

## The Study of the Effects of Monetary and Financial Policies on Iran Stock Market

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### ABSTRACT

The present study aimed at investigating the effects of monetary and financial policies on Iran stock market. The effects of monetary and financial policies and factors, such as liquidity money, oil price, exchange rate, and budget deficit, on the total index of the stock market between 1999: 3 and 2008:4 were periodically studied. The analysis methods used in this study are Auto-distributed Regression, Impulse Response Function and Variance Decomposition. The results of the study indicate that financial policy has a negative effect on stock market, and monetary policy has a positive effect on it.

**KEY WORDS:** Financial Policy, stock market, monetary policy.

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### INTRODUCTION

Investment market has a close relationship with the economic structure of any country. The low or high trend in investment market can be a true reflection of the country's economic situation. Developing the investment market may have an important role in increasing the national revenue as well as the public welfare of the country. Statistics show that the developed stock markets are located in developed countries in which investment security is provided for domestic and foreign investors to enter the stock market (Abbasian et al, 2008).

In their macro-economic policies, economists generally emphasize issues such as full employment, price stability (controlling inflation), equal distribution of income, and continuous economic growth. In any country, the economic sector provides financial resources and private economic activities in two ways: A financial market that is mainly run by the banking system of a country, the main function of which is supplying short run budgets (grants).

Moreover, the main function of invest market is fulfilling the long run financial needs of generative production and service activities (Saidi et al, 1999). Economic stability is one of the most important factors affecting investment in any country, and one of the most important issues having bearing on the rate of investment in markets throughout the world is the macro-economic variable the instability of which affects the stocks return (Tafazzoli,1999).

Since the corporations and production enterprises have key roles in the economic prosperity, identifying the factors enhancing their development and growth, including macro-economic variables is very important. Development and growth depend on investment, and the business units need financial support to achieve them. The fact that inflation affects investