation hypothesis, which suggests that a secondary form of agency costs are borne by firms with controlling large shareholders at the expense of smaller shareholders (La Porta et al., 2000; Shleifer and Vishny, 1997). In cases with multiple blocks of major shareholders the situation becomes more complex due to the diverse interests of different large shareholders, with the possibility of both positive and negative outcomes for firm performance (Pound, 1988).

Expropriation can occur due to the entrenchment of owner-managers, who can continue to control firms despite poor performance (Daniels and Halpern, 1996); also, if managers are major shareholders, they are expected to block any hostile takeover attempts (Stulz, 1988), which represents an agency costs amounting to expropriation of minority shareholders by undermining firm performance. Large blockholders also can have a tendency to project their personal preferences onto organisational actions, even if these are against the company ethos/goals as a whole (Holderness and Sheehan, 1998; Shleifer and Vishny, 1997).

Different studies in developing countries (Chen et al., 2006 for Hong Kong firms, Gunasekarage et al., 2007 in China and Gursoy and Aydogan, 2002 of Turkish nonfinancial firms) found that firms with concentrated ownership are not associated with better operating performance or higher firm valuation. The negative relationship between the concentrated ownership and firm performance might be because highly

concentrated ownership in the hand of large shareholders might potentially lead large shareholders to worry more about their own interests rather than those of other shareholders and firm performance as a whole.

As we show above, literature shows mixed results about the relationship between the large shareholders and firm performance. Shleifer and Vishny (1986) argued that from the efficient monitoring hypothesis and the convergence of the interest hypothesis, large shareholder who held large shares have the ability and the incentive to exert control and to compel the management to take actions to improve the company performance. Based on the expropriation hypothesis, due to the diverse interests of different large shareholders, there is a possibility of both positive and negative outcomes for firm performance (Pound, 1988). Business organisations in Middle Eastern countries (including Jordan) are characterised by high concentration of ownership, often in the form of family or companies controlled businesses. In this context, this study will investigate the effect of the large owners on the firm performance. This study will use the 5% cut-off level, based on the JCGC and the Jordanian Company law (JCL) classification of large shareholders as those who own 5% or more of a firm.

3.3.2 The identity of large shareholder

As we show above, the identity, objective function, nature and behaviour of the shareholder vary for different types of investors. This variety result due to the investor's preference, goals and risk aversion which might raise conflict of interests between managers and shareholders. Therefore, it is reasonable to assume that shareholders with different identities who own large proportion of shares might impact the firm performance. The following sections review the relationship of the identity of shareholders (i.e. individuals/families, companies and government) on firm performance.

- *Individual/family ownership*

Firms with high concentrations of ownership are often in the form of individual- or family-controlled enterprises. In such firms, the high concentration of ownership induces the large shareholder to try and maximise firm value due to their private wealth interest, providing an incentive to reduce agency costs (Anderson and Reeb 2003). In publicly listed companies in developing countries, a large number of shares are generally controlled by a small number of families (Claessens et al., 2000). Even in the

US, Anderson and Reeb (2004) documented that more than one-third of the largest companies are categorized as family control firms. In addition, 44% of the Western European firms are controlled by families (Faccio and Lang, 2002). Despite the 1997 economic shock, highly concentrated ownership remains common among Asian and Middle Eastern firms. Indeed, Asian firms have been found to resolutely resist diffusion of ownership despite economic difficulty or the potential benefits of less concentrated ownership (Claessens et al., 2000).

Potential drawbacks of family ownership relate to the potential disconnect between the controlling family's personal interests and firm (i.e. small shareholder) interests, which could have effects such as a tendency to take sub-optimal investment decisions (Fama and Jensen, 1985), as well as utilising opportunities for personal enrichment such as benefiting from insider benefits like private rents at the expense of firm value maximization, thus working against the interests of minority shareholders (Faccioet al., 2001). When families or individuals own large stakes in companies, this often reflects a lack of diversity in their assets (Andres, 2008). Additionally, nepotism is rife in family-controlled firms, with family members or their personal associates appointed to key managerial and executive positions. . In other words, it is more likely when the company is a family firm, family members will take the managerial positions. The poor managerial talent and the low expertise of family members can result in difficulties to enter new markets and new investment opportunities. This might result in poor decisions which might increase the agency problem, leading to lower returns. Thus, inappropriate selection of family members as functionaries will directly or indirectly affect firm performance (Bloom and Van Reenen, 2007; Gulbrandsen, 2005, 2009).

While the appointment of members of a family clique to positions of authority in firms is not in itself a drawback, if such appointees are not capable or less capable of fulfilling these roles compared to other personnel then clearly firm performance (and value) is undermined. In practice, family domination of a firm often promotes "use of the firm's resources to provide family members with employment, perquisites, and privileges that they would not otherwise receive" (Schulze et al., 2003). By installing incompetent relatives as members in the board, extreme compensations for themselves and explicit theft will help to expropriate minority shareholders' interest (La Porta et al., 2000). Firm-level nepotism often occurs in a broader milieu of corruption and weak governance (e.g. legal protection for minority shareholders).

The MENA region is notorious for nepotism, and family expropriation of firms at the expense of minority shareholders is commonplace (Wiwattanakantang, 2001), enabled by the carte blanche control accrued by clique blockholders (La Porta and Shleifer, 1999). Gedajlovic and Shapiro (1998) and McVey and Draho (2005) point out that highly concentrated ownership by family members may be linked with the managerial entrenchment effect. DeAngelo and DeAngelo (2000) confirm that by large stakes of companies being owned by family cliques motivates them to act in their own private interests instead of the company interest, to the detriment of minority shareholders. This information asymmetry and blatant probability of exploitation means that outside investors are anticipated to seek assurance from insiders that proper corporate governance mechanisms are applied to protect their interests, and to solicit greater disclosure from such firms to assess risk. Minority shareholders in such situations, as well as being personally cautious, should seek legal protection and increased monitoring of business operations.

However, Faccio and Lang (2002); Denis and Denis (1994); Ward (1988) argue that different reasons make family companies outperform non-family companies. Family managers have more knowledge about their firm; therefore this knowledge will help them take better investment decisions (Faccio and Lang, 2002). Furthermore, Family names and identities are invested in such firms, inducing trust and loyalty among customers, employees and suppliers (Denis and Denis, 1994; Ward, 1988), along with creditors, giving such firms access to cheaper capital compared to firms with diffused ownership (Anderson et al., 2003). Therefore, this might help in aligning the interest of the management and shareholders, thus decreasing the principal-agent conflict and improve firm performance.

As discussed previously, the board of directors is the apex of the internal control system, with the power to "hire, fire, and compensate the CEO and to provide high-level counsel" (Jensen, 1993). Family entrenchment in key positions and domination of the board inhibits the latter's effectiveness in its role of monitoring management. Independent non-executive directors (INEDs) are therefore necessary to effectively monitor family-controlled firms. If the NEDs perform their monitoring roles and tasks efficiently, this might help in monitoring the behaviours of the managers to reduce the agency problem and thereby maximize the shareholders' value leading to better performance.

A basic method for outsider investors to assess corporate governance in firms having high concentration of ownership is to consider the composition of the board in terms of the proportion of family members and INEDs. If INEDs cannot perform their fiduciary duties and restrain the worst scenario of poor corporate governance by family cliques, the expropriation of minor shareholders is probable, and the consequent suppression of firm value (Beiner et al., 2006; Claessens and Fan, 2000). However, a high concentration of family ownership is not necessarily a red flag signalling nepotism and expropriation; good corporate governance (e.g. INEDs and good disclosure practices) and other factors promote investor confidence (Defond and Hung, 2004; Durnev and Kim, 2005). Voluntary disclosure of board composition in family-owned firms or the appointment of large proportions of independent directors signals awareness and concern about good corporate governance and the protection of minority shareholders.

- *Companies ownership*

Koh (2007) defined companies' investors as specialised money managers with rational control over assets (i.e. mutual funds, insurance companies, bank trusts and pension funds). Koh (2007) asserted that there is a positive relationship between the companies' ownership and firm performance. Companies' ownership allows the company to reap more chances and to control and monitor the management. In addition, it will help to achieve such benefits in the interest of the value of the company.

It is assumed that companies' ownership play an important role in controlling the firm according to the proportion that they own in the company. Therefore, it is important to shed light on their responsibility as a fiduciary duty to monitor the firm in regard to their holding (Mallin, 2001). Having large portion of shares in the company motivate them to be more efficient in influencing the management policies and strategies to improve the firm performance (Cremers and Nair, 2005). Davis and Steil (2001) argue that companies ownership display features such as: (1) risk diversifications ;(2) favour for liquidity; and (3) the ability to control large volume of transactions due to their large ownership of shares.

Shleifer and Vishny (1986) argue that large shares owned by company play significant role in affecting the management decisions. They state that small shareholders, who are usually individuals, favour their returns in the form of capital gain. However, companies' ownership, because of the corporate taxes, they might prefer to receive dividends. Therefore, companies ownership have the motivation to gather information

related to the company in order to monitor the management, thereby reducing agency costs and reduce agency problem and thereby increasing firm value (Grossman and Hart, 1980). However, Hart (1995b) points out that there are two disadvantages from owning large shares in one company. Firstly, holding large numbers of shares will reduce the opportunity to invest outside the company. In other words, companies' ownership will lose the chance to diversify their investment among different investments. Secondly, companies' ownership may alleviate the agency problem but they cannot exclude it.

Brickley et al. (1988), Almazan et al. (2005) and Chen et al. (2006) classified companies' ownership to two groups. The first group is pressure-sensitive such as banks or insurance companies who have prospective business relations with firms. In order to ensure their connections, they might to be less interested to argue with management decisions. Pound (1988) states companies' ownership might cooperate with managers because the benefits that result from supporting them are higher than the effective monitoring gain. In addition, he points that companies ownership prefer short term returns instead of long term retunes. This might allow managers to act for their own interests leading to increase the agency problem and thereby lower firm value. The second group is pressure-insensitive such as independent investment advisors and investment companies who are less liable to pressure from the company that they invest in. Thus, they are in better position to discipline, monitor and control the firm managers. Similarly, McConnell and Servaes (1990); Nesbitt (1994); Smith (1996); Guercio and Hawkins (1999); Gillan and Starks (2000) report that it is more likely companies ownership will impact the firm performance positively. They argue that companies' ownership are more sophisticated than any other shareholders. They are more professional regarding capital markets, business and industries and they are better informed. Therefore, they have the ability to exert control and monitoring on managers decision more effectively and less costly. As a result this will lead to reduce the agency problem and maximize the value of the shares.

Cornett et al., (2007) state that pressure-insensitive allow companies ownership to exert pressure on firm manager's behaviours depending on their large portion of shares to improve firm performance. They found there is a significant positive relationship between companies' ownership involvement and operating cash flow returns. Specifically, this relation exists between the operating cash flow returns and the number of companies' ownership for those with no relationship with the firm (pressure-

insensitive). However, companies' ownership that has relations with the firms (pressure-sensitive) has no influence on the operating cash flow returns.

- *Government ownership*

Global economic liberalisation since the 1970s and 1980s ensured the privatisation of most government-owned firms (i.e. public assets), but forms of government ownership can be found mainly in former socialist countries, such as Eastern Europe, Russia (where nationalisation is resurgent in some respects, e.g. gas utilities) and China. The long-term impacts of changing ownership structures, particularly between government and private ownership, are controversial (Grout and Stevens, 2003).Porta et al. (1999) claimed that the incentive for a government to own shares in a firm might be related to political objectives (e.g. putting the risk of paying the losses of the firm on the public). In contrast, the government might hold a large portion of equity in a firm in order to exert control on the firm. Shleifer and Vishny (1997), Ramaswamy (2001), and Orden and Garmendia (2005) argue that government ownership has a negative impact on firm performance compared to other types of firm performance. Shleifer and Vishny (1994) point out that government ownership is subject to agency problems. This is because the tendency of managers to seek their own self interests. Also, instead of commercial objectives such as profit maximization, the government (politicians/bureaucrats) tend to use firms' assets to achieve political objectives. In other words, the government is more interested in controlling ownership rights rather than cash flow rights. This divergence and bureaucracy might lead to the absence of incentives for decision-makers to pursue profit maximization. Megginson and Netter (2001) report that in the competitive markets, private owned firms are more profitable and more efficient than government owned firms. Similary, Najid and Abdul Rahman (2011) claim that government owned firms generally lack innovative and entrepreneurial drive. In addition, government owned firms tend to be more politically rather than commercially motivated, leading to poor financial firm performance. Moreover, Mak and Li (2001) argue that government owned firms suffer from weak monitoring and accountability. Therefore, they are less likely to adopt good governance mechanisms.

On the other hand, it has been argued that family controlled firms with substantial government ownership may perform better compared to family firms without government ownership. This is because the government has a direct interest in the ownership of these family firms, which suggests that these firms could have a certain degree of connection with senior government officials and influential political figures

(Shleifer and Vishny, 1994). In addition, the government might buy large number of shares in some companies at prices above their share values. This is when their share prices fall during any financial crises in order to reduce the losses in shareholders' wealth. Furthermore, it is argued that governments have the incentive to get involved in specific firms that produce military products (Porta et al., 1999). However Bos (1991) argues that government owned firms have positive effect on the firm performance. He claims that owning large portions of shares by the government will motivate them to monitor and control the firm closely and effectively. This will result in reducing the agency costs and increase firm profitability. Government owned firms reduce the problems of asymmetric information that result from the imperfect information about the value of the company (Eng and Mak, 2003). Aljifri and Moustafa (2007) claim that government owned firms will face less pressure to fulfil financial reporting regulations. This might influence management to select accounting choices that will improve firm performance. La Porta et al. (1999) state that the effect of the government ownership might depend on the quality of the government itself as well as other features such as the path dependency, which is assumed to vary from country to other country.

3.3.3 Director/managerial ownership

While shareholders are interested in maximising their returns, managers are concerned with enhancing their personal wealth and their future career opportunities. This will result in a conflict of interest between shareholders and managers, as the former are interested in ensuring that their financial capital is not expropriated or invested in unprofitable projects (Jensen and Meckling, 1976; Fama, 1980; Jensen, 1993). The expropriation may be manifest in three different ways: investment in projects that benefit the managers rather than the interests of the company, manipulation of transfer pricing and management entrenchment. Theoretically, the convergence of interest or the alignment of interest's hypothesis has been suggested as a mechanism to be used to align the interests between managers and shareholders. With regards to the alignment of interests from the agency theory perspective, Sappington (1991) suggests that in order to align the interests of managers with shareholders it is important to create incentives for the managers to increase the value maximization. Jensen and Meckling (1976) state that the incentive of director/managerial ownership is expected to motivate agents to create total surplus, because as managerial ownership increases the interests of the shareholders and managers become more aligned, thus the incentive for opportunistic behaviour decreases. In other words, the greater the stake managers have in the firm (i.e.

share ownership), the greater the costs they will incur for not maximising the wealth of shareholders. Hence, aligning the interests between principals and agents resolves for the agency problem and achieves the main goal of the shareholders, which is value maximization, consequently affecting firm performance positively. Shleifer and Vishny (1997) and Becht et al., (2003) stated that managers are not interested only in avoiding the agency problem, but are motivated by other reasons such as their career growth and their reputation. It is well known that managers should consider the importance of their reputation and their image to protect it in order for any further opportunities to work in the future.

Different studies (e.g. Owusu-Ansah, 1998; Palia and Lichtenberg 1999; Weir et al., 2002; Krivogorsky, 2006; Kapopoulos and Lazaretou, 2007; Mangena and Tauringana, 2007; Bhagat and Bolton, 2008) reported a positive impact of the managerial ownership on firm performance. Owusu-Ansah (1998) in his study of a sample of 49 listed Zimbabwean firms in 1994 found that director ownership affects the mandatory disclosure positively. In addition, Mangena and Tauringana (2007) investigated the relationship between managerial ownership and firm performance measured by ROA and Tobin's Q for a sample of 72 listed Zimbabwean firms from 2002 to 2004. They reported a positive relationship. Their findings support the notion that as managerial ownership increased the interests of the shareholders and managers become more aligned, therefore it is more likely that the agency problem will be resolved, which might affect the firm performance positively. However, some studies (e.g. De Angelo and De Angelo 1985; Haniffa and Hudaib, 2006; Ho and Williams, 2003; Lin, 2002; Sanda et al., 2005) found that managerial ownership negatively affects the firm performance. Lins (2000) provided evidence of the relationship between firm performance and management ownership across firms from 18 emerging markets. His results suggested that the separation of management ownership and control had a significant negative relation to value in countries with low shareholder protection. The final stream introduced by Dalton et al., (2003) and Sheu and Yang (2005) reported that there is no relationship between director ownership and firm performance. In other words, the director ownership does not affect the firm performance.

Consistent with agency theory view that managerial ownership is expected to align the interests of the shareholders with agents, thus reducing the agency problem and maximizing shareholders' wealth, leading to better firm performance, this study is going to investigate the impact the managerial ownership on firm performance.

3.4 Foreign Ownership

In many developing countries there are limited sources of domestic finance for investment (Leuz et al., 2010), which has prompted economic liberalization of stock markets in many emerging countries, enabling investment in domestic equity securities by foreign investors (Bekaert et al., 2007). This has resulted in large increase in investment in emerging markets since the mid-1990s. In common with other countries in MENA, Jordan has made great strides in making necessary legislative reforms and establishing a legal environment conducive to foreign investment. As confirmed by previous literature, foreign investors are inherently at a disadvantage compared to domestic investors due to their lack of knowledge and expertise in the local financial and legislative environment (Cooper and Kaplanis, 1991; Dvorak, 2005; Stulz, 2005). This leads to the home bias of investors, whereby they typically prefer to invest in their native countries despite the globalization of financial markets (Chan et al., 2005; Dahlquist and Robertsson, 2001; French and Poterba, 1991; Lewis, 1999), due to legislative inhibitions, differences in corporate governance and information asymmetry (Dahlquist et al., 2003; Klapper and Love, 2004; Giannetti and Koskinen, 2008).

When firms do invest abroad, they refer to invest with regard to firm-specific characteristics (Dahlquist and Robertsson, 2001; Stulz, 1999). Kang and Stulz (1997) studied the Japanese stock market and concluded that foreign investors tend to invest in low-leverage, high export ratio and large firms. Analysing aggregated foreign ownership factors in Swedish firms, Dahlquist and Robertsson (2001) identified foreign investors' preference for large firms with large cash holdings paying low dividends; they also found that foreigners tend to undervalue firms with large ownership. The situation is similar in developing countries. In Korea, Lin and Shiu (2003) found that foreign investors prefer large firms with a high export ratio. In a pioneering study on the increasingly important African markets, Mangena and Tauringana (2007) found that foreign investment in Zimbabwe is associated with firm size, profitability, liquidity, disclosure, proportion of non-executive directors, institutional ownership, and audit committee.

One of the most common barriers to foreign investment is poor corporate governance. Weak corporate governance was identified as a barrier to investment in Swedish companies by foreign portfolio investors by Giannetti and Simonov (2006), but weak corporate governance is more particularly associated with emerging markets. Based on

data from 27 developing countries, Lang et al. (2004) found that poor internal governance is a barrier to investment by US investment analysts, including firms with concentrated family/management ownership. Firms with such forms of corporate governance are thus accorded less value by international investors. Based on US mutual funds' portfolio holdings in emerging markets, Aggarwal et al., (2005) identified greater investment in markets with greater shareholder rights and protection and stronger accounting standards. In a large multinational study, Leuz et al. (2008) confirmed that US investors invest are deterred by poorly governed firms in markets with weak legislative protection; they consequently advised higher standards of disclosure and corporate practice to attract more foreign investment.

Three surveys conducted by McKinsey and Company (2000) concerning how corporate governance in developed and emerging markets is evaluated by investors found that corporate governance is at least as important as past firm financial performance in deciding whether to invest, with three-quarters of investors citing board practices alone as a major consideration (particularly the presence of independent directors). Investors indicated that they would not invest in firms with poor corporate governance; indeed, most would be prepared to pay an additional premium of up to 28 per cent of the share price to invest in well-governed companies in emerging economies.

The Asian financial crisis (1997) and the increasing competition between corporations raise the need for good corporate governance. In addition, the Asian financial crisis put pressure on the corporations to attract foreign institutional investors and invest in them. Foreign investors will avoid investing in any corporation in the emerging market countries with weak corporate governance. Because of the several types of risk that associated with the companies such as asset risk, accounting risk and strategy risk (Clayaman et al., 2011).

Young et al., (2008) reckon that the existence of foreign investors plays an important role in applying the corporate governance in the corporations. They believe that the ability of the foreign investors to monitor the corporations is higher than the local once. This is because they are "outside the domestic social networks from which the institutional norms of behaviour are generated, and they are therefore more likely to push for transparent deals" (Young et al., 2008).Therefore, they are in better position to improve the firm performance and add value to the firm. Baek et al. (2004) noticed that corporations with higher foreign ownership during the Asian financial crisis

experienced slightly less reduction in the price of their shares. D'Souza et al. (2005) reported that foreign investors are better in controlling and monitoring the company than local investors in terms of less of conflict of interest between them. Furthermore, Park (2004) and Kim and Sul (2006) report that there may be a positive relationship between the level of dividends and the level of foreign ownership of shares, which simultaneously may affect the growth of the corporation. Although the above studies did not agree on an optimal level of dividends, they find that the declaration of foreign investment exceeding 5% of a firm's shares resulted in a positive market response.

Taylor (1990); Oxelheim and Randoy (2003); Kirkpatrick et al., (2006); Sulong and Nor (2010); Ghazali (2010) and Taufil et al., (2013) found that foreign ownership influences the firm performance positively. They show that foreign investors give companies access to financial resources and managerial talent. In addition, they report that foreign investors increase firm value by controlling managerial behaviour. By investigating the effect of foreign institutional ownership on the firm performance for 23 developed countries, Aggarwal et al. (2011) found that the presence of foreign institutional investors is associated with improved corporate governance, by eliminating poorly performing CEOs from the management. However, Wiwattanakantang (2001) report that foreign ownership might face difficulties to add value to the firm for two reasons: (1) if the company is situated in another country, this will present a difficulty for the foreign shareholders to control the firm; and (2) most of the firms that have foreign corporations as their controlling shareholders are run by professional managers who do not hold any stake in the firms

Usually, local investors have a trend to follow firms that attract foreign investors. Since local investors consider that foreign investment is a positive indicator of a firm's reputation and an effective control system. This will increase the demand for shares, which will add value to the firm. Therefore, they are able to attain higher market valuation and maximize their shareholder wealth (Choi et al., 2012).

A number of unique features and characteristics make Jordan attractive for international investors in the MENA region, mainly because it is a relatively safe investment environment, with political stability, an established financial structure, favourable demographics, advanced monetary and fiscal policies and foreign and domestic investment laws favourable to international investors. Moreover, Jordan is increasingly integrating into the world economy, acceding to the World Trade Organization in 2000,

making an Association Agreement with the European Union effective in 2002, a free trade agreement with the United States, and numerous investment agreements with many countries around the world in addition to being a prime source of investment from the GCC countries (as mentioned previously). The country's specialised industrial zones (with tax breaks and other incentives) and privatisation programme also improve the country's attractiveness as an investment location.

Hence, considering the important impact of the foreign investors on firm performance in the developing countries, as explained above, this study will investigate the impact of foreign investors on the industrial and services companies that listed in Amman Stock Exchange for the period 2000 to 2010.

3.5 Summary

The chapter identifies the main internal corporate governance mechanisms that have been utilized by different studies and reviews literature relating to corporate governance in general, with discussion of the general themes of corporate governance in order to provide a general picture of corporate governance practices. Internal mechanisms include the board of directors (e.g. board size, board sub-committees, CEO duality and non-executive directors) and ownership structure (e.g. large shareholders or concentrated ownership, the identity of shareholders and managerial ownership). Board sub-committees were not devised for testing because of data limitations. In addition, this chapter reviewed the previous studies on the impact of the foreign investors on firm performance. Building on these various mechanisms, this study developed a research framework and variables to test the hypotheses concerning the above mechanisms. In the next chapter, a general background of the Jordanian economic environment will be set out and general description about corporate governance in Jordan is presented.

CHAPTER 4: CORPORATE GOVERNANCE IN JORDAN

4.1 Introduction and Background

In order to study corporate governance in Jordan it is necessary to start with a general background concerning the most important aspects of the Jordanian economic environment.

With an upper, middle-income status for its citizens, Jordan is a country with a population of 6 million people and a GNI of 4,390 USD. The country's population is comprised of 80% urban residents, with 38% of these being under the age of 14, making Jordan one of the youngest among the upper-middle income countries (World Bank, 2013). Jordan has few natural resources, with potash and phosphates being the main export commodities, as well as having limited agricultural land and a minimal water supply, which has ranked Jordan as the fourth poorest country in terms of water resources. 75% of jobs are in the services sector, which produces 70% of Jordan's GDP (World Bank, 2013).

Aside from industry contributing as one of the major economic challenges Jordan faces, the country's government also has to deal with chronic rates of poverty, unemployment, inflation and a large budget deficit. As a means to improve economic growth, King Abdullah implemented a number of economic reforms such as the opening of the trade regime, privatising state-owned companies and eliminating some fuel subsidies, since his ascension to the throne in 1999. This has encouraged investment from overseas, and has created a number of jobs for local residents. Unfortunately, the global economic slowdown and regional turmoil have supressed the GDP growth of Jordan, with a negative impact noted in export-orientated sectors, construction and tourism (World Bank, 2013).

