

إقرار

أنا الموقع أدناه مقدم الرسالة التي تحمل العنوان:

محددات هيكل رأس المال - دراسة تطبيقية على الشركات المدرجة في سوق فلسطين للأوراق المالية

The Determinants of Capital Structure an Empirical Study of Companies listed in Palestine Exchange

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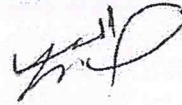
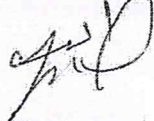
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Student's name: Taleb Saleh Taleb

طالب صالح طالب

اسم الطالب:

Signature:



التوقيع:

Date:

2015/10/14

2015/10/14

التاريخ:

Islamic University – Gaza

Deanship of Post Graduate Studies

Faculty of Commerce

Department of Business Administration



The Determinants of Capital Structure
"An Empirical Study of Companies listed in
Palestine Exchange (2009-2014)"

Prepared by:

Taleb Saleh Taleb

Supervisor by:

Prof. Faris Abu-Moumer

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نتيجة الحكم على أطروحة ماجستير

بناءً على موافقة شئون البحث العلمي والدراسات العليا بالجامعة الإسلامية بغزة على تشكيل لجنة الحكم على أطروحة الباحث/ طالب صالح طالب لنييل درجة الماجستير في كلية التجارة/ قسم إدارة الأعمال وموضوعها:

محددات هيكل رأس المال - دراسة تطبيقية على الشركات المدرجة في سوق فلسطين للأوراق المالية

The Determinants of Capital Structure an Empirical Study of Companies listed in Palestine Exchange

وبعد المناقشة العلنية التي تمت اليوم الأربعاء 30 ذو الحجة 1436هـ، الموافق 2015/10/14م الساعة العاشرة صباحاً بمبنى القدس، اجتمعت لجنة الحكم على الأطروحة والمكونة من:

أ.د. فارس محمود أبو معمر مشرفاً و رئيساً
أ.د. يوسف حسين عاشور مناقشاً داخلياً
د. بهاء الدين أحمد العريني مناقشاً خارجياً

وبعد المداولة أوصت اللجنة بمنح الباحث درجة الماجستير في كلية التجارة/ قسم إدارة الأعمال.

واللجنة إذ تمنحه هذه الدرجة فإنها توصيه بتقوى الله وبنوع طاعته وأن يسخر علمه في خدمة دينه ووطنه.

والله ولي التوفيق ،،،

نائب الرئيس لشئون البحث العلمي والدراسات العليا

أ.د. عبدالرؤف علي المناعمة

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى:

{يَرْفَعُ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ}

صدق الله العظيم

(المجادلة 11)

Abstract

This study examines capital structure determinants of companies listed in Palestine Exchange. The study population consisted of 49 listed companies and the study sample consisted of 35 listed companies during the period (2009-2014). This study used the descriptive analysis to analyze the financial reports of the companies for six years using the E-Views program. The data of the study variables during this period was collected from the annual financial reports (balance sheet and income statement). The capital structure determinants were used as dependent variables was expressed as: Short term debt (STD), Long term debt (LTD), Total debt (TD). The study used seven independent variables as: Firm age, Liquidity, Profitability, Tangibility, Risk, Firm size, Growth Opportunities. The study showed that there is a significant relationship between the dependent variables: Short term debt (STD), Long term debt (LTD), Total debt (TD), and all the independent variables: Age, Liquidity, Profitability, Tangibility, Risk, Size and Growth. In addition, The study found that there is a negative relationship between Liquidity, Profitability, Growth, Age and Capital structure, and found a positive relationship between Capital Structure and Tangibility, Risk, Size. The study recommended that all companies in all sectors have to finance the future expansion of their investment, and advises companies to maintain a good reputation throughout all stages of their lives to retain the advantage of access to debt and take advantage of the leverage in time of need.

Abstract (Arabic)

ملخص الدراسة

تناولت هذه الدراسة محددات هيكل رأس المال للشركات المدرجة في سوق فلسطين للأوراق. ويتكون مجتمع الدراسة من 49 شركة مدرجة في سوق فلسطين للأوراق المالية، تم اختيار عينة تتكون من 35 شركة مدرجة خلال الفترة (2009-2014). استخدمت هذه الدراسة التحليل الوصفي لتحليل التقارير المالية للشركات لمدة ست سنوات باستخدام برنامج E- Views. تم جمع بيانات متغيرات الدراسة خلال هذه الفترة من التقارير المالية السنوية (الميزانية العمومية وقائمة الدخل). تم استخدام هيكل رأس المال كمتغير تابع وتم التعبير عنه بالديون قصيرة الأجل (STD)، والديون طويلة الأجل (LTD)، ومجموع الديون (TD). كما استخدمت الدراسة سبع متغيرات مستقلة على النحو التالي: عمر الشركة، السيولة، الربحية، الملموسية، المخاطر، حجم الشركة، النمو. وأظهرت الدراسة أن هناك علاقة ذات دلالة إحصائية بين المتغيرات التابعة: الدين قصير الأجل (STD)، والديون طويلة الأجل (LTD)، ومجموع الديون (TD)، وجميع المتغيرات المستقلة: العمر، السيولة، الربحية، ملموسية، المخاطر، حجم والنمو. وبالإضافة إلى ذلك، وجدت الدراسة أن هناك علاقة سلبية بين السيولة والربحية والنمو، والعمر هيكل رأس المال، وعثرت على وجود علاقة إيجابية بين هيكل رأس المال وملموسية، المخاطر، والحجم. وأوصت الدراسة بأن جميع الشركات في جميع القطاعات لديها لتمويل التوسع المستقبلي لاستثماراتهم، وتتصح الشركات للحفاظ على سمعة طيبة في جميع مراحل حياتهم على الاحتفاظ بميزة الوصول إلى الديون والاستفادة من النفوذ في وقت تحتاج إليها.

Deduction

To my dear father and my kind mother.

To my beloved wife and my beloved children.

To my generous family.

To my honorable university.

To my friends, who support me all the time.

To my lovely country Palestine.

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This thesis is by far the most important accomplishment of my life and it would have been impossible without the help of God Almighty then the support of many people. I would therefore like to offer my sincere gratitude to all of them.

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Contents

| | |
|---|------------|
| Abstract..... | III |
| Abstract (Arabic) | III |
| Deduction | V |
| Acknowledgments | VI |
| Contents | VII |
| Chapter (1): Study Background | 1 |
| 1.1. Introduction | 2 |
| 1.2. Research problem | 3 |
| 1.3. The Study importance | 3 |
| 1.4 The Study Objectives | 3 |
| 1.5. Study variables | 4 |
| 1.6. Study hypotheses | 4 |
| Chapter (2): Literature Review | 7 |
| 2.1 Arabic Studies:..... | 7 |
| 2.2 Foreign studies: | 10 |
| Chapter (3): Theoretical Framework (Capital Structure) | 21 |
| 3.1 Introduction..... | 22 |
| 3.2 Overview of Palestine Exchange (PEX): | 23 |
| 3.3 Capital Structure Definitions | 23 |
| 3.4 Capital Structure Theories: | 24 |
| 3.4.1 Traditional view: | 24 |
| 3.4.2 Modigliani and Miller Theory: | 25 |
| 3.4.3 Trade-off Theory: | 26 |
| 3.4.4 Pecking Order theory | 27 |
| 3.4.5 Agency Costs Based Theory: | 28 |
| 3.4.6 Signaling effect: | 28 |
| 3.4.7 Market Timing Theory..... | 28 |
| 3.5 Determinants of Capital Structure | 30 |
| 3.5.1 Age | 30 |
| 3.5.2 Liquidity | 30 |
| 3.5.3 Profitability..... | 30 |
| 3.5.4 Tangibility | 31 |
| 3.5.5 Risk | 32 |
| 3.5.6 Size | 32 |
| 3.5.7 Growth Opportunities | 33 |
| Chapter (4): The Study Methodology | 35 |
| 4.1 Introduction..... | 35 |

| | |
|--|-----------|
| 4.2 Purpose..... | 35 |
| 4.3 Study Design | 35 |
| 4.4 Study Population: | 35 |
| 4.5 Study Sample:..... | 36 |
| 4.6 Investigative Techniques | 36 |
| 4.7 Data Collection | 36 |
| 1.Primary sources: | 36 |
| 2.Secondary sources:..... | 37 |
| 4.8Data Analysis Plan..... | 37 |
| Chapter (5): Data Analysis & Test the Hypothesis..... | 39 |
| 5.1 Introduction | 40 |
| 5.2 Descriptive analysis for dependent variables capital structure | 41 |
| 5.3 Building Regression Models for the data | 45 |
| 5.3.1 First: BANKING SECTOR | 45 |
| 5.3.2 Second: INDUSTRIES SECTOR | 53 |
| 5.3.3 Third: INSURANCE SECTOR | 60 |
| 5.3.4 Fourth: INVESTING SECTOR | 67 |
| 5.3.5 Fifth: SERVICES SECTOR..... | 74 |
| Chapter (6): Results And Recommendation | 82 |
| 6.1 The results..... | 82 |
| 6.1.1 Banking Sector:..... | 82 |
| 6.1.2 Industries Sector:..... | 82 |
| 6.1.3 Insurance Sector: | 82 |
| 6.1.4 Investing Sector:..... | 82 |
| 6.1.5 Services Sector:..... | 82 |
| 6.2 The recommendations | 83 |
| 6.3 Future studies:..... | 83 |
| Appendix | 89 |
| 12.1First: Statistical Analysis | 90 |
| 12.2 Second: Financial Analysis | 107 |

List of tables

| | |
|--|----|
| Table (1): Summary of the Literature Review | 15 |
| Table (2): Summery of the current study | 20 |
| Table (3):Determinants of capital structure according to this theories: | 28 |
| Table (4): Describe the study population (Sectors) | 35 |
| Table (5): Describe the study sample (sectors) | 36 |
| Table (6) : Abstract of Measures of Capital Structure Determinants. | 37 |
| Table (7) : Descriptive analysis for dependent variables capital structure | 41 |
| Table (8): Descriptive analysis for independent variables - BANKING SECTOR | 42 |
| Table (9): Descriptive analysis for independent variables - INDUSTRIES SECTOR | 42 |
| Table (10) : Descriptive analysis for independent variables - INSURANCE SECTOR | 43 |
| Table (11): Descriptive analysis for independent variables - INVESTING SECTOR | 43 |
| Table (12) : Descriptive analysis for independent variables (- SERVICES SECTOR | 44 |
| Table (13): The Regression Analysis: STD - BANKING SECTOR | 46 |
| Table (14): The Regression Analysis: LTD - BANKING SECTOR | 48 |
| Table (15): The Regression Analysis: TD - BANKING SECTOR | 50 |
| Table (16): The Regression Analysis: STD - INDUSTRIES SECTOR | 54 |
| Table (17): The Regression Analysis: LTD - INDUSTRIES SECTOR | 56 |
| Table (18): The Regression Analysis: TD - INDUSTRIES SECTOR | 57 |
| Table (19) : The Regression Analysis: STD - INSURANCE SECTOR | 61 |
| Table (20): The Regression Analysis: LTD - INSURANCE SECTOR | 63 |
| Table (21): The Regression Analysis: TD - INSURANCE SECTOR | 64 |
| Table (22): The Regression Analysis: STD - INVESTING SECTOR | 68 |
| Table (23): The Regression Analysis: LTD - INVESTING SECTOR | 70 |
| Table (24): The Regression Analysis: TD - INVESTING SECTOR | 72 |
| Table (25): The Regression Analysis: STD - SERVICES SECTOR | 75 |
| Table (26): The Regression Analysis: LTD - SERVICES SECTOR | 77 |
| Table (27): The Regression Analysis: TD - SERVICES SECTOR | 78 |
| Table (28) : Summary of Testing hypothesis | 80 |
| Table (29): Companies Name (Sample) | 90 |

List of Figure

| | |
|---|----|
| Figure 1: Hypotheses..... | 5 |
| Figure 2:static Trade off theory of capital structure | 27 |

List of Abbreviations

| | |
|------|--|
| EBIT | Earnings before interest and taxes |
| FMDV | Financial Market Development Variables |
| G | Growth |
| LQ | Liquidity |
| LTD | Long Term Debt |
| MM | Modigliani and miller |
| NDTS | Non-debt tax shields |
| PEX | Palestine Stock Exchange |
| PROF | Profitability |
| ROA | Return on Assets |
| ROE | Return on Equity |
| STD | Short Term Debt |
| TA | Total Assets |
| TANG | Tangibility |
| TD | Total Debt |

Chapter 1

Study Background

1.1. Introduction

Capital structure is considered one of the most important topics that have been tackled by theories and literature of accounting and finance. It has been used to specify the best mixture and identify the affecting factors in the capital structure, besides guiding firms to make their optimal capital structure decisions. The argument regarding the determinants of capital structure began since Modigliani and Miller (1958) and concluded to the broadly known theory of capital structure where financial leverage does not affect the firm's market value. This theory was based on very restrictive assumptions that do not hold in the real world. Modigliani and Miller (1963) reviewed their theory by incorporating tax benefits as determinants of the capital structure of firms. The argument continued to Miller (1977) and was based on three tax rates that determine the total value of the firm. These are: (1) The corporate tax rate, (2) The tax rate imposed on the income of the dividends, (3) The tax rate imposed on the income of interest inflows. (Abu Mouamer, 2011).

Titman & Wessels, (1988) list some fundamental conditions that make the (MM) proposition hold: 1. (distortionary) taxes, 2. transaction costs, 3. bankruptcy costs, 4. Perfect contracting assumptions, and 5. Complete and perfect market assumption. Since the publication of MM's irrelevance proposition, hundreds of articles on the theory of capital structure have been written in order to find out under what conditions capital structure does matter because the impact of firm characteristics on a firm's financing choices has been extensively studied across firms and countries; for example, Rajan and Zingales (1995), Goyal and Frank (2003) studied US firms, while Deesomsak, Paudyal and Pescetto (2004) studied determinants of capital structure from Asia Pacific region. (Mosa, 2012) studied the national telecommunications companies in the Arab world. but Abu Mouamer (2011), studied Palestine-listed companies. This study explored the determinants of capital Structure of listed companies in Palestine Exchange, from the period 2009-2014. The study explore whether the decision of the firms concerning the financial leverage is in conformity with the patterns proclaimed in previous studies.

This thesis is divided into six chapters. The introduction with its contents in the first chapter. The second chapter reviews the relevant literature. Chapter three provides a theoretical framework and defines the variables. The fourth chapter discusses the method and data respectively. Data analysis and testing of the hypothesis are in chapter five and chapter six summarizes the key results and recommendations and concludes the study.

1.2. Research problem

Many studies have been done to explore to what extent the capital structure theory can be applied to different circumstances. These studies were conducted under different assumptions which fit in to the particular situation. Recently, different results appeared in each of the studies such as: (Caglayan & Rashid, 2014) which studied UK Public versus Non-Public Manufacturing Firms, (Masoud, 2014) which studied Libyan Firms, (Osaretin & Michael, 2014) which studied firms listed In Nigeria, (Fauzi, Basyith, & Idris, 2013) which studied New Zealand-Listed Firms, (Bülent, Cüneyt, & Arif, 2013) which studied Major Emerging Market Economy.

Based on the above, the vision is not clear regarding the different results of the studies due to the different factors and determinants variables of capital structure for each study. So, this requires us to know whether there is consensus or disagreement in reality with companies listed in the Palestine Exchange and requires us to clarify the head optimal capital structure determinants. The problem is confined to determine the extent of the impact of capital structure determinants (Liquidity, Growth opportunities, Profitability, Tangibility, Age, Size and Risk) on the independent variable (Capital structure) of companies listed in (PEX).

1.3. The Study importance

It is important to examine the capital structure of companies because it affects company's real decisions on employment, production, and investment decisions (Harris & Raviv, 1991). This study will tries to identify, examine and analyze the determinants of capital structure in a systematic way. The study provides applicable and practical teaching to anyone who wishes to understand the topic. This study will help managers in Palestinian firms to make financing decisions for their firms. The creditors can also benefit in minimizing their risk when they deal with a specific sector of firms.

1.4. The Study Objectives

The main objectives of this study are to identify and examine the factors that affect the Capital Structure of 49 listed companies in Palestine Exchange and to determine the extent of harmony with the results of studies that have been carried out on the corporate capital structure in developed countries.

- To analyze the main determinants that influence financing decisions regarding the choice of capital structure in the Palestinian firms listed in PEX.

1.5. Study variables

In order to identify the determinants of capital structure, some determinants mentioned in the previous literature were used in this study availability. The study variables were determined in this study according to the results reached by previous studies. The studies have identified a number of variables as potential determinants of firm financing decisions. This study uses **Capital Structure** as the dependent variable and which includes three leverage proxies: **Total debt**, **Long-term debt** and **Short term debt**. Independent variables were used as follows:

Independent Variables:

1. Firm age
2. Liquidity
3. Profitability
4. Tangibility
5. Risk
6. Firm size
7. Growth Opportunities (Market value per share-to-book ratio)

1.6. Study hypotheses

The hypotheses we proposed about the possible determinants of the capital structure decisions of Palestinians firms are as follows:

- H1: There is negative significant relationship between firm age and Capital Structure (LTD, STD, TD).
- H2: There is negative significant relationship between Liquidity and Capital Structure (LTD, STD, TD).
- H3: There is negative significant relationship between Profitability and Capital Structure (LTD, STD, TD).
- H4: There is negative significant relationship between Tangibility and Capital Structure (LTD, STD, TD).
- H5: There is negative significant relationship between Risk and Capital Structure (LTD, STD, TD).

H6: There is positive significant relationship between firm size and Capital Structure (LTD, STD, TD).

H7: There is a negative significant relationship between Growth Opportunities and Capital Structure (LTD, STD, TD).

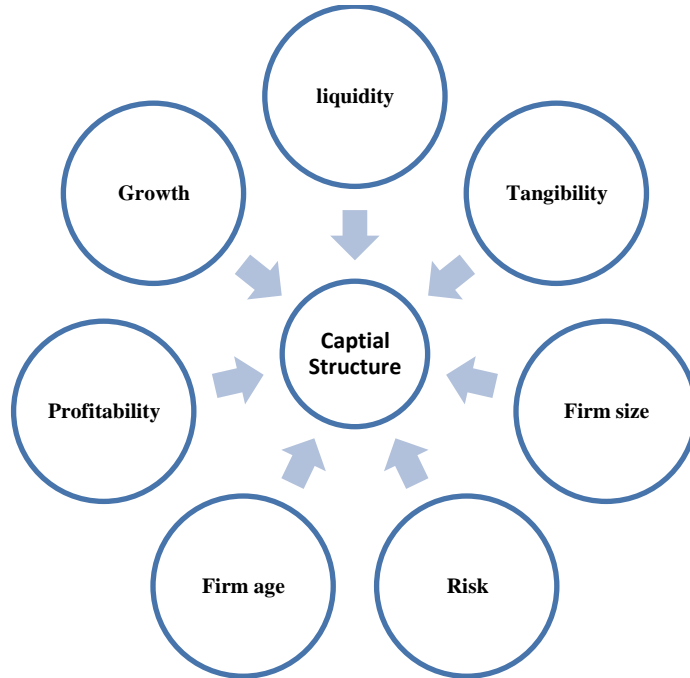


Figure 1: Hypotheses

Chapter 2

Literature Review

Literature Review

2.1 Arabic Studies:

2.1.1 (Masoud, 2014) The determinants of capital structure choice: Evidence from Libyan firms

This study aims to explore the dynamism of capital structure and the impact of stock market development on firms' financing choices using panel data methodology. This paper examined the effect of financial market development on the determinants of capital structure sampling eight firms listed in the Libyan stock market during the period (2008-2013). The empirical finding found that liquidity and profitability are negatively and significantly related to the leverage ratios, firm size is positively and significantly related to leverage ratio of firms, leverage is negatively related with tangibility, growth opportunities are positively related to book value leverage and negatively related to market leverage. The results suggest an unimportant role for economic growth and inflation rates in explaining the variation in debt-equity ratios. The results indicate that both the trade-off and the pecking order theories can explain the Libyan firms' financing decisions. This study recommended that further research is necessary to ascertain determinants of capital structure of developing countries based on the institutional settings.

2.1.2 (Mosa, 2012) The determinants of capital structure of national mobile telecommunications companies in the Arab world comparative study

The main objective of this study is to determine the corporate capital structure determinants of national mobile telecommunications companies in the Arab world, The researcher used the descriptive analytical method in analyzing the financial statements of the companies for a period of six years. The study population consisted of (7) companies during the period (2006-2011). The main findings of the study were that there is an inverse relationship between liquidity and capital structure. The study recommends that the companies should use liquidity to finance future expansion and to stay away from long-term loan financing.

2.1.3 (Abu Mouamer, 2011) The determinants of capital structure of Palestine-listed companies (2000-2004)

The purpose of this paper is to examine the relationship between capital structure and debt lifetime among listed companies in Palestine stock market. Only 15 firms working in

different economic sectors qualified to be included in the study sample according to the availability and continuity of published financial statements during the period of 2000-2004. Variables used for the analysis include profitability, leverage ratios total debt (TD), short-term debt (STD) and long-term debt (LTD)), liquidity (LQ), age, asset structure, and firm size and sales growth are also included as control variables. The panel character of the data allows for the use of panel data methodology. The study has shown that the service companies have the highest TD ratio (53.69 percent), followed by industrial companies (50.86 percent), trade companies (34.11 percent) and agriculture companies (24.02 percent). The one way analysis of variance (ANOVA) shows no significant difference in the use of debt, neither total, LTD or STD among companies in the four sectors. The correlation analysis has shown that TD is positively and significantly related to TAN, on the country, no significant relationship between the long debt and STD on the one hand and age, growth, LQ, TAN, and size on the other hand.

2.1.4 (Kilani, Qadumi, & Amarna, 2011) Factors affecting the use of debt in Jordanian Industrial Corporations for the period (2000-2009)

This study aims at examining the possible impact of determinant factors of Capital Structure on debt ratio for Industrial Corporations listed in ASE for the period 2000-2009. The publications of the Jordan Securities Exchange and Commission and Central Bank were used to obtain the necessary data of the research. To get the results of the study the simple regression analysis method was used. The simple-regression at 5% significance level showed that the debt level in Jordanian Industrial Corporations is affected by operating profit margin and assets growth rate at 0.003 and 0.002 significance level respectively. The researchers recommended the need for companies to take into consideration all the factors that studies have shown that have an impact on the decision to use private debt and the prevailing market interest rates for the appropriate leverage for companies to achieve.

2.1.5 (Ramadan & Alokdeh, 2011) Determinants of capital structure: Evidence from Jordan (2000 -2006)

The aim of this study is to explore the determinants of the corporate capital structure in Jordan, focusing on the period 2000-2006. This study used the Fixed Effect "Regression" Model. The study population consists of Jordanian public shareholding companies, which are divided into three economic sectors: industrial, financial, and service sectors. The sample consists of 100 firms listed in Amman Stock Exchange (ASE). The study

concluded a negative correlation with economic and statistical significance between the capital structure of Jordanian companies and all of the companies' profitability and liquidity. The results of this study showed the impact of the companies' life on the capital structure. Finally, they recommend expanding the study in terms of the period.

2.1.6 (Al-Shubiri, 2010) Determinants of capital structure choice: A case study of Jordanian industrial companies

The aim of this paper is to analyze the determinants of the capital structure in industrial Jordanian firms. This paper analyzes the explanatory power of some of the recent theories of optimal capital structure of the industrial companies listed in Amman Stock Exchange in the period (2004-2007). The simple and multiple regression analysis test is used in this study. The results of this study showed that the issue of capital structure is an important strategic financing decision that firms have to make. The study recommendations reduce businesses' sensitivity to economic cycles. There could also be policies intended to encourage establishing financing schemes to assist firms in specific industries.

2.1.7 (Khrawish, 2010) The determinants of the capital structure: Evidence from Jordanian industrial companies

The primary objective of capital structure decisions is to maximize the market value of the firm through an appropriate mix of long-term sources of funds. This mix is called the optimal capital structure. This study examined the capital structure of industrial companies listed in Amman Stock Exchange (ASE) over the period (2001-2005). The sample of this study consists of all industrial companies listed in the Amman Stock Exchange (ASE) for 2005 totaling to 30 companies. The findings of this study contribute towards a better understanding of financing behavior in Jordanian industrial companies. This implies that: (1) Growing companies and companies with high levels of tangible assets tend to use short-term debt rather than long-term debt. (2) Large and profitable companies are less likely to use short-term debt and tend to use less debt overall.

2.1.8 (Qasim & Jamil, 2009) The impact of cash flows on the elements of the capital structure: An Empirical Study based on a number of international companies data

This research mainly aims to determine the effect of cash flows in components of the capital structure, long-term debt and ownership to provide a clear picture of the relationship between them and the degree and type of influence. This research was based

on two methods; the theoretical and applied methods where the data was analyzed using the SPSS program. The sample was made of 16 international companies operating in different sectors and the key finding of this study was that the only effect of cash flows was specifically the property element, which refers to the exposure of companies. The researcher recommends the need to study the relationship between new variables and their impact on the capital structure and the need to re-examine the relationship between the components of cash flow and capital structure to gain access to more decisive results.

2.2 Foreign studies:

2.2.1 (Caglayan & Rashid, 2014) The response of firms' leverage to risk: Evidence from UK public versus non-public manufacturing firms.

This paper empirically investigates the effects of macroeconomic and firm-specific risk on firms' leverage. The analysis is carried out for a large panel of public and non-public UK manufacturing firms over the period 1999-2008. They use the system generalized method of moments (system-GMM). In this paper, they only focus on manufacturing firms. The paper investigation provides evidence that UK manufacturing firms use less short-term debt during periods of high risk. However, the leverage of non-public manufacturing firms is more sensitive to firm-specific risk in comparison to their public counterparts while macroeconomic risk affects both types of firms similarly. The investigation also shows that firms with high liquid assets reduce their leverage more (less) during periods of heightened firm-specific (macroeconomic) risk. They suggest that researchers should consider the effects of both macroeconomic and idiosyncratic risks while studying firms' optimal leverage over and above the other factors that have been examined in the literature.

2.2.2 (Osaretin & Michael, 2014) The determinants of capital structure of listed firms in Nigeria

In this research, the key aim is to identify the main determinants of capital structure in Nigerian firms. The objectives of the research are to assess the significance of the impact of ROA on capital structure and to assess the significance of the impact of the company size on capital structure. The study is focused on the analysis of the determinants of capital structure of Nigerian companies for 2013. The cross-sectional least squares regression is applied to determine the impact of two independent variables on debt ratio. The sample in this paper were 20 companies which have been retrieved from CBN statistical bulletin and Thomson One Banker (2012) on 20 June 2013. The study found that profitability is not a

significant determinant and has a negative impact on leverage while the impact of company size was not confirmed in the model. They recommend to expand further studies with an inclusion of an industry variable in order to figure out the effects that industries can have on debt ratios.

2.2.3 (Fauzi et al., 2013) The determinants of capital structure: An empirical study of New Zealand-listed firms

This paper is an attempt to empirically test for the capital structure determinants in the New Zealand context. This study examines a recent dataset of New Zealand listed-firms and investigates capital structure determinants of New Zealand-listed firms. This study uses panel data which allows the unobservable in the regression model, sampling 79 New Zealand-listed firms were observed from 147. In the result the dynamic-IV GMM regression reveals that tangibility, growth, signaling, managerial ownership and firm size exhibit a significant impact on total debt. Those variables confirm the trade-off theory but firm size supports the pecking-order theory. In addition, non-debt tax shield and profitability have no significant impact on total debt; though the coefficient for non-debt tax shield confirms the pecking-order theory and the coefficient for profitability confirms the trade-off theory.

2.2.4 (Shang, 2013) Determinants of capital structure in agricultural cooperatives in North Dakota.

The objective of this research was to identify determinants of the optimal capital structure in farm supply and grain marketing cooperatives within the state of North Dakota. This thesis analyzes how the optimal capital structure is affected by capital management and major sources of risk under the rule of maximizing the value of discounted cash flows to members. It is done by using the present value of cash flow method. The data set includes financial reports from farm supply and grain marketing cooperatives in North Dakota and the final sample included 704 observations. Empirical Results indicate that the optimal debt ratio is related to the lagged debt ratio.

2.2.5 (Ilgaz, 2013) Determinants of firms' capital structure choice, their credit ratings and the leverage-rating relation.

The aim of this study is to agree that firms adjust their capital structure to stay in close proximity to a target leverage ratio. All firm year observations are obtained from COMPUSTAT for the 1985-2010 period following Fama and French (1997) from the

financial sector, from non-classifiable establishments, and from the regulated sector or utilities. In this study the author model leverage changes and rating changes using a simultaneous equation system. The key finding is that the addition of deviations from target leverage more than doubles the explanatory power compared to existing empirical specifications. Using standardized regression coefficients, the study shows that the deviation from target leverage ratios is the most important determinant of firms' capital structure. The study points out to that neither leverage nor ratings are exogenous to each other and leverage-rating relationship should be appropriately modeled using simultaneous equation systems.

2.2.6 (Bülent et al., 2013) Determinants of capital structure: Evidence from a major emerging market economy.

This paper investigates the capital structure of non-financial firms in a major emerging market economy, Turkey. Authors model leverage as a function of various factors discussed in the study. Sample was split into two seven-year periods, namely, 1996-2002 and 2003-2009, to test for any structural breaks in the firms' capital structure choices. The paper results suggest that tax-related factors and asset tangibility are the most economically significant factors for short-term and long-term debt ratios, respectively. Results also suggest that inflation is an important determinant of leverage and the most economically significant macroeconomic factor. The study suggests that the trade-off theory may be a better description of the capital structures of Turkish non-financial firms than the pecking-order theory, particularly after the early 2000s.

2.2.7 (Ghosh, Petrova & Wang, 2012) Determinants of capital structure: A long term perspective

The objective of this study is to provide additional evidence to this growing literature by testing the persistence of the effect of profitability on capital structure. This paper examines whether market and operating performance have a long lasting effect on firms' use of leverage. They design a weighing scheme that captures the effect of profitability during the periods when the firm rebalances its leverage. The analysis includes two subsamples: one of all firms from 1950 to 1989 and a second including firms within 1990–2008. The results show that the constructed variable weighted average historical profitability has a strong negative impact on the firm's current capital structure. The study findings imply that the firm's capital structure is to a large extent the outcome of accumulating historical operating profits.

2.2.8 (Akinlo, 2011) Determinants of capital structure: Evidence from Nigerian panel data

The paper examines the determinants of capital of 66 firms listed on the Nigerian stock Exchange during the period (1999-2007) using panel data. The results show that there is a negative relationship between leverage and growth opportunities, leverage and tangibility. Negative relationship of profitability with leverage in the three models confirms the implication of pecking order hypothesis which argues that highly profitable firms prefer to finance new investment with internally available funds than through debt finance. The research recommends that it is necessary to ascertain determinants of capital structure of Nigeria based on the institutional settings.

2.2.9 (Sbeiti, 2010) The Determinants of capital structure: Evidence from the GCC countries

This paper investigates the determinants of capital structure in the context of three GCC countries and the impact of their stock markets' development on the financing choices of firms operating in these markets. The leverage ratios of individual firms are modeled as a function of several firm specific factors in a cross sectional framework. The sample includes 59 companies from Kuwait, 41 from Saudi Arabia, and 42 from Oman for the period (1998-2005). In 2005 the number of listed companies was 147, 66, and 122 (excluding 10, 8 and 3 banks) in Kuwait, Saudi Arabia and Oman respectively. The key findings are that corporate capital structure in these countries can be explained by the determinants suggested in corporate and stock markets in the these countries. They have become more developed and are considered an important tool for corporate financing decisions.

2.2.10 (S. Akhtar & B. Oliver, 2009) The determinants of capital structure for Japanese multinational and domestic corporations.

This paper aims to identify the determinants of capital structure for a sample of Japanese corporations, to identify if being a Japanese multinational corporation is a determinant of capital structure and if the capital structure is different between multinational and domestic corporations and what explains this difference. This paper documents the determinants of capital structure for a sample of 360 Japanese multinational and domestic corporations over a 10year period ending in 2003. The study finds that being a multinational corporation is a significant variable in explaining capital structure for a sample of Japanese firms. The study also finds that Japanese multinationals have significantly lower leverage than

domestic firms. The study recommends that profitability and size are not significant in explaining differences in capital structure between multinational and domestic corporations.

Next, The study shows in table No. (1) the literature reviews summery.

Table (1): Summary of the Literature Review

| No. | Author Name | Study Title | Place | year | Objectives | Methodology | Sample | Variables |
|-----------------------|--|---|------------|------|---|----------------------------|----------|--|
| <i>Arabic studies</i> | | | | | | | | |
| 1. | Najeb Masoud | The Determinants of Capital Structure Choice: Evidence from Libyan Firms | Libya | 2014 | To explore the dynamism of capital structure and the impact of stock market development on firms' financing choice. | Panel data | 8 firms | <ol style="list-style-type: none"> 1. Tangibility 2. Growth 3. Profitability 4. Liquidity 5. size 6. The cost of equity |
| 2. | Mohammed Mosa | The determinants of capital structure of national mobile telecommunications companies in the Arab world comparative study (2006-2011) | Arab world | 2012 | To determine the corporate capital structure determinants of national mobile telecommunications companies in the Arab world | Descriptive analytical | 7 firms | <ol style="list-style-type: none"> 1. ROA 2. ROE 3. Liquidity 4. Growth 5. Tangibility 6. Age 7. Size |
| 3. | Faris M. Abu Mouamer | The determinants of capital structure of Palestine-listed companies (2000-2004) | Palestine | 2011 | To examine the relationship between capital structure and debt lifetime among listed companies in Palestine stock market | Panel data | 15 firms | <ol style="list-style-type: none"> 1. Profitability 2. Tangibility 3. Size 4. Growth 5. Ownership 6. Age 7. Liquidity |
| 4. | Qays Kelani Thaer Qadumi Asma Amarna | Factors affect the use of debt in Jordanian Industrial Corporations for the period (2000-2009) | Jordan | 2011 | This study aims at examining the possible impact of determinant factors of Capital Structure on debt ratio for Industrial Corporations listed in ASE for the period 2000-2009 | Simple regression analysis | 31 firms | <ol style="list-style-type: none"> 1. ROE 2. Size. 3. Profitability 4. Age 5. Growth |

| No. | Author Name | Study Title | Place | year | Objectives | Methodology | Sample | Variables |
|-----|--------------------------------------|---|---------------|------|---|---|-----------|--|
| 5. | Imad Z. Ramadan and Saleh K. Alokdeh | Determinants of Capital Structure: Evidence from Jordan (2000 -2006) | Jordan | 2011 | To explore the determinants of the corporate capital structure in Jordan | Fixed Effect "Regression" Model | 100 firms | <ol style="list-style-type: none"> 1. Size 2. Age 3. Profitability 4. Liquidity 5. Tangibility 6. Growth 7. Risk 8. Taxes 9. NDTS |
| 6. | Faris AL- Shubiri | Determinants of Capital Structure Choice: A Case Study of Jordanian Industrial Companies | Jordan | 2010 | To analyze the determinants of the capital structure in industrial Jordanian firms | Simple and multiple regression analysis | 95 firms | <ol style="list-style-type: none"> 1. liquidity 2. Profitability 3. Risk 4. Growth 5. NDTS |
| 7. | Husni Khrawish & Ali Khraiwesh | The Determinants of the Capital Structure: Evidence from Jordanian Industrial Companies | Jordan | 2010 | To maximize the market value of the firm through an appropriate mix of long-term sources of funds | The Ordinary Least Squares | 30 firms | <ol style="list-style-type: none"> 1. size 2. Tangibility 3. Profitability 4. LTD to TA 5. STD to TA |
| 8. | Sabiha Qasem & Ahmed Jameel | The impact of cash flows in the elements of the capital structure: An Empirical Study based on a number of international companies data | International | 2009 | To determine the effect of cash flows in components of the capital structure, long-term debt and ownership to provide a clear picture of the relationship between them and the degree and type of influence | Theoretical and applied method | 16 firms | <ol style="list-style-type: none"> 1. Equity 2. Debt |

| No. | Author Name | Study Title | Place | year | Objectives | Methodology | Sample | Variables |
|------------------------|---|--|--------------|------|---|--|---------------------------------------|--|
| <i>Foreign studies</i> | | | | | | | | |
| 9. | Mustafa Caglayan, Abdul Rashid | The Response of Firms 'Leverage to Risk: Evidence from UK Public versus Non- Public Manufacturing Firms | UK | 2014 | To investigate the direct and indirect effects of idiosyncratic and macroeconomic risk on public and non-public manufacturing firms' leverage | Panel data | 120,337 firm- year observations | Risk |
| 10. | IGBINOSA Sunday Osaretin, CHIJUKA Ify Michael | The Determinants Of Capital Structure Of Listed Firms In Nigeria | Nigeria | 2014 | To assess the significance of the impact of ROA on capital structure and to assess the significance of the impact of the company size on capital structure | Cross-sectional least squares regression | 20 firms | 1. Profitability 2. Size |
| 11. | Fitriya Fauzi | The Determinants of Capital Structure: An Empirical Study of New Zealand-Listed Firms | New Zealand | 2013 | It investigates capital structure determinants of New Zealand-listed firms | Panel data | 79 firms | 1. Tangibility 2. NDTs 3. Profitability 4. Growth 5. Signaling |
| 12. | Ran Shang | Determinants of capital structure in agricultural cooperatives in North Dakota. | North Dakota | 2013 | To identify determinants of the optimal capital structure in farm supply and grain marketing cooperatives within the state of North Dakota. | Present value of cash flow | 704 observations | 1. Last Debt/Last TA 2. Cash/Total Assets 3. Sales/Total Assets 4. Depreciation/TA 5. Interest Rate 6. Inflation Rate 7. Commodity Price 8. Exchange Rate 9. Input Price |

| No. | Author Name | Study Title | Place | year | Objectives | Methodology | Sample | Variables |
|-----|---|---|------------|------|--|------------------------------|---------------------------------------|---|
| 13. | Doruk Ilgaz | Determinants of firms' capital structure choice, their credit ratings and the leverage-rating relation. | COM-PUSTAT | 2013 | The aim of this study is to agree that firms adjust their capital structure to stay in close proximity to a target leverage ratio. | Simultaneous equation system | 2,585 public and private firms | <ol style="list-style-type: none"> 1. Market to book ratio. 2. Profitability 3. Tangibility 4. size |
| 14. | Koksal Bulent and Orman Cuneyt and Oduncu Ari | Determinants of Capital Structure: Evidence from a Major Emerging Market Economy. | Turkey | 2013 | To investigate the capital structure of non-financial firms in a major emerging market economy, Turkey | Panel data | two seven-years 1996-2002 & 2003-2009 | <ol style="list-style-type: none"> 1. Size 2. Profitability 3. Tangibility 4. Growth 5. Business risk 6. Tax-related factors |
| 15. | Chinmoy Ghosh Milena Petrova Adam Wang | Determinants of Capital Structure: A Long Term Perspective | COM-PUSTAT | 2012 | To provide additional evidence to this growing literature by testing the persistence of the effect of profitability on capital structure | Panel data | years 1950 -1989 & 1990 – 2008 | <ol style="list-style-type: none"> 1. Book Equity 2. Book Debt 3. Net Equity 4. Net Debt 5. Profit 6. Loss 7. Book Leverage 8. Market Leverage 9. Profitability 10. Growth 11. Tangibility 12. Size |
| 16. | Akinlo, Olayinka | Determinants of capital structure: Evidence from Nigerian panel data | Nigeria | 2011 | To examines the determinants of capital of 66 firms listed on the Nigerian stock Exchange during the period 1999-2007 | Panel data | 66 firms | <ol style="list-style-type: none"> 1. Growth 2. Tangibility 3. Liquidity 4. Profitability 5. Size 6. growth |

| No. | Author Name | Study Title | Place | year | Objectives | Methodology | Sample | Variables |
|-----|----------------------------|--|---------------|------|--|---|-----------|---|
| 17. | Wafaa Sbeiti | The Determinants of Capital Structure: Evidence from the GCC Countries | GCC Countries | 2010 | To investigate the determinants of capital structure in the context of three GCC countries and the impact of their stock markets' development on the financing choices of firms operating in these markets | Panel data | 142 firms | <ol style="list-style-type: none"> 1. Size 2. Profitability 3. Tangibility 4. Growth 5. Liquidity 6. Interest Rate 7. FMDV |
| 18. | Shumi Akhtar, Barry Oliver | The determinants of capital structure for Japanese multinational and domestic corporations | Japan | 2009 | To identify the determinants of capital structure for a sample of Japanese corporations | A pooled cross-sectional time series regression model | 360 firms | <ol style="list-style-type: none"> 1. Age 2. Agency costs 3. risks 4. value of assets 5. cash flows 6. Growth 7. Profitability 8. size 9. NDTs |

Table (2): Summery of the current study

| Name of study | Place | year | Objectives | Methodology | Sample | Variables |
|---|-----------|------|--|-------------|----------|---|
| The Determinants of Capital Structure "An Empirical Study of Companies listed in Palestine Exchange (2009-2014)" | Palestine | 2015 | The main objectives of this study is to identify the factors that affect the Capital Structure of listed companies in Palestine Exchange, to determine the extent of harmony with the results of studies that have been affect the corporate capital structure in developed countries. | Panel data | 35 firms | <ol style="list-style-type: none"> 1. Age 2. Liquidity 3. Profitability 4. Tangibility 5. Risk 6. Size 7. Growth |

The Main Differences between the Previous Studies and this Current Study:

- The current study used all PEX sectors (banking sector, industries sector, insurance sector, investing sector and services sector).
- The study of Abu Mouamer (2011) was implemented in PEX during the period (2000-2004) while the current study was implemented in the period of (2009–2014), taking into consideration that many events occurred during this period.
- The study sample was 35 firms out of 49 firms in PEX from various sectors. This is equal to 71%, while Abu Mouamer’s sample was 15 out of 29 firms which equals 51%.
- The current study used many variables and financial ratios such as: (Age, Liquidity, Profitability, Tangibility, Risk, Size, Growth) whereas previous studies did not use them together.
- The current study benefited from previous studies in constructing theoretical and practical frameworks.

Chapter 3

Theoretical Framework

3 Capital Structure

3.1 Introduction

3.2 Overview of Palestine Exchange (PEX):

3.3 Capital Structure Definitions

3.4 Capital Structure Theories

3.5 Determinants of Capital Structure

3.1 Introduction

The studies of capital structure attempt to explain the mixture of financing sources used by corporations to finance real investment. Companies use a particular combination of debt and equity and many of the sources of funding for capital structure. There are different factors that affect capital structure. Companies should try to determine the optimal or best mixture of financing. Most of the research on capital structure has focused on the proportions of debt vs equity observed on the right-hand sides of corporations' balance sheets (S. Akhtar & B. Oliver, 2009). Knowledge and most of the information about capital structure have been deduced and derived from data from developed economies that have many institutional similarities (Booth, Aivazian, Demircuc-Kunt, & Maksimovic, 2001). It is important to examine the capital structure of companies because it affects companies's real decisions about employment, production, and investment (Harris and Raviv, 1991). Although the selection of the company's capital structure is considered one of the most important strategic financial decisions , there is an open debate about the controversial setting of the optimal capital. After the seminal work of Modigliani and Miller (1958), of which there are supporters and opponents, theoretical literature developed and led to the formulation of alternative theories such as the static trade off model, pecking order theory, agency theories and others. There is empirical literature testing the validity of these theories and suggesting a number of specific factors that may affect the capital structure of firms but it has also failed to reach firm decisions (Sbeiti, 2010). The corporate capital structure literature contains many papers that examine the nature and the determinants of corporate capital structure. It identifies specific factors that may affect a firm's optimal capital structure. Some papers examined the determinants of capital structure including: (Abu Mouamer, 2011; Ahi, 2013; AL-Shubiri, 2010; Bülent et al., 2013; Caglayan & Rashid, 2014; Emad & Alokdeh, 2011; Ghosh et al., 2012; HOSIN, 2012; Ilgaz, 2013; Khrawish, 2010; Kilani et al., 2011; Masoud, 2014; Mosa, 2012; Mouamer, 2013; Osaretin & Michael, 2014; Rajan & Zingales, 1995; Ramadan & Alokdeh, 2011; Rurangangabo, 2013; Song, 2005; Titman & Wessels, 1988; Walliman, 2005; Zeitun, 2014). In this chapter the identities factors that have been selected based on their importance and frequency and which have been tested in previous studies in other countries, many financial markets and also in Palestine Exchange.

3.2 Overview of Palestine Exchange (PEX):

The Palestine Exchange (PEX) was established in 1995 to promote investment in Palestine as a private shareholding company and transformed into a public shareholding company in February 2010 responding to principles of transparency and good governance. The PEX was fully automated upon establishment- the first fully-automated stock exchange in the Arab world and the only Arab exchange that is publicly traded and fully owned by the private sector. The PEX operates under the supervision of the Palestinian Capital Market Authority.

The PEX strives to provide an enabling environment for trading that is characterized by equity ,transparency and competence, serving and maintaining the interest of investors. The PEX is very appealing in terms of market capitalization, it is financially sound, and well capitalized to maintain a steady business in a volatile world, as it passed with the minimum level of impact of the global financial crisis compared to other MENA Exchanges.

There are 49 listed companies on PEX as of 31/03/2015 with market capitalization of about \$2,993 billion across five main economic sectors; banking and financial services, insurance, investments, industry, and services. Most of the listed companies are profitable and trade in Jordanian Dinar, while others trade in US Dollars (web).

3.3 Capital Structure Definitions

Capital structure is defined as the specific mix of debt and equity a firm uses to finance its operations. To explain the capital structure decisions we use capital structure theories. They are based on asymmetric information, tax benefits associated with debt use, bankruptcy cost and agency cost (Abor, 2008). (Myers & Majluf, 1984) expressed that the concept of optimal capital structure is based on the notion of asymmetric information. (AL-Shubiri, 2010) discusses operational definitions of capital structure which include: capital structure, leverage, ownership structure and behavior finance. Rajan and Zingales (1995) study provides an overview of the different definitions of leverage. Apart from identifying the determinants of capital structure an important issue is defining what is meant by capital structure or leverage. (Doukas & Pantzalis, 2003) and (Mittoo & Zhang, 2005) define leverage as long-term debt scaled by total debt plus market value of equity.

3.4 Capital Structure Theories:

This part of the theoretical framework chapter will review the key theories of capital structure. These theories have emerged to give an idea of the precise combination of debt and equity that the company should be adapted to so as to achieve maximum capital mix (Osaretin & Michael, 2014). Theories funding structure are one of the largest fields that were discussed in corporate finance studies. The modern theory of the structure of funding began when (Modigliani & Miller, 1958) wrote their article (Cost of capital, corporate finance and the theory of investment) and demonstrated that the choice between debt financing and property, and also the company's value has nothing to do with the structure of funding and assumed that capital markets are ideal. Since (Modigliani & Miller, 1958), articles developed a theoretical framework to explain the corporate finance structure choices. Modern theories for the financing of companies are trying to find and improve the explanations for the behavior of investors and rely on traditional factors interpreting the structure of funding such as tax savings and the risk of bankruptcy. Dealing with other theories of information asymmetry between owners and management as an interpreter for the funding structure and theories that explain the increase in the debt ratio is a negative signal for the development of the company, according to the interpretation of investors (Gazi & Ali 2011). Capital structure theory is closely linked to the company's cost of capital. Capital structure is a combination of long-term sources of funds used by the company. Maximizing the market value of the company is the main objective of capital structure decisions of the company through an appropriate mix of long-term sources of funds. This combination, called optimal capital structure, reduces the overall cost of capital of the company. However, there are arguments about whether the optimal capital structure already exists. The arguments focused on whether a firm can, in fact, impact assessment and cost of capital by changing the mix of funds used (Khrawish, 2010).

Many theories provided interpretations for capital structure:

3.4.1 Traditional view:

(Barges, 1962) sees that the first is the traditional view which states that "*debt funds are cheaper than equity funds*". The implications of this is to say that the cost of debt in addition to increasing the cost of capital together will be less than the cost of equity that existed on equity before debt financing. However, Modigliani and Miller (MM), 1958 do not agree with the traditional view. They argue that in a perfect capital market without taxes

and transaction costs, the market value of the company and the cost of capital remains constant despite changes in its capital structure. This implies that the financial instruments issued by the firm do not affect a firm's productivity and value (Akinlo, 2011).

3.4.2 Modigliani and Miller Theory:

Studies have shown that the theory of (Modigliani & Miller, 1958) on capital structure is the first theory that has been successful. and most critical. Despite the many criticisms that it has faced, it is well known that this theory has opened the door for many discussions on the below-mentioned published studies and research. This theory was subject to specific conditions. The theory will be best practiced under a flawless capital market and zero business cost and tax. Companies do their finances based on two claims, risk free debt and risky equity (Ahi, 2013). This theory asserts that the value of a firm does not depend on its capital structure and contradicts the beliefs that there is an optimal capital structure that may maximize the company's value. It suggests that a company's value is determined by optimal investments and that a company has a specific set of expected cash flows. The division of the cash flows among investors is made when the company selects a specific amount of debt and equity to finance its assets (Osaretin & Michael, 2014). (Modigliani & Miller, 1963) revised their earlier situation by incorporating tax benefits as determinants of the capital structure of firms. When there is a tax advantage resulting from the deductibility of interest paid on the debt, investors receive these interest payments as income. This interest income is also taxable on their personal account, and the personal income tax effect is negative (Abor, 2008). (Miller, 1977) determines three tax rates that determine the total value of the firm. These are:

- (1) The corporate tax rate.
- (2) The tax rate imposed on the income of the dividends.
- (3) The tax rate imposed on the income of interest inflows.

According to (Miller, 1977), the value of the firm depends on the relative level of each tax rate, compared with the other two. Bankruptcy costs are the costs directly incurred when the perceived probability that the firm will default on financing is greater than zero. The bankruptcy probability increases with debt level since it increases the fear that the company might not be able to generate profits to pay back the interest and the loans (Abu Mouamer, 2011). In Modigliani and Miller suggestions, it is contended that borrowing money and raising funds through debt in a weak market is very costly and risky and generates a desire

in customers to pay a higher price for the shares of the firms. Therefore, companies have to finance themselves with debt. Another thing is that the overall costs of capital of firms do not depend on their capital structure. With regard to taxes, it is noted that interest on debt is tax-deductible, and weighted average cost of capital is calculated after tax interest rate. As a result, by understanding the benefits of debt, firms may be more encouraged to use debt in their capital structure (Ahi, 2013).

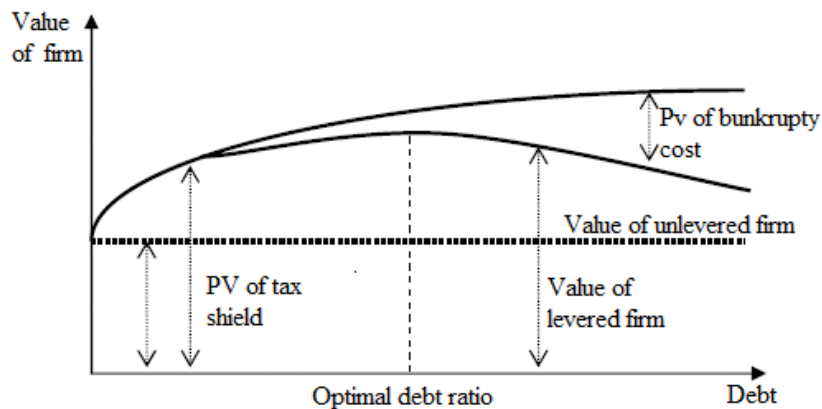
Three Conflicting Theories Appeared as a Result:

3.4.3 Trade-off Theory:

This theory emerged as a result of discussion on and criticism of the theory of (Modigliani and Miller, 1958). It is based on the theory of the tax shield, the theory of bankruptcy costs and the theory of the agency costs in explaining the difference in the decision to finance the company's activities (Emad & Alokdeh, 2011). The trade-off theory suggests that firms balance the benefits and costs of debt (Baker & Martin, 2011). We can take advantage of the tax deductibility of interest payments and increase investment and projects that increase the value of the company but the main drawback of the theory is that if you do not invest the money wisely, this can lead to the closure of the company. Also, this may lead to the need for additional funding, Thus, according to this theory, the capital structure will be represented by a specific debt ratio that minimizes the costs of debt and maximizes its benefits (Osaretin & Michael, 2014). The target is to know the advantages and disadvantages of raising capital through debt or equity together, not just to criticize. Often we do not find firms that use one option (debt/equity) in their capital structure. The question here is how a firm which wants to increase its value can construct its capital structure. (Ahi, 2013).

Figure 1 clarifies the main idea of the trade off theory. We can see that debt has advantages and disadvantages for corporations: tax savings of debt have advantages whereas disadvantages are the increasing probability of bankruptcy of a company with higher debt and the increasing cost of failure. Optimal capital structure exists and is determined by the achievement of balance between tax benefits and costs of debt, considering other constant variables.

Figure 2:static Trade off theory of capital structure



Source: (Myers, 1984)

3.4.4 Pecking Order theory

The pecking order theory of capital structure is among the most influential theories of corporate leverage. This theory is inherent to the concept of asymmetric information that corporate managers learn more about their company's prospects and the risks and value of the external investors (Akinlo, 2011). It explains the dissonance in the trade-off theory which fails to explain why some companies with high profitability level display little dependence on debt. Such companies pay large income taxes instead of saving these large amounts by using debt without any risk (Chandra, 2008). The theory suggests that companies tend to follow the pecking order of financing. In order, internal finance or retained earnings come first, followed by debt finance and then by external equity finance (Myers & Majluf, 1984). This theory hypothesizes that firms with high earnings are expected to use less debt capital than others which do not generate high earnings (Abu Mouamer, 2011). Firms that follow pecking order prefer to arrange finance as follows: internal funds, debt and finally equity financing. However, (Frank & Goyal, 2003) obtained different empirical evidence that contradicts the pecking order theory as net equity issues are related to the financing deficit more than net debt issues. They observed that large companies display some terms of pecking order behavior, but these observations are not confirmed when the conventional leverage factors are included.

3.4.5 Agency Costs Based Theory:

The agency theory re-establishes the importance of incentives and self-interest in organizational thinking. It reminds us that much of organizational life, whether we like it or not, is based on self-interest. Agency theory also emphasizes the importance of a common problem structure across research topics (Eisenhardt, 1989). This theory suggests that firms choose their optimal capital structure that can minimize the agency costs, which consist of costs in debt and equity. The costs which are linked to the equity issue are: sum of the monitoring expenditure by the principal, bonding costs by the agent, and a residual loss (Jensen & Meckling, 1976). In addition, the debt issue causes the owner-managers' incentive to increase. As a result, they invest in more risky projects which have higher returns to the owner-manager even though these incentives can cause a more chance of failure (Grossman & Hart, 1982).

Table (3): Determinants of capital structure according to this theories:

| Determinants | Trade-off Model | Pecking Order Theory | Agency theory |
|----------------------|-----------------|----------------------|---------------|
| Liquidity | - | - | - |
| Growth Opportunities | - | + | - |
| Profitability | + | - | + |
| Tangibility | + | + | - |
| Size | + | - | - |

(+) Positive

(-) Negative

Previous studies on capital structure gave other theories such as:

3.4.6 Signaling effect:

Signaling effect was proposed by Ross (1977) based on asymmetric information. This theory states that investors who believe in higher levels of debt will imply higher quality and higher future cash flows. This means that lower quality firms with higher expected costs of bankruptcy at any level of debt cannot follow the steps of higher quality firms by incurring more debt (Akinlo, 2011).

3.4.7 Market Timing Theory

This theory is based on the efforts made by the administration in choosing the right source of funding, which must be consistent with the timing of the need for financing. The conclusion of this theory is that the company is depending on the property funds to finance

the needs of cash in times when stock prices are a resident of the true value or higher than their real value, while the company is resorting to borrowing to finance its activities in cases where shares are resident company valued at less than their true value (Emad & Alokdeh, 2011).

3.5 Determinants of Capital Structure

3.5.1 Age

The age of a firm is a standard measure of reputation in capital structure models. Banks and bondholders tend to know more about firms and entrepreneurs before granting a loan and evaluating their credit worthiness. When the managers are concerned with the reputation of the company they tend to act wisely and avoid high-risk projects in favor of safer and more profitable projects (Diamond, 1989). Age is considered as a main determinant (Abu Mouamer, 2011). Petersen and Rajan (1994) found that older firms should have higher debt ratios since they should be higher quality firms. (Abor, 2008; Mosa, 2012) agreed that age is positively related to capital structure, (S. Akhtar & B. Oliver, 2009) found that age is a significant determinant of capital structure for domestic corporations but not multinational corporations. On the other hand, (Abu Mouamer, 2011) found no significant relationship between long term debt and short term debt on the one hand and age on the other hand.

3.5.2 Liquidity

Liquidity ratios have both a positive and a negative effect on the capital structure decision, and so the net effect is unknown (Abu Mouamer, 2011). liquidity is defined as the ratio of current assets to current liabilities. This ratio shows the ability of the firm to cover its short-term financial commitments and it measures the liquidity of the firm. The trade-off theory believes that a positive relationship exists between leverage and liquidity because a higher liquidity ratio can support a relatively higher debt ratio due to greater ability of a firm to satisfy short-term contractual obligations on time (Masoud, 2014). However, the pecking order theory has a contrary view. This theory believes a negative relationship exists between liquidity and leverage because firms with enough liquidity may use internally available funds to finance investment (Akinlo, 2011). Some empirical studies include Deesomsak et al. (2004), Mazur (2007) and Viviani (2008). Liquidity (LIQ) is measured as number of days account receivable plus the number of days of inventory minus the number of days account payable i.e. cash conversion cycle (Akinlo, 2011).

3.5.3 Profitability

There are conflicting financial theoretical predictions on the effects of profitability on capital structure (Gazi & Ali 2011). The trade-off theory is generally interpreted as predicting a positive relation between firm profitability and leverage. This is because

default risk is lower and interest tax shields of debt are more valuable for profitable firms. However, Frank and Goyal (2008) argue that the trade-off theory can also be viewed as predicting an inverse relation between leverage and profitability. This would be true, for instance, if profitability is a better proxy for growth opportunities than market-to-book ratios. Moreover, dynamic trade-off models generally predict a negative relationship between leverage and profitability (see, for example, Fischer et al., 1989, and Hennessy and Whited, 2005).

Thus, the trade-off prediction for profitability is ambiguous. Pecking order theory, on the other hand, predicts a negative relation between leverage and profitability, as profitable firms can use earnings to fund investment opportunities and hence have less need for external debt. Empirical tests find the relation to be robustly negative.

The Return on asset (ROA) is used as a measure of profitability (Sbeiti, 2010). Profitability is defined as the ratio of earnings before interest, tax (EBIT) and depreciation to total assets (Huang & Song, 2004). This is the most common measure in studies that tested the factors affecting capital structure. The importance of this element of the company's profitability strongly affects the financial risk to the company. The greater the profitability of the company, the less the possibility of failure and the more the ability to borrow and achieve tax savings. On the other hand, the greater the profitability of the company, the greater it's ability to finance its activities and fund expansion of its profits and thus rely less on external sources of funding (Emad & Alokdeh, 2011). According to Titman and Wessels (1988) and De Jong et al. (2008), among others, we define profitability as operating income over total assets (Bülent et al., 2013).

3.5.4 Tangibility

Tangibility is defined as the ratio of total fixed assets to total assets. Titman and Wessels (1988), Rajan & Zingales (1995), Fama & French (2000) argue that the ratio of total fixed assets to total assets (tangibility) should be an important factor for capital structure. The static trade-off theory predicts a positive relation between leverage and tangibility. This is because tangible assets are easier to collateralize and they suffer a smaller loss of value when firms go into distress (Bülent et al., 2013).

The pecking order theory, on the other hand, is generally interpreted as predicting a negative relation between leverage and tangibility, since the low information asymmetry associated with tangible assets makes the issuance of equity less costly (Harris & Raviv, 1991). Empirical studies generally find a positive correlation between tangibility and

leverage. It exists in empirical studies discovered by, Titman & Wessels (1988), Harris & Raviv (1991), Rajan & Zingales (1995), Deesomsak *et al.* (2004), Akhtar & Oliver (2009) among others. A few empirical studies such as (Masoud, 2014), (Abu Mouamer, 2011), This study defines tangibility as the ratio of net fixed assets to total assets.

3.5.5 Risk

The level of risk is one of the key determinants of a firm's capital structure. Business risk can be expressed in standard deviation returns to the company or the standard deviation of the annual profits of the company or the standard deviation of the company's sales (Ramadan & Alokdeh, 2011). According to (Črnigoj & Mramor, 2006; Ramadan & Alokdeh, 2011) risk can be expressed in standard deviation of return on assets. The tax shelter-bankruptcy cost theory of capital structure determines a firm's optimal leverage as a function of business risk, where it is seen to increase the volatility of the company's revenue and lack of stability as an increase in the risk of company failure on the one hand or a reduction in its ability to meet its obligations to lenders on the other hand. This reduces the efficiency of the company in obtaining loans and thus lowers the proportion of loans in the capital structure (Castanias, 1983). Both the static trade-off and pecking order theories predict a negative relationship between leverage and business risk. A number of studies have indicated a negative relationship between risk and debt ratio ((Ramadan & Alokdeh, 2011; Titman & Wessels, 1988). Other studies suggest a positive relationship (Michaelas, Chittenden, & Poutziouris, 1999). (Al-Shubiri, 2010) found statistically insignificant coefficients associated between business risk. (Bülent et al., 2013) found that the coefficient of business risk is significant only in the leverage equations for mature firms, suggesting that leverage decisions of young firms are not affected by variations in business risk.

3.5.6 Size

In general the firm size is accepted in literature as an important factor that affects the firm's capital structure. The firm's size has been suggested as a determinant of a firm's capital structure. It is measured by the natural logarithm of sales, assets, and number of employees (Abu Mouamer, 2011). Large firms tend to be more diversified which reduces their exposure to bankruptcy. This indicates the existence of a positive relationship between the firm size and debt capacity. So larger firms with less asymmetric information problems should tend to have more equity than debt and thus have lower leverage. It may be able to take advantage of economies of scale in issuing long-term debt, and may even have

bargaining power over creditors; thus, it will be able to borrow at lower cost. Smaller firms may find it more costly to resolve information asymmetries with lenders, thus, they may present lower debt ratios (Titman & Wessels, 1988). (Ahi, 2013) confirmed in his study that cost of debt will be reduced when firms' sizes are bigger and they may face lower levels of asymmetry in information. (Abu Mouamer, 2011) sees that in most of the researches there is agreement between theories though their explanations differ in that size has a positive effect on the firm's capital structure. In his study he found that size is positively related to LTD and negatively related to STD. Additionally, many empirical studies including (AL-Shubiri, 2010; Faris, 2010; Fauzi et al., 2013; Khrawish, 2010; Masoud, 2014; Mosa, 2012; Ramadan & Alokdeh, 2011; Zeitun, 2014) find that leverage is positively related to company size. On the other hand, (Osaretin & Michael, 2014) find that company size is an insignificant determinant of capital structure of the Nigerian companies.

3.5.7 Growth Opportunities (Market-to-book ratio)

Growth rate can be measured by several indicators: the growth rate in the number of employees or the growth rate in sales of the company or the percentage growth in total assets or the proportion of capital expenditure to total assets ratio or research and development to the proportion of total sales or expenses book value to market value of the company's capital (Ramadan & Alokdeh, 2011). High future growth opportunities give firms the ability to use more equity financing because a highly leveraged company may ignore profitable investment opportunities when it expects by enterprise new projects the value goes to the firm's existing debt holders. This suggests a negative relationship between leverage and growth (Myers, 1977). Static trade-off theory predicts a negative relation between leverage and firm growth. Intangibility of the assets of growth of firms mean that they lose more of their value in cases of financial hardship. In contrast, the pecking order theory predicts a positive relation between leverage and growth. This is because internal funds are unlikely to be sufficient to support investment opportunities for high growth firms, which increases their demand for external debt (Bülent et al., 2013). There is a difference in the results of studies on the impact of growth. In some studies the capital structure led to a positive relationship and in other studies it showed a negative correlation (Al-Shubiri, 2010). (Abu Mouamer, 2011; Bülent et al., 2013; Ramadan & Alokdeh, 2011) show a negative relationship. (Akinlo, 2011) results show that "there is a negative relationship between growth opportunities and leverage in the three models but this is only significant in fixed and random effects models.

Chapter 4

The Study Methodology

4 The Study Methodology

4.1 Introduction

This chapter determines the purpose of this study, the study design that the researcher used, what is the population and sample of the study, the optimum methodology order to achieve results, investigative techniques, data collections and bias.

4.2 Purpose

The purpose of this study is identify and examine the factors that affect the capital structure of listed companies in PEX. And to analyze the main determinants that influence financing decisions.

4.3 Study Design

This research is classified as an analytical descriptive approach. Thus, the research was achieved using the quantitative approach and will be studying and analyzing the financial statements of the companies under study for a period of six years to find the relationship between the dependent variables (liquidity, growth opportunities, profitability, tangibility, size, age and risk). During the six years, will also rely on official of the company listed on the Palestine Exchange financial reporting the study Sample basically, and that the reality of the annual financial statements (balance sheet and income statement).

4.4 Study Population:

The study population consists of companies listed in Palestine Exchange. There are 49 listed companies on PEX as of 01/12/2014 across five main economic sectors; banking and financial services, insurance, investments, industry, and services. Most of the listed companies are profitable and trade in Jordanian Dinar, while others trade in US Dollars (web).

Table (4): Describe the study population (Sectors)

| Sector Name | No. Company in the sector |
|--------------------|----------------------------------|
| Investment | 12 |
| Service | 12 |
| Industry | 9 |
| Insurance | 7 |
| Banking | 9 |
| Totals | 49 |

4.5 Study Sample:

The Sample in this study consists of 35 companies from 49 companies. The reason for this sample lies in the availability of the necessary financial data for the study period from 2009 to 2014. Accordingly, it has been the exception and not the 14 supplement companies.

Table (5): Describe the study sample (sectors)

| Sector Name | No. Company in the sector | Company Sample |
|--------------------|----------------------------------|-----------------------|
| Investment | 12 | 7 |
| Service | 12 | 8 |
| Industry | 9 | 9 |
| Insurance | 7 | 4 |
| Banking | 9 | 7 |
| Totals | 49 | 35 |

4.6 Investigative Techniques

Panel data using regression models method can be used in this study. Panel data involves the pooling of observations on a cross-section of units over several time periods. A panel data approach is more useful than either cross-section or time series data alone. One advantage of using the panel data set is that, because of the several data points, degrees of freedom are increased and collinearity among the explanatory variables is reduced, thus the efficiency of economic estimates is improved (Abor, 2008).

4.7 Data Collection

The task of data collection begins after a research problem has been defined and a research plan has been chalked out. While deciding about the method of data collection to be used for the study, the researcher should keep in mind two types of data, primary and secondary. The primary data are those which are collected afresh and for the first time, and thus happen to be original in character. The secondary data, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process (Kothari, 2004).

4.8 Primary sources:

- Financial reports.

4.9 Secondary sources:

- Books and scientific references dealing with the subject of the study.
- Researches in specialized journals and scientific journals.
- Master and doctoral theses relevant to the subject of study.

4.10 Data Analysis Plan

First: Financial Analysis: The financial statements will be analyzed using financial ratios that serve the purpose of the study such as: Liquidity, Growth Opportunities , Profitability, Tangibility, Size, Age and Risk ,where these ratios are used in the analysis of the data and in obtaining the results that serve the search.

Variables are measured as follow: Liquidity is measured as the ratio of current assets over current liability, growth opportunities are measured as market to book ratios, profitability is measured as the ratio of earnings before interest, tax over total assets, tangibility is measured as the ratio of total fixed assets over total assets, firm size is measured as the log of total assets, refers to the age of the firm and is expressed in the number of years, risk is measured as sales over operating income, total debt is the ratio of total debt to total assets. Total debt is both long term debt and short term debt.

Short term debt is the ratio of short term debt to total debt. Short term debt includes all types of debt that mature in less than one year. Long term debt is the ratio of long term debt to total debt. Long term debt includes all types of debt that mature beyond one year)P. Akhtar & B. Oliver, 2009; Deesomsak, Paudyal, & Pescetto, 2004; Myers, 1977; Rajan & Zingales, 1995; Titman & Wessels, 1988).

Table (6) : Abstract of Measures of Capital Structure Determinants.

| Determinants | Symbol | Measures |
|----------------------|--------|----------------------------------|
| Liquidity | LQ | Current assets/Current liability |
| Growth Opportunities | G | Market / Book ratio (M/B) |
| Profitability | PROF | EBIT/ Total Assets |
| Tangibility | TANG | Fixed assets/Total assets |
| Size | SIZE | Ln(Total Assets) |
| Age | AGE | Date of Birth |
| Risk | RISK | Sales/Operating Income |
| Short Term Debt | STD | STD/TA |
| Long Term Debt | LTD | LTD/TA |
| Total Debt | TD | TD/TA |

Second: The researcher used panel data statistical techniques because the data have 5 sectors, namely: (Banks, Industries, Insurance, Investment and Services) over the

period (2009-2014). The researcher performed the data analysis by using E-Views

7.0. The researcher would utilize the following statistical tools:

- 1) Descriptive statistics (Minimum, maximum, mean and standard deviation).
- 2) Regression models.

Chapter 5

Data Analysis & Test the Hypothesis

5.1 Introduction

The nature of the study requires conducting financial analysis and identification data in tables which can be observed and requires making statistical analysis. This chapter will show the results of the analysis of the financial statements of the firms under study in order to determine the extent of the correlation between the dependent variable capital structure (LTD, STD, TD) with the independent variables (Liquidity, Growth Opportunities, Profitability, Tangibility, Size, Age and Risk).

Three models are formulated to state the hypothesized relationship:

$$STD = \alpha + \beta_1 AGE + \beta_2 LIQUIDITY + \beta_3 PROFITABILITY + \beta_4 TANGIBILITY + \beta_5 RISK + \beta_6 SIZE + \beta_7 GROWTH$$

$$LTD = \alpha + \beta_1 AGE + \beta_2 LIQUIDITY + \beta_3 PROFITABILITY + \beta_4 TANGIBILITY + \beta_5 RISK + \beta_6 SIZE + \beta_7 GROWTH$$

$$TD = \alpha + \beta_1 AGE + \beta_2 LIQUIDITY + \beta_3 PROFITABILITY + \beta_4 TANGIBILITY + \beta_5 RISK + \beta_6 SIZE + \beta_7 GROWTH$$

Where:

- STD** : is the ratio of STD to TD, STD includes all types of debt that mature in less than one year.
- LTD** : is the ratio of LTD to TD, LTD includes all types of debt that mature beyond one year.
- TD** : is the ratio of TD to TA, TD is both LTD and STD.
- β s** : are the coefficients for every independent variable
- Age** : Date of Birth
- Liquidity** : is defined as a ratio of current assets to current liability
- Profitability** : Earnings before interest and tax to total assets
- Tangibility** : Fixed assets to Total assets
- Risk** : Sales to operating income.
- Size** : refers to the size of the firm and is measured by the natural logarithm of assets.
- Growth** : Market to Book ratio (M/B).

5.2 Descriptive analysis for dependent variables capital structure (LTD, STD, TD)

Table (7) shows the Descriptive statistics for Banking sector, Industries sector, Insurance sector, Investing sector and Services sector: The maximum ratio were STD in services sector 1.279, STD ranges in services sector from 0.006 to 1.279 with mean of 0.373 and standard deviation 0.283, The minimum ratio were LTD also in services sector -0.334.

Insurance sector have maximum ratio in LTD 0.577, and TD 1.057, In Insurance sector LTD ranges from 0 to 0.557 with mean of 0.061 and standard deviation 0.108, TD ranges from 0.619 to 1.057 with mean of 0.75 and standard deviation 0.135.

Industries sector have minimum ratio in STD 0.002, and TD 0.003, in industries sector STD ranges from 0.002 to 0.586 with mean of 0.213 and standard deviation 0.152, TD ranges from 0.003 to 0.648 with mean of 0.26 and standard deviation 0.175.

Table (7) : Descriptive analysis for dependent variables capital structure (LTD, STD, TD)

| Sectors | | Descriptive analysis | | | |
|--------------------------|------------|----------------------|---------|---------|----------------|
| | | Mean | Maximum | Minimum | Std. Deviation |
| BANKING SECTOR | STD | 0.662 | 1.074 | 0.245 | 0.242 |
| | LTD | 0.0363 | 0.1757 | -0.0626 | 0.0364 |
| | TD | 0.6713 | 0.8946 | 0.2758 | 0.2499 |
| INDUSTRIES SECTOR | STD | 0.213 | 0.586 | 0.002 | 0.152 |
| | LTD | 0.047 | 0.252 | -0.136 | 0.057 |
| | TD | 0.26 | 0.648 | 0.003 | 0.175 |
| INSURANCE SECTOR | STD | 0.688 | 0.979 | 0.156 | 0.172 |
| | LTD | 0.061 | 0.557 | 0 | 0.108 |
| | TD | 0.75 | 1.057 | 0.619 | 0.135 |
| INVESTING SECTOR | STD | 0.122 | 0.371 | 0.006 | 0.105 |
| | LTD | 0.068 | 0.229 | 0.002 | 0.069 |
| | TD | 0.19 | 0.399 | 0.009 | 0.145 |
| SERVICES SECTOR | STD | 0.373 | 1.279 | 0.006 | 0.283 |
| | LTD | 0.089 | 0.337 | -0.334 | 0.115 |
| | TD | 0.388 | 0.78 | 0.013 | 0.186 |

Descriptive analysis for independent variables (Age, Liquidity, Profitability, Tangibility, Risk, Size and Growth).

Descriptive statistics for Banking sector

Table (8) shows the Descriptive statistics for Banking sector, Risk have maximum ratio 98.7 in banking sector, Risk ranges from -5.63 to 98.7 with mean of 7.29 and standard deviation 16, Profitability have minimum ratio -0.01, PROF ranges from -0.01 to 0.03 with mean 0.01 and standard deviation 0.01

Table (8): Descriptive analysis for independent variables (Age, Liquidity, Profitability, Tangibility, Risk, Size and Growth) - BANKING SECTOR

| Descriptive analysis | BANKING SECTOR | | | | | | |
|----------------------|----------------|------|-------|------|-------|------|--------|
| | Age | LQ | PROF | TANG | Risk | Size | Growth |
| Mean | 20.6 | 1.72 | 0.01 | 0.08 | 7.29 | 19.8 | 0.96 |
| Maximum | 54 | 3.9 | 0.03 | 0.15 | 98.7 | 21.6 | 2.21 |
| Minimum | 4 | 0.84 | -0.01 | 0.02 | -5.63 | 18.7 | 0.6 |
| Std. Deviation | 13.5 | 0.92 | 0.01 | 0.03 | 16 | 0.74 | 0.41 |

Descriptive statistics for Industries sector

Table (9) shows the Descriptive statistics for Industries sector, Risk have maximum and minimum ratios, ranges from -229.5 to 196.22 with mean of 10.64 and standard deviation 52.34.

Table (9): Descriptive analysis for independent variables (Age, Liquidity, Profitability, Tangibility, Risk, Size and Growth) - INDUSTRIES SECTOR

| Descriptive analysis | INDUSTRIES SECTOR | | | | | | |
|----------------------|-------------------|--------|-------|------|--------|------|--------|
| | Age | LQ | PROF | TANG | Risk | Size | Growth |
| Mean | 30.5 | 5.37 | 0.07 | 0.54 | 10.64 | 16.9 | 1.57 |
| Maximum | 61 | 110.14 | 0.26 | 0.92 | 196.22 | 22.5 | 4.25 |
| Minimum | 10 | 0.26 | -0.18 | 0.19 | -229.5 | 15.1 | 0.59 |
| Std. Deviation | 15.8 | 14.73 | 0.08 | 0.17 | 52.34 | 1.23 | 0.77 |

Descriptive statistics for Insurance sector

Table (10) shows the Descriptive statistics for Insurance sector, Risk have maximum and minimum ratios, ranges from 39.05 to -12.6 with mean of 5.69 and standard deviation 10.58.

Table (10) : Descriptive analysis for independent variables (Age, Liquidity, Profitability, Tangibility, Risk, Size and Growth) - INSURANCE SECTOR

| Descriptive analysis | INSURANCE SECTOR | | | | | | |
|----------------------|------------------|------|------|------|-------|------|--------|
| | Age | LQ | PROF | TANG | Risk | Size | Growth |
| Mean | 18.5 | 0.92 | 0.03 | 0.45 | 5.69 | 17.7 | 0.72 |
| Maximum | 22 | 3.93 | 0.1 | 0.64 | 39.05 | 18.4 | 2.43 |
| Minimum | 15 | 0.37 | -0.1 | 0.24 | -12.6 | 16.4 | -5.4 |
| Std. Deviation | 2.02 | 0.68 | 0.05 | 0.12 | 10.58 | 0.62 | 1.77 |

Descriptive statistics for Investing sector

Table (11) shows the Descriptive statistics for Investing sector, Liquidity have maximum ratio 74.26 in investing sector, LQ ranges from 0.23 to 74.26 with mean of 10.19 and standard deviation 10.19, Risk have minimum ratio -7.87, Risk ranges from -7.87 to 36 with mean 4.31. and standard deviation 6.97

Table (11): Descriptive analysis for independent variables (Age, Liquidity, Profitability, Tangibility, Risk, Size and Growth) - INVESTING SECTOR

| Descriptive analysis | INVESTING SECTOR | | | | | | |
|----------------------|------------------|-------|-------|------|-------|------|--------|
| | Age | LQ | PROF | TANG | Risk | Size | Growth |
| Mean | 21.1 | 10.19 | 0.03 | 0.76 | 4.31 | 16.6 | 1.07 |
| Maximum | 61 | 74.26 | 0.11 | 0.99 | 36 | 19 | 2.74 |
| Minimum | 1 | 0.23 | -0.11 | 0.55 | -7.87 | 13.3 | 0.34 |
| Std. Deviation | 16.3 | 17.45 | 0.04 | 0.13 | 6.97 | 1.68 | 0.65 |

Descriptive statistics for Services sector

Table (12) shows the Descriptive statistics for Services sector, Risk have maximum and minimum ratios, ranges from -1015.1 to 473.72 with mean of 5.69 and standard deviation 10.58.

