# Importance of bonds financing as an alternative to direct debt financing Case study of Algerian corporations

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## Abstract:

This research attempts to study the use of debt financing in Algerian corporations, it also, attempts to provide more information possible about Algerian economic systems in order to develop Algerian stock exchange markets. Moreover, it suggests way to developing secondary market of bonds issues. Based on collection of administrated questionnaires to test the impact of outside factors on the choice of Algerian companies to use bonds instruments. To test this impact the study used One-sample test using SPSS package. The main results indicate that there is a significant positive relationship with the main factors such as economics, socials and lawfulness from one side and the issuance of bonds by Algerian corporations from the other side. This study recommends that Algerian corporation should be concentrated on the development and activation of bonds markets through bonds trading encouragement. Finally the Algerian stock exchange should develop an advertising technique in order to provide more information and knowledge to the Algerian investors.

ملخص:

تحدف هده الدراسة إلى التعرف على هيكل تمويل الشركات الجزائرية، مدى مساهمة الدين في هيكل تمويلها و التعرف على واقع السوق المالي الجزائري من حيث النشأة و التطور، و كذلك التعرف على أهم العوامل المؤثرة على استخدام السندات كأداة للتمويل والاستثمار، والتعرف على أهمية وجود أسواق السندات و مدى تقبل مصدري السندات للظروف المحيطة بحا. لقد تم استخدام استبانه لأغراض الدراسة كأداة لجمع البيانات، حيث تم توزيع 130 استبانه على مختلف أقسام المالية لشركات الجزائرية واسترد 102 استبانه حيث تم استبعاد 28 استبانه بسبب نقص المعلومات، حيث قدرت نسبة الإعادة 68,46%. اعتمادا على نتائج التحليل الإحصائي ", SPSS". توصلت الدراسة إلى استنتاج بوجود علاقة بين العوامل الاقتصادية، التشريعية والاجتماعية على مدى لجوء الشركات الاقتراض عن طريق السندات كبديل عن الاقتراض من البنوك والاجتماعية على مدى المحرب التوصيات الاتية. ضرورة وجود التكامل بين السوق المالي والمحارف التحارية.

الكلمات المفتاحية: الإقراض السندي, الديون طويلة الأجل، سوق السندات، السوق المالي الجزائري.

# Introduction:

Corporate financial management of a corporation chooses its capital structure that aims to achieve two main goals: Maximizing shareholder's wealth and profits, many authors argued that maximization of shareholder's wealth as a strategic goal, receives the highest concern. While some of them argue that the second goal is to maximize profit. Firms usually tend to achieve the goal of stock holders` wealth maximization through mixing the permanent sources of fund used by them.

The companies will have to plan its capital structure at the time of starting a new business, and still more capital is needed if the firm aims to expand, the required funds can be managed in many different forms: companies can use either debt or equity to finance their assets. Moreover, debts can be classified into two basic types: bank loans or bonds, where bank loans present's the borrowing from commercial banks and is classified in two types: short term debt or long term debt. This research concentrate on the long term debt as the term loans, on the other hand bonds presents the borrowing from the market through bond's issuance.

Bonds can be describe as negotiable, publicly traded long term debt securities. They are issued in various denominations by a variety of borrowing organizations. Bonds also are often referred as fixed income securities. While, banks loans are arranged when the scheduled repayment of the loan and the estimated useful life of the assets purchased is expected to exceed one year. They often carry lower interest rate because the term is fixed and loans secured by asset.

This study is interested in finding the importance of using bond financing as an alternative to long term direct financing of debt in Algerian corporations.

# Goal of the Study

The main idea of this study is to find the factors that influence the Algerian corporations to choose between the bank loans and bonds finance. Bonds debt involves his risk than the bank loans. Therefore, we adopt leverage ratio in this study for this purpose to capture bonds debt and its risk package.

This idea can be investigated by answering the following question:

• What are the factors that influence the choice of debt financing instruments by Algerian corporations?

# Importance of the study:

This study is interested to find the importance of using bond financing as an alternative to traditional direct borrowing from commercial banks on Algerian corporations.

## **Study Data and Methodology:**

The study covers the Algerian listed and unlisted companies in the Algerian Stock Market that provided full information during the period of 2000 to 2016. The time chosen is enough to generate data.

#### Study Data sources:

Data of this research were collected from one kind of questionnaires is prepared for this study in order to measure the effect of financial factors on Algerian corporate financial decisions.