2011 saw the introduction of two economic relief packages to be implemented by the government, as well as a budgetary supplement, with the view that these measures could improve the living conditions for middle to poorer classes. However, the country's finances were further impacted by a series of natural gas pipeline attacks in Egypt, which resulted in Jordan substituting more expensive heavy fuel oils as a means of generating electricity. Despite this, Jordan has enjoyed an influx of aid and investment from foreign countries, primarily those situated around the Gulf area, which has eased

extra-budgetary expenditure. Nevertheless, the budget deficit is likely to remain high at 10% GDP, excluding grants (UNDP, 2013).

In order to cope with the deficit in 2012 Jordan's dependence on foreign assistance continued to grow. Due to the country's limited exposure to overseas capital markets, Jordan has remained relatively isolated from the international financial crisis, however it remains integrated with its neighbours through trade, remittances, foreign direct investment (FDI) and tourism, with links particularly strong in Arab Gulf economies. Policymakers in Jordan are making the most of the demographic opportunity of a well-educated, young population, hoping to build a dynamic, knowledge-based economy, as well as exploring nuclear power generation as a means to forestall energy shortfalls (OECD, 2013).

With its open economy and regional integration methods, Jordan has left itself vulnerable to political, economic and social volatility. The recent political disruption the Middle East has suffered in recent years has had a significant impact on Jordan, with both economic upset and an increasing demand for a stronger citizen voice, greater accountability and improvements in living conditions. 2011 saw an increased import bill in Jordan due to the higher commodity prices, while falls were reported in tourism receipts, FDI and, to some extent, remittances (OECD, 2013).

Jordan has suffered further financial blows in recent years, with numerous interruptions noted in the gas supply from Egypt. This forced the Jordanian government to switch to costlier heavy fuel, which was expected to result in a cost of 2.4 billion USD by the end of 2012. Despite these economic downturns, Jordan is above average in relation to middle-income countries when considering human development, consistently spending over 25% of GDP on education, health, pensions and social safety nets. As well as this, Jordan also provides a high level of gender parity in access to basic public services. In 2003, the Jordanian government launched a comprehensive modernisation program, which attempted to change the basic education system, better aligning it with the knowledge-based economy of the country (World Bank, 2013).

With such emphasis on educational advancement, the school enrolment rates at varying levels of education are relatively high compared to similar income-level countries. The country enjoys above average ranks in science internationally, however results in mathematics remain below par. The growing population is putting further pressure on both the health and educational services, which has resulted in the government setting

the target to expand access to higher quality education and to provide key skills in the economy. The past decade has seen Jordan endeavour to undertake a variety of structural reforms in varying sectors. Successes have been noted in the areas of education, health and privatisation/liberalisation and the government has been working towards social protection system reforms, which has resulted in marked changes in social protection systems, as well as improving the conditions for greater public private partnerships in infrastructure and tax reforms, including the improvement of tax administration and management. Despite these encouraging statistics, sound economic policies and additional reforms are necessary in order to reduce the potential impact further international crises could have on the country. Jordan remains vulnerable to fluctuations in the international oil market due to the dependency the country has on energy supplies from Egypt. In addition, high unemployment and dependency on remittances from Gulf economies remains a potential problem, as well as the increasing pressure on water and other natural resources (World Bank, 2013).

In 2011, Jordan experienced its own version of the "Arab Spring", with low-scale yet continual demonstrations challenging the government as a means to introduce political reform and to address economic governance. The response by the government was to gradually reform the system, with Parliament approving constitutional changes in an effort to fortify the independence and integrity of Judiciary bodies, improving public accountability. In terms of structure, the Jordanian government is attempting reform in transparency and accountability, as well as private sector development and public finance management, with particular focus on budget and debt management, as well as spending efficiency in the public sector. In order to perform well in the economic future of Jordan, the government aims to make gradual progress in the implementation of structural reforms. In addition, they aim to provide a supportive regional and external environment (World Bank, 2013).

It is generally considered that the biggest trial Jordan will face in the future is the opportunity to create adequate conditions for increased private investment as well as improved competitiveness in the field. Through addressing this challenge, Jordan can aim to deliver the high and sustainable growth that is needed in order to provide employment opportunities, thus reducing widespread poverty. Jordan's ability to sustain the fiscal consolidation program is the key to maintaining good economic performance. There are a host of opportunities in the country that are not being fully utilised, though many established businesspeople find Jordan to be the perfect place for investment in

the region. Thanks to the Investment Promotion Law of 1995, both Jordanian and non-Jordanian investors are offered equal treatment, as well as guarantees against expropriation. The Law provides opportunities for investors to own a project in full or in part, excluding some trade and contracting services, whereby a Jordanian partner is requested. The law of the country also provides incentives to potential investors, including freedom from customs duties, exemption from taxes and tax holidays. In addition, investors can enjoy unrestricted transfer of capital and profits. Export-orientated industries are also afforded further incentives, with all earning from export becoming completely exempt from income tax (ILO, 2013).

Foreign investments have been growing in Jordan largely thanks to the Qualifying Industrial Zones (QIZ), where investors enjoy duty free, no quota access to the US market for goods produced in the zone. At present, QIZ has ten designated industrial parks: the Gateway QIZ on the northern Jordan-Palestine border; the Al-Hassan Industrial Estate in Irbid; the Al-Tajamouat Industrial Estate in Amman; the Ad-Dulayl Industrial Park near Zarka, the Kerak Industrial Estate, Aqaba Industrial Estate, Jordan Cyber City in Irbid, Al-Qastal Industrial Zone in Amman, Mushatta International Complex in Amman, and El-Zai Readywear Manufacturing Co. in Zarqa. These QIZs produce for the most part light industrial products, including ready-made garments. By 2004 the QIZs accounted for nearly 1.1 billion USD in exports according to the Jordanian government (JIB, 2013).

Public shareholding companies are affected by the disclosure regulations as outlined in the law of financial security. The importance of disclosure arises due to the cultural dimensions it provides, as well as the legal side and the development of the financial sector. The JSC began to request that companies disclose their board members ownership and the salaries of the higher management level, despite the opposition of these rules from their companies. Disclosure also provides penalties due to rules and provisions not being enough to establish disclosure. These penalties are required in order to enforce commitment to disclosure in the firms. Currently a number of these penalties have been implemented on companies violating the disclosure rules, such as stopping the company from circulating in the ASE and imposing fines.

4.2 Industry and Service Sector in Jordan

Jordan's industrial sector comprises manufacturing, construction, mining, and power, accounting for around 26% of GDP in 2004 (the first three constitute 16.2%, 4.6% and 3.1% respectively). In 2002 it was noted that over 21% of the Jordanian labour force is engaged in the industrial sector, with the main products being potash, phosphates, pharmaceuticals, cement, clothing and fertilisers. Construction is generally considered to be the most promising area of the industrial sector, with the past few years seeing an increase in the demand for housing and offices for foreign enterprises as a means to better access the Iraqi market. In addition, the manufacturing sector has been supported by the US-Jordan Free Trade Agreement (FTA), which was ratified in 2001 by the US Senate (World Bank, 2013).

The US-Jordan FTA is the first in the Arab world, establishing the US as one of the most significant markets for Jordan. However, Jordan is not the only country to benefit from this agreement, as a number of trade agreements with MENA countries and beyond will reap increasing benefits. The Agadir Agreement, a precursor to an FTA with the EU, is one of the agreements that will see increasing benefits to Arab countries, as well as the FTA with Canada that was recently signed. In addition, the many industrial zones in Jordan offering tax incentives, low utility costs and improved infrastructure links can help incubate new developments. The relatively high skills level is another influencing factor in the promotion of investment in Jordan, which in turn will stimulate its economy (OECD, 2013).

Though there are limited natural resources in Jordan, the country's abundant reserves of potash and phosphates provide many benefits, especially in the production of fertilisers, and it is estimated that these two industries have a combined worth of around $1bn (2008). In addition, pharmaceuticals and the export of these were worth around $435m in 2007, growing to $250m in the first half of 2008. Textiles have also proven to be a significant market, with an estimated worth of $1.19bn in 2007. Though Jordan appreciates the value of the industrial sector, there are still a number of challenges the country must face. Due to the dependency of importing raw materials, the country remains vulnerable to price volatility and constant water and power shortages prove to hinder consistent development. However, despite these challenges, Jordan's economic openness and long-standing progress in the fertilising and pharmaceutical industries provide a growth in foreign currency (OECD, 2013).

4.2.1 Telecoms and IT

The telecommunications industry is thought to be worth around JD 836.5m (1.18bn USD) per year, focusing on the fixed-line, mobile and data service facilities it provides as its core market. This is equivalent to 13.5% of GDP. In addition, the IT sector in Jordan is the most developed in the region, largely due to the 2001 telecom liberalisation. The most competitive sector of the telecommunications market is the mobile sector, and this is currently divided equally between the operators Zain (owned by MTC Kuwait) with 39% of the market share, Orange (owned by France Telecoms) who has 36% of the share and Umniah, who dominate 25% of the market. 2007 saw end of year figures showing that the market trend was leaning towards greater parity, seeing Zain's share falling in the space of a year from 47% in 2006. This led to Orange and Umniah picking up new subscribers and in turn the competition has spurred companies to offer more favourable pricing to consumers, with mobile penetration currently standing at 80% (Zu'ubi, 2013).

His Majesty the King of Jordan is directly leading the ambitious subsequent national strategies formed in 2000 as private sector initiatives. The Information Technology Association in Jordan (int@j) was created as a means of spurring a private sector process that would focus on preparing Jordan for a new economy. It is hoped that through IT, the national objectives towards automation and modernisation in cooperation with the Ministry of Information Technology in Jordan (MOICT) will be reflected. The Jordanian government hoped that this latest strategy will bring Jordan to precise objectives by 2013 in this sector (statistics for 2013 are unavailable at present). The ICT sector at present accounts for in excess of 14% of Jordan's GDP, which includes foreign investment and the total domestic revenue from the sector. By 2008 there was a marked employment growth to 60,000 in ICT and the government are continually striving to address employment issues and education related to the sector by implementing more opportunities in ICT and ICT training (Zu'ubi, 2013).

4.2.2 Energy

Thought to be amongst the largest of challenges to a developing Jordanian economy, energy is currently a major concern to the government. At its peak the price of oil stands at over $145, and due to the country's lack of domestic resources there has been a $14bn investment programme launched in the energy sector. This programme aims to limit reliance on imports from the current staggering number of 96%, with a view to

increase renewables to provide 10% of the energy demand by 2020 and to implement nuclear facilities to meet 60% of energy needs by 2035. In 2007 the Jordanian government announced that subsidies in energy (amongst other areas) would be scaled back. The government are also opening the sector to increased competition, planning to offer new energy projects to international tender (Ministry of Energy and Mineral Resources, 2013).

Jordan's neighbours offer significant petroleum resources, however Jordan has no such resources on offer and thus depend largely on oil imports in order to meet its domestic energy needs. In 2003 the invasion of Iraq disrupted the primary oil supply route to Jordan, as Iraq had previously granted Jordan huge discounts on crude oil via overland truck routes. Since 2003 an alternative supply route has been opened by tanker, via the port of Al Aqabah, and Saudi Arabia is now the primary source of imported oil for Jordan, with Kuwait and the United Arab Emirates (UAE) as secondary sources. Though not as cheap as the discounted crude oil supplies from Iraq, Saudi Arabia and the UAE offer subsidies on their supplies (Ministry of Energy and Mineral Resources, 2013).

With the cost of oil ever increasing, there has been interest expressed in exploiting Jordan's vast oil shale resources, which stand as the fourth largest worldwide. These shale resources are estimated to total somewhere around 40 billion tons, of which 4 billion tons are able to be recovered. Jordan's oil shale resources could produce 28 billion barrels (4.5 km^3) of oil, enabling production of about 100,000 barrels per day (16,000 m^3/d). Consequently, Royal Dutch Shell, Petrobras and Eesti Energia are negotiating with the Jordanian government about exploiting these resources. In 2002 Jordan was estimated to have average natural gas reserves of around 6 billion cubic meters, however new estimates suggest that this is actually much higher. In 2003 the country produced and consumed an estimated 390 million cubic meters of natural gas. Natural gas is increasingly being used to fulfil the country's domestic energy needs, with the primary source being the Risha gas field, located in the eastern portion of the country.The majority of Jordan's natural gas reserves are sourced via the recently completed Arab Gas Pipeline, which stretches from the Al Arish terminal in Egypt, passing underwater to Al Aqabah before it reaches northern Jordan, where it links to two major power stations. This pipeline supplies Jordan with around 1 billion cubic meters of natural gas on a yearly basis (Ministry of Energy and Mineral Resources, 2013).

4.2.3 Transport

The transportation sector in Jordan contributes around 10% of GDP, accounting for $2.14bn in 2007. With such a service and industry-oriented economy, the transport sector is considered to be of the utmost importance to Jordan's finances. In 2008 the government formulated a new national transport strategy with the aim of improving, modernising and further privatising the sector. This is helped by the uncertain future as to the security crisis in Iraq, which results in a bright future for Jordan's transport sector. It is thought that Jordan will remain as one of the major transit points for goods and individuals bound for Iraq, as well as enjoying a large number of tourists by their own means. As such, the Jordanian government have endeavoured to increase this success, relocating Aqaba's main port, developing the national railway system and constructing a new terminal at QAIA. However, the rising costs of fuel are estimated to have negative effects on operational costs in transport, affecting the sector's annual growth rate on average by 6%. However, the uncertain fuel prices offer a great deal of incentive to boost private investments in alternative modes of transport such as buses and trains (Ministry of Transport, 2013).

4.2.4 Media and advertising

Though the state remains the biggest influence in Jordanian media, the sector has seen significant privatisation and liberalisation efforts in the past few years. The official rates reveal that the advertising sector spent around $280m on publicity in Jordan's media, with 80% of this funding newspapers and the remainder being spent on television, radio and magazines. The state-owned Jordan TV (JTV) remains the sole broadcaster in the country following the cancelled launch of ATV, however there has been a significant rise in the number of blogs, websites and news portals as a means for citizens to access information. These growing fields should encourage growth in advertising revenues and private initiatives.

2007 saw a further growth of 30% in Jordan's advertising industry and following almost a decade of double-digit growth the market is seeing a relative slowdown, illustrated by the move between 2007- 2008. Though 2007 saw some major campaigns put in places, there was no such improvement in 2008 and the expenditure as a whole in the advertising sector has some way to go to catch up with the rest of the region when considering the average expenditure per capita. As the sector grows and matures, it is thought that the growth figures will naturally decrease gradually. However, between

2000 and 2007 there was a 260% increase in expenditure, from $77m in 2000 to $280m in 2007 (Jordan media and advertising, 2013).

The Jordanian telecoms sector spent the most on advertising in 2007, dominating 20% of the market, followed by the banking and finance sector (12%), the services industry (11%), real estate (8%) and the automotive sector (5%). It is thought that the industry requires further vocational training in order to take advantage of new media market (Jordan Media and Advertising, 2013).

4.3 Corporate Governance in Jordan

The remarkable worldwide failures and crises of companies around the world have put Jordan in a place to be worried about the collapse of these companies by taking different actions in order to enhance the financial environment of the country.

Although the Middle East region has experienced exceptional instability and war during recent decades, the economy of Jordan has exhibited steady growth, witnessed by increased volume of trade and market capitalisation, translated into a significant increase in the number of firms listed on the ASE (ASE, 2012). This reflects the advanced economic liberalisation, corporate governance reforms and encouragement of foreign investment enacted by the Jordanian government since the 1990s.

The establishment of the ASE (est. 1999 for trading public securities), the SDC (which safeguards investors and arbitrates transactions) and the JSC (which regulates and supervises the equity market) helped to implement and codify legislation and regulations (such as the Securities Law of 2002, forefunner of the JCGC in 2006) to produce a uniquely amenable investor haven in the Middle East. Disclosure and transparency is encouraged and investors are relatively protected. Under the auspices of the Ministry of Industry and Trade, the Controller of Companies enforces corporate governance legislation. However, despite being advanced regionally, the assessment of the World Bank and the IMF (2004) suggested that Jordanian companies' governance is still insufficiently advanced (ROSC, 2004). This is understandable considering the novelty of corporate governance in general, and its relation to government in Arab countries. The financial institutional framework in the region is subject both to a lack of enforcement capabilities and political interference. Difficulties will continue to be experienced in soliciting investment without a comprehensive and enforceable corporate governance framework (Sharar, 2006). This corroborates the findings of Glaeser et al.

(2001), who concluded that albeit economic liberalisation and market reforms result in short-term economic growth in developing economies, weak investor protection, lack of enforcement of patchy regulation result in a shortage of equity financing, asset tunnelling and security delisting (Coffee, 1999). The following sections review the most important developments in this regard in the Jordanian context.

4.3.1 The Jordanian Capital Market

Different changes had been introduced in the 1990s, in the regulatory environment since the creation of the ASE, JSC and the Securities Depository Centre (SDC). Three important bodies had been created in Jordan according to the Securities Law in relation to monitoring, regulating and supervising the companies that are listed in the ASE. The effect of each three bodies had strengthened with the Instructions of Issuing Companies Disclosure, Securities Law of 2002 and Accounting and Auditing Standards for the year 2004. In addition the Co-operative Compliance Authority has achieved much progress by enforcing many basic corporate governance provisions of the Company Law (JSC, 2007).

- *Jordan Securities Commission (JSC)*

In order to regulate the capital market, the JSC was established in 1997 by the Securities Law No. 23. The JSC reports directly to the Prime Minister and has legal responsibilities with financial and administrative autonomy. The JSC was originally intended to protect investors in securities as well as to regulate and develop the capital market to ensure fairness, efficiency and transparency. As such, it protects the capital market from the risks it might face. The main objectives of the JSC are to regulate and develop the capital market, as well as to protect the ASE investors in securities and to protect the capital market from risks. It also aims to upgrade the performance and efficiency of the Commission and to increase market awareness.

The JSC is administered by a board comprised of five full-time commissioners who are experienced and specialised in the field of securities. These commissioners are appointed via the Council of Ministers supported by a Royal Decree and have a term of five years. Amongst their duties the commissioners prepare draft laws and regulations in the security sector, as well as to approve instructions and bylaws related to capital market institutions. As such they also undertake duties such as granting licenses to undertake financial services activities and to certify financial activities and approving

the registration of securities and mutual funds. The responsibility of adopting the accounting, auditing and performance evaluation standards to be followed by parties also falls to the JSC.

The Securities Law No. 76 in 2002 outlined that the Commission is responsible for monitoring companies that issue securities, financial services companies and certified financial professionals, the ASE, the SDC, as well as mutual funds and investment companies in securities. It is thought by the JSC that the achievements of the Jordan capital market are the fruits of extensive studies and experience, as well as both the local and external partnerships. It is considered that the openness of the capital market institutions to the world development trends combined with their adaptability to the market is responsible for the achievements of the security market. Due to this, the JSC focuses attention on the fostering of cooperation and the exchange of information with Arab and other international organisations. Thanks to a range of information exchange agreements, governed by international standards, the JSC is able to achieve its aims, further allowing it to develop the capital market.

The JSC is focusing efforts on the dissemination and consolidation of the culture of investment in securities in order to expand the base of investors. This is to be achieved through publishing public awareness material through the media, lectures and meetings and by allowing student visits from universities and education institutes. Additionally the Commission is also attempting to apply the JCGC for shareholding companies listed on the ASE, which would boost the confidence of current and potential investors. The JSC and other capital market institutions are drawing the bases and criteria for applying international corporate governance principles, with particular focus on those issued by the OECD. The JSC endeavours to maintain a partnership with judicial and legislative authorities and the media as a means of protecting investors and upgrading the capital market. Through the use of internal and external training courses, the JSC focuses a large amount of time and money into enhancing employee abilities, reflecting positively on the national capital market.

- *Amman Stock Exchange (ASE)*

Established in 1999, the ASE is a non-profit, private institution with administrative and financial autonomy that acts as an exchange for the trading of security. Comprised of 68 brokerage forms, the ASE is governed by a seven-member board of directors as a means to facilitate the exchange, with daily responsibilities of monitoring and reporting to the

board for consultation. It is the duty of the ASE to ensure fairness, transparency, efficiency and liquidity for its listed securities whilst also maintaining the guarantee on the rights of its investors. As such, the exchange has developed directives to ensure proper conduct. As well as creating and maintaining a safe environment for investment, the ASE also ensure processes and methods are developed as a means of ensuring trading securities on the stock market. In addition, the dissemination of trading information to the largest possible number of dealers and interested partners is maintained, ensuring that public awareness is enhanced and that the transparency and credibility of the stock market is visible.

In order to ensure international standards and practices are met, the ASE and the JSC work closely on matters of surveillance and security. In order to provide the best performance in the security sector, they maintain strong relationships with other exchanges, associations and international organisations. As such, the ASE are actively involved as a member of both the Union of Arab Stock Exchanges and the Federation of Euro-Asian Stock Exchanges (FEAS), as well as being a full members of the World Federation of Exchanges (WFE) and an affiliate members of the International Organisation for Securities Commissions (IOSCO). The ASE ensures further investment in the sector by providing enterprises with a means to raise capital by listing on the Exchange and thus encouraging an active market in listed securities based on prices when trading, providing facilities for the enterprises to take advantage of in their financial prices.

- *Securities Depository Centre (DSC)*

Another key player in the securities sector in Jordan is the Securities Depository Centre (SDC), a public utility institution established in Jordan by the Securities Law No. 23 (1997). This was due to the law separating the functions of the Amman Financial Market (AFM) and creating the JSC, ASE and the SDC, which works under the JSCs supervision. It is the role of the SDC to enhance the confidence of investors in securities to enable them to follow-up their investments via a central registry for enhanced security. They also concern themselves with the reduction of risks related to settlement of trading transactions, which they achieve by implementing by-laws, instructions and procedures.

The SDC is the only entity in Jordan that is legally empowered by the Securities Law No. 76 (2002) to oversee the registration and deposit of securities, the transfer of

ownership and safekeeping of securities and the clearance and settlement of securities transactions. As such, it abides by a legal personality with financial and administrative autonomy. As a means of allowing the SDC to perform its operations, a central registry and depository of authenticated shareholders and central settlement process was implemented. As such, this creates an electronic database of shareholder registers. Being one of the major institutions in the Jordan Capital Market, the SDC has been assigned the task of developing the Jordan Capital Market along with the JSC and ASE.

4.3.2 Disclosure and accounting standards

In order to achieve good corporate governance it is important for the company to adopt clear standards and full disclosure (Rajagopalan and Zhang, 2008). Therefore, the company law, the insurance law, the banking law and the securities law require the companies to follow internationally accepted accounting and auditing standards. Prior to 1997, there was no legally established accounting and auditing standard-setting body in Jordan, and the process of regulating accounting practice in Jordan was purely promulgated by the government (the Ministry of Industry and Trade), with a very minor role for the private sector, or the Jordan Association of Certified Public Accountants (Al-Akra et al., 2009). In 1997 Jordan started to adopt the international financial reporting standards (Word Bank, 2004). The IFRS in Jordan is required for all listed companies. According to Directives of disclosures, auditing, and accounting standards (1/1998) and the JSC Law (23/1997), all entities are subject to JSCs to implement International Reporting Standards (IFRS). Moreover, the JSC requires companies to present their annual audited financial statements within 90 days from fiscal year end. The law of financial security discusses deeply the disclosure regulations in public shareholding companies. Disclosure's importance arises because its cultural dimensions along with establishing legal rules, and its wider meaning is developing the financial sector in general. Jordan security commission started to ask companies to disclose their board members ownership and its top management salaries in spite of strong opposition by companies. Tarif (2003) found that more than 85% of companies reached a high commitment in disclosure.

In order to improve and regulate the accounting profession in Jordan, Law No. 73 of 2003 was issued to enhance corporate governance structure in Jordanian companies. In addition, the law supports the Jordanian Association of Certified Public Accounting (JACPA) and established the High Council of Accounting and Auditing (Word Bank,

2004). Moreover, the Company Law provides auditors in the corporation with some corporate governance rules. These rules summarize what should be included in the auditor's report and how to appoint the auditors. The appointing of the auditors takes place at the annual general shareholder meeting and there are some requirements to replace the auditor and specific reasons which are related to the Company Law. The auditor provides the shareholders with a report about the financial position of the company during the last year by applying the international standards of auditing in the report (Shanikat and Abbadi, 2011).

4.3.3 Effective supervision of the board of directors

The board of directors is the apex of hierarchical corporate control systems, and its primary role is to monitor the management by agents on behalf of principals (shareholders) who elect its members. The board of directors plays a crucial role in managing the company to motivate and improve firm performance by providing supervision and monitoring inside the company to evaluate, advice, and reviewing the management (Gillan, 2006). An independent board is generally viewed favourably as part of an efficient governance mechanism, because independence from management clearly enhances the ability of the board to exercise its function of overseeing the former on behalf of principals (Liu and Fong, 2010).Thus the board of directors is essentially a monitoring mechanism to protect principals' interests (Jensen and Meckling 1976).

