

https://dspace.org/

The Effect of CEO Characteristics on Firm performance and capital structure

Walla, Victoria

2019

https://hdl.handle.net/10539/28459

Walla, Victoria. (2019). The effect of CEO characteristics on firm performance and capital structure. University of the Witwatersrand, http://wiredspace.wits.ac.za/handle/10539/2845

Downloaded from a DSpace repository. https://dspace.org/



The Effect of CEO Characteristics on Firm Performance and Capital Structure

Thesis submitted for the Master of Management in the Field of Finance and Investment

Name: Victoria Walla
Student Number: 1757682
Supervisor: Professor Odongo Kodongo

Wits Business School
Faculty of Commerce, Law and Management
Wits Business School
2 St. David's Place, Parktown, Johannesburg 2193
P.O Box 98, Wits 2050, South Africa

Thesis submitted in fulfilment of the requirements for the degree of

MASTER OF MANAGEMENT IN FINANCE AND INVESTMENT

in the

FACULTY OF COMMERCE, LAW AND MANAGEMENT
WITS BUSINESS SCHOOL

at the

UNIVERSITY OF THE WITWATERSRAND

DECLARATION

I, Victoria Walla, the undersigned declare that the research work reported in this dissertation is my own, except where otherwise indicated and acknowledged. It is submitted to fulfil the requirements for the Masters of Management in Finance and Investment degree at the University of the Witwatersrand, Johannesburg. This thesis has not, either in whole or in part, been submitted for a degree or diploma to any other institution or university for a similar qualification.

27.05.2019
Date signed

V. Walla
Victoria Walla

Acknowledgements

Firstly, I would like to show my appreciation and gratitude to my research supervisor Professor Odongo Kodongo. I am very grateful for his continuous guidance throughout my research. I would especially like to thank him for his patience and his constant, detailed and insightful comments on my work.

Also, I would like to take this opportunity to thank my fiancé for his wonderful support and encouragement not only during my thesis, but throughout my entire master's degree.

Lastly, I would like to express my gratitude to my parents, who have always supported me and gave me this great opportunity to study a master's degree.

Abstract

The Chief Executive Officer (CEO) of a company is undoubtedly the most important person in not only driving the day to day operations of a business but most importantly the company's strategy. CEOs therefore have a crucial impact on a firm's financial performance as well as the firm's capital structure. Especially in emerging markets, this relationship has been given little attention and has so far not been researched. This paper investigated the link between a CEO's characteristics and the firm's performance as well as the capital structure. A CEO's age, gender, tenure and education level were used as the CEO's characteristics. Their effect on the company was compared in emerging markets and developed markets.

Samples were taken from companies in Mexico, Indonesia, South Africa and the US. The sample period was chosen to be from January 2014 to December 2017, containing a four-year period. System Generalised Methods of Moments as well as Ordinary Least Squares and Two-Stage Least Squares regression models were used to analyse the data.

Capital structure was measured through the debt-to-equity ratio and the long-term-debt-to-total-capitalisation ratio. Several firm specific variables were used in this regression, which include asset tangibility, profit, company size, sales growth, return-on-equity and price-to-book ratio. Profit, return-on-equity and return-on-assets were used as measures of firm performance. In this regression, asset tangibility, company size, sales growth, debt-to-assets ratio and price-to-book ratio were used as the firm specific variables.

It was found that older CEOs were linked to higher debt-to-equity ratios in all markets, while CEO tenure was a positive determinant of firm performance. Gender had different impacts in the emerging markets and the developed market. While in emerging markets, male CEOs were linked to a better firm performance, the opposite was found in the developed market. Additionally, the return on equity and the company's profit were significant determinants of firm performance. While return on equity was a negative determinant, profit was positively linked to firm performance.

Table of Contents

1 Introduction 1

1.1 Motivation & Background 1

1.2 Problem Statement 3

1.3 Research Question 4

1.4 Significance of the Study 4

1.5 Methodology Overview 5

1.6 Outline of the Rest of the Paper 5

2 Literature Review 6

2.1 Capital Structure Theory 6

2.1.1 Modigliani and Miller Theory 6

2.1.2 Static Trade Off Theory 6

2.1.3 Agency Cost Theory 7

2.2 Country Effect 8

2.3 Firm Determinants 9

2.4 Upper Echelon Theory 11

2.5 Manager's Impact on Capital Structure 11

2.6 Manager's Impact on Firm Performance 12

2.7 Corporate Governance Impact 16

3 Methodology 18

3.1 Introduction 18

3.2 Dependent Variables 18

3.3 Independent Variables 18

3.4 Population 20

3.5 Sample 21

3.6 Data 22

3.7 Data Analysis 23

4 Results 25

4.1 Indonesia 27

4.2 Mexico 34

4.3 South Africa 41

4.4 United States 48

4.5 Country Comparison 56

5 Conclusion 58

6 Further Research 59

7 Reference List 60

8 Appendix 66

A 1: Indonesian Companies 66

A 2: Mexican Companies 68

A 3: South African Companies 69

A 4: US Companies 70

List of Tables

Table 1: Previous research findings 21
Table 2: Sample sizes 21
Table 3: Average data per country 25
Table 4: Indonesian sample statistics 27
Table 5: Regression results using Debt to Equity level for Indonesia 28
Table 6: Regression results using Long-term Debt to Total Capitalisation level for Indonesia 29
Table 7: Regression results using Profit for Indonesia 30
Table 8: Regression results using Return on Equity for Indonesia 31
Table 9: Regression results using Return on Assets for Indonesia 32
Table 10: Mexican sample statistics 34
Table 11: Regression results using Debt to Equity level for Mexico 35
Table 12: Regression results using Long-term Debt to Total Capitalisation level for Mexico 36
Table 13: Regression results using Profit for Mexico 37
Table 14: Regression results using Return on Equity for Mexico 38
Table 15: Regression results using Return on Assets for Mexico 39
Table 16: South African sample statistics 41
Table 17: Regression results using Debt to Equity level for South Africa 42
Table 18: Regression results using Long-term Debt to Total Capitalisation level for South Africa 43
Table 19: Regression results using Profit for South Africa 44
Table 20: Regression results using Return on Equity for South Africa 45
Table 21: Regression results using Return on Assets for South Africa 46
Table 22: US sample statistics 48
Table 23: Regression results using Debt to Equity level for the US 49
Table 24: Regression results using Long-term Debt to Total Capitalisation level for the US 50
Table 25: Regression results using Profit for the US 52
Table 26: Regression results using Return on Equity for the US 53
Table 27: Regression results using Return on Assets for the US 55

1 Introduction

1.1 Motivation & Background

When evaluating a company's performance, literature generally tends to focus on the effects which attributes of a company, industry or economy as a whole have on performance. However, there has in the past been a move to also consider the effect of the management team on a company's performance. There have been several studies that link CEO and management characteristics to several performance indicators, including profits, strategic actions, capital raised and firm value (Child, 1974; Badru, Zaluki and Wan-Hussin, 2017; Dirk, 2016; Wang et al., 2016). With executive management being the key agent in guiding the major decisions and strategy in a company, the management team, and especially the CEO of a company, undoubtedly have an impact on the company's performance.

CEOs pride themselves in the knowledge and business acumen that they have accumulated through numerous years of experience. Historically, the older and more experienced a manager was, the more valuable he was for a company. It was believed that years of management experience would positively affect a company's performance, including its optimal leverage ratio. However, in recent years, the public has seen an increase and hype in young CEOs in their thirties leading large multinational organisations.[1]

A company's key measurements for evaluations include the firm performance and the leverage of the company. This study first looked at the link between CEO characteristics and firm performance to find out whether CEOs and their measurable characteristics affect a company's performance. Firm performance was evaluated in terms of profit, return on equity and return on assets, which was adapted from Child's paper (1974).

[1] Examples include Keith Cozza, who in 2014 at the age of 34 became CEO of Icahn Enterprises L.P., having the previous 8 years been their CFO ("Company Overview of Icahn Enterprises L.P.", n.d.). Icahn Enterprises is a holding company, that operates in for example the automotive, investment and energy industries ("Icahn Enterprises LP", n.d.). The company has been on the Fortune 500 list for the past 10 years and made an annual profit of $2.4 billion in 2017 ("Fortune 500 – Icahn Enterprises", n.d.). Another example is Jochen Zeitz, who became the CEO of Puma when he was only 30 years old. During his time as CEO, the share price of Puma increased by over 4000 percent and Puma became one of the main global players in the sports industry ("Jochen Zeitz", n.d.).

Secondly, this study evaluated the effect that CEOs have on the ongoing debate of the optimum level of debt and equity for a firm. Studies such as Bertrand and Schoar (2003) have shown that changes in management have a significant impact on the profitability and capital structure of a firm. Their study used Forbes 800 companies and financial data between 1969 and 1999. The study found for example that some managers favour external growth, while other favour internal growth. Additionally, they showed that managers differ in the aggressiveness of their financing choice, which affects the leverage and cash levels of the company they work for. They also found that older managers and managers without a Master of Business Administration (MBA) are associated with lower investment and leverage levels in a company, which can be interpreted as them being more conservative and less risk taking. The study was one of the first that focused on the linkage between managers' characteristics and the levels of debt and equity in their company. This new study looked at a similar linkage by analysing how the measurable characteristics of a CEO have an impact on the capital structure of their company.

CEOs are the most powerful people in both the daily and strategic operations of a company. They actively shape the strategic actions of a business, such as acquisition, sales or purchases and debt levels. At the same time, they also lead the day to day operations of the business. The upper echelon theory shows that CEO characteristics shape their decision making. Therefore, CEO characteristics should affect both the operational as well as strategic decisions that CEOs make, affecting the operations and strategy of the whole company. This should influence the firm's performance and its capital structure.

Bertrand and Schoar's (2003) study gave extensive insights into the importance of not only changes in managers but also manager's characteristics, such as age and whether they have an MBA, on the profitability and leverage of a company. However, their research focused solely on American Fortune companies, which are the 500 highest revenue generating corporations globally, and used data that is nearly 20 years old today. There has so far been very little updated research into the relationship between CEO/management characteristics and capital structure of companies. Additionally, most research in capital structure that has been done, was conducted in developed nations, mainly the US and the EU. For example, Rajan and Zingales (1995) used Group of Seven (G7) data, which is made up of Canada, France, Germany Italy, Japan, the United Kingdom and the United State, while Titman and Wessels (1988) focused on US companies to examine factors that affect the capital structure of a firm.

Therefore, there is a need to look at the effects that CEOs have on a company's financial performance in emerging markets, compared to more advanced economies. It is of great interest to see how the effects of CEOs could be different based on how developed the countries that their companies are based in are. This study tried to fill this gap.

By studying the relationship between some of the measurable characteristics of CEOs and firm performance as well as the relationship between these CEO characteristics and the capital structure of their companies, this study sheds light onto this not only understudied but also often overlooked linkage.

1.2 Problem Statement

This paper aims to find out whether a manager's personal characteristics (age, tenure, gender and education) have an effect on the company's leverage as well as the firm's performance.

A firm's performance, especially its profits and return on equity, is a key indicator for both investors and lenders. It gives insights regarding how well the company is operating and most importantly tells the owners of the company how much return they are getting from the company. To lenders as well as analysts it shows whether the company is liquid and able to pay back any debt obligations.

The capital structure of a company is not only one of the key indicators for owners and investors, but also shows how well a company is utilising the funds that it has available as well as whether the company could face any potential solvency problems now or in the future.

Evaluating the link between CEOs and the capital structure of a company is important, as it explains differences between a firm's performance and its capital structure, which are due to different CEOs, which have different characteristics. Currently, the linkage between a CEO's characteristics and the performance and capital structure of his or her company is often overlooked by analysts and company shareholders.

Furthermore, the literature review shows that this relationship has been studied in a very limited country and time spectrum. Most studies on the topic have been conducted in developed countries, using the US and some of the EU countries, while only a very limited amount of research was so far conducted in emerging countries. Additionally, most research

has been conducted using data that is now relatively old, showing a need to study the relationship in our current time with newer data.

The knowledge from this study could be very valuable in order to better analyse and evaluate a company, possibly predicting a firm's future strategic trends, based on its CEO's characteristics.

1.3 Research Question

- What is the effect of CEO characteristics on firm performance and the capital structure of a company?
- Does this link differ between developed and emerging markets?

The relationship between CEO characteristics and firm performance as well as the firm's capital structure has in the past not been studied fully. Additionally, previous literature has often excluded emerging markets and looked at one developed market in isolation. The first objective of this study was to find if and in what direction certain CEO characteristics impact the firm's performance and capital structure. The second objective was then to find out if this relationship is different between developed and emerging countries.

1.4 Significance of the Study

As Bertrand and Schoar (2003) as well as Hambrick and Mason (1984) have shown, management has an important impact on a company's performance. Therefore, when evaluating a company, one needs to take into account its CEO and the effect he or she has on the company's strategy, which ultimately impacts its performance. By knowing that certain CEO characteristics are linked to certain performance outcomes, one can then use this knowledge to predict that a CEO with these characteristics is likely going to take the company in a certain strategic direction, impacting its firm performance.

The strategic direction was measured in this study through both a relatively more short-term focus (profit, return on assets and return on equity) and a relatively long-term measure (debt-to-equity ratio and long-term-debt-to-total-capitalisation ratio). This study gives insight into which specific CEO characteristics lead to high or low firm performance and leverage levels in a company and whether there are any differences in this link between developed and emerging economies. Emerging markets have in the past often not been included in capital

structure determinants studies. By now focusing on the emerging markets, especially the MINT countries (Mexico, Indonesia, Nigeria, Turkey) as well as South Africa, this study gives information on the management related determinants, which are based on the CEO characteristics, of capital structure and firm performance in an emerging market.

1.5 Methodology Overview

To study the link between a CEO's characteristics and the capital structure of a company, this study collected data from developing countries, by looking at two of the MINT countries, Mexico and Indonesia, as well as South Africa and the US, as an example of a developed country. Information from these countries' listed companies was collected from Bloomberg and company websites.

The independent variables included the CEOs' age, tenure, gender and education level. The dependent variable in this study was the firm's performance, measured by profit, return on equity and return on assets. In this regression, asset tangibility, company size, sales growth, debt-to-assets ratio and price-to-book ratio were used as the firm specific variables. The debt-to-equity ratio as well as the long-term-debt-to-total-capitalisation ratio were used as the dependent variable and as a measure of the capital structure. Several firm specific variables were used in the capital structure regressions, which include asset tangibility, profit, company size, sales growth, return-on-equity and price-to-book ratio.

The Bloomberg platform was used as the data source in this study. Then a regression analysis, more specifically Ordinary Least Squares, System Generalised Moments of Methods and Two-Stage Least Squares regressions, was used to determine whether there is a link between the CEO characteristics and the capital structure.

1.6 Outline of the Rest of the Paper

This paper now continues with an overview of the theory and literature on capital structure. Additionally, the agency cost and upper echelon theory are explained to understand the link between a manager's characteristics and the effect those have on the company. After that, the methodology and data collection that was used is outlined. Following that, the results are presented, analysed and critically discussed.

2 Literature Review

2.1 Capital Structure Theory

The capital structure of a firm describes its choice of financing between either debt or equity Titman and Wessels (1988). Companies can raise capital either externally, by getting funding from debtors or new share issues, or internally, by investing profits back into the company instead of giving them to the shareholders (Cekrezi, 2013). Companies try to have the right balance of debt and equity in order to maximise shareholder wealth (Cekrezi, 2013). This includes maximising the profits of the company as well as the value of it.

2.1.1 Modigliani and Miller Theory

The most famous capital structure theory is the Modigliani and Miller model. Modigliani and Miller argued that the capital structure that a firm chooses does not influence its value under perfect market conditions (Modigliani & Miller, 1958). Their theory is therefore called the Irrelevance Theorem (Cekrezi, 2013). The Modigliani and Miller theorem is based on several assumptions, which include no taxes, brokerage costs, bankruptcy costs or information asymmetry between investors and managers (Modigliani & Miller, 1958). Additionally, all firms and individuals can borrow money at the same interest rate (Modigliani & Miller, 1958).