## Statistical tools:

Descriptive statistical analysis is used to analyze the questionnaire collected.

# Literature review

This phase aims to investigate the main theoretical and empirical work done so far related to our study.

Hines and et al (1975).<sup>1</sup> : The importance of ratings methods is to demonstrated in many cases where such ratings have a significant effect on the offering yield of bonds.

The purposed of the study is to compare the available statistical bonds ratings method on their ability to duplicate the Moody's "which attempt to classify bonds according to their profitability and magnitude of financial distress".

The model used in the research employed two stepped approach by using a sample of corporate bonds issuance on 15 financial ratios.

The independent variables have the correlations with the rating bonds as total asset, ratio of working capital over sales, net worth over total debt and sales over total worth and net operating profit over sales.

The research found that the most statistical bond rating method do a good job as the job of special rating agencies with the lower cost when they concerned forecasting in short term profitability, and it also points out the effect of bonds rating on the pricing of new issue specially in long term predication.

<sup>&</sup>lt;sup>1</sup> Mary, A. Hines., James and Kiritkumer. Session topic, Empirical research on capital markets, and James, Kiritkumer, Bond rating methods: comparison and validation. Journal of finance, No2, Vol 30, 1975.

**Douglas and Admak.** (1988)<sup>1</sup>: They indicated that the multiple types of securities such as debt, preferred stock and equity used in firm's capital structure rather than equity alone lead to an increase the firm's value.

The contribution of multiple types of securities existence increases the value of option on portfolio.

The study provided the complex of capital structure and its connected tax. Timing options may contribute to the value of the firms even with Miller equilibrium tax rate; when firm's value increase with additional debt financing. So, as a proportion of debt financing increases, the debt will be more risky and return to debt will be more correlated as a firm's approach of 100% of debt financing.

They can found from that the optimum exists when bankruptcy is costless.

**Sherdan and et al. (1988)**<sup>2</sup>**:** They analyzed the explanatory power of some theories of optimal capital structure by examining a much border net of capital structure theories.

The paper introduced a factor analytical technique for estimating the impact of unobservable attribute on the choice of corporate debt ratio.

Empirical work in the paper took into consideration some variables used in the previous basic approach as a value of asset, non debt tax shield, growth rate, industry classification, volatility of earnings, and profitability.

Data limitation forces them to measure debt in term of book value rather than market value. It demonstrated that, the cross-sectional correlation between book value and market value of debt is very large. The paper analyzed the previous over 1974 to 1982 time period by using the annual composted industrial files. The main results of this research are that debt levels are negatively related to the uniqueness of the firm's line of business. Also the results indicated that transaction cost may be an important determinant of capital structure choice.

**Fisher, et al.** (1989)<sup>3</sup>: They aimed to develop a model of dynamic capital structure choice in cost capitalization. They provided the optimal dynamic recapitalization policy as a function of firm's specific characteristics.

They found that even small recapitalization costs lead to wide swings in a firm's debt ratio over time. Empirical work in the study was based on some limitation in the

<sup>&</sup>lt;sup>1</sup> Douglas, R. Emery and Admak., Tax options, capital structure and miller equilibrium " A numerical illustration"., journal of financial management, 1988.

<sup>&</sup>lt;sup>2</sup>Sherdan Titman and Roberto Wessles , The determinants of capital structure choice ,the journal of finance, vol , NO1, march1988.

<sup>&</sup>lt;sup>3</sup> Edwin o.Fisher, Robert hinkel and Josef Zechner, Dynamic capital structure choice theory and test, journal of finance, vol, No1,March1989.

absence of transaction costs. Firms could carry a large amount of debt by the appropriate repurchase strategy capture large tax shield while keeping riskless debt.

In the paper the model resulting closed from solution of the value of firm's debt and equity as a function of its dynamic recapitalization decision. Result of the model closed from solution of the value of firm's debt and equity as a function of its dynamic recapitalization decision.

The model provided distinct prediction relating to firm's specific properties to the range of optimal leverage ratio smaller, riskier, low tax, low bankruptcy cost and firms will exhibit wider swings in their debt ratio over time. There is a necessity to develop more models that help in finding the optimal capital structure.

**Fatima Ben-Amar 2002<sup>1</sup>:** She studied the rules and procedures that are used to control the Algerian stock exchange markets transactions. The study takes into consideration a sample of four listed companies that exist in Algerian stock exchange market and also, used data collected from all reforms that are used to establish the Algerian stock exchange from time period of 1999 to 2000.

