Al-GHAREE For Economic and Administrative Sciences Folder (16), No. (1) March, 2019.

The Internal Government Debt and its Impact on the Indices of Trading the Financial Market in Iraq for the Period (2012-2016)

Asst. Prof. Dr. Haider Younes Al-Mousawi
College of Administration & Economics
University of Karbala

Hussain Ahmed Al-Safi
Researcher

Abstract

Financial markets can be considered as basic pillars for the development of economic life. They activate the national economy because they are important in mobilizing national savings and guiding them in investment fields that support the national economy that leads to increasing the welfare of citizens. The importance of the study comes from the rapid and successive developments that the international financial markets achieved, which called for the need to keep cope with these developments by conducting accurate scientific studies on the reality of financial markets in developing countries in general and Arab countries in particular and identifying some economic variables that affect the performance and development of financial markets. As the financial markets in developing countries suffer from a great delay compared to the developed countries, it is necessary to find ways and means to help these markets to cope with developments in the international financial markets. From this point of view, this study aims at clarifying and revealing the effects of changes in internal government debt as an independent variable on the financial market trading indices (market value, trading volume and general index) as dependent variables. The study is based on the hypothesis that there is no relationship of effect and correlation with moral significance for internal government debt in the financial market through its trading indices.

Introduction:

The stock market plays an important role in economic life, as well as the most important channels that finance institutions in various sectors. The financial markets also activate the national economy because they are important in mobilizing national savings from savers and providing them to investors to finance their investments. Investment financing channels are referred to as women reflective of economic activity, in addition to the financial markets to find a database used by the researcher of high-return projects. The development of financial markets has historically been linked to the economic and industrial development witnessed by most countries in the world, especially the capitalist countries. As a result of

the correlation between the financial markets and the economy, the stability of the financial markets is a measure of the success of the general economic policies of the state. The indices of these markets are considered useful economic indices for trends in economic activity and to evaluate the performance of financial markets to reveal developments compared to other markets.

The financial markets are affected by many economic variables, so we will highlight one of these variables, namely the internal government debt. We will use the analytical methods of financial data related to these variables for a period of time to determine the degree of impact of this variable on the performance of the financial markets.

Problem of the Study:

The financial markets in developing countries suffer from a great delay compared to the developed countries. It is necessary to find ways and means to help these markets to cope with the developments in the international financial markets. Financial markets in these countries suffer from a clear weakness in their performance and their association with markets as well as the extent of their affect and impact on the different variables of the economy, which reflects the magnitude of the desired impact on the processes of advancement and reform in various financial and economic conditions. Consistent with the above, the problem of the study can be clarified by the following question: Does the internal government debt have an impact on the financial market trading indices which are used to measure the development of the financial markets?

The Importance of the Study

The importance of the study stems from the rapid and successive developments witnessed in international financial markets, which necessitated the need to keep abreast of these developments by conducting accurate scientific studies on the reality of the financial markets in developing countries in general and the Arab countries in particular and identifying some economic variables that affect the performance and development of financial markets. .

From this point of view, this study attempts to clarify and reveal the effects of changes in the internal government debt on the indices of trading the financial market.

The Hypothesis of the Study

The hypothesis of the current study is that there is a relationship of effect and correlation with moral significance of the internal government debt as an independent variable and the indices of the financial market trading as approved variables. As such, the following main hypothesis

was developed:

The absence of a relationship of effect and correlation with moral significance of the internal government debt in the indices of trading the financial market. This main hypothesis is divided into a series of sub-hypotheses:

1- There is no relationship of effect and correlation with moral significance of the internal government debt in the market value index.

2- The absence of relationship of effect and correlation with moral significance of the internal government debt in the volume index.

3- The absence of relationship of effect and correlation with moral significance of the internal government debt in the general index of the market.

Objectives of the Study

The objectives of the study are as follows:

1- Stating the importance of financial markets as one of the main indices to measure the development of economic activity.

2- Studying the reality of the financial markets in Iraq by studying their basic indices and the movements of these indices during the study period.

3- Knowing the reality of internal government debt in Iraq and its importance in dealing with various economic situations.

4- Stating the relationship of effect and correlation with the internal government debt in the indices of trading the financial market in Iraq.

The First Topic: Government Debt

First: The Concept of Government Debt and its Importance:

1. The Concept of Government Debt:

Government debt can be referred to as sovereign debt, public debt, or government debt (Gerleman, 2012: 4). The government debt is a source of government revenues. The government uses it to fund its various expenses and investments when its ordinary revenues, especially taxes and fees, are unable to cover them. Therefore, the government uses this to cover this deficit either by borrowing from the local economic sectors, and this may lead to increased government indebtedness in local currency (the internal government debt), or the government may borrow from abroad either from countries or from international financial institutions (such as the World Bank) or from international banks, which constitutes foreign indebtedness in foreign currency (external government debt). This is the total government debt (Zardaq, 2009: 191).