Due to these assumptions, the Modigliani and Miller model has been criticised over the years, especially because in its initial form it assumed a tax-free environment (Javos & Bartosova, 2015). Corporate taxes were therefore later included in a revised theory (Modigliani & Miller, 1963).

2.1.2 Static Trade Off Theory

The static trade-off theory is another capital structure theory which says that a company has a target leverage ratio which it constantly tries to achieve (Myers, 1984). The trade-off theory weighs up benefits and disadvantages of debt to create the optimal capital structure of a company (Cekrezi, 2013). It is an extension of the Modigliani and Miller proposition, which ignores taxes, bankruptcy costs and agency theory. The trade-off theory accepts that leverage creates tax benefits, as its interest payments are tax deductible. Hence, this theory tends to favour debt over equity until the optimal capital structure is reached. However, the theory also

includes agency and bankruptcy or financial distress costs, which need to be considered in the trade-off between the benefits and risks of debt.

Taxes strongly affect the choice between debt and equity as interest on debt is tax deductible under IFRS and GAAP (Myers, 2001). Using debt instead of equity therefore increases the value of the firm. According to the trade-off theory, a company will keep increasing its debt for financing until the marginal value of its tax shield is equal to the increase of the possible financial distress cost, which is incurred when the additional debt is borrowed (Myers, 2001). Financial distress costs describe any costs that are incurred when the company faces bankruptcy, including legal and administrative costs. Hence, risky companies should be borrowing less when compared to safe companies, as the financial distress cost should be kept below the tax shield advantages from the debt (Myers, 1984).

2.1.3 Agency Cost Theory

The agency cost principle describes the costs of conflict between different stakeholders of a company. Firstly, there is a conflict that arises as shareholders employ a management team which does not own the business to run their business. The agency cost principle highlights difficulties that company owners have in making sure that their company is run in their best interest by the appointed executive management team (Berger & Bonaccorsi di Patti, 2006). As managers rarely hold 100% of the total ownership of the company, they do not gain the total profits of the company, but still need to bear the costs of running the business (Harris and Raviv, 1991).

The agency cost arises, as managers are more likely to maximise their own benefits of running the company instead of maximising the owners' wealth (Ghazouani, 2013). It is in the human nature for managers to first increase both their own monetary (salary and bonus) and personal (prestige and power) gains from working for the company, before considering shareholders. In terms of personal benefits, managers for example make "wasteful" expenses in the company, such as renovating their offices regularly. However, a much larger issue can arise due to the managers' compensation, especially the bonus payment, which usually tends to focus on short term profits and value of the company. Growth is therefore a key goal for managers, as it not only increases their bonuses but also the number of resources they control (Jensen, 1986). However, if this growth is done in an aggressive or too large scale, it could hurt shareholders, by increasing the risk that the company faces.

Furthermore, when it comes to financing growth, it might be more personally profitable for managers to increase equity instead of debt, as interest payments hurt their bonus, which is based on profits (Harris and Raviv, 1991). However, for the owners of the company, debt is often more beneficial, as it does not liquidate their ownership share and is tax deductible which allows to owner to lower his tax liability.

Literature shows that a certain capital structure can reduce the agency cost. Berger and Bonaccorsi di Patti (2006) found that a higher leverage level can minimise the agency cost that arises from the separation of ownership and management of a company. When leverage increases to a very high point, the agency cost of debt can get greater than the agency cost of equity, which results in the overall agency cost for the company increasing.

Additionally, an agency cost between debtholders and equity holders also exists. This occurs due to equity holders getting the benefits of taking on risky projects, while the debtholders bear the risks, if the company goes bankrupt after undergoing a risky undertaking (Harris & Raviv, 1991). Therefore, this agency cost only arises if the company has a chance of default risk, as in this situation, equity holders can gain when the value of its debt falls (Myers, 2001). Due to this agency cost, it has been found that as a firm increases its risk, bondholders will require higher interest rates (Leland, 1994).

2.2 Country Effect

The country that a company is based in has been found to impact the leverage of that company. Harris and Raviv (1991) found that the average debt-to-asset ratio of firms differs strongly between the US, Germany and the UK and that Germany and the UK had the lowest leverage ratio out of the G7 countries. This shows that leverage ratios of companies are influenced by the country, in which the firm is placed (Myers, 2001).

Rajan and Zingales (1995) showed that certain country attributes significantly affect the capital structure of companies that operate in that country. He specifically found that a country's tax levels, bankruptcy laws and whether the country is bank or market oriented has an effect on its companies' leverage. Bank oriented countries such as Germany allow their

banks to both lend to a company and own equity in it, while market oriented countries such as the United Kingdom have limits and restrictions on these actions.

Wald (1999) extended this study and looked in more detail at country factors of France, Germany, Japan, the UK and the US, that impact the capital structure of companies. He found that a company's size has a different effect on the leverage in different countries. While in Germany, large companies had a smaller debt-to-asset ratio, the opposite was found in the US, France, Japan and the UK. Additionally, only in the US was high growth linked to a lower leverage ratio. Average profitability and riskiness of a company also varied greatly between the five countries. Wald (1999) explained these differences through dissimilar agency costs as well as tax laws in the different countries. This means that institutions in a country have a significant effect on the capital structure of a company that is operating in that country.

Antoniou, Guney and Paudayal (2008) found that the market conditions of a country affect the leverage level of the firms, that are based within the country. The regulations in a country impact the tax rate as well as the pay-out ratios. As these are factors that have an effect on the capital structure of a company, the paper found that corporate governance regulations, tax laws, corporate markets, the banking industry and property rights affect the leverage level of firms.

2.3 Firm Determinants

The capital structure of a company has been found to be effected by several determinants. Rajan and Zingales (1995) as well as Frank and Goyal (2009) found that a company's profitability negatively impacts its debt ratio. This finding was supported by Wald (1999), which explained that profitability is the most important determinant of debt ratios in a company. Pandey (2001) investigated the effect of profitability on the capital structure in the emerging market of Malaysia. They also found that profitability has a negative relationship with the debt-to-equity ratio.

Additionally, Frank and Goyal (2009) also found several other firm determinants for the capital structure of a company. The log of assets had a positive effect on the company's leverage, while the market-to-book-asset ratio impacted the leverage negatively.

The ownership structure of the company also plays an important role. Rajan and Zingales (1995) found that a company's ownership concentration negatively impacts its debt ratio. Harris and Raviv (1991) showed that management's equity ownership and a company's performance affect the capital structure of a company.

Firms with higher risk should have less leverage compared to other companies (Myers, 1984). Here, risk is defined as the variance in market value of a company. Therefore, a high variance in the market value signals a high likelihood of default, leading firms to borrow less. This finding was also supported by Pandey (2001) who found that risk was negatively related to debt ratios in the Malaysian market.

Firms that have a higher proportion of tangible assets have been found to hold larger levels of debt. This was supported by Charalambakis and Psychoyios (2012) as well as Frank and Goyal (2009), who found that a higher proportion of tangible assets is positively related to the debt-to-asset ratio. This finding was also seen by Pandey (2001) in the Malaysian market.

A company's size was found to have mixed impacts on the capital structure of it. Titman and Wessels (1988) showed that a larger company size was linked to lower levels of debt ratios. On the other hand, Frank and Goyal (2009) continued this research and found that firms that have a larger size tend to have a higher leverage ratio. Pandey (2001) found a similar relationship in the emerging market Malaysia, where companies with a bigger size were linked to having a higher debt-to-equity ratio.

Additionally, several other firm characteristics have been found to impact the capital structure. Titman and Wessels (1988) found that the uniqueness of a company's line of business negatively affects the debt levels of the company. Additionally, they showed that transaction costs were a determinant of a company's capital structure. Frank and Goyal (2009) extended this research and found that firms that are in high average leverage industries tend to have a higher leverage ratio. Firms that have a high market-to-book ratio or pay dividends tend to have lower leverage ratios. Harris and Raviv (1991) showed that bankruptcy provisions also have an impact on the capital structure of a company.

2.4 Upper Echelon Theory

The upper echelon theory says that managers and their characteristics are directly linked to a firm's performance (Wang, Homes, Oh & Zhu, 2016). This is due to CEOs and the rest of the executive management team directing the strategic decisions of the company, which affects the performance of the company. The upper echelon theory argues that the decisions that the management team makes are influenced by their characteristics, including their personality, values and experience (Hambrick & Mason, 1984). Their personality traits and cognitive foundations affect their perception and interpretation, which impacts how they react to strategic issues they face (Hambrick, 2007).

2.5 Manager's Impact on Capital Structure

Agency cost describes the impact that managers' decisions have on a company's capital structure. Managers' risk appetite, their decisions on maximising debt tax shields and their bonus systems, which are often based on profits, all impact their decision-making when it comes to the capital structure of a company. Hambrick (2007) found that especially a manager's experience and personality affects their decision making.

The upper echelon theory explains that younger managers are more risk-taking than older managers, which is visible through more volatile earnings as well as higher growth (Hambrick & Mason, 1984). Additionally, Hambrick and Mason (1984) also looked at whether long experience within the company versus outside experience has an effect on the risk appetite of managers as well as the company's profitability and growth. They argued that inside experience would be more beneficial during stable economic times, whereas outside experience would be better when the company is facing sizeable problems. Their study shows that a manager's experience fundamentally affects its strategic direction, thereby affecting the strategy of the company as a whole.

Based on this, managers' experience has been found to impact the capital structure of a firm, as this is also a strategic choice which managers make. Matemilola, Ariffin, Saini and Nassir (2017) researched this link in listed companies in Malaysia. They found that a manager's number of years of experience is positively related to the book-total-debt ratio, which is the ratio of total-debt-over-total-equity, as well as the long-term debt ratio, which is the long-term

debt over total-equity ratio. This was explained by arguing that more experienced managers would strive harder to optimise the tax shield benefit of taking on debt, hence taking on more debt for their companies. Their study was one of the very few capital structure determinant studies that was done in a developing country. However, they did not look at the type of experience that managers have but only the number of years of experience they have.

Li, Munir, and Karim (2017) investigated the relationship between the decision-making power of CEOs and the capital structure of the company they work for, using data from listed SMEs in China. They found a strong non-linear relationship between the two. The debt ratio levels were increasing as CEO power was increasing up to a turning point, after which the debt ratio was decreasing, even though CEO power was increasing further. These results were explained with an increase in leverage improving the free cash flow, which then reduces the agency cost. This works well while CEOs have little power. However, after a certain point they start to misuse the power and trust they have earned through the low agency cost and start to follow their own interests. Hence, they lower the leverage, as they benefit from a better cash flow and lower bankruptcy risk.

Malmendier, Tate and Yan (2010) studied the link between manager confidence and other characteristics to the capital structure of a firm. They found that managers, who were overconfident, rely more on internal capital and subsequently issue little equity. Additionally, CEOs, who have in the past had military experience, were more aggressive with their policies, which resulted in higher leverage. CEOs who battled with depression, were less optimistic about the development of the capital markets, and therefore preferred to focus on internal financing more.

2.6 Manager's Impact on Firm Performance

A meta-analysis by Wang et al. (2016) combined the current research that is linking CEO characteristics to firm strategic actions. Firm strategic actions have a positive relationship on a company's future performance, including growth, profitability and efficiency of the company. It was found that CEO tenure is negatively related to firm strategic actions but positively to firm performance. The formal education, previous experience and age of CEOs is positively related to firm strategic actions and firm performance. However, CEO personality had mixed results with regards to its impact on strategic actions, apart from CEO charisma, which

positively affects strategic actions. Furthermore, they found that the firm-strategic actions influence the performance of the company.

There have been several other studies, which found links between management characteristics and organisational performance of a company. Child (1974) for example found that younger managers are associated with higher profit growth. He used solely British firms and their executive teams in his study. Agle, Sonnenfeld and Srinivasan (2006) showed that organisational performance was associated with CEO charisma in major US firms. Overconfidence of the top management team has also been found to negatively affect a firm's value, while appropriate confidence positively affects the value of a firm (Li and Lang, 2014). Their study was based on data from the Shanghai Stock Exchange and examined a manager's confidence based on changes to their shareholding of the company.

Additionally, there have been many other studies which focused on the effect of management characteristics on other firm variables. For example, Liu and Jiraporn (2010) found that CEO's decision-making power affects the bond ratings and yield spread of the companies they work for. Firms with CEOs who had more decision power also had higher yield spreads and lower ratings than firms with CEOs who had very little decision power.

Linked to this, Jiraporn (2008) showed that CEO dominance among the firm's executives impacted the capital structure of the company. CEOs with more dominance were found to keep lower leverage levels in their firms compared to CEOs with less dominance over the other executives. This can be explained by CEOs wanting to increase cash flows, which tends to result in higher benefits as well as lower the risk of firm bankruptcy, which arises when the firm keeps high leverage. This shows that firms which have CEOs with more dominance, have a higher agency cost problem. Additionally, the study found that the effect of leverage on the firm's performance was more strongly negative in firms that had CEOs with higher dominance levels.

Badru, Zaluki and Wan-Hussin (2017) looked at the effect that the board as well as CEO characteristics have on a company's Initial Public Offering (IPO) capital raised. Their study was performed in a developing market (Malaysia). They found that CEO duality has a positive effect on the raised capital. CEO duality gives the CEO more power, hence signalling to investors that the company has a strong leadership. Having a strong leadership allows the

CEO to make decisions quicker and more efficient, which makes it easier for the CEO to ensure that the IPO is a success. Hence, this study showed the strong importance of CEO power on a firm's performance in terms of capital that was raised.

Bertrand and Schoar (2003) looked at several manager characteristics and their impact on certain firm variables. This study found that older managers were more conservative, while MBA holders were more aggressive. Additionally, they found that the manager style was an important determinant for the manager fixed effects on performance. The study used US companies until 1999 and showed that manager characteristics affect the company's performance, as it impacts the strategic direction of the firm.

Similar to Betrand and Schoar (2003), Queiro (2016) also researched whether the education level of executive managers had any impact on the firm's performance. In particular, Queiro (2016) focused on the effect that the education level has on a firm's growth. He found that companies that employ more educated managers were linked to significantly higher growth rates. Additionally, companies that started employing more educated managers experienced an increase in growth. However, this study defined growth as the change in employment, given as an annual percentage figure, and not as a financial number.

Several studies have already looked at the effect that CEO characteristics have on the firm value. For example, Diks (2016) studied whether CEO characteristics affect the firm value. He found that the higher an executive's equity compensation, the more the firm value increases. Older managers led to lower firm value, however CEO tenure was positively related to firm value. The study also found a small correlation between CEO gender and firm value, with female CEOs increasing the firm value.

Similar to this, a study by Campbell and Minguez Vera (2009) found a significant correlation between female board members and increased firm value. They looked at the link between female new board appointments and the effect this change has on the value of Spanish firms. The study used the Tobin's Q as a measure of firm value. They found that companies having a higher number of female board members are linked to a higher firm value. Furthermore, introducing a new female board member was found to increase the firm's Tobin's Q.

Peni (2012) also looked at the link between CEO characteristics and the Tobin's Q. They investigated whether several CEO characteristics have an impact on the financial performance of S&P 500 firms, measured by the return-on-assets ratio and the Tobin's Q. The study found that female executives as well as more experienced executives were linked to a better company performance. The age of the CEO was found to have no impact on the return on assets. Additionally, the "busyness" of a CEO, which the study measured as the number of board seats that the CEO holds, had a negative impact on the company's Tobin's Q.

Eduardo and Poole (2016) focused more on the market performance of a company and studied whether CEO gender and age has an effect on the company market performance. Company market performance was measured as the cumulative abnormal monthly return on stocks that a company showed for a year after a new CEO was appointed. The study showed that these returns on stocks were slightly higher when the company appointed a female CEO when compared to a male CEO. Age was found to not be a significant determinant of the stock returns.