The main result indicated that Algerian stock exchange market has many economic problems that limit its development. The economic problems are caused by a social economic system that prevents many Algerian corporations to be listed on financial markets.

The Researcher in the study didn't focus on the data provided from the listed firms but, only discussed the rule and legal reforms of establishment.

# 1. Theoretical Frame work

# 1.1. Overview:

During the last two decades, the use of debt has increased significantly in all sectors of the economy-household, business and government. The increase in business debt has been attributed to managers to avoid financing crises. Different groups of investors prefer different types of security and investor's tastes change over time.

Financial managers offer a verity of securities and they pack their new securities offerings at each point of time to appeal to the greater possible number of potential investors.

The purpose is to introduce the basic concept of debt financing such as various definitions, different types of debts available to financial management and also explaining the alternative of long term debt. Debt financing are among the most important tools in corporate management system.

<sup>&</sup>lt;sup>1</sup> Fatima ben-Amar, Rules and Procedures that are used to control Algerian stock exchange markets transactions: master thesis, Tiaret university, 2002.

**1.2 Introduction to Debt Financing:** Debt financing is basically the money borrow for business purposes. You can think of debt financing as being subdivided into two categories, based on the type of loan you are seeking: long term debt financing and short term debt financing.

**1.2.1 Long Term Debt Financing:** Usually applies to the fixed assets such as equipment, buildings, land, or machinery. With long term debt financing, the scheduled repayment of the loan and the estimated useful life of the assets extends over a year.

**1.2.2Short Term Debt Financing:** Usually applies to money needed for the day-today operations of the business, such as purchasing inventory, supplies, or paying the wages of employees. Short term financing is referred to as an operating loan or short term loan because it scheduled repayment takes place in less than one year such as a line of credit.

**1.2.3Types of long Term Debt:** It is often called funded debt. When a firm "fund" it is short term debt this means that it replaces short term debt with securities of longer maturity funding<sup>1</sup>.

There are many types of long term debt instruments. In this section we briefly discuses the traditional long term debt instruments and examine some of their important features.

**1.3** *Bonds:* ' bonds are a debt instrument requiring the issuer or borrower to repay to the lender or investor the amount borrowed plus interest over some specified period of time"<sup>2</sup> which means, when a corporation need to borrow for a long term period, they issue corporate bonds, which usually promise the owner interest on a semiannual basis. The interest on bonds or loans is deducted from the income of the borrowing firms that cause the taxable income to be lower.

In bonds market every thing in bonds usually is constant or fixed such as par value or terminal value" present the face value.", coupon interest rate "present a document that carries the interest rate on the bonds" and finally the interest rate usually is an annual or semiannual. This will lead to a stable market price of the bond in the markets.

*Characteristics of Bonds:* Bonds can be described as negotiable, publicly traded, long term debt securities so; they are issued in various denominations by a variety of borrowing organizations. Bonds provide investors with two kinds of income: they

<sup>&</sup>lt;sup>1</sup>J. Fred Weston, Scott besly. Essential of managerial finance, eleven editions. The Dreyden Press, page 699. 1996.

<sup>&</sup>lt;sup>2</sup> Frank J, Fabozzi. Bonds markets analyzes and strategies, second edition, Prentice Hall international edition. 1993.

provide a generous amount of current income, and according to market environment they can also generate an amount of capital gain. Market prices of the bonds will respond to the change in the market interest rate and in an inverse manner provided that if the market interest rate decrease, then the market price of the bonds don't respond unless, if the new level of market interest rate after decrease will be below the coupon interest rate, then here the market price of bonds will increase, and vise versa in the contrary case. Therefore, the secondary market of bonds is usually weak everywhere.

Bonds are also a flexible investment outlet, "they can use conservatively, by those who seek high current income, or they can be used aggressively by those who go after capital gains"<sup>1</sup>.

Certain types of bonds can be used as tax shelter: Municipal obligations are perhaps, best known in this regard, because it offers one of the major advantages over all other bonds; "the interest earned on municipal bonds is exempt from federal taxes and also from state taxes if the holder is a resident of the issuing state"<sup>2</sup>.

Because the general high quality of many bonds issues "high degree of insurance", they can also be used for the preservation, and long term accumulation, of capital "that they will get their money back at maturity".