The definitions of the government's yen have varied according to the different angle in which they are seen. It has been defined as a balance of government commitments with different time limits, which the government is obliged to pay in accordance with a fixed timetable. These obligations and other government securities may be used by the government to pay its debts (Dippelsman, et al., 2012: 5). They are known as the funds borrowed by the government from individuals and institutions to meet emergency situations and to achieve different objectives when public revenues are not sufficient to cover public expenditures that these emergency conditions include (Gruber, 2011: 93), and defined by Hyman as money borrowed from internal or external sources used by the government for the purpose of financing government expenditures, through the issuance of government bonds or other government securities, in return for the government's pledge to repay these funds with interest payments due to them on a specified date in the future (Hyman, 2010: 430). Therefore, government debt is the sum of the government's borrowing from different sectors at the local and external levels due to the inability of its other resources to cover its public expenditures.

2. The Importance of Government Debt:

Most countries today, and on a large scale, resort to government debt in order to cover the deficit of their public budgets on one hand and to address some economic conditions such as inflation and deflation on the other hand. Government debt can be invoked to the extent that it can have benign effects on both the level of national income and its distribution and effective quantitative demand (Riet, 2010: 45). State and local governments issue government bonds to finance the infrastructure used for a wide range of purposes, such a: education, utilities, public buildings, hospitals, and transportation (Greer, 2013: 4). Government debt may be used for various reasons. Firstly, it is used to finance the budget deficit when the government is unable to meet its expenditure obligations. Second, the domestic debt shrank during the implementation of monetary policy through open market operations. Thirdly, debt instruments are important in developing financial markets. In order to develop and deepen financial markets, fixed supplies of a wide range of instruments are needed to be traded (Maana, et al., 2008: 5).

Second: The Types of Government Debt and its most Important Indices

1. Types of Government Debt:

Government debt is divided into two main types: domestic government debt and foreign government debt (Gerleman, 2012: 4). The

government uses a range of tools to implement government debt policy.

1.1. Internal Government Debt:

They are the amounts received by the state from natural or legal persons residing within its territory regardless of their nationality, whether citizens or foreigners. Internal public debt in public finance is defined as local public loans (Dawabah, 2016: 4), or what the state owes to its citizens, that is, when the state borrows internally and issues the bonds at home in its national currency and subscribes to them by the nationals and residents of the state, whether they are individuals or other economic units (Thawini, 2006: 139).

The methods of financing the internal government debt are determined according to the following sources: (Saeed, 2004: 53)

1.1.1. Borrowing from the banking system: represents borrowing from the central bank and commercial banks.

1.1.2. Borrowing from outside the banking sector: that is, from the public and non-bank intermediary financial institutions such as investment banks, development funds, insurance companies, pension funds, social security institutions, and other financial institutions through the government's offering of bonds and treasury bills.

1.2 External Government Debt

It is the money owed by the government to foreign lenders, either in the form of international organizations or other governments or groups such as sovereign wealth funds that invest in government bonds (Ishfaq, 2010: 2). This debt arises as a result of local resource deficits or inadequate national savings coverage the need for the required investments and the need of the state for hard currency. This gap must be covered by the state's recourse to foreign sources of finance by borrowing from individuals residing abroad from governments and from international financial institutions (Saeed, 2004: 53).

This portion of government debt can be classified as follows: (Kadhem, 2014: 25)

1.2.1 Debt arising from loans of international organizations.

1.2.2 Debt arising from contracts concluded by the state or one of its public enterprises with other states, institutions, companies, banks, traders or persons in those states.

1.2.3 Unclassified debt by debtor countries, which are loans belonging to the private sector, companies or persons directly without the intervention of the official organs of debtor states.

There are several aspects of the distinction between the internal and external government debt, including: (Abu Mustafa, 2009: 53)

1. The internal government debt does not represent any increase in the total national wealth. It is merely a redistribution of part of the wealth in favor of the State. The external government debt is actually increasing the total national wealth as it transfers part of the external wealth to the internal wealth.

2. The internal government debt does not affect the exchange rate or balance of payments because it is carried out in national currencies. The foreign government debt, which is denominated in foreign currencies, affects the national economy in general, as in the case of a deficit in the balance of payments of the borrowing country or in the case of lack of balance of the borrowing country of foreign currencies, which helps to accelerate economic development.

3. The internal government debt differs from the outside, in that the latter may lead to the consequences of a dangerous policy for the possibility of the lender intervening in the internal affairs of the borrowing State, or it may impose economic or social conditions on the borrowing countries such as those of the International Monetary Fund or the World Bank.

2. Government Debt Indices:

There are several indices to measure government debt. Some try to measure interest payments or the amount of debt, some of which refer to the composition of debt, that is the amount of external and domestic liabilities, fixed, variable and real liabilities, and the amount of short, medium and long-term debt. All of these indices are useful for determining the evolution of debt and the government's ability to pay. They provide specific indications about the deterioration or improvement of the government's position (INTOSAI, 2010: 9).

2.1 Debt to exports index

It reflects the total indebtedness index at the end of the year to the country's exports of goods and services and can be considered a sustainability index as the rise of this indicator shows that the debt is greater than the country's core foreign exchange resources and indicates that the country may face problems in meeting its obligations financial liabilities to creditors, and can be calculated as follows:(Kadhem, 2014: 28)

$$\text{Ratio of debt to exports} = \frac{\text{total public debt}}{\text{Exports}} \times 100$$

2.2 Debt to GDP Index:

They are measures the ratio of debt to GDP and reflects the ratio of total resources available to debt service through the transfer of resources from the production of domestic goods to export production. This percentage is within the limits of safety if it does not exceed 60%. We have reached the stage of a serious crisis and can be measured by the following law: (Omar, 2003: 9)

$$\text{Ratio of debt to GDP} = \frac{\text{total public debt}}{\text{GDP}} \times 100$$

2.3 Debt Index to Local Income:

This indicator measures the level of indebtedness with respect to the government's ability to repay. It shows the number of years required to pay the total debt balance. A fixed ratio of debt to GDP may produce different results, regarding that this ratio reflects the size of the country by showing the Government's potential revenue-earning in relation to the debt burden. (INTOSAI, 2010: 9)

2.4 Reserve to Short Debt Index:

It is a liquidity indicator of the size of foreign exchange reserves at the disposal of monetary authorities to short-term debt stocks. If the reserve ratio is less than the debt, the country with high indebtedness is considered and can be calculated as follows: (Kadhim, 2014: 29).

$$\text{=Ratio of reserve to public debt} \frac{\text{Reserve of currencies}}{\text{Public debt}} \times 100$$

The Second Topic: Financial Markets

First: The Concept of Financial Markets and their Importance

1. The Concept of Financial Markets

Financial markets transfer money from those who have surplus to those who need money. By enabling individuals and families to obtain loans and businesses to finance their growth and governments to finance many of their expenses (Madura, 2010: 3), financial markets can be defined as the mechanism that brings together people and organizations that need money with units that have surplus money (Brigham & Ehrhard, 2014: 27), or a mechanism that is managed by market members and specialized brokerage firms to bring together sellers and buyers to exchange a particular security or financial asset (Elton & Gruber, 2014: 30-31), and it was defined also as the mechanism through which money is transferred from people who have surplus funds to people suffering from a deficit of funds (Mishkin & Eakins, 2012: 2).

2. The Importance of Financial Markets

Financial markets have been very important in the financial field and are playing a pivotal role in the economies of the countries. It is the link in facilitating the flow of funds from savers to investors by providing an institutional mechanism for mobilizing domestic savings to efficiently channel them towards productive investments (Madura,2010:3-5), The presence of financial markets facilitates the circulation of short-term debt instruments to meet short-term needs for adult users of funds such as governments, banks and institutions. Treasury bills and similar securities are examples of financial instruments traded in the money market (Jalloh, 2009: 1). A wide range of financial institutions, commercial banks, the central bank and others operate in the money market to take advantage of various financial instruments to increase short-term investment term, which, if necessary, can be quickly liquidated to meet short-term needs, and unlike the cash market, the capital market mobilizes long-term debt and long-term financing. It also helps to strengthen the financial structure of companies and improve the financial solvency of the financial system (Jalloh, 2009: 1). In fact, the stock market is often considered the main indicator of economic strength and country development. Rising stock prices, for example, are associated with increased investment in business, and vice versa. Stock prices also affect the wealth and consumption of individuals. Central banks therefore tend to remain vigilant to monitor the behavior of the stock market and, in general, to improve the functioning of the financial system (Aduda, et al., 2012: 215).

Second: Classification of Financial Markets and the most Important Indices

1. Classification of Financial Markets

1.1 Money Market:

This is the most important market segment of the financial market, because it facilitates the flow of short-term funds that mature within one year or less (Madura, 2010: 4), which allows the opportunity to finance or handle economic situations at an appropriate time. Thus, this market plays a big role for governments and monetary policy implementers in the country. The security is here as an instrument of indebtedness that gives the holder the right to recover a sum of money that has already been lent to another party and can be disposed off at any time without loss in view of the guarantee of the payment process, which may be intended to cover temporary incapacity in economic units and through them, it is possible to direct some temporary surpluses to some units, investing them temporarily or short-term, and achieving appropriate returns and eliminating the risks of their retention (Rose & Marquis, 2008: 12).

1.2 Capital Markets:

These are markets that facilitate the long-term flow of funds (Madura, 2010: 4), the capital market is one of the most important types of financial markets designed mainly for long-term financing needs of different economic units. The large role of these markets can be understood by their large capacity to mobilize the unemployed and emancipated resources and turn them into productive investments that help raise the rates of production and national income (Rose & Marquis, 2008: 12). Capital markets are divided into:

1.2.1 Primary Markets:

These facilitate the issuance of new securities, and primary market transactions that provide funds to the primary source of securities (Madura, 2010: 4).

1.2.2. Secondary Markets:

It is the market in which the securities issued in the primary market are traded, as securities are sold and bought for different purposes (Howells & Bain, 2007: 146). The success of the initial market is linked to the success of the secondary market, which facilitates the trading of securities, which makes these instruments more liquid. The liquidity of these securities makes them more desirable, thus increasing their volume and helping the entity to manage its new issuance in the primary market. The price of the new issues is determined by the placement of the instruments on the secondary market (Madura, 2010: 4). There are two secondary markets: organized markets, and the unregulated or parallel market (OTC) (Grinblatt & Titman, 2002: 73).

1.3 Derivatives markets:

In recent decades, there has been a significant development in the financial markets through the growth of derivatives markets. Derivatives are called by this name because they are derived from the value of other assets such as commodity prices, bond and stock prices or financial market indices. This is why they are called derivative assets, yet their most important types are future contracts, forward contracts, options, and swaps (Bodie,et al., 2014: 51). Derivatives can be used for hedge, speculative or arbitrage, and they play a major role in transferring a wide range of risks in the economy from one entity to another (Hull, 2014: 1).

2. Stock Market Performance Indices:

To measure the performance of financial markets, there are a number of indices that reflect the degree of development and progress of the market, the most important ones are:

2.1 Market Size: It is represented by two indices: the market value index and the number of companies index. The market capitalization represents the total value of shares listed on the market multiplied by the average prices at the end of the period (Pajuste, 2002: 4-5). The number of companies represents the number of companies listed in the financial markets as their increase reflects the development of the financial market (Talib, et al., 2016: 198).

2.2 Market liquidity: The turnover rate is an important indicator that measures the liquidity of the capital market and uses the high turnover rate often as an indicator that the cost of completing financial transactions is low. It is important that large stock markets are not necessarily large liquid markets. Large but inefficient markets will have large market value and small turnover (Levine & Zervos, 1996, 540-541). Market liquidity is measured by two main indices: volume index and the rate of stock turnover, and we will clarify both:

- Volume Index: This indicator represents the value of shares and bonds traded at different prices in a certain period of time and is also measured by dividing the total shares traded on GDP as this indicator reflects liquidity in the economy in general and is used to obtain safe and accurate information on the financial market (Talib, et al., 2016: 198-199).

- Stock turnover: represents the percentage of the trading of shares of a particular company or group of companies within the same sector within a certain time period. To extract this indicator, the following formula is used: (Pajuste, 2002: 6-7)

$$\text{Stock Turnover} = (\text{Total Shares Traded} / \text{Market Value}) \times 100$$

2.3 General Index of Stock Prices: This index is of great importance to all traders in the financial market for its importance in determining investment decisions for investors in the market, this index consists of the prices of a group of shares that use a measure of the general movement of the market with the presence of a number of indices in each financial market (Talib, et al., 2016: 199).

The Third Topic: Measurement and Analysis of the Impact of Internal Government Debt in the Indices of Trading the Financial Market

First: Characterization of the Economics Model

The study includes a number of variables which have been characterized as follows:

1. Independent Variables:

The study includes an independent variable. It is the internal

government debt (x).

2. Dependent Variables (Approved):

They are represented by financial market variables: the market value (y1), trading volume (y2) and general index (y3).

Second: Formulation of the Economics Model

The results of the study have been subjected to measurement and analysis. The Statistical Package for Social Sciences (SPSS) is used in its 21st version. Central tendency indices have been extracted as descriptive statistics, represented by the arithmetic average and Standard Deviation for all variables. In order to determine the relationship between the independent variables and the dependent variables, Pearson's Correlation Coefficient is measured to determine the strength and direction of the correlation. The t-test is used to test correlation significance. To measure the effect of the independent variable in the dependent variables, simple regression analysis is used to determine the effect of the independent variable in any of the variables based on the following equation:

$y = \beta_0 + \beta_1 x + ei$

As:

Y = the dependent variable

B_0 = Fixed Constant or Intercept

B_1 = slope of *y* on independent variable

ei = represents the standard error or random error of the estimated model

The significance of the effect has been tested in terms of F-test, as the effect of the independent variable has been measured in the variable used in terms of the value of the (R^2) parameter, which measures the amount of variation in the variance of the variable adopted because of the independent variable effect.