Gorts (2016) investigated whether there is a link between CEO characteristics and the corporate financial strategy of American public companies. In this study, corporate financial strategy was determined by the measures of dividend, debt, research and development expenses and capital expenses of the companies. He found that tenure was the most important determinant, followed by gender, director ownership and whether the CEO was a founder of the company. Age was seen to have no significant impact on the financial strategy of the company.

Interestingly, a paper by Kuo and Wang (2015) investigated whether there is a relationship between a CEO's constellation, which was taken as a proxy for the psychological nature of the CEO, and the company's leverage, market-to-book ratio and return on assets. Their paper showed that CEOs with the Leo constellation are more likely to be in highly leveraged firms compared to Virgo CEOs, which tend to have lower leverage in their companies. Also, Virgo CEOs were more often found in companies with a higher return on assets, while Pisces CEOs likely had a higher market-to-book ratio in their companies.

2.7 Corporate Governance Impact

There has been some research into the effect that corporate governance has on the capital structure of a company (Goel & Sapra, 2015). Board composition impacts the capital structure of a company greatly. More specifically, the size of the board of the company affects the cost of debt that that a company has to pay (Andersen, Mansi, Reeb, 2004). A larger board size lowers the cost of debt, which therefore leads to a more leveraged capital structure in a firm.

Naseem, Zhang, Malik and Rehman (2017) support this finding by researching that the board size has a positive impact on the leverage ratio of a company. This means that companies with larger boards are likely to have a higher debt-to-equity ratio. Additionally, their study also showed that managerial ownership was positively linked to the debt-to-equity ratio. Their study was done using Pakistani listed companies.

CEO tenure, or the number of years that a CEO has been in his position, affects the leverage levels of a company. CEOs that have a longer tenure are associated with lower leverage levels (Wen, Rwegasira & Bilderbeek, 2002). These CEOs prefer lower leverage levels, to reduce the burden that interest payments have on the company's financial performance.

Additionally, CEO compensation impacts capital structure. A higher fixed income portion compared to the bonus portion is linked to lower leverage levels (Wen, Rwegasira & Bilderbeek, 2002). This was found from data of listed Chinese firms and is explained by CEOs taking on less financial risk when their fixed income makes up a large portion of their compensation. Contradicting this view, Tosun (2016) found that when the variable bonus compensation of CEOs increases, the companies see a decrease in their leverage. This can be explained through the debt agency theory.

Alves, Couto and Francisco (2015) studied the relationship between the board of director's composition and the capital structure of the firm. They found that firms, whose boards are made up of indirect directors, had more external capital. This is due to a diversified board of directors being able to lower the information asymmetry between the management of the company and the investors of the company. As a result of this lowering of information asymmetry, firms are more likely to take on risk, allowing them to choose the riskier capital (long term debt and equity). This was then shown in the findings of the study, which were that these firms have more short-term debt than retained earnings and even more long-term debt.

Having both male and female board members also led to the firm using more long-term financing. This can be explained by the diversified board increasing the efficiency and independence of the board, allowing it to focus more on long-term financing.

3 Methodology

3.1 Introduction

This study analyses the link between a CEO's characteristics and the firm performance and capital structure of a company. Firm performance was measured in terms of profit, return on equity and return on assets. The capital structure was measured as the debt-to-equity ratio and the long-term-debt-to-total-capitalisation ratio. The study used secondary data of emerging countries from different continents (South Africa, Indonesia, Mexico) and the US, as a developed country.

3.2 Dependent Variables

The dependent variables in this study were the firm's performance and the capital structure. For the firm's performance, the measures were adapted from Child's (1974) study, which measures income, assets and sales turnover. These were updated to profit, return on equity and the return on assets. More specifically, these measures were calculated as follows:

1. $Profit = \frac{EBITDA}{Total\ Assets}$
2. $Return\ on\ Equity = \frac{Net\ Income}{Total\ Equity}$
3. $Return\ on\ Assets = \frac{Net\ Income}{Total\ Assets}$

The capital structure was measured through the debt-to-equity as well as the long-term-debt-to-total-capitalisation ratio. This is following Matemilola, Bany-Ariffin, Azman-Saini and Nassir's (2018) research. The formulas for these measures are:

4. $Debt\ to\ Equity\ ratio = \frac{Total\ Debt}{Total\ Equity}$
5. $Long-Term\ Debt\ to\ Total\ Capitalisation\ ratio = \frac{Long-Term\ Debt}{Long-Term\ Debt+Total\ Equity}$

3.3 Independent Variables

The independent variables included the CEO's chronological age, which is measured as number of years. The CEO's tenure was measured as the number of years that the CEO has worked as the CEO in the company. The CEO's gender was coded into 1, being male, and 0,

being female. The education level was coded into 2 different categories. Undergraduate degrees were coded as a 0. Postgraduate degrees were coded as a 1. Included in the postgraduate degrees were the Master degree, MBA, PhD and the Postgraduate Diploma as well as several country specific degrees. The Chartered Accountant (CA), Chartered Financial Analyst (CFA) and Certified Public Accountant (CPA) qualifications were relevant postgraduate degrees in the US and South Africa. Additionally, the Juris Doctor (JD) and the Master of Laws (LLM) were included as postgraduate qualifications in the US.

Additionally, several non-CEO related company measures were included as independent variables, as they might have an effect on both the capital structure as well as the firm performance.

In the debt-to-equity level regression and in the long-term debt to total capitalisation regression, profit, company size and return on equity were endogenous variables. All the CEO characteristics as well as asset tangibility, sales growth and the price-to-book ratio were exogenous variables. These measures were adapted following Matemilola, Bany-Ariffin, Azman-Saini and Nassir's (2018) research on the factors influencing the capital structure of Malaysian companies.

In the profit, return-on-assets and return-on-equity regressions, asset tangibility, company size and debt-to-assets were endogenous variables. All the CEO characteristics as well as the sales growth and the price-to-book ratio were exogenous variables.

These company related measures were calculated as follows:

6. $Asset\ Tangibility = \frac{Property,Plant\ \&\ Equipment}{Book\ Value\ of\ Total\ Assets}$

Companies can use fixed assets, such as property, plant and equipment, as collateral to be able to raise debt (Frank & Goyal, 2009). Therefore, in order for a company to obtain more debt, one would expect to see an increase in their fixed assets. Hence, it was expected, that asset tangibility will be positively related to the capital structure ratios.

7. $Profit = \frac{EBITDA}{Book\ Value\ of\ Total\ Assets}$

Profits can be used by companies to pay the interest of their debt. Therefore, the higher a company's profits are, the more likely the company is to raise its debt. It was expected that profit has a positive relationship with both debt ratios.

8. $Size = Log\ of\ Revenues$

Bigger firms are less likely to be unable to repay their debt and go into bankruptcy (Frank & Goyal, 2009). Therefore, it was expected that the size of the company is positively related to the capital structure and the firm performance indicators. The company size was included following Pratheepans's (2014) paper.

9. $Price\ to\ Book\ Ratio = \frac{Book\ Value\ of\ Debt + Market\ Value\ of\ Equity}{Book\ Value\ of\ Total\ Assets}$

The price-to-book ratio is a proxy variable for the growth opportunities of a company. The price-to-book ratio as well as the debt-to-assets ratio were included based on Kuo and Wang (2015). The formula for the debt-to-assets ratio is:

10. $Debt\ to\ Assets\ Ratio = \frac{Total\ Debt}{Total\ Assets}$

The sales growth of the companies was used in order to track the changes of the company over the years. The formula for it is:

11. $Sales\ Growth = \frac{Revenue(n) - Revenue(n-1)}{Revenue(n-1)}$

3.4 Population

The population included listed companies of several developing countries as well as the US as a developed country. The developing countries were South Africa, Indonesia and Mexico. While these do not form part of the famous BRIC nations, they belong to the newer MINT group (apart from South Africa), which describes countries that show a promising economic development for the future. Unfortunately, there was very little data on the CEO's age and education level present for the other two MINT countries, Nigeria and Turkey. Therefore, in order to achieve a significant sample size, these two countries were not included in the study.

The table below shows the countries that have been studied for a link between a CEO's characteristics and the firm's performance and capital structure. The findings from these studies are highlighted in the table. As can be seen in the table below, the mentioned developing countries (South Africa, Indonesia and Mexico) have so far not been fully researched, as there is very little information published on this subject in the chosen countries.

Table 1: Previous research findings

		Debt over Equity Ratio	Profit Growth	Volatility	Firm Performance	Firm Value
US	Age		-	-		-
US	Experience				+	
US	Education Level		+		+	
US	Tenure				+	
England	Age		-			
Malaysia	Tenure	+				+

The table reports an overview of the countries, in which the relationship between a CEO's characteristics and the capital structure of firm's performance has been studied. Additionally, this table also shows the findings of these studies. The positive sign indicates a positive relationship between the two variables, while the negative sign indicates a negative relationship.

3.5 Sample

The sample was made up of the listed companies in each country. Please see appendix 1 for a list of all companies. The following table gives an overview of the number of listed companies in each country as well as the sample size needed. The financial sector companies were excluded, as these companies tend to have a very different leverage ratio compared to other industries.

Table 2: Sample sizes

Country	**Number of listed companies**	**Sample Size**
Mexico	59	51
Indonesia	363	187
South Africa	310	172
US – New York Stock Exchange	1591	310

The sample sizes were calculated using the typical sample size calculation:

$$n = \frac{Z^2 pq}{e^2}$$

Here, e is the margin of error or confidence interval, which was decided to be 5%, p is the standard deviation, which is also 5%, while q = 1-p, Z is the Z score, which is given for a 95% confidence level, and is 1.96, n represents the sample size.

3.6 Data

The secondary data for the dependent variables was collected from Bloomberg, using the information that was published by the companies in their year-end financial statements. The dependent variables included the debt to equity ratio, long-term debt to total capitalisation ratio, profit, return on equity and return on assets. In order to calculate these, all information was taken from the financial statements of the companies, which are published in Bloomberg. The variables data collection was done for the years 2014-2017. This relatively short time period was chosen to ensure that the sample size is not too small. As included companies needed to have a CEO that had been in their position for the whole period 2014-2017, included CEOs needed to have a tenure of at least 5 years. As the data was collected in August 2018, a minimum tenure of 5 years ensures that the CEOs have had a one year period to start adjusting their leverage and financial positions. This was done following a finding by Celil and Kim (2014), whose research suggests that any changes in the leverage of a company in the first year of a new CEO appointment are not because of CEO characteristics. It was considered to increase the time period; however, this would have resulted in a very small sample for the regression.

The data for the independent variables was collected partially from Bloomberg and in part from published CEO's curriculum vitae. The CEO's tenure, age, gender and education level was collected from the relevant company's Bloomberg information section. This information was available for most companies. In order to find out more about the CEO's career experience in cases where Bloomberg gives no information, the CEO's curriculum vitae on their company's websites was used.

The CEOs and companies that were chosen for the initial sample had to fulfil a number for requirements: No companies with Co-CEOs were chosen. Data for all CEO characteristics

had to be available for the CEO. The CEO had to have been in their position for a minimum of 1 year. For the regressions, the minimum tenure was changed to 5 years.

3.7 Data Analysis

This study followed the data analysis model from Matemilola, Bany-Ariffin, Azman-Saini and Nassir (2018). The collected data was analysed using generalised method of moments (GMM). This is more appropriate than an ordinary least squares (OLS) regression analysis, which estimates the linear relationship between the independent variables and a dependent variable by finding the least sum of squared as the regression could be non-linear (Chumney & Simpson, 2006). Additionally, the GMM estimator takes into account endogeneity as well as reverse causality (Zshohar, 2012; Matemilola et al. (2018). The GMM estimator works by predicting the parameters of the objective through setting the sample moments to be as near to 0 as possible (Newey, 2007). It includes the fixed effects, which predicts controls for unobserved heterogeneity and is not included in the OLS (Flannery & Hankins, 2013).

In order to see how the Sys-GMM model was performing, when compared with other models, both the results from the OLS model as well as the two-stage least squares (2SLS) model were also given in this study. This allowed a comparison between the different regression models.

Due to the data set being a panel data set, the between estimator technique had to be used. This means that the regression was run using time-averaged values of the dependent variables of the years 2014-2017. For the independent variables, all CEOs with tenure of less than five years were filtered out. The CEO's tenure is measured as the number of years that the CEO has worked as the CEO in the given company. This is to ensure that during the studied time period, no changes in CEOs took place.

It is of importance to estimate the objective functions for each independent variable. The following equations were tested in the study.

1. $Debt\ to\ Equity\ Ratio = c_1*age + c_2*tenure + c_3*gender + c_4*education + c_5*asset\ tangibility + c_6*profit + c_7*size + c_8*sales\ growth + c_9*\ return\ on\ equity + c_{10}*price\ to\ book\ ratio + error\ term$

2. *Long-term Debt to Total Capitalisation Ratio = c_1*age + c_2*tenure + c_3*gender + c_4*education + c_5*asset tangibility + c_6*profit + c_7*size + c_8*sales growth + c_9* return on equity + c_{10}*price to book ratio + error term*

3. *Profit = c_1*age + c_2*tenure + c_3*gender + c_4*education + c_5*asset tangibility + c_6*size + c_7*sales growth + c_8*debt over equity ratio + c_9*debt over assets ratio + c_{10}* price to book ratio + error term*

4. *Return on Equity = c_1*age + c_2*tenure + c_3*gender + c_4*education + c_5*asset tangibility + c_6*size + c_7*sales growth + c_8*debt over equity ratio + c_9*debt over assets ratio + c_{10}* price to book ratio + error term*

5. *Return on Assets = c_1*age + c_2*tenure + c_3*gender + c_4*education + c_5*asset tangibility + c_6*size + c_7*sales growth + c_8*debt over equity ratio + c_9*debt over assets ratio + c_{10}*price to book ratio + error term*

4 Results

Table 3: Mean data per country

	Indonesia	Mexico	South Africa	US
CEO's average age	54,02	54,65	53,13	57,08
CEO's average tenure	8,63	12,04	7,09	8,04
Number of CEOs with a minimum tenure of 5 years	87	47	77	163
% of CEOs with undergraduate education	57,78%	49,02%	50,00%	40,00%
% of CEOs with postgraduate education	42,22%	50,98%	50,00%	60,00%
% of Male CEOs	94,44%	100,00%	96,02%	94,12%
% of Female CEOs	5,56%	0,00%	3,98%	5,88%
Average Debt to Equity	1,12	0,90	6,83	1,59
Average Profit	0,09	0,12	0,11	0,09
Average Return on Equity	4,33	7,72	10,08	13,00
Average Return on Assets	2,04	4,29	5,04	2,20

The table reports the average dependent variables and several independent variables, including the age and tenure as well as the percentage of female and male CEOs and the percentage of CEOs with undergraduate and postgraduate degrees. The data source is Bloomberg.

When comparing the four different countries, all of them have an average CEO age of more than 50 years. Interestingly, the US has the highest CEO age with 57,08 years. This could be due to the US having the highest life expectancy out of all the countries with 78.7 years, meaning that people are more likely to work longer in their jobs (Donnelly, 2018). Additionally, the higher CEO age in the US could also occur due to the higher human capital development in the US. The US has been ranked as the country with the 4th highest human capital development in the world (Fain, 2017). This means that due to the higher training and skills development that US employees receive, they rise to the top of the companies slower when compared to countries with a lower human capital development.

The average tenure of the CEOs is relatively similar for Indonesia, South Africa and the US between 7.09 and 8.63 years. However, CEOs in Mexico tend to stay in their jobs a significantly longer time with an average CEO tenure of 12.04 years.

Looking at the CEOs' education, Indonesian CEOs are slightly more likely to only have an undergraduate qualification, with 57,78% of Indonesian CEOs having only attained an undergraduate degree. Both Mexico and South Africa are nearly evenly split between CEOs that have an undergraduate degree and CEOs that have a postgraduate degree. CEOs in the

US, on the other hand, are more likely to have a postgraduate degree, with 60% reporting that they have a postgraduate qualification. These results are very interesting, especially with the recent popularity of the MBA, which has become known to be a requirement for many executive management positions.

