THE IMPACT OF ISSUING TREASURY BILLS ON PRIVATE INVESTMENT IN EGYPT

MOHAMED SALAH YOSSEF

PHD candidate, Cairo Univeristy
E-mail: afifim@ipa.edu.sa

Abstract- The study aims to verify the hypothesis that the treasury bills crowding out private investment in obtaining credit from the Egyptian capital market, the study use the methodology of the co-integration and Error Correction Model (ECM) to test this hypothesis in the short and long run. It found that after conducting analysis that the treasury bills crowding out private investment in the short run, and integrates with it in the long run. The study concluded by a number of recommendations as depending on appropriate policies: monetary policy, fiscal policy, and investment policy, first, to stimulate domestic savings, second, development of the treasury bills market, and draw in the framework of banking policy to decrease the phenomenon of "lazy banking" on Egypt .

Keywords- private investment, treasury bills, lazy banking, Egypt.

I. INTRODUCTION

The Egyptian government has fiscal deficit like most countries, starting from the year 1991 the government issued treasury bills to finance part of its budget deficit, it was designed to reduce inflation rates resulting from the finance of the deficit monetary expansion, as the government aims to face the liquidity problem with the banking system to provide a financial tool used part of that liquidity accumulated by the banking system.

As the Egyptian economy suffers from a decline in the annual rate of economic growth, it generates the need for increasing private investment rate, as the growth rate determined by public and private investment size, but private investment is funded by the capital market. The weakness of the budget's capacity public to the expansion of public investment and low efficiency in most of the public investment currently. Moreover, private investment which is funded by the capital market is determined by the ability of this market to provide adequate and low-cost financing, the government plays an important role in creating a supply-side and demand in this market.

Treasury bills and private investment are funded from the capital market in the economy, and in the Egyptian experience, the issuance of treasury bills during the period of their publications to finance the budget deficit must define their relationship with private investment. The paper's goal is to help the financial authorities in determining the impact that resulted from this style of finance on private investment and thus economic growth.

The standard analysis conducted by the study aims to determine the direction of that relationship in the short and long run, and it also aims to analyze the economic measurement results regarding the form and direction of the relationship between the variables and provide theoretical explanation of what it measures in the light of the conditions of the deficit in the general budget in the case of the lazy bank in the Egyptian banking system.

The results of economic measurement help us to propose recommendations to help reduce the competition between the private and the issuance of treasury bills to invest in the Egyptian economy, meaning it will work on the harmonization of financing the budget deficit considerations and the provision of adequate funding for private investment that generates economic growth.

II. RECENT STUDIES ON RELATION BETWEEN BUDGET DEFICIT, ISSUING TREASURY BILLS AND PRIVATE INVESTMENT IN EGYPT

It has been focused on the study of (Imad Abdul Latif --2006) tested the effect of competition and the impact of integration in the government bond market with private sector investment in the Japanese economy, and to determine whether the relationship during the period from 1998 and 2006 to determine the feasibility of issuing such bills. Having concluded that the Japanese finance the budget deficit by issuing treasury bonds did not crowd out the private Japanese investment but on the contrary integrated. It has attributed this integration of the sensitivity of interest changes in the amount of the Japanese budget deficit, and the integration of aspects of private investment and public investment in Japan, with a high efficiency of the Japanese public spending and the high degree of integration between the Japanese capital market and the global financial markets. Because of low funding the Japanese private sector risks the loss of elasticity function display Japanese funding to the private sector increased from the top of the domestic and global capital market.

In a study (Khaled Abdel-Kader - 2006) for the private sector in Egypt and access to funding stressed that the interest rate is no longer the determining factor in making lending decision, also it pointed out

that the banking system has seen in the study period to collectively bear the appropriate degree of risk, as known as "lazy banking" .it has resulted in a lack of credit directed to the private sector. And part of the reasons for its occurrence of the factors associated with the supply side in the credit market, and the banks preference for safe investments in Treasury bills and other long-term government bills, as an alternative to credit directed to the private sector, and what this means to compete with those permits for private investment.