Third: Measuring and Analyzing the Effect of the Internal Government Debt in the Indices of Trading the Financial Market

Based on the data on the variables related to Iraq as shown in Table (1), the following results were obtained:

1. Monthly Data for the Variables of Study in Iraq

Table (1) Monthly data for the variables of study

General Indicces	Trading Volume (million ID)	Market Value (million ID)	Internal Government Debt (million ID)	months
1216.60	41186.0	4583636	7157759	**2012/1**
1223.60	81738.0	4651340	7101269	**2012/2**
1223.30	65006.0	4740503	7051269	**2012/3**
1180.60	84983.0	4426649	7051279	**2012/4**
1155.30	86834.0	4350158	7030569	**2012/5**
1160.50	67946.0	4219439	6880569	**2012/6**
1142.20	89891.0	3949622	6880549	**2012/7**
1178.10	40711.0	4122392	6880539	**2012/8**
1174.90	48993.0	4291035	6680539	**2012/9**
1191.20	63981.0	4478751	6647529	**2012/10**
1250.60	117235.0	4855564	6647529	**2012/11**
1250.20	105321.0	5597363	6647519	**2012/12**
1226.50	99246.0	5758608	6527519	**2013/1**
1232.70	1702487.0	11558433	4582519	**2013/2**
1195.70	232054.0	11521283	4562529	**2013/3**
1204.80	68408.0	11689787	4545529	**2013/4**
1217.80	197438.0	11718353	4495529	**2013/5**
1170.50	156499.0	12078425	4445529	**2013/6**
1164.40	95910.5	11349302	4615529	**2013/7**
1185.70	88712.0	11500926	4585529	**2013/8**
1138.90	29535.0	11382301	4455539	**2013/9**
1153.60	83660.7	11506519	4455549	**2013/10**
1142.80	48041.0	11444119	4405549	**2013/11**
1131.50	38229.0	11451367	4255549	**2013/12**
1125.60	27513.0	11534114	4205549	**2014/1**
1093.70	94750.0	11536228	4692549	**2014/2**
1073.60	124597.0	11687252	4542529	**2014/3**
1105.80	71050.0	11935549	4836369	**2014/4**
1108.80	37027.0	12138074	5811869	**2014/5**
954.80	146123.0	9793973	6211869	**2014/6**
936.60	83052.0	9470318	6658869	**2014/7**
1001.40	111942.0	10390915	7463869	**2014/8**
1002.00	69622.0	10427466	7363869	**2014/9**
999.10	37642.0	9421598	7020019	**2014/10**
1079.30	42528.0	9205538	6520019	**2014/11**
920.00	55326.0	9520626	9520019	**2014/12**
998.30	15816.0	8781758	16030411	**2015/1**
874.32	38013.0	7678863	16725411	**2015/2**
900.90	61996.0	8708366	20150803	**2015/3**
870.03	40650.0	8317685	20050803	**2015/4**
967.37	56979.0	8539866	19575303	**2015/5**
1000.50	59695.0	9977757	19075303	**2015/6**
903.40	31136.0	9319936	19075303	**2015/7**

872.30	30513.0	9187522	20440623	**2015/8**
844.90	11584.0	9018088	20453718	**2015/9**
781.56	63867.0	8757658	20453898	**2015/10**
718.64	27280.0	8673130	21238348	**2015/11**
730.56	18650.0	8503943	32142805	**2015/12**
638.54	30924.0	7964158	34142805	**2016/1**
621.93	27936.0	7942827	36542815	**2016/2**
579.86	52836.0	7212079	37942825	**2016/3**
551.22	23455.0	7017852	38390155	**2016/4**
510.23	37787.0	6601051	38534287	**2016/5**
539.47	32167.0	6692338	41336566	**2016/6**
568.77	39197.0	6859508	42197762	**2016/7**
560.73	16137.0	6842243	42877762	**2016/8**
561.01	10210.0	7299342	43910951	**2016/9**
604.50	29214.0	7550350	45195451	**2016/10**
636.28	66551.0	7415719	45383451	**2016/11**
649.48	60373.0	7314526	47362251	**2016/12**

The table is prepared by the researcher based on:
- Economic and statistical data of the Central Bank of Iraq.
- Annual statistical publications of the Central Bank of Iraq.

Note: The general index has been modified during the period (1/2012 - 12/2014) from 100 points to 1000 points, which was implemented in 2015, in order to reach the correct results.