When looking at the percentage of male to female CEOs in the different countries, one can clearly see that men are dominating the CEO positions, with the Mexican sample only reporting men, and the samples for Indonesia, South Africa and the US showing that more than 90% of CEOs are male. The small percentage of female CEOs makes it difficult to study the effect that gender has on both the capital structure as well as the firm performance of a company.

The average debt-to-equity ratio is relatively similar for Indonesia, Mexico and the US, ranging between 0.90-1.59. However, the average debt-to-equity ratio in the South African sample was considerably higher at 6.83, showing that South African companies clearly favour debt over equity.

The average profit in each country is the lowest in the US and Indonesia, with 0.09. Mexico and South Africa have slightly higher profits with 0.12 and 0.11 respectively.

The average return-on-equity ranges between 4.33 and 13, with Indonesia having the lowest return on equity, followed by Mexico, South Africa and finally the US, which has the highest return-on-equity ratio.

However, the return-on-assets ratio shows a very different trend. Here, the US and Indonesia are in the lower part of the range with averages of 2.20 and 2.04 respectively, while Mexico and South Africa are considerably higher with averages of 4.29 and 5.04 respectively.

The following sections show the results of the different regressions as well as information on the mean, median, maximum, minimum and standard deviation values for each country sample. Each country is first analysed separately and then comparisons between the countries are drawn.

4.1 Indonesia

Table 4: Indonesian sample statistics

	Mean	Median	Max	Min	SD
Size	5503165,827	321048,140	193259500,000	26,796	23102645,869
Sales Growth	0,069	0,011	2,202	-0,958	0,511
Profit	0,095	0,090	0,654	-0,066	0,092
Asset Tangibility	0,433	0,394	0,920	0,016	0,235
Debt over assets	0,343	0,291	2,973	0,000	0,418
Debt over equity	1,124	0,528	38,533	-2,373	4,178
LTD / TC	-0,039	0,136	3,163	-23,378	2,561
ROA (%)	2,045	2,407	40,588	-19,671	7,681
ROE (%)	4,333	5,515	113,059	-85,876	20,597
Price to book ratio	0,770	0,819	0,973	-0,480	0,199
Age	55,989	55,000	82,000	35,000	10,080
Tenure	15,323	12,650	76,000	5,100	11,135

The table reports the mean, median, maximum, minimum and standard deviation values for the variables in the Indonesian sample for the period of January 2014 to December 2017. The size figures are stated in millions of Indonesian Rupiah.

The table shows that that the sample of Indonesia companies is made up of some very diverse companies. The firm's size varies between very small companies (27 Million Rupiah[2]) to relatively large companies (193,259,500 Million Rupiah[3]). Additionally, some companies are having a sizeable profit margin, while some companies are making losses, which can be seen by the negative minimum value. This then causes the negative minimum values of the return-on-asset as well as the return-on-equity values. The range of CEO ages is relatively big, spanning from a minimum of 35 years to a maximum of 82. Lastly, when considering the maximum tenure and maximum age, it becomes clear, that some CEOs have started their positions at the age of 18. These CEOs were mostly the founders of their own companies, which they started at a very young age.

[2] This is equivalent to 1,881.04 US Dollars as of January 1st, 2019.
[3] This is equivalent to 13,566.54 million US Dollars as of January 1st, 2019.

Table 5: Regression results using Debt to Equity level for Indonesia

Independent variable	OLS		Sys GMM		2SLS	
Age	-0,002	(-0,053)	-0,014	(-0,605)	-0,051	(-1,216)
Tenure	-0,028	(-0,626)	-0,030	(-0,849)	-0,024	(-0,671)
Gender	-0,374	(-0,182)	-0,867	(-0,516)	0,861	(0,463)
Education	0,484	(0,463)	0,392	(0,504)	-0,193	(-0,220)
Asset Tangibility	2,498	(1,203)	2,232	(1,001)	0,627	(0,362)
Profit	2,593	(1,353)	2,711	(1,237)	3,826***	(1,498)
Size	0,120	(0,059)	0,116	(0,287)	1,393	(-0,764)
Sales Growth	-1,534	(-1,646)	-1,754	(-1,001)	-0,468	(-0,552)
ROE	-0,067*	(-1,761)	-0,067	(-1,122)	0,037	(1,270)
Price to Book ratio	1,594	(0,609)	0,562	(0,381)	0,535	(0,269)
R^2	0,127		0,129		0,467	
Adj-R^2	0,019		0,008		0,392	
DW	2,069		2,092		1,813	
No. of observations	83		83		82	

The table reports the regression results using the debt-to-equity level of the Indonesian company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

The characteristics of Indonesian CEOs are not significantly related to the debt-to-equity levels of their companies. This was seen by the high probabilities of the coefficients. However, the return-on-equity is a significant negative determinant of the debt-to-equity level in the OLS model. The coefficient for the return-on-equity relationship is -0.07 and the significance level is 10%. This means that the higher a company's return-on-equity is, the less debt compared to equity it has.

Also, the profit is a significant positive determinant of the debt-to-equity level in the 2SLS model. The coefficient for the profit relationship is 3.83 and it is significant at the 1% level. This means that the higher a company's profit is, the more debt compared to equity it has, suggesting, that profits are more likely to be funded through additional debt instead of equity.

Table 6: Regression results using Long-term-Debt-to-Total-Capitalisation level for Indonesia

Independent variable	OLS		Sys GMM		2SLS	
Age	-0,002	(-1,105)	-0,003	(-1,208)	0,005	(0,144)
Tenure	-0,002	(-0,767)	-0,002	(-1,044)	0,006	(0,193)
Gender	0,073	(0,731)	0,050	(0,436)	0,320	(0,212)
Education	-0,062	(-1,232)	-0,067	(-1,419)	0,644	(0,905)
Asset Tangibility	0,325***	(3,227)	0,312***	(3,561)	0,615	(0,437)
Profit	0,531*	(1,725)	0,536*	(1,900)	0,849	(0,205)
Size	0,021	(0,214)	0,021	(0,426)	0,247	(-0,167)
Sales Growth	-0,031	(-0,692)	-0,042	(-0,936)	0,991	(1,439)
ROE	-0,004**	(-2,376)	-0,004**	(-2,110)	0,007	(0,280)
Price to Book ratio	0,237*	(1,872)	0,189	(1,149)	1,953	(1,206)
R^2	0,022		0,255		0,065	
Adj-R^2	0,012		0,151		-0,067	
DW	0,073		2,093		1,082	
No. of observations	83		83		82	

The table reports the regression results using the long-term-debt-to-total-capitalisation level of the Indonesian company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

None of the CEO characteristics are significantly related to the long-term-debt-to-total-capitalisation ratio. However, asset tangibility is positively related to the ratio, both in the OLS and Sys-GMM models. The coefficients for asset tangibility are 0.33 in the OLS model and 0.31 in the Sys-GMM model, both with a 1% significance level. This indicates, that a company with a high volume of fixed assets is likely to finance them more with long term debt compared to equity.

Additionally, profit is positively related to the long-term-debt-to-total-capitalisation ratio. The coefficients for profit are 0.53 in the OLS model and 0.54 in the Sys-GMM model with a 10% significance level in both models. This proves that higher profit seems to be funded by more long-term debt than equity.

The return-on-equity is a significant negative determinant of the long-term-debt-to-total-capitalisation level in the OLS and Sys-GMM models. The coefficient for the return-on-equity relationship is -0.004 and the significance level is 5% in both models. This means that

the higher a company's return-on-equity is, the smaller the long-term-debt-to-total-capitalisation ratio in the company is.

The price-to-book-ratio is positively related to the long-term-debt-to-total-capitalisation ratio with a 0.24 coefficient and a 1% significance level in the OLS model. This demonstrates that a higher price-to-book ratio is linked to higher long-term-debt-to-total-capitalisation levels.

Table 7: Regression results using Profit for Indonesia

Independent variable	**OLS**		**Sys GMM**		**2SLS**	
Age	0,000	(0,288)	0,000	(0,015)	0,000	(0,029)
Tenure	-0,001	(-1,437)	-0,001*	(-1,754)	-0,002	(-1,651)
Gender	0,073*	(1,683)	0,065*	(1,865)	0,071	(1,416)
Education	-0,030	(-1,400)	-0,031	(-1,172)	-0,035	(-1,489)
Asset Tangibility	0,092**	(2,249)	0,088***	(2,824)	0,068	(1,510)
Size	0,014	(0,339)	0,017	(0,854)	0,023	(-1,051)
Sales Growth	0,017	(0,894)	0,014	(0,646)	0,029	(1,270)
D / A	-0,040	(-1,525)	-0,044*	(-1,755)	0,018	(0,746)
Price to Book ratio	0,015	(0,339)	0,000	(0,005)	0,018	(0,347)
R^2	0,151		0,153		0,141	
Adj-R^2	0,063		0,053		0,038	
DW	1,753		1,731		1,553	
No. of observations	86		86		85	

The table reports the regression results using profit of the Indonesian company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

Both CEO characteristics tenure and gender are significant determinants of the profit of Indonesian companies. Tenure is negatively related to profit in the Sys-GMM model with a coefficient of -0.001 and a 10% significance level. This suggests that younger CEOs tend to have higher profits in their companies, when compared to older CEOs.

Gender is positively related to profit, with a coefficient of 0.07 in the OLS model and the Sys-GMM model and a significance level of 10%. As gender was coded as 1 being male and 0 being female, this finding shows how male CEOs have a positive relationship with the profit of their company, while female CEOs tend to impact the profit in a negative direction.

Asset tangibility is positively related to profit in the OLS and Sys-GMM models. The coefficient for asset tangibility is 0.09 with a 5% significance level in the OLS model and a 1% significance level in the Sys-GMM model. This indicates that a company with a high volume of fixed assets is likely to experience a higher profit.

The debt-to-asset ratio is negatively related to companies' profits in the Sys-GMM model. The coefficient is -0.04 and the ratio is significant at the 10% level. This finding shows that companies that are having higher debt-to-assets ratios, tend to be plagued by lower profits.

Table 8: Regression results using Return-on-Equity for Indonesia

Independent variable	**OLS**		**Sys GMM**		**2SLS**	
Age	-0,214	(-1,060)	-0,187	(-0,703)	-0,055	(-0,232)
Tenure	0,006	(0,029)	0,010	(0,062)	-0,047	(-0,231)
Gender	2,135	(1,225)	3,312*	(1,763)	2,305	(0,764)
Education	-3,064	(-1,649)	-2,831	(-1,277)	-2,004***	(-1,733)
Asset Tangibility	1,907	(0,614)	2,516	(0,927)	2,656	(1,267)
Size	0,720	(0,748)	0,721**	(2,635)	0,384***	(-3,241)
Sales Growth	3,319	(0,734)	3,850	(0,650)	5,746	(1,102)
D / A	-3,429***	(-2,987)	-3,426***	(-2,702)	1,445	(0,278)
Price to Book ratio	2,397	(1,482)	1,929	(0,666)	-1,365	(-0,361)
R^2	0,159		0,159		0,213	
Adj-R^2	0,068		0,056		0,114	
DW	2,090		2,097		2,139	
No. of observations	83		83		82	

The table reports the regression results using return-on-equity of the Indonesian company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

Similar to the profit regression, gender is positively related to return-on-equity, with a coefficient of 3.31 in the Sys-GMM model and a significance level of 10%. As gender was coded as 1 being male and 0 being female, this finding shows how male CEOs have a more positive impact on the return-on-equity of their company when compared to female CEOs.

Education is negatively related to the debt-to-equity level of Indonesian companies in all three models. The coefficient of education is -2.00 in the 2SLS model and it has a significance level

of 1%. This finding suggests that a higher education of the CEO is linked to a lower debt-to-equity level in the company. This would suggest that more educated CEOs are less risk taking, leading to lower debt levels in their company.

The size of a company is positively significant in the relationship with the return-on-equity in the Sys-GMM and the 2SLS model. Size has a coefficient of 0.72 in the Sys-GMM model and 0.38 in the 2SLS model with a 5% and 1% significance level respectively. This shows that bigger companies tend to have a higher return on their equity when compared to smaller companies.

The debt-to-asset ratio is negatively related to companies' return-on-equity in the OLS and Sys-GMM model. The coefficient is -3.43 in the OLS model and the Sys-GMM model with a 1% significance level. This finding demonstrates that companies that hold larger percentages of debt relative to assets, are experiencing lower returns on their equity.

Table 9: Regression results using Return-on-Assets for Indonesia

Independent variable	**OLS**		**Sys GMM**		**2SLS**	
Age	-0,001	(-0,019)	-0,005	(-0,064)	0,021	(0,287)
Tenure	-0,002	(-0,023)	-0,002	(-0,032)	-0,035	(-0,569)
Gender	3,926	(1,110)	3,792	(1,469)	3,029	(1,422)
Education	-0,760	(-0,439)	-0,782	(-0,356)	-0,649	(-0,318)
Asset Tangibility	-0,367	(-0,110)	-0,440	(-0,173)	-0,731	(-0,288)
Size	0,322	(0,926)	0,322**	(2,083)	0,432	(-1,014)
Sales Growth	2,308	(1,484)	2,254	(1,159)	3,174**	(2,323)
D / A	-2,978***	(-2,308)	-2,041**	(-1,620)	2,174	(1,649)
Price to Book ratio	1,092	(0,295)	0,856	(0,142)	7,868	(1,313)
R^2	0,208		0,208		0,129	
Adj-R^2	0,126		0,115		0,024	
DW	1,753		1,748		1,868	
No. of observations	86		86		85	

The table reports the regression results using return-on-assets of the Indonesian company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

The debt-to-asset ratio is related to companies' return-on-assets. The coefficient is -2.98 in the OLS model and -2.04 in the Sys-GMM model with a 1% and a 5% significance level,

respectively. This finding shows that companies that have a higher percentages of debt relative to assets, are experiencing smaller return-on-assets ratios.

Additionally, the sales growth is positively related to the return-on-assets in the 2SLS model. It has a coefficient of 3.17 and a 5% significance level. This shows, that companies that are growing at a significant pace, are also experiencing a higher return-on-assets than companies that are growing slowly.

Lastly, the size of a company is significant at a 5 % level in the relationship with the return-on-assets in the Sys-GMM model. It is a positive determinant of the ratio with a coefficient of 0.32. This shows that companies with a larger size also see higher return-on-assets ratios.

4.2 Mexico

Table 10: Mexican sample statistics

	Mean	Median	Max	Min	SD
Size	54631,488	13684,643	934761,396	585,185	142220,696
Sales Growth	0,341	0,092	1,463	-0,090	0,443
Profit	0,117	0,108	0,239	0,019	0,051
Asset Tangibility	0,409	0,402	0,789	0,000	0,208
Debt over assets	0,268	0,251	0,784	0,000	0,171
Debt over equity	0,895	0,493	7,154	0,000	1,251
LTD / TC	0,317	0,277	0,867	0,000	0,218
ROA (%)	4,295	3,620	23,095	-5,196	4,792
ROE (%)	7,720	7,532	60,133	-85,309	19,010
Price to book ratio	0,755	0,789	0,943	0,430	0,108
Age	57,766	58,000	79,000	38,000	9,478
Tenure	17,555	15,000	41,000	5,000	10,575

The table reports the mean, median, maximum, minimum and standard deviation values for the variables in the Mexican sample for the period of January 2014 to December 2017. The size figures are stated in millions of Mexican Pesos.

The size of Mexican companies ranges from very small companies (585 Million Mexican Pesos[4]) to relatively large companies (934,761 Million Mexican Pesos[5]). The minimum profit is still positive, showing that none of the sampled companies are making losses. The age range is relatively diverse, but the minimum age of the CEOs is bigger in Mexico than in Indonesia. When looking at the CEO tenure, one can see that Mexican CEOs take up their positions at an older age, when compared to Indonesian CEOs.

[4] This is equivalent to 29,78 million US Dollars as of January 1st, 2019.
[5] This is equivalent to 47,560.66 million US Dollars as of January 1st, 2019.