1.3.1 Types of Bonds Issues: there are many types of bonds issue

**A. Indexed bonds or purchasing power bonds**: the coupon interest rate of these bonds vary based on the inflation rate "direct price level", in order to protect the bondholders against inflation, the interest rate rises automatically when the inflation rate rises<sup>3</sup>. This type of bonds is popular in the countries plagued by high rate of inflations.

**B. Discount Bonds:** a bond with a market value lower than the par value or nominal value occurred when the market interest rate is greater than the coupon rate.

**C. Premium Bonds:** The bonds are sold at premium only if the market price of selling is above the nominal price in response to a decrease in the market interest rate below the coupon interest rate.

<sup>&</sup>lt;sup>1</sup> Frank J. Fabozzi. Bonds markets analyzes and strategies, second edition, Prentice Hall international edition. 1993. page 9

<sup>&</sup>lt;sup>2</sup> Eugen f. Brgham, Michael C. Eharhard. Financial Management theory and practice. Eleven edition. International student edition, page213.

<sup>&</sup>lt;sup>3</sup> Lavarence J Gitman, Micheal D, Johet. The investment environment fundamentally of investing, Eight Editions. Addison wisly. Page 377. 2000.

**D. Income Bonds**: it is a specific case in which the only source of income is the coupon interest rate. This bond is unsecured requiring that interest be paid only after specified amount of income is earned "pay interest only when the firms have sufficient income to cover the interest payment. These securities cannot bankrupt a company but from an investors point of view they are riskier than regular bond.

**E. Zero-Coupon Bonds:** These types of bonds have no coupon interest rate, but the return expected from investing in these bonds present a capital gain. Low coupons bonds are therefore issued at a deep discount from par value, but usually are sold at a premium. Those "bonds have advantage to the issuing firm by requiring low or no cash flow during low or no cash outflow during their life. Moreover, the firms are permitted to deduct the amortized discount as interest expenses for federal income tax purposes, even thought it doesn't pay interest"<sup>1</sup>.

**F. Debenture Bonds:** is an unsecured bond, it provides no lien against specific property as a security for the obligation. This bond is also called junior bonds which means debt obligation backed by the promise of issuer to pay the interest or the principal in a timely basis. Debentures holders are general creditors whose claims are protected by property not otherwise pledge. The use of this type of bonds depends on both the nature of the firm's assets and on its general credit strength. Usually the strong industrial companies will tend to use debentures.

**G. Mortgage Bonds:** present senior bonds by real estate "fixed asset" the word senior means that the debt obligation is backed by a legal claim on specific property of the issue.

**H. Junk Bonds:** a bonds that carry a high risk by default, is referred to as junk bonds. During 1980, this type of bonds became popular as firms desired debt financing to finance acquisitions; Some of the firms that were planning to use debt financing were perceived to have high risk, especially given the high proportion of debt in their capital structure and issued a new bonds with the junk quality rating but, in the same time that gave the investors the advantage of a relative high yield offered. The primary investors in junk bonds are life insurance companies and pension fund.

**I. Convertible Bonds:** other type of bond could be converted to a common stock so, the investors switch from a lender to an owner or from debt to equity.

<sup>&</sup>lt;sup>1</sup> Jeff madura. Financial markets and institutions. Thired edition, west publishing company, page208. 2001.

This conversion features offers investors the potential for high returns if the price of the firm's common stock rises. So according to this, investors are willing to accept a lower interest rate on this bond.

**J. Warrant Bonds:** are similar to convertible bonds, but warrant options can permit the holders to buy a stated number of shares of common stocks at a specified price. The holder of a warrant carries lower rate of interest.

# **1.3.2 Quality Rating:**

Professional money managers use various techniques to analyze information on companies and bond issues in order to estimate the ability of the issuer to live up to its future contract obligations.<sup>1</sup>

Bond rating is based on both qualitative and quantitative factors and it's like alphabettical letter grades. Some large institutions make analytical studies or credit analysis but only the professional rating institutions can express their opinions by using a system of rating. These companies are Moody's investor's services, Standard and poor corporation, Duff and Pheleps, Mc Carthey, Cresanti and Maffei, Fitch investor's service.

The highest grade is labeled as "Aaa", the next highest grade is "Aa" and the third grade is labeled as "A" and is super medium grade. The next three grades are labeled as "Baa", "Ba" and "B" are the medium grade.

# 2. Overview of Algerian Stock Exchange Market "La Bourse D'Algerie"

In the preceding section, we examine the types of long term debt, the indentures of bond contract and also quality rating.