The Company Law in Jordan had announced some provisions and policies that may enhance the board and improve the performance of the company, including:

- Each company is obligated to prepare its own financial statements within three months of the end of the company fiscal year.
- To prepare the annual reports for the last year.
- To prepare the forecasting planes for the next year.
- Monitoring the annual general meeting.

In addition, the Company Law is concerned with board meetings. For instance, any member inside the board who missed four meetings without any acceptable excuse or failed to attend to the board six times, even with acceptable excuse will lose his membership. Moreover, if the shareholders have 30% of the shares or more they have the right to dismiss any member inside the board if he or she is not performing his duties efficiently. Regarding the important role of the audit committee inside the board

in reviewing the financial statements, the annual reports, reviewing the external auditor's reports, exercise control on the accuracy of the accounting and regulations producers and ensure that the company applied the laws and the regulations. The Securities Law assures that each committee should at least meet once every three months. In addition, they might meet more often according to the circumstances.

The Company Law and ASE considered shareholders who own 5% or more of shares are large shareholder. This action allows them to re-audit the internal and the external reports of the company to check for any violations. In addition, large shareholder will have the power to exert control and close monitoring on the management. Furthermore, the shareholders have the right to redress any violations that may have been conducted by either the general manager, the audit committee and the company board (Word Bank, 2004).

4.3.4 Jordan Corporate Governance Code (JCGC)

As a new concept for the Jordanian business environment, corporate governance professionals are concerned with better performance and development of the companies. This concern creates to apply international corporate governance standards in order to improve the financial environment for the companies. In addition, applying international corporate governance standards is consistent with the principles of globalization, global competition and the openness of the economic. Applying the JCGC will show that the local market is implementing the requirements and the criteria's of transparency and accountability to protect the investors and traders. Moreover, JCGC will show that the Jordanian companies have the ability to deal with the worldwide corporations and markets. Accordingly, this will increase and enhance the confidence in the national economy. As a result, this is an indicator for the foreign investors and corporations to attract and motivate them to invest in the local market. Jordanian companies' obligations are constrained under the regulations to align with the business companies and corporate governance such as the Corporate Governance Code (CGC) and Company Law (CL).

The Cadbury Report (1992) and OECD Principles of Corporate Governance (2004) played an important role in the developing of corporate governance codes globally (Mallin, 2007). Various countries have followed the Cadbury Report by introducing different codes for the best practices of corporate governance. These codes tried to

implement Cadbury Report by providing variety of recommendations such as board structure and ownership structure.

Jordan has adopted and followed the international corporate governance codes by introducing their own corporate governance code in 2006. These codes include many recommendations in line with international best practice. The code was draws upon to the OECD principles of corporate governance and the guidance were issued by the Basel Committee to enhance the banking organizations of corporate governance. In particular, the recommendations of the code were heavily informed by those of the OECD principles.

The guide was issued in view of the development of the national economy, and in line with the efforts of the JSC to develop the national capital market. The major areas of enforcement include rules of corporate governance for shareholding companies that are listed in the ASE. It contains an established and clear framework that regulates the relations between the companies and management. These codes define their duties, rights and responsibilities. These rules are based mainly on the Companies Law, Securities Law and the international principles (e.g. OECD principles). Furthermore, the important role of the Central Bank (CB) cannot be ignored in promoting the role of corporate governance of financial and non-financial institutions in Jordan as one of the key players. The Central Bank of Jordan had issued the bank Director's Handbook of Corporate Governance in 2004. Moreover, the CB prepared the corporate governance code which helped in implementing the international corporate governance practices inside the Jordanian banks.

Al-Basheer (2003) stated that the safe financial environment is the framework for good development corporate governance. Al-Jazi (2007) states that different laws related to corporate governance have been issued and implemented (e.g. Securities Law, Company Law, Insurance Law, Banking Law, Law of Competition and Monopoly, Commercial Law, Law of Privatisation and Law of Investment Promotion). These laws spotlight the issues that are related to corporate governance, which are:

- The financial disclosure and the company's legal personality are independent to their shareholder.
- These laws help in governing the conditions, procedures and the actions that may appear, such as transfer properties or acquisitions (e.g. the right for transfer of company and individual ownership, possession and mortgages).

- To pursue the legal structure of the companies and confirm that these companies have the following assemblies; audit committee, board of directors and general shareholders.

The JCCG published in 2006 by the JSC covers the following areas:

- Definitions of key terminology.
- The board's structure and responsibilities.
- Shareholder general meetings.
- Shareholders' rights.
- Guidelines for financial disclosures.
- Accountability and auditing.
- Ownership structure.

In terms of the board of directors and ownership structure, the recommendation of the JCGC 2006 stipulate some provisions such as: (1) the board size should be between 5 and 13, (2) the role of the CEO and the chairman should be separated, (3) at least 1/3 of the board should be non-executive directors and (4) shareholders who own 15% or more have the right to question the board of directors.

The Disclosure Department in the JSC is the responsible department for applying and implementing the previous rules inside all the companies' applications to strength their performance in order to enhance and improve the national economy and the investment environment (JSC, 2005). Furthermore, in order to encourage foreign investors to invest in Jordan, Jordan has signed several promotion and reciprocal of investments agreements with the following countries: the UK, France, the US, Germany, Italy, Malaysia, Romania, Tunisia, Turkey, Algeria, Yemen, Bulgaria, Austria, China, Spain, Syria, Poland, Kuwait and Singapore (Jordan Investment Board, 2013). Naturally such extensive international agreements require a sound legal framework and some degree of regulation from the government. Therefore, if the companies operate their business without efficient mechanisms of corporate governance, they might lose the advantage from attracting foreign investors and they probably will face challenges and difficulties to enter to the international market.

In summary, firstly, Jordanian firms are trading in different industries, which generally affects corporate governance due to different practices between industries resulting from differences in capital structure, complexity of operations, ownership levels and business type (Haniffa and Cooke, 2002; Elsayed, 2007; Lim et al., 2007). This study therefore

includes the industry effect in order to find the impact of the industrial sector on firm performance. Secondly, Jordan started economic and financial reforms and adopted legislation to motivate and initiative accountability and transparency in the country, in order to build a safe financial environment for the local and foreign investors. In this sense, the study will investigate these changes and improvements of legislation by using annual dummy variables to investigate this effect on firm performance. It is expected that the development of the financial environment might improve the firm performance in Jordan.

Thirdly, the board of directors is the apex of hierarchical corporate control systems, and its primary role is to monitor the management by agents on behalf of principals (shareholders); it was elected by shareholders. In Jordan, ownership is typically concentrated among large shareholders such as families and companies, which clearly can affect management decisions (ROSC Jordan, 2004). Nepotism is commonplace in appointment to management positions in Jordanian companies due to the influence of large shareholders (Al-Jazi, 2007). In this scenario, any attempts to introduce good corporate governance principles might be hampered by the inflexibility of organisations, the limited autonomy of managers, and the lack of managerial objectivity to monitor firm activities and to achieve objectives. For example, if the company has family ownership it is more likely that the CEO is also chairman. In addition, the company management will be less likely to appoint NEDs on the board to monitor their actions. Therefore, an efficient board can improve corporate governance by reducing the agency costs and solve the conflicts between the management and shareholders. In Jordan, the legislative perspective (JCGC, 2006) advocates that the size of the board should reflect a sufficient balance of skills and experience, ranging from five to thirteen members. In addition, to reduce the ability of the CEO to act against the interests of the shareholders, the JCGC (2006) advises separation of the chairman and CEO roles, and advocates that at least one-third of the board should comprise NEDs, in order to exert a monitoring on managers' decisions in the interest of shareholders; thus the study explores the effect of the board of directors.

Furthermore, the prevalence of concentrated ownership in Jordan indicates that most firms are dominated by large shareholders, such as families and institutional investors (ROSC, 2004). Implications of this include that large shareholders might create power bases based on their voting rights, manipulating firm policies to control managers' actions for their own interests, thus increasing the agency problem and undermining

firm performance. On the other hand, large shareholders can be expected to monitor management decisions more closely due to their increased stake in the firm, which would reduce the agency problem and improve firm performance. Both of these alternatives are possible, thus the study investigates the impact of the concentrated ownership and owner identity (i.e. the nature of the owners) on firm performance.

Finally, Jordan started economic and financial reforms to improve the accountability and transparency in the financial environment to increase and enhance the confidence in the national economy. Al-Jazi (2007) states that different laws related to corporate governance have been issued and implemented (e.g. Securities Law, Company Law, Insurance Law, Banking Law, Law of Competition and Monopoly, Commercial Law, Law of Privatisation and Law of Investment Promotion). This has resulted in increasing the foreign investors to the local market. Al-Muhtaseb (2009) Jordan is in the top three countries in the Middle East and North Africa (MENA) in terms of attracting foreign investment. In this regard the study will investigate the impact of the foreign ownership on the performance of the Jordanian companies.

Thus, the study reviewed the theoretical framework and the empirical literature about corporate governance mechanisms, then the study reviewed the Jordanian background in order to modify if necessary some of the measures to answer the study questions. The next chapter will explain the source of the data and the way the variables how they have been construed.

4.4 Summary

This chapter has focused on corporate governance in Jordan to provide a widespread description of the Jordanian economic environment and corporate governance framework. This chapter reviewed the Jordanian economic environment in order to present the most important aspects of the corporate governance environment in Jordan. It presented the general background about the economic situation in Jordan and reviewed the industry and services sectors. Because Jordan is interested in attracting foreign investors and corporations, it was necessary to adopt series of reforms and legislations to underpin confidence of local and international investors in the local market and companies. In addition, implementing and applying the international codes and principles will enhance the accountability and transparency of the country. Accordingly, the most important elements of the Jordanian markets were analysed,

including the Securities Law related to monitoring, regulating and supervising the companies listed in the ASE (and the three key bodies the JSC, the ASE and the SDC). Moreover, Jordan has followed and adopts the internationals corporate governance codes by introducing their own corporate governance code in 2006. All of these actions have helped in raising the strength and the confidence that Jordan is adopting good corporate governance practises. The next chapter discusses the data measurement.

CHAPTER 5: DATA AND MEASUREMENT

5.1 Introduction

This study seeks to examine the effect of corporate governance on the firm performance of Jordanian industrial and services firms from 2000 to 2010. Specifically, to investigate the role of the board of directors, ownership structure and foreign ownership on firm performance. Therefore, this chapter aims to provide a description of the data used in this study. First the sources of data are explained. Second the sample selection procedure is described. In addition, the criteria that have been adopted to construct the sample are explained. The variables that have been used in this study are divided into three categories (firm performance, corporate governance variables and control variables). For each category the data source and variable construction are explained.

5.2 Sample

This study covers the industrial and services Jordanian companies listed in the ASE that provided full information for the period (2000-2010). The list of companies listed in the ASE was obtained directly from the ASE official website. There are two main sectors in ASE, the financial companies sector and the non-financial companies sector. The financial sector consists of four types of industries (banks, insurance, diversified financial services and real estate) while the non-financial sector consists of two types of industries (industrial and services), as shown in **Error! Reference source not found.**.

Table 3: Summary of population structure in ASE

Sector	Sectors	No. firms in sector	Percentage of population
Non-financial companies	Services	59	45.03
	Industrial	72	54.96
Total		*131*	*100*

The data used in this study was collected from two sources: the Osiris database and the Annual Reports of the Jordanian companies. The Osiris database has provided this study with the data that relates to the first two questions of this research (e.g. the role of the board of directors and the managerial structure). However, the data that collects ownership structure was manually collected from the Jordanian annual reports. Fraser et al. (2006) argue that company's annual reports are more accurate than other secondary data sources. In addition, they report that information and data based on annual reports

show a high level of reliability and quality. To avoid error during copying the data from annual reports, entries are double checked by the researcher. Both databases provided a summary of the balance sheet, income statements, financial ratios, number of directors and the name of the auditing companies.

The whole population of industrial and services companies are listed in ASE consists of 131 companies. The services and industrial sector include 19 industries in both of them as shown in **Error! Reference source not found.**.

Table 4: Summary of industry and services sector

Sector	Industry	No of firms in each industry	Share of population	Actual sample
Services	Health care	4	0.031	3
	Educational	6	0.046	5
	Hotels & tourism	12	0.092	11
	Transportation	14	0.110	12
	Technology & communications	2	0.020	2
	Media	2	0.020	1
	Utilities & energy	4	0.031	3
	Commercial	15	0.110	13
Industrial	Pharmaceutical & medical	6	0.046	5
	Chemical	10	0.076	9
	Paper & cardboard	3	0.023	3
	Printing & packaging	2	0.020	2
	Food & beverage	11	0.084	11
	Tobacco & cigarettes	2	0.020	2
	Mining & extraction	17	0.130	14
	Engineering & construction	8	0.060	8
	Electrical	5	0.040	3
	Textiles, leather & clothing	6	0.046	6
	Glass & ceramics	2	0.020	2
Total		*131*	*1*	*115*

The study used 115 out of the 131 companies. These were chosen based on the following criteria: (1) no companies that were liquidated either voluntary or by obligation and (2) no companies that were acquired by or merged with another company. The study excluded the financial companies sector because firms in this sector are administered by different set of instructions and rules (Abed et al., 2012). Thus, this makes these firms incomparable to firms in the other sectors. In addition, they have been excluded because of unique characteristics of their financial statement (Anderson and Reeb, 2003; Claessens et al., 2006; Al-Kouri, 2006; Andres, 2008; Al-Najjar 2008; Estrin et al., 2009; Jiraporn et al., 2009; Al-Fayoumi et al., 2010).

Following previous studies (Yermack, 1996; Cheng et al., 2008) this study used the same criteria that have been used by them in selecting the sample. Yermack (1996) and Cheng et al. (2008) argue that the two criteria above assisted in meeting the needs for a panel data analysis for firms with several sequential years of data. Furthermore, the sample ends in 2010 because this is the most recent year for which data was available at the time when data collection started.

5.3 Performance Variables

Historically, different measurements have been used in order to examine the firm performance by different studies (Cochran and Wood, 1984; Ittner and Larcker, 2003). Most of the studies examine the firm performance using a diversity of financial measures such as Tobin's Q (Yermack, 1996; Weir et al., 2002; Kiel and Nicholson, 2003), ROA (Yermack, 1996; Zajac and Westphal, 1996; Shrader et al., 1997; Kiel and Nicholson, 2003), ROE (Bhagat et al., 1999; Adjaoud et al., 2007), ROI (Boyd, 1995; Adjaoud et al., 2007) and net profit margin (Bauer et al., 2004).

The above measures can be categorised into two groups: market-based and accounting-based measures. On one hand, Daily and Dalton (2003) suggest that the accounting-based measures consider the current financial performance of the company. On the other hand, market-based measures consider the investor perceptions of the company potential performance. Each group has been criticised by different researchers.

Haniffa and Hudaib (2006) argued that there is no consensus in the literature on which measure is the best indicator of financial performance. In addition, they report that every measure has its own strengths and weaknesses; thus there is no specific measure to be the best proxy for financial performance.

ROA in terms of accounting profit was cited by Demsetz and Lehn (1985) as more representative of underlying business parameters in terms of year-to-year fluctuations than stock market rates of return, because the latter are more reflective of expected future developments rather than actual business conditions. This concept had been widely deployed by corporate governance studies (Gompers et al., 2003; Haniffa and Hudaib, 2006; Klapper and Love, 2004). Historical reports such as accounting-based measures do not consider the future prospects of firm performance, but they are the most comprehensive indicators of the current status of firm performance. Market-based measures of firm performance are particularly problematic in the context of emerging

markets, where most firms are characterized by debt-financing rather equity financing. Therefore, market-based measures are unrepresentative of actual investor profits in this context (Kumar, 2004).The market share price of firms reflects their market value with the proviso that the capital market is efficient according to the Efficient Market Hypothesis (EMH) (Gompers et al., 2003). Since Jordan is one of the emerging market countries, the stock market is yet to be developed in a comparable manner with established ones. For instance, the impacts of publicly disclosed/available firm information will influence the market after a lag time which will manifest in share prices. Financial performance is subject to a great degree of internal control, however market valuation is subject to fluctuations beyond management control, such as changes in market valuations and stock declines (Hambrick and Finkelstein, 1995; Grossman and Hoskisson, 1998).

Black et al. (2006a) argue that the value of corporate governance is valued differently by the insiders and outsiders. For example, the accounting based measures of performance (ROA and ROE) concern control of the wealth effects of corporate governance mechanisms from the view point of the company management (insiders). However, the market based measures such as the Tobin's Q represent financial estimation of corporate governance structure by investors (outsiders). Wulf (2007) points out that accounting measurement maintain a straight relationship with the firm's strategies and performances. For example, 80% of studies that identified the significant variables affecting company's performances utilized ROE and ROA as main variables. In addition, different studies such as Zajac and Westphal (1996), Shrader et al. (1997), Kiel and Nicholson (2003), Carter et al. (2003) and Erhardt et al. (2003) used the ROA and ROE in examining the effect of the corporate governance on firm performance.

Tobin's Q ratios used as proxies for market based measures is defined as the market value of equity divided by replacement cost (Yermack, 1996). Haniffa and Hudaib (2006) argue that Tobin's Q ratio measure the effectiveness with which firm management is capable to use its assets to create value for the shareholders. Market based measures such as Tobin's Q have been calculated differently by different authors. For example, Yermack (1996) calculated Tobin's Q by dividing the market value by replacement cost. However, Booth and Deli (1996) calculated the same ratio by dividing the market value by the total assets. Accordingly, if the two studies used the same period and the same sample, they would get different results for firm performance because of the methods of estimation and the valuation of the assets.

Although the firm performance can be examined from different perspectives such as Tobin's Q, however, we have the difficulties embroiled in computing Tobin's Q, such as computing the replacement cost which the companies do not report.

Different researchers have pointed out some advantages of using accounting based measures in examining the firm performance. Generally, higher ROA and ROE denote an effective use of the firm assets and equities in increasing the value of the shareholders wealth by management. Moreover, another advantage of using ROA and ROE is that they exclude the problem of the company size. ROA and ROE present an effective and easy solution for the comparison between the companies (Lev and Sunder, 1979). Furthermore, Demsetz and Lehn (1985) point that ROA and ROE might consider year-to-year fluctuations in implied business conditions better than stock market return. This is due to that a stock market rate of return reflects anticipated future changes that may hide the current fluctuations in the business conditions.

However, the use of the accounting based measures has been criticised from different perspectives. Firstly, Ross etal. (2008) argue that accounting based measures ROA and ROE are historical measures. However, the earlier earnings might be weak reflections of accurate future profits. Krivogorsky (2006) points that accounting based measures ROA and ROE are grounded on historical cost accounting. Therefore, they are incapable to directly reflect present fluctuations in the valuations by the equity market. Secondly, Alexander et al. (2007), Mangena and Tauringana (2007) argue that accounting based measures are subject of changes and alterations in accounting methods, techniques and policies. Thirdly, Ross etal. (2008) point out that accounting based measures ignores risk. Finally, Alexander et al. (2007) found that accounting based measures fail to reflect environmental and industry differences such as employee and customer satisfaction. However, to minimise the potential impact of these weaknesses and limitations that have been discussed above, a list of control variables has been included in this study to justify the use of the accounting based measures of performance.

From the point of view of the shareholders, return on equity is considered to be the most important ratio to measure the firm performance because it focuses on the return of the shareholders (Demsetz and Lehn, 1985; Mehran 1995). Similarly, ROA is an important measurement for the firm performance by taking under considerations the assets that are used by the company to support the firm activities. According to agency theory, managers are more likely to misuse the firm assets by working for their own interests

leaving less return for the shareholders. However, accounting based measure such as ROE and ROA are directly related to management's ability to efficiently utilise the firm assets. A lower ROE and ROA will indicate inefficiency. Therefore, both of the two measurements are important from the view of the shareholders to measure the firm performance. In this study ROE and ROA have been selected as proxies for firm performance from the accounting based measures.

Return on assets is an indicator of how profit a company is or how efficient is the management as using its assets to generate earning, and is sometimes referred to as Return on Investment. It is calculated by dividing a company net income by its total assets:

Return on Assets (ROA) = (Net Income) / (Total Assets).

Return on Equity measures the profit of the company by revealing how much profit the company generates regarding to the amount of the money invested by the investor. It is calculated by dividing a company net income by its total equity. It is also known as Return on Net Worth:

Return on Equity (ROE) = (Net Income) / (Total Equity).

All of the financial information that related to ROE and ROA variables were extracted from the balance sheet that provided by Osiris database.

5.4 Control Variables

Beside the previous variables, control variables have been introduced to explain the variation of the firm performance. Different studies (Morck et al., 1988; Yermack, 1996; Shin and Stulz, 2000; Daines, 2001 and Gompers et al., 2003; Black et al.,; 2006a; Chenhall and Moers, 2007a) used different control variables. As shown below in Table 5 a list of control variables that has been used in this study (e.g., firm size, leverage, liquidity, age, industry and annual dummies) has been listed. The researcher acknowledges that, it could also be argued that other relevant factors may exist. However, by reviewing the previous literature there is no specific formula for the control variables. Therefore, by following different studies it is common practice to include the above as control variables.

Table 5: Summary of control variables

Control variables
Firm Size (Log TA)
Leverage
Liquidity
Age
Industry
Annual dummies

5.4.1 Firm size

Different researchers report an ambiguous relationship between the firm size and firm performance (Agrawal and Knoeber, 1996; Himmelberg et al., 1999; Nenova, 2003; Durnev and Kim, 2005).Short and Keasey (1999) and Joh (2003) argue that larger firms have better opportunity than the smaller ones in creating and generating funds internally and accessing external resources. In addition, larger firms might benefit from economies of scale by creating entry barriers with a positive effect on firm performance. Furthermore, Jensen (1986) points out that firm size may be used as a proxy for the agency problem. He reports that managers have motivation to increase the firm size beyond the target which will indicate more power, when the amount of assets under their control is larger. Fama and Jensen (1983), Booth and Deli (1996) and Boone et al. (2007) argue that as the firm size increases the firm becomes more diversified. This means that larger can explain the natural complexity of the company. Also, it means that larger firms need more advice on the board. In addition, larger firms are correlated with complex operations in order to pursue the company strategies more efficiently. Serrasqueiro and Nunes (2008) recommend larger firm sizes to benefit performance. This is because, large firms have better opportunity to raise funds and more diversified strategies. In addition it has wide variety of expertise management. Black et al. (2006b) show that the firm size positively affects firm performance.

On the other hand, other researchers (e.g., Nenova, 2003; Garen, 1994; Agrawal and Knoeber, 1996) report that large firms are subject to more inspections and scrutiny. Thus, it might be costly for the controlling families to extract private profits (Nenova, 2003). Agrawal and Knoeber (1996) report a negative relationship between the firm size and firm performance. They argue that larger firms might not be as efficient as the smaller firms due to reduced control by management over strategic and operational activities as firm size increases. Garen (1994) argues that the cost of complying with corporate governance codes requirements will be comparatively low for the larger

companies. However, this cost will increase if the companies are subject to public media scrutiny. This is because; they will be subject for high levels of media investigations than the smaller companies. (Garen, 1994). Finally, Jensen and Meckling (1976) argue that as the firm size increases the agency costs are likely to increase. The increase of costs is due to the need for more control that resulted from managerial discretion and opportunism. Moreover, the growth of the firm will result in increasing the internal control tools for forecasting and designing. This will raise the need for aligning the interest of the managers and the shareholders (Jensen and Meckling, 1976). In line with previous studies (e.g., Muth and Donaldson, 1998; Elsayed, 2007; Topak, 2011; Al-Matari et al., 2012; Lehn et al., 2009) who used TA as a proxy for firm size this study will measure the firm size by using the natural logarithm of total assets ("Log TA"). Total assets were extracted directly from the balance sheet provided by Osiris database.

5.4.2 Leverage

Different researchers have argued that leverage may affect the firm performance either positively or negatively. A positive effect might take place as a consequence for monitoring by lenders. Jensen and Meckling (1976) found that leverage play an important role in mitigating agency problem as an internal corporate governance mechanism especially free cash problems. Jensen (1986) argues that increasing the external debt may result in positive effect. Increasing the debt will constrain managerial discretion. Jensen (1986) reports that high levels of debt will discipline the managers to use the company free cash flows for non-profitable investments (opportunistic managers). Since managers are obligated to pay periodic repayments of interest and principal. Stiglitz (1985) notes that an effective control for the managerial behaviour is implemented mainly by lenders rather than shareholders. Similarly, Ross (1977) argues that increasing the leverage might be a good indicator for the company ability to serve large amounts of debt. Moreover, Modigliani and Miller (1963) expect positive association between leverage and the firm performance computed by tax shields. Agrawal and Knoeber (1996) argue that firm performance can be improved by using the debt in financing the company due to pursuing the monitoring by lenders.

On the other hand, Myers (1977) argues that high amounts of leverage may affect the firm performance negatively according to the problem of underinvestment. This is because increasing the leverage will hinder the ability of the company to raise new debt.