Table 11: Regression results using Debt-to-Equity level for Mexico

Independent variable	OLS		Sys GMM		2SLS	
Age	-0,024	(-1,493)	-0,029	(-1,196)	-0,006	(-0,257)
Tenure	-0,010	(-0,593)	-0,010	(-0,860)	-0,017	(-0,769)
Education	0,699**	(2,126)	0,671**	(2,047)	0,660	(1,535)
Asset Tangibility	-0,727	(-0,907)	-0,793	(-0,901)	0,825	(0,738)
Profit	2,430	(1,776)	2,401	(1,015)	-2,444	(-0,791)
Size	2,573**	(2,240)	2,445***	(4,352)	0,111	(0,075)
Sales Growth	-0,300	(-0,742)	-0,291	(-0,525)	-0,608	(-1,212)
ROE	-0,037***	(-3,946)	-0,038*	(-1,807)	0,005	(0,405)
Price to Book ratio	2,521*	(2,006)	2,034	(0,948)	1,883	(0,917)
R^2	0,448		0,451		0,154	
Adj-R^2	0,325		0,310		-0,070	
DW	2,103		2,094		2,259	
No. of observations	45		45		44	

The table reports the regression results using the debt-to-equity level of the Mexican company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

Out of the three CEO characteristics, only education is positively related to the debt-to-equity level of Mexican companies in the OLS and Sys-GMM model. The coefficients are 0.70 in the OLS model and 0.67 in the Sys-GMM model, with a significance level of 5%. This finding suggests, that a higher education of the CEO is linked to a higher debt-to-equity level in the company. This would suggest that more educated CEOs are more risk tolerant, leading to higher debt levels in their company.

The size of a company is significant in the relationship with the debt-to-equity level in the OLS and Sys-GMM models. It has a coefficient of 2.57 with a 5% significance level in the OLS model and a coefficient of 2.45 with a 1% significance level in the Sys-GMM model. This positive relationship shows that bigger companies tend to favour more debt, when compared to smaller companies.

The return-on-equity is negatively related to the debt-to-equity level in the OLS and Sys-GMM model. The coefficient is -0.04 with a 1% significance level in the OLS model and a 10% significance level in the Sys-GMM model. This indicates that as the return-on-equity increases, the debt-to-equity level decreases.

The price-to-book ratio is positively related to the debt-to-equity level with a 2.52 coefficient and a 10% significance level in the OLS model.

Table 12: Regression results using Long-term-Debt-to-Total-Capitalisation level for Mexico

Independent variable	OLS		Sys GMM		2SLS	
Age	-0,004	(-1,487)	-0,007*	(-2,022)	-0,005	(-1,256)
Tenure	-0,002	(-0,724)	-0,002	(-0,951)	-0,003	(-0,877)
Education	0,210***	(3,547)	0,194***	(3,720)	0,177***	(2,563)
Asset Tangibility	-0,144	(-0,998)	-0,183	(-1,336)	-0,050	(-0,276)
Profit	0,677	(1,036)	0,660	(0,800)	-0,558	(-0,798)
Size	0,649***	(3,128)	0,574***	(5,233)	0,218	(-0,923)
Sales Growth	-0,103	(-1,417)	-0,098	(-1,019)	-0,128	(-1,593)
ROE	-0,003	(-1,562)	-0,003	(-1,474)	0,000	(-0,017)
Price to Book ratio	0,656***	(2,890)	0,370	(1,176)	0,122	(0,370)
R^2	0,408		0,445		0,286	
Adj-R^2	0,277		0,303		0,097	
DW	1,761		1,868		2,084	
No. of observations	45		45		44	

The table reports the regression results using long-term-debt-to-total-capitalisation level of the Mexican company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

The age of the company's CEO is negatively related to the long-term-debt-to-total-capitalisation ratio in the Sys-GMM model. It has a coefficient of -0.01 and a 10% significance level. This shows that older CEOs tend to have a lower level of long-term-debt-to-total-capitalisation than younger CEOs.

The education of the CEO is found to be positively related to the long-term-debt-to-total-capitalisation ratio in all three models. The coefficients are between 0.18 and 0.21, with significance levels of 1% for all models. This finding suggests that a higher education of the CEO is linked to a higher long-term-debt-to-total-capitalisation ratio in the company. This would mean, that more educated CEOs are likely to increase the company's long-term debt more.

The size of a company is significant in the relationship with the long-term-debt-to-total-capitalisation ratio in the OLS and Sys-GMM models. It has a coefficient of 0.65 in the OLS model and a coefficient of 0.57 in the Sys-GMM model. Both models show a 1% significance level. This finding shows that bigger companies tend to favour more long-term debt, when compared to smaller companies.

The price-to-book ratio is positively related to the long-term-debt-to-total-capitalisation ratio with a 0.66 coefficient and a 1% significance level in the OLS model.

Table 13: Regression results using Profit for Mexico

Independent variable	**OLS**		**Sys GMM**		**2SLS**	
Age	0,000	(-0,060)	0,000	(-0,375)	0,000	(0,051)
Tenure	0,000	(0,200)	0,000	(0,165)	0,000	(-0,478)
Education	-0,003	(-0,149)	-0,005	(-0,258)	-0,015	(-0,907)
Asset Tangibility	0,012	(0,318)	0,009	(0,198)	-0,050	(-1,291)
Size	0,090	(1,567)	0,079***	(2,766)	0,050	(0,890)
Sales Growth	-0,033*	(-1,751)	-0,033	(-1,630)	-0,030	(-1,601)
D / A	0,015	(0,281)	0,014	(0,205)	-0,039	(-0,779)
Price to Book ratio	0,155**	(2,401)	0,114	(1,335)	0,110	(1,472)
R^2	0,164		0,177		0,167	
Adj-R^2	0,006		-0,006		-0,024	
DW	1,724		1,761		1,705	
No. of observations	45		45		44	

The table reports the regression results using profit of the Mexican company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

The size of a company is a significant positive determinant of company profit. It has a 0.08 coefficient in the Sys-GMM model and is significant at the 1% level. This suggests that companies that have a bigger size, also see higher profits.

The sales growth is negatively related to the profit of the company in the OLS model. The coefficient is -0.03 and the ratio has a 10% significance level. This means a company with a higher sales growth is likely seeing its profits suffer.

The price-to-book ratio is positively related to the company's profits with a 0.16 coefficient and a 5% significance level in the OLS model.

Table 14: Regression results using Return-on-Equity for Mexico

Independent variable	OLS		Sys GMM		2SLS	
Age	-0,483	(-1,619)	-0,822**	(-2,104)	-0,860**	(-2,472)
Tenure	0,054	(0,180)	0,042	(0,267)	0,127	(0,412)
Education	2,304	(0,804)	3,520	(0,755)	-1,281	(-0,216)
Asset Tangibility	-2,496*	(-1,824)	-2,742***	(-1,442)	-3,634**	(2,130)
Size	3,380	(1,598)	2,295*	(1,880)	1,781	(0,859)
Sales Growth	1,002	(0,143)	1,145	(0,229)	2,184*	(1,531)
D / A	-3,457*	(-1,961)	-3,017	(-1,288)	2,313	(0,234)
Price to Book ratio	3,086***	(1,788)	2,684*	(1,989)	2,834	(0,102)
R^2	0,213		0,299		0,261	
Adj-R^2	0,064		0,143		0,092	
DW	1,652		1,893		1,845	
No. of observations	45		45		44	

The table reports the regression results using return-on-equity of the Mexican company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

The CEO's age is negatively related to the return-on-equity in the Sys-GMM and 2SLS model. Age has a coefficient of -0.82 in the Sys-GMM model and -0.86 in the 2SLS model, both with a significance level of 5%. This suggests that older CEOs are less likely to experience lower returns-on-equity in their companies than younger CEOs.

The asset tangibility is negatively related to the company's return-on-equity in all three models. The coefficients of the asset tangibility range from 2.50 to 3.63 and have a significance level between 1-10%. This shows that an increase in fixed assets is linked to a decrease in the return-on-equity.

The size of a company is significant in the relationship with the return-on-equity ratio in the Sys-GMM model. It has a coefficient of 2.69 with a 10% significance level. This positive relationship shows that bigger companies tend to have a higher return on their equity, when compared to smaller companies.

Sales growth is positively related to the return-on-equity in the 2SLS model. The coefficient for sales growth is 2.18 and it is significant at the 10% level. This means that as sales growth increases, the return-on-equity increases as well.

The debt-to-assets ratio is negatively related to the return-on-equity in the OLS model. The coefficient of it is -3.46 with a 10% significance level. This suggests that higher debt levels are linked to a lower return-on-equity.

The price-to-book ratio is positively related to the company's return-on-equity in the OLS and Sys-GMM model. It had a coefficient of 3.09 in the OLS model and 2.69 in the Sys-GMM model with a 1% and a 10% significance level respectively.

Table 15: Regression results using Return-on-Assets for Mexico

Independent variable	**OLS**		**Sys GMM**		**2SLS**	
Age	-0,024	(-0,322)	-0,032	(-0,329)	-0,025	(-0,288)
Tenure	-0,041	(-0,541)	-0,042	(-0,606)	-0,030	(-0,365)
Education	0,115	(0,069)	0,072	(0,051)	-0,649	(-0,420)
Asset Tangibility	-3,135	(-1,489)	-3,201	(-1,665)	-3,290	(-0,887)
Size	0,798	(0,150)	0,539	(0,232)	0,317	(0,589)
Sales Growth	1,974	(1,117)	1,977	(0,885)	3,538*	(1,918)
D / A	-2,195	(-1,419)	-2,232*	(-1,771)	1,586	(0,332)
Price to Book ratio	2,754**	(1,135)	2,812**	(1,139)	3,744	(1,339)
R^2	0,207		0,208		0,198	
Adj-R^2	0,057		0,032		0,014	
DW	2,153		2,151		1,587	
No. of observations	45		45		44	

The table reports the regression results using return-on-assets of the Mexican company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

The sales growth is positively related to the return-on-assets in the 2SLS model. The coefficient is 3.54 and it is significant at the 10% level. This means that companies with a higher sales growth are likely to have a higher return on their assets.

The debt-to-assets ratio has a negative relationship with the return-on-assets in the Sys-GMM model. The coefficient for it is -2.23 and it is significant at the 10% level. This suggests that a company, which has a high sales growth, is seeing lower returns-on-assets.

Lastly, the price-to-book ratio is positively related to the return-on-assets in both the OLS and the Sys-GMM model. The coefficient is 2.75 in the OLS model and 2.81 in the Sys-GMM model with significance levels of 5% for both models.

4.3 South Africa

Table 16: South African sample statistics

	Mean	Median	Max	Min	SD
Size	10831,975	2451,438	312378,272	0,000	36528,592
Sales Growth	2,914	0,179	199,526	-0,391	22,709
Profit	0,108	0,093	0,408	-0,218	0,103
Asset Tangibility	0,351	0,320	0,925	0,000	0,277
Debt over assets	0,197	0,172	0,595	0,000	0,150
Debt over equity	6,917	0,335	333,133	0,000	39,825
LTD / TC	0,247	0,121	1,000	0,000	0,289
ROA (%)	5,044	5,331	30,693	-19,859	8,519
ROE (%)	10,079	11,023	73,805	-56,631	19,004
Price to book ratio	13,827	0,712	596,109	0,023	70,673
Age	55,714	55,000	75,000	38,000	6,790
Tenure	12,613	11,000	54,000	5,000	7,501

The table reports the mean, median, maximum, minimum and standard deviation values for the variables in the South African sample for the period of January 2014 to December 2017. The size figures are stated in millions of South African Rand.

The table shows that while the average as well as the median of the South African companies are making profits, there is at least one company, that is currently making losses. This can be seen through the negative minimum profit, return on assets and return on equity numbers. The maximum age of the CEOs, which is 75 years, is the lowest out of all the countries. The size of the companies ranges from 0 revenues, as the minimum number, to 312,378 million South African Rand[6] revenue companies.

[6] This is equivalent to 21,709.07 million US Dollars as of January 1st, 2019.

Table 17: Regression results using Debt-to-Equity level for South Africa

Independent variable	OLS		Sys GMM		2SLS	
Age	-0,070	(-0,268)	-0,657	(-1,106)	-1,718	(-1,341)
Tenure	-0,319	(-0,920)	-0,445	(-1,151)	-0,129	(-0,129)
Gender	1,053	(0,808)	2,298	(0,749)	-2,701	(-0,231)
Education	-2,918	(-1,608)	-1,420	(-1,091)	-2,628	(-0,192)
Asset Tangibility	3,220	(0,301)	-0,612	(-0,111)	-23,843	(-0,683)
Profit	3,365	(1,158)	3,413	(1,126)	-2,968	(-0,967)
Size	0,997***	(1,490)	0,987***	(2,648)	1,932	(-0,984)
Sales Growth	-0,044	(-0,471)	-0,095	(-1,035)	-0,004	(-0,013)
ROE	-0,360*	(-1,719)	-0,379**	(-2,236)	-1,029*	(-1,693)
Price to Book ratio	0,011	(0,321)	-0,003	(-0,197)	-0,025	(-0,280)
R^2	0,906		0,913		0,186	
Adj-R^2	0,883		0,889		-0,041	
DW	0,506		0,610		1,749	
No. of observations	47		47		47	

The table reports the regression results using the debt-to-equity level of the South African company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

None of the CEOs characteristics are significantly related to a company's debt-to-equity level. However, several of the other dependent variables of the companies are significant.

The company's size is significant in the relationship with the return-on-equity at the 1 % level. The coefficient of the size variable is 0.99 in both the OLS and Sys-GMM model. This means that companies with a bigger size, tend to have a higher proportion of debt compared to companies with a smaller size.

Additionally, the return-on-equity is negatively related to the debt-to-equity level in all three models. The coefficients range between -0.36 and -1.03 and they have a significance level of 5-10%. This suggest that a company that has a high return-on-equity, likely has a low debt-to-equity level.

Table 18: Regression results using Long-term-Debt-to-Total-Capitalisation level for South Africa

Independent variable	OLS		Sys GMM		2SLS	
Age	-0,004	(-1,212)	-0,005	(-0,830)	-0,008	(-1,275)
Tenure	0,001	(0,251)	0,001	(0,241)	0,000	(0,069)
Gender	0,258	(1,432)	0,249**	(2,523)	0,216	(0,924)
Education	0,041	(0,479)	0,034	(0,272)	0,016	(0,166)
Asset Tangibility	0,470***	(3,168)	0,463***	(4,384)	0,252	(1,431)
Profit	-0,258	(-0,497)	-0,274	(-0,408)	-0,467	(-0,963)
Size	0,294***	(3,178)	0,292***	(3,700)	0,086	(0,865)
Sales Growth	0,000	(-0,303)	0,000	(-0,540)	-0,001	(-0,395)
ROE	0,002	(0,801)	0,002	(0,566)	-0,003	(-0,821)
Price to Book ratio	0,000	(-0,351)	0,000	(-0,769)	0,000	(-0,686)
R^2	0,408		0,409		0,313	
Adj-R^2	0,264		0,244		0,122	
DW	1,638		1,669		1,812	
No. of observations	47		47		47	

The table reports the regression results using long-term-debt-to-total-capitalisation level of the South African company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

The CEO's gender is positively related to the long-term-debt-to-total-capitalisation ratio in the Sys-GMM model of the South African sample. The coefficient of gender is 0.25 and it is significant at the 5% level. As gender was coded as 1 being male and 0 being female, this finding shows how male CEOs have a positive relationship with the long-term-debt-to-total-capitalisation ratio of their company, while female CEOs tend to do the opposite.

Asset tangibility is also positively related to the long-term-debt-to-total-capitalisation ratio in both the OLS and Sys-GMM models. It has a coefficient of 0.47 in the OLS model and 0.46 in the Sys-GMM model, both with a 1% significance level. This finding suggests that companies with higher values of fixed assets are likely to have more long-term debt.