Table (12) : Descriptive analysis for independent variables (Age, Liquidity, Profitability, Tangibility, Risk, Size and Growth) - SERVICES SECTOR

| Descriptive analysis | SERVICES SECTOR | | | | | | |
|----------------------|-----------------|-------|-------|------|---------|------|--------|
| | Age | LQ | PROF | TANG | Risk | Size | Growth |
| Mean | 12.5 | 2.01 | 0 | 0.61 | -18.02 | 17.1 | 1.2 |
| Maximum | 24 | 25.09 | 0.18 | 0.98 | 473.72 | 20.8 | 2.95 |
| Minimum | 1 | 0.15 | -0.31 | 0.16 | -1015.1 | 14.3 | 0.24 |
| Std. Deviation | 5.98 | 3.96 | 0.11 | 0.26 | 170.31 | 1.71 | 0.59 |

5.3 Building Regression Models for the data

5.3.1 First: BANKING SECTOR

5.3.1.1 Regression Model for STD:

Table (13) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that $F=70.681$, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable STD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.957%. This means 0.957% of the variability in dependent variable STD is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- For the variable " AGE ", the t-test = -0.989056, the P-value (Sig.) = 0.3311, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable AGE on STD.
- For the variable " LIQUIDITY ", the t-test = -5.191878, the P-value (Sig.) = 0.0000, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable LIQUIDITY on STD.
- For the variable " PROFITABILITY ", the t-test = -1.288042, the P-value (Sig.) = 0.2083, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable PROFITABILITY on STD.
- For the variable " TANGIBILITY ", the t-test = 0.004012, the P-value (Sig.) = 0.9968, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable TANGIBILITY on STD.
- For the variable " RISK ", the t-test = 0.668541, the P-value (Sig.) = 0.5093, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable RISK on STD.

- For the variable " SIZE ", the t-test =1.156935, the P-value (Sig.) =0.2571, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable SIZE on STD.
- For the variable " GROWTH ", the t-test =-1.318166, the P-value (Sig.) =0.1981, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable GROWTH on STD.
- In addition, based on the P-value (Sig.), the most significant independent variable is LIQUIDITY, then GROWTH, then PROFITABILITY, then SIZE , then AGE , then RISK and TANGIBILITY.

The regression equation is:

$$STD = -0.038 - 0.012 * (AGE) - 0.220 * (LIQUIDITY) - 2.622 * (PROFITABILITY) + 0.003 * (TANGIBILITY) + 0.000 * (RISK) + 0.073 * (SIZE) - 0.101 * (GROWTH).$$

Table (13): The Regression Analysis: STD - BANKING SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|---|-------------|-------------|---------|
| Constant | -0.038180 | -0.038098 | 0.9699 |
| AGE | -0.011862 | -0.989056 | 0.3311 |
| LIQUIDITY | -0.220135 | -5.191878 | 0.0000* |
| PROFITABILITY | -2.621845 | -1.288042 | 0.2083 |
| TANGIBILITY | 0.002821 | 0.004012 | 0.9968 |
| RISK | 0.000430 | 0.668541 | 0.5093 |
| SIZE | 0.072954 | 1.156935 | 0.2571 |
| GROWTH | -0.101097 | -1.318166 | 0.1981 |
| F= 70.681 P-value (Sig.) = 0.000 R-Square = 0.957 | | | |

* The variable is statistically significant at 0.05 level

5.3.1.2 Regression Model for LTD:

Table (14) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that $F=3.749$, P-value (Sig.) = 0.003, so there is a significant relationship between the dependent variable LTD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.485%. This means 0.485 % of the variability in dependent variable LTD is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- For the variable " AGE ", the t-test = -0.711569, the P-value (Sig.) = 0.4839, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable AGE on LTD.
- For the variable " LIQUIDITY ", the t-test = 4.231092, the P-value (Sig.) = 0.0003, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable LIQUIDITY on LTD.
- For the variable " PROFITABILITY ", the t-test = 1.811662, the P-value (Sig.) = 0.0421, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable PROFITABILITY on LTD.
- For the variable " TANGIBILITY ", the t-test = -0.149220, the P-value (Sig.) = 0.8827, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable TANGIBILITY on LTD.
- For the variable " RISK ", the t-test = -0.877206, the P-value (Sig.) = 0.3894, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable RISK on LTD.
- For the variable " SIZE ", the t-test = 1.074062, the P-value (Sig.) = 0.2939, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of

the test is positive, then there is insignificant positive effect of the variable SIZE on LTD.

- For the variable " GROWTH ", the t-test =0.476996, the P-value (Sig.) =0.6379, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable GROWTH on LTD.
- In addition, based on the P-value (Sig.), the most significant independent variable is LIQUIDITY, then PROFITABILITY, then SIZE, then RISK, then AGE, then GROWTH and TANGIBILITY.

The regression equation is:

$$LTD = -1.433 - 0.006 * (AGE) + 0.109 * (LIQUIDITY) + 2.121 * (PROFITABILITY) - 0.006 * (TANGIBILITY) - 0.000 * (RISK) + 0.069 * (SIZE) + 0.022 * (GROWTH).$$

Table (14): The Regression Analysis: LTD - BANKING SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|--|-------------|-------------|---------|
| Constant | -1.433331 | -1.266227 | 0.2181 |
| AGE | -0.005901 | -0.711569 | 0.4839 |
| LIQUIDITY | 0.108774 | 4.231092 | 0.0003* |
| PROFITABILITY | 2.120657 | 1.811662 | 0.0421* |
| TANGIBILITY | -0.063133 | -0.149220 | 0.8827 |
| RISK | -0.000295 | -0.877206 | 0.3894 |
| SIZE | 0.068730 | 1.074062 | 0.2939 |
| GROWTH | 0.021831 | 0.476996 | 0.6379 |
| F= 3.749 P-value (Sig.) = 0.003 R-Square = 0.485 | | | |

* The variable is statistically significant at 0.05 level

5.3.1.3 Regression Model for TD:

Table (15) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that $F=1864.228$, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable TD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.998%. This means 0.998 % of the variability in dependent variable TD is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- For the variable " AGE ", the t-test = -0.369830, the P-value (Sig.) = 0.7149, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable AGE on TD.
- For the variable " LIQUIDITY ", the t-test = -2.609951, the P-value (Sig.) = 0.0157, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable LIQUIDITY on TD.
- For the variable " PROFITABILITY ", the t-test = -1.334688, the P-value (Sig.) = 0.1950, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable PROFITABILITY on TD.
- For the variable " TANGIBILITY ", the t-test = -0.767041, the P-value (Sig.) = 0.4509, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable TANGIBILITY on TD.
- For the variable " RISK ", the t-test = 0.176959, the P-value (Sig.) = 0.8611, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable RISK on TD.
- For the variable " SIZE ", the t-test = 3.859944, the P-value (Sig.) = 0.0008, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable SIZE on TD.

- For the variable " GROWTH ", the t-test =3.569187, the P-value (Sig.) =0.0016, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable GROWTH on TD.
- In addition, based on the P-value (Sig.), the most significant independent variable is SIZE, then GROWTH, then LIQUIDITY, then PROFITABILITY, then TANGIBILITY, then AGE and RISK.

The regression equation is:

$$TD = -1.158 - 0.001 * (AGE) - 0.025 * (LIQUIDITY) - 0.590 * (PROFITABILITY) - 0.123 * (TANGIBILITY) + 0.000 * (RISK) + 0.093 * (SIZE) + 0.062 * (GROWTH).$$

Table (15): The Regression Analysis: TD - BANKING SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|---|-------------|-------------|---------|
| Constant | -1.157747 | -2.706314 | 0.0126 |
| AGE | -0.001159 | -0.369830 | 0.7149 |
| LIQUIDITY | -0.025357 | -2.609951 | 0.0157* |
| PROFITABILITY | -0.590436 | -1.334688 | 0.1950 |
| TANGIBILITY | -0.122644 | -0.767041 | 0.4509 |
| RISK | 0.00002 | 0.176959 | 0.8611 |
| SIZE | 0.093346 | 3.859944 | 0.0008* |
| GROWTH | 0.061736 | 3.569187 | 0.0016* |
| F= 1864.228 P-value (Sig.) = 0.000 R-Square = 0.998 | | | |

* The variable is statistically significant at 0.05 level

5.3.1.4 Discussion of Banking sector results

The results showed an insignificant negative effect of the variable AGE on STD, LTD, TD in the banking sector, The interpretation of this result is due to the varying ages of banks listed in PEX and their debt ratios. This finding was supported by the studies of both Mosa (2012) and Abu Mouamer (2011). The logical explanation for this result is that firms which have long ages have the ability to raise their funds. Therefore, borrowing will be less. But the study of Ramadan & Alokdeh, (2011) found a different result which showed a significant relationship between a firm's age and debt ratios (leverage). This means that the

older companies are, the more they tend to rely on borrowing sources to finance their projects.

The LQ result in the banking sector showed a significant negative effect on STD and TD, and a significant positive effect on LTD. This relationship was due to the difference in the information and nature of work environments between banks in the study. However, banks with greater liquidities may use them to finance their investments. In this case debt ratios will be reduced. This is consistent with results reported in (Masoud, 2014), which found liquidity as being consistently negative and significant with both the book and market value leverages and (Sbeiti, 2010) study which found liquidity as being consistently negative and highly significant.

A negative relationship was found between PROF and STD and TD, which is consistent with the pecking order theory which argues that highly profitable firms prefer to finance new investment with internally available funds rather than through debt finance. This means that good profitability reduces the need for external debt. This finding supports several previous ones including Masoud (2014) and (Sbeiti, 2010) studies. It is found that profitability is negatively related to the leverage ratios. This study found a positive relationship between PROF and LTD. This result differs with Abu Mouamer (2011)'s study which found it to be negatively related to LTD and positively related to STD.

Tangibility is negatively related to LTD, TD and positively related to STD but statically insignificant. This means most fixed assets are financed by STD. This result differs with Abu Mouamer (2011) which found a positive relationship between fixed assets (TANG) and LTD and a negative relationship between fixed assets and STD.

Risk variable is insignificantly negative in LTD. So, increases in a firm's riskiness reduce the level of LTD in its capital structure but have an insignificant positive effect on STD and TD. This is consistent with the view that firms that are viewed as risky by creditors find it more difficult to borrow long-term. This result agrees with the (Bülent et al., 2013) study and differs with (Emad & Alokdeh, 2011) which found significant a positive relationship with leverage.

The size variable has an insignificant positive relationship with STD and LTD and a significant positive relationship with TD. This implies that firms employ more debt as their size increases then reduce their debt. This result agrees with Masoud (2014) study which found a positive correlation with both book and market value leverage ratios, and with

Khrawish, (2010) which found a significant positive relationship between leverage ratio and size.

The growth variable has an insignificant positive relationship with STD and LTD and a highly significant positive relationship with TD. This means that banks tend to increase their TD to increase their growth and after growth they can cover these debts. This result agrees with Abu Mouamer (2011) which found that the growth opportunities variables (G) correlated positively with both the ratio of STD and LTD.

5.3.2 Second: INDUSTRIES SECTOR

5.3.2.1 Regression Model for STD:

Table (16) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that $F=60.830$, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable STD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.967%. This means 0.967% of the variability in dependent variable STD is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- For the variable " AGE ", the t-test =2.147698, the P-value (Sig.) =0.0228, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable AGE on STD.
- For the variable " LIQUIDITY ", the t-test = 0.158591, the P-value (Sig.) =0.8758, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable LIQUIDITY on STD.
- For the variable " PROFITABILITY ", the t-test =-0.924834, the P-value (Sig.) =0.3673, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable PROFITABILITY on STD.
- For the variable " TANGIBILITY ", the t-test =-2.798137, the P-value (Sig.) =0.0119, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable TANGIBILITY on STD.
- For the variable " RISK ", the t-test =0.755747, the P-value (Sig.) =0.4596, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable RISK on STD.
- For the variable " SIZE ", the t-test =-0.204001, the P-value (Sig.) =0.8406, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of

the test is negative, then there is insignificant negative effect of the variable SIZE on STD.

- For the variable " GROWTH ", the t-test =-1.658059, the P-value (Sig.) =0.1146, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable GROWTH on STD.
- In addition, based on the P-value (Sig.), the most significant independent variable is TANGIBILITY, then AGE, then GROWTH, then PROFITABILITY , then RISK , then SIZE and LIQUIDITY.

The regression equation is:

$$STD = 0.331 + 0.012 * (AGE) + 0.000 * (LIQUIDITY) - 0.091 * (PROFITABILITY) - 0.552 * (TANGIBILITY) + 0.000 * (RISK) - 0.008 * (SIZE) - 0.029 * (GROWTH).$$

Table (16): The Regression Analysis: STD - INDUSTRIES SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|---|-------------|-------------|---------|
| Constant | 0.330907 | 0.524904 | 0.6061 |
| AGE | 0.012028 | 2.147698 | 0.0228* |
| LIQUIDITY | 0.000298 | 0.158591 | 0.8758 |
| PROFITABILITY | -0.091066 | -0.924834 | 0.3673 |
| TANGIBILITY | -0.552147 | -2.798137 | 0.0119* |
| RISK | 0.000101 | 0.755747 | 0.4596 |
| SIZE | -0.008429 | -0.204001 | 0.8406 |
| GROWTH | -0.029229 | -1.658059 | 0.1146 |
| F= 60.830 P-value (Sig.) = 0.000 R-Square = 0.967 | | | |

* The variable is statistically significant at 0.05 level

5.3.2.2 Regression Model for LTD:

Table (17) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that F=5.678, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable LTD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.570%. This means 0.570% of the variability in dependent variable LTD is explained by all of the independent variables together,

AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.

- For the variable " AGE ", the t-test =-0.072902, the P-value (Sig.) =0.9423, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable AGE on LTD.
- For the variable " LIQUIDITY ", the t-test =-0.291068, the P-value (Sig.) =0.7726, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable LIQUIDITY on LTD.
- For the variable " PROFITABILITY ", the t-test =-2.377869, the P-value (Sig.) =0.0225, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable PROFITABILITY on LTD.
- For the variable " TANGIBILITY ", the t-test =-3.535281, the P-value (Sig.) =0.0011, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable TANGIBILITY on LTD.
- For the variable " RISK ", the t-test =-0.993533, the P-value (Sig.) =0.3267, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable RISK on LTD.
- For the variable " SIZE ", the t-test =0.501302, the P-value (Sig.) =0.6191, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable SIZE on LTD.
- For the variable " GROWTH ", the t-test =0.878762, the P-value (Sig.) =0.3851, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable GROWTH on LTD.
- In addition, based on the P-value (Sig.), the most significant independent variable is TANGIBILITY, then PROFITABILITY, then RISK, then GROWTH, then SIZE, then LIQUIDITY and AGE.

The regression equation is:

$$LTD = -0.001 - 0.000 * (AGE) - 0.000 * (LIQUIDITY) - 0.230 * (PROFITABILITY) - 0.444 * (TANGIBILITY) - 0.000 * (RISK) + 0.019 * (SIZE) + 0.001 * (GROWTH).$$

Table (17): The Regression Analysis: LTD - INDUSTRIES SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|--|-------------|-------------|---------|
| Constant | -0.009736 | -0.017952 | 0.9858 |
| AGE | -0.000264 | -0.072902 | 0.9423 |
| LIQUIDITY | -0.000453 | -0.291068 | 0.7726 |
| PROFITABILITY | -0.230183 | -2.377869 | 0.0225* |
| TANGIBILITY | -0.444176 | -3.535281 | 0.0011* |
| RISK | -0.000121 | -0.993533 | 0.3267 |
| SIZE | 0.018264 | 0.501302 | 0.6191 |
| GROWTH | 0.009586 | 0.878762 | 0.3851 |
| F= 5.678 P-value (Sig.) = 0.000 R-Square = 0.570 | | | |

* The variable is statistically significant at 0.05 level

5.3.2.3 Regression Model for TD:

Table (18) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that F=35.733, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable TD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.907%. This means 0.907% of the variability in dependent variable TD is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- For the variable " AGE ", the t-test =0.170832, the P-value (Sig.) =0.8653, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable AGE on TD.
- For the variable " LIQUIDITY ", the t-test =-1.563613, the P-value (Sig.) =0.1262, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable LIQUIDITY on TD.

- For the variable " PROFITABILITY ", the t-test =-3.318542, the P-value (Sig.) =0.0020, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable PROFITABILITY on TD.
- For the variable " TANGIBILITY ", the t-test =-3.187910, the P-value (Sig.) =0.0029, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable TANGIBILITY on TD.
- For the variable " RISK ", the t-test =-1.711478, the P-value (Sig.) =0.0475, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable RISK on TD.
- For the variable " SIZE ", the t-test =1.100954, the P-value (Sig.) =0.2778, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable SIZE on TD.
- For the variable " GROWTH ", the t-test =1.811670, the P-value (Sig.) =0.0389, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable GROWTH on TD.
- In addition, based on the P-value (Sig.), the most significant independent variable is PROFITABILITY, then TANGIBILITY, then GROWTH, then RISK, then AGE, then LIQUIDITY and SIZE.

The regression equation is:

$$\text{TD} = -0.410 - 0.001 * (\text{AGE}) - 0.003 * (\text{LIQUIDITY}) - 0.454 * (\text{PROFITABILITY}) - 0.566 * (\text{TANGIBILITY}) - 0.000 * (\text{RISK}) + 0.056 * (\text{SIZE}) + 0.028 * (\text{GROWTH}).$$

Table (18): The Regression Analysis: TD - INDUSTRIES SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|---|-------------|-------------|---------|
| Constant | -0.409883 | -0.534599 | 0.5960 |
| AGE | 0.000876 | 0.170832 | 0.8653 |
| LIQUIDITY | -0.003444 | -1.563613 | 0.1262 |
| PROFITABILITY | -0.454159 | -3.318542 | 0.0020* |
| TANGIBILITY | -0.566255 | -3.187910 | 0.0029* |
| RISK | -0.000296 | -1.711478 | 0.0475* |
| SIZE | 0.056708 | 1.100954 | 0.2778 |
| GROWTH | 0.027939 | 1.811670 | 0.0389* |
| F= 35.733 P-value (Sig.) = 0.000 R-Square = 0.907 | | | |

* The variable is statistically significant at 0.05 level

5.3.2.4 Discussion of Industries Sector Results

The result showed a significant positive effect of the variable AGE on STD, an insignificant negative effect on LTD and an insignificant positive effect on TD in the industries sector. This result means that increasing the age of a firm will decrease LTD but will raise STD and TD. The interpretation of this result is the varying ages of industry firms listed in PEX and their debt ratios. This finding in STD is supported by the study of Ramadan & Alokdeh, (2011) which found a significant relationship between a firm's age and debt ratios (leverage). It is also supported by Mosa (2012) in LTD and TD which found no significant relationship between a firm's age and its capital structure. But the result agrees with Abu Mouamer (2011) in LTD and disagrees with his result in STD.

The liquidity result in the industries sector showed a significant negative effect on LTD, an insignificant positive effect on STD and an insignificant negative effect on TD. This result suggests that firms with higher liquidity tend to avoid raising LTD. As discussed previously, a negative relationship may indicate that firms operating in industries firms finance their activities according to the financing order of the pecking order theory. The results were supported by (Masoud, 2014), (Sbeiti, 2010) and Mosa (2012) in LTD, which found liquidity as being consistently negative and significant with LTD but differ with these studies in STD and TD.

There is a significant negative relationship between PROF and LTD and TD but an insignificant negative one with STD. The negative relationships between profits and market leverage were also found by Osaretin & Michael, (2014). This means that profitable firms reinvest their profits, and thus, need less borrowed funds for their operations or investments. These results indicate and support to a large extent conclusions applied by previous studies and therefore reducing STD, LTD or TD will lead to increased annual profitability rates.

Tangibility is negatively significant relating to STD and TD but negatively insignificant relating to LTD. The first relationship might indicate that small manufacturing companies in terms of fixed assets access debt in order to ensure close monitoring from lenders. This result differs with Abu Mouamer (2011) which found a positive relationship between fixed assets (TANG) and LTD but agrees with a negative relationship between the fixed assets and STD in his study.

Risk variable is insignificantly negative in LTD. So, increases in an industries firm's riskiness reduce the level of LTD in its capital structure but has an insignificant negative effect on TD and an insignificant positive effect on STD. This result agrees with Al-Shubiri, (2010) which found insignificant coefficients associated between business risk and leverage for every year and all years and differs with (Emad & Alokdeh, 2011) which found a significant positive relationship with leverage.

The size variable has an insignificantly positive relationship with STD, LTD and TD but a negative relationship with STD. This implies that firms employ more LTD and TD as their size increases then reduce their debt. This result agrees with Masoud (2014) study which found a positive correlation with both book and market value leverage ratios, and with Khrawish, (2010) which found a significant positive relationship between leverage ratio and size.

The growth variable has an insignificantly negative relationship with STD, a positive relationship with LTD but a significant positive relationship with TD. This means that firms tend to increase their TD to increase their growth and after growth they can cover these debts. This result agrees with Abu Mouamer (2011) which found that the growth opportunities variables (G) correlated positively with both the ratio of STD and LTD.

5.3.3 Third: INSURANCE SECTOR

5.3.3.1 Regression Model for STD:

Table (19) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that $F=200.155$, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable STD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.991%. This means 0.991% of the variability in dependent variable STD is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- For the variable " AGE ", the t-test =3.158437, the P-value (Sig.) =0.0134, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable AGE on STD.
- For the variable " LIQUIDITY ", the t-test = -12.61867, the P-value (Sig.) =0.0000, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable LIQUIDITY on STD.
- For the variable " PROFITABILITY ", the t-test =-2.092559, the P-value (Sig.) =0.0349, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable PROFITABILITY on STD.
- For the variable " TANGIBILITY ", the t-test =-11.56704, the P-value (Sig.) =0.0000, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable TANGIBILITY on STD.
- For the variable " RISK ", the t-test =-0.274937, the P-value (Sig.) =0.7903, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable RISK on STD.

- For the variable " SIZE ", the t-test =-3.584865, the P-value (Sig.) =0.0036, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable SIZE on STD.
- For the variable " GROWTH ", the t-test =-2.098123, the P-value (Sig.) =0.0346, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable GROWTH on STD.
- In addition, based on the P-value (Sig.), the most significant independent variable is LIQUIDITY, then TANGIBILITY, then SIZE, then AGE, then GROWTH , then PROFITABILITY and RISK.

The regression equation is:

$$STD = 3.799 + 0.013 * (AGE) - 0.951 * (LIQUIDITY) - 0.383 * (PROFITABILITY) - 1.214 * (TANGIBILITY) - 0.000 * (RISK) - 0.113 * (SIZE) - 0.009 * (GROWTH).$$

Table (19) : The Regression Analysis: STD - INSURANCE SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|--|-------------|-------------|---------|
| Constant | 3.798556 | 6.984813 | 0.0001* |
| AGE | 0.012548 | 3.158437 | 0.0134* |
| LIQUIDITY | -0.950808 | -12.61867 | 0.0000* |
| PROFITABILITY | -0.383477 | -2.092559 | 0.0349* |
| TANGIBILITY | -1.213692 | -11.56704 | 0.0000 |
| RISK | -0.000118 | -0.274937 | 0.7903 |
| SIZE | -0.112906 | -3.584865 | 0.0036* |
| GROWTH | -0.008505 | -2.098123 | 0.0346* |
| F= 200.155 P-value (Sig.) = 0.000 R-Square = 0.991 | | | |

* The variable is statistically significant at 0.05 level

5.3.3.2 Regression Model for LTD:

Table (20) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that F=119.9612, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable LTD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.981%. This means 0.981% of the variability in dependent variable LTD is explained by all of the independent variables together,

AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.

- For the variable " AGE ", the t-test =-1.894956, the P-value (Sig.) =0.0403, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable AGE on LTD.
- For the variable " LIQUIDITY ", the t-test =27.00161, the P-value (Sig.) =0.0000, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable LIQUIDITY on LTD.
- For the variable " PROFITABILITY ", the t-test =0.756978, the P-value (Sig.) =0.4626, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable PROFITABILITY on LTD.
- For the variable " TANGIBILITY ", the t-test =3.359961, the P-value (Sig.) =0.0036, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable TANGIBILITY on LTD.
- For the variable " RISK ", the t-test =1.036977, the P-value (Sig.) =0.3187, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable RISK on LTD.
- For the variable " SIZE ", the t-test =-0.720907, the P-value (Sig.) =0.4837, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable SIZE on LTD.
- For the variable " GROWTH ", the t-test =-1.648054, the P-value (Sig.) =0.1233, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable GROWTH on LTD.
- In addition, based on the P-value (Sig.), the most significant independent variable is LIQUIDITY, then TANGIBILITY, then AGE, then GROWTH, then RISK , then PROFITABILITY and SIZE.

The regression equation is:

$$LTD = 0.270 - 0.005 * (AGE) + 0.169 * (LIQUIDITY) + 0.136 * (PROFITABILITY) + 0.298 * (TANGIBILITY) - 0.000 * (RISK) - 0.023 * (SIZE) - 0.006 * (GROWTH).$$

Table (20): The Regression Analysis: LTD - INSURANCE SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|---|-------------|-------------|---------|
| Constant | 0.270303 | 0.496378 | 0.6279 |
| AGE | -0.005470 | -1.894956 | 0.0403* |
| LIQUIDITY | 0.168661 | 27.00161 | 0.0000* |
| PROFITABILITY | 0.136309 | 0.756978 | 0.4626 |
| TANGIBILITY | 0.298050 | 3.359961 | 0.0036* |
| RISK | 0.000443 | 1.036977 | 0.3187 |
| SIZE | -0.022711 | -0.720907 | 0.4837 |
| GROWTH | -0.006834 | -1.648054 | 0.1233 |
| F= 119.9612 P-value (Sig.) = 0.000 R-Square = 0.981 | | | |

* The variable is statistically significant at 0.05 level

5.3.3.3 Regression Model for TD:

Table (21) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that F=23.525, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable TD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.907%. This means 0.907% of the variability in dependent variable TD is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- For the variable " AGE ", the t-test =-2.398596, the P-value (Sig.) =0.0322, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable AGE on TD.
- For the variable " LIQUIDITY ", the t-test =0.294032, the P-value (Sig.) =0.7734, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable LIQUIDITY on TD.