Therefore, this will result in losing any possibility to acquire any investment opportunity. Furthermore, Myers (1977) and Stulz (1988) report that high levels of leverage will affect the market value of stocks which will result in higher financial risk. Moreover, they argue that from the governance viewpoint, high amounts of leverage will impede the firm performance by creating excessive interest and closer monitoring by creditors. Andrade and Kaplan (1998) argue that the lower the firm leverage the lower the probability of financial distress and firm with higher financial leverage tend to perform worse than firms with lower financial leverage. Leverage is defined as long term debt to total assets. Leverage was extracted directly from the balance sheet provided by Osiris database.

5.4.3 Liquidity

Chamberlain and Gordon (1989) and Jose et al. (1996) asserted that liquidity has an important effect on company survival; this is mainly due to its implications with regard to changes in sales dynamics, growth, financial costs reduction as well as it impacts on company risk level. Liquidity is important for company development, and it is an indicator of the company's market position and achievements. Fang et al. (2009) argue that liquidity reduces managerial opportunism and stimulates trade by informed investors, thus improving investment decisions through more informative share prices. Therefore, a positive relationship between liquidity and performance is more likely to be anticipated. Liquidity is defined as liquidity inside the company to meet its short term obligations and its short term financial distress. Liquidity was extracted from the balance sheet. In line with previous studies (Chamberlain and Gordon, 1989; Fang et al., 2009; Jose et al., 1996), this study will measure the liquidity by using current ratio (CR) by dividing its current assets (CA) by its current liabilities (CL). It indicates that firms with high liquidity have the ability to absorb any external shocks and any internal obligations and reduce any possibility of financial distress. However, higher levels of liquidity will increase the opportunity cost of the company, that it has lost the possibility to invest these amounts to get generate return.

5.4.4 Age

Firm age has been used by a number of studies in terms of the number of years a firm has been incorporated (Berger and Udell, 1998; Boone et al., 2007; Borghesi et al., 2007; Gregory et al., 2005). They pointed out that firm age is a valuable indicator of

expected growth opportunities. For example, Claessens et al. (2002) confirmed that older and larger firms have more liquid trading, better disclosure, receive more attention from analysts and have more diversified activities, leading to lower risk of financial distress but less growth opportunities. However, younger and smaller firms can have better growth opportunities but greater exposure to adverse market conditions. Evans (1987) observed that older firms are generally more experienced and skilled, but less dynamic and less flexible in adjusting to alterations or modifications in the business environment. Borghesi et al. (2007) and Boone et al. (2007) confirmed this, stating that older firms are incapable of quick response to any changes in the environment. In the same vein, Lipczinsky and Wilson (2001) reported that new firms are anticipated to earn less profit than older ones because they are less experienced in the market and because they are trying to establish their own presence; in addition, they are usually trying to cover their cost structure. However, older firms are contemporaneously reaching the end of their life cycle.Black et al. (2006) suggest that older firms are more likely to have finished their high-growth stage, while younger firms are faster growing. Accordingly, younger corporations, as measured by a shorter incorporation history, are more likely to have better growth opportunities.

This research will use the same measurements as previous studies (Berger and Udell, 1998; Boone et al., 2007; Borghesi et al., 2007; Gregory et al., 2005): age was defined as being from 2010 minus the establishment date of the company, in order to determine how many years it had been incorporated before 2010. Age was extracted from the Osiris database.

5.4.5 Industry

Haniffa and Cooke (2002), Lim et al. (2007) and Elsayed (2007) found that corporate governance practices vary between industries due to the differences in capital structure, complexity of operations, ownership levels and line of business. In addition, global and economic developments may impact differently on different industries. Furthermore, based on survey by CLSA (2000) in emerging markets, corporate governance standards vary across different industries. Following Hanifia and Cook (2002), Foroughi et al. (2011) and Mandaci (2010), the industry variable is used as the dummy variable. To avoid the dummy variable trap, one industry is excluded. The industry sector includes 11 industries; however the service sector comprises 8 industries according to ASE classifications. The value of 1 is used if the firm is in the industry or 0 otherwise.

5.4.6 Annual effects

Different studies have reported that corporate governance practices and firms' profitability change over time during the periods of economic boom and recession; for example, Tan et al. (2001) argued that the global financial crisis affected the financial performance of all companies around the world. Likewise, changes in the macro environment such as tax policies and government regulations may impact the corporate governance structure and financial performance (Padgett and Shabbir, 2005). As shown in chapter 4, Jordan started economic and financial reforms and adopted legislation to motivate and initiative accountability and transparency in the country, in order to build safe financial environment for the local and foreign investors. For example, the issuance of the JCGC (2006), the equal treatment of Jordanian and foreign investors, complete freedom of capital movement and no taxes on cash dividends or capital gains create an attractive investment structure and open economy. Therefore, it is expected that these changes and improvements of legislation will affect firms' performance positively. This study investigates this effect using dummy variables. Every dummy variable value is equal to one for every year and zero otherwise.

5.5 Corporate Governance Variables

5.5.1 Board size

The empirical findings in previous studies are mixed regarding the relationship between board size and firm performance. Some studies (e.g. Hermalin and Weisbach, 1998;Jensen, 1993; Lipton and Lorsch, 1992; Yermack, 1996) found evidence consistent with the view of agency costs: that small boards are related with better firm performance. The previous studies argue that as board size increases, the problems of coordination and communication increase, thus decreasing the ability of board members to monitor management behaviour and thereby increasing the agency problem and resulting in lower firm performance. In the same vein, large boards will reduce the monitor and control function of the board by giving managers space to pursue their own interests rather than those of the principals. Large boards are more likely to be controlled by the CEO rather than the board controlling management, leading to a negative impact on firm performance. However, some studies (Dalton et al., 1998; Hillman and Dalziel, 2003; Lehn et al., 2009) found that large boards affect firm performance positively, consistent with the view of resource dependence theory, due to

improved linkages to the external resources (Hillman and Dalziel, 2003). In addition, large boards allow directors to exchange more highly qualified counsels and present extra scope for the possibility of correlation with different external linkages and access to resources. These resources could include access to new and better technologies, access to markets and access to raw materials among other things. Large boards also play an important role in improving and enhancing the outcomes of decisions, because of diversity in educations, sharing of ideas, contributions and industry experience, which might lead to high quality advices and thereby better firm performance (Lehn et al., 2009).

Thus, from the mixed results, there is no consensus as to whether larger or smaller boards are better. Therefore, this study will investigate the relationship between the board size and the firm performance. Following Lipton and Lorsch (1992), Yermack (1996), Ahmed et al. (2006) and Bennedsen et al. (2008), board size (labelled as BSIZE) is defined as the number of directors who are on the board, as shown below in Table 6. The number of directors was extracted from Osiris database.

Table 6: Corporate governance variables

Variables Labelled	Definitions
BSIZE	The number of directors who are on the board.
CEO Duality	Is the CEO also Chairman? (YES=1, No=0).
NEDs	The percentage of the NEDs on the board to the number of total directors on the board.
MO	The percentage of equity ownership held by the management who run the operations of the firm.
LargeSH5	The total of shares that are owned by shareholders who own 5% or more in the company without relying on their identity.
OWNind/Fam	The total percentage of shares (capital) that owned by individuals/families.
OWNcomp	The total percentage of shares (capital) that owned by companies.
OWNgov	The total percentage of shares (capital) that owned by government.

5.5.2 CEO Duality

Agency scholars such as Berle and Means (1932), Jensen and Meckling (1976) and Eisenhardt (1989) argued for separation of ownership and control in order to reduce agency problems and to improve firm performance. The agency theory supports the notion of separation between the CEO and the chairman, to increase board

independence from management, which (theoretically) results in better performance due to better monitoring and overseeing (Jensen, 1993). On the other hand, stewardship theory argues against separation, because it is based on duality; according to the stewardship paradigm, effective management is based on the principle of the unity of command, because when responsibilities and decisions are restricted to one person, more effective performance results, therefore it has positive impact on the firm performance (Dalton and Kesner, 1987; Donaldson and Daives, 1991; Arosa et al., 2013). Moreover, Brickley et al. (1997) claimed that CEO duality will help in reducing the incomplete communication between the chairman and the CEO, hence reducing inconsistencies and conflicts in decision making.

According to the Jordanian CGC (2006), the CEO and the chairman have different responsibilities, and accordingly, to avoid any conflict interests and maintain effective supervision of management, these two positions should be separated from each other. Different studies (e.g. Abor, 2007; Bozec, 2005; Haniffa and Cooke, 2002; Haniffa and Hudaib, 2006; Gilh and Mathur, 2011; Sheikh et al., 2012) measured CEO duality as a dummy variable. In this study CEO duality is a dummy variable which will be created based on the CEO being chairman taking the value of one; otherwise the value of zero is taken, as shown in Table 6 above. This information was extracted from the Osiris database. This variable will investigate whether separating the two roles of chairman and the CEO affects the performance of the Jordanian companies positively or negatively.

5.5.3 Non-executive directors

As noted by Fama and Jensen (1983), boards are usually dominated by internal managers, whose performance is perceived to be enhanced if they can take decisions and exert maximum control, however in competitive environments such dominant insiders have less likelihood of surviving due to the lack of separation between decision management and decision control. This presents an argument for the presence of NEDs to ensure board independence from management by clearly segregating the control and management tasks. Additionally, internal managerial disagreements can be mediated by NEDs, as well as improving relations between internal management and other stakeholders. Therefore, NEDs are in better position to carry out the monitoring function than the executive directors. Jensen (1993) states the independence of NEDs helps in constructive criticism, because they will give their opinions without

sycophancy or coercion. In addition, NEDs will help in reducing information asymmetry between the shareholders and the executive directors. This will reduce the agency problem and hence increase the shareholders wealth. Pfeffer and Salancik (1978) observed (based on resource dependency view) that independent directors improve information flow and networking with stakeholders and the community, and in terms of their knowledge by providing the management advices on strategic plans and investments and hence protect the firm resources and reduce uncertainty. On the contrary, Baysinger and Hookisson (1990); Agrawal and Knoeber (1996) argued that according to stewardship theory the NEDs are commonly part-time workers, this will undermine their ability to monitor and advise the board because of the lack of the information that they have, and the lack of information concerning daily activities inhibits NEDs' ability to apply their function to improve firm performance. Therefore, the insider directors are better to undertake the monitoring function to evaluate the top managers (Baysinger and Hoskinsson, 1990).

Therefore, considering the NEDs from the perspectives of agency, resource dependence and stewardship theories, this study will investigate the impact of the NEDs on firm performance. Different studies (Arosa et al., 2012; Gordini, 2012; Khan and Awan, 2012; Kumar and Singh, 2012; Weir et al., 2002) examined NEDs in terms of their percentage of board membership. In this study, NEDs were considered as a percentage of the number of total directors on the board, as shown in Table 6 above. The number of NEDs was extracted from Jordanian annual reports.

5.5.4 Managerial ownership

According to agency theory, the convergence of interests (alignment interest) hypothesis different studies (e.g. Becht et al., 2003; Brickley et al., 1988; Davis et al., 1997; Jensen and Meckling 1976; Shleifer and Vishny, 1997) argued that as managerial ownership increases (alignment interest), managers are less likely to transfer the firm resources away from value maximization. They report that increasing the management ownership will affect the firm positively by encouraging the managers to work in the best interest of the firm, which will align the interests of shareholders and managers, resulting in better firm performance because managers personally bear a large proportion of the costs of their actions. Managerial ownership is defined as the percentage of equity owned by management (Bhagat and Bolton, 2008; Florackis et al., 2009; Mangena and Tauringana, 2007; Mehran, 1995; Palia and Lichtenberg, 1999;

Short and Keasey, 1999; Weir et al., 2002). Managerial ownership is labelled as (MO) as shown in Table 6 above. The MO was extracted directly from the Jordanian annual reports. In this context, the study will investigate the effect of the managerial ownership on the firm performance.

5.5.5 Large shareholder

As a substantial aspect of the effectiveness of the corporate governance mechanism, different researchers have examined the effect of ownership structure on the firm performance, mostly from the agency theory perspective. Most of these studies start from the argument presented by Berle and Means (1932), that there are two main features of corporations that may affect firm performance: the dispersion of shares between shareholders and the concentration of ownership. Corporate governance mechanisms differ around the world, which could impact on the relationship between ownership structure and firm performance in different countries in regard to the degree of shareholders' protection. It has been observed that ownership concentration is high in emerging markets (Shleifer and Vishny, 1997; La Porta et al., 1999).Lopez et al. (1998) argue that ownership concentration results from the different degrees of the legal protection for the minority shareholders in every country. In addition, Roe (2003) and Onder (2006) point out that the differences in the political factors; corporate culture and legal structure play an important role in explaining the ownership concentration in the developing countries on the firm performance.

Miller et al. (2007) argue that that greater level of ownership concentrations allows the controlling shareholders to take the chance to use their majority of shares to gain private interest and incentive to expropriate the firm resources and reduce the value of the company. However, Shleifer and Vishny (1986) argue that when ownership is concentrated, large shareholders may influence and control the management effectively. This is because large shareholders have better incentive and motivation to monitor and affect the manager's behaviour because of their substantial economic stakes. Shareholders with greater stakes in a company have greater incentive to control and monitor managers or insiders (Holderness, 2003). This represents the positive outcome of the self-interest of large shareholders, known as the shared benefits of control hypothesis. For example, large shareholders may exert influence in the appointment of independent directors or have advisory voting on executive pay packages. Grossman and Hart (1986) suggested that large shareholders bear monitoring costs, and their share

of benefits will be proportionate to their cash flow rights (dividends or capital gains), and the pursuant benefits of monitoring by large shareholders is accrued by all shareholders proportional to cash flow rights. Other factors being constant, a rise in blockholder stake endows large shareholders with a greater interest in increasing firm value (Holderness, 2003).

As mentioned earlier in chapter three, firms in MENA are characterised by high concentration of ownership. Different studies used different cut-off levels to investigate the impact of the large shareholders based on the provisions and their Stock Exchange listing rules of their country. Based on the JCGC and the JCL classification of large shareholders as those who own 5% or more of a firm. This study will use the aggregate ownership of all large shareholders to investigate the effect of the large shareholders by 5% cut-off level on firm performance, labelled as Largesh5. As shown in table 6, Largesh5 is the total percentage of shares that are owned by shareholders who own more than 5% in the company without relying on their identity. The percentage of large shareholders was extracted directly from the annual reports from the period 2000 to 2010.

5.5.6 Ownership identity

Douma et al. (2006) argued that the identity, nature and behaviour of the large shareholder are important. This is because, the different interests of different parties (e.g. decision-making opportunities, investment objectives and resource endowments) which *"determine their relative power, incentives and ability to monitor managers"* (Douma et al., 2006). The different interests and actions of the large shareholders have significant impacts on corporate strategy and performance (Thomsen and Pedersen, 2000). For instance, individuals might be interested in capital gains, whereas companies might be interested in control. However, if companies are pension funds or insurance companies, they might also be interested in fixed income, to cover their cash flow requirements. Government might be more concerned over long-term investment. Therefore, it is reasonable to assume that shareholders with different identities who own large proportion of shares might impact the firm performance. The term companies' ownership includes banks, investment dealers, trust firms, pension fund and insurance companies. Previous research has explained how different shareholder types have different incentives and motivations (Douma et al., 2006; Thomsen and Pedersen, 2000; Tihanyi et al., 2003), and three variables were created as shown in Table 6 above to

investigate the impacts on firm performance of: individual/family ownership (labelled as OWNind/Fam; companies ownership (labelled as OWNcomp; and government ownership (labelled as OWNgov. The total percentage of shares for each identity was extracted from the annual reports.

5.6 Foreign Ownership

Khanna and Palepu (2000) stated that foreign investors may perform monitoring and thus aid the development of emerging markets and their integration within the global economy. Hanousek and Svejnar (2004) found a positive impact of foreign ownership on corporate performance due to improved monitoring. Mitton (2002) and Lins (2003) both found that firm performance is positively related to outside ownership in emerging markets. Moreover, recent findings in Turkey (Aydin et al., 2007) showed that foreign equity investors have significant and positive effects on firm performance. The legislative reforms in particular (since the 1990s) have attracted more foreign capital investment in Jordan. Furthermore, the three investment laws of 2003 (replacing the 1995 legislation) provide for equal treatment of Jordanian and foreign investors, a unique feature that distinguishes the Jordanian market among MENA countries. Mohamed and Sidiropoulos (2010) reported that Jordan is in the top three countries in the Middle East and North Africa (MENA) in terms of attracting foreign investment. Al-Muhtaseb (2009) observed that average Arab foreign investment in Jordan is one of the highest in the region. Foreign investors prefer to invest in companies that follow certain procedures such as responsibilities and certain types of transparency, and whether the Jordanian companies are implementing corporate governance principles.

Previous studies (Ghazali, 2010; Kirkpatrick et al., 2006; Oxelheim and Randoy, 2003; Taylor, 1990; Taufil et al., 2013) argued that foreign ownership might affect firm performance, which this study investigates with regard to Jordanian firms. Foreign ownership (labelled as Foreignown) is defined as the total percentage of shares (capital) owned by foreign shareholders, as shown in Table 7 below. The total shares of the foreign investors were extracted directly from annual reports.

Table 7: Summary of the foreign ownership variable

Variable Labelled	Definition
Foreignown	The total percentage of shares (capital) that owned by foreign shareholders.

5.7 Summary

This chapter has described the data and measurement of this study, explaining the sample, the criteria to select the data and the sources of the data. Three main types of data are used in this study: firm performance variables, corporate governance variables and control variables. Out of 131 firms listed on the ASE as of 31/12/2010, the full data required was obtained for a sample of 115 companies. The data used in this study was collected from two sources: the Osiris database and the Annual Reports of the Jordanian companies. Firm performance was measured by using the accounting based measures such as ROE and ROA. In addition, the study used different control variables such as firm size, total debt, age, liquidity, industry and annual dummies. Corporate governance variables were examined by investigating the effect of board size, CEO duality, NEDs, managerial ownership, large shareholders and the identity of the large shareholders on the firm performance. Finally, we investigated the effect of foreign ownership on firm performance. The next chapter presents the research philosophy and the methodology used to achieve the research objectives.

CHAPTER 6: METHODOLOGY

6.1 Introduction

This study investigates the impact of corporate governance on the performance of the Jordanian industrial and services companies. In particular, it takes a governance perspective to investigate the effect of the board of directors and ownership structure on the firm performance. This chapter presents the research philosophy and methodology used to test the research framework. In addition, regression problems including multicolinearity, heteroscadasticity and serial correlation are diagnosed with standard statistical tools. Detection of problems will be addressed and rectified accordingly prior to the regression analysis.

6.2 Research Philosophy

Burrell and Morgan (1994) argue that researchers must select the proper paradigm for their study. The key matter of any research in social sciences is the philosophical assumption. This study takes the positivist paradigm in which the hypotheses are developed based on the notion of the impact of the corporate governance on the firm performance that can be investigated and empirically examined using the researcher's tools of analysis and the theoretical conjectures. Burrell and Morgan (1994) stated that positivists "seek to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements". Saunders et al. (2009) affirmed that deduction is linked to positivism, and fulfils the need to describe the casual association between or among variables and the need to generalize a conclusion. Accordingly, the nature of this study implies implementing deductive rather than inductive approach for the following reasons (Saunders et al., 2009):

- It tends to be informed by scientific principles rather that gaining further understanding of human-constructed meanings related to events.
- It is used to testing hypotheses rather than to building new theory.
- It identifies casual relationships amongst variables rather than clarifying the research context.
- It uses quantitative data.
- It is a more structured approach than inductive approach.

- The independence of the researcher is maintained, as this study relies mainly on analytical procedures rather than consideration of the experiences and opinions of others.
- Given a sufficient sample size, deductive approach allows for the generalisation of conclusions.

Adopting this approach requires performing the following sequential steps (Robson, 2002):

- Developing testable hypotheses regarding the association among variables by depending on well-defined theory;
- Clarifying how these hypotheses will be tested as well as how the variables will be measured, by stating them in operational terms;
- Examining the aforementioned operational hypotheses by adopting specific strategy, which is considered as an experimental research strategy in this study as it aims at dedicating the casual relationship among variables;
- Testing certain result of inquiry that is eventually confirm the theory or expose the necessity for particular modification in the light of empirical results.

In terms of the population, whereas the deductive approach is used, Burrell and Morgan (1994) proposed that deductive research is located in the functionalist paradigm, whereby the population is ruled by regulations and the epistemology uses the positivism that is more objective. The objectives of this study are developed based on the notion that the impact of corporate governance on the firm performance can be examined and tested empirically by using the research analysis tools. Accordingly, phenomena occurrence is specified by deducting the law of occurrence using positivism, which eventually explains the casual relationship among variables of study, as well as identifying predictable relationships explaining the occurrence of phenomena in replicable scenarios. This goal can be achieved by developing a hypotheses and designing research strategy in order to test these hypotheses (Hussey and Hussey, 2009; Saunders et al., 2009).

In summary, the research philosophy of this study is informed by the fact that the study does not seek to produce a new theory but to test existing hypotheses based on analysis of quantitative data, thus the deductive approach is more appropriate for this research.

6.3 Research Methodology

Punch (1998) observed that it is important to establish the appropriate research approach with regards to the research issues. Two types of research approaches have been employed by researchers around the world, namely the quantitative and the qualitative research methods. The qualitative method presents a descriptive and non-numerical approach to collect the information in order to present understanding of the phenomenon (Berg, 2004). Babbie (2012) argues that the qualitative method is an active and flexible method that can study subtle nuances in the attitudes and behaviours for investigating the social processes over time. On the other hand, Hussey and Hussey (2009), Bryman (2012) and Berg (2004) point out that the quantitative approach uses different types of statistical analysis, and provides stronger forms of measurement, reliability and ability to generalise. Moreover, Berg (2004) points that the quantitative methods can deal with longer time periods with large number of samples leading to increasing the generalization capacity. Some researchers combine the two methods in order to obtain better results and explanations. However, the qualitative approach suffers from a number of problems. Firstly, it uses and selects a small sample which will not represent the whole population (Hakim, 1987). Secondly, transparency and reliability are still low in qualitative methods (Berg, 2004). Thirdly, qualitative methods are time-consuming. This may result in inefficient tools to get adequate explanations (Berg, 2004).

Therefore, due to the difficulties of obtaining data through interviews from different companies and the weak response from these companies, this study applied the deductive positivism approach whereby the pre-existing theoretical basis is identified and relied upon in developing the hypotheses; the empirical findings demonstrate whether the tested hypotheses are proven or rejected. In order to achieve this objective, this study used the regressions as the main tool of analysis, in which the researcher pursues the positivist understanding of the conduct of methodological process that is "unaffected by individual perceptual differences" (Ardalan, 2012). Hair et al. (2009) state that "the appropriate method of analysis when the research problem involves a single metric variable presumed to be related to two or more independent variables". Therefore, multiple regression analysis is chosen as the main tool of analysis in this study. Multiple regression model is one of the most common methods of analysis that have been used by previous researchers (e.g. Anderson and Reeb, 2003; Claessens et al.,

2006; Khanna and Palepu, 2000a) to investigate the relationship between corporate governance mechanisms and firm performance.

6.4 Panel Data

The main types of data that are generally available for empirical analysis are cross section, time series and panel. In cross-section data, values of one or more variables are collected for several sample entities, or units, at the same point in time. In time series data observe the values of one or more variables over a period of time. In panel data the same cross-sectional units (say firm or families or states) is surveyed over time. In short, panel data have space as well as time dimensions (Gujarati, 2003).

All the previous studies used different types of regression approaches, usually panel. Baltagi and Giles (1998); Gujarati (2003); Green (2003) state the following advantages of panel data;

- Using prior or extraneous data.
- Combining time series and cross-sectional data.
- The omission of variables displaying high collinearity.
- Obtaining new or transforming existing data.

Two main panel data regression models (the fixed effects model and the random effects model) have different assumptions about the error term. The fixed effect model assumes that the individual effect term is constant. However, the random effect assumed that the individuals effect to be random disturbances drawn from probability distribution. Green (2003, p. 285) stated that a general panel data regression model is written as:

$$\gamma_{it} = X'_{it}\beta + Z'_{i}\alpha + \varepsilon_{it}$$

Where:

γ_{it} is the dependent variable.

X'_{it} are the independent variables.

β and α are coefficients.

$Z'_i\alpha$is an unobserved individual specific effect

$i\ and\ t$are indices for individuals and time.

$\varepsilon_{it}$is the error term.

The heterogeneity or the individual effect is $Z_i\ \alpha$ where Z_i contains a constant term and a set of individual or group specific variables. These might be observed (e.g. sex, race and location) or unobserved (e.g. individuals heterogeneity in skill or preference and family specific characteristics) which are taken to be constant over time t (Green, 2003). As it stands, this model is a classical regression model. If Z_i is observed for all individuals, then the entire model can be treated as an ordinary linear model and fit by least squares (Green, 2003). The various cases we will consider are:

Pooled regression: if Z_i contains only a constant term, then the then ordinary least squares provides consistent and efficient estimates of the common intercept α and the slope vector of β. In this instance, the model reduces to:

$$Y_{it} = X'_{it}\beta + \alpha_i + \varepsilon_{it}$$

Panel data models can be also specified as fixed effects or a random effect that helps in capturing the effects of firm and time specific heterogeneities.