In this section we define and examine the Algerian stock exchange market structure.

# 2.1 Historical Establishment of Algerian Stock Exchange:

Algerian stock exchange started in 1998 as a private and non profit institution with administrative and financial anatomy. Before that time, all Algerian firms were publically owner ship under the social economic system. Algerian government tends to change their economic system to capitalistic system, by changing some of the publically owned firms to private sector firms, according to the law reform established in 1988 and applied in 1990 by the creation of the first corporation with stocks

<sup>&</sup>lt;sup>1</sup> Frank.J, FabozziI, Bonds markets analyzes and strategies, second edition, Prentice Hall international edition page187

participations called "SVM" "societe des valeurs mobilier", which means securities organization, their capital was 320000 DA "Algerian dinar" and that this capital grew in 1992 to 9320000 DA.

The temporary law number 08 published in 25/04 of the year 1993 gave the permission to establish a financial market known as Algerian stock exchange market. The same law gave more recommendation in order to create the best area for this establishment<sup>1</sup>.

2.2 Administrative Regulation: The Algerian stock exchange staff is composed of:

- A board of Directors
- Chief executive officer.
- Heads and staff of departments and sections, but the administrative structure is as the following:

**Surveillance and Inspection Department:** directed by "COSOB" la commission d'organization et de survience des operations bourcieres, which means; surveillance and inspection commission,

This commission was established in 1993 by the temporary law number 93 of 23/05, surveillance and inspection commission "COSOB"  $^2$  the structure should be composed as follow: president of the department nominated by prime minister of finance for four years of services, and six numbers of non permanent employees nominated by the same method.

This department shall undertake the following tasks:

- Surveillances of trading operations executed on the Algerian stock exchange and assures their compliance with applicable legislations.
- Inspects Algerian stock exchange members and registrars to assure their compliance with regulation and instructions issued by the market.
- Receives and examines investor's complaints.

# *Legal Department:* the legal tasks are also provided by "COSOB"

- Gives legal advice to all departments in relation to all incoming and outgoing correspondence to and from Algerian stock exchange departments.
- Reviews all contracts and agreements concluded by the Algerian stock exchange.
- Participates in drafting instructions and regulations related to the markets.
- Executes court decisions passed with regards to securities.

<sup>&</sup>lt;sup>1</sup> Law number 8 publish 25/04/1993. journal official de la bouse algerianne. 2007. Establish Algerian stock exchange.

 $<sup>^2</sup>$  Law number 8 publish 23/05/1995. , journal official de la bouse algerianne , establish of surveillance and inspection commission COSOB. 2004.

• Follows up any cases made by or against the Algerian stock exchange.

**2.2.1** Administration and Finance Department: This department shall undertake the following tasks:

- Charge with the personnel affaires and trading.
- Performs financial and accounting tasks and prepare financial reports.
- Follows up on the Algerian stock exchange's public relations.

## 2.2.2 Finance Brokers or Intermediary Department:

Directed by "IOB" intermediaire des operations boursier, which means intermediary of stock exchange operations. The primary role of this commission is to facilitate the operations between the investors.

Usually, brokers will be the organization directed by the Algerian banks or insurance institutions as follow:

SOVICOM corporation owned by two banks and insurance institution; Algerian National bank "BNA", Development bank "BDL", Algerian insurance institution "SAA".

SPDM Corporation directed by; Algerian agriculture development bank "BADR", Algerian insurance institution "CAAR".

Union brokerage directed by two new brokerages corporations; US crowed affiliate corporation and Tunisian Afangi affiliate.

# 2.2.3 Algerian Capital Markets:

Capital markets are classified as primary or secondary markets. Primary markets are those in which the new issued securities are sold and bought. Whereas, secondary markets are the markets in which the previous issued securities are traded. This market includes also the bond market in which bonds issued are traded.

#### 3. Statistical analysis

We will apply a descriptive statistical method to test the questionnaire collected, which will test the impact of different factors such as "economic, lawfulness or social factors" on the choice of bonds financing as an alternative to direct long debt financing by Algerian corporations.

This information was collected from the distribution of a questionnaire to the sample of the study. This questionnaire provides an important information that help to determine the factors that effect Algerian corporations choice to issue bonds as an alternative to direct debt financing purposes. 130 questionnaires were distributed to financial departments officials, included "general director, finance director, staff of finance department employees" in each company.