Study (Stevan Gaber, 2010) for the economic impact of financing the budget deficit by issuing treasury bills in the fiscal deficit countries. To the government for a significant share of domestic credit to borrow from the capital market in those countries. taking into account the distinction between government expenditures financed by borrowing from the capital market as to whether the producer and / or non-productive expenses. The study tried to research on the implications of it by knowing the impact of the multiplier Effect and the impact of competition and the impact of the bilateral deficit "Twin Deficits" any interrelationship of the general budget and the deficit of the trade balance deficit Concluded that there is a negative impact of this funding is to crowd out the private sector in the market capital the increased demand for funds available for lending by the government is spending this product.

In a study (Isah Imam Paiko, 2012) to test relation between private investment and the funding of the Nigerian budget, which funded by issuing treasury bills during the period from 1990 to 2007 deficit. It revealed the results of the joint integration and a negative correlation between the deficit financing and investment, meaning that financing the budget deficit in Nigeria using those crowds out private investment authorizations to obtain credit available to banks.

In a study (Mona Essam, 2012) for the relationship between the credits extended to the private sector and the government borrowing in Egypt from the second quarter of 1998 until the third quarter of 2010, to test the crowding out of government borrowing for financing available to the private sector. Government borrowing is not the only charge to crowd out credit to the private sector from banks; there are lazy banking policies that aim to maintain high levels of liquidity and low rates of risk. Those policies contributed to the strong concentration in the investment of the banking system structures to buy Treasury bills, which means that the overall policies of the banking system besides government borrowing to finance the budget deficit policy explain the phenomenon of crowding out in the Egyptian economy.

In a study (Shata and Kamali, 2014) which based on quarterly data for the Egyptian economy from the first quarter of 1970 until the second quarter of 2009, to test the hypothesis of "lazy banking" and resorting investment alternatives for most hedge. It is having concluded that bank policies negatively affect private investment and thus growth in output. Results of the study also suggest that output growth has a positive impact on the willingness of the banking system to expand lending to both the government and the private sector.

III. PRIVATE INVESTMENT AND TREASURY BILLS AND THE CONCEPT OF CROWDING OUT IN EGYPT

The concept of competition between the private investment and the issuance of treasury bills in the capital market means that the increase in private investment opportunities for funding offset, at the same time, decrease the chances of cover versions of Treasury bills and vice versa. There are multiple forms of crowding out in the capital market, but the most common forms are crowding the horizontal and vertical. Horizontal occur in the case of underwriting control in treasury bills and government treasury on the availability of credit in the capital market with the private sector offset, either competition means control of one aspect investment credit. If we assume that the credit market biased in favor of investment finance in a quick capital turnover of commercial activities on productive investment account, it considered a form of competition in the credit market.

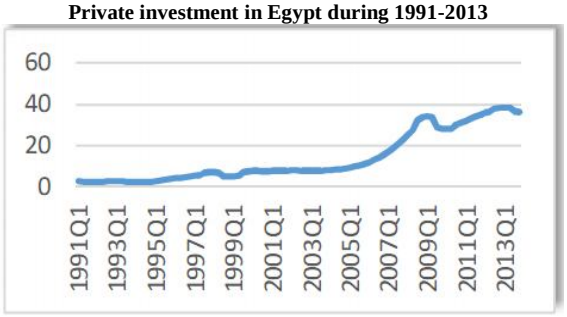
And determined competition when the availability of a number of conditions in the capital market, the more witnessed the supply side of this market stagnated due to lower national income growth rate or lower the savings available down the real interest rate (due to the high inflation rate), the greater the chances of competition in this market . If we move to the demand side, it is determined by the budget deficit and it’s financing methods on the part of the investment opportunities in search of funding by another size. The intersection between the supply and demand sides of the capital market is that demonstrates the degree of competition in the case of existence of the foundation.