- For the variable " PROFITABILITY ", the t-test =-0.623853, the P-value (Sig.) =0.5435, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable PROFITABILITY on TD.
- For the variable " TANGIBILITY ", the t-test =-1.510919, the P-value (Sig.) =0.1547, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable TANGIBILITY on TD.
- For the variable " RISK ", the t-test =-0.788958, the P-value (Sig.) =0.4443, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable RISK on TD.
- For the variable " SIZE ", the t-test =-0.852146, the P-value (Sig.) =0.4096, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable SIZE on TD.
- For the variable " GROWTH ", the t-test =-1.642435, the P-value (Sig.) =0.1245, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable GROWTH on TD.
- In addition, based on the P-value (Sig.), the most significant independent variable is AGE, then GROWTH, then TANGIBILITY, then SIZE, then RISK, then PROFITABILITY and LIQUIDITY.

The regression equation is:

$$TD = 2.609 - 0.019 * (AGE) + 0.005 * (LIQUIDITY) - 0.311 * (PROFITABILITY) - 0.371 * (TANGIBILITY) - 0.001 * (RISK) - 0.074 * (SIZE) - 0.019 * (GROWTH).$$

Table (21): The Regression Analysis: TD - INSURANCE SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|---|-------------|-------------|---------|
| Constant | 2.609094 | 1.730257 | 0.1072 |
| AGE | -0.019173 | -2.398596 | 0.0322* |
| LIQUIDITY | 0.005086 | 0.294032 | 0.7734 |
| PROFITABILITY | -0.311074 | -0.623853 | 0.5435 |
| TANGIBILITY | -0.371140 | -1.510919 | 0.1547 |
| RISK | -0.000934 | -0.788958 | 0.4443 |
| SIZE | -0.074340 | -0.852146 | 0.4096 |
| GROWTH | -0.018859 | -1.642435 | 0.1245 |
| F= 23.525 P-value (Sig.) = 0.000 R-Square = 0.907 | | | |

5.3.3.4 Discussion of Insurance Sector Results

The result showed a significant negative effect of the variable AGE on LTD and TD but a significant positive effect on STD in the insurance sector. This result means that increasing the age of a firm will decrease LTD and TD but will raise STD. The interpretation of this result is the varying ages of insurance firms listed in PEX and their debt ratios. This finding was supported by Ramadan & Alokdeh, (2011) who found a significant relationship between a firm's age and its debt ratios (leverage) and differed with both Mosa (2012) and Abu Mouamer (2011). This means that the company's age affects the size of the debt in insurance companies.

Liquidity in the insurance sector showed a significantly negative effect on STD, a significant positive effect on LTD and an insignificant positive effect on TD. This relationship was due to the difference in the information and the nature of the work environments between insurance firms in the study. This result suggests that firms with higher liquidity tend to avoid raising short term loans. As discussed earlier, a negative relationship may indicate that firms operating in these sectors finance their activities according to the financing hierarchy of the pecking order theory. This is consistent with results reported in Sbeiti, (2010).

A significant negative relationship was found between PROF and STD, an insignificant negative relationship with TD and an insignificant positive relationship with LTD, In the insurance sector, this means that STD is only affected by profitability. This finding was supported by Ghosh, Petrova, & Wang, (2012).

Tangibility is negatively related to STD and TD but positively related to LTD. Statically, STD and LTD are significant but TD is insignificant. This means that most fixed assets are financed by LTD. This result was supported by Abu Mouamer (2011) which found a positive relationship between fixed assets (TANG) and LTD and a negative relationship between the fixed assets and STD.

Risk variable is insignificantly negative in STD, LTD and TD, except that LTD has a positive relationship. This means that capital structure in the insurance sector is not affected directly by risk. This result was supported by Bülent et al, (2013) study and differs with Caglayan & Rashid, (2014).

The size and growth variables have insignificantly negative relationships with STD, LTD and TD except that STD is statistically significant. This mean that STD is affected adversely by size and growth. This result can be explained in that the increases in size of companies and their growth make them avoid getting short-term loans. This result is supported by Akinlo, (2011) and differs with Masoud (2014).

5.3.4 Fourth: INVESTING SECTOR

5.3.4.1 Regression Model for STD:

Table (22) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that $F=41.877$, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable STD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.928%. This means 0.928% of the variability in dependent variable STD is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- For the variable " AGE ", the t-test =1.359544, the P-value (Sig.) =0.1848, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable AGE on STD.
- For the variable " LIQUIDITY ", the t-test =-1.896892, the P-value (Sig.) =0.0341, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable LIQUIDITY on STD.
- For the variable " PROFITABILITY ", the t-test =-2.944082, the P-value (Sig.) =0.0064, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable PROFITABILITY on STD.
- For the variable " TANGIBILITY ", the t-test =-1.948866, the P-value (Sig.) =0.0307, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable TANGIBILITY on STD.
- For the variable " RISK ", the t-test =-0.399856, the P-value (Sig.) =0.6923, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable RISK on STD.

- For the variable " SIZE ", the t-test =2.407437, the P-value (Sig.) =0.0115, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable SIZE on STD.
- For the variable " GROWTH ", the t-test =-0.924830, the P-value (Sig.) =0.3630, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable GROWTH on STD.
- In addition, based on the P-value (Sig.), the most significant independent variable is PROFITABILITY, then SIZE, then TANGIBILITY, then LIQUIDITY, then AGE , then GROWTH and RISK.

The regression equation is:

$$STD = -1.618 + 0.004 * (AGE) - 0.001 * (LIQUIDITY) - 0.448 * (PROFITABILITY) - 0.265 * (TANGIBILITY) - 0.000 * (RISK) + 0.115 * (SIZE) - 0.027 * (GROWTH).$$

Table (22): The Regression Analysis: STD - INVESTING SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|---|-------------|-------------|---------|
| Constant | -1.617989 | -2.037719 | 0.0255* |
| AGE | 0.004481 | 1.359544 | 0.1848 |
| LIQUIDITY | -0.001319 | -1.896892 | 0.0341* |
| PROFITABILITY | -0.447533 | -2.944082 | 0.0064* |
| TANGIBILITY | -0.264856 | -1.948866 | 0.0307* |
| RISK | -0.000303 | -0.399856 | 0.6923 |
| SIZE | 0.114738 | 2.407437 | 0.0115* |
| GROWTH | -0.026518 | -0.924830 | 0.3630 |
| F= 41.877 P-value (Sig.) = 0.000 R-Square = 0.928 | | | |

* The variable is statistically significant at 0.05 level

5.3.4.2 Regression Model for LTD:

Table (23) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that F=40.393, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable LTD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.925%. This means 0.925% of the variability in dependent variable LTD is explained by all of the independent variables together,

AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.

- For the variable " AGE ", the t-test =-0.327733, the P-value (Sig.) =0.7456, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable AGE on LTD.
- For the variable " LIQUIDITY ", the t-test =0.682774, the P-value (Sig.) =0.5004, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable LIQUIDITY on LTD.
- For the variable " PROFITABILITY ", the t-test =0.025774, the P-value (Sig.) =0.9796, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable PROFITABILITY on LTD.
- For the variable " TANGIBILITY ", the t-test =2.045501, the P-value (Sig.) =0.0353, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable TANGIBILITY on LTD.
- For the variable " RISK ", the t-test =-0.397563, the P-value (Sig.) =0.6940, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable RISK on LTD.
- For the variable " SIZE ", the t-test =-0.610240, the P-value (Sig.) =0.5466, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable SIZE on LTD.
- For the variable " GROWTH ", the t-test =-1.130743, the P-value (Sig.) =0.2678, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable GROWTH on LTD.
- In addition, based on the P-value (Sig.), the most significant independent variable is TANGIBILITY, then GROWTH, then LIQUIDITY, then SIZE, then RISK , then AGE and PROFITABILITY.

The regression equation is:

$$LTD = -0.358 - 0.001 * (AGE) + 0.000 * (LIQUIDITY) + 0.003 * (PROFITABILITY) + 0.185 * (TANGIBILITY) - 0.000 * (RISK) + 0.019 * (SIZE) - 0.021 * (GROWTH).$$

Table (23): The Regression Analysis: LTD - INVESTING SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|---|-------------|-------------|---------|
| Constant | -0.357730 | -0.676662 | 0.5042 |
| AGE | -0.000719 | -0.327733 | 0.7456 |
| LIQUIDITY | 0.000316 | 0.682774 | 0.5004 |
| PROFITABILITY | 0.002609 | 0.025774 | 0.9796 |
| TANGIBILITY | 0.185089 | 2.045501 | 0.0353* |
| RISK | -0.000200 | -0.397563 | 0.6940 |
| SIZE | 0.019365 | 0.610240 | 0.5466 |
| GROWTH | -0.021587 | -1.130743 | 0.2678 |
| F= 40.393 P-value (Sig.) = 0.000 R-Square = 0.925 | | | |

* The variable is statistically significant at 0.05 level

5.3.4.3 Regression Model for TD:

Table (24) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that F=76.137, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable TD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.960%. This means 0.960% of the variability in dependent variable TD is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- For the variable " AGE ", the t-test =1.107902, the P-value (Sig.) =0.2773, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable AGE on TD.
- For the variable " LIQUIDITY ", the t-test =-1.400044, the P-value (Sig.) =0.1725, which is greater than 0.05, hence this variable is statistically insignificant. Since the

sign of the test is negative, then there is insignificant negative effect of the variable LIQUIDITY on TD.

- For the variable " PROFITABILITY ", the t-test =-2.841184, the P-value (Sig.) =0.0042, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable PROFITABILITY on TD.
- For the variable " TANGIBILITY ", the t-test =-0.569750, the P-value (Sig.) =0.5734, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable TANGIBILITY on TD.
- For the variable " RISK ", the t-test =-0.645092, the P-value (Sig.) =0.5241, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable RISK on TD.
- For the variable " SIZE ", the t-test =2.731321, the P-value (Sig.) =0.0108, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable PROFITABILITY on TD.
- For the variable " GROWTH ", the t-test =-1.628549, the P-value (Sig.) =0.1146, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable GROWTH on TD.
- In addition, based on the P-value (Sig.), the most significant independent variable is PROFITABILITY, then SIZE, then GROWTH, then LIQUIDITY, then AGE, then RISK and TANGIBILITY.

The regression equation is:

$$TD = -1.976 + 0.003 * (AGE) - 0.001 * (LIQUIDITY) - 0.445 * (PROFITABILITY) - 0.080 * (TANGIBILITY) - 0.000 * (RISK) + 0.134 * (SIZE) - 0.048 * (GROWTH).$$

Table (24): The Regression Analysis: TD - INVESTING SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|---|-------------|-------------|---------|
| Constant | -1.975719 | -2.415363 | 0.0225* |
| AGE | 0.003761 | 1.107902 | 0.2773 |
| LIQUIDITY | -0.001003 | -1.400044 | 0.1725 |
| PROFITABILITY | -0.444924 | -2.841184 | 0.0042* |
| TANGIBILITY | -0.079767 | -0.569750 | 0.5734 |
| RISK | -0.000503 | -0.645092 | 0.5241 |
| SIZE | 0.134103 | 2.731321 | 0.0108* |
| GROWTH | -0.048105 | -1.628549 | 0.1146 |
| F= 76.137 P-value (Sig.) = 0.000 R-Square = 0.960 | | | |

* The variable is statistically significant at 0.05 level

5.3.4.4 Discussion of Investing Sector Results

The results showed an insignificant positive effect of the variable AGE on STD and TD but an insignificant negative effect on LTD in the investing sector. This result means that increasing the age of a firm will decrease LTD but will raise STD and TD. The interpretation of this result is the varying ages of investing firms listed in PEX and their debt ratios. But the study of Ramadan & Alokdeh, (2011) found a different result which showed a significant relationship between a firm's age and its debt ratios (leverage).

Liquidity result in the industries sector showed a significant negative effect on STD, an insignificant positive effect on LTD and an insignificant negative effect on TD. This result means that firms reduce their STD when their liquidity rises so they may avoid financing their investments by debt. This is consistent with results reported in Masoud, (2014) and Sbeiti, (2010).

Profitability and size have a significant relationship with STD and TD and an insignificant relationship with LTD. This means that the debt affects the company's profitability and size. This result can be explained that companies in the investment sector use short-term debt and total debt to increase their profitability size and will cover this debt after achieving profit. This finding supports several previous ones including Masoud (2014) and (Sbeiti, 2010) but differs with Abu Mouamer (2011).

Tangibility is negatively related to STD and TD whereas LTD has a positive relationship. Statistically, STD and LTD are significant but TD is insignificant. This means most fixed assets are financed by LTD. This result is supported by Abu Mouamer (2011) which found a positive relationship between fixed assets (TANG) and LTD and a negative relationship between the fixed assets and STD.

Risk and growth variables have an insignificantly negative effect on STD, LTD and TD. So, increases in an investing firm's riskiness and growth will reduce the level of capital structure. This result differs with Emad & Alokdeh, (2011) and Abu Mouamer (2011).

5.3.5 Fifth: SERVICES SECTOR

5.3.5.1 Regression Model for STD:

Table (25) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that $F=33.117$, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable STD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.905%. This means 0.905% of the variability in dependent variable STD is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- For the variable " AGE ", the t-test =0.853509, the P-value (Sig.) =0.3995, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable AGE on STD.
- For the variable " LIQUIDITY ", the t-test =-1.896892, the P-value (Sig.) =0.0332, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable LIQUIDITY on STD.
- For the variable " PROFITABILITY ", the t-test =-1.234685, the P-value (Sig.) =0.2257, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable PROFITABILITY on STD.
- For the variable " TANGIBILITY ", the t-test =-2.754865, the P-value (Sig.) =0.0095, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is negative, then there is negative effect of the variable TANGIBILITY on STD.
- For the variable " RISK ", the t-test =0.757250, the P-value (Sig.) =0.4543, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable RISK on STD.

- For the variable " SIZE ", the t-test =1.399100, the P-value (Sig.) =0.1711, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable SIZE on STD.
- For the variable " GROWTH ", the t-test =-1.047300, the P-value (Sig.) =0.3026, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable GROWTH on STD.
- In addition, based on the P-value (Sig.), the most significant independent variable is TANGIBILITY, then LIQUIDITY, then SIZE, then PROFITABILITY, then GROWTH , then AGE and RISK.

The regression equation is:

$$STD = -1.373 + 0.007 * (AGE) - 0.010 * (LIQUIDITY) - 0.401 * (PROFITABILITY) - 0.859 * (TANGIBILITY) + 0.000 * (RISK) + 0.131 * (SIZE) - 0.047 * (GROWTH).$$

Table (25): The Regression Analysis: STD - SERVICES SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|---|-------------|-------------|---------|
| Constant | -1.373081 | -0.809044 | 0.4243 |
| AGE | 0.007641 | 0.853509 | 0.3995 |
| LIQUIDITY | -0.010430 | -1.891779 | 0.0332* |
| PROFITABILITY | -0.401455 | -1.234685 | 0.2257 |
| TANGIBILITY | -0.858948 | -2.754865 | 0.0095* |
| RISK | 0.00006 | 0.757250 | 0.4543 |
| SIZE | 0.131578 | 1.399100 | 0.1711 |
| GROWTH | -0.047130 | -1.047300 | 0.3026 |
| F= 33.117 P-value (Sig.) = 0.000 R-Square = 0.905 | | | |

* The variable is statistically significant at 0.05 level

5.3.5.2 Regression Model for LTD:

Table (26) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that F=2.640, P-value (Sig.) = 0.011, so there is a significant relationship between the dependent variable LTD and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.328%. This means 0.328% of the variability in

dependent variable LTD is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.

- For the variable " AGE ", the t-test =0.071953, the P-value (Sig.) =0.9431, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable AGE on LTD.
- For the variable " LIQUIDITY ", the t-test =1.270146, the P-value (Sig.) =0.2129, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable LIQUIDITY on LTD.
- For the variable " PROFITABILITY ", the t-test =-1.125369, the P-value (Sig.) =0.2686, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable PROFITABILITY on LTD.
- For the variable " TANGIBILITY ", the t-test =0.934193, the P-value (Sig.) =0.3570, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable TANGIBILITY on LTD.
- For the variable " RISK ", the t-test =0.720966, the P-value (Sig.) =0.4760, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable RISK on LTD.
- For the variable " SIZE ", the t-test =0.695107, the P-value (Sig.) =0.4919, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable SIZE on LTD.
- For the variable " GROWTH ", the t-test =-0.039206, the P-value (Sig.) =0.9690, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable GROWTH on LTD.
- In addition, based on the P-value (Sig.), the most significant independent variable is LIQUIDITY, then PROFITABILITY, then TANGIBILITY, then RISK, then SIZE , then AGE and GROWTH.

The regression equation is:

$$LTD = -1.331 + 0.000 * (AGE) + 0.007 * (LIQUIDITY) - 0.395 * (PROFITABILITY) + 0.314 * (TANGIBILITY) + 0.000 * (RISK) + 0.071 * (SIZE) - 0.002 * (GROWTH).$$

Table (26): The Regression Analysis: LTD - SERVICES SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|--|-------------|-------------|--------|
| Constant | -1.331245 | -0.726664 | 0.4726 |
| AGE | 0.000695 | 0.071953 | 0.9431 |
| LIQUIDITY | 0.007559 | 1.270146 | 0.2129 |
| PROFITABILITY | -0.394981 | -1.125369 | 0.2686 |
| TANGIBILITY | 0.314415 | 0.934193 | 0.3570 |
| RISK | 0.00007 | 0.720966 | 0.4760 |
| SIZE | 0.070564 | 0.695107 | 0.4919 |
| GROWTH | -0.001904 | -0.039206 | 0.9690 |
| F= 2.640 P-value (Sig.) = 0.011 R-Square = 0.328 | | | |

* The variable is statistically significant at 0.05 level

5.3.5.3 Regression Model for TD:

Table (27) shows the ANOVA result, regression coefficients and their P-values (Sig.).

- The Analysis of Variance for the regression model shows that F=12.121, P-value (Sig.) = 0.000, so there is a significant relationship between the dependent variable **TD** and all of the independent variables AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- The multiple regression analysis shows that, the adjusted coefficient of determination, R-Square = 0.811%. This means 0.811% of the variability in dependent variable **TD** is explained by all of the independent variables together, AGE, LIQUIDITY, PROFITABILITY, TANGIBILITY, RISK, SIZE and GROWTH.
- For the variable " AGE ", the t-test =0.545592, the P-value (Sig.) =0.5904, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable AGE on **TD**.
- For the variable " LIQUIDITY ", the t-test =0.005049, the P-value (Sig.) =0.9960, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is positive, then there is insignificant positive effect of the variable LIQUIDITY on **TD**.
- For the variable " PROFITABILITY ", the t-test =-1.381947, the P-value (Sig.) =0.1797, which is greater than 0.05, hence this variable is statistically insignificant.

Since the sign of the test is negative, then there is insignificant negative effect of the variable PROFITABILITY on **TD**.

- For the variable " TANGIBILITY ", the t-test =-0.707189, the P-value (Sig.) =0.4863, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable TANGIBILITY on **TD**.
- For the variable " RISK ", the t-test =1.800364, the P-value (Sig.) =0.0422, which is smaller than 0.05, hence this variable is statistically significant. Since the sign of the test is positive, then there is positive effect of the variable RISK on **TD**.
- For the variable " SIZE ", the t-test =-0.173943, the P-value (Sig.) =0.8634, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable SIZE on **TD**.
- For the variable " GROWTH ", the t-test =-1.208214, the P-value (Sig.) =0.2387, which is greater than 0.05, hence this variable is statistically insignificant. Since the sign of the test is negative, then there is insignificant negative effect of the variable GROWTH on **TD**.
- In addition, based on the P-value (Sig.), the most significant independent variable is PROFITABILITY, then SIZE, then GROWTH, then LIQUIDITY, then AGE, then RISK and TANGIBILITY.

The regression equation is:

$$\mathbf{TD = 1.046 + 0.008 * (AGE) + 0.000 * (LIQUIDITY) - 0.414 * (PROFITABILITY) - 0.278 * (TANGIBILITY) + 0.000 * (RISK) - 0.028 * (SIZE) - 0.069 * (GROWTH).}$$

Table (27): The Regression Analysis: TD - SERVICES SECTOR

| Variable | Coefficient | T-Statistic | Prob. |
|---|-------------|-------------|---------|
| Constant | 1.045746 | 0.371034 | 0.7139 |
| AGE | 0.008060 | 0.545592 | 0.5904 |
| LIQUIDITY | 0.00008 | 0.005049 | 0.9960 |
| PROFITABILITY | -0.413849 | -1.381947 | 0.1797 |
| TANGIBILITY | -0.278455 | -0.707189 | 0.4863 |
| RISK | 0.000151 | 1.800364 | 0.0422* |
| SIZE | -0.028003 | -0.173943 | 0.8634 |
| GROWTH | -0.068869 | -1.208214 | 0.2387 |
| F= 12.121 P-value (Sig.) = 0.000 R-Square = 0.811 | | | |

* The variable is statistically significant at 0.05 level

5.3.5.4 Discussion of Services Sector Results

In this sector the result differs than the other variables: (Age, Liquidity, Profitability, Tangibility, Risk, Size and Growth) There are insignificant relationships with STD, LTD and TD. Liquidity and tangibility have negative significance with STD. Risk has positive significance with TD. This means that capital structure in the service sector can be determined by liquidity and tangibility but other factors cannot.

There is a negative significant relationship between liquidity and STD which confirms the three theories: Trade-off Model, Pecking Order Theory, Agency Theories. This result suggests that firms with higher earnings will tend to borrow less. In addition, when firms have low earnings volatility they prefer long-term debt to keep a relatively constant structure of capital. This is consistent with results reported in Masoud, (2014) and Sbeiti, (2010).

There is a negative significant relationship between tangibility and STD, which confirms the agency theory which states that small services firms, in terms of fixed assets, access debt in order to ensure close monitoring from lenders. This result is supported by Abu Moumer (2011).

Risk is positively related to TD, rejecting the trade-off assumption. In general, companies facing high risk should choose a capital structure with low proportion of debt in order to meet their financial obligations. This result differs with Emad & Alokdeh, (2011) and Abu Mouamer (2011).

Summary of Testing hypothesis

H1: There is negative significant relationship between Age and Capital Structure (LTD, STD, TD).

H2: There is negative significant relationship between Liquidity and Capital Structure (LTD, STD, TD).

H3: There is negative significant relationship between Profitability and Capital Structure (LTD, STD, TD).

H4: There is a negative significant relationship between Tangibility Opportunities and Capital Structure (LTD, STD, TD).

H5: There is negative significant relationship between Risk and Capital Structure (LTD, STD, TD).

H6: There is positive significant relationship between size and Capital Structure (LTD, STD, TD).

H7: There is negative significant relationship between Growth and Capital Structure (LTD, STD, TD).

Table (28) : Summary of Testing hypothesis

| Variable | BANKING SECTOR | | | INDUSTRIES SECTOR | | | INSURANCE SECTOR | | | INVESTING SECTOR | | | SERVICES SECTOR | | |
|---------------|----------------|---------|---------|-------------------|---------|---------|------------------|---------|---------|------------------|---------|---------|-----------------|---------|---------|
| | STD | LTD | TD | STD | LTD | TD | STD | LTD | TD | STD | LTD | TD | STD | LTD | TD |
| Age | Insig - | Insig - | Insig - | Sig + | Insig - | Insig + | Sig + | Sig - | Sig - | Insig + | Insig - | Insig + | Insig + | Insig + | Insig + |
| Liquidity | Sig - | Sig + | Sig - | Insig + | Sig - | Insig - | Sig - | Sig + | Insig + | Sig - | Insig + | Insig - | Sig - | Insig + | Insig + |
| Profitability | Insig - | Sig + | Insig - | Insig - | Sig - | Sig - | Sig - | Insig + | Insig - | Sig - | Insig + | Sig - | Insig - | Insig - | Insig - |
| Tangibility | Insig + | Insig - | Insig - | Sig - | Insig - | Sig - | Sig - | Sig + | Insig - | Sig - | Sig + | Insig - | Sig - | Insig + | Insig - |
| Risk | Insig + | Insig - | Insig + | Insig + | Insig - | Sig - | Insig - | Insig + | Insig - | Insig - | Insig - | Insig - | Insig + | Insig + | Sig + |
| Size | Insig + | Insig + | Sig + | Insig - | Insig + | Insig + | Sig - | Insig - | Insig - | Sig + | Insig + | Sig + | Insig + | Insig + | Insig - |
| Growth | Insig - | Insig + | Sig + | Insig - | Insig + | Sig + | Sig - | Insig - | Insig - | Insig - | Insig - | Insig - | Insig - | Insig - | Insig - |
| All variable | Sig | Sig | Sig | Sig | Sig | Sig | Sig | Sig | Sig | Sig | Sig | Sig | Sig | Sig | Sig |

(+) : Positive effect

(-) : Negative effect

(Sig) : Significant relationship

(Insig): Insignificant relationship

Chapter 6

Results And Recommendation

6 Results And Recommendation

6.1 The results

After the analysis and testing of hypotheses the study reached to the following results:

6.1.1 Banking Sector:

- Significant relationship between liquidity and capital structure.
- Significant relationship between profitability and long-term debt
- Significant relationship between size and total debt

6.1.2 Industries Sector:

- Significant relationship between age, tangibility with STD
- Significant relationship between liquidity, profitability with LTD.
- Significant relationship between profitability, tangibility, growth with TD

6.1.3 Insurance Sector:

- Significant relationship between all variables except for size with STD.
- Significant relationship between age, tangibility, liquidity and LTD
- Significant relationship between age and TD.