- Fixed effect

If Z_i is unobserved, but correlated with X_{it} then the estimator of β is biased and inconsistent as a consequence of omitted variables. The fixed effect model provides consistent estimates in this case and it is specified as:

$$Y_{it} = X'_{it}\beta + \alpha_i + \varepsilon_{it}$$

Where:

$Y_{it}$is the dependent variable (i = entity) and (t= time).

β is the coefficient for the independent variable.

X_{it}Represents one independent variable.

α_i (i =1….n) is the unknown intercept for each entity (n entity-specific intercepts).

$\varepsilon_{it}$is the error term.

Where $\alpha_i = Z'_i \alpha$ embodies all the observable and specifics an estimable conditional mean. This fixed effects approach takes $\alpha_i$to be a group specific constant term in the regression model. It should be noted that the term fixed effect does not vary over time (Green, 2002). Fixed effect is suitable as:

> "Fixed effect shows the relationship between predictor and outcome variables within an entity (country, person, company, etc.). Each entity has its own individual features that may impact on the predictor variables. This is the rationale behind the assumption of the correlation between entity's error term and predictor variables. Fixed effect removes the effect of those time-invariant characteristics from the predictor variables. Another important assumption of the fixed effect model is that those time-invariant characteristics are unique to the individual and should not be correlated with other individual characteristics. Each entity is different therefore the entity's error term and the constant (which captures individual characteristics) should not be correlated with the others. If the error terms are correlated then fixed effect is no suitable since inferences may not be correct. Thus, it might be recommended to use random effect". (Kohler and Kreuter, 2005)

- Random effect

If the unobserved individual heterogeneity, however formulated, can be assumed to be uncorrelated with the included variables, a random effects model is appropriate. Then the model can be formulated as:

$$\gamma_{it} = X'_{it}\beta + \alpha + u_i + \varepsilon_{it}$$

That is, as a linear regression model with a compound disturbance that may be consistently, albeit inefficiently, estimated by least squares. This random effects approach specifies that $u_i$is a group specific random element, similar to ε_{it}except that for each group there is but a single draw that enters the regression identically in each period. Again, the crucial distinction between these two cases is whether the unobserved individual effect embodies elements that are correlated with the regressors in the model, not whether these effects are stochastic or not (Green, 2003). Kohler and Kreuter (2005) stated that the rationale behind random effects model is "that unlike the fixed effects model, the variation across entities is assumed to be random and uncorrelated with the predictor or independent variables included in the model". Green (2003) states that "the crucial distinction between fixed and random effects is whether the unobserved individual effect embodies elements that are correlated with the regressors in the model, not whether these effects are stochastic or not".

The fixed effects model is a restricted version of the random effects model (in which the variance of the random effects is shrunk to zero). This may suggest that the random effects specification is preferable (since it is more general). The larger number of parameters in the random effect specification can however result in a loss of efficiency, particularly when the additional variability implied by these random effects is not supported by the data. Therefore, it is recommended to test the random effect against the fixed effect. Due to the nested structure of the two models this can be done via Hausman test. An important assumption for choosing random-effect estimation is that the unobserved heterogeneity should not be correlated with the independent variables. Based on the test statistic results presented in chapter seven, random effects models are estimated.

In order to decide between a random effects and fixed effects model, researchers often rely on the Hausman (1978) specification test (Greene 2008). The Hausman test is designed to detect violation of the random effects modelling assumption that the explanatory variables are orthogonal to the unit effects. If there is no correlation between the independent variable(s) and the unit effects, then estimates of β in the fixed effects model (β_{FE}) should be similar to estimates of β in the random effects model (β_{RE}). The Hausman test statistic H is a measure of the difference between the two estimates:

$$H = (\beta_{RE} - \beta_{FE})'[Var(\beta_{FE}) - Var(\beta_{RE}]^{-1}(\beta_{RE} - \beta_{FE})$$

Where:

$\beta_{FE}$are the coefficient estimates of the time-varying covariates from the fixed effects model.

$\beta_{RE}$are the corresponding estimated coefficients from the random effects model.

$Var(\beta_{FE})$ is the estimate of the asymptotic (large sample) variances and covariance of the β_{FE} estimated coefficients.

$Var(\beta_{RE})$ is the analogous quantity for the estimate of β_{FE}.

Under the null hypothesis of or thogonality, H is distributed chi-square with degrees of freedom equal to the number of regressors in the model. A finding that $p < 0.05$ is taken as evidence that, at conventional levels of significance, the two models are different

enough to reject the null hypothesis, and hence to reject the random effects model in favour of the fixed effects model.

If the Hausman test does not indicate a significant difference (p > 0:05), it does not necessarily follow that the random effects estimator is safely free from bias, and is therefore to be preferred over the fixed effects estimator. In most applications, the true correlation between the covariates and unit effects is not exactly zero. Thus, if the Hausman test fails to reject the null hypothesis, it could be because the true correlation is not zero and, hence, because the random affect estimator is unbiased. Rather, the test does not have sufficient statistical power to reliably detect departures from the null. When using the random effects model, there will still be bias (if perhaps negligible) in estimates ofβ, even if the Hausman test cannot reject the null hypothesis. Of course, in many cases, a biased estimator (i.e., random effects) can be preferable to an unbiased estimator (i.e., fixed effects), if the former provides sufficient variance reduction over the latter, as just described. The Hausman test does not aid in evaluating this trade off.

In random effect models it is possible to include time invariant variables. However, in the fixed effect model these variables are absorbed by the intercept. Random effects assume that the entity's error term is not correlated with the predictors which allows for time-invariant variables to play a role as explanatory variables. In random effect models it is important to specify these individual features that might impact the predictor variables. Therefore, omitting such variables might lead to bias in the model. Random effects allow one to generalize the interpretations beyond the sample used in the model (Kohler and Kreuter, 2005).

6.5 Specification Tests

There is a potential endogeneity between the dependent variable and some of the explanatory variables (e.g. leverage), which could lead to biased estimates. However, testing for endogeneity in panel models is a complicated matter; the Durbin–Wu–Hausman test estimates augmented regression, by which one needs to identify the potentially endogenous variables as well as valid instruments for them. If the structure of the endogenous variables in incorrectly specified, the instruments provided for the test are invalid (or weak), which can severely bias the testing procedure itself and lead to invalid inferences. To circumvent the concerns on endogeneity, the study used one

period lagged independent variables to explain financial performance to avoid the drawbacks of endogeneity.

Furthermore, prior to carrying out our multiple regression analysis, this study examined whether the general assumption required were fulfilled. Firstly, we examined the variables for multicoliniarity. The issue of multicolinearity appears if two or more variables are highly correlated which might affect the estimation of the regression parameters (Hair et al., 2009). Gujarati (2003) illustrates that the existence of multicolinearity makes the assessment and the hypothesis testing about regression coefficients indeterminate. This is because multicolinearity makes the regression coefficient unstable and difficult to interpret. In addition, the standard errors for the coefficients are magnified making the coefficient statistically insignificant. Furthermore, multicolinearity can cause the coefficients to change signs, and makes it more difficult to identify the correct model. The variance inflation factor (VIF) is commonly used to identify the presence of multicollinearity. VIF illustrate the degree for every independent variable that been explained by other independent variable to eliminate collinear variables. In other word, the change in one variable will change the coefficient. If VIF is bigger than 10 this indicates there is a problem with multicollinearity (Gujarati, 2003).

It should be noted that the variance of the estimator for a typical regression coefficient (say β_i) can be shown to be the following (Wooldridge, 2000):

$$Var(\beta_i) = \frac{\sigma^2}{S_{ii}(1-R_i^2)}$$

Where:

$S_{ii} = \sum_{j=1}^{n}(X_{ij} - X_i)^2$ and R_i^2 is the unadjusted R^2 when you regress X_i against all the other explanatory variables in the model, that is against a constant X_2, X_3, ……X_{i-1}, X_{i+1}, …. X_k.

Suppose there is no linear relation between $X_i$and the other explanatory variables in the model. Then R_i^2 will be zero and the variance of β_i will be σ^2 /S_{ii}. Dividing this into the above expression for $Var(\beta_i)$, the variance inflation factor will be written as:

$$VIF(\beta_i) = \frac{1}{1 - R_i^2}$$

It is readily seen that the higher VIF, the higher the variance of $\beta_i$and the greater the chance of finding $\beta_i$insignificant, which means that there is a problem with multicollinearity. Thus, these measures can be useful in identifying multicollinearity. The procedure is to choose each right hand side variable (that is, explanatory variable) as the dependent variable and regress it against a constant and the remaining explanatory variables. We would thus get K-1 values for VIF. If any of them is high, then multicollinearity is indicated. Gujarati (2003) observed that identifying multicollinearity is in fact only the begging of the process, and it must be followed with solution of the problem. There are no formulaic guides on how to achieve this, but some general recommendations include:

1- Using extraneous or prior information.
2- Combining cross-sectional and time series data.
3- Omitting a highly collinear variable.
4- Transforming data and obtaining additional or new data.

Secondly, serial correlation test is conducted. Serial correlation in panel data models biases and causes the results to be less efficient. Serial correlation occurs when one observation's error term (ε_i) is correlated with another observation's error term (ε_j): Corr(ε_i, ε_i) $\neq 0$, thus we say the errors are serially correlated. In other words, serial correlation occurs when error terms from different time periods (or cross-section observations) are correlated. Therefore, it can be said that the error term is serially correlated. Serial correlation occurs in time-series studies when the errors associated with a given time period carry over into future time periods. This usually happens because there is an economic relationship between the observations, such as in time series data when observations are measurements of the same variables at different points in time, or in cluster sampling when observations are measurements of the same variables on related subjects (e.g. more than one member of the same family, more than one firm operating in the same company) (Stata command guide). In order to identify serial correlation, this study conducts Wooldridge serial correlation test (2002).

By reviewing the linear model,

$$y_{it} = \alpha + X_{it}\beta_1 + Z_i\beta_2 + \mu_i + \varepsilon_{it} \quad \text{.....(1)}$$

Where:

i = 1, 2,…., N

t = 1, 2,….., T i

Where y_{it} is the dependent variable, X_{it} is a $(1 \times K_1)$ vector of time varying covariates. $Z_i$is a $(1 \times K_2)$ vector of time invariant covariates. α, $\beta_1$and β_2 are $1+K_1+K_2$ parameters. $\mu_i$is the individual level effect. $\varepsilon_{it}$is the idiosyncratic error. If the μ_i are correlated with the X_{it} or the Z_i, the coefficient on the time varying covariates X_{it}can be consistently estimated by a regression on the within-transformed data or the first differenced data. If the μ_i are uncorrelated with the $X_{it}$and Z_i, the coefficients on the time-varying and time-invariant covariates can be consistently and efficiently estimated using the feasible generalized least squares method known as random-effects regression. All of these estimators assume that E $[\varepsilon_{it}\varepsilon_{is}] = 0$ for all s ≠ t i.e., that there is no serial correlation in the idiosyncratic errors, which would cause the standard errors to be biased and the estimates to be less efficient.

Wooldridge's method uses the residuals from a regression in first-differences. Note that first-differencing the data in the model in (1) removes the individual-level effect, the term based on the time-invariant covariates and the constant,

$$y_{it} - y_{it-1} = (X_{it} - X_{it-1})\beta_1 + \varepsilon_{it} - \varepsilon_{it-1}$$

$$\Delta y_{it} = \Delta X_{it}\beta_1 + \Delta\varepsilon_{it}$$

Where Δ is the first difference operator.

Wooldridge's procedure begins by estimating the parameters β_1 by regressing Δy_{it} on ΔX_{it} and obtaining the residuals e_{it}. Central to this procedure is Wooldridge's observation that, if the ε_{it} are not serially correlated, then Corr $(\Delta\varepsilon_{it}, \Delta\varepsilon_{it-1})$= -0.5. Given this observation, the procedure regresses the residuals e_{it} from the regression with first-differenced variables on their lags and tests that the coefficient on the lagged residuals is equal to −.5. To account for the within-panel correlation in the regression of e_{it} on e_{it-1} the VCE is adjusted for clustering at the panel level. Since cluster implies robust, this test is also robust to conditional heteroskedasticity (Wooldridge, 2000).

Thirdly, we conduct a heteroskedasticity test. Heteroskedasticity is a violation of this assumption. It occurs if different observations' errors have different variances, such as Var (εi) = σi 2. Heteroskedasticity occurs when the variance of the disturbance is not constant. If the squared residuals get larger or smaller as a particular independent

variable gets larger or smaller, then probably we will suffer from heteroskedasticity. This study uses Breusch-Pagan test for heteroskedasticity (Stata command guide).

The Lagrange Multiplier (LM) version of the BP test is a general principle for testing hypotheses about parameters in a likelihood framework. The hypothesis under the test is expressed as one or more constraints on the values of parameters. To perform an LM test only estimation of the parameters subject to the restrictions is required. This is in contrast with Wald tests, which are based on unrestricted estimates, and likelihood ratio tests which require both restricted and unrestricted estimates. The name of the test is motivated by the fact that it can be regarded as testing whether the Lagrange multipliers involved in enforcing the restrictions are significantly different from zero. The term "Lagrange multiplier" itself is a wider mathematical word coined after the work of the eighteenth century mathematician Joseph Louis Lagrange. The LM testing principle has found wide applicability to many problems of interest in econometrics. Moreover, the notion of testing the cost of imposing the restrictions, although originally formulated in a likelihood framework, has been extended to other estimation environments, including method of moments and robust estimation.

Let $\mathrm{L}(\theta)$ be a log-likelihood function of a $\mathrm{K} \times 1$ parameter vector θ, and let the score function and the information matrix be

$$q(\theta) = \frac{\partial L(\theta)}{\partial \theta}$$

$$I(\theta) = -E\left[\frac{\partial^2(\theta)}{\partial \theta \partial \theta'}\right]$$

Let θ' be the maximum likelihood estimator (MLE) of θ subject to an $\mathrm{r} \times 1$ vector of constraints $h(\theta) = 0$. If we consider the Lagrangian function

$$\mathcal{L} = L(\theta) - \lambda' h(\theta)$$

Where λ is an $\mathrm{r} \times 1$ vector of Lagrange multipliers, the first-order conditions for θ' are

$$\frac{\partial \mathcal{L}}{\partial \theta} = q(\theta') - H(\theta')\lambda' = 0$$

$$\frac{\partial \mathcal{L}}{\partial \lambda} = h(\theta') = 0$$

Where $H(\theta') = \partial h(\theta') / \partial \theta$

The Lagrange Multiplier test statistic is given by

$$LM = q'^{I'^{-1}} q' = \lambda' H'^{I'^{-1}} H' \lambda'$$

Where $q' = q(\theta'), I' = I(\theta')$ and $H' = H(\theta')$. Then the term $q'^{I'^{-1}} q'$ is the score from the statistic whereas $\lambda' H'^{I'^{-1}} H' \lambda'$ is the Lagrange multiplier form of the statistic. They correspond to two different interpretations of the same quantity.

The score function $q(\theta)$ is exactly equal to zero when evaluated at the unrestricted MLE of θ, but not when evaluated at θ'. If the constraints are true, we would expect both q' and λ' to be small quantities, so that the region of rejection of the null hypothesis $H_0: h(\theta) = 0$ is associated with large values of LM. Under suitable regularity conditions, the large-sample distribution of the LM statistic converges to a chi-square distribution with $K - r$ degrees of freedom, provided the constraints $h(\theta) = 0$ are satisfied. This result is used to determine asymptotic rejection intervals and p-values for the test.

6.6 GLS estimator

Generalized least squares (GLS)is a technique for estimating the unknown parameters in a linear regression model. The GLS is applied when the variances of the observations are unequal (heteroscedasticity), or when there is a certain degree of correlation between the observations. A GLS regression is more suitable in that it corrects for the omitted variable bias in the presence of autocorrelation and heteroskedasticity in pooled time series data. Pooled OLS estimator is consistent and unbiased only if the errors in each time period are uncorrelated with the explanatory variables in the same time period. When this is not the case, ordinary least squares can be statistically inefficient, or even give misleading inferences. We applied GLS to estimate Random-Effects models. This methodology allows researchers to examine variations among cross-sectional units simultaneously with variations within individual units over time (Gaur and Delios, 2006).

For a given correlation matrixΩ, the generalized least squares estimator of β would be

$$\hat{\beta} = [X' \Omega^{-1} X]^{-1} [X' \Omega^{-1} y]$$

The matrix Ω can be written as

$$\Omega = \Sigma \otimes I$$

Where Σ is the $n \times n$matrix $[\sigma_{ij}]$, then:

$$\Omega^{-1} = \Sigma^{-1} \otimes I = \begin{bmatrix} \sigma^{11}I & \sigma^{12}I & \cdots & \sigma^{1n}I \\ \sigma^{21}I & \sigma^{22}I & \ldots & \sigma^{2n}I \\ \vdots & \vdots & \vdots & \vdots \\ \sigma^{n1} & \sigma^{n2}I & \cdots & \sigma^{nn}I \end{bmatrix}$$

Where σ^{ij} denotes the ij the element of Σ^{-1}. This provides a specific form for the estimator,

$$\hat{\beta} = \left[\sum_{i=1}^{n}\sum_{j=1}^{n} \sigma^{ij} X'_i X_j\right]^{-1} \left[\sum_{i=1}^{n}\sum_{j=1}^{n} \sigma^{ij} X'_i y_i\right]$$

6.7 Summary

This chapter presents the methodology used to conduct the research. This study applied the deductive positivism approach where the pre-existing theoretical basis is identified and relied upon in developing the hypotheses. Multiple regression analysis is chosen as the main tool of analysis in this study. In order to capture the effects of firm and time specific heterogeneities panel data models can be specified as fixed effects or random effects. Moreover, this chapter examined the specification tests that might affect the corporate governance variables which may result in problems from understanding the significance of individual independent variables in the regression model.

The next chapter presents the results and discussions of the descriptive statistics and the regression model.

CHAPTER 7: RESULTS AND DISCUSSION

7.1 Introduction

As discussed in chapter 6, a model was constructed to test the effect of corporate governance on the Jordanian firm performance and the results are presented here. This chapter presents the descriptive statistics and the results and discussion. Section 7.2 reports the results of the descriptive statistics for the data that used in the analysis of this study. Section 7.3 will report and discuss the regression results. 7.3.1 Specification test results. 7.3.2 Control variables results 7.3.3 Results and discussion of board of directors on firm performance 7.3.4 Results and discussion of managerial ownership and ownership structure on firm performance 7.3.5 Results and discussion of foreign ownership on firm performance 7.4 Summary

7.2 Descriptive Statistics

This section deals with the descriptive statistics for the data that used in the analysis of this study. Some of the main features of the data will be described quantitatively (e.g. central tendency of the statistics such as mean, max and min, data dispersion such as standard deviation). The whole table for the descriptive statistics of this study is presented in appendix one. However, for ease of presenting and easier for the reader, we will present the descriptive statistics separately with the appropriate table extracted from the original table.

- **Firm performance**

Table 8 below reports the descriptive statistics of the dependent variables. The table shows that the ROE ranges from a minimum of -8.33% to a maximum of 4.60% with an average of -4.4% for the overall sample. The ROA ranges from a minimum of-91.38% and maximum of 88% with average of 60% for the combined sample.

Table 8: Descriptive statistics of firm performance measurement

	N	Minimum	Maximum	Mean	Std. Deviation
ROE (%)	936	-8.33	4.60	-4.38	5.19
ROA (%)	948	-91.38	87.75	0.59	14.31

- **Control variables**

Table 8 below presents the descriptive statistics of the control variables. The total assets range from a minimum of 1,160,000 million to a maximum of 75,193,260 million with an average of 6413311. The average of debt ratio (leverage) and liquidity ratio is 36% and 3.44% respectively. The average age of the firms is 29.3 years which is similar to the mean of 28.8 years reported by Claessens et al. (2000) and smaller from the Germany firms of 82 years reported by Andres (2008).

Table 9: Descriptive statistics of control variables

	N	Minimum	Maximum	Mean	Std. Deviation
TA ($ Millions)	956	1160000	75193260	6413311	329268
Leverage (%)	956	0	5.75	0.36	0.37
Liquidity Ratio (%)	956	0.01	65.48	3.44	5.99
Age (Years)	956	5	83	29.31	15.82

- **Corporate governance variable**

In Table 10 below the statistics for board size show that in general the mean board size is eight directors, with a minimum of two and a maximum of thirty for the whole sample of the 115 listed Jordanian industrial and services companies. By checking the frequency of the board size manually, only one company has thirty directors on the board, and the rest of the companies had between two and thirteen. This confirms that the listed firms in Jordan, on average, have met the requirements of the Corporate Governance Code 2006 and the Company Law (1997), commensurate with the recommendations of Jensen (1993) and Lipton and Lorsch (1992), based on their investigation of firm performance in relation to board size. They recommended eight or nine directors, and specified that ten should be the maximum number. This relatively small size is due to the effect of more people inhibiting the process of making decisions (i.e. causing indecisiveness or incoherent decisions due to the fissiparous decision-making process among many parties). Interestingly, it has been found that firms in developing countries typically have smaller board sizes (possibly related to nepotism, as discussed previously). The average board size similar in Egypt and Malaysia is eight directors (Elsayed, 2007; Haniffa and Hudaib, 2006), while the average board size in the US is 12.25 (Yermack, 1996). However, the board size is significantly smaller in Australia, averaging 6.6 (Kiel and Nicholson, 2003).

Table 10: Descriptive statistics of board of directors

	N	Minimum	Maximum	Mean	Std. Deviation
BSIZE	956	2	30	8.33	3.26
CEO Duality	956	0	1	0.66	0.46
NEDs	956	0.11	0.88	0.24	0.19

As shown above in table 10, the results show that on average 66% of firms in the sample has CEO duality, which indicates greater influence of the CEO/Chairman on the board. In Jordan, particularly in family-controlled businesses, it is common that the chairman holds the position of CEO, especially if he was the founder of the firm. The presence of CEO duality in the Jordanian listed firm means that they are not fulfilling the requirements and the recommendations of the Cadbury Report (1992) or the Jordanian CGC (2006), both of which recommend splitting these two roles.

As shown in table 10, an average of 24% of board members are NEDs, ranging from 11% to 88%. Previous studies have shown that the more NEDs are present on a board, the more independent the board is, with correspondingly reduced information asymmetry between shareholders and managers (Black et al. 2006a). Brickley et al. (1997) found that boards tend to perform better with the monitoring and advisory function of NEDs on behalf of shareholders. The proportion of the NEDs in Jordanian boards is relatively small (e.g. compared to other countries: the US mean = 54%, Yermack, 1996; Malaysia mean = 50%, Haniffia and Hudaib, 2006). Thus, the average composition of boards having 24% of NEDs is less than recommended by the Jordanian Corporate Governance Code (2006), which stipulates there should be at least a third (i.e. 33%) of NEDs, and well below international norms.

- **Managerial ownership, ownership structure and foreign ownership**

Table 11 below depicts the descriptive statistics for the various types of ownership for the full sample. Managerial ownership among Jordanian firms ranges from 23% to 42%, with an average of 32%. Managerial ownership has been suggested as a potential incentive to align the interests of managers with those of principals and thus to maximize firm value (Jensen and Meckling, 1976). The average shows that the percentage of managerial ownership is higher in Jordan than in developed markets, probably related to family/concentrated ownership and nepotism, as discussed previously. Yermack (1996) reported an average of 9% managerial ownership of US-

listed firms, while Weir et al., (2000) reported an average of 3% in a sample of UK-listed firms.

Table 11: Descriptive statistics of managerial ownership, ownership structure and foreign ownership

	N	Minimum	Maximum	Mean	Std. Deviation
MO	956	0.23	0.42	0.32	0.06
LargeSH5	956	0	99	0.43	0.22
OWNind/Fam	952	0	100	45.08	28.29
OWNcomp	956	0	99.99	38.58	26.09
OWNgov	956	0	100	8.09	16.87
Foreignown	956	0	99	0.087	0.17

The statistics show that the average share stakes of the firms in the sample held by large shareholders (LargeSH5) comprise 43% at the 5% ownership threshold. Individual/family ownership represents 45% of the capital of Jordanian firms. This compares to 38% for 150 listed firms in Malaysia (Tam and Tan, 2007). Furthermore, on average companies and government owns 38% and 8% of the capital of the Jordanian firms respectively. There is a notably low proportion of government ownership in Jordan compared to other countries in MENA, largely due to on-going economic liberalisation (i.e. privatisation) since 1996 as part of the economic reform programme. Privatization in Jordan has been found to be a notably successful case in the Middle East (World Bank Group, 2006) and it is vigorously encouraged by the government in order to promote economic growth. Notable examples of this include the Telecommunication Corporation, which in 2000 became a public shareholding company, followed by other utilities such as water and transport. Finally, the average of the foreign ownership is 9% ranges from 0 to 99%.

7.3 Results and Discussion

This section will deal with the main inferences which were drawn from the model regression. We are going to present our results separately according to our research questions into five sections (i.e. specification test results, control variable results, board of director variables results, ownership variables results and foreign ownership result). This does not mean that each section was run in the model separately; it is simply to facilitate the presentation of results and to make the findings more understandable by focusing on each type of effect. We are going to consider that the results are highly

significant at 0.01, significant at 0.05 and marginally significant at 0.1, which applies to all of the following tables and results. The coefficient value and P-value in brackets will be presented. The whole table that contains all the results together of this study is presented in appendix two. However, we are going to present our results section by section with the appropriate table extracted from the original table.