2. Descriptive Characteristics of the Variables of the Study:

The following table shows the main descriptive characteristics of the study variables:

Table (2) The descriptive characteristics of the study variables in Iraq

Variables	N	Minimum	Maximum	Mean	Std. Deviation
x (Internal Government Debt)	60	4205549	47362251	15877775.40	14199784.039
y1(Market Value)	60	3949622.0	12138074.0	8442754.733	2586713.0799
y2(Trading Volume)	60	10210.0	1702487.0	91969.720	215805.0319
y3(General Index)	60	510.23	1250.60	973.2916	236.01315

3. Relationship of the Effect and Correlation of the Variable of the Internal Government Debt to the Market Value

Correlations

		Market Value	Internal Government Debt
Pearson Correlation	Market Value	1.000	-.257-
	Internal Government Debt	-.257-	1.000
Sig. (1-tailed)	Market Value	.	.024
	Internal Government Debt	.024	.
N	Market Value	60	60
	Internal Government Debt	60	60

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.257[a]	.066	.050	2521155.4703	.066	4.108	1	58	.047

a. Predictors: (Constant), Internal Government Debt
b. Dependent Variable: Market Value

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	26112944388989.250	1	26112944388989.250	4.108	.047[b]
	Residual	368661044518490.700	58	6356224905491.219		
	Total	394773988907479.940	59			

a. Dependent Variable: Market Value
b. Predictors: (Constant), Internal Government Debt

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9186646.635	490546.307		18.727	.000
	Internal Government Debt	-.047-	.023	-.257-	-2.027-	.047

a. Dependent Variable: Market Value

The statistical output of the relationship between the internal government debt and the market value indicates the following simple linear correlation equation:

$y1 = 9186646.635 - 0.047x$

The parameters of the relationship are as follows:

$r = -0.257$

Calculated $t = 2.027$

$R^2 = 0.066$

Calculated $F = 4.108$, P value $= 0.047$

We draw from the above outputs the following facts:

a. The value of the correlation coefficient (r) between the internal government debt and the trading volume was (-0.257). It is a weak negative correlation value, and in terms of the value of β_1, the change in the internal government debt is one unit, which is offset by an adverse change in the market value of 0.047.

b. The probability value of the relationship between the two variables was (0.047), which is less than the probability at the level of (5%). This was reinforced by the calculated value t, which showed a value of (2.027) greater than the value of t tabular (2,000) Link

between internal government debt and market value.

. The value of the R Square is 0.066. This indicates that the internal government debt alone is capable of explaining (6.6%) of the variance in the variable market value. The calculated value of F, which showed a value of (4.108) greater than the value of the table F (4.00) to the significance of this effect at the level of (5%).

. The results indicate the rejection of the first sub-hypothesis of the main hypothesis, and the acceptance of the alternative hypothesis which states that (there is a relationship of effect and correlation with moral significance for the internal government debt in the market value index).

3. Relation of the Effect and Correlation of the Variable of the Internal Government Debt to the Volume of Trading:

Correlations

		Volume of Trading	Internal Government Debt
Pearson Correlation	Volume of Trading	1.000	-.198-
	Internal Government Debt	-.198-	1.000
Sig. (1-tailed)	Volume of Trading	.	.064
	Internal Government Debt	.064	.
N	Volume of Trading	60	60
	Internal Government Debt	60	60

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df2	Sig. F Change
1	.198[a]	.039	.023	213330.1880	.039	2.377	1	58	.129

a. Predictors: (Constant), Internal Government Debt
b. Dependent Variable: Volume of Trading

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	108170287641.231	1	108170287641.231	2.377	.129[b]
	Residual	2639566607780.800	58	45509769099.669		
	Total	2747736895422.040	59			

a. Dependent Variable: Volume of Trading
b. Predictors: (Constant), Internal Government Debt

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	139847.709	41508.085		3.369	.001
	Internal Government Debt	-.003	.002	-.198	-1.542	.129

a. Dependent Variable: Volume of Trading

Based on the statistical output of the relationship between the internal government debt and the volume of trading, the following simple linear correlation equation is achieved:

Y2 = 139847.709- 0.003x

The parameters of the relationship are as follows:

R = -0.198

Calculated t = 1.542

R^2 = 0.039

Calculated F = 2.377

P value = 0.129

We draw from the above outputs the following facts:

1. The value of the correlation coefficient (r) between the internal government debt and the trading volume was (-0.198). It is a weak negative correlation value, that is, any change (increase or decrease) in the value of the internal government debt is offset by a change in the value of trading volume B_1, the increase in the internal government debt is one unit, offset by a slight decrease in the volume of trading is (0.003).
2. The probability value of the relationship between the two variables was (0.129), which is higher than the probability at the level of (5%). This was reinforced by the calculated value t, which showed a value of (1.542) smaller than the value of t tabular (2,000). This shows that the correlation between the internal government debt and the volume of trading is insignificant.
3. The value of the R Square is 0.039. This means that the internal government debt alone accounts for only 3.9% of the variation in the volume of trading, reflecting the small effect of debt in the volume of trading. The calculated F value, which showed a value of (2.377) smaller than the periodic value of F (4.00), indicates that this effect is insignificant.
4. The results indicate the acceptance of the second sub-hypothesis of the main hypothesis, which states that "there is no significant correlation between the internal government debt and the volume index."