6.1.4 Investing Sector:

- Significant relationship between liquidity, profitability, size , Tangibility with STD.

6.1.5 Services Sector:

- Significant relationship between liquidity, tangibility with STD
- Significant relationship between risk with TD.

6.2 The recommendations

The study provides useful recommendations for policy direction and management of firms. It can propose a set of recommendations related to the identification and practical framework of financial decision-making in the process of determining the optimal mix of the capital structure, which achieves better expected returns for companies listed on the Palestine Exchange:

- There is an inverse relationship between liquidity and short-term debt for all sectors which calls for companies to finance the future expansion of their investment.
- Based on the result of age with capital structure, The study advises companies to maintain a good reputation throughout all stages of their lives to retain the advantage of access to debt and take advantage of the leverage in time of need.
- Improve the level of performance of companies in the services sector by focusing on the factors that have been affected by the results of this study: tangibility, liquidity and risk.
- Large companies are highly leveraged because this might be due to the fact that they are able to reduce the risk of bankruptcy. Their greater degree of diversification enables them to obtain debt more easily than smaller companies. So, the researcher advises directors to register their firms as large companies.

6.3 Future studies:

- Examine the variables in this study in other period in the future.

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<http://www.pex.ps/PSEWebSite/AboutPSE.aspx?TabIndex=0>

<http://www.fxnewstoday.ae/arab-markets>

Appendix

Table (29): Companies Name (Sample)

| No. | Symbol | Name | Establish Date |
|---|--------|---|----------------|
| <i>Services sector</i> | | | |
| 1. | PALTEL | Palestinian Telecommunication Group | 1997 |
| 2. | PLAZA | Arab Palestinian Shopping Center | 1999 |
| 3. | WASSEL | Wassel Group | 2005 |
| 4. | PEC | Palestine Electric Company | 1999 |
| 5. | AHC | The Arab Hotels Company | 1996 |
| 6. | ARE | Arab Real Estate Establishment Company | 1986 |
| 7. | GCOM | Globalcom Telecommunications | 2008 |
| 8. | NSC | Nablus Specialty Hospital | 2000 |
| <i>Banks and financial services sector</i> | | | |
| 9. | AIB | Arab Islamic Bank | 1995 |
| 10. | ISBK | Palestine Islamic Bank | 1995 |
| 11. | PCB | Palestine Commercial Bank | 1992 |
| 12. | PIBC | Palestine Investment Bank | 1994 |
| 13. | TNB | The National Bank | 2005 |
| 14. | QUDS | Quds Bank | 1995 |
| 15. | BOP | Bank Of Palestine | 1960 |
| <i>Insurance sector</i> | | | |
| 16. | NIC | National Insurance Company | 1992 |
| 17. | AIG | Ahlia Insurance | 1994 |
| 18. | MIC | Al Mashreq Insurance Co. | 1992 |
| 19. | TRUST | Trust Palestine | 1994 |
| <i>Industry sector</i> | | | |
| 20. | APC | Arab Company for Paint Products | 1989 |
| 21. | JPH | Jerusalem Pharmaceuticals Co Ltd | 1969 |
| 22. | NCI | The National Carton Industry | 1989 |
| 23. | BPC | Birzeit Pharmaceuticals Company | 1974 |
| 24. | AZIZA | Palestine Poultry Company L.T.D | 1997 |
| 25. | JCC | Jerusalem Cigarette Co. LTD | 1964 |
| 26. | LADAEN | Palestine Plastic Industrial Company | 1999 |
| 27. | VOIC | The Vegetable Oil Industries Company | 1953 |
| 28. | GMC | Golden Wheat Mills | 1995 |
| <i>Investment sector</i> | | | |
| 29. | UCI | Union Construction And investment | 2008 |
| 30. | PID | Palestine Investment & development Co. | 1993 |
| 31. | JREI | Jerusalem Real Estate Investment Co. | 1996 |
| 32. | ARAB | Arab Investors Co. LTD | 1994 |
| 33. | PIIC | Palestine Industrial Investment Company | 1953 |
| 34. | PRICO | The Palestine Real Estate Investment | 1994 |
| 35. | PADICO | Padico Holding | 1993 |

First: Statistical Analysis

First: BANKING SECTOR

Dependent Variable: STD?

Method: Pooled Least Squares

Date: 07/29/15 Time: 10:00

Sample: 2009 2014

Included observations: 6

Cross-sections included: 7

Total pool (balanced) observations: 42

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---------------------------------------|-------------|-----------------------|-------------|--------|
| C | -0.038180 | 1.002137 | -0.038098 | 0.9699 |
| AGE? | -0.011862 | 0.011994 | -0.989056 | 0.3311 |
| LIQUIDITY? | -0.220135 | 0.042400 | -5.191878 | 0.0000 |
| PROFITABILITY? | -2.621845 | 2.035527 | -1.288042 | 0.2083 |
| TANGIBILITY? | 0.002821 | 0.703235 | 0.004012 | 0.9968 |
| RISK? | 0.000430 | 0.000643 | 0.668541 | 0.5093 |
| SIZE? | 0.072954 | 0.063058 | 1.156935 | 0.2571 |
| GROWTH? | -0.101097 | 0.076695 | -1.318166 | 0.1981 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _ISBK--C | -0.086096 | | | |
| _AIB--C | -0.156578 | | | |
| _BOP--C | 0.448553 | | | |
| _PCB--C | 0.010781 | | | |
| _PIBC--C | -0.068543 | | | |
| _QUDS--C | -0.011093 | | | |
| _TNB--C | -0.137023 | | | |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| R-squared | 0.970429 | Mean dependent var | 0.661986 | |
| Adjusted R-squared | 0.956699 | S.D. dependent var | 0.242037 | |
| S.E. of regression | 0.050365 | Akaike info criterion | -2.877830 | |
| Sum squared resid | 0.071026 | Schwarz criterion | -2.298607 | |
| Log likelihood | 74.43443 | Hannan-Quinn criter. | -2.665522 | |
| F-statistic | 70.68138 | Durbin-Watson stat | 2.807885 | |
| Prob(F-statistic) | 0.000000 | | | |

Dependent Variable: LTD?
 Method: Pooled Least Squares
 Date: 07/26/15 Time: 11:44
 Sample: 2009 2014
 Included observations: 6
 Cross-sections included: 6
 Total pool (balanced) observations: 36

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---------------------------------------|-------------|-----------------------|-------------|--------|
| C | -1.433331 | 1.131970 | -1.266227 | 0.2181 |
| AGE? | -0.005901 | 0.008293 | -0.711569 | 0.4839 |
| LIQUIDITY? | 0.108774 | 0.025708 | 4.231092 | 0.0003 |
| PROFITABILITY? | 2.120657 | 1.170559 | 1.811662 | 0.0831 |
| TANGIBILITY? | -0.063133 | 0.423086 | -0.149220 | 0.8827 |
| RISK? | -0.000295 | 0.000336 | -0.877206 | 0.3894 |
| SIZE? | 0.068730 | 0.063991 | 1.074062 | 0.2939 |
| GROWTH? | 0.021831 | 0.045769 | 0.476996 | 0.6379 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _AIB--C | -0.201040 | | | |
| _BOP--C | -0.140255 | | | |
| _PCB--C | 0.095441 | | | |
| _PIBC--C | 0.152293 | | | |
| _QUDS--C | 0.071517 | | | |
| _TNB--C | 0.022044 | | | |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| R-squared | 0.661728 | Mean dependent var | 0.036347 | |
| Adjusted R-squared | 0.485238 | S.D. dependent var | 0.036429 | |
| S.E. of regression | 0.026137 | Akaike info criterion | -4.176751 | |
| Sum squared resid | 0.015712 | Schwarz criterion | -3.604924 | |
| Log likelihood | 88.18151 | Hannan-Quinn criter. | -3.977168 | |
| F-statistic | 3.749388 | Durbin-Watson stat | 2.562350 | |
| Prob(F-statistic) | 0.003164 | | | |

Dependent Variable: TD?
 Method: Pooled Least Squares
 Date: 07/26/15 Time: 11:47
 Sample: 2009 2014
 Included observations: 6
 Cross-sections included: 6
 Total pool (balanced) observations: 36

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------------|-------------|------------|-------------|--------|
| C | -1.157747 | 0.427795 | -2.706314 | 0.0126 |
| AGE? | -0.001159 | 0.003134 | -0.369830 | 0.7149 |
| LIQUIDITY? | -0.025357 | 0.009716 | -2.609951 | 0.0157 |
| PROFITABILITY? | -0.590436 | 0.442378 | -1.334688 | 0.1950 |
| TANGIBILITY? | -0.122644 | 0.159893 | -0.767041 | 0.4509 |
| RISK? | 2.25E-05 | 0.000127 | 0.176959 | 0.8611 |
| SIZE? | 0.093346 | 0.024183 | 3.859944 | 0.0008 |
| GROWTH? | 0.061736 | 0.017297 | 3.569187 | 0.0016 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _AIB--C | -0.308588 | | | |
| _BOP--C | -0.286049 | | | |
| _PCB--C | 0.043815 | | | |
| _PIBC--C | 0.239146 | | | |
| _QUDS--C | 0.127304 | | | |
| _TNB--C | 0.184372 | | | |

Effects Specification

Cross-section fixed (dummy variables)

| | | | |
|--------------------|----------|-----------------------|-----------|
| R-squared | 0.998973 | Mean dependent var | 0.671319 |
| Adjusted R-squared | 0.998437 | S.D. dependent var | 0.249851 |
| S.E. of regression | 0.009878 | Akaike info criterion | -6.122895 |
| Sum squared resid | 0.002244 | Schwarz criterion | -5.551068 |
| Log likelihood | 123.2121 | Hannan-Quinn criter. | -5.923312 |
| F-statistic | 1864.228 | Durbin-Watson stat | 1.844347 |
| Prob(F-statistic) | 0.000000 | | |

Second: INDUSTRIES SECTOR

Dependent Variable: STD?
 Method: Pooled Least Squares
 Date: 07/26/15 Time: 12:30
 Sample (adjusted): 2011 2014
 Included observations: 4 after adjustments
 Cross-sections included: 9
 Total pool (balanced) observations: 36
 Convergence achieved after 16 iterations

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------------|-------------|------------|-------------|--------|
| C | 0.330907 | 0.630415 | 0.524904 | 0.6061 |
| AGE? | 0.012028 | 0.005600 | 2.147698 | 0.0456 |
| LIQUIDITY? | 0.000298 | 0.001882 | 0.158591 | 0.8758 |
| PROFITABILITY? | -0.091066 | 0.098468 | -0.924834 | 0.3673 |
| TANGIBILITY? | -0.552147 | 0.197327 | -2.798137 | 0.0119 |
| RISK? | 0.000101 | 0.000134 | 0.755747 | 0.4596 |
| SIZE? | -0.008429 | 0.041320 | -0.204001 | 0.8406 |
| GROWTH? | -0.029229 | 0.017628 | -1.658059 | 0.1146 |
| AR(1) | 0.336276 | 0.198868 | 1.690945 | 0.1081 |
| AR(2) | -0.420141 | 0.122820 | -3.420782 | 0.0030 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _JPH--C | -0.263111 | | | |
| _APC--C | 0.028678 | | | |
| _BPC--C | -0.207622 | | | |
| _NCI--C | -0.114890 | | | |
| _VOICE--C | -0.364888 | | | |
| _LADAEN--C | 0.268406 | | | |
| _AZIZA--C | 0.503469 | | | |
| _JCC--C | 0.091078 | | | |
| _GMC--C | 0.058880 | | | |

Effects Specification

Cross-section fixed (dummy variables)

| | | | |
|--------------------|----------|-----------------------|-----------|
| R-squared | 0.982892 | Mean dependent var | 0.211898 |
| Adjusted R-squared | 0.966734 | S.D. dependent var | 0.153049 |
| S.E. of regression | 0.027915 | Akaike info criterion | -4.012478 |
| Sum squared resid | 0.014026 | Schwarz criterion | -3.220718 |
| Log likelihood | 90.22460 | Hannan-Quinn criter. | -3.736132 |
| F-statistic | 60.83026 | Durbin-Watson stat | 2.473378 |

Prob(F-statistic) 0.000000

Dependent Variable: LTD?
Method: Pooled Least Squares
Date: 07/26/15 Time: 12:16
Sample: 2009 2014
Included observations: 6
Cross-sections included: 9
Total pool (balanced) observations: 54

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------------|-------------|------------|-------------|--------|
| C | -0.009736 | 0.542322 | -0.017952 | 0.9858 |
| AGE? | -0.000264 | 0.003627 | -0.072902 | 0.9423 |
| LIQUIDITY? | -0.000453 | 0.001558 | -0.291068 | 0.7726 |
| PROFITABILITY? | -0.230183 | 0.096802 | -2.377869 | 0.0225 |
| TANGIBILITY? | -0.444176 | 0.125641 | -3.535281 | 0.0011 |
| RISK? | -0.000121 | 0.000122 | -0.993533 | 0.3267 |
| SIZE? | 0.018264 | 0.036433 | 0.501302 | 0.6191 |
| GROWTH? | 0.009586 | 0.010908 | 0.878762 | 0.3851 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _JPH--C | -0.008526 | | | |
| _APC--C | -0.119288 | | | |
| _BPC--C | -0.022890 | | | |
| _NCI--C | -0.044522 | | | |
| _VOICE--C | 0.096912 | | | |
| _LADAEN--C | 0.020324 | | | |
| _AZIZA--C | 0.123578 | | | |
| _JCC--C | -0.005963 | | | |
| _GMC--C | -0.039625 | | | |

Effects Specification

| Cross-section fixed (dummy variables) | | | |
|---------------------------------------|----------|-----------------------|-----------|
| R-squared | 0.691483 | Mean dependent var | 0.046817 |
| Adjusted R-squared | 0.569700 | S.D. dependent var | 0.057327 |
| S.E. of regression | 0.037605 | Akaike info criterion | -3.482175 |
| Sum squared resid | 0.053737 | Schwarz criterion | -2.892846 |
| Log likelihood | 110.0187 | Hannan-Quinn criter. | -3.254894 |
| F-statistic | 5.677984 | Durbin-Watson stat | 2.812722 |
| Prob(F-statistic) | 0.000007 | | |

Dependent Variable: TD?
 Method: Pooled Least Squares
 Date: 07/26/15 Time: 12:33
 Sample: 2009 2014
 Included observations: 6
 Cross-sections included: 9
 Total pool (balanced) observations: 54

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---------------------------------------|-------------|-----------------------|-------------|--------|
| C | -0.409883 | 0.766711 | -0.534599 | 0.5960 |
| AGE? | 0.000876 | 0.005128 | 0.170832 | 0.8653 |
| LIQUIDITY? | -0.003444 | 0.002203 | -1.563613 | 0.1262 |
| PROFITABILITY? | -0.454159 | 0.136855 | -3.318542 | 0.0020 |
| TANGIBILITY? | -0.566255 | 0.177626 | -3.187910 | 0.0029 |
| RISK? | -0.000296 | 0.000173 | -1.711478 | 0.0951 |
| SIZE? | 0.056708 | 0.051508 | 1.100954 | 0.2778 |
| GROWTH? | 0.027939 | 0.015422 | 1.811670 | 0.0779 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _JPH--C | -0.126476 | | | |
| _APC--C | -0.007013 | | | |
| _BPC--C | -0.174047 | | | |
| _NCI--C | -0.103950 | | | |
| _VOICE--C | -0.037985 | | | |
| _LADAEN--C | 0.085960 | | | |
| _AZIZA--C | 0.245335 | | | |
| _JCC--C | 0.250283 | | | |
| _GMC--C | -0.132108 | | | |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| R-squared | 0.933797 | Mean dependent var | 0.260266 | |
| Adjusted R-squared | 0.907664 | S.D. dependent var | 0.174958 | |
| S.E. of regression | 0.053164 | Akaike info criterion | -2.789674 | |
| Sum squared resid | 0.107404 | Schwarz criterion | -2.200345 | |
| Log likelihood | 91.32120 | Hannan-Quinn criter. | -2.562393 | |
| F-statistic | 35.73291 | Durbin-Watson stat | 2.225772 | |
| Prob(F-statistic) | 0.000000 | | | |

Third: INSURANCE SECTOR

Dependent Variable: STD?
 Method: Pooled Least Squares
 Date: 07/26/15 Time: 16:39
 Sample (adjusted): 2010 2014
 Included observations: 5 after adjustments
 Cross-sections included: 4
 Total pool (balanced) observations: 20
 Convergence achieved after 3 iterations

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---------------------------------------|-------------|-----------------------|-------------|--------|
| C | 3.798556 | 0.543831 | 6.984813 | 0.0001 |
| AGE? | 0.012548 | 0.003973 | 3.158437 | 0.0134 |
| LIQUIDITY? | -0.950808 | 0.075349 | -12.61867 | 0.0000 |
| PROFITABILITY? | -0.383477 | 0.183257 | -2.092559 | 0.0697 |
| TANGIBILITY? | -1.213692 | 0.104927 | -11.56704 | 0.0000 |
| RISK? | -0.000118 | 0.000428 | -0.274937 | 0.7903 |
| SIZE? | -0.112906 | 0.031495 | -3.584865 | 0.0071 |
| GROWTH? | -0.008505 | 0.004054 | -2.098123 | 0.0691 |
| AR(1) | 0.000436 | 0.007767 | 0.056153 | 0.9566 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _AIG--C | -0.005026 | | | |
| _MIC--C | -0.136684 | | | |
| _NIC--C | 0.104451 | | | |
| _TRUST--C | 0.037259 | | | |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| R-squared | 0.996380 | Mean dependent var | 0.711731 | |
| Adjusted R-squared | 0.991402 | S.D. dependent var | 0.138178 | |
| S.E. of regression | 0.012813 | Akaike info criterion | -5.593016 | |
| Sum squared resid | 0.001313 | Schwarz criterion | -4.995577 | |
| Log likelihood | 67.93016 | Hannan-Quinn criter. | -5.476390 | |
| F-statistic | 200.1549 | Durbin-Watson stat | 2.436691 | |
| Prob(F-statistic) | 0.000000 | | | |

Dependent Variable: LTD?
 Method: Pooled Least Squares
 Date: 07/26/15 Time: 16:49
 Sample: 2009 2014
 Included observations: 6
 Cross-sections included: 4
 Total pool (balanced) observations: 24

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---------------------------------------|-------------|-----------------------|-------------|--------|
| C | 0.270303 | 0.544550 | 0.496378 | 0.6279 |
| AGE? | -0.005470 | 0.002887 | -1.894956 | 0.0806 |
| LIQUIDITY? | 0.168661 | 0.006246 | 27.00161 | 0.0000 |
| PROFITABILITY? | 0.136309 | 0.180070 | 0.756978 | 0.4626 |
| TANGIBILITY? | 0.298050 | 0.088706 | 3.359961 | 0.0051 |
| RISK? | 0.000443 | 0.000427 | 1.036977 | 0.3187 |
| SIZE? | -0.022711 | 0.031504 | -0.720907 | 0.4837 |
| GROWTH? | -0.006834 | 0.004147 | -1.648054 | 0.1233 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _AIG--C | -0.005579 | | | |
| _MIC--C | 0.009846 | | | |
| _NIC--C | 0.009633 | | | |
| _TRUST--C | -0.013900 | | | |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| R-squared | 0.989279 | Mean dependent var | 0.061474 | |
| Adjusted R-squared | 0.981033 | S.D. dependent var | 0.107547 | |
| S.E. of regression | 0.014812 | Akaike info criterion | -5.283254 | |
| Sum squared resid | 0.002852 | Schwarz criterion | -4.743312 | |
| Log likelihood | 74.39905 | Hannan-Quinn criter. | -5.140007 | |
| F-statistic | 119.9612 | Durbin-Watson stat | 2.085383 | |
| Prob(F-statistic) | 0.000000 | | | |

Dependent Variable: TD?
 Method: Pooled Least Squares
 Date: 07/26/15 Time: 16:56
 Sample: 2009 2014
 Included observations: 6
 Cross-sections included: 4
 Total pool (balanced) observations: 24

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---------------------------------------|-------------|-----------------------|-------------|--------|
| C | 2.609094 | 1.507923 | 1.730257 | 0.1072 |
| AGE? | -0.019173 | 0.007993 | -2.398596 | 0.0322 |
| LIQUIDITY? | 0.005086 | 0.017297 | 0.294032 | 0.7734 |
| PROFITABILITY? | -0.311074 | 0.498633 | -0.623853 | 0.5435 |
| TANGIBILITY? | -0.371140 | 0.245639 | -1.510919 | 0.1547 |
| RISK? | -0.000934 | 0.001183 | -0.788958 | 0.4443 |
| SIZE? | -0.074340 | 0.087238 | -0.852146 | 0.4096 |
| GROWTH? | -0.018859 | 0.011482 | -1.642435 | 0.1245 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _AIG--C | -0.028515 | | | |
| _MIC--C | 0.132302 | | | |
| _NIC--C | -0.059053 | | | |
| _TRUST--C | -0.044735 | | | |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| R-squared | 0.947634 | Mean dependent var | 0.749752 | |
| Adjusted R-squared | 0.907353 | S.D. dependent var | 0.134749 | |
| S.E. of regression | 0.041015 | Akaike info criterion | -3.246197 | |
| Sum squared resid | 0.021869 | Schwarz criterion | -2.706256 | |
| Log likelihood | 49.95437 | Hannan-Quinn criter. | -3.102951 | |
| F-statistic | 23.52544 | Durbin-Watson stat | 1.798553 | |
| Prob(F-statistic) | 0.000001 | | | |

Fourth: INVESTING SECTOR

Dependent Variable: STD?

Method: Pooled Least Squares

Date: 07/26/15 Time: 17:17

Sample: 2009 2014

Included observations: 6

Cross-sections included: 7

Total pool (balanced) observations: 42

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------------|-------------|------------|-------------|--------|
| C | -1.617989 | 0.794019 | -2.037719 | 0.0511 |
| AGE? | 0.004481 | 0.003296 | 1.359544 | 0.1848 |
| LIQUIDITY? | -0.001319 | 0.000695 | -1.896892 | 0.0682 |
| PROFITABILITY? | -0.447533 | 0.152011 | -2.944082 | 0.0064 |
| TANGIBILITY? | -0.264856 | 0.135902 | -1.948866 | 0.0614 |
| RISK? | -0.000303 | 0.000757 | -0.399856 | 0.6923 |
| SIZE? | 0.114738 | 0.047660 | 2.407437 | 0.0229 |
| GROWTH? | -0.026518 | 0.028673 | -0.924830 | 0.3630 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _JREI--C | 0.165425 | | | |
| _UCI--C | -0.179191 | | | |
| _ARAB--C | -0.015066 | | | |
| _PIIC--C | -0.261092 | | | |
| _PRICO--C | -0.200675 | | | |
| _PADICO--C | 0.396784 | | | |
| _PID--C | 0.093816 | | | |

Effects Specification

Cross-section fixed (dummy variables)

| | | | |
|--------------------|----------|-----------------------|-----------|
| R-squared | 0.951083 | Mean dependent var | 0.121998 |
| Adjusted R-squared | 0.928372 | S.D. dependent var | 0.105424 |
| S.E. of regression | 0.028215 | Akaike info criterion | -4.036720 |
| Sum squared resid | 0.022291 | Schwarz criterion | -3.457497 |
| Log likelihood | 98.77112 | Hannan-Quinn criter. | -3.824412 |
| F-statistic | 41.87688 | Durbin-Watson stat | 1.965876 |
| Prob(F-statistic) | 0.000000 | | |

Dependent Variable: LTD?
 Method: Pooled Least Squares
 Date: 07/26/15 Time: 17:23
 Sample: 2009 2014
 Included observations: 6
 Cross-sections included: 7
 Total pool (balanced) observations: 42

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------------|-------------|------------|-------------|--------|
| C | -0.357730 | 0.528669 | -0.676662 | 0.5042 |
| AGE? | -0.000719 | 0.002194 | -0.327733 | 0.7456 |
| LIQUIDITY? | 0.000316 | 0.000463 | 0.682774 | 0.5004 |
| PROFITABILITY? | 0.002609 | 0.101211 | 0.025774 | 0.9796 |
| TANGIBILITY? | 0.185089 | 0.090486 | 2.045501 | 0.0503 |
| RISK? | -0.000200 | 0.000504 | -0.397563 | 0.6940 |
| SIZE? | 0.019365 | 0.031733 | 0.610240 | 0.5466 |
| GROWTH? | -0.021587 | 0.019091 | -1.130743 | 0.2678 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _JREI--C | -0.022561 | | | |
| _UCI--C | -0.077716 | | | |
| _ARAB--C | -0.092986 | | | |
| _PIIC--C | 0.022062 | | | |
| _PRICO--C | -0.001699 | | | |
| _PADICO--C | 0.158090 | | | |
| _PID--C | 0.014810 | | | |

Effects Specification

Cross-section fixed (dummy variables)

| | | | |
|--------------------|----------|-----------------------|-----------|
| R-squared | 0.949377 | Mean dependent var | 0.068186 |
| Adjusted R-squared | 0.925874 | S.D. dependent var | 0.069000 |
| S.E. of regression | 0.018786 | Akaike info criterion | -4.850211 |
| Sum squared resid | 0.009882 | Schwarz criterion | -4.270988 |
| Log likelihood | 115.8544 | Hannan-Quinn criter. | -4.637903 |
| F-statistic | 40.39324 | Durbin-Watson stat | 1.692357 |
| Prob(F-statistic) | 0.000000 | | |

Dependent Variable: TD?
 Method: Pooled Least Squares
 Date: 07/26/15 Time: 17:27
 Sample: 2009 2014
 Included observations: 6
 Cross-sections included: 7
 Total pool (balanced) observations: 42

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---------------------------------------|-------------|-----------------------|-------------|--------|
| C | -1.975719 | 0.817980 | -2.415363 | 0.0225 |
| AGE? | 0.003761 | 0.003395 | 1.107902 | 0.2773 |
| LIQUIDITY? | -0.001003 | 0.000716 | -1.400044 | 0.1725 |
| PROFITABILITY? | -0.444924 | 0.156598 | -2.841184 | 0.0083 |
| TANGIBILITY? | -0.079767 | 0.140004 | -0.569750 | 0.5734 |
| RISK? | -0.000503 | 0.000780 | -0.645092 | 0.5241 |
| SIZE? | 0.134103 | 0.049098 | 2.731321 | 0.0108 |
| GROWTH? | -0.048105 | 0.029539 | -1.628549 | 0.1146 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _JREI--C | 0.142864 | | | |
| _UCI--C | -0.256907 | | | |
| _ARAB--C | -0.108052 | | | |
| _PIIC--C | -0.239030 | | | |
| _PRICO--C | -0.202374 | | | |
| _PADICO--C | 0.554874 | | | |
| _PID--C | 0.108626 | | | |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| R-squared | 0.972489 | Mean dependent var | 0.190185 | |
| Adjusted R-squared | 0.959716 | S.D. dependent var | 0.144819 | |
| S.E. of regression | 0.029066 | Akaike info criterion | -3.977260 | |
| Sum squared resid | 0.023656 | Schwarz criterion | -3.398036 | |
| Log likelihood | 97.52245 | Hannan-Quinn criter. | -3.764951 | |
| F-statistic | 76.13667 | Durbin-Watson stat | 1.770546 | |
| Prob(F-statistic) | 0.000000 | | | |

Fifth: SERVICES SECTOR

Dependent Variable: STD?