7.3.1 Specification test results

In order to investigate the impact of corporate governance on the firm performance this study used panel data. However, some econometric issues needed to be addressed that related to panel data. By using Breusch and Pagan Lagrang multiplier test the result of the test is highly significant as shown below in **Error! Reference source not found.**. The Breusch and Pagan Lagrang multiplier test has a Null of poolability (Gujaratti, 2003). Therefore, its result rejects the null, suggesting that panel regression is necessary. Panel data models can be specified as fixed effects or a random effect that helps in capture the effects of firm and time specific heterogeneities. In order to decide between the random effects against the fixed effect we performed Hausman test. The test statistic result is not statistically significant as shown below in Table 12. Hence we cannot reject the Null of random effects. Consequently, we estimate random effects models.

Table 12: Panel model test

Breusch and Pagan LM Test	**chi2(1) = 71.42** **P-value = 0.00**
Hausman Test	chi2(14)= 8.11 P-value = 0.84

Firstly we consider the issue of multicollinearity that appears if two or more variables are highly correlated which might affect the estimation of the regression parameters (Hair et al., 2009). The variance inflation factor (VIF) is commonly used to identify the presence of multicollinearity. If VIF is bigger than 10 this means that there is a problem with multicollinearity (Gujarati, 2003). The results of the VIF test as shown in appendix 3 ranged between 1.03 and 5.28. All the variables are less than 10 thereby; our model does not suffer from multicollinearity problems.

Secondly, we need to conduct serial correlation test because serial correlation in panel data models biases and causes the results to be inefficient. In order to identify serial correlation, this study conduct Wooldridge serial correlation test (2002). Our results as

shown below in Table 13, the variables are serially correlated in all circumstances. Finally, we need to conduct the heteroskedasticity test. This study uses Breusch-Pagan test for heteroskedasticity. The results shown below Table 13 indicate heteroskedasticity problems. The results required to use the cluster-robust standard error estimator in order to control heteroskedasticity. By using this robust standard error estimator (cluster), we assumed that observations should be independent across clusters (Rogers, 1993).

Table 13: Specification tests results

	ROE	ROA
Wald (chi-square) (P-value)	6932.32 (0.000)	3445.70 (0.000)
Breusch-Pagan/Cook-Weisberg test for heteroskedasticity (P-value)	4408.78 (0.000)	532.34 (0.000)
Wooldrige-test for autocorrelation (P-value)	5.114 (0.0258)	16.703 (0.0001)

7.3.2 Control variables results

The effects of the control variables on firm performance have different results across the performance variables (ROE and ROA).

- **Total assets**

As shown earlier in chapter five, TA is used as a proxy to measure the firm size. In line with earlier studies, total asset (TA) is transformed into logs, to reduce their skewness or kurtosis and mitigate influence of the outlier data points. Table 14 below reports a positive and strong statistically significant effect of the firm size on ROA and ROE. This positive result indicates that large firms may benefit from economies of scale and scope (Joh,2003). The size of a firm reflects its ability to achieve economies of scale as well as a market power. In addition, the larger a firm the more likely to use it economies of scale in order to develop production process to be efficient leading to positive effect on firm performance. Therefore, big firms have greater ability to secure finance. Furthermore, large firms are in better position to generate funds internally and access external resources (Short and Keasey, 1999). Meek et al. (1995) point out that in terms of market development and business risk, large firms tend to be more complex, more diversified and have larger information sets than small firms. Furthermore, positive effect indicates that larger firms are more likely to have broader activities, value creation sources, production range and influence on the market. Also, this means that

large firms can borrow on better conditions since large firms tend to own larger assets which can be used as collateral.

- **Leverage**

The measure of leverage that used in this study is the percentage of long-term debt to total assets. The results shown in table 14 reports a negative and highly significant affect only on ROA: higher levels of debt will cause a decrease in firm performance. In other words, the results indicate that the higher the debt ratio, the lower the ROA. It might be that firms face higher levels of debt due to the increasing cost of operations, which might reflect their ability to fulfil their obligations to pay higher interest rates (Dechowetal., 1996). Higher levels of debt might limit firms' ability to raise new credit, resulting in losing valuable investment opportunities. This means that high levels of debt have a negative influence on the amount of dividends paid, because firms with high levels of debt will pay lower dividends in order to avoid external resources of finance. Additionally, high levels of debt can indicate financial distress, causing constraints on borrowing, as banks are unwilling to lend extra money due to their financial position, while potential investors and existing shareholder confidence may be undermined (ChenandJaggi,2001; Stulz, 1988).

Table 14: Control variables results

Control variables	ROE	ROA
Log Total assets	20.56996	7.23987
	(0.031)**	(0.000)***
Total Debt (Leverage)	-.000046	-2.69e-06
	(0.696)	(0.000)***
Liquidity	-2.40e-06	1.81e-07
	(0.622)	(0.687)
Age	.4088442	.0369829
	(0.266)	(0.333)

*, **, *** indicates significance at the 10%, 5%, 1%, levels

- **Liquidity**

Liquidity was found to insignificant in explaining firm performance. Firms with high liquidity ratio show their ability to face external shocks. Thus, high liquidity might absorb economic shocks and alleviate financial distress. In addition, firms with higher liquidity have greater opportunities to invest than companies with lower amounts of liquidity.

- **Age**

Firm age was found to be insignificant in terms of performance. Firm age was taken as the number of years firms had been incorporated before 2010. It was expected that the smaller the firm's age, the higher its business risk and the less mature the company, therefore higher firm age was expected to correlate with improved financial performance. The results show a positive relationship between the firm age and firm performance, however it was insignificant. The positive relationship shows that older firms outperform younger firms to a limited extent.

- **Annual effects**

Because of the gradual improvements of the Jordanian financial environment during the period 2000 to 2010 it was expected that there would be a positive annual effect on firm performance. However, the results shown in table 15 indicate a positive and significant effect only in 2005. The possible explanation for this positive effect is the liquidation of 3700 companies from the market. In 2007 the Jordan Companies Control Department (JCCD) pointed out the number of companies liquidated in 2005 was 3700, with total capital of JD 1.67 billion. The majority of those companies had been liquidated due to capital decline, shareholders' loss, as well as poor management. Therefore, by liquidating these firms the market was pruned and left with better organised firms. This is reasonable since companies have business relations with each other, therefore on average it is more likely that firms will perform better. In addition, liquidation of large numbers of companies disciplines other companies and induces them to perform better.

Table 15: Annual effect results

	ROE	**ROA**
d2001	-3.240528 (0.407)	.8562205 (0.368)
d2002	-7.486261 (0.181)	-1.883421 (0.231)
d2003	1.62957 (0.684)	.4112314 (0.705)
d2004	1.694666 (0.397)	1.137405 (0.179)
d2005	5.892105 (0.101)	3.5008 (0.000)***
d2006	1.31449 (0.629)	-.0724548 (0.957)
d2007	5.748674 (0.276)	.272582 (0.840)
d2008	-4.569798 (0.196)	-1.40411 (0.293)

	ROE	ROA
d2009	3.450705 (0.246)	-.3653438 (0.713)
d2010	-7.933553 (0.345)	.5049139 (0.586)

*, **, *** indicates significance at the 10%, 5%, 1%, levels

- **Industry**

With regard to industry, dummies as shown in table 16 had insignificant results in terms of accounting-based measures except for the educational and paper sectors with ROA, which had significant positive and negative relationships (respectively). The positive sign of these sectors indicate that, on average, firms performed better compared with their counterparts in the other sectors. On the other hand, the negative relationship indicates that firms in these sectors perform worse compared to their counterparts in other sectors. Haniffa and Cooke (2002), Lim et al. (2007) and Elsayed (2007) stated that corporate governance practices vary between industries due to the differences in the capital structure, the complexity of operations, ownership levels and line of business.

Table 16: Industry variables results

	ROE	ROA
Health	-2.829959 (0.723)	-.7391161 (0.871)
Educational	6.613757 (0.591)	9.880238 (0.065)*
Hotels	-4.102294 (0.705)	3.242674 (0.492)
Transporting	2.329414 (0.819)	3.513176 (0.477)
Technology	-49.04758 (0.154)	5.192437 (0.354)
Media	-37.32361 (0.264)	-14.15601 (0.209)
Utilities	22.12184 (0.304)	-.2325165 (0.969)
Commercials	-8.263967 (0.685)	3.740754 (0.558)
Pharmaceutical	-1.219226 (0.902)	1.573883 (0.813)
Chemical	14.37657 (0.230)	7.41495 (0.157)
Paper	-77.88969 (0.004)***	-19.38513 (0.044)**
Printing	-57.17938 (0.300)	-13.4128 (0.521)
Food	-1.141534 (0.918)	2.672251 (0.615)

	ROE	ROA
Tobacco	-6.702806	4.218124
	(0.651)	(0.408)
Mining	-5.33554	4.332407
	(0.655)	(0.373)
Engineering	-6.32308	2.382145
	(0.581)	(0.645)
Electrical	5.514459	4.746745
	(0.556)	(0.300)
Textiles	3.425846	2.366423
	(0.736)	(0.621)

*, **, *** indicates significance at the 10%, 5%, 1%, levels

7.3.3 Results and discussion of board of directors on firm performance

- **Board size**

No significant impact of board size on firm performance was indicated, as shown in table 17. Most prior studies that investigated the impact of board size on firm performance found either a negative or a positive relationship. For example, Lipton and Lorsch (1992), Jensen (1993), Yermack (1996) and Gertner and Kaplan (1996) argued that reducing board size helps in avoiding any free rider problems or poor coordination and communications, which result from larger boards. As board size increases, increased problems of coordination and communication result, leading to decreased ability of the board to control management, thereby increasing agency problem (Eisenberg et al., 1998). Large board size results in different opinions and less efficient decision making or control over managers; in other words, it is difficult for board members to agree on specific decisions when the number of board members is high, while small boards are more likely to formulate and agree on specific opinions, and thus might be more effective in monitoring management and consequently maximize the value of shareholders.

On the other hand, Miller (2003); Gales and Kesner (1994); Dalton et al. (1999); Hillman and Hillman and Dalziel (2003); Lehn et al. (2009) argue that larger boards are better than the small ones in improving firm performance. They argue that in small boards the powerful position of the CEO enable him to override the decisions made by the board members in accordance with their own interests leading to increase the agency and correspondingly undermining the performance of the firm (Miller, 2003). In addition, from the resource dependence theory perspective, large boards have improved linkages and networking with external sources of skills, expertise and capital to benefit

from. In addition, large boards allow directors to exchange highly qualified counsels and present extra scope for the possibility of correlation with different external linkages. Large board size also plays an important role in improving and enhancing outcomes of decisions because of ideas-sharing and contributions, which might increase the likelihood of better firm performance (Lehn et al., 2009). Therefore, firms with larger and more diverse boards are more likely to decrease the conflicts between the management and shareholders, leading to increased shareholder returns and thus improved firm performance.

The results of this study contradict those of some prior studies. The possible explanation for this result might due to the board of directors' characteristics, such as the ownership structure. According to the ROSC (2004), most Middle Eastern countries are characterised by highly concentrated ownership (e.g. families, companies or the government). Shleifer and Vishny (1997) and Porta et al. (1999) asserted that developing countries suffer from high ownership concentrations and weak protection of shareholders rights. Boards in Jordanian firms are generally heavily dominated by large block holders, typically members of a single family or a clique of families. This might result in appointing management and members on the board based on the basis of friendship and nepotism rather than experience and skills. Such cliques can use their power to influence management decisions and undermine the monitoring and coordination of the board, rendering the board impotent with regard to its impact on management and firm performance.

Table 17: Board of directors variables results

Board of directors	ROE	ROA
BSIZE	1.318516 (0.275)	.4673652 (0.132)
CEO Duality	26.72576 (0.065)*	6.389529 (0.002)***
NEDs	-.2725834 (0.008)***	-.1208736 (0.007)***

*, **, *** indicates significance at the 10%, 5%, 1%, levels

- **CEO duality**

With respect to the effect of the CEO duality, the results shown in table 17 indicate positive, significant and highly significant impacts on ROE and ROA respectively. The evidence of the positive relationship of the CEO duality and firm performance from this study supports the stewardship perspective, which states that firm performance will

improve with chairman-CEO duality. This positive relationship indicates that CEO knowledge about the company can improve investment opportunities and strategic directions, allowing optimized decision-making. Therefore, the CEO-chairman can render his knowledge available to the directors, allowing them to play their advisory role more effectively. Furthermore, duality reduces conflicts and confusion that arise between chairmen and the CEOs when these roles are not combined, with the result that firms with CEO duality have more consistent, effective and cohesive strategic decision making and implementation. Splitting the roles encourages opposition and rivalry while duality avoids any potential conflict. In other words, CEO duality provides unified leadership to the company, which facilitates greater understanding of the company operations and decisions. In the context of emerging markets, CEO duality is a common phenomenon in small business settings, especially in conditions or environments characterized by scarce resources and in companies typically owned by families.

These results are consistent with those of previous studies (Boyed, 1995; Donaldson and Davis, 1991; Elsayed, 2009; Haniffa and Cooke, 2002; Haniffa and Hudaib, 2006; Vafeas and Theodorou, 1998; Weir et al., 2002), which found a positive relationship between CEO duality and firm performance. The company might face new challenges and potential opportunities when implementing new strategies and operations. Therefore, a CEO-chairman is more likely to face these challenges due to his greater knowledge, experience and understanding of such circumstances relating to his position compared to NEDs (Weir et al., 2002). In addition, CEO duality allows focusing deeply on the firm's long-term objectives with the minimum level of interference from board members, which improves performance. This is due to the rapid management decision-making that results from the provision of unambiguous and clear corporate leadership (Haniffa and Cooke, 2002; Haniffa and Hudaib, 2006). Furthermore, CEO duality helps in reducing the costs related to extra compensations or managerial remunerations (Vafeas and Theodorou, 1998). Moreover, CEO duality improves the accountability of the firm by providing easier methods to identify and to blame the CEO with any poor performance (Abor, 2007; Bozec, 2005).

However, this result is inconsistent with the agency theory perspective, which advocates the separation of the CEO and chairman roles. Agency theory argues that CEO duality represents a problem because the same person will be held responsible for the company performance and for evaluating efficiency. From the agency perspective, CEO duality might result in inefficient supervision for the management due to opportunistic

behaviour leading to increased agency problems. This will enable the CEO to control the board and reduce the board monitoring function for his own private benefits of control at the expense of the principals. In other words, CEO duality enables the CEO to be entrenched on the board, because the chairman has responsibility to set the board agenda and to facilitate access to information. Therefore, CEO duality leads to the entrenchment of the executives or the CEO, and reduce the ability of independent directors to monitor. Thus, it is more likely that CEO duality negatively influences the functioning of the board, with the result that the interests of the managers and shareholders are not aligned, thus increasing the agency problem and inhibiting the natural value maximization/firm performance onus.

This is inconsistent with the Cadbury Report (1992), the OCED principles (2004), the UK Combined Code and the Jordanian Corporate Governance Code (2006), all of which recommend splitting the roles of CEO and chairman. Additionally, it disagrees with the results of previous research (Chahine and Tohme, 2009; Dahya et al., 1996; Rechner and Dalton, 1991), which found a negative relationship between CEO duality and firm performance due to entrenchment and reduced board monitoring function, giving the CEO free reign to pursue private interests at the expense of shareholders, increasing the agency problem and decreasing firm performance.

Boyed (1995) stated that the effects of CEO duality might be related to firm size. In the Jordanian context, where firms tend to be smaller, CEO duality could be useful to provide strong management, supervision, coherence and strong leadership direction. Moreover, in Jordan the chairman is often the founder of the company, and is therefore more likely to be the CEO, since he is more experienced and more knowledgeable about the company. Also, most of the firms in the Middle East and emerging markets generally are dominated by large shareholders such as families (ROSC, 2004). Therefore, it is more likely that the existence of CEO duality in the Jordanian firms can be normal and thus not necessarily entail the negative impacts associated with this phenomenon in more mature markets in different cultural contexts (e.g. in the West). Furthermore, Jordanian firms operate in a relatively simpler business environment, unlike larger firms in the markets of developed countries. Thus, CEO duality may be useful and advantageous for different purposes: (1) it will speed up the decision-making process and (2) it will improve communications between the board members and cut bureaucracy within the firm's structure.

Splitting the roles in small companies may create internal power conflicts among management, especially with simpler organizational structures and smaller product lines and/or markets to deal with. Moreover, small firms with limited resources need quicker responses to market prospects, flexibility and the capability to minimize and control costs in order to succeed and survive. In addition, the financial costs and administrative costs might exceed the benefits from splitting the two roles of the CEO and the chairman in small firms. However, for large firms and more complex business, splitting the roles of the CEO and the chairman can be justifiable, because the potential profits and benefits will exceed the costs of power allocation between the two roles.

- **NEDs**

The shown in table17, there was a negative and highly significant impact of NEDs on ROE and ROA. The result is inconsistent with the monitoring hypothesis of agency theory, which holds that the presence of a larger proportion of NEDs in the board adds value to the firm by providing the firm with independent decisions and judgments (Cadbury Report, 1992; Chhaochharia and Grinstein, 2009), playing an important role in the board as a source of experience, monitoring services, reputation and expert knowledge (Baranchuk and Dybvig, 2009; Haniffa and Hudaib, 2006). However, this is consistent with some previous studies (Agrawal and Knoeber, 1996; Bhagat and Black, 1998; Weir and Laing, 2003; Yermack, 1996), which reported that firms with higher proportions of NEDs are more likely to experience lower performance because NEDs are part-time workers, unfamiliar with the operations and company business, who are unable to comprehend the complications and difficulties that face the company. The possible explanations for these results might be:

1. NEDs are usually part-time workers or even ceremonial functionaries, which undermines their ability to monitor and advise the board because of the lack of the information that they have, and their lack of knowledge and experience of daily activities reduces their ability to apply their function efficiently. In addition, they are less incentivized to fulfil their responsibilities;
2. They might have other commitments which might affect their devotion to undertake effective monitoring. For example, the NEDs might be executive directors in other companies, which will undermine their incentive to execute their role and duties efficiently;
3. They might be unfamiliar with all the operations and business in the company, which results in their inability to comprehend the complications and difficulties

that face the company. In other words, they might lack of the necessary knowledge and expertise of the technical business issues;

4. There might be some private connections between the chief executive director and the NEDs; therefore this reduces the contributions of the latter, especially if they are appointed for long periods in the company. Therefore, NEDs do not have the efficient role of monitoring on the executive management because of they lack the necessary information for making decisions to improve firm performance.

The results concerning NEDs are quite interesting; the negative relationship of the NEDs on firm performance does not necessarily mean that the international codes and recommendations on the NEDs are wrong. As explained earlier in chapter three, in the Middle Eastern countries and emerging markets, most firms are dominated by large shareholders such as families (ROSC, 2004). This might result in the domination of boards by family members, who might lack the necessary knowledge and expertise concerning technical business issues. In addition, the NEDs might not be sufficiently independent to perform their monitoring role effectively, or they may be compromised by close relationships with managers and thus unable to interfere in management decisions.

7.3.4 Results and discussion of managerial ownership and ownership structure on firm performance

This section categorises the results into three subsections in order to present clear understanding and better view of the effect of managerial ownership, large shareholders and the identity of the shareholder. The results for these variables are presented below in table 18.

Managerial/director ownership

It can be observed from table 18 that the results of managerial ownership exhibit a significant positive relationship only on ROE. This result supports the alignment of interest hypothesis. When the managers own shares in the company, they become stakeholders and peers of their fellow shareholders (i.e. principals), thus they stand to lose financially from their own mismanagement, which is presumed to encourage improved performance on behalf of principal. Therefore, as managerial ownership increases the interests of shareholders and managers become more aligned and there is less incentive for opportunistic behaviour at the expense of shareholders. Jensen and

Murphy (1989) assert that "the most powerful link between shareholder wealth and executive wealth is direct ownership of shares by the CEO". This is because as their managerial ownership increases, managers are less likely to switch or to transfer the firm resources for value maximization. Thus, this economic incentive is more likely to align the interests of the shareholders with the managers to reduce the agency conflict and improve firm performance. This is in-line with previous studies, which reported a positive relationship between managerial ownership and firm performance(Bhagat and Bolton, 2008; Kapopoulos and Lazaretou, 2007; Krivogorsky, 2006; Mangena and Tauringana, 2008; Owusu-Ansah, 1998; Palia and Lichtenberg, 1999); they argued that a positive correlation between the managerial ownership and firm performance indicates that owning shares aligns the interests of managers and external (non-executive) shareholders, resulting in a positive effect in performance. Hence, this result is consistent with agency theory, which holds that the incentive effect makes the directors perform in the best interest of the company. Therefore, this will reduce any conflict between the management and the shareholders and will reduce agency costs, improving performance.

Table 18: Managerial ownership and ownership structure variables results

Ownership variables	ROE	ROA
MO	82.59738 (0.061)*	15.22806 (0.251)
LargeSH5	-2.121011 (0.000)***	-.8231661 (0.000)***
OWNind/Fam	-.0673711 (0.436)	.0029175 (0.890)
OWNcomp	.1310687 (0.064)*	.0705605 0.026)**
OWNgov	-.0826491 (0.666)	.0099916 (0.873)

*, **, *** indicates significance at the 10%, 5%, 1%, levels

- **Large shareholder**

Based on the results of table 18,LargeSH5 was found to have a negative and highly significant effect. The negative relationship between large shareholders (i.e. concentrated ownership) and firm performance might be explained by Demsetz (1983), who argued that a high proportion of shares being owned by large shareholders induces the latter to be more concerned about their own interests than those of other shareholders, thus undermining overall firm performance. In addition, the controlling large shareholders, who in fact control the management if they are not the same

personnel, have the ability to access private managerial information and thus they have an advantage over smaller shareholders due to their controlling power to extract the company wealth for their own personal benefit. This seems to outweigh the potential benefits of such ownership structures (e.g. more effective monitoring of management by large shareholders due to their increased stake and influence). Furthermore, this result can be explained by Gibson (2003), who stated that larger shareholders are more likely to expropriate the shareholder wealth and affect the firm performance negatively when they are managers or creditors, because they have the potential for private gains aside from their general interest as shareholders, such as spending funds on projects that benefit them while being unprofitable for the firm, or diverting company resources. Moreover, beside their expropriation for the firm resources, large shareholders might employ accounting techniques to conceal their behaviour and to obscure actual firm performance to evade any disciplinary measures or repercussions (Korczak and Korczak, 2009). Large shareholders also adversely affect the firm performance by choosing less effective internal governance mechanisms. For instance, where there is a lower proportion of NEDs on the board and where the chairman and the CEO positions are not split, large shareholders have the motivation to maintain weak internal controls to facilitate their expropriation of firm resources (Lasfer, 2006).

Some previous studies also found a negative relationship between large shareholders (concentrated ownership) and firm performance (Dyck and Zingales, 2004; Edwards and Weichenrieder, 1999; McConnell and Servaes, 1990; Weir et al., 2002). They observed that the private benefits of control for large shareholders are usually at the expense of minority shareholders, suggesting that the former typically seek their own private benefits regardless of firm value. Also, Burkart et al. (1997), contend that too much ownership concentration overly pressurizes and constrains management, reducing the management's ability to take value-maximizing investment decisions. Therefore, the results reject the efficient monitoring hypothesis (that large shareholders have the ability and incentive to exert control and to compel management to take actions to improve the company performance).

However, our results are inconsistentwith the findings of Shleifer and Vishny (1986); Stiglitz (1985); Leech and Leahy (1991) who argued that large and controlling shareholders contribute to the mitigation of the agency problems because they have the incentives, motivations and capacity to monitor the managers for the shared benefit of control (i.e. the mutual benefit of all shareholders, whether large or small). They support

the monitoring hypothesis, whereby large shareholders may help to reduce the free-rider problem of small investors, and therefore increase the value of the firm. They illustrate that as ownership concentration increases, the degree to which benefits and costs are borne by the same owner increases, hence it can be inferred that large shareholders are more likely to be active in corporate governance to prevent information asymmetry between principals and agents, due to their larger stakes in firms and the greater risk they incur by their larger ownership. Fama and Jensen (1983) showed that large stakeholders have better incentive in the participation in the corporate monitoring and decisions. This might be because the benefits that they will get are greater than the monitoring costs.

The result of the negative relationship might be expected by the fact that the situation becomes more complex when there are more major shareholders, and correspondingly more diverse interests among the large shareholders, with the possibility of both positive and negative outcomes for firm performance (Pound, 1988). The fundamental problem of concentrated ownership is the opportunities for nepotism that arise from it. Business organisations in Middle Eastern countries (including Jordan) are characterised by high concentration of ownership, often in the form of family-controlled businesses. A clear example of this in family-controlled firms is the desire of majority shareholders to pass on control and majority ownership of the firm to subsequent generations (Bhaumik and Gregoriou, 2010). Another reason for this relationship might be the behaviour of each large shareholder which influences the impacts of various kinds of other large shareholders (Barclay and Holderness, 1989).