The questioner respondents were 102 out of 130 distributed which represent 78.46% as follow:

Respondent	Number of questionnaire distributed	Number of questionnaire collected	Collected rate
Service sector	60	36	27.69%
Manufacturing	70	66	50.77%
Total	130	102	78.46%

#### Table 1: The Questionnaire Distributed and Collected from Algerian Companies

## 3.1. Instrument used:

Instrument used in study is the **descriptive analysis** from Statistical Package for Social Sciences "SPSS", which is used to test and analyze the questionnaire collected, and **one sample T-test** technique is used to test the hypothesis related to the questionnaire.

## 3.2 Instrumental Validity and Reliability:

At this stage a test of the questionnaire that was collected. The researcher used Reliability Alpha coefficient to test the reliability level of respondents on the questionnaire items and its ability to give consistent results of subject's respondent toward the items of questionnaire as follow:

## Reliability

Reliability Coefficients

Alpha = .8496

From this test we conclude that reliability level of the respondents on the questionnaire items equal to 0.8496.

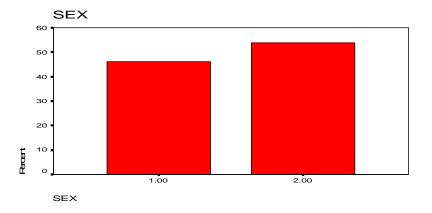
#### 3.3 The statistical analysis:

The following table (2-1) to (2-8) reports the properties of the sample according to their demographic profile.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Male	47	46.1	46.1	
Female	55	53.9	53.9	46.1
Total	102	100.0	100.0	100.0

 Table (2-1): Distribution of the respondents according to their gender

# Figure (1-1): Gender category distribution.



From table (2-1) and figure (1-1) show that the study subjects were males proportion represent 46.1% and female proportion present 53.9% this is topical as most companies' financial departments employees were female, also the female's proportion in the Algerian population exceed the male's proportion.

Table (2-2): Distribution of respondents according to their Age group

Valid	Valid Fraguency Dercont		Valid	Cumulative
Valid	Frequency	Percent	Percent	Percent
less than 30	31	30.4	30.4	30.4
years 30-40	35	34.3	34.3	64.7
years	22	21.6	21.6	86.3
40-50 years	14	13.7	13.7	100.0
More than 50	102	100.0	100.0	
Total				

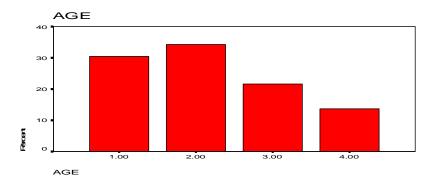


Figure (1-2): Age category distribution.

As shown in the table (2-2), and figure (1-2) it is noted that most of the study subject belongs to two different age group (30-40) years with a proportion of 34.3% and an age group less than 30 years with a proportion of 30.4% that will explain that most of older employees were retired.

Table (2-3): Distribution of the respondents according to their Education
Qualification group

Valid	Frequency	Percent	Valid	Cumulative
			Percent	Percent
College				
	11	10.8	10.8	10.8
Bachelor	47	46.1	46.1	56.9
Master	18	17.6	17.6	74.5
PHd	16	15.7	15.7	90.2
Others	10	9.8	9.8	100.0
Total	102	100.0	100.0	

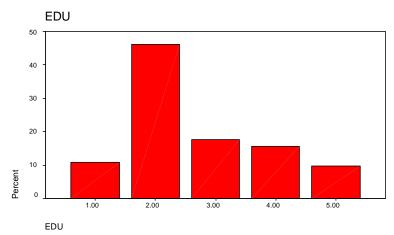


Figure (1-3): Education qualification category distribution

From table (2-3) and figure (1-3) it shows that the study subjects that are Bachelor degree holders represent a proportion of 46.1% this is explained by the large number of retired employees in the end of two past years, the proportion of employees that has a masters and PHd degree is respectively 17.6% and 15.7% occupies the highest work level in corporations. The employees that have college degree and others range between 9.8 to 10.8%.

r osition group				
Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Manager				
Department Head	2	2.0	2.0	2.0
Subordinate	9	8.8	8.8	10.8
Other position	11	10.8	10.8	21.6
Total	80	78.4	78.4	100.0
	102	100.0	100.0	

Table (2-4): Distribution of the respondents according to their current
Position group

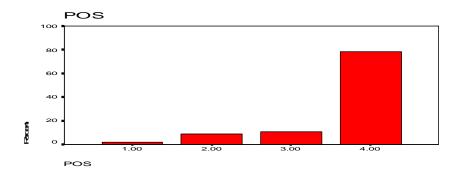


Figure (1-4): Current Occupation Status category distribution.