The fiscal deficit is considered more likely to happen and the competition according to the previous selectors. So that a group of these countries suffer from severe growth in demand for credit plug and worsening of chronic budget deficit, and also suffer from GDP growth rates, which affect the display of domestic savings, and because of high inflation, the real interest rate in those countries do not Savings as a percentage of domestic income. Thus, the growing phenomenon in the capital market in the fiscal deficit countries considered the objective result of the conditions of the market.

Throughout the study period, private investment has witnessed a growth in the total value as shown by the following figure (1), has increased its value from less than five billion in the first quarter of 1991 to reach more than 35 billion in the last quarter of the study and the rate of the total growth of close to 600 %.

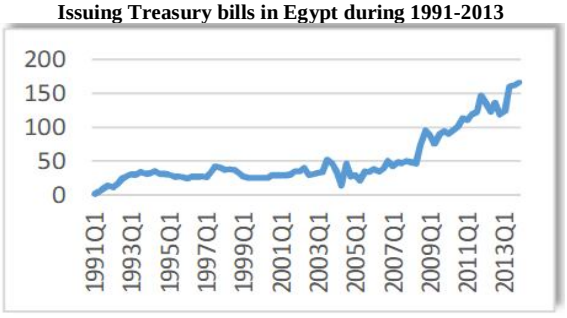
However, this rate has seen volatile in value, did not witness the study period steadier growth in the value of the investment, so that the figure (1) shows that of the first period until the year 2003 investments grew slightly at a rate (of less than 5 billion to more than 10 billion approximately). Beginning in the year 2004 is witnessing growth achieved in the private investment rate accelerated to the upside, reaching peak to climb during the fiscal year 2007/2008. It should be noted that the slight decline that took place in late 2008 was due mainly to the occurrence of the global financial crisis, but soon came back after the climb-out that settled the last period.

Figure (1)
Private investment in Egypt during 1991-2013



The stated goals of the issuance of treasury bills in Egypt is to control inflation, and to combat the phenomenon of dollarization, and to provide an appropriate tool to face the liquidity problem in the capital market, in addition to it's main role of financing the budget deficit by it's real cost of borrowing resources. To keep track of developments in the quarterly releases to the public treasury bills described as follows (2) volatility evident in the value of those versions appear throughout the study period. Despite these fluctuations in its value, but those versions, as is the case in private investment, it has been grown slowly since the beginning of the study period till the end of 2004. Starting with 2005, it took the value of releases quarterly upward trend accelerated to reach at the end of the study period, above the 160 billion pounds for the fourth quarter in 2013.

Figure (2)
Issuing Treasury bills in Egypt during 1991-2013



IV. THE MODEL AND THE DATA

the model based upon the study to test the relationship between the value of the versions of Treasury bills and private investment to crowding out funding available for private investment in the Egyptian economy, and it will use quarterly data basis in the period 1991 to 2013.

$$\ln PI = \beta 0 + \beta 1 \ln RGDP + \beta 2 \ln TB + E$$

Where :

PI : private investment .

RGDP: real gross domestic product .

TB : treasury bills .

The data collected from following sources

V. ECONOMIC METHODOLOGIES

1.1. Unit root test

The time series stable data considered whether a stable horizontally around the X-axis (time axis) any firming statistical characteristics over time.In addition, that the test is the logical beginning of the time series analysis through unit root Unit root tests, it must address the problem of lack of sleep for strings it is static and converted into static strings. Therefore, they analyzed statistically and is a test of Augmented Dickey - Fuller (ADF) test most commonly used in the stillness of the time series. According to the (Gujarati 2004) the statistical formula for this testis:

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum_{i=1}^{m} \alpha_i \Delta Y_{t-i} + \epsilon_t \qquad (1)$$

Where:

ΔY_t:The first difference of the variable no difference between the Y values in the two periods t and t-1.

m :Number of lags that must be entered to become static strings.

t :Time trend.