- **Individual/family ownership**

Based on the results of table 18, the findings show that OWNind/Fam has a negative but insignificant effect on firm performance measured by ROE and ROA. This negative relationship contradicts the notion that family ownership aligns the interests of principals and agents. For the CD submission replace the underline sentence with this sentence but for the examiner purposes keep the underline sentence.Potential drawbacks of family ownership relate to the potential disconnect between the controlling family's personal interests and firm (i.e. small shareholder) interests, which could have effects such as a tendency to take sub-optimal investment decisions (Fama and Jensen, 1985), as well as utilising opportunities for personal enrichment such as benefiting from insider benefits like private rents at the expense of firm value maximization, thus working against the interests of minority shareholders and the company(Faccio et al., 2001).

Additionally, nepotism is rife in family-controlled firms, with family members or their personal associates appointed to key managerial and executive positions. In other words, the poor managerial talent and the low expertise of family members can result in difficulties to enter new markets and new investment opportunities. Inappropriate selection of family members as functionaries will directly or indirectly affect firm performance (Bloom and Van Reenen, 2007; Gulbrandsen, 2005, 2009). DeAngelo and DeAngelo (2000) confirm that by large stakes of companies being owned by family cliques motivates them to act in their own private interests instead of the company interest, to the detriment of minority shareholders. This information asymmetry and blatant probability of exploitation means that outside investors are anticipated to seek assurance from insiders that proper corporate governance mechanisms are applied to protect their interests, and to solicit greater disclosure from such firms to assess risk.

- **Company ownership**

Based on the results of table 18, OWNcomp has a significant and positive relationship with firm performance. This supports the efficient monitoring hypothesis, whereby companies are presumed to have more power, expertise and incentives and are more likely to act rationally to monitor management performance to improve firm performance. As argued by previous studies (McConnell and Servaes, 1990; Nesbitt, 1994; Smith, 1996; Shleifer and Vishny, 1997), companies are more motivated and efficient to monitor management than other types of investors due to:

1. Their ability to bear higher costs resulting from collecting appropriate information about the company and the management behaviour;
2. Their greater expertise and power to act rationally. Their skills will influence the management decisions either directly through their ownership or indirectly by trading their shares. Accordingly, their position helps them to reduce the agency conflict and to increase the value of the shares, thereby affecting firm performance positively (Dong and Ozkan, 2008; Gillan and Starks, 2003);
3. They have the ability and the power to monitor the board decisions due to their large stakes in the company, which might result in safeguarding the interests of minority shareholders. This can be achieved by concentrating on the projects that will add value to the firm since, this is their own aim in investing (Pedersen and Thomsen, 2003).

This refutes the strategic alignment hypothesis proposed by previous studies (Anderson and Reeb, 2003; Claessens et al., 2002; Koh, 2007; Porta et al., 1999; Pound, 1988;

Villalonga and Amit, 2006), which found that company ownership might affect the firm performance negatively due to the potential that is could be more profitable for company ownership to cooperate with firm managers in order to protect their business relationships rather than to challenge their decisions for particular firm benefits. They argue that this is more likely to happen when the value of the business with the firm is greater than the value of the equity held by the company. For example, companies might own large portion of shares in a company while simultaneously acting as the main insurer. This may result in a negative effect, because it is not favourable to vote against incumbent management, since this may imperil the business relationship with the firm (Pound, 1988). Therefore, their loyalty to the incumbent management, without influencing the management decisions, might result in a negative effect, because it is not favourable to vote against incumbent management, since this may imperil the business relation with the firm (Pound, 1988).

The possible explanation for this positive relationship might be attributed to the orientation and the investment decisions by the companies' ownership, which might affect the management behaviour. In Jordanian listed firms, there is a high level of shares held by companies (e.g. insurance companies, banks and pension funds such as the Social Security Corporation Investment Unit) (Al Fanik, 2006). The average shareholding of companies is 38.59%. Companies are more likely to affect the management decisions and the firm positively because some types of the companies (e.g. banks and insurance companies) are interested in cash flows; in other words, company investors need cash flows because their shareholders (e.g. share policy holders or depositors) might withdraw their funds at short notice (e.g. banks). Also, some types of companies, such as insurance companies and pension funds, are interested in periodic income to cover their cash flow requirements. Therefore, due to the large stakes of shares held by such companies they are motivated to exert closer monitoring and control over firm management behaviour and actions to make sure that managers do not misuse firm assets for their own interests. In other words, companies need to monitor the management decisions to ensure the safety of their investments. Accordingly, they provide a fiduciary role for their beneficiaries and for the minority shareholders in the firm. Thus, it is more likely this will reduce the agency problem, leading to better firm performance. In addition, the representatives of these companies on the board are professional, skilled and have a high level of expertise, which can help firms make the best investment choices and strategies.

- **Government ownership**

Based on the results of table 18, it appears that there is a negative relationship between government ownership and firm performance, though the results are not statistically significant, supporting the non-profit-maximizing goal of government owners. The negative relationship is consistent with findings of Shleifer and Vishny (1997), Ramaswamy (2001) and Orden and Garmendia (2005), who argued that government ownership is inefficient in improving firm performance and is subject to agency problems. Such problems result from the tendency of government bureaucrats/politicians to control the firm in relation to their own objectives instead of profit maximization. In addition, the negative effects of government ownership are due to poor human resource policies, tribalism, nepotism, lack of respect for rules, code of practice and the regulations of the country and the private expediency of appointments. By ignoring adding value to the firm, shareholders ultimately bear the cost of any potential losses (Shleifer and Vishny, 1997). Therefore, it is more likely that government ownership might increase the agency problem and affect the firm performance negatively. This is because the main concern is usually social benefit rather than profit, and the priority for profit maximization is not a necessity for governments. For example, government ownership may consider avoiding unemployment to be more important than increasing the value of company assets; thus if there was a choice between redundancies within a firm to improve efficiency, government would be expected to block such measures.

7.3.5 Results and discussion of foreign ownership on firm performance

Based on the results of table 19, foreign ownership was found to have a significant positive relationship with firm performance on ROE only. This affirms that foreign investors have the ability and the incentive to intervene (i.e. monitor and control) corporate governance to effect monitoring or complement existing poor monitoring by domestic investors (Gillan and Starks, 2003). Similarly, Hanousek et al. (2004) found that the greater incentive for monitoring among foreign investors leads to a positive impact on corporate performance. Mitton (2002) and Lins (2003) also found that foreign investment has positive impacts on firm performance in emerging markets.

Table 19: Foreign ownership results

Ownership variables	ROE	ROA
Foreignown	.2024374 (0.090)*	.0678711 (0.131)

*, **, *** indicates significance at the 10%, 5%, 1%, levels

This is consistent with previous research (Ghazali, 2010; Kirkpatrick et al., 2006; Oxelheim and Randoy, 2003; Sulong and Nor, 2010; Taufil et al., 2013; Taylor, 1990), which found that foreign ownership influences firm performance positively due to improved access to financial resources and managerial talent. In addition, they reported that foreign investors increase firm value by controlling managerial behaviour. Furthermore, Djankov and Hoekman (2000) asserted that technology transfer results in better firm performance, and this is enhanced by foreign investment. Moreover, Aggarwal et al. (2011) found that the presence of foreign institutional investors is associated with improved corporate governance, by eliminating poorly performing CEOs from the management. Douma et al. (2006) found that foreign investors are significant positively related to Tobin's Q and insignificant with ROA, which indicates that foreign investors are more concerned about their market return. This may imply that foreign investors could force and influence the management to improve corporate governance and transparency in firm operations. In other words, foreign investors have superior monitoring ability to decrease agency costs and thereby improve firm performance. This contrasts with the view of Giannetti and Simonov (2006), Doidge et al. (2007) and Leuz et al. (2010), who reported that foreign investors might not improve firm performance due to information asymmetry, differing national economic environments and differences in corporate governance application and culture.

The possible explanation for this might be that foreign owners can be expected to monitor management more closely due to the intrinsically greater risk they bear by investing in foreign markets; as part of this concern, foreign investors often favour the use of performance-based incentives, which induce managers to act in the interests of principals (i.e. remuneration to mitigate the agency problem). Additionally, foreign investors can bring access to new practices and technology, enabling increased cost and operational efficiency, which might contribute to improved firm performance. Finally, the legislative reforms in particular (since the 1990s) have attracted more foreign capital investment in Jordan. Furthermore, the three investment laws of 2003 (replacing the 1995 legislation) provide for equal treatment of Jordanian and foreign investors, a

unique feature that distinguishes the Jordanian market among MENA countries. While most countries in MENA have legislation guaranteeing extensive favouritism for natives in numerous respects (e.g. percentage of ownership and workforce), such restrictions have been removed in Jordan, so that foreign investors can invest in different economic sectors with no restrictions on ownership percentage, enjoy complete freedom of capital movement and no taxes on cash dividends or capital gains, leading to an attractive investment structure and open economy. Another reason might be the issuance of the Jordanian corporate governance code JCGC in 2006 toward to improve the firm performance of the Jordanian firms and to encourage the foreign investors to invest in the Jordanian firms. Table 20 below shows the percentage of investment by local and foreign investors in all sectors for the period 2000-2010.

Table 20: Percentage of investment by local investors and foreign investors in all sectors for the period 2001-2010

Year	Domestic investment	Foreign investment	Total investment	Foreign investment to total investment
2000	354,895,964	438,378,862	793, 274,826	0.55
2001	472, 252,675	409,101,192	881,353,867	0.46
2002	169,638,002	131,393,530	301,031,532	0.44
2003	177,945,533	83,714,925	261,660,458	0.32
2004	322,674,046	95,652,803	418,326,849	0.23
2005	473,694,140	276, 288,994	749,983,134	0.37
2006	987,993,342	845,648,078	1,833,641,420	0.46
2007	1,171,509,771	1,049,665,857	2, 221,175,628	0.47
2008	1,374,421,322	560,381,680	1,934,803,002	0.28
2009	1,114,116,593	706,941,417	1,821,058,010	0.39
2010	1,436,535,109	224,109,100	1,660,644, 209	0.13

All investment shown in Jordanian Dinars; JD1= US$1.42

7.4 Summary

This chapter presented and discussed the empirical results regarding the impact of the internal corporate governance mechanisms on firm financial performance. Specifically, the chapter presented the findings and the discussion of the descriptive analysis undertaken in this study, and dealt with the main inferences drawn from the multiple regressions (namely control variables, board of directors, ownership structure and foreign ownership). In order to ensure the presentation of the findings and the discussions is straightforward, the tables are presented separately according to the research objectives. The whole tables that contain all the results together of this study are presented in appendices one and two.

CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS

8.1 Introduction

This chapter summarises the main research findings, discusses the limitations of the study, highlights its contributions, and presents recommendations for future studies.

8.2 Research Findings

The aim of this study is to investigate the impact of the corporate governance on the firm performance of Jordanian industrial and services companies during the period 2000 to 2010. The study examined the impact of the corporate governance mechanisms via board of directors (e.g., board size, CEO duality and the presence of NEDs) and ownership structure (e.g., large shareholders or controlling shareholders, the identity of shareholders and the managerial ownership). In addition, the study has investigated the impact of foreign investors on firm performance. The data set used in this study to examine these internal mechanisms was extracted from the Jordanian annual reports and Osiris database. The study ended up with a sample of 115 listed firms in ASE during the period 2000 to 2010. Multiple regression panel data analysis is chosen as the main tool of analysis in this study. The statistical method used to test these impacts was Generalised Least Square (GLS) Random Effects models.

The data of the internal corporate governance mechanisms (board of directors and ownership structure) and accounting based measures on firm performance revealed a mixed set of results in terms of agency perspectives. The results of this study are categorised into two sections. The first section presents the main findings related to the board of directors (e.g. board size, CEO duality and NEDs) and the second section presents the findings related to the ownership structure (e.g. ownership concentration, managerial ownership, the identity of ownership and foreign ownership) and its impact on firm performance.

8.2.1 Board of directors

In terms of board size our findings fail to reveal any significant impacts of the board size on firm performance. Boards in Jordanian firms are generally heavily dominated by large block holders, typically members of a single family or a clique of families. This

might result in the appointment of management and members for the board on the basis of friendship and nepotism rather than experience and skills. Such cliques can use their power to influence management decisions and undermine the monitoring and coordination of the board, rendering it impotent with regard to impact on management and firm performance.

CEO duality showed a positive relationship with performance, a finding that is in contrast to the agency perspectives. Agency theory argues that CEO duality represents a problem because the CEO, who is responsible for the company performance, is the same person who is responsible for evaluation of the efficiency. Furthermore, duality increases CEO responsibilities, therefore, this situation will reduce the possibility of evaluating the firm effectively. This is because the power is concentrated in the hand of just one executive which will result in lower firm performance (Fama and Jensen, 1983a). Our findings also provide support to stewardship theory which outlines that the holding of both the CEO and chairman position by the same person will improve firm performance because the monitoring of the company is undertaken more clearly. It might be quite useful for Jordanian companies to have CEO duality because it provides strong management, supervision, more coherence and strong leadership direction. Moreover, in Jordan, the chairman is often the founder of the company and is, therefore, more likely to be the CEO, since he is more experienced and more knowledgeable about the company. Jordanian firms operate in a relatively simpler business environment, unlike larger firms in the markets of developed countries. Thus, CEO duality may be useful and advantageous for different purposes: (1) it will speed up the decision-making process; and (2) it will improve communications between the board members and cut bureaucracy within the firm's structure.

Our findings show a negative relationship between NEDs and firm performance, thus our results are inconsistent with agency theory. The possible explanation for this result might be that the NEDs are commonly part-time workers; this will undermine their ability to monitor and advise the board because of the lack of the information that they have which will reduce the NEDs' ability to apply their function efficiently. In addition, because they are part-time workers they are less incentivized to fulfil their responsibilities. Also, they might have other commitments which might affect their devotion to undertake effective monitoring. Furthermore, they might be unfamiliar with all the operations and business in the company. Finally, there might be some private connections between the chief executive director and the NEDs which, therefore, might

reduce the contributions of the latter. This is especially the case if they have been appointed for long periods in the company.

8.2.2 Ownership structure

The findings related to managerial ownership and firm performance show a positive relationship which is consistent with the alignment of interest hypothesis. According to agency theory, as managerial ownership increases (alignment interest), managers are less likely to transfer the firm resources away from value maximization. Jensen and Meckling (1976) stated that the incentive of director/managerial ownership is expected to motivate agents to create total surplus, because as managerial ownership increases the interests of the shareholders and managers become more aligned, thus the incentive for opportunistic behaviour decreases. In other words, the greater the stake managers have in a firm (i.e. share ownership), the greater the costs they will incur for not maximising the wealth of shareholders. Our result is consistent with, for example, the findings of Owusu-Ansah (1998), Palia and Lichtenberg (1999), Weir et al. (2002), Krivogorsky (2006), Kapopoulos and Lazaretou (2007), Mangena and Tauringana (2007) and Bhagat and Bolton (2008) who have all reported a positive impact of managerial ownership on firm performance.

In terms of ownership concentration, our study showed evidence that there is a negative relationship between the large shareholders and firm performance. Our results are consistent with the findings of McConnell and Servaes (1990), Burkart et al. (1997), Edwards and Weichenrieder (1999), Weir et al. (2002) and Dyck and Zingales (2004). This result shows that higher ownership concentration could induce the prioritisation of self-interest by large shareholders and the consequent expropriation of firm resources (i.e. wealth), resulting in decreased firm performance. In other words, with concentrated ownership there is more incentive for majority/dominant shareholders to avoid information disclosure and such firms are likely to have weak monitoring controls (which facilitate expropriation), reducing the management's ability to take value-maximizing investment decisions leading to lower firm performance. Therefore, our results are inconsistent with the efficient monitoring hypothesis and the findings of Stiglitz (1985), Shleifer and Vishny (1986) and Leech and Leahy (1991) that show that large and controlling shareholders contribute to the mitigation of the agency problems because they have the incentives, motivations and capacity to monitor the managers for the benefit of the shareholders. The negative impact of concentrated ownership might be

attributed to the opportunities for nepotism that arise from it. Business organisations in Middle Eastern countries (including Jordan) are characterised by high concentration of ownership, often in the form of family-controlled businesses. In family-controlled firms the desire of majority shareholders is to pass on control and majority ownership of the firm to subsequent generations (Bhaumik and Gregoriou, 2010). Another reason for this relationship might be the behaviour of each large shareholder which influences the impacts of other kinds of various large shareholders (Barclay and Holderness, 1989).

With respect to Individual/Family ownership, this study found a negative relationship with insignificant effect on firm performance. This might be due to poor managerial talent; low expertise of family members can result in difficulties in entering new markets and taking new investment opportunities. Inappropriate selection of family members as functionaries will directly or indirectly affect firm performance (Gulbrandsen, 2005, 2009; Bloom and Van Reenen, 2007). In other words, family ownership acts in its own private interests instead of the company interest, to the detriment of minority shareholders which will result in lower firm performance.

In terms of the companies' ownership, the results of this study show a positive relationship with firm performance. This result supports the efficient monitoring hypothesis that companies have the power, greater expertise and incentives and are more likely to act rationally to monitor management behaviour and to enhance firm value. However, the results are inconsistent with the findings of Pound (1988) who claims that it might be more profitable for the company management or they may be forced to cooperate with the firm managers in order to protect their business relationships. The positive relationship might be attributed to their ability to bear high costs that result from the collecting of the appropriate information about the company and the management behaviour. In addition, they have more expertise and power to act rationally. Therefore, their skills will influence management decisions either directly, through their ownership, or indirectly, by trading their shares. Accordingly, this might lead to improved firm performance.

With respect to government ownership, this study failed to reveal any significant impact on firm performance. However, the relationship was negative, supporting the non-profit-maximizing goal of government owners. This might be due to the tendency of government bureaucrats/politicians to control the firm in relation to their own objectives instead of profit maximization (Shleifer and Vishny, 1997; Ramaswamy, 2001; Orden

and Garmendia, 2005). In addition, the negative effects of government ownership are due to poor human resource policies, tribalism, nepotism, lack of respect for rules, the code of practice and regulations of the country, and the private expediency of appointments.

Finally, the results showed that foreign ownership had a significant positive relationship on firm performance. This finding confirms that foreign investors have the ability and the incentive to intervene (i.e. monitor and control) corporate governance to affect monitoring or complement the existing poor monitoring by domestic investors (Gillan and Starks, 2003).In addition, our finding was consistent with those of Taylor (1990), Oxelheim and Randoy (2003), Kirkpatrick et al. (2006); Ghazali (2010); Sulong and Nor (2010) and Taufil et al. (2013) who found that foreign ownership influences the firm performance positively. They showed that foreign investors give companies access to financial resources, and managerial talent. In addition, they reported that foreign investors increase firm value by controlling managerial behaviour. This might be due to the legislative reforms, particularly since the 1990s, which have attracted more foreign capital investment into Jordan. Furthermore, the three investment laws of 2003 (replacing the 1995 legislation) have provided for the equal treatment of Jordanian and foreign investors, a unique feature that distinguishes the Jordanian market among the MENA countries. While most MENA countries have legislation guaranteeing extensive favouritism for natives in numerous respects (e.g. percentage of ownership and workforce), such restrictions have been removed in Jordan, so that foreign investors can invest in different economic sectors with no restrictions on ownership percentage, and enjoy complete freedom of capital movement with no taxes on cash dividends or capital gains, leading to an attractive investment structure and open economy.

8.3 The Limitations of the Study

While the findings of any research are important, they invariably suffer from several limitations. Firstly, for example, the size of the sample is a limitation, with the sample of this study investigating only non-financial companies. Financial companies have been excluded because firms in this sector are administered by a different set of instructions and rules (Abed et al., 2011). Therefore, the size of the whole sample was reduced from 276 firms to 115 firms.

Secondly, this study does not examine the impact of board sub-committees for Jordanian companies because no data are available from annual reports and the Osiris

database concerning them. The researcher endeavoured to contact the companies to conduct interviews by calling and emailing them in order to collect information regarding whether they have such committees and their composition. However, of 115 companies approached, only 19 responded, most of the companies that did respond acknowledged that they didn't have these committees on the board. This is because companies were voluntarily required to have board committees before 2006. In 2006 the Jordanian corporate governance code stipulated that the board of directors must form audit, remuneration and nomination committees. The effect of this stipulation started to take place at the beginning of 2007. In addition, the terms for the board committees are still new for these companies so not all of them have started to establish these committees on their boards. Most of the companies that do not have these committees might be due to the nature business of the company. For example, the nature of business for some companies is not complicated and, thus, there is no need for such committees on the board. In addition, if the size of company is small there is no need to establish such committees on the board. Furthermore, the JCGC is voluntary, so there is not statistical information available from the Jordanian company control department to ascertain the extent to which companies have actually implemented this recommendation. This means that the authorities should undertake a series of regulatory actions and monitoring to force companies to have these committees which might help increase the effectiveness of board in monitoring the managers and help improve the firm performance.

Since this study began in 2000 the researcher was unable to examine the effect of these committees; however, it is clear that board committee structure in Jordan is a rich area for further investigations.

A third limitation is the inclusion of only three variables of board structure, i.e. the board size, NEDs and CEO duality. Attempts were made to contact companies in various ways however, as noted above; there was a weak response rate, though a broader understanding of the characteristics of a board could be gleaned from an appreciation of the education level, gender and nationality of its members, for example. Objectively quantifiable variables were selected, however, to avoid bias within the results, and the three variables chosen have been shown as key ones within previous studies. It is, therefore, considered that the corporate board is an important mechanism affecting firm performance, however the study recommends that future research should work out the effect of various, further board characteristics upon firm performance.

Finally, this study investigated the impact of the corporate governance on firm performance just only from the accounting based measures perspective. The lack of data related to the replacement costs prevented this study from investigating the effect of corporate governance on firm performance measured by Tobin's Q. Market-based measures of firm performance are particularly problematic in the context of emerging markets, where most firms are characterized by debt-financing rather equity financing. Therefore, market-based measures are unrepresentative of actual investor profits in this context (Kumar, 2004). The market share price of firms reflects their market value with the proviso that the capital market is efficient according to the Efficient Market Hypothesis (EMH) (Gompers et al., 2003). Since Jordan is one of the emerging market countries, the stock market is yet to be developed in a comparable manner with established ones. For instance, the impacts of publicly disclosed/available firm information will influence the market after a lag time which will manifest in share prices. Although the firm performance can be examined from different perspectives such as Tobin's Q. However, we have the difficulties embroiled in computing Tobin's Q, such as computing the replacement cost which the companies do not report.

8.4 Research Contributions

Corporate governance has become a significant area of research; it takes a focus upon the various arrangements that are used within governance to control corporations for the purposes of maximisation of the wealth of the shareholders and/or owners. A literature review reveals this importance, and highlights problems with conflict of interest between shareholders and the management (Jensen and Meckling, 1976).Therefore, effective corporate governance should fundamentally guarantee shareholders' value by ensuring the appropriate use of firms' resources, enabling access to capital and improving investor confidence (Denis and McConnell, 2003). Thus, good corporate governance structure will ensure better decision making and efficient management leading to the likelihood of better firm performance. The majority of research concerning corporate governance and its effect on firm performance has been undertaken in developed countries and markets, particularly the UK and the US, but relatively little is known about corporate governance in the Middle East, where different cultural and economic considerations prevail. This study is the first to investigate the impact of the internal corporate governance mechanisms on firm performance of the industrial and services listed firms in ASE for the period 2000 to 2010. Therefore, by using corporate governance data extracted directly from Osiris database and the

company annual reports, the findings of this study will enhance our understanding of corporate governance in terms of agency theory in developing country specifically Jordan.

This study makes several new contributions. First, drawing on the agency theory, this study investigated the impact of the board of directors as one of the important corporate governance mechanisms on firm performance in Jordan. A focus on Jordan is important because it allow us to investigate the link between the board of directors and firm performance by using the agency theory under special institutional background of Jordan. In addition, given that the increases number of the listed companies in the ASE (from 163 to 277 during the period 2000 to 2013) required and promoted efforts to enhance the effectiveness of the board for Jordanian companies to improve the firm performance. This study is the first to test the effect of the board size, CEO duality and NEDs on the performance of the Jordanian companies.

The second contribution is concerned with the empirical investigation of the impact of the managerial ownership on firm performance. Based on the argument derived from agency theory (Jensen and Meckling, 1976), that the conflict between managers and shareholders can be reduced through managerial ownership, to the researcher's knowledge this study is the first to investigate the impact of managerial ownership on firm performance in Arab countries, specifically Jordan. Thus, the empirical findings of this study will contribute to the understanding of the role of the agency problem in Jordan and the Middle East in general.

The third contribution is concerned with the empirical investigation of the relationship between the ownership structure and firm performance in the context of Jordan. The study examined the role played by two aspects of ownership structure:

- The total of shares owned by the largest shareholder with 5% or more (ownership concentration).
- The total of shares owned by the different types of shareholders.

The final contribution is concerned with the empirical investigation of the impact of the foreign investors on firm performance. The previous studies in emerging markets reported that on average the domestic institutional investors are relatively limited or ineffective in improving firm performance. This is attributed to the notion that domestic institutional investors in developing countries might cooperate with the management to protect their potential business relations at the expense of their governance role. Up to

the researcher knowledge, this study is the first to test this impact in Jordan. By examining this impact this, which will particularly relates to contribute to our understanding about of the impact of the foreign investors in on affecting the firm performance.