The size of a company is significant in the relationship with the long-term-debt-to-total-capitalisation ratio in the OLS and Sys-GMM models. It has a coefficient of 0.29 with a 1% significance level in both models. This positive relationship shows that bigger companies tend to favour long-term debt.

Table 19: Regression results using Profit for South Africa

Independent variable	OLS		Sys GMM		2SLS	
Age	0,002	(1,123)	0,046	(0,199)	-0,002	(-0,890)
Tenure	0,000	(-0,090)	0,008	(8,184)	0,000	(-0,202)
Gender	-0,005	(-0,058)	0,376	(0,199)	-0,070	(-0,934)
Education	0,052	(1,557)	0,394	(0,219)	0,038	(1,033)
Asset Tangibility	0,068	(1,131)	0,384	(0,225)	0,010	(0,159)
Size	-0,781	(-0,235)	-1,904	(0,148)	0,854	(-0,594)
Sales Growth	0,000	(-0,541)	0,003	(0,175)	-0,001	(-1,108)
D / A	-0,128	(-1,218)	-0,245	(-0,333)	-0,155	(-1,441)
Price to Book ratio	-0,001***	(-3,748)	0,000	(-0,122)	-0,001***	(-3,684)
R^2	0,338		0,530		0,395	
Adj-R^2	0,198		0,118		0,248	
DW	1,438		1,918		1,405	
No. of observations	47		47		47	

The table reports the regression results using profit of the South African company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

None of the CEO characteristics are significantly related to the companies' profits in the South African sample.

The price-to-book ratio is negatively related to profit in the OLS and Sys-GMM models. The coefficient of the price-to-book ratio is -0.001 in both models, with a significance level of 1%. This shows that companies with higher price-to-book ratios are likely to experience lower profits.

Table 20: Regression results using Return-on-Equity for South Africa

Independent variable	OLS		Sys GMM		2SLS	
Age	0,512*	(1,950)	0,021	(0,052)	0,299	(0,605)
Tenure	-0,532	(-1,572)	-0,619	(-1,386)	-0,744*	(-1,982)
Gender	-3,246	(-0,228)	-2,405	(-0,951)	-2,037	(-0,834)
Education	-2,097	(-0,856)	-2,831	(-1,093)	-2,165	(-0,748)
Asset Tangibility	-2,845	(-1,182)	-2,357	(-1,128)	-3,338**	(-2,095)
Size	-1,816***	(-3,022)	-1,859***	(-5,038)	-4,897	(-0,796)
Sales Growth	-0,116	(-1,199)	-0,153***	(-4,100)	-0,158	(-1,553)
D / A	1,156	(0,647)	1,332	(0,552)	-1,429	(-0,975)
Price to Book ratio	-0,073**	(-2,261)	-0,077***	(-3,789)	-0,079**	(-2,364)
R^2	0,330		0,361		0,320	
Adj-R^2	0,193		0,209		0,159	
DW	1,625		1,728		1,595	
No. of observations	48		48		48	

The table reports the regression results using return-on-equity of the South African company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

The CEO's age is positively related to the return-on-equity in the OLS model. Age has a coefficient of 0.51 and is significant at the 10% level. This means that older CEOs are more likely to experience higher returns-on-equity in their companies than younger CEOs.

The CEO's tenure on the other hand is negatively related to the return-on-equity in the 2SLS model. The coefficient is -0.74 and it has a 10% significance level. This suggests that newer CEOs, that have not been in their current role for very long, are linked to better return-on-equity results than CEOs, which have been in their positions for a longer period of time.

Asset tangibility is negatively related to the return-on-equity in the 2SLS model. It has a coefficient of -3.34 and a 5% significance level. This finding shows that companies with a higher volume of fixed assets are likely seeing a lower return on their equity.

The size of a company is significant in the relationship with the return-on-equity in the OLS and Sys-GMM models. It has a coefficient of -1.82 in the OLS model and a coefficient of -1.86 in the Sys-GMM model. Both of the coefficients are significant at the 1% level. This negative relationship shows that bigger companies experience lower return-on-equity ratios.

Sales growth is negatively linked to the return-on-equity ratio in the Sys-GMM model. Sales growth holds a coefficient of -0.15 and is significant at the 1% level. This means that companies that are experiencing an increase in sales growth are likely also having a lower return-on-equity.

Lastly, the price-to-book ratio is negatively related to the return-on-equity in all three models. The coefficient of the ratio ranges between -0.07 and -0.08, with significance levels of 1% and 5%. This shows that companies with higher price-to-book ratios are likely to experience lower return-on-equity ratios.

Table 21: Regression results using Return-on-Assets for South Africa

Independent variable	**OLS**		**Sys GMM**		**2SLS**	
Age	0,211*	(1,877)	-0,095	(-0,700)	-0,114	(-0,604)
Tenure	-0,222	(-1,539)	-0,277*	(-1,695)	-0,256*	(-1,762)
Gender	-1,428	(-0,235)	-4,015	(-1,234)	-6,032	(-1,038)
Education	0,297	(0,117)	-2,026	(-0,601)	-1,586	(-0,566)
Asset Tangibility	-3,178	(-0,685)	-5,363	(-0,987)	-4,854	(-1,034)
Size	-1,726	(-0,672)	-1,991*	(-1,918)	-0.869	(-0,340)
Sales Growth	-0,061	(-1,470)	-0,084***	(-4,237)	-0,084**	(-2,038)
D / A	-5,597	(-0,698)	-4,865	(-0,590)	-7,470	(-0,998)
Price to Book ratio	-0,054***	(-3,943)	-0,057***	(-5,174)	-0,053***	(-3,973)
R^2	0,341		0,405		0,405	
Adj-R^2	0,206		0,264		0,264	
DW	1,379		1,359		1,270	
No. of observations	48		48		48	

The table reports the regression results using return-on-assets of the South African company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

The CEO's age is positively related to the return-on-assets in the OLS model. Age has a coefficient of 0.21 and is significant at the 10% level. This means that older CEOs are more likely to experience higher returns-on-assets in their companies than younger CEOs.

Similar to the return-on-equity results, CEO's tenure is also negatively related to the return-on-assets. The coefficients are -0.28 in the Sys-GMM model and -0.26 in the 2SLS model,

both of which have a 10% significance level. This suggests that CEOs, that have been in their position for longer, are likely linked to lower returns-on-assets than newly instated CEOs.

The company's size is a negative determinant of the return-on-assets ratio. It has a coefficient of -1.99 in the Sys-GMM model and is significant at the 10% level. This means that larger companies tend to have lower return-on-assets ratios, when compared to smaller companies.

Sales growth is negatively linked to the return-on-assets in the Sys-GMM model and the 2SLS model. The coefficients are -0.08 in both models, with a 1% significance level in the Sys-GMM model and a 10% significance level in the 2SLS model. This shows that companies with a higher sales growth are likely experiencing a lower return-on-assets compared with companies that are having a lower sales growth.

Lastly, the price-to-book ratio is negatively related to the return-on-assets in all three models. The coefficients range from -0.05 to 0.06 and have a 1% significance level. This shows that companies with higher price-to-book ratios are likely to experience lower return-on-assets ratios.

4.4 United States

Table 22: US sample statistics

	Mean	Median	Max	Min	SD
Size	16988,828	1796,178	1513399,129	0,000	119329,914
Sales Growth	0,377	0,137	8,813	-0,659	1,073
Profit	0,090	0,093	0,342	-0,917	0,111
Asset Tangibility	0,418	0,346	0,968	0,007	0,319
Debt over assets	0,321	0,292	0,846	0,000	0,199
Debt over equity	1,589	0,689	76,528	-12,797	6,425
LTD / TC	0,392	0,364	1,579	0,000	0,263
ROA (%)	2,200	3,294	19,230	-91,664	10,279
ROE (%)	13,003	9,794	380,347	-64,655	37,379
Price to book ratio	0,746	0,755	0,997	0,120	0,166
Age	58,571	58,000	81,000	39,000	8,070
Tenure	11,057	9,000	38,900	5,000	5,912

The table reports the mean, median, maximum, minimum and standard deviation values for the variables in the US sample for the period of January 2014 to December 2017. The size figures are stated in millions of US Dollars.

The above table shows that the US company sample contains some companies, that are currently making losses, which can be seen by the negative minimum profit, return on assets and return on equity figures. Additionally, the minimum age of the CEOs at 39 years is the lowest when compared to the other countries. The size of the companies ranges from 0 revenues, as the minimum number, to 1,513,399 million US dollar revenue companies.

Table 23: Regression results using Debt-to-Equity level for the US

Independent variable	OLS		Sys GMM		2SLS	
Age	-0,043	(-0,878)	-0,066	(-1,940)	-0,030	(-1,018)
Tenure	0,179**	(1,984)	0,187	(1,081)	-0,009	(-0,228)
Gender	3,275	(1,285)	2,681	(1,019)	3,909***	(2,844)
Education	1,555	(1,544)	1,519	(1,267)	0,317	(0,719)
Asset Tangibility	2,098	(1,132)	2,233	(1,236)	0,401	(0,497)
Profit	-2,212***	(-1,470)	-2,665	(-1,414)	-3,294	(-1,569)
Size	-1,433	(-0,351)	-1,544	(-1,505)	4,897	(2,741)
Sales Growth	-0,722	(-1,520)	-0,766	(-1,039)	-0,074	(-0,350)
ROE	0,066***	(2,183)	0,066***	(3,292)	0,001	(0,196)
Price to Book ratio	-0,675	(-0,212)	-1,489	(-0,655)	-1,574	(-1,004)
R^2	0,165		0,167		0,846	
Adj-R^2	0,115		0,110		0,836	
DW	2,090		2,106		2,167	
No. of observations	158		158		156	

The table reports the regression results using the debt-to-equity level of the US company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

The tenure of a CEO is positively related to the debt-to-equity level in US companies. The coefficient in the OLS model is 0.18 and it is significant at the 5% level. This shows that CEOs, that have been in their position for longer, tend to see higher debt-to-equity levels in their companies.

CEO gender is positively related to the debt-to-equity level in the 2SLS model. The coefficient of gender is 3.91 and it is significant at the 1% level. As gender was coded as 1 being male and 0 being female, this finding shows how male CEOs have a positive relationship with the debt-to-equity ratio of their company, while female CEOs tend to do the opposite.

Profit is negatively related to the debt-to-equity level in the OLS model. Profit has a coefficient of -2.21 and it is significant at the 1% level. This suggests that companies that have higher profits, tend to have a lower level of debt, when compared to equity.

The return-on-equity is positively related to the debt-to-equity level in the OLS and the Sys-GMM model. The coefficient for both models is 0.07 and it is significant at the 1% level. This suggests that companies that have a higher return-on-equity tend to have higher levels of debt compared to equity.

Table 24: Regression results using Long-term-Debt-to-Total-Capitalisation level for the US

Independent variable	**OLS**		**Sys GMM**		**2SLS**	
Age	0,007***	(4,007)	0,002	(1,055)	0,005*	(1,738)
Tenure	-0,008**	(-2,416)	-0,006*	(-1,701)	-0,010***	(-2,841)
Gender	0,049	(0,520)	-0,082	(-0,504)	-0,020	(-0,162)
Education	0,039	(1,038)	0,031	(0,879)	0,010	(0,241)
Asset Tangibility	0,231***	(3,361)	0,261***	(3,054)	0,221***	(3,030)
Profit	-0,423	(-1,351)	-0,523	(-1,410)	-0,166	(-0,545)
Size	-1,234	(-0,813)	-1,481***	(-3,799)	0,423***	(2,620)
Sales Growth	0,027	(1,534)	0,017	(0,936)	0,024	(1,268)
ROE	0,003***	(4,873)	0,003**	(2,532)	0,000	(-0,491)
Price to Book ratio	-0,168	(-1,416)	-0,348*	(-1,856)	-0,395***	(-2,785)
R^2	0,243		0,282		0,179	
Adj-R^2	0,197		0,234		0,123	
DW	1,736		1,788		1,800	
No. of observations	158		158		156	

The table reports the regression results using long-term-debt-to-total-capitalisation level of the US company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

A CEO's age is positively related to the long-term-debt-to-total-capitalisation ratio in the OLS and 2SLS model. The coefficient for it is 0.01 in both models with a 1% significance level in the OLS model and a 10% significance level in the 2SLS model. This suggests, that older CEOs tend to be linked to a higher long-term-debt-to-total-capitalisation ratio than younger CEOs.

The tenure of US CEOs is a significant determinant of the long-term-debt-to-total-capitalisation level in the three models. Tenure is negatively related to it, with a coefficient of -0.01 and a significance level of 1-10% in the three models. This suggests, that a CEO who

has worked in his position for a long time is likely to see a lower debt-to-equity level in his company, compared to a CEO with a shorter tenure, given that all other things are equal.

Asset tangibility is positively related to the long-term-debt-to-total-capitalisation ratio in all three models. Its coefficient ranges from 0.22 to 0.26 and is significant at the 1% level. This shows, that companies with a higher volume of fixed assets are likely to also have a higher long-term-debt-to-total-capitalisation ratio.

Size is significant in two models. However, it gives contrasting results, with the Sys-GMM model having a negative coefficient of -1.48 and the 2SLS model having a positive coefficient of 0.42.

The return-on-equity is positively related to the long-term-debt-to-total-capitalisation ratio in the OLS and Sys-GMM models. The coefficient for it is 0.01 and it is significant at the 1% level in the OLS model and the 5% level in the Sys-GMM model. This means that companies that are experiencing higher returns-on-equity, are also more likely to have a higher level of long-term debt compared to the total capitalisation level in the company.

Lastly, the price-to-book ratio is negatively related to the long-term-debt-to-total-capitalisation ratio in the Sys-GMM and the 2SLS model. The coefficient is -0.35 in the Sys-GMM model with a 10% significance level and -0.40 in the 2SLS model with a 1% significance level. This shows that companies with higher price-to-book ratios are likely to experience lower long-term-debt-to-total-capitalisation ratios.

Table 25: Regression results using Profit for the US

Independent variable	OLS		Sys GMM		2SLS	
Age	0,003***	(5,186)	0,002**	(2,327)	0,002**	(2,085)
Tenure	0,000	(-0,274)	0,000	(-0,004)	0,001	(0,686)
Gender	-0,046	(-1,590)	-0,065	(-1,478)	-0,065**	(-2,062)
Education	0,015	(1,326)	0,014	(1,056)	0,020*	(1,770)
Asset Tangibility	-0,059***	(-2,786)	-0,054***	(-3,578)	0,036*	(1,877)
Size	0,554	(1,109)	0,470***	(3,427)	0,142***	(-3,095)
Sales Growth	-0,006	(-1,031)	-0,007	(-1,522)	-0,009*	(-1,749)
D / A	0,019	(0,564)	0,018	(0,475)	-0,034	(-1,107)
Price to Book ratio	0,001	(0,037)	-0,025	(-0,608)	-0,061*	(-1,793)
R^2	0,164		0,174		0,202	
Adj-R^2	0,119		0,124		0,153	
DW	2,296		2,316		2,399	
No. of observations	159		159		158	

The table reports the regression results using profit of the US company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

A CEO's age is positively related to the company profit in all three models. The coefficient for it is 0.002-0.003 in all models with 1% to 10% significance levels. This suggests, that older CEOs tend to experience higher profits in their companies, compared to younger CEOs, which tend to have lower profits.

Gender is negatively related to profit in the 2SLS model. The coefficient for it is -0.07 and it is significant at the 5% significance level. As gender was coded as 1 being male and 0 being female, this finding shows how female CEOs have a positive relationship with the profits of their company, while male CEOs tend to do the opposite.

Education is positively related to the company profit in the 2SLS model. The coefficient for education is 0.02 and it has a significance level of 10%. This suggests that CEOs that are more educated, are also seeing higher profits in their companies.

Asset tangibility yields mixed results in the relationship with profits. The OLS and Sys-GMM models show a negative relationship, while the 2SLS model shows a positive relationship.