β_1 : constant.

β_2: Deterministic Trend.

It should be noted that the ADF is the same two phases, the first phase of the original test data to see whether there is warned of the unit or not, while The second phase of this test is to take differences (1.2.3 ... d) to smooth the time that It turned out to be non-static to make it stable.

1.2. Co-integration test:

If we assume the existence of two variables integration of class d, b, where ($d \geq b \geq 0$), if all of them integrated class d, and there is a linear combination of these two variables and not an integrated class (db).Where(d) represents the degree of integration of the two variables (a) and (b) is the amount of reduction the degree of integration to reach a linear combination of static variables.

Based on the above, it would use the study to implement the joint integration testing on the study model by using Johansen Johansen's full information maximum likelihood because it allows testing of asymmetric integration relationships and possible

appreciation in one step.It considered the best roads in the event of component model of more than two variables because it provides the possibility of mutual impact between the variables under study measuring. To determine the number of vectors co-integration:

- (Trace test – λtrace) and test the null hypothesis that the number of vectors co-integration unique number equal to (q), versus alternative hypothesis (q = r) or less than.
- (Maximum eigenvalue – λmax) and test the null hypothesis that argument (r) vectors of asymmetric integration compared to alternative hypothesis that there was (r + 1) vectors of the joint integration.

1.3. Error Correction Model :

We adjusted the short term with the equilibrium relations in the long term by using Error Correction Model (ECM), which is also a vector model VAR but restricted, for behavior of internal variables in the long term to gather around its relationship with complementary allowing dynamic adjustment in the short term (32).

$$Y_t = \alpha + \beta X_t \qquad (2)$$

Where X represents the vector of the explanatory variables of the Y variable, and if the variables X and Y in the case of the balance of the difference G is equal to zero.

$$G_t = Y_t - \alpha - \beta X_t \qquad (3)$$

The following formula describes the form of error correction model:

$$\Delta Y_t = \delta_0 \Delta X_t - \mu(Y_{t-1} - \alpha - \beta X_{t-1}) + \varepsilon_t \qquad (4)$$

1.4. Granger causality test:

Granger causality test designed to determine the direction of the causal relationship between the variables involved in the construction of various economic models. Assuming the existence of two variables X and Y reflect the developments phenomena economic areas through time t, the causality according to Granger determined that the variable Y is caused by variable X if values of variable Y through values (lags) Y's and X better than values (lags) Y only.

$$Y_t = \alpha_0 + \sum_{i=1}^{P} \beta_i Y_{t-i} + \sum_{i=1}^{P} \varphi_i X_{t-i} + \mu_{1t} \qquad (5)$$

$$X_t = \delta_0 + \sum_{i=1}^{P} \omega_i X_{t-i} + \sum_{i=1}^{P} \theta_i Y_{t-i} + \mu_{2t} \qquad (6)$$

VI. EMPIRICAL RESULTS

- **Unit root results**

Table (1)
Unit root results

variables	Schwarez criteria		Akaki criteria		Co-integration at level (% 5)
	At level	First deference	At level	First deference	
PI	1.8237 - (5)	(4) 3.1331 -	- 1.6221 (9)	3.0787 - (11)	Co-integrated from level (1)
RGDP	- 1.9803) 4(	-4.8527 (3)	- 3.1045 (11)	(4)3.3616-	Co-integrated from level (1)
(TB)	1.0214 - (0)	11.2695 - (0)	- 0.4732 (3)	(1) 8.7075 -	Co-integrated from level (1)
Critical value %5	3.4616 -	-3.012	- 3.4669	2.8955-	