8.5 Further Studies

There are several potential opportunities to be considered in the future for further studies and improvements. Firstly, in order to enhance the Jordanian banking system, the Central Bank of Jordan has issued the Bank Corporate Governance Code. The code draws upon international best practice, in particular the OECD principles of corporate governance and, in the same vein, in order to enhance the insurance system, was issued by the Board of Director of the Insurance Commission pursuant to the provisions of paragraph (B) of Article (45) and paragraph (B) of Article (108) of the Insurance Regulatory Act No. (33) Of 1999 and the Amendments Thereof (Insurance Companies Code). Therefore, it is worthwhile to study the impact of corporate governance on financial firms. The sample of the study ought to be increased and the results from such an investigation would enhance understanding through providing another perspective of the effect on financial firms.

Secondly, further research is needed to investigate the impact of the role of the board of directors on firm performance, particularly to investigate the effect of the level of education, the gender, experience and the age of board members upon firm performance. This will provide a better understanding of the determinants of board effectiveness for the Jordanian listed firms. Filling the gaps in these areas will provide a better understanding of board practices and their effects on firm performance. Thirdly, it would be interesting to investigate the impact of various board committees (e.g., audit, remuneration and nomination committees) on the firm performance. Further studies on their effects could explore in more depth the effect of each committee on performance of the Jordanian listed firms.

Fourthly, the average growth rate of the Jordanian economy during the last ten years has averaged 8.1%, which made Jordan one of the fastest growing economies in the region. However, this fast growth resulted from the US invasion of Iraq in 2003. More recently, Jordan’s economic problems have been exacerbated since 2011 due to the reduction in the supply of cheap gas from Egypt. This resulted in Jordan having to pay an extra 2.5

billion a year for fuel and diesel from the global market. The drain on the country's meagre economic resources, and higher state expenditure resulting from the presence of over 600,000 refugees fleeing the violence in Syria, has put the brakes on a debt-burdened economy already facing severe fiscal strains. These economic conditions might affect the financial decisions of local and foreign investors alike. Subsequently, since the data collection of this study had a cut-off point in 2010, further study is needed to explore the impact of corporate governance on firm performance under the different economic conditions. According to Johnson and Mitton (2003), during periods of economic downturn, the possibility of shareholders expropriating firm resources will be higher.

Corporate governance includes all the structures formed into Boards of Directors that enable them to reach independent decision-making, which should be free from any personal interventions or work for special (non-firm) interests. This kind of policy is meant to reflect positively on the institutionalization of the decisions made within the institution and work for the best interests of shareholders who have invested their money and fully entrusted it to the Boards of Directors.

The adoption of corporate governance principles is more than a thought or creation of a code that the companies should adopt. Establishing new companies and creating new positions for these companies, together with instructions, for example, does not mean that we are applying corporate governance mechanisms. Corporate governance should ensure better decision-making policies, maximise profits and reduce the risk of human interference activities such as fraud, robbery, super-star culture or 'the only star' who commits no mistakes. In addition, corporate governance should maintain shareholders' rights and profits and provide the best measures for financial stability and management efficacy. The application of Corporate Governance Principles can best serve Jordan's brittle economic interests and work in parallel for the benefit of private companies or shareholders. Hence, an urgent need has emerged for the best proper application of Corporate Governance Principles in Jordanian companies.

Implementing corporate governance principles will lead to a better avoidance of pervasive ccorruption cases and nepotism and help to attract more local and foreign investment. Thus, creating such a better investment environment would offer more employment opportunities and improve the standard of living as a whole. The concept of corporate governance has many direct and indirect references in many legal clauses

and items; to name but a few, there is the Companies Act 22 for the year 1997 and its amendments, the Securities Act 76 for the year 2002, the Bank Law No. 28 for the year 2000, and the law that regulates accounting for the legal profession (Law No. 73 for the year 2003). Those legal references have made it possible to apply corporate governance principles in Jordanian companies as a whole and paved the way for more developed amendments of those legal clauses and acts. Perhaps the positive remarks of this application of standards will offer guaranteed basic rights for both owners of capital and shareholders leading to better participation in decision-making and voting in their business institutions. However, existing Jordanian laws and acts are unclear when it comes to the role and responsibilities of the executive and non-executive directors within the scope and mission of the Board of Directors. Moreover, the concept of NEDs is not fully practiced under the current Jordanian legislation. Moreover, the appointment of members in various committees, including auditors, executive members and so on, lacks the criteria for transparency and credibility.

Despite the on-going endeavours of the Jordanian government (e.g. the Central Bank and Jordan Companies Control Department) to ensure the activation of corporate governance standards and institutionalizing of decisions made into policies, it can still be observed that numerous local companies are still far from following those 'correctional' standards, as evidenced by priority being given to personal interventions and the deliberate marginalization of shareholders' enshrined rights to participate in decision-making policies. Moreover, it has been officially reported that the companies concerned have an implicit opposition to the government's economic reform plan and have displayed illegal behaviour that eventually led to their financial hardship and bankruptcy.

It can be concluded that corporate governance needs cooperation between the public and private sectors to create more competitive democratic markets, help maintain local investment in the Kingdom, and to attract foreign investors. The reality is painful as a lot of boards are formed in the same old way even if the exterior layer is normal and appears to work for the best interests of shareholders. It is generally agreed, however, that government interventions usually arrive late and are not proactive, or even preventive, measures. Due to this, the occurrence of wrong decisions is pervasive and they frequently occur on a daily basis. Continuous failures have made Jordan's economy as brittle as any poor developing country. Indeed, these alarming facts call for more government control and adherence to official regulations. An interesting fact is that the

fine set by Jordan's government for violation of the terms of the Corporate Governance Principles is only JD 500.

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APPENDICES

Appendix 1: Summary of descriptive statistics of dependent, independent and control variables

	N	Minimum	Maximum	Mean	Std. Deviation
health	956	0	1	0.03	0.157
educational	956	0	1	0.05	0.21
hotels	956	0	1	0.09	0.282
transportation	956	0	1	0.07	0.261
technologycommunication	956	0	1	0.02	0.143
media	956	0	1	0.01	0.091
utilitiesenergy	956	0	1	0.03	0.177
commercialservices	956	0	1	0.1	0.306
pharmaceutical	956	0	1	0.04	0.193
chemical	956	0	1	0.07	0.252
paper	956	0	1	0.03	0.183
printing	956	0	1	0.02	0.15
food	956	0	1	0.12	0.322
tobacco	956	0	1	0.01	0.12
mining	956	0	1	0.13	0.331
engineering	956	0	1	0.07	0.252
electrical	956	0	1	0.03	0.16
textiles	956	0	1	0.06	0.239
glass	956	0	1	0.03	0.163
d2001	956	0	1	0.07	0.254
d2002	956	0	1	0.08	0.269
d2003	956	0	1	0.08	0.279
d2004	956	0	1	0.09	0.283
d2005	956	0	1	0.09	0.289
d2006	956	0	1	0.1	0.296
d2007	956	0	1	0.1	0.303
d2008	956	0	1	0.11	0.313
d2009	956	0	1	0.11	0.315
d2010	956	0	1	0.11	0.313
ROE	936	-833.1	460.46	-4.38	51.96
ROA	948	-91.38	87.57	0.59	14.31
TA	956	1160000	75193260	64133.11	329268.8
leverage	956	0	5.75	0.36	0.37
Liquidity ratio	945	0.01	65.48	3.44	5.99
Age	956	5	83	29.31	15.819
BSIZE	956	2	30	8.33	3.26
CEO Duality	956	0	1	0.66	0.04
NEDs	956	0.01	0.88	0.24	0.19
MO	956	0.23	0.42	0.32	0.06
LargeSH5	956	0	0.99	0.43	0.22
OWNind/Fam	950	0	100	45.08	28.29
OWNcomp	956	0	99.99	38.58	26.09
OWNgov	956	0	100	8.09	16.87
Foreignown	956	0	0.99	0.087	0.17

Appendix 2: Summary of multiple regression results

	ROE	ROA
Log Total assets	20.56996 (0.031)**	7.23987 (0.000)***
Total Debt (Leverage)	-.000046 (0.696)	-2.69e-06 (0.000)***
Liquidity	-2.40e-06 (0.622)	1.81e-07 (0.687)
Age	.4088442 (0.266)	.0369829 (0.333)
BSIZE	1.318516 (0.275)	.4673652 (0.132)
CEO Duality	26.72576 (0.065)*	6.389529 (0.002)***
NEDs	-.2725834 (0.008)***	-.1208736 (0.007)***
MO	82.59738 (0.061)*	15.22806 (0.251)
LargeSH5	-2.121011 (0.000)***	-.8231661 (0.000)***
OWNind/Fam	-.0673711 (0.436)	.0029175 (0.890)
OWNcomp	.1310687 (0.064)*	.0705605 (0.026)**
OWNgov	-.0826491 (0.666)	.0099916 (873)
Foreignown	.2024374 (0.090)*	.0678711 (0.131)
Health	-2.829959 (0.723)	-.7391161 (0.871)
Educational	6.613757 (0.591)	9.880238 (0.065)*
Hotels	-4.102294 (0.705)	3.242674 (0.492)
Transporting	2.329414 (0.819)	3.513176 (0.477)
Technology	-49.04758 (0.154)	5.192437 (0.354)
Media	-37.32361 (0.264)	-14.15601 (0.209)
Utilities	22.12184 (0.304)	-.2325165 (0.969)
Commercials	-8.263967 (0.685)	3.740754 (0.558)
Pharmaceutical	-1.219226 (0.902)	1.573883 (0.813)
Chemical	14.37657 (0.230)	7.41495 (0.157)
Paper	-77.88969 (0.004)***	-19.38513 (0.044)**
Printing	-57.17938	-13.4128

	ROE	ROA
	(0.300)	(0.521)
Food	-1.141534	2.672251
	(0.918)	(0.615)
Tobacco	-6.702806	4.218124
	(0.651)	(0.408)
Mining	-5.33554	4.332407
	(0.655)	(0.373)
Engineering	-6.32308	2.382145
	(0.581)	(0.645)
Electrical	5.514459	4.746745
	(0.556)	(0.300)
Textiles	3.425846	2.366423
	(0.736)	(0.621)
d2001	-3.240528	.8562205
	(0.407)	(368)
d2002	-7.486261	-1.883421
	(0.181)	(0.231)
d2003	1.62957	.4112314
	(0.684)	(0.705)
d2004	1.694666	1.137405
	(0.397)	(0.179)
d2005	5.892105	3.5008
	(0.101)	(0.000)***
d2006	1.31449	-.0724548
	(0.629)	(0.957)
d2007	5.748674	.272582
	(0.276)	(0.840)
d2008	-4.569798	-1.40411
	(0.196)	(0.293)
d2009	3.450705	-.3653438
	(0.246)	(0.713)
d2010	-7.933553	.5049139
	(0.345)	(0.586)

*, **, *** indicates significance at the 10%, 5%, 1%, levels

Appendix 3: Results of VIF test

Variable	VIF
mining	5.28
food	5.18
commercial~s	4.64
hotels	4.23
transporta~n	3.64
chemical	3.43
engineering	3.32
textiles	3.04
educational	2.77
utilitiese~y	2.44
paper	2.42
pharmaceut~l	2.26
owncomp	2.14
technology~n	2.10
electrical	1.96
health	1.95
ownind	1.94
printing	1.91
owngov	1.87
tobacco	1.77
ta	1.76
leverage	1.67
bsize	1.51
ned	1.39
foreignown	1.38
liquidity	1.37
mo	1.31
merdia	1.26
age	1.25
d2010	1.21
d2009	1.20
d2007	1.18
d2006	1.18
largesh5	1.16
d2004	1.16
d2002	1.15
d2001	1.14
d2003	1.06
d2008	1.05
d2005	1.05
ceoduality	1.03
Mean VIF	2.07

Appendix 4: Names and industries of the 115 sampled firms

COMPANY'S NAME	ABBREVIATION	SYMBOL	CODE	MARKET
	Health Care Services			
THE CONSULTANT & INVESTMENT GROUP	CONSULTING GROUP	CICO	131207	2
IBN ALHAYTHAM HOSPITAL COMPANY	IBN ALHAYTHAM H.	IBNH	131279	2
INTERNATIONAL FOR MEDICAL INVESTMENT	INT CO MED INV	ICMI	141021	2
	Educational Services			
ITTIHAD SCHOOLS	ITTIHAD SCHOOLS	ITSC	131093	1
AL-ISRA FOR EDUCATION AND INVESTMENT "PLC"	ISRA EDUE	AIFE	131220	2
PETRA EDUCATION COMPANY	PETRA EDUCATION	PEDC	131221	2
PHILADELPHIA INTERNATIONAL EDUCATIONAL INVESTMENT COMPANY	PHILADELPHIA UNI	PIEC	131222	2
AL-ZARQA EDUCATIONAL AND INVESTMENT	ZARQA EDUC OSIRIS	ZEIC	131051	2
THE ARAB INTERNATIONL FOR EDUCATION AND INVESTMENT.	ARAB INT INV EDU	AIEI	131052	2
	Hotels and Tourism			
AL- SHARQ INVESTMENTS PROJECTS(HOLDING)	AL SHARQ INV	AIPC	131078	2
JORDAN PROJECTS FOR TOURISM DEVELOPMENT	JOR PROJ TOUR DEV	JPTD	131211	2
WINTER VALLEY TOURISM INVESTMENT CO.	WINTER VALLEY TOUR	WIVA	131235	1
JORDAN HOTELS & TOURISM	JOR HOTEL TOURS	JOHT	131003	2
ARAB INTERNATIONAL HOTELS	ARAB INTL HOTEL	AIHO	131005	2
JORDAN HIMMEH MINERAL	HIMMEH MINERALS	HIMM	131014	2
MODEL RESTAURANTS COMPANY PLC	MODEL RESTAURANTS	FOOD	131272	2
AL-TAJAMOUAT FOR TOURISTIC PROJECTS CO PLC	TAJ TOURIST PROJ	TAJM	131019	1
SURA DEVELOPMENT & INVESTMENT PLC	SURA	SURA	131283	2
MEDITERRANEAN TOURISM INVESTMENT	MEDITER. TOURISM	MDTR	131035	2
	Transportation			
JORDAN EXPRESS TOURIST TRANSPORT	JORDAN EXPRESS	JETT	131080	1
TRANSPORT& INVESTMENT BARTER COMPANY	TRANSPORT BARTER	NAQL	131208	1

COMPANY'S NAME	ABBREVIATION	SYMBOL	CODE	MARKET
ALIA- THE ROYAL JORDANIAN AIRLINES PLC.	ROYAL JORDANIAN	RJAL	131213	1
MASAFAT FOR SPECIALISED TRANSPORT	MASAFAT TRANSPORT	MSFT	131243	1
RUM GROUP FOR TRANSPORTATION & TOURISM INVESTMENT	RUM GROUP	RUMM	131262	1
JORDAN NATIONAL SHIPPING LINES	SHIPPING LINE	SHIP	131012	1
UNITED GROUP FOR LAND TRANSPORT CO. P.L.C	UNITED GROUP	UGLT	131288	2
UBOUR LOGISTIC SERVICES PLC	UBOUR	TRUK	131290	2
TRUST INTERNATIONAL TRANSPORT	TRUST TRANS.	TRTR	131055	2
UNIFIED TRANSPORT & LOGISTICS COMPANY	UNIFIED TRANSPORT	UNIF	131066	2
	Technology and Communication			
JORDAN TELECOM	JORDAN TELECOM	JTEL	131206	1
BATELCO JORDAN	BATELCO JORDAN	FTGR	131060	2
	Media			
ARAB PRINTERS AND DEVELOPERS	ARAB DEVELOPERS	APRW	131075	2
	Utilities and Energy			
JORDAN ELECTRIC POWER	JOR ELECTREIC PWR	JOEP	131004	1
IRBID DISTRICT ELECTRICITY	IRBID ELECTRICITY	IREL	131010	2
JORDAN PETROLEUM REFINERY	JOR PETROLM REF	JOPT	142041	1
	Commercial Services			
SPECIALIZED TRADING & INVESTMENT	SPCZ.TRDG&INVST	SPTI	131081	1
SPECIALIZED JORDANIAN INVESTMENT	SPEC.INV JOR	SIJC	131086	1
BINDAR TRADING & INVESTMENT CO . P.L.C	BINDAR	BIND	131219	2
DARWISH AL-KHALILI AND SONS CO. PLC	D-KHALILI AND	DKHS	131223	2
OFFTEC HOLDING GROUP PLC	OFFTEC HOLDING	OFTC	131228	1
SOUTH ELECTRONICS	SOUTH ELECTRONICS	SECO	131230	2
NOPAR FOR TRADING AND INVESTMENT	NOPAR FOR TRADING	NOTI	131238	2
JORDANIAN DUTY FREE SHOPS	JOR DUTY FRE SHP	JDFS	131022	2
JORDAN INTERNATIONAL TRADING CENTER	JORDAN INTL TRAD	JITC	131023	1
AFAQ FOR ENERGY CO. P.L.C	AFAQ ENERGY	MANE	131286	2
MIDDLE EAST FOR DEVELOPMENT & TRADE	MID EAST FOR DEV	MEDV	131033	2
JORDAN TRADE FAC	FIRST NAT VEG OIL	JOTF	131062	2

COMPANY'S NAME	ABBREVIATION	SYMBOL	CODE	MARKET
AL AHLIA ENTERPRISES	AHLIA ENTERPRISES	ABLA	131064	2
Pharmaceutical and Medical Industries				
MIDDLE EAST PHARMA. & CHMICAL IND. & MEDICAL APPLIANCES	MID PHARMA IND	MPHA	141073	1
THE JORDANIAN PHARMACEUTICAL MANUFACTURING	JORDAN PHARMA	JPHM	141204	2
HAYAT PHARMACEUTICAL INDUSTRIES CO.	HAYAT PHAR. IND.	HPIC	141210	1
ARAB CENTER FOR PHARM.& CHEMICALS	ARAB PHARMA CHEM	APHC	141023	1
ARAB FOOD AND MEDICAL APPLIANCES	ARAB FOOD & MED	AFOO	141050	2
Chemical Industries				
NATIONAL TEXTILE AND PLASITIC INDUTRIES	NAT TEXTILE	NATT	141062	2
COMPREHENSIVE MULTIPLE PROJECT COMPANY	COMPREHENSIVE	INOH	141086	1
THE ARAB PESTICIDES & VETERINARY DRUGS MFG. CO.	ARAB PESTICIDES	MBED	141209	1
JORDAN CHEMICAL INDUSTRIES	JOR INDSTR CHEM	JOIC	141026	2
UNIVERSAL CHEMICAL INDUSTRIES	UNIV CHEM IND	UNIC	141027	2
RAFIA INDUSTRIAL	RAFIA INDUSTRIAL	RAFI	141030	2
JORDAN SULPHO-CHEMICALS	JOR SELPHO CHEM OSIRIS 64	JOSL	141040	2
NATIONAL CHLORINE INDUSTRIES	NAT CHLORINE	NATC	141054	1
JORDAN INDUSTRIAL RESOURCES	JORDAN IND.RES.	JOIR	141055	1
Paper and Cardboard Industries				
ARAB COMPANY FOR INVESTMENT PROJECTS	ARAB INVEST PROJ	APCT	141003	2
JORDAN PAPER AND CARDBOARD FACTORIES	JOR PAPER CARDBG	JOPC	141017	2
NATIONAL INDUSTRIES	NATIONAL INDSTR	NATI	141025	2
Printing and Packaging				
AL-EKBAL PRINTING AND PACKAGING	QBAL INV. CO	EKPC	141100	1
UNION ADVANCED INDUSTRIES	UNION ADV INDST	UADI	141110	2
Food and Beverages				
NATIONAL POULTRY	NAT'L POULTRY	NATP	141084	2

COMPANY'S NAME	ABBREVIATION	SYMBOL	CODE	MARKET
THE ARAB INTERNATIONAL FOOD FACTORIES	ARAB INT'L FOOD	AIFF	141092	2
NUTRI DAR	NUTRIDAR	NDAR	141094	2
MODERN FOOD IND & VEG.OIL	MODERN FOOD	MFID	141095	2
JORDAN VEGETABLE OIL INDUSTRIES	JOR VEG OIL IND	JVOI	141141	2
FIRST NATIONAL VEGETABLE OIL INDUSTRIES CO.	FIRST NAT VEG OIL	FNVO	141205	2
AFIA INTERNATIONAL COMPANY - JORDAN	AFIA INT CO-JORDAN	AICG	141206	2
JORDAN POULTRY PROCESSING & MARKETING	JORDAN POUL PROC	JPPC	141002	2
JORDAN DAIRY	JORDAN DAIRY	JODA	141004	2
GENERAL INVESTMENT	GENERAL INVEST	GENI	141029	2
AL-QARIA FOOD & VEGETABLE OIL INDUSTRIES CO. P.L.C	AL-QARIA	UCVO	141044	2
UNIVERSAL MODERN INDUSTRIES	UNIV MOD INDCO	UMIC	141052	1
	Tobacco and Cigarettes			
UNION TOBACCO & CIGARETTE INDUSTRIES	UNION TOBACCO	UTOB	141074	1
JORDAN TOBACCO & CIGARETTES	JOR TOBACCO/CIG	TBCO	141140	2
	Mining and Extraction Industries			
JORDAN STEEL	JOR STEEL OSIRIS 86	JOST	141070	1
NATIONAL ALUMINIUM INDUSTRIAL	NAT'L ALUM IND	NATA	141091	1
INVESTMENTS AND INTEGRATED INDUSTRIES CO. PLC (HOLDING CO)	INV AND INTEG INDUST	INTI	141117	2
JORDAN MAGNESIA	JOR MAGNESIA CO	JMAG	141130	2
JORDAN COMPANY FOR ELECTRICITY AND OIL SHALE	JOSECO	JOSE	141216	2
JORDAN MARBLE COMPANY P.L.C.	JORDAN MARBLE	JMCO	141221	2
NORTHERN CEMENT CO.	NORTHERN	NCCO	141224	2
GENERAL MINING COMPANY PLC	GENERAL MINING	GENM	141005	2
ARAB ALUMINIUM INDUSTRY /ARAL	ARAB ALUM IND	AALU	141006	2
NATIONAL STEEL INDUSTRY	NATIONAL STEEL	NAST	141011	2
JORDAN PHOSPHATE MINES	JOR PHOSPHATE MN	JOPH	141018	1
THE JORDAN CEMENT FACTORIES	JOR CEMENT FACT	JOCM	141042	1
THE ARAB POTASH	ARAB POTASH CO	APOT	141043	2
JORDAN ROCK WOOL INDUSTRIES	JOR ROCK WOOLID	JOWL	141045	2

COMPANY'S NAME	ABBREVIATION	SYMBOL	CODE	MARKET
Engineering and Construction				
ARAB ENGINEERING INDUSTRIES	ARAB ENG.IND.CO.	AREN	141060	2
RUM ALADDIN INDUSTRIES	RUM ALADDIN IND.	IENG	141077	2
ARABIAN STEEL PIPES MANUFACTURING	ARAB STEEL PIPES	ASPMM	141098	1
GENERAL ENGINEERING INDUSTRIES	GEN.ENG.INDSTRS	GEIN	141101	2
AL-QUDS READY MIX	AL-QUDS READY MIX	AQRM	141208	2
GENERAL LIGHTWEIGHT CONCRETE INDUSTRIES	LIGHT CONCRETE	GLCI	141211	2
THE JORDAN PIPES MANUFACTURING	JOR PIPES MANFACT	JOPI	141019	1
JORDAN WOOD INDUSTRIES / JWICO	JOR WOOD INDUSTR	WOOD	141038	2
Electrical Industries				
ARAB ELECTRICAL INDUSTRIES	ARAB ELECT IND	AEIN	141072	1
UNITED CABLE INDUSTRIES	UNITED CABLE INDUSTRIES	UCIC	141215	1
NATIONAL CABLE & WIRE MANUFACTURING	NAT/CABL/WIRE/MF	WIRE	141039	1
Textiles, Leather and Clothing				
CENTURY INVESTMENT GROUP	CENTURY INV.GRP	CEIG	131097	1
UNITED INTEGRATED FOR MULTIPLE INDUSTRIES AND INVESTMENTS	UNITED INTEGRATED	UNTG	141107	2
ARAB WEAVERS UNION COMPANY P.L.C	ARAB WEAVERS	ARWU	141212	2
JORDAN CLOTHING COMPANY P.L.C	JOR CLOTHING CO.	CJCC	141213	1
THE JORDAN WORSTED MILLS	JOR WORSTED MILL	JOWM	141014	2
JORDAN TANNING	JORDAN TANNING	JOTN	141020	2
AKARY FOR INDUSTRIES AND REAL ESTATE INVESTMENTS	AKARY	WOOL	141031	2
Glass and Ceramic Industries				
UNITED GLASS INDUSTRIES	UNITED GLASS IND	UNGI	141075	2
INTERNATIONAL CERAMIC INDUSTRIES	INDL CERAMIC	ICER	141078	1
JORDAN CERAMIC INDUSTRIES	JOR CERAMIC FAC	JOCF	141015	2