5. Relationship of the Effect and Correlation of the Variable Internal Government Debt in the General Index

Correlations

		General Index	Internal Government Debt
Pearson Correlation	General Index	1.000	-.937-
	Internal Government Debt	-.937-	1.000
Sig. (1-tailed)	General Index	.	.000
	Internal Government Debt	.000	.
N	General Index	60	60
	Internal Government Debt	60	60

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.937[a]	.878	.876	83.08105	.878	418.124	.000

a. Predictors: (Constant), Internal Government Debt
b. Dependent Variable: General Index

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2886087.541	1	2886087.541	418.124	.000[b]
	Residual	400342.745	58	6902.461		
	Total	3286430.286	59			

a. Dependent Variable: General Index

b. Predictors: (Constant), Internal Government Debt

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1220.599	16.165		75.508	.000
	Internal Government Debt	-1.558E-05	.000	-.937	-20.448	.000

a. Dependent Variable: General Index

Based on the statistical output of the relationship between religion and general index, the following simple linear correlation equation is achieved:

y3 = 1220.599- 0.000015x

The parameters of the relationship are as follows:

R = -0.937

Calculated t = 20.445

R^2 = 0.878

Calculated F = 418.124 , P value = 0.000

We draw from the above outputs the following facts:

1. The value of the correlation coefficient (r) between the internal

government debt and the general index was (0.937), which is a high negative correlation value. Any change (increase or decrease) in the value of the internal government debt is offset by a change in the value of the general index, with B_1, the increase in the internal government debt is one unit offset by a decrease in the general index of (0.000015).

2. The probability value of the relationship between the two variables was (0.000), which is less than the probability of 1%. This was reinforced by the calculated value t, which showed a value of (20.445) greater than the tabular t value (2.066). This shows the significance of the correlation between the internal government debt and the general index.
3. The value of the R Square is 0.878. This means that the internal government debt alone accounts for 87.8% of the variation in the general index. The calculated F value, which showed a value of (418.124) greater than the value of the tabular F (7.08) to the significance of this effect at the level of (1%).
4. The results indicate rejection of the third sub-hypothesis of the second main hypothesis, and accept the alternative hypothesis, which states (the existence of a relationship of effect and correlation with moral significance of the internal government debt in the general index).

The Fourth Topic: Conclusions and Recommendations

First: Conclusions

Through the theoretical review and analysis of the actual data the study reached a set of conclusions we can summarize the most important in the following points:

1 - The internal government debt is of great importance to most countries of the world and resorted to the government to cover the deficit of its public budgets on one hand, and to address some economic conditions such as inflation and deflation on the other hand.

2 - The data shown in Table (1) of the indices of trading in the financial market in Iraq, the increase of these indices during the months of January and February 2013, and this increase due to the exclusion of companies written off and weak trading and the inclusion of new companies representing the telecommunications sector in the Iraqi market for securities, the avoidance of weak trading companies and the addition of new companies in the financial markets has a positive impact on the performance of those markets.

3- We note that the index of internal government debt in Iraq has a

positive impact on the index of trading the Iraqi market for securities, because it affected the two indices of the financial market (market value and general index) out of three indices, and generally we can say that the index of government debt in Iraq has a positive impact on the performance of the financial market.

Second: Recommendations

1 - Government should direct and manage the internal government debt not only to address the budget deficit, but to stimulate the economic sectors across the financial market channel to raise the level of performance of those markets, which is considered a woman reflective of the economy.

2 – There is a need to carry out a periodic evaluation of the movement of indices of companies listed in the financial market to write off and exploit the weak trading companies on one hand, and the inclusion of indices of new companies on the other hand.

3- There is a need to conduct further studies and research on this subject and other financial markets, and to study the impact of other economic and financial variables in the indices of trading the financial market, so that the results of the process contribute to the performance of financial markets.

The References:

First: Arab Sources

Books:

0. Talib, Alaa Farhan, Al-Mousawi, Haidar Younis and Faiz, Mohammed, Introduction to Financial Institutions Management, First Edition, Karbala Center for Studies and Research, Holy Karbala, 2016.
0. Zardak, Ahmed Abdel Rahim, Public Debt and the Public Budget Deficit in Egypt, V1, Jerusalem Library, Egypt, 2009.

Dissertations and Theses:

0. Abu Mustafa, Mohamed Mustafa, Role and importance of external financing in covering the permanent deficit of the Palestinian National Authority budget comparative analysis of the period from 1990 to 2008, Master Thesis submitted to the Faculty of Commerce, Islamic University, Palestine, 2009.
0. Kadhem, Haidar Jawad, Measuring the impact of public debt in some economic variables in selected Arab countries - a study for the period (2001-2011), thesis presented to the Council of the Faculty of Management and Economics / University of Kufa, 2014.
0. Said, Afra Hadi, Central Bank and government borrowing, a thesis presented to the Council of the Faculty of Management and Economics, University of Baghdad, 2004.