- **Long-term relationship**

We will use six lags at Johansen co-integration (Trace test) and (Maximum Eigen value).Agreement the existence of a joint integration between the model variables relationship during the study period at the moral level of 5% and at six lags. The existence of a long-term relationship between the in dependent variables (including versions of T-bills) and the dependent variable (private investment), which means move those variables together in the long term.a long-term equilibrium relationship as follows:

$$\ln PI = 46.6 + 2.2 \ln RGDP + 0.36 \ln TB$$

Variable	Coefficient S.E( )
LNrgdp	**2.2 (0.1004-)
LNTB	**0.36 (0.05639-)

** significance at 5%

It is clear from the previous equilibrium relationship resulting from the appreciation Johansen co-integration of the following:

• This relationship agree with economic theory of algebraic signs of variable real GDP, which is a positive relationship significantly (at 5%) between real GDP and the size of investment during the study period.

• This relationship is different equilibrium with economic theory and literature review of previous studies of the relationship of the variable "versions of treasury bills" and private investment in the long term. it showed a relationship a positive morale (at the 5% level) between the independent variable, "Treasury bills versions" and the "private investment"

variable, and therefore they are changing together in the long term in the case of the Egyptian economy.

- **Short-term relationship**

The study use Error Correction Model (ECM) to be able to estimate the error correction factor, to confirm relationship in the long term, it will also benefit to know the impact of the "versions of Treasury bills" on the dependent variable "private investment" in the short-term variable. The results of the estimation(ECM)as follows:

• The parameter with a error correction (ect) negative and significant at the level of 5%, which confirms the validity of a long-term relationship that resulted from testing the Johansen co-integration.it is also consistent with the economic theory, that the deviation of the actual growth path for the equilibrium path in the long term has been corrected in the next period. it's also an - 0.15, which means that each deviation in the path of growth for the equilibrium path in the long term corrects him almost 15% in the next year.

• the results of indicate that there is an inverse relationship significantly (at 5%) in the short term between versions of treasury bills and the private investment in each period of six lags. And using the Wald Test to test significance of the "versions Treasury bills ".it find significant relationship between changes in the versions of Treasury bills and private investment in the short term during the study period, which is consistent with the study hypothesis and with the findings of previous literature. This means that there crowding out between private investment and versions of treasury bills in the short term in the Egyptian economy, unlike the case of the relationship in the long-term phenomenon in the Johansen test.

• results of Granger VEC Granger Causality / Block Exogeneity, find the causal relationship is moving from variable "versions of treasury bills" to the "private investment variable."

- **Specification test:**

The results of the quality tests of the form to the explanatory high of independent variables in explaining the changes that occur in the dependent variable capacity, R-squared value and Adjusted R-squared70% and almost 61% respectively, and the test of serial correlation(LM test) we do not found serial correlation between independent variables and error term.

- **Granger Causality Test**

The study was conducted Granger causality test to determine the causal relationship between the impact and trends of model variables during the study period, the following points illustrate the application of the results of that test:

• there is a causal relationship in two directions between real GDP and Treasury bills during the study period at the moral level of 5%.Which means that versions of treasury bills affecting the GDP and are affected by. This mean that the increasing rate of growth in real GDP reduces the need for versions of treasury bills, and the expansion of the issuance of treasury bills limiting the rate of economic growth.

• there is a causal relationship in one direction at level of 10% between the versions of Treasury bills and private investment during the study period, which mean that changes in the volume of private investment affect the value versions of treasury bills in the long term during the study period.

CONCLUSIONS

• Economic measurement results showed that investment and GDP have a significantly direct relationship in the long term; this relationship comes from private investment to GDP in that term. This means that the expansion in the gross capital formation considered one of the main causes of the change in the size of real GDP in the long term.

• In the short-term we found negative relationship between private investment and versions of treasury bills. The direction of causation comes from the versions of treasury bills to private investment in the short term during the study period. The crowding out occurred because both private investment and issues treasury bills competing for the funds available for credit and lending as one of the surplus liquidity available components (mobilized from domestic savings total) in the capital market. Those stocks compete on alternative uses in the short term; it makes sense to the occurrence of competition in that run. Which is as shown by the short-term relationship that conclusions of the analysis.