The size of a company is significant in the relationship with profit in the Sys-GMM and 2SLS models. It has a coefficient of 0.47 in the Sys-GMM model and a coefficient of 0.14 in the 2SLS model. Both models have a 1% significance level for the coefficient. This positive relationship shows that bigger companies tend to experience higher profits than smaller companies.

Sales growth is negatively related to profits in the Sys-GMM model. The coefficient for sales growth is -0.01 and it is significant at the 10% level. This finding shows that companies which experience a higher sales growth suffer from lower profits.

The price-to-book ratio is negatively related to profits in the Sys-GMM model. The coefficient for this ratio is -0.06 and it has a significance level of 10%. This shows that companies with a higher price-to-book ratio are likely seeing lower profits in their companies.

Table 26: Regression results using Return-on-Equity for the US

Independent variable	**OLS**		**Sys GMM**		**2SLS**	
Age	0,707***	(2,761)	0,599*	(1,803)	0,540	(1,300)
Tenure	-0,362	(-0,708)	-0,325	(-0,706)	-0,425	(-0,762)
Gender	-1,912	(-0,133)	-2,508	(-0,295)	-3,538	(-0,556)
Education	3,065	(0,537)	2,882	(0,698)	5,311	(0,856)
Asset Tangibility	-3,591**	(-2,216)	-2,851***	(-1,160)	1,813	(0,173)
Size	1,339	(0,576)	1,276***	(2,775)	1,417	(-0,564)
Sales Growth	0,022	(0,008)	-0,165	(-0,104)	-0,111	(-0,038)
D / A	2,519***	(1,487)	3,326***	(2,905)	-2,552	(-0,446)
Price to Book ratio	-3,471***	(-2,692)	-3,088*	(-1,876)	-3,637**	(-2,010)
R^2	0,181		0,182		0,069	
Adj-R^2	0,137		0,132		0,012	
DW	2,152		2,156		2,219	
No. of observations	158		158		157	

The table reports the regression results using return-on-equity of the US company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

A CEO's age is positively related to the return-on-equity in the OLS and Sys-GMM model. The coefficient for it is 0.71 in the OLS model with a 1% significance level and 0.60 in the

Sys-GMM model with a 10% significance level. This suggests, that older CEOs tend to experience higher return-on-equity in their companies, compared to younger CEOs, which tend to have lower returns on their companies' equity.

Asset tangibility is negatively related to the return-on-equity in the OLS and Sys-GMM model. Its coefficient is -3.60 in the OLS model and -2.85 in the Sys-GMM model and it is significant at the 1% and 5% level respectively. This shows, that companies with a higher volume of fixed assets are likely to have a lower return on their equity.

The size of the company is a significant positive determinant of the return-on-equity ratio. It has a coefficient of 1.27 with a 1% significance level in the Sys-GMM model. This indicates, that larger companies are having higher return-on-equity ratios, when compared to smaller companies.

The debt-to-assets ratio is positively related to the return-on-equity. The coefficient for the ratio is 2.52 in the OLS model and 3.33 in the Sys-GMM model, while both models have a 1% significance level. This suggests, that companies with a higher debt-to-assets ratio, are also seeing higher returns on their equity.

The price-to-book ratio is negatively related to the return-on-equity in the three models. The coefficients range from -3.09 to -3.64 with a significance level between 1% and 10%. This finding shows that a company, which has a higher price-to-book ratio, is likely seeing lower returns-on-equity.

Table 27: Regression results using Return-on-Assets for the US

Independent variable	OLS		Sys GMM		2SLS	
Age	0,165***	(3,469)	0,227***	(3,125)	0,210***	(3,054)
Tenure	-0,019	(-0,201)	-0,041	(-0,316)	0,027	(0,291)
Gender	-4,771	(-1,788)	-3,250	(-1,090)	-2,908	(-1,032)
Education	0,889	(0,845)	1,006	(0,953)	1,419	(1,404)
Asset Tangibility	-2,940**	(-2,531)	-3,343***	(-2,606)	-3,402**	(-2,379)
Size	3,750	(0,871)	4,109***	(3,318)	1,708***	(-4,110)
Sales Growth	-0,396	(-0,796)	-0,286	(-0,585)	-0,467	(-0,965)
D / A	-0,070	(-0,023)	-0,006	(-0,002)	-0,325	(-0,128)
Price to Book ratio	-0,036	(-0,010)	2,064	(0,511)	1,520	(0,421)
R^2	0,138		0,146		0,229	
Adj-R^2	0,092		0,094		0,182	
DW	2,283		2,292		2,326	
No. of observations	159		159		158	

The table reports the regression results using return-on-assets of the US company sample for the period of January 2014 to December 2017. The t-statistics are shown in parenthesis. ***, ** and * report that the coefficient is significant at the 1%, 5% and 10% levels respectively.

The CEO's age is positively related to the return-on-assets in all three models. The coefficients for it range from 0.17 to 0.23, with a significance level of 1%. This suggests that older CEOs have a positive impact on the return-on-assets in their companies, when compared to younger CEOs.

The asset tangibility is negatively related to the return-on-assets in all models. The coefficients for it range between -2.94 and -3.40, with significance levels of 5% to 10%. This shows that companies that have a higher value of fixed assets, tend to have lower returns on their assets.

The company's size is positively related to the return-on-assets in the Sys-GMM and 2SLS models. It has a coefficient of 4.11 in the Sys-GMM model and 1.71 in the 2SLS model. Both of the models have a significance level of 1%. This means that larger companies tend to have higher returns on their assets, when compared to smaller companies.

4.5 Country Comparison

When comparing the CEO characteristics of all countries, it is clear that there is no clear trend in the relationships between these characteristics and the firm's capital structure and firm performance in the emerging markets. In the two capital structure regressions, debt-to-equity level and long-term-debt-to-total-capitalisation ratio, age was the only significant CEO characteristic in the Mexican sample of the long-term-debt-to-total-capitalisation regression. This finding was also seen in the US sample. This positive relationship suggests that older CEOs would experience more long-term debt level in their companies, when compared to younger CEOs, assuming that all other things are equal. This finding is in contrast to the upper echelon theory, which says that younger managers are more risk-taking than older managers, and therefore tend to have higher debt-to-equity levels (Hambrick & Mason, 1984).

In the firm performance regressions for the emerging markets, tenure as well as gender showed some interesting results. The CEO's tenure was mostly negatively linked to the firm performance indicators, profit, return-on-equity and return-on-assets. This finding is in contrast to a meta-analysis study by Wang et al. (2016). They found that while tenure is negatively related to firm strategic actions, it is positively related to firm performance.

Gender was a positive determinant of the firm performance in emerging markets. As gender was coded as 1 being male and 0 being female, this finding shows that male CEOs have a positive relationship with the firm performance, while female CEOs tend to have a negative effect on the firm performance. Interestingly, the opposite finding was found in the developed market, the US. In this sample, gender was negatively related to the profit, suggesting that female CEOs are linked to higher firm performance than male CEOs. However, as the percentage of female CEOs is very low, ranging from 0% to 5.88% in the country samples, there is only little data available for the gender analysis.

In the US sample, the CEO's age was positively linked to all three firm performance indicators, while in the emerging markets there were mixed results. This finding in the US market shows that older CEOs would experience higher firm performance in their companies, when compared to younger CEOs, assuming that all other things are equal. This finding is supported by Wang et al. (2016). Their study found that the age of the CEO is positively related to both firm strategic actions and firm performance. As profit, return-on-equity and

return-on-assets are all measures of firm performance, this finding is similar to the one by Wang et al. (2016).

Profit and the return-on-equity were the most occurring significant determinants of the capital structure in the emerging market sample. The return-on-equity is negatively related to the capital structure variables in the emerging markets. This suggests that companies that have a higher return-on-equity ratio, tend to have less debt compared to equity. The US sample however shows the opposite finding, as the return-on-equity is a positive determinant of both capital structure ratios.

Profit is positively linked to the capital structure variables, meaning that companies that have higher profits also tend to have a higher debt-to-equity ratio as well as long-term-debt-to-total-capitalisation ratio. Matemilola et al. (2017) found a similar relationship in their study in Malaysia, where profit was also a positive determinant of several capital structure measures. However, several studies, which have previously been conducted in developed markets, found opposite results, suggesting that a company's profitability negatively impacts its debt-to-equity ratio (Rajan and Zingales, 1995; Frank and Goyal, 2009; Wald, 1999).

5 Conclusion

This research studied whether there is a relationship between a CEO's characteristics and the company's capital structure and firm performance. Additionally, this study compared this relationship in emerging markets and a developed market. It showed the importance of different CEO characteristics, by looking at the impact of these characteristics.

The different countries had some differences with regard to the mean CEO age, tenure, gender and education level. Overall, the regression results with regard to the CEO characteristics are relatively weak. However, there were some important findings. CEO age was found to be positively influencing the capital structure of both the emerging and developed markets, meaning that older CEOs tend to be in companies with a higher debt-to-equity ratio.

Tenure was found to have a negative relationship with firm performance. This suggests that CEOs that have been in their position for a longer period of time were seeing lower firm performance in their companies. Additionally, male CEOs were found to have a higher firm performance than female CEOs in the emerging markets, while the opposite was found in the developed market, the US. The US sample also showed a positive relationship between CEO age and firm performance, meaning that older CEOs had a better firm performance when compared to younger CEOs.

There were several mixed results found for the non-CEO related variables, that had an effect on both the capital structure and the firm performance. The return-on-equity was negatively linked to capital structure in the emerging markets, but had a positive relationship with the capital structure in the US. Profit had a positive effect on the capital structure in the emerging markets, but not in the developed market.

6 Further Research

As some of the CEO characteristics results from the recessions were weak, there is scope to improve the model, by possibly increasing the sample size. A second data source, apart from the Bloomberg source, could be able to give CEO data on more companies, thus increasing the sample size. Additionally, the regressions could also be done separately for each different industry. As different industries might impact the capital structure and financial performance of different companies, this additional analysis could shed more light on these differences.

This research only used companies where there was no CEO change in the sample period. However, it could be of great interest to have a long-term study, which looks at the changes in capital structure and firm performance based on changes in the CEOs as well as their characteristics.

7 Reference List

Agle, B.R., Sonnenfeld, J.A. & Srinivasan, D. (2006). Does CEO charisma matter? An empirical analysis of the relationships among organisational performance, environmental uncertainty and top management team perceptions of CEO charisma. *Academy of Management Journal*, 49(1), 161-174

Alves, P., Couto, E.B. & Francisco, P.M. (2015). Board of directors' composition and capital structure. *Research in International Business and Finance*, 35(2), 1-32

Andersen, R.C., Mansi, S.A., Reeb, D.M. (2004). Board characteristics, accounting report integrity, and the cost of debt. *Journal of Accounting and Economics*, 37 (3), 315-342

Antoniou, A., Guney, Y. & Paudayal, K. (2008). The Determinants of Capital Structure: Capital market-oriented versus bank-oriented institutions. *Journal of Financial and Quantitative Analysis*, 43(1), 59-92

Badru, O.B., Zaluki, N.A.A. & Wan-Hussin, W.N. (2017). Board characteristics and the amount of capital raised in the Malaysian IPO market. *Journal of Multinational Financial Management*, 42-43, 47-55

Berger, A.N. & Bonaccorsi di Patti, E. (2006). Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry, *Journal of Banking & Finance*, 30, 1065-1102

Bertrand, M. & Schoar, A. (2003). Managing with style: The effect of managers on firm policies. *The Quarterly Journal of Economics*, 188(4), 1169-1208

Campbell, K. & Minguez Vera, A. (2009). Female board appointments and firm valuation: short and long-term effects. *Journal of Management & Governance*, 14 (1), 37-59

Cekrezi, A. (2013). A literature review of the trade-off theory of capital structure. *ILIRIA International Review*, 1, 125-134

Celil, H.S. & Kim, D.S. (2014). Are CEOs relevant to capital structure? Retrieved 5th January, 2019, from http://www.fmaconferences.org/Seoul/Papers/CelilKim2014.pdf

Charalambakis, E.C. & Psychoyios, D. (2012). What do we know about capital structure? Revisiting the impact of debt ratios on some firm-specific factors. *Applied Financial Economics*. 22(20), 1727-1742

Child, J. (1974). Managerial and organisational factors associated with company performance – Part 1. *The Journal of Management Studies*, 11 (3), 175-189

Chumney, E.C.G. & Simpson, J.N. (2006). *Methods and designs for outcomes research*. New York: ASHP

Company Overview of Icahn Enterprises L.P. (n.d.). Retrieved 5th June, 2018, from https://www.bloomberg.com/research/stocks/private/person.asp?personId=222470486&privcapId=250592

Diks, J. (2016). The impact of CEO characteristics on firm value

Donnelly, G. (February 9th, 2018). Retrieved 15th November, 2018, from https://www.google.co.za/amp/amp.timeinc.net/fortune/2018/02/09/us-life-expectancy-dropped-again

Eduardo, M. & Poole, B. (2016). CEO age and gender: Subsequent market performance. *Cogent Business & Management*, 2016 (3), 1-8

Fain, P. (September 13th, 2017). Retrieved 10th December 2018, from https://www.insidehighered.com/news/2017/09/13/world-economic-forum-gives-us-high-marks-human-capital-development

Flannery, M.J. & Hankins, K.W. (2013). Estimating Dynamic Panel Models in Corporate Finance. *Journal of Corporate Finance*. 19(1), 1-19

Fortune 500 – Icahn Enterprises. (n.d.). Retrieved 15th June, 2018, from http://fortune.com/fortune500/icahn-enterprises/

Frank, M.Z. & Goyal, V.K. (2009). Capital structure decisions: which factors are reliably important? *Financial Management*, 38(1), 1-37

Ghazouani, T. (2013). The capital structure through the trade-off theory: evidence from Tunisian firm. *International Journal of Economics and Financial Issues*, 3(3), 625-636

Goel, M. & Sapra, R. (2015). Impact of corporate governance mechanisms on capital structure of firms. *International Journal of Multidisciplinary Approach and Studies*, 2(4), 54-60

Gorts, B.W.M. (2016). The effect of CEO characteristics on corporate financial policy. Retrieved 16th December, 2018, from http://arno.uvt.nl/show.cgi?fid=142137

Hambrick, D.C. (2007). Upper echelons theory: An update. *Academy of Management Review*, 32(2), 334-343

Hambrick, D.C. & Mason, P.A. (1984). Upper echelons: The organisation as a reflection of its top managers. *The Academy of Management Review*, 9(2), 193-206

Harris, M. & Raviv, A. (1991). The theory of capital structure. *The Journal of Finance*, 46(1), 297-355

Icahn Enterprises LP. (n.d.). Retrieved 15th June, 2018, from https://www.bloomberg.com/profiles/companies/IEP:US-icahn-enterprises-lp

Javos, J. & Bartosova, V. (2015). To the capital structure choice: Miller and Modigliani model. *Procedia Economic and Finance*, 26, 351-358

Jensen, M. (1986). Agency cost of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 76(2), 323-329

Jiraporn, P. (2008). Capital structure, CEO dominance, and corporate performance

Jochen Zeitz. (n.d.). Retrieved 28th May, 2018, from http://www.bteam.org/team/jochen-zeitz/

Kuo, H.C. & Wang, L.H. (2015). CEO constellation, capital structure and financial performance. *International Journal of Financial Research*, 6(4), 76-89

Leland, H.E. (1994). Corporate debt value, bond covenants, and optimal capital structure. *The Journal of Finance*, 49(4), 1213-1252

Li, T., Munir, Q. & Karim, M.R.A. (2017). Nonlinear relationship between CEO power and capital structure: Evidence from China's listed SMEs. *International Review of Economics and Finance*, 47(2), 1-21

Liu, Y. & Jiraporn, P. (2010). The effect of CEO power on bond ratings and yields. *Journal of Empirical Finance*, 17(4), 744-762

Li, Y. & Lang, L. (2014). Top managers' confidence, ultimate controller and firm value: a study based on empirical analysis and monte carlo simulation. *Pakistan Journal of Statistics*, 30(5), 973-986

Malmendier, U. Tate, G. & Yan, J. (2010). Managerial Beliefs and Corporate Financial Policies.