Method: Pooled Least Squares

Date: 07/26/15 Time: 17:40

Sample: 2009 2014

Included observations: 6

Cross-sections included: 8

Total pool (balanced) observations: 48

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---------------------------------------|-------------|-----------------------|-------------|--------|
| C | -1.373081 | 1.697164 | -0.809044 | 0.4243 |
| AGE? | 0.007641 | 0.008952 | 0.853509 | 0.3995 |
| LIQUIDITY? | -0.010430 | 0.005513 | -1.891779 | 0.0673 |
| PROFITABILITY? | -0.401455 | 0.325148 | -1.234685 | 0.2257 |
| TANGIBILITY? | -0.858948 | 0.311793 | -2.754865 | 0.0095 |
| RISK? | 6.80E-05 | 8.98E-05 | 0.757250 | 0.4543 |
| SIZE? | 0.131578 | 0.094045 | 1.399100 | 0.1711 |
| GROWTH? | -0.047130 | 0.045001 | -1.047300 | 0.3026 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _GCOM--C | 0.271808 | | | |
| _AHC--C | -0.022131 | | | |
| _ARE--C | 0.047581 | | | |
| _PALTEL--C | -0.472730 | | | |
| _PLAZA--C | 0.081858 | | | |
| _WASSAL--C | -0.069727 | | | |
| _NSC--C | 0.465575 | | | |
| _PEC--C | -0.302233 | | | |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| R-squared | 0.933552 | Mean dependent var | 0.372783 | |
| Adjusted R-squared | 0.905362 | S.D. dependent var | 0.282813 | |
| S.E. of regression | 0.087003 | Akaike info criterion | -1.795452 | |
| Sum squared resid | 0.249792 | Schwarz criterion | -1.210702 | |
| Log likelihood | 58.09086 | Hannan-Quinn criter. | -1.574474 | |
| F-statistic | 33.11645 | Durbin-Watson stat | 2.301810 | |
| Prob(F-statistic) | 0.000000 | | | |

Dependent Variable: LTD?
 Method: Pooled Least Squares
 Date: 07/27/15 Time: 09:38
 Sample: 2009 2014
 Included observations: 6
 Cross-sections included: 8
 Total pool (balanced) observations: 48

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---------------------------------------|-------------|-----------------------|-------------|--------|
| C | -1.331245 | 1.831995 | -0.726664 | 0.4726 |
| AGE? | 0.000695 | 0.009664 | 0.071953 | 0.9431 |
| LIQUIDITY? | 0.007559 | 0.005951 | 1.270146 | 0.2129 |
| PROFITABILITY? | -0.394981 | 0.350979 | -1.125369 | 0.2686 |
| TANGIBILITY? | 0.314415 | 0.336564 | 0.934193 | 0.3570 |
| RISK? | 6.99E-05 | 9.70E-05 | 0.720966 | 0.4760 |
| SIZE? | 0.070564 | 0.101516 | 0.695107 | 0.4919 |
| GROWTH? | -0.001904 | 0.048577 | -0.039206 | 0.9690 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _GCOM--C | -0.197160 | | | |
| _AHC--C | -0.066339 | | | |
| _ARE--C | 0.154906 | | | |
| _PALTEL--C | -0.205872 | | | |
| _PLAZA--C | 0.063383 | | | |
| _WASSAL--C | 0.182917 | | | |
| _NSC--C | 0.111357 | | | |
| _PEC--C | -0.043192 | | | |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| R-squared | 0.528299 | Mean dependent var | 0.088966 | |
| Adjusted R-squared | 0.328183 | S.D. dependent var | 0.114579 | |
| S.E. of regression | 0.093914 | Akaike info criterion | -1.642558 | |
| Sum squared resid | 0.291058 | Schwarz criterion | -1.057808 | |
| Log likelihood | 54.42140 | Hannan-Quinn criter. | -1.421580 | |
| F-statistic | 2.639965 | Durbin-Watson stat | 1.743853 | |
| Prob(F-statistic) | 0.010884 | | | |

Dependent Variable: TD?
Method: Pooled Least Squares
Date: 07/27/15 Time: 09:34
Sample (adjusted): 2010 2014
Included observations: 5 after adjustments
Cross-sections included: 8
Total pool (balanced) observations: 40
Convergence achieved after 44 iterations

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------------|-------------|------------|-------------|--------|
| C | 1.045746 | 2.818467 | 0.371034 | 0.7139 |
| AGE? | 0.008060 | 0.014773 | 0.545592 | 0.5904 |
| LIQUIDITY? | 8.21E-05 | 0.016269 | 0.005049 | 0.9960 |
| PROFITABILITY? | -0.413849 | 0.299468 | -1.381947 | 0.1797 |
| TANGIBILITY? | -0.278455 | 0.393749 | -0.707189 | 0.4863 |
| RISK? | 0.000151 | 8.39E-05 | 1.800364 | 0.0844 |
| SIZE? | -0.028003 | 0.160987 | -0.173943 | 0.8634 |
| GROWTH? | -0.068869 | 0.057001 | -1.208214 | 0.2387 |
| AR(1) | 0.278435 | 0.143764 | 1.936754 | 0.0646 |
| Fixed Effects | | | | |
| (Cross) | | | | |
| _GCOM--C | -0.261649 | | | |
| _AHC--C | 0.057346 | | | |
| _ARE--C | -0.018804 | | | |
| _PALTEL--C | 0.082600 | | | |
| _PLAZA--C | 0.135122 | | | |
| _WASSAL--C | 0.187523 | | | |
| _NSC--C | -0.129096 | | | |
| _PEC--C | -0.053042 | | | |

Effects Specification

| Cross-section fixed (dummy variables) | | | |
|---------------------------------------|----------|-----------------------|-----------|
| R-squared | 0.883396 | Mean dependent var | 0.411655 |
| Adjusted R-squared | 0.810519 | S.D. dependent var | 0.181590 |
| S.E. of regression | 0.079045 | Akaike info criterion | -1.948421 |
| Sum squared resid | 0.149955 | Schwarz criterion | -1.272869 |
| Log likelihood | 54.96842 | Hannan-Quinn criter. | -1.704163 |
| F-statistic | 12.12166 | Durbin-Watson stat | 1.777301 |
| Prob(F-statistic) | 0.000000 | | |

7.1 Second: Financial Analysis

First: Banking Sector:

| Bank | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|------|------|-------------|--------------|-------------|-----|-------------|---------------|-------------|--------------|-------------|-------------|
| ISBK | 2009 | 0.244853512 | 0.030986975 | 0.275840487 | 14 | 3.897248289 | 0.001239371 | 0.045745068 | 26.46217544 | 19.51640254 | 0.741127973 |
| | 2010 | 0.277067806 | 0.031534854 | 0.30860266 | 15 | 3.428420072 | 0.006972208 | 0.050095172 | 5.106653513 | 19.69422928 | 0.797418129 |
| | 2011 | 0.305514527 | 0.03006376 | 0.335578287 | 16 | 3.064096874 | 0.0127938 | 0.063873893 | 3.245565274 | 19.78849513 | 0.744486896 |
| | 2012 | 0.280512409 | 0.029862834 | 0.310375242 | 17 | 3.3762335 | 0.016975425 | 0.052924609 | 2.403595147 | 19.86314105 | 0.678856051 |
| | 2013 | 0.282808865 | 0.036427786 | 0.319236651 | 18 | 3.356870352 | 0.017842924 | 0.050647306 | 2.360946952 | 20.03461221 | 0.871890168 |
| | 2014 | 0.338448474 | 0.027887704 | 0.366336177 | 19 | 2.799195988 | 0.015836215 | 0.05261639 | 2.650662419 | 20.2045087 | 0.966098858 |
| AIB | 2009 | 0.315240271 | 0.019038937 | 0.334279208 | 14 | 2.86476484 | 0.008938975 | 0.096910755 | 3.675590621 | 19.49793796 | 1.021893997 |
| | 2010 | 0.297501022 | 0.020040457 | 0.317541479 | 15 | 3.024941854 | -0.005961311 | 0.100076707 | -5.625655414 | 19.47055057 | 0.873338876 |
| | 2011 | 0.281316252 | 0.02368027 | 0.304996522 | 16 | 3.218780149 | 0.004590895 | 0.094504832 | 7.165033843 | 19.51958819 | 0.677799958 |
| | 2012 | 0.298596778 | 0.030964629 | 0.329561407 | 17 | 2.990184305 | 0.002778335 | 0.107140601 | 11.81854163 | 19.74301274 | 0.638874771 |
| | 2013 | 0.43236027 | -0.062558555 | 0.369801715 | 18 | 2.068998629 | 0.010562596 | 0.105447194 | 2.7948424 | 19.96784892 | 0.772622431 |
| | 2014 | 0.287415617 | 0.092898217 | 0.380313834 | 19 | 3.195107691 | 0.01019496 | 0.081676151 | 2.87683914 | 20.14684881 | 0.823739214 |
| BOP | 2009 | 0.860531006 | 0.021762464 | 0.88229347 | 49 | 1.123712351 | 0.02694277 | 0.03301068 | 1.335690782 | 20.97155495 | 2.209816219 |
| | 2010 | 0.851518426 | 0.042410236 | 0.893928662 | 50 | 1.139712983 | 0.024421473 | 0.029513395 | 1.639003549 | 21.15831436 | 2.143281005 |
| | 2011 | 0.833201824 | 0.049262277 | 0.882464101 | 51 | 1.1614847 | 0.025313947 | 0.032248829 | 1.814791725 | 21.22643869 | 1.935701958 |
| | 2012 | 0.84355688 | 0.046203879 | 0.889760758 | 52 | 1.151074965 | 0.024927431 | 0.029002794 | 1.674729753 | 21.41865754 | 1.686820562 |
| | 2013 | 0.842474964 | 0.050193672 | 0.892668636 | 53 | 1.155543092 | 0.022588142 | 0.026483875 | 1.878268685 | 21.57684931 | 1.748380263 |
| | 2014 | 0.860848923 | 0.023632442 | 0.884481365 | 54 | 1.128304452 | 0.021304776 | 0.028700328 | 1.985030352 | 21.60900415 | 1.68316885 |
| PCB | 2009 | 0.678412094 | 0.116101823 | 0.794513917 | 17 | 1.38097898 | 0.018957389 | 0.063127158 | 1.720403425 | 18.69854888 | 0.842032409 |
| | 2010 | 0.661700701 | 0.175745127 | 0.837445828 | 18 | 1.431903932 | 0.012573627 | 0.052508164 | 2.497332031 | 18.96006827 | 0.774598577 |
| | 2011 | 0.798319789 | 0.035413325 | 0.833733113 | 19 | 1.187928033 | 0.004931849 | 0.051653544 | 7.005251563 | 18.94424668 | 0.788100763 |
| | 2012 | 0.812370673 | 0.036859768 | 0.849230441 | 20 | 1.172996836 | 0.000333927 | 0.047091772 | 98.74180835 | 19.04216656 | 0.811811052 |

| Bank | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|------|------|-------------|--------------|-------------|-----|-------------|---------------|-------------|-------------|-------------|-------------|
| | 2013 | 0.853229136 | 0.026980328 | 0.880209464 | 21 | 1.098788904 | 0.000840849 | 0.062481293 | 32.94815817 | 19.28481886 | 0.76204164 |
| | 2014 | 0.838054021 | 0.031952278 | 0.870006299 | 22 | 1.169838639 | 0.005505652 | 0.019612024 | 5.643413751 | 19.44798335 | 0.602563328 |
| PIBC | 2009 | 0.733707748 | 0.017610528 | 0.751318276 | 15 | 1.192528708 | 0.019606666 | 0.125032447 | 1.789668711 | 19.31929828 | 0.909716012 |
| | 2010 | 0.671791117 | 0.094759679 | 0.766550796 | 16 | 1.370735262 | 0.007785315 | 0.079152226 | 5.121948081 | 19.39352132 | 0.865612909 |
| | 2011 | 0.711815278 | 0.023660667 | 0.735475945 | 17 | 1.22364307 | 0.012429454 | 0.128992168 | 3.28296384 | 19.31052536 | 0.825660162 |
| | 2012 | 0.716835542 | 0.028285696 | 0.745121238 | 18 | 1.189506981 | 0.009820984 | 0.147319118 | 3.979097359 | 19.37114008 | 0.722775085 |
| | 2013 | 0.73762581 | 0.026799957 | 0.764425767 | 19 | 1.214974339 | 0.00994603 | 0.103803569 | 4.095912827 | 19.47991089 | 0.695557129 |
| | 2014 | 0.757202493 | 0.028933907 | 0.786136401 | 20 | 1.16738855 | 0.011832656 | 0.116050479 | 3.118600271 | 19.58637136 | 0.781587185 |
| | 2009 | 0.839265692 | 0.019095665 | 0.858361357 | 14 | 1.086190849 | 0.012970298 | 0.088397285 | 2.935317229 | 19.61500377 | 0.945441122 |
| QUDS | 2010 | 0.858277782 | 0.023482604 | 0.881760386 | 15 | 1.062038055 | 0.014897189 | 0.088476334 | 2.338046994 | 19.87120225 | 1.105422706 |
| | 2011 | 0.865671683 | 0.017627313 | 0.883298996 | 16 | 1.074937745 | 0.013966369 | 0.069456833 | 3.184847226 | 19.96329524 | 0.961912903 |
| | 2012 | 0.858424156 | 0.021000117 | 0.879424273 | 17 | 1.07432088 | 0.009379554 | 0.077777005 | 4.686435404 | 19.99118403 | 0.806233456 |
| | 2013 | 0.854834441 | 0.022971207 | 0.877805648 | 18 | 1.054772046 | 0.01369621 | 0.098344528 | 3.140584399 | 20.09191596 | 0.632129861 |
| | 2014 | 0.877670827 | 0.016934387 | 0.894605214 | 19 | 1.016934278 | 0.015287545 | 0.107466451 | 2.772720725 | 20.32183583 | 0.662676123 |
| | 2009 | 0.804493332 | 0.018687217 | 0.823180549 | 4 | 1.135166776 | 0.014041634 | 0.086765898 | 2.350403978 | 18.90718396 | 0.701912122 |
| TNB | 2010 | 0.789191815 | 0.029115857 | 0.818307672 | 5 | 1.163177821 | 0.001334813 | 0.082029585 | 23.69385609 | 18.87898961 | 0.826510472 |
| | 2011 | 0.841558978 | 0.040172345 | 0.881731323 | 6 | 1.083398528 | 0.003145775 | 0.088256243 | 7.462245362 | 19.32651347 | 0.769195148 |
| | 2012 | 0.796826344 | 0.056913608 | 0.853739953 | 7 | 1.129887585 | 0.00860697 | 0.099675806 | 3.142875733 | 19.67598344 | 0.791234241 |
| | 2013 | 1.07432203 | -0.178110029 | 0.896212001 | 8 | 0.835097119 | 0.009668151 | 0.102836768 | 2.569047016 | 20.08763063 | 0.806923468 |
| | 2014 | 0.638023339 | 0.244298207 | 0.882321546 | 9 | 1.436111023 | 0.008716447 | 0.08372765 | 2.848518059 | 20.33746818 | 1.050339022 |

Second: Industries Sector:

| Firm | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|------------|------|-------------|-------------|-------------|-----|-------------|---------------|-------------|--------------|-------------|-------------|
| JPH | 2009 | 0.097809608 | 0.046501293 | 0.144310901 | 40 | 6.399858858 | 0.076250337 | 0.374032311 | 6.133636343 | 17.3889574 | 0.959529542 |
| | 2010 | 0.135805685 | 0.072260472 | 0.208066157 | 41 | 4.631321448 | 0.09114106 | 0.371040216 | 5.050104279 | 17.56467545 | 0.902964875 |
| | 2011 | 0.138473885 | 0.12182876 | 0.260302645 | 42 | 4.025000444 | 0.058106836 | 0.44264255 | 6.856403428 | 17.73777418 | 0.918212453 |
| | 2012 | 0.175666738 | 0.134607287 | 0.310274025 | 43 | 2.977977832 | 0.016926613 | 0.476868348 | 21.84505565 | 17.7047872 | 1.088895128 |
| | 2013 | 0.180626739 | 0.120682099 | 0.301308838 | 44 | 3.103946577 | 0.046077415 | 0.439344251 | 8.859861183 | 17.80327312 | 1.23555067 |
| | 2014 | 0.002178565 | 0.001017698 | 0.003196263 | 45 | 110.1414143 | 0.000341563 | 0.760049789 | 12.0519607 | 22.47500966 | 0.94895048 |
| APC | 2009 | 0.224338877 | 0.023933427 | 0.248272304 | 20 | 3.365121741 | 0.123856886 | 0.245072367 | 5.950251006 | 15.13716696 | 1.178355361 |
| | 2010 | 0.329055774 | 0.02688362 | 0.355939394 | 21 | 2.449211712 | 0.191216629 | 0.194072745 | 3.839087518 | 15.46788836 | 1.45157072 |
| | 2011 | 0.356254887 | 0.027361768 | 0.383616655 | 22 | 2.21967666 | 0.130816792 | 0.209229342 | 6.585478364 | 15.4873251 | 2.049586381 |
| | 2012 | 0.334485521 | 0.030656511 | 0.365142032 | 23 | 2.260047849 | 0.133041637 | 0.244046719 | 5.993445813 | 15.55505676 | 2.431987425 |
| | 2013 | 0.283169349 | 0.034751764 | 0.317921112 | 24 | 2.703196445 | 0.185134136 | 0.234537623 | 4.625085712 | 15.62184965 | 1.963066321 |
| | 2014 | 0.265705609 | 0.038178677 | 0.303884286 | 25 | 2.930313656 | 0.134116905 | 0.221399225 | 6.907236557 | 15.63499891 | 2.586415402 |
| BPC | 2009 | 0.103659436 | 0.066270249 | 0.169929685 | 35 | 5.239394496 | 0.132136835 | 0.456887322 | 3.433170329 | 17.71977514 | 2.321016958 |
| | 2010 | 0.096109786 | 0.070275499 | 0.166385285 | 36 | 5.543315133 | 0.112695476 | 0.467233169 | 3.699155161 | 17.79215913 | 2.072479445 |
| | 2011 | 0.132060941 | 0.074206109 | 0.206267051 | 37 | 4.182293462 | 0.095449946 | 0.447682389 | 3.94681759 | 17.86676975 | 1.906189501 |
| | 2012 | 0.120426254 | 0.075322375 | 0.195748629 | 38 | 4.529056384 | 0.105259876 | 0.454582704 | 3.634166043 | 17.90916618 | 1.565256114 |
| | 2013 | 0.114241743 | 0.083869699 | 0.198111442 | 39 | 4.860103816 | 0.102655394 | 0.44477327 | 3.779554568 | 17.98609213 | 1.38844979 |
| | 2014 | 0.151707793 | 0.084938314 | 0.236646107 | 40 | 3.807862453 | 0.067458202 | 0.422317592 | 5.299076271 | 18.06062655 | 1.544410484 |
| NCI | 2009 | 0.110999025 | 0.018267654 | 0.12926668 | 20 | 3.657519666 | -0.005337782 | 0.594018882 | -105.4721538 | 15.60281368 | 0.589164116 |
| | 2010 | 0.091395089 | 0.01267348 | 0.104068569 | 21 | 6.199267732 | 0.027393257 | 0.433417375 | 26.18533622 | 15.59787739 | 0.822939908 |
| | 2011 | 0.048582901 | 0.016535416 | 0.065118317 | 22 | 12.1890624 | 0.004827135 | 0.407819983 | 140.9058947 | 15.56279815 | 0.97518179 |
| | 2012 | 0.076968475 | 0.017097382 | 0.094065857 | 23 | 7.394767393 | 0.020219682 | 0.43083603 | 37.92866103 | 15.61260461 | 0.75811537 |
| | 2013 | 0.120034474 | 0.018183702 | 0.138218176 | 24 | 4.801913753 | 0.099228095 | 0.423604809 | 8.693755357 | 15.71442987 | 0.837699444 |
| | 2014 | 0.130563639 | 0.021406838 | 0.151970477 | 25 | 4.249636599 | 0.073797409 | 0.445151981 | 13.2774681 | 15.70847191 | 1.221122018 |

| Firm | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|---------------|------|-------------|--------------|-------------|-----|-------------|---------------|-------------|--------------|-------------|-------------|
| VOICE | 2009 | 0.124671148 | 0.023666366 | 0.148337514 | 56 | 1.830587251 | 0.132222267 | 0.771778586 | 2.393587541 | 16.51907643 | 1.152706337 |
| | 2010 | 0.10256102 | 0.023057684 | 0.125618704 | 57 | 2.623255077 | 0.020184274 | 0.730956284 | 13.87264399 | 16.66207007 | 1.487511427 |
| | 2011 | 0.044349244 | 0.023065739 | 0.067414984 | 58 | 5.662132887 | 0.151501547 | 0.748888684 | 1.835249681 | 16.70543039 | 1.626430908 |
| | 2012 | 0.035903019 | 0.022622833 | 0.058525852 | 59 | 6.829975702 | 0.186518147 | 0.754783251 | 1.382065703 | 16.84559284 | 1.66050865 |
| | 2013 | 0.035543495 | 0.032143186 | 0.067686681 | 60 | 6.453976937 | 0.236815765 | 0.770603103 | 1.033534884 | 17.23394514 | 1.520997875 |
| | 2014 | 0.054988453 | 0.004836764 | 0.059825217 | 61 | 5.044444873 | 0.263092287 | 0.722613782 | 0.828334476 | 17.10859968 | 2.480412116 |
| LADAEN | 2009 | 0.161437092 | 0.003524761 | 0.164961853 | 10 | 1.758574653 | 0.111720855 | 0.716100822 | -2.278934579 | 15.79027845 | 0.736082578 |
| | 2010 | 0.220685504 | 0.004493794 | 0.225179298 | 11 | 1.520420357 | -0.073021836 | 0.664465267 | -4.322238716 | 15.77506093 | 1.208180395 |
| | 2011 | 0.176141771 | 0.006349557 | 0.182491328 | 12 | 1.824550221 | 0.109786567 | 0.678620493 | -3.289182523 | 15.59542058 | 1.334262101 |
| | 2012 | 0.22572581 | 0.007773301 | 0.233499111 | 13 | 1.590747675 | -0.15830687 | 0.640927192 | -2.079509349 | 15.4720962 | 1.223212013 |
| | 2013 | 0.239718248 | 0.045047311 | 0.28476556 | 14 | 1.562673165 | -0.181467211 | 0.625398726 | -2.012171978 | 15.31520886 | 1.653928593 |
| | 2014 | 0.312778589 | 0.039710844 | 0.352489432 | 15 | 1.205032564 | -0.000183286 | 0.623091615 | -1.929854555 | 15.16543468 | 1.639712463 |
| AZIZA | 2009 | 0.301364073 | 0.151714212 | 0.453078285 | 12 | 1.061753551 | 0.037740154 | 0.680025625 | 28.86740479 | 16.80645977 | 1.173390401 |
| | 2010 | 0.367525473 | 0.173041861 | 0.540567334 | 13 | 0.933788138 | -0.004527332 | 0.656809073 | -229.4649714 | 16.93332923 | 3.164874407 |
| | 2011 | 0.422066657 | 0.177433013 | 0.59949967 | 14 | 0.841668859 | -0.046825266 | 0.644759639 | -26.16460888 | 16.91368028 | 4.251303013 |
| | 2012 | 0.396006711 | 0.252364455 | 0.648371166 | 15 | 0.79251366 | -0.039311644 | 0.686159272 | -26.59529988 | 16.88529575 | 3.807036154 |
| | 2013 | 0.28735223 | -0.136365112 | 0.150987118 | 16 | 0.262388662 | 0.165549552 | 0.924602033 | 6.299810576 | 17.39490804 | 1.97599717 |
| | 2014 | 0.3282448 | 0.062093837 | 0.390338637 | 17 | 0.392736881 | 0.124946845 | 0.871086161 | 9.914340751 | 17.34356989 | 2.591527258 |
| JCC | 2009 | 0.551584257 | 0.02074697 | 0.572331227 | 45 | 0.78009153 | 0.080902006 | 0.569713793 | 24.99163394 | 17.55855144 | 2.446369915 |
| | 2010 | 0.586182654 | 0.053241741 | 0.639424395 | 46 | 0.869435948 | 0.032714096 | 0.490351729 | 59.51231299 | 17.85762487 | 1.906286802 |
| | 2011 | 0.50701454 | 0.0825332 | 0.58954774 | 47 | 0.986436048 | 0.008188284 | 0.499862581 | 196.2226825 | 17.90227528 | 1.570479298 |
| | 2012 | 0.462268155 | 0.062765054 | 0.525033209 | 48 | 0.952952265 | 0.049068272 | 0.559480515 | 42.94120614 | 17.95072514 | 0.76478581 |
| | 2013 | 0.511883776 | 0.045957502 | 0.557841278 | 49 | 0.763447253 | 0.015946604 | 0.609203737 | 119.8654439 | 17.98380617 | 0.832902968 |
| | 2014 | 0.553389175 | 0.013487037 | 0.566876212 | 50 | 0.759972092 | 0.06707828 | 0.579439671 | 18.52618986 | 17.78677316 | 0.774515791 |
| GMC | 2009 | 0.15425528 | 0.017892236 | 0.172147516 | 14 | 2.835939003 | 0.016988081 | 0.562541434 | 20.78423888 | 17.07338691 | 1.17833734 |

| Firm | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|------|------|-------------|-------------|-------------|-----|-------------|---------------|-------------|-------------|-------------|-------------|
| | 2010 | 0.13844261 | 0.012627496 | 0.151070106 | 15 | 3.392607404 | 0.071589488 | 0.530318577 | 5.482255593 | 17.14404805 | 0.966204564 |
| | 2011 | 0.039756863 | 0.013569255 | 0.053326119 | 16 | 10.60816247 | 0.070427347 | 0.578252735 | 7.595267397 | 17.05732923 | 1.246218869 |
| | 2012 | 0.146794688 | 0.014102689 | 0.160897377 | 17 | 3.269566697 | 0.02896052 | 0.520044977 | 14.02959156 | 17.15063142 | 1.116176645 |
| | 2013 | 0.123246816 | 0.018046562 | 0.141293378 | 18 | 3.702051155 | 0.018617587 | 0.543733984 | 24.24682733 | 17.09816124 | 1.095713954 |
| | 2014 | 0.094017018 | 0.018866619 | 0.112883637 | 19 | 4.825909786 | 0.017107448 | 0.546282355 | 32.25708807 | 17.07523237 | 2.548531189 |