• in the long term, it has been shown a significant positive correlation between private investment and versions of bills in the Egyptian economy during the study period as a result of the positive signal of the variable in the equation of treasury bills in the long term. It disagrees with the relationship in the short term; it could be interpreted by standing on the state of the employment total liquidity available to the Egyptian capital market in the long term during the study period (especially the available liquidity within the banking system). If the employee those savings in full, the relationship will be crowding out between the versions of the bills and the private investment, but the status of those surpluses in the Egyptian economy reflects the accumulation of the banking liquidity is employed as a result of the phenomenon of the banking laziness that we have referred to above. Which may explain crowding-in relationship between versions authorizations and private investment in the long term, because one does not compete with others in obtaining funding in this term.

• While the long-term be able to absorb the impact of competition that occur in the short term as a result of the capacity of the capital market to finance versions of Treasury bills and the availability of credit for private investment, but that does not mean the position optimal for the Egyptian economy. because it

reflects a loosening of the overall investment performance as a result of the decline public investment and raise the efficiency of the infrastructure in the Egyptian economy during the study period, according to the economic reform program. while important pivotal in creating the necessary atmosphere to stimulate private investment and thus economic growth. The decline in public investment, which contributes in promoting economic growth size, and therefore, the mechanism of issuing treasury bills to finance the part of the Egyptian budget deficit, and the case, represented a burden on the achieved economic growth rates.

RECOMMENDATIONS

1.5. fiscal policy:

• The starting point is to avoid crowding out versions of Treasury bills for your investment return of the Egyptian fiscal discipline of the budget with respect to the rationalization of public expenditures and the development of public revenue sources, the chronic deficit in the budget to devote so crowding out impact.

•The study suggests that fiscal policy is reducing the return on Treasury versions, and this reduction will serve the goal of restricting competition with private investment surrounded the phenomenon of laziness in the intermediary financial institutions. because the high yield was the reason this phenomenon, and that the decline in this revenue will reduce spending year on domestic public debt service, and thus lower the fiscal deficit, which is one of the big motivations in versions of the public treasury bills.

• the study suggests that introducing substantial changes on treasury bills market in the demand side, if financial institutions want to buy bills and re-distribute of these investments between different investment channels by creating regulatory controls between the proportion of investment in Treasury bills and the rate of credit extended to private investment, among other financial investments of financial institutions. The aim of this linkage to confront the phenomenon of competition between buy the treasury bills and the private investment that have proven record funding, also aims to counter the phenomenon of "investment laziness" of financial institutions intermediate resulting from the reservation to access the investment and / or high risk credit granting.

1.6. monetary policy:

• the study suggests focusing on raising effort savings policies in the Egyptian economy, and what it means to expand the supply side of the capital market to counter decrease the crowding out Effect on this market.

• the study also suggests to coordinate with the fiscal policy to treat the phenomenon of laziness in the financial institutions (especially the phenomenon of banking laziness), because it is the most appropriate mechanism to contain the phenomenon of competition in the Egyptian economy performance of financial institutions to size of the savings that can be mobilized. and the employed liquidity ratio in the banking system to total liquidity it has, and then the accompanying this phenomenon versions of treasury bills will increase the chances of winning the scramble between the versions of Treasury bills and investing in the future.

The study suggests controlling exchange rate, because of the deficit in the balance of payments and foreign exchange policy must take into account when formulating counter overcrowding between versions of treasury bills and private investment policies, As the growth of the trade deficit contributes directly to the growth of public spending on imported final goods and semi-finished and means of production.

1.7. investment policies:

In addition to the financial and monetary policies tools, the investment policies is assumed a pivotal role in responding to competition versions of treasury bills for private investment, to work on:

• stimulate capital accumulation sources of self-financing, if the capital market is the place where the competition appear in access to credit, the increase in financial and non-financial incentives to reinvest undistributed profits reduces the chances of occurrence of this phenomenon in the Egyptian economy.