Matemilola, B.T., Ariffin, A.N., Saini, W.N.W.A. & Nassir, A.M. (2017). Does top managers' experience affect firms' capital structure? *Research in International Business and Finance*, 45(1), 488-498

Modigliani, F. & Miller, M.H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261-297

Modigliani, F. & Miller, M.H. (1963). Corporate income taxes and the cost of capital: A correction. *The American Economic Review*, 53 (3), 433-443

Myers, S.C. (1984). The capital structure puzzle. *The Journal of Finance*, 39(3), 575-592

Myers, S.C. (2001). Capital Structure. *Journal of Economic Perspectives*, 15(2), 81-102

Naseem, M.A., Zhang, H., Malik, F. & Rehman, R.U. (2017). Capital structure and corporate governance. *The Journal of Developing Areas*, 51(1), 34-47

Newey, W. (2007). Course materials for 14.385 New Econometric Methods. *MIT OpenCourseWare, Massachusetts Institute of Technology*. Retrieved 23rd July 2018, from http://ocw.mit.edu

Pandey, I.M. (2001). Capital structure and the firm characteristics: Evidence from an emerging market. *IIMA Working Paper No. 2001-10-04*

Peni, E. (2014). CEO and chairperson characteristics and firm performance. *Journal of Management & Governance*. 18 (1), 185-205

Pratheepan, T. (2014). A panel data analysis of profitability determinants. *International Journal of Economics, Commerce and Management,* 12(2), 1-9

Queiro, F. (2016). The effect of manager education on firm growth. Retrieved 5th January, 2019, from http://www.eief.it/files/2016/01/02-jmp_queiro-updated.pdf

Rajan, R.G. Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance*, 50(5), 1421-1460

Titman, S. & Wessels, R. (1988). The determinants of capital structure choice. *The Journal of Finance*, 43(1), 1-19

Tosun, O.K. (2016). The effect of CEO option compensation on the capital structure: A natural experiment. *Financial Management*, 45(4), 953-979

Trading Economics (n.d.). Retrieved 6th December, 2018, from https://tradingeconomics.com/united-states/corporate-tax-rate

Wald, J.K. (1999). How firm characteristics affect capital structure: An international comparison. *The Journal of Financial Research*, 22(2), 161-187

Wang, G., Homes, R.M., Oh, I. & Zhu, W. (2016). Do CEOs matter to firm strategic actions and firm performance? A meta-analytic investigation based on upper echelons theory. *Personnel Psychology*, 69, 775-862

Wen, Y., Rwegasira, K. & Bilderbeek, J. (2002). Corporate governance and capital structure decisions of the Chinese listed firms. Corporate Governance – An International Review, 10(2), 75-83

Zshohar, P. (2012). Short introduction to the generalised method of moments. *Hungarian Statistical Review*, 90(16), 150-170

8 Appendix

A 1: Indonesian Companies

Adi Sarana Armada Tbk.
Andira Agro Tbk.
Aneka Gas Industri Tbk.
Apexindo Pratama Duta Tbk.
Arpeni Pratama Ocean Line Tbk.
Arwana Citramulia Tbk.
Asiaplast Industries Tbk.
Astra International Tbk.
Astra Otoparts Tbk.
Atlas Resources Tbk.
Bayan Resources Tbk.
Bentoel Internasional Investam
Betonjaya Manunggal Tbk.
BISI International Tbk.
Blue Bird Tbk.
Borneo Lumbung Energi & Metal
Buana Lintas Lautan Tbk.
Budi Starch & Sweetener Tbk.
Bukaka Teknik Utama Tbk.
Bumi Resources Tbk.
Cakra Mineral Tbk.
Central Omega Resources Tbk.
Champion Pacific Indonesia Tbk
Ciputra Development Tbk.
Citatah Tbk.
Delta Dunia Makmur Tbk.
Duta Pertiwi Nusantara Tbk.
Eka Sari Lorena Transport Tbk.
Energi Mega Persada Tbk.
Eureka Prima Jakarta Tbk.
Fortune Mate Indonesia Tbk
Gihon Telekomunikasi Indonesia
Grand Kartech Tbk.
Gudang Garam Tbk.
Gunawan Dianjaya Steel Tbk.
Harum Energy Tbk.
Humpuss Intermoda Transportasi
Impack Pratama Industri Tbk.
Indofood Sukses Makmur Tbk.
Indomobil Sukses Internasional
Jakarta Kyoei Steel Works Tbk.
Jaya Agra Wattie Tbk.
Jaya Real Property Tbk.
Jaya Sukses Makmur Sentosa Tbk
Jembo Cable Company Tbk.
Kino Indonesia Tbk.
Langgeng Makmur Industri Tbk.
Lionmesh Prima Tbk.
Lippo Karawaci Tbk.
Logindo Samudramakmur Tbk.
Mayora Indah Tbk.
Megapolitan Developments Tbk.
Megapower Makmur Tbk.
Metropolitan Kentjana Tbk.
Mitra International Resources
Modernland Realty Tbk.
Multi Bintang Indonesia Tbk.
Multistrada Arah Sarana Tbk.
Name
Name
Name
Pan Brothers Tbk.
Pelangi Indah Canindo Tbk
Pelat Timah Nusantara Tbk.
Pelayaran Nelly Dwi Putri Tbk.
Perdana Gapuraprima Tbk.
Perdana Karya Perkasa Tbk
Pikko Land Development Tbk.
Plaza Indonesia Realty Tbk.
Polychem Indonesia Tbk
PP London Sumatra Indonesia Tb
Prasidha Aneka Niaga Tbk
Pyridam Farma Tbk
Radiant Utama Interinsco Tbk.
Ratu Prabu Energi Tbk
Resource Alam Indonesia Tbk.
Ricky Putra Globalindo Tbk
Saranacentral Bajatama Tbk.
Sky Energy Indonesia Tbk.
Steadfast Marine Tbk.

Indopoly Swakarsa Industry Tbk	Steel Pipe Industry of Indones
Indospring Tbk.	Surya Esa Perkasa Tbk.
Inti Agri Resources Tbk	Tiga Pilar Sejahtera Food Tbk.
Inti Bangun Sejahtera Tbk.	Tri Banyan Tirta Tbk.
J Resources Asia Pasifik Tbk.	Vale Indonesia Tbk.

A 2: Mexican Companies

Accel, S.A.B. de C.V.
Alfa, S.A.B. de C.V.
Alpek S.A.B. de C.V.
Altos Hornos de Mexico, S.A.B. de C.V.
America Movil, S.A.B. de C.V.
Arca Continental, S.A.B. de C.V.
Consorcio Ara, S.A.B. de C.V.
Controladora Comercial Mexicana, S.A.B. de C.V.
Corporación Interamericana de Entretenimiento, S.A.B. de C.V.
Corporativo Fragua, S.A.B. de C.V.
Empresas Cablevision, S.A.B. de C.V.
Gruma, S.A.B. de C.V.
Grupe, S.A.B. de C.V.
Grupo Aeromexico, S.A.B. de C.V.
Grupo Aeroportuario del Centro, S.A.B. de C.V.
Grupo Aeroportuario del Sureste, S.A.B. de C.V.
Grupo Bafar, S.A.B. de C.V.
Grupo Bimbo, S.A.B. de C.V.
Grupo Comercial Chedraui, S.A.B. de C.V.
Grupo Famsa, S.A.B. de C.V.
Grupo Herdez, S.A.B. de C.V.
Grupo Lamosa, S.A.B. de C.V.
Grupo Mexicano de desarrollo, S.A.B. de C.V.
Grupo Mexico, S.A.B. de C.V.
Grupo Pochteca, S.A.B. de C.V.
Grupo Posadas, S.A.B. de C.V.
Grupo Rotoplas, S.A.B. de C.V.
Grupo Sanborns, S.A.B. de C.V.
Grupo Simec, S.A.B. de C.V.
Grupo Sports World, S.A.B. de C.V.
Grupo TMM, S.A.B. de C.V.
Grupo Vasconia, S.A.B. de C.V.
Hoteles City Express, S.A.B. de C.V.
Impulsora del Desarrollo y el Empleo en America Latina, S.A.B. de C.V.
Industrias Bachoco, S.A.B. de C.V.
Industrias CH, S.A.B. de C.V.
Industrias Penoles, S.A.B. de C.V.
Infraestructura Energetica Nova, S.A.B. de C.V.
Internacional de Ceramica, S.A.B. de C.V.
Kimberly-Clark de Mexico, S.A.B. de C.V.
Megacable Holdings, S.A.B. de C.V.
Minera Frisco, S.A.B. de C.V.
OHL Mexico, S.A.B. de C.V.
Organizacion Soriana, S.A.B. de C.V.
Promotora Ambiental, S.A.B. de C.V.
Proteak Uno, S.A.B. de C.V.
Vitro, S.A.B. de C.V.

A 3: South African Companies

AH-Vest Limited
Anglo American Platinum Limited
Keaton Energy Holdings Limited
Sappi Limited
SA Corporate Real Estate Limited
Merafe Resources Limited
Rare Holdings Limited
African Rainbow Minerals Limited
Cashbuild Limited
Moneyweb Holdings Limited
Sephaku Holdings Limited
Pur Corporation Limited
Santova Limited
Kibo Mining Plc
Fairvest Property Holdings Limited
Murray & Roberts Holdings Limited
Hyprop Investments Limited
Putprop Limited
Royal Bafokeng Platinum Limited
Bowler Metcalf Limited
British American Tobacco Plc
African Media Entertainment Limited
Jubilee Platinum Plc
Rebosis Property Fund Limited
Hulamin Limited
Intu Properties Plc
Raubex Group Limited
Andulela Investment Holdings Limited
ISA Holdings Limited
Lewis Group Limited
Astral Foods Limited
Mr Price Group Limited
BSI Steel Limited
Mpact Limited
DRDGOLD Limited
Gold Fields Limited
Adapt It Holdings Limited
Ingenuity Property Investments Ltd
Kaydav Group Limited
Adrenna Property Group Limited
Cognition Holdings Limited
Consolidated Infrastructure Group Ltd
Stefanutti Stocks Holding Ltd
Afrimat Limited
Huge Group Limited
Comair Limited
Crookes Brothers Limited
Petmin Limited
Clover Industries Limited
Clicks Group Limited
AVI Limited
Netcare Limited
Diamondcorp Plc
Oando Plc
Raven Property Group Limited
Growthpoint Properties Limited
Choppies Enterprises Lmited
Rex Trueform Clothing Company Ltd
City Lodge Hotels Limited
RCL Foods Lmited
Onelogic Group Limited
ELB Group Limited
Resilient REIT Limited
Nu-World Holdings Limited
Combined Motor Holdings Limited
Invictra Holdings Limited
Aspen Pharmacare Holdings Limited
Argent Industrial Limited
Rhodes Food Group Holdings Limited
Hosken Consolidated Investments Ltd
Balwin Properties Pty Limited
Mix Telematics Limited
Discovery Limited
Mustek Ltd
Datatex Limited
PSV Holdings Limited
Advanced Health Limited

A 4: US Companies

58.com Inc.
8x8 Inc
AAC Holdings, Inc.
ABB Ltd
Abbott Laboratories
Acadia Realty Trust
Accenture plc
Acuity Brands Inc
Adecoagro S.A.
Aercap Holdings N.V.
AGCO Corporation
Agnico Eagle Mines Limited
Allegion plc
Ameresco, Inc.
American Campus Communities Inc
American Homes 4 Rent
American Renal Associates Holdings, Inc
American Tower Corporation (REIT)
American Vanguard Corporation
Amira Nature Foods Ltd
Antero Midstream Partners LP
Antero Resources Corporation
Apartment Investment and Management Company
AquaVenture Holdings Limited
Arbor Realty Trust
Arrow Electronics, Inc.
Astrazeneca PLC
Atento S.A.
Boot Barn Holdings, Inc.
Briggs & Stratton Corporation
Bunge Limited
CACI International, Inc.
CAE Inc
Camden Property Trust
Cameco Corporation
CatchMark Timber Trust, Inc.
CBL & Associates Properties, Inc.
Chatham Lodging Trust (REIT)
Chemed Corp.
Cigna Corporation
Cimarex Energy Co
Highwoods Properties, Inc.
HubSpot, Inc.
Humana Inc.
Hyatt Hotels Corporation
Independence Realty Trust, Inc.
Inspire Medical Systems, Inc.
Interpublic Group of Companies, Inc. (The)
Iron Mountain Incorporated
IRSA Inversiones Y Representaciones S.A.
iStar Inc.
James Hardie Industries plc.
K12 Inc
KAR Auction Services, Inc
L Brands, Inc.
Lennox International, Inc.
M/I Homes, Inc.
Macerich Company (The)
Marathon Petroleum Corporation
Marine Products Corporation
MDU Resources Group, Inc.
Medical Properties Trust, Inc.
Modine Manufacturing Company
MSC Industrial Direct Company, Inc.
Murphy Oil Corporation
National Presto Industries, Inc.
Navigator Holdings Ltd.
Navios Maritime Holdings Inc.
Netshoes (Cayman) Limited
Newfield Exploration Company
Newpark Resources, Inc.
NiSource, Inc
Northrop Grumman Corporation
Omega Healthcare Investors, Inc.
Owens Corning Inc
Parsley Energy, Inc.
Pearson, Plc
Phillips 66
Phillips 66 Partners LP
Pinnacle West Capital Corporation
Polaris Industries Inc.
Praxair, Inc.

CIRCOR International, Inc.
Clearwater Paper Corporation
Colgate-Palmolive Company
Compania Cervecerias Unidas, S.A.
Comstock Resources, Inc.
ConocoPhillips
CVR Partners, LP
CVS Health Corporation
Deere & Company
Diageo plc
Dolby Laboratories
Dominion Energy, Inc.
Dover Downs Gaming & Entertainment Inc
Dover Motorsports, Inc.
Ecolab Inc.
Emerson Electric Company
Empire State Realty Trust, Inc.
Empresa Distribuidora Y Comercializadora Norte S.A. (Edenor)
Energen Corporation
Ennis, Inc.
EPAM Systems, Inc.
Estee Lauder Companies, Inc. (The)
Ethan Allen Interiors Inc.
Fair Isaac Corporation
Farfetch Limited
Federal Realty Investment Trust
FedEx Corporation
Fluor Corporation
Fortuna Silver Mines Inc.
Fortune Brands Home & Security, Inc.
FutureFuel Corp.
General Dynamics Corporation
Genesco Inc.
Genpact Limited
Glatfelter
Global Ship Lease, Inc.
Guidewire Software, Inc.
Halcon Resources Corporation
Healthcare Trust of America, Inc.
Hersha Hospitality Trust
Hexcel Corporation
Precision Drilling Corporation
Quad Graphics, Inc
Quanex Building Products Corporation
Range Resources Corporation
Ringcentral, Inc.
Robert Half International Inc.
RPM International Inc.
Scorpio Bulkers Inc.
Scorpio Tankers Inc.
Seabridge Gold, Inc.
SEACOR Holdings, Inc.
Simon Property Group, Inc.
Six Flags Entertainment Corporation New
SL Green Realty Corp
Sprague Resources LP
Stage Stores, Inc.
Star Group, L.P.
STARWOOD PROPERTY TRUST, INC.
STORE Capital Corporation
Suncor Energy Inc.
Teledyne Technologies Incorporated
Tetra Technologies, Inc.
The AES Corporation
Thermo Fisher Scientific Inc
Tutor Perini Corporation
UGI Corporation
Under Armour, Inc.
Under Armour, Inc.
Vail Resorts, Inc.
Varian Medical Systems, Inc.
Vectren Corporation
Vmware, Inc.
W.R. Grace & Co.
Western Union Company (The)
Wheaton Precious Metals Corp.
Whitestone REIT
Williams-Sonoma, Inc.
World Wrestling Entertainment, Inc.
Zayo Group Holdings, Inc.
Zendesk, Inc.