Third Insurance Sector:

| Firm | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|------|------|-------------|-------------|-------------|-----|-------------|---------------|-------------|--------------|-------------|--------------|
| AIG | 2009 | 0.708166694 | 0.027320196 | 0.73548689 | 15 | 0.669490632 | 0.048999166 | 0.525889032 | 1.037111124 | 17.71464067 | 2.127454582 |
| | 2010 | 0.73205653 | 0.032348519 | 0.764405049 | 16 | 0.731137653 | 0.000734694 | 0.464765907 | 8.037134048 | 17.72525268 | 1.771938014 |
| | 2011 | 0.70948346 | 0.031367965 | 0.740851425 | 17 | 0.647669037 | 0.034481602 | 0.54048953 | 0.430639508 | 17.7545802 | 0.866044332 |
| | 2012 | 0.724890184 | 0.027505854 | 0.752396038 | 18 | 0.804674481 | -0.012488091 | 0.416699368 | 0.551717396 | 17.75117145 | 0.820426991 |
| | 2013 | 0.654657586 | 0.029735603 | 0.68439319 | 19 | 0.943702148 | 0.040321703 | 0.38219823 | -0.640547761 | 17.74008433 | 0.473519101 |
| | 2014 | 0.631933874 | 0.034058844 | 0.665992718 | 20 | 0.889375868 | 0.049553223 | 0.437973262 | -0.572212131 | 17.64674077 | 2.427915261 |
| MIC | 2009 | 0.816614912 | 0.084039425 | 0.900654338 | 17 | 0.527951821 | 0.061261927 | 0.56886667 | 10.62141278 | 16.71245108 | 2.263324532 |
| | 2010 | 0.977699171 | 0.079488754 | 1.057187925 | 18 | 0.368525651 | -0.099758157 | 0.639692776 | -7.916159017 | 16.54552197 | -5.396906296 |
| | 2011 | 0.977382149 | 0.075953087 | 1.053335236 | 19 | 0.382666064 | -0.056179635 | 0.625989019 | -12.59182679 | 16.43791681 | -3.619222804 |
| | 2012 | 0.978520981 | 0 | 0.978520981 | 20 | 0.526209547 | -0.043872815 | 0.485092918 | -10.81357367 | 16.52336741 | 0 |
| | 2013 | 0.910473125 | 0.03653869 | 0.947011815 | 21 | 0.630014268 | 0.013999917 | 0.426388941 | 39.04800511 | 16.73671377 | 0 |
| | 2014 | 0.740164201 | 0.03313234 | 0.773296541 | 22 | 0.713169454 | 0.019891479 | 0.472137501 | 23.31778907 | 17.0951635 | 0 |
| NIC | 2009 | 0.156356128 | 0.556664333 | 0.713020461 | 17 | 3.92796544 | 0.090151496 | 0.385838531 | 0.853491413 | 17.91223959 | 1.829290538 |
| | 2010 | 0.675587903 | 0.028532557 | 0.70412046 | 18 | 1.107190235 | 0.101939566 | 0.251995671 | 3.362478965 | 18.07296727 | 1.803999692 |
| | 2011 | 0.66951177 | 0.032265027 | 0.701776796 | 19 | 1.139003701 | 0.071441885 | 0.237423616 | 4.998078607 | 18.10431625 | 1.602304484 |
| | 2012 | 0.623504178 | 0.036945701 | 0.66044988 | 20 | 1.178825917 | 0.089709318 | 0.264997115 | 4.025415169 | 18.11187452 | 1.684450453 |
| | 2013 | 0.619319076 | 0.037931588 | 0.657250664 | 21 | 1.201849809 | 0.086361641 | 0.255671488 | 3.810943758 | 18.2058524 | 1.44598881 |

| Firm | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|--------------|------|-------------|-------------|-------------|-----|-------------|---------------|-------------|-------------|-------------|-------------|
| | 2014 | 0.573904395 | 0.047334134 | 0.621238528 | 22 | 1.24948202 | 0.047628476 | 0.282916777 | 7.694569521 | 18.10931604 | 1.400390646 |
| TRUST | 2009 | 0.602911734 | 0.037186851 | 0.640098585 | 15 | 0.633660522 | 0.023945298 | 0.617958636 | 10.67157637 | 17.80856037 | 1.341739054 |
| | 2010 | 0.551181344 | 0.072559677 | 0.62374102 | 16 | 0.740611008 | 0.034423716 | 0.59178903 | 8.615724092 | 17.94158764 | 0.961018358 |
| | 2011 | 0.592696573 | 0.068447579 | 0.661144152 | 17 | 0.805752975 | 0.026058191 | 0.522432973 | 12.23330822 | 18.12943449 | 1.168862344 |
| | 2012 | 0.640873724 | 0.023279904 | 0.664153628 | 18 | 0.787332063 | 0.027936874 | 0.495419569 | 11.84068281 | 18.18750022 | 1.051152004 |
| | 2013 | 0.65254703 | 0.021599197 | 0.674146227 | 19 | 0.757297743 | 0.046593115 | 0.505827607 | 8.579202503 | 18.25516933 | 0.942730851 |
| | 2014 | 0.598233628 | 0.021138774 | 0.619372402 | 20 | 0.807522744 | 0.041077982 | 0.516912739 | 9.471040221 | 18.36151334 | 0.260619804 |

Fourth: Investing Sector:

| Firm | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|-------------|------|-------------|-------------|-------------|-----|-------------|---------------|-------------|--------------|-------------|-------------|
| JREI | 2009 | 0.186600234 | 0.042253149 | 0.228853383 | 13 | 1.321390694 | 0.012113699 | 0.753428187 | 9.774002794 | 16.43354684 | 1.057878037 |
| | 2010 | 0.285809141 | 0.026439915 | 0.312249056 | 14 | 1.170681822 | 0.045737039 | 0.665408434 | 7.162279274 | 16.60778738 | 0.79005763 |
| | 2010 | 0.331366006 | 0.050541453 | 0.381907458 | 14 | 1.094278886 | 0.033715936 | 0.637393177 | 9.573479788 | 16.71080546 | 0.861613485 |
| | 2010 | 0.30982985 | 0.053231747 | 0.363061597 | 14 | 0.940877189 | -0.014156777 | 0.708488162 | -7.869653183 | 16.61761227 | 0.774084951 |
| | 2010 | 0.370541411 | 0.02724985 | 0.397791261 | 14 | 0.673744819 | -0.110675644 | 0.750349644 | 0 | 16.56608665 | 0.742976905 |
| | 2010 | 0.318451815 | 0.080462748 | 0.398914563 | 14 | 0.507886358 | -0.060720781 | 0.838262667 | -0.056104071 | 16.42467582 | 0.685655151 |
| UCI | 2009 | 0.028610172 | 0.016529995 | 0.045140167 | 1 | 14.89400428 | 0.051906454 | 0.573879972 | 2.646685698 | 17.768915 | 0.506429718 |
| | 2010 | 0.024701225 | 0.018069731 | 0.042770957 | 2 | 14.13578107 | 0.038675118 | 0.650828886 | 3.73030162 | 17.73218624 | 0.5330876 |
| | 2011 | 0.012884982 | 0.024741404 | 0.037626387 | 3 | 29.78108399 | 0.039810087 | 0.616271261 | 3.067216086 | 17.75818947 | 0.509909517 |
| | 2012 | 0.023228238 | 0.015163507 | 0.038391745 | 4 | 14.86250622 | 0.017923847 | 0.654770171 | 5.233503792 | 17.53730221 | 0.544987931 |
| | 2013 | 0.02994341 | 0.007062762 | 0.037006172 | 5 | 10.91382609 | 0.010174775 | 0.673202832 | 5.965978651 | 17.53354385 | 0.441579534 |
| | 2014 | 0.047210647 | 0.008808323 | 0.05601897 | 6 | 7.458308791 | 0.01211298 | 0.647888418 | 11.52002667 | 17.56430992 | 0.335903067 |
| ARAB | 2009 | 0.037019185 | 0.00529024 | 0.042309425 | 15 | 0.77381397 | 0.004132311 | 0.971354037 | 5.417151864 | 16.19013853 | 1.130111626 |
| | 2010 | 0.04773719 | 0.004223022 | 0.051960212 | 16 | 0.392504605 | 0.011129283 | 0.981262933 | 1.429684535 | 16.53825259 | 0.965788768 |

| Firm | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|--------|------|-------------|-------------|-------------|-----|-------------|---------------|-------------|--------------|-------------|-------------|
| | 2011 | 0.056957666 | 0.004976475 | 0.061934141 | 17 | 0.231070931 | 0.042385433 | 0.986838739 | 0.393363182 | 16.48592584 | 1.138813843 |
| | 2012 | 0.006990488 | 0.005929567 | 0.012920055 | 18 | 6.90421083 | -0.006212019 | 0.951736199 | -2.866589089 | 16.41363173 | 1.010705332 |
| | 2013 | 0.006797663 | 0.002011918 | 0.008809581 | 19 | 8.978313328 | 0.008889179 | 0.93896845 | 1.967872816 | 16.42456376 | 1.387116955 |
| | 2014 | 0.008240544 | 0.026512533 | 0.034753076 | 20 | 6.8766716 | 0.054026614 | 0.943332488 | 0.340655665 | 16.37163383 | 1.426861677 |
| PHIC | 2009 | 0.124092563 | 0.116845556 | 0.24093812 | 56 | 1.888457836 | 0.084876577 | 0.765656426 | 4.62022048 | 17.72524724 | 0.489815384 |
| | 2010 | 0.152339264 | 0.092701622 | 0.245040886 | 57 | 1.643652504 | 0.105457696 | 0.749607187 | 4.275204792 | 17.93015683 | 0.9774672 |
| | 2011 | 0.195832961 | 0.110214819 | 0.30604778 | 58 | 1.210986972 | 0.024689212 | 0.762848835 | 18.76740827 | 17.94214012 | 1.401469773 |
| | 2012 | 0.218665561 | 0.078572852 | 0.297238413 | 59 | 1.10860462 | 0.027867941 | 0.757586349 | 16.30176046 | 17.95736519 | 1.145922419 |
| | 2013 | 0.17495109 | 0.064562375 | 0.239513465 | 60 | 1.556101474 | 0.104284715 | 0.727758351 | 5.422561136 | 18.04776608 | 1.00759313 |
| | 2014 | 0.210691137 | 0.035425836 | 0.246116973 | 61 | 1.403360853 | 0.080802215 | 0.704324307 | 7.965797654 | 18.06496799 | 1.44097513 |
| PRICO | 2009 | 0.09771681 | 0.125775261 | 0.223492071 | 15 | 1.77400199 | 0.009929341 | 0.826650185 | 6.767631561 | 18.56761072 | 0.784413913 |
| | 2010 | 0.140371949 | 0.114879512 | 0.255251461 | 16 | 1.925138413 | 0.048919805 | 0.729764569 | 5.192269626 | 18.65076503 | 0.872459728 |
| | 2011 | 0.214963024 | 0.091254032 | 0.306217056 | 17 | 1.691329036 | 0.061244298 | 0.636426796 | 3.919392399 | 18.74144729 | 0.863135382 |
| | 2012 | 0.197155751 | 0.09485584 | 0.292011591 | 18 | 1.37652369 | 0.003946041 | 0.728610438 | 35.97511894 | 18.90545725 | 0.801761008 |
| | 2013 | 0.19530137 | 0.138370605 | 0.333671975 | 19 | 1.018603391 | -0.016521916 | 0.801065362 | -3.908039194 | 18.94683077 | 0.726971821 |
| | 2014 | 0.225548805 | 0.123699969 | 0.349248774 | 20 | 0.643878079 | 0.027349227 | 0.854774069 | 1.831788015 | 18.94702612 | 0.71567927 |
| PADICO | 2009 | 0.134521773 | 0.172625795 | 0.307147568 | 16 | 0.95259499 | 0.078265454 | 0.871855233 | 1.760980635 | 13.33779245 | 0.766029408 |
| | 2010 | 0.118754693 | 0.154701017 | 0.273455709 | 17 | 0.915974816 | 0.072974189 | 0.891223692 | 2.159871982 | 13.36606065 | 0.70610042 |
| | 2011 | 0.121214327 | 0.215224002 | 0.336438329 | 18 | 0.894915754 | 0.047795966 | 0.891523389 | 2.985373143 | 13.49815797 | 0.592069222 |
| | 2012 | 0.132741235 | 0.226454159 | 0.359195395 | 19 | 0.803530397 | 0.039112319 | 0.893338382 | 3.364306249 | 13.55899893 | 0.488668603 |
| | 2013 | 0.151466662 | 0.204803425 | 0.356270087 | 20 | 0.623094696 | 0.04496255 | 0.905621926 | 3.040209021 | 13.60314991 | 0.470640667 |
| | 2014 | 0.127635582 | 0.229001595 | 0.356637178 | 21 | 0.648965829 | 0.037757397 | 0.917168868 | 3.532507641 | 13.63139179 | 0.72951488 |
| PID | 2009 | 0.009851859 | 0.006772228 | 0.016624088 | 16 | 38.68465795 | -0.014414089 | 0.618884192 | -0.445916502 | 15.19108228 | 2.45804022 |
| | 2010 | 0.009232142 | 0.008108946 | 0.017341088 | 17 | 45.92916886 | -0.033509367 | 0.575975392 | -0.139697206 | 15.1582795 | 2.615440281 |
| | 2011 | 0.010280628 | 0.009450187 | 0.019730815 | 18 | 35.78985097 | -0.034038749 | 0.632057871 | -0.075219071 | 15.11925759 | 2.738583697 |

| Firm | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|------|------|-------------|-------------|-------------|-----|-------------|---------------|-------------|-------------|-------------|-------------|
| | 2012 | 0.015102439 | 0.00954597 | 0.02464841 | 19 | 28.17311915 | 0.098605856 | 0.574517177 | 0.019183455 | 15.22467322 | 2.478890446 |
| | 2013 | 0.006084494 | 0.009988325 | 0.016072818 | 20 | 74.26220813 | 0.069767217 | 0.548152077 | 0.065426399 | 15.27263244 | 2.390932098 |
| | 2014 | 0.006486665 | 0.010499511 | 0.016986176 | 21 | 61.03932056 | 0.035883048 | 0.604058398 | 0.070955382 | 15.30777304 | 2.31164252 |

Fifth: Services Sector:

| Firm | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|------|------|-------------|-------------|-------------|-----|-------------|---------------|-------------|--------------|-------------|-------------|
| GCOM | 2009 | 0.006391349 | 0.006429343 | 0.012820692 | 1 | 25.0890034 | 0.104625215 | 0.83964742 | 0.050248804 | 15.95573377 | 1.328704618 |
| | 2010 | 0.043501006 | 0.01247901 | 0.055980016 | 2 | 0.946419228 | -0.167304097 | 0.958829811 | -0.157934828 | 15.89444034 | 1.052941233 |
| | 2011 | 0.389319883 | -0.3339094 | 0.055410483 | 3 | 0.375408605 | -0.192996814 | 0.853845966 | -0.26748539 | 15.70729363 | 0.897433898 |
| | 2012 | 0.062840961 | 0.029901934 | 0.092742894 | 4 | 0.750815575 | -0.197540796 | 0.952818028 | -0.420587465 | 15.5250953 | 0.476822865 |
| | 2013 | 0.208285804 | 0.026048799 | 0.234334603 | 5 | 0.257128859 | -0.311041994 | 0.946443709 | -0.320350781 | 15.36804028 | 0.403683125 |
| | 2014 | 0.319073022 | 0.004082695 | 0.323155717 | 6 | 0.152979614 | -0.130165181 | 0.951188332 | -0.687753391 | 15.32933078 | 0.244094274 |
| AHC | 2009 | 0.155778718 | 0.001420633 | 0.157199351 | 13 | 0.155633625 | -0.017541429 | 0.975755593 | -0.067207556 | 17.47924549 | 1.072839599 |
| | 2010 | 0.199459085 | 0.138720143 | 0.338179228 | 14 | 0.490063548 | -0.00322452 | 0.902252373 | -9.131706513 | 17.72285113 | 1.378659733 |
| | 2011 | 0.146995809 | 0.217419444 | 0.364415253 | 15 | 0.471738768 | -0.057339077 | 0.930656378 | -2.829336338 | 17.67564355 | 1.302047206 |
| | 2012 | 0.231558122 | 0.165959072 | 0.397517194 | 16 | 0.263692358 | -0.030875443 | 0.938939893 | -11.75124532 | 17.64396759 | 1.183026957 |
| | 2013 | 0.298032622 | 0.123882365 | 0.421914987 | 17 | 0.226252667 | -0.031999578 | 0.932569325 | -13.90271054 | 17.63142909 | 1.006672257 |
| | 2014 | 0.095455824 | 0.320071759 | 0.415527582 | 18 | 0.602945049 | -0.020043053 | 0.942445384 | -95.25107459 | 17.60576117 | 1.070943198 |
| ARE | 2009 | 0.041306749 | 0.022477839 | 0.063784588 | 23 | 14.72484364 | 0.090261916 | 0.391764577 | 5.879258031 | 14.26329597 | 0.598124863 |
| | 2010 | 0.585576949 | 0.008149802 | 0.593726751 | 24 | 1.266326527 | -0.144703944 | 0.258468376 | -4.158630769 | 14.79436823 | 1.176072379 |
| | 2011 | 0.566359031 | 0.011703436 | 0.578062466 | 24 | 1.314368244 | 0.012986434 | 0.255595676 | 72.70186592 | 15.05696534 | 0.729419481 |
| | 2012 | 0.627806181 | 0.008876 | 0.636682181 | 24 | 1.263549373 | 0.006502977 | 0.206735894 | 136.939537 | 15.17889922 | 0.590348978 |
| | 2013 | 0.740356445 | 0.010829879 | 0.751186324 | 24 | 1.08337378 | -0.112688946 | 0.197917239 | -4.897095616 | 15.22134456 | 0.712354811 |
| | 2014 | 0.770085652 | 0.009508552 | 0.779594204 | 24 | 1.090629763 | -0.065759247 | 0.160121667 | -1.503439802 | 15.06341316 | 0.750458245 |

| Firm | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|---------------|------|-------------|--------------|-------------|-----|-------------|---------------|-------------|--------------|-------------|-------------|
| PALTEL | 2009 | 0.202923184 | 0.136047584 | 0.338970768 | 12 | 1.707774078 | 0.135313494 | 0.653453046 | 4.383095927 | 20.44745587 | 2.953638044 |
| | 2010 | 0.17953746 | 0.110501196 | 0.290038657 | 13 | 2.154750839 | 0.164152733 | 0.613141506 | 3.738493331 | 20.48439388 | 2.518359768 |
| | 2011 | 0.171751542 | 0.082426128 | 0.25417767 | 14 | 1.950865998 | 0.175717849 | 0.664935756 | 3.664983665 | 20.52628072 | 2.283580075 |
| | 2012 | 0.197409334 | 0.058783075 | 0.256192409 | 15 | 1.497892479 | 0.171346961 | 0.704302043 | 3.463228542 | 20.59627789 | 2.073462521 |
| | 2013 | 0.199441019 | 0.046013881 | 0.2454549 | 16 | 1.36773538 | 0.183804855 | 0.727217462 | 3.064498216 | 20.67379344 | 1.900231016 |
| | 2014 | 0.221302642 | 0.082899408 | 0.30420205 | 17 | 1.128770323 | 0.131745493 | 0.750200145 | 3.598208327 | 20.79319827 | 2.064230557 |
| PLAZA | 2009 | 0.301364073 | 0.151714212 | 0.453078285 | 10 | 1.061753551 | 0.037740154 | 0.680025625 | 28.86740479 | 16.80645977 | 0.738153328 |
| | 2010 | 0.367525473 | 0.173041861 | 0.540567334 | 11 | 0.933788138 | -0.004527332 | 0.656809073 | -229.4649714 | 16.93332923 | 1.01826394 |
| | 2011 | 0.422066657 | 0.177433013 | 0.59949967 | 12 | 0.841668859 | -0.046825266 | 0.644759639 | -26.16460888 | 16.91368028 | 1.073989185 |
| | 2012 | 0.396006711 | 0.252364455 | 0.648371166 | 13 | 0.79251366 | -0.039311644 | 0.686159272 | -26.59529988 | 16.88529575 | 1.094094174 |
| | 2013 | 0.302389333 | -0.015284953 | 0.28710438 | 14 | 0.770082271 | -0.001435588 | 0.767135336 | -1015.077057 | 16.75225671 | 1.164860495 |
| | 2014 | 0.230640635 | 0.137688553 | 0.368329188 | 15 | 0.854145945 | -0.026183005 | 0.802999237 | -55.60477177 | 16.82218751 | 2.492610966 |
| WASSAL | 2009 | 0.377616359 | 0.031364179 | 0.408980538 | 4 | 1.679614436 | 0.078355324 | 0.365750112 | 8.007767475 | 16.57442496 | 0.887635708 |
| | 2010 | 0.378882599 | 0.070987367 | 0.449869967 | 5 | 1.642804663 | 0.022782471 | 0.377569899 | 28.2485322 | 16.64762633 | 0.860266154 |
| | 2011 | 0.467647317 | 0.136690047 | 0.604337363 | 6 | 1.318495904 | -0.149855711 | 0.383408928 | -4.51767939 | 16.61515226 | 1.736972505 |
| | 2012 | 0.360910404 | 0.271969577 | 0.632879981 | 7 | 1.608331927 | -0.026855124 | 0.419536275 | -23.97751212 | 16.73075966 | 1.631741524 |
| | 2013 | 0.392248169 | 0.231012272 | 0.62326044 | 8 | 1.534481741 | -0.004045871 | 0.398102347 | -174.5358603 | 16.70698464 | 1.574599244 |
| | 2014 | 0.378639826 | 0.336849329 | 0.715489155 | 9 | 1.562881284 | -0.18619353 | 0.408230902 | -3.048194826 | 16.70642595 | 2.166019277 |
| NSC | 2009 | 0.911713163 | 0.025499713 | 0.288828033 | 9 | 2.081091906 | 0.088455707 | 0.451989565 | 5.352107524 | 15.7828966 | 0.625844981 |
| | 2010 | 0.885073572 | 0.040245108 | 0.350181493 | 10 | 2.054448259 | 0.072264031 | 0.363251734 | 6.821949351 | 15.94535423 | 1.055725069 |
| | 2011 | 0.887162459 | 0.04411955 | 0.391000635 | 11 | 1.982196937 | 0.034144948 | 0.312413376 | 11.57127804 | 16.06149506 | 1.197362572 |
| | 2012 | 0.878688327 | 0.049885639 | 0.411218787 | 12 | 2.052182953 | 0.07541511 | 0.258478273 | 5.806025449 | 16.21501752 | 1.160944367 |
| | 2013 | 0.892106737 | 0.053238606 | 0.493437724 | 13 | 1.763869736 | 0.094031386 | 0.223546098 | 4.325882081 | 16.47355446 | 0.972048024 |
| | 2014 | 1.279017743 | -0.104372827 | 0.374072364 | 14 | 1.624590067 | 0.000967434 | 0.222722695 | 473.7243505 | 16.41180779 | 1.14975177 |
| PEC | 2009 | 0.172179123 | 0.268263135 | 0.440442258 | 10 | 1.761851122 | 0.069726076 | 0.696646019 | 3.190384866 | 18.7134258 | 0.719463854 |

| Firm | Year | STD | LTD | TD | Age | Liquidity | Profitability | Tangibility | Risk | Size | Growth |
|------|------|-------------|-------------|-------------|-----|-------------|---------------|-------------|-------------|-------------|-------------|
| | 2010 | 0.20107998 | 0.19058268 | 0.39166266 | 11 | 1.54195516 | 0.066966208 | 0.689943687 | 3.551511441 | 18.64022257 | 0.831477061 |
| | 2011 | 0.143054377 | 0.193182261 | 0.336236637 | 12 | 2.271612371 | 0.081501186 | 0.675035909 | 3.115295517 | 18.5838782 | 0.881718985 |
| | 2012 | 0.187317726 | 0.096770542 | 0.284088268 | 13 | 1.850056216 | 0.082466305 | 0.653451677 | 3.251046991 | 18.53867833 | 0.921703583 |
| | 2013 | 0.237150918 | 0.092386506 | 0.329537423 | 14 | 0.968986789 | 0.043500559 | 0.770203894 | 5.347966981 | 18.58625538 | 1.024401781 |
| | 2014 | 0.182551288 | 0.064023918 | 0.246575206 | 15 | 1.813060078 | 0.022227466 | 0.669023548 | 10.51008637 | 18.45539956 | 0.951230587 |