As shown in the table (2-4) and figure (1-4), it is noted that most of sample have "other positions" that actually represent the staff of the finance department are about "78.4%". Managers and Department heads represent respectively 2% "represent a new adopted position in Algerian companies" and 8.8% represent the employees of department heads, and 10.8 of the study subjects are subordinates in the finance department.

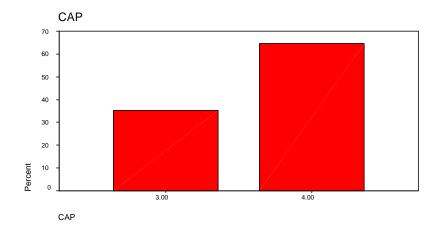
Table (2-5): Distribution of respondents according to their corporate
property group

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Algerian properties	102	100.0	100.0	100.0

This table we realize that the sample of this study involves the only Algerian properties companies.

 Table (2-6): Distribution of the respondents according to their company's total capital

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
15-30 Billion DA 30billion and over	36 66 102	35.3 64.7 100.0	35.3 64.7 100.0	35.3 100.0



# Figure (1-5): Present capacity of capital finance category.

From table (2-6) we show that the most capital of corporations range between 15 - 30 billion or 30 billion DA " Algerian Dinard" and over.

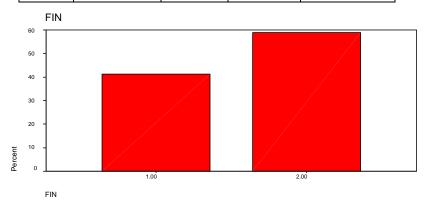
Valid	Frequency	Percent	Valid Percent	Cumulative Percent
No	102	100.0	100.0	100.0

Table (2-7): Distribution	of the respondents of	ecording to for	oign financing
$1 \text{ abit } (\underline{2} - 1)$ . Distribution	of the respondents at	coruing to ioi	eign maneing.

From table (2-7) we show that there are any Algerian companies finance conducting their investments through foreign markets.

 Table (2-8): Distribution of the respondents according to bonds financing group

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
	10	41.0	41.0	41.0
	42	41.2	41.2	41.2
No	60	58.8	58.8	100.0
	102	100.0	100.0	
Yes				



#### Figure (1-6): Capacity of Bonds financing category

From this table we show that the corporations that used financing through bonds issue represent 41.2% comparing to 58.8% don't used this financing instrument, because most of the Algerian corporations have no clear information about the benefits of investments through bonds issue.

100.0

	bonds issue						
Valid Frequency		Frequency	Percent	Valid Percent	Cumulative Percent		
	Between 10- 20%	24	23.5	23.5	23.5		
	Between 20-50%	78	76.5	76.5	100.0		

100.0

# Table (2-9): Distribution of the respondents according to their total rate of bonds issue

From this table we show that most corporations that used bonds financing have a rate of bonds issue to the total assets between 20-50% with a proportion of 76.5% and a proportion of 23.5% of rate bonds issue to the total assets with a range of 10-20% and over.

# Statistical results of hypothesis testing:

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To discuss this hypothesis we should know the study subjects attitude towards the different groups of questions.

✓ Economic Affect Analysis: This group includes eight questions.

From table (2-10) we conclude that the most economic factors that affect Algerian companies` choice of bonds financing instrument is the condition "E1" with the highest mean of "2.3039", by the answer of 48%. This condition encourages the Algerian corporations to use more bonds instrument in their financing process.

We also show that the second factor "E2" with a mean of 2.2941 concerned the preferences of using bond instrument by Algerian corporations as a result of commercial bank problems are rejected by respondents with a proportion of 47.1%.

60.8% of the respondents agree with the condition "E4" related to the decrease of market interest rate that lead to the higher prices of new issue than old bonds. Also the results show that respondents agree with the condition " $E_6$ " inflation problem causes the issue of bonds at fixed coupon interest rate" with a proportion of 53.9% but in the contrary of that only 33.3% of the respondents versus 34% agree condition "E7" related to the change in the exchange rate of Algerian dinar and their effect in the issue of bonds.