• encourage participation programs between public and private investment in the same developmental priority in the sectors of the Egyptian economy. Because those participating sponsor surrounded the phenomenon of competition between the private investment and the issuance of treasury bills indirectly. The private investment in this case will fund a significant portion of the investment costs for joint projects resume sources, and gets in return on average a high return on its capital. In addition, the participation referred to programs formulated funding approach raises the burden on the public budget, reduces the expected deficit, and reduces therefore the need for the expansion of treasury bills versions in the future.

REFERENCES

[1]. Samah Shetta and Ahmed Kamaly, DOES THE BUDGET DEFICIT CROWD-OUT PRIVATE CREDIT FROM THE BANKING SECTOR? THE CASE OF EGYPT, Topics in Middle E astern and African Economies Vol. 16, No. 2, September 2014

[2]. Isah Imam Paiko, DEFICIT FINANCING AND ITS IMPLICATION ON PRIVATE SECTOR INVESTMENT: THE NIGERIAN EXPERIENCE, Arabian Journal of Business and Management Review (OMAN Chapter) Vol. 1, No.9; April 2012

[3]. Mona Esam, Crowding Out Effect of Public Borrowing: The Case of Egypt, faculty of economics and political science , 2012 .

[4]. Khaled Abdel-Kader, PRIVATE SECTOR ACCESS TO CREDIT IN EGYPT: EVIDENCE FROM SURVEY DATA, the Egyptian center for economic studies, Working Paper No. 111July 2006

[5]. Imad M.A. Abdullatif, CROWDING-OUT AND CROWDING-IN EFFECTS OF GOVERNMENT BONDS MARKET ON PRIVATE SECTOR INVESTMENT (JAPANESE CASE STUDY) , INSTITUTE OF DEVELOPING ECONOMIES,ARRIDE 2006.

[6]. Gujarati, Basic Econometrics , fourth edition, McGraw-Hill , 2004.

[7]. Johan Eklund, Theories of Investment: A Theoretical Review with Empirical Applications, Swedish Entrepreneurship Forum, Working Paper 2013:22.

[8]. lanchard, O & Perotti, R (2002) " An Empirical characterization of the Dynamic effects of Changes in Government Spending and Taxes on Output" Quarterly Journal of Economics, November 2002, Vol.117, No.4, In " DO BUDGET DEFICITS CROWD OUT PRIVATE INVESTMENT? AN ANALYSIS OF THE SOUTH AFRICAN ECONOMY By Biza R. Kapingura F.M1 and Tsegaye Financial Globalization and Sustainable Finance: Implications for Policy and Practice (29 to 31 May, 2013, Cape Town, South Africa) ".

[9]. Lüutkepohl ,Helmut. And others. "Maximum eigenvalue versus trace tests forth co integrating rank of a VAR process" (The Econometrics(2001), Vol. ,4Issue : 2 .

[10]. Obert Nyawata ,Treasury Bills and/or Central Bank Bills for Absorbing Surplus Liquidity: The Main Considerations , IMF Working Paper , January 2012 .

[11]. Robert F. Engle; C. W. J. Granger , Co-Integration and Error Correction: Representation, Estimation, and Testing, Econometrica ,Vol. 55, No. 2. (Mar., 1987).

[12]. Robert F. Engle; C. W. J. Granger , Co-Integration and Error Correction: Representation.

[13]. Simon Gray, Philippe Karam, and Rima Turk, Are Banks Really Lazy ? Evidence from Middle East and North Africa, IMF Working Paper, WP86/14.

[14]. Stevan Gaber, Economic Implications from Deficit Finance, Bamberg Economic Research Group on Government and Growth, Bamberg University, Working Paper No. 69 , January 2010.

★★★