Journals and Periodicals:

0. Dawaabah, Ashraf Mohamed, "The Crisis of the Egyptian Public Debt: An Analytical Perspective," Egyptian Institute for Political and Strategic Studies, July 26, 2016.
0. Thawini, Falah Hassan, the problem of external indebtedness causes and effects, Iraqi Journal of Economic Sciences, No. 10, 2006.

Conferences

1. Omar, Mohamed Abdel Halim, Public Religion (Concepts - indices - Impacts) Applied to the State of Egypt, Symposium: Public Debt Management, Al - Azhar University, Cairo, Egypt, 21 December 2003.

Reports:

1. Annual statistical publications of the Central Bank of Iraq.
2. Economic and statistical data of the Central Bank of Iraq.

Second: Foreign Sources

Books:

0. Bodei, Zvi, kane, Alex & Marcus, Alan J., investment, McGraw–Hill/Irwin, 10th Edition, 2014.
0. Brigham, Eugene F. & Ehrhardt, Michael C., Financial Management: Theory and Practice, 14th Edition , South-Western, Cengage Learning, USA,2014.
0. Elton, Edwin J., Gruber, Martin J., Brown, Stephen J. & Goetzmann, William N., Modern portfolio theory and investment analysis, 9th Edition, USA, Wiley, 2014.
0. Grinblatt, Mark, Titman, Sheridan, Financial Markets and Corporate Strategy, 2nd Edition, McGraw-Hill/Irwin, 2002.
0. Gruber, J.,Public Finance and Public Policy, 5th Edition, New York, Worth Publishers, 2016.
0. Howells, Peter & Bain, Keith, Financial markets and institution, 5th Edition, USA, Prentice Hall, 2007.
0. Hull, Johan C., options, Futures and Other Derivatves, prentice hall, New York, 2014.
0. Hyman, David N. , Public Finace" Acontemporary Application of Theory to policy",10th Edetion , South-Weslevn,Cengage learning, Washonyen, 2010.
0. Madura, Jeff, Financial Markets and Institutions, 9th Edition, South-Western, Cengage Learning, 2010.
0. Mishkin, Frederic S., Eakins, Stanley G., Financial Markets and Institutions, 7th Edition, USA, Prentice Hall, 2012.
0. Rose, Peter S. & Marquis, Melon H., Money and Capital Markets, 10th Edition, McGraw-Hill/Irwin, New York, 2008.

Thesis:

0. Gerleman, Wendela J., The Stock Market And Government Debt: The Impact Of Government Debt Changes On Stock Market Movements, Bachelor Thesis Within Economics, Jonkoping University, 2012.
0. Greer, Robert A., Three Essays On Local Government Debt, A Dissertation Submitted In Partial Fulfillment Of The Requirements For The Degree Of Doctor Of Philosophy In The Graduate School , University Of Kentucky,2013.

Journals & Articles:

0. Aduda, Josiah, Masila, Jacinta M.& Onsongo, Erick N., The Determinants of Stock Market Development: The Case for the Nairobi Stock Exchange, International Journal of Humanities and Social Science, Vol. 2 No. 9, May 2012.
0. Levine, Ross, Zervos, Sara, Stock Markets, Banks, and Economic Growth, American Economic Review, Vol. 88, No. 3. ,Jun., 1998.
0. Pajuste, Anete, Corporate Governance and Stock Market Performance in Central and Eastern Europe: A Study of nine countries, 1994-2001, seminar in "Corporate Governance in Transition", Stockholm School of Economics, 15 April, 2002.
0. Riet, Van, Euro area fiscal policies and the crisis, Occasional Paper Series, No 109, ECB, Frankfurt am Main, April 2010.

Conference:

0. Maana, Isaya, Owino, Raphael & Mutai, Nahashon, Domestic Debt And Its Impact On The Economy – The Case Of Kenya, Paper Presented During The 13th Annual African Econometric Society Conference In Pretoria, South Africa From 9th To 11th July, 2008.

Reports:

0. Dippelsman, Robert, Dziobek, Claudia & Mangas, Carlos, IMF Staff Discussion Note, What Lies Beneath:The Statistical Definition Of Public Sector Debt, July 27, 2012.

Internet:

0. INTOSAI, Debt Indicators, INTOSAI Professional Standards Committee, 2010.

http://www.wgpd.org.mx/anexos/160211/debtind_i.pdf.

0. Ishfaq, Mohammad, Public Debt Measures and Management Strategy, Economic Papers Series, Department of Finance، Government of Dubai, Paper No.(3), 2010.

http://www.dof.gov.ae/enus/publications/Lists/ContentListing/Attachments/58/paper%20no%203.pdf.

0. Jalloh, Mohamed, The Role Of Financial Markets In Economic Growth, Waifem Regional Course On Operations And Regulation Of Capital Market, Accra, Ghana, July 27 – 31, 2009.

http://www.waifemcbp.org/v2/dloads/THE%20ROLE%20OF%20FINNCIAL%20MARKET.pdf.