The results show that the standard deviation is not large, which indicates that the respondents have the same opinions.

Table (2-10): Economic effect-factors analysis						
No	Economic affect	Yes	No	Probably	Mean	Standard deviation
E1	Bonds issues from corporations are costly more than long term debt issue from commercial banks.	10.8%	48%	41.2%	2.3039	0.6569
E2	The commercial banks problems such as collateral caused the preference of issuing bonds.	11.8%	47.1%	41.2%	2.2941	0.6688
E3	Corporation has a limitation of obligation with bondholders rather than commercial banks	20.6%	42.2%	37.3%	2.1667	0.7457
E4	If interest rate decrease in bond market the new issue will be at higher price than old bonds	60.8%	12.7%	26.5%	1.6569	0.8773
E5	The issue of bonds instrument at flexible coupon interest rate allowed more flexibility in corporation's work.	52.0%	8.8%	39.2%	1.8725	0.9510
E6	Inflation problem cause issuing of bonds at fix coupon interest rate.	53.9%	7.8%	38.2%	1.8431	0.9510
E7	Corporation don't use bond instrument if exchange rate of Algerian dinar "DA" has a Possibility of fluctuation.	33.3%	34.3%	32.4%	1.9902	0.8144

✓ *lawfulness Affect Analysis:* These groups include three questions concerned with the effect of Algerian Stock Exchange. From table (2-11) we show that the third question adopted to the reform applied by Algerian stock exchange market to protect the listed firms has the highest mean of "2.39" by 41.2% of respondents subject don't agree with this question and 49.6% find that this probably exist. And the question with the lowest mean of "2.16" refers to the description of Algerian stock exchange as a mature market with a 49.6% of agreement probability.

The results also shows that in this groups of questions the standard deviation are not large, which indicates that the respondents have the same opinion.

No	lawfulness affect	Yes	No	Probably	Mean	Standard deviation
L1	Corporations find much legal problems to use bonds instrument	8.8%	50.6%	42.2%	2.3235	0.6319
L2	Algerian stock exchange is a mature and weak market.	25.5%	32.4%	42.2%	2.1667	0.8094
L3	Algerian stock exchange doesn't apply the necessary reform to protect listed corporations.	9.8%	41.2%	49.6%	2,3922	0.662

 Table (2-11): Lawfulness effect-factors analysis

✓ Social Affect Analysis: This group includes two questions, concerned with the effect on Algerian stock exchange. From table (2-12) we show that there is no large mean between the socials affect questions, and the standard deviation is not high, which indicates that the respondents have the same opinion.

The most respondents subject don't agree with the probability that the Algerian corporations don't use bonds instrument to avoid competition but, the respondents agree about 65.7% with the fact that the Algerian corporations could ignore the possibility to find profit fm using bond finance instrument which, means that there is no big difference between the long term debt finance and bond finance.

Table (2-13): Social effect-factors analysis							
No	Social affect	Yes	No	Probably	Mean	Standard deviation	
S1	Corporations ignore that the possibility to find profit from bond instrument is similar to long term debt instrument from commercial banks.	46.1%	15.7%	38.2%	1.9261	0.9194	
S2	Algerian corporation don't use bond instrument in order to avoid any competitions.	21.6%	65.7%	12.7%	1.9118	0.5820	

# Table (2-13): Social effect-factors analysis

#### **Conclusion and recommendation:**

This study provides the significant evidence that the Algerian stock exchange market was a mature and transparent market, moreover the Algerian economic systems are not constant noted the attempts to transition from social to capitalist economic systems that affect the development of the Algerian stock exchange market.

Furthermore, Algerian populations haven't got necessary information and knowledge about the different benefits of investing in the Algerian stock exchange markets and still until now investments are through commercial banks.

This study also reveals that there is an important slack that is preventing the growth of Algerian stock exchange which explained the lower number of participating corporations.

We conclude from the financial literature the importance of bond ratings to develop bond markets.

#### **Recommendations:**

Some recommendations were made such as:

- The necessity to provide integration of financial operation between financial market and commercial banks.
- Excessive efforts should be concentrated on developing and activating bonds market through encouraging bonds trading that will be important sources of debt finance.
- Encouraging the investors and developing the advertising techniques in order to provide more information and knowledge to the Algerian investors.
- Encouraging research in this topic which helps the management to take the best decisions.
- Take into consideration the importance of bond rating agencies and techniques in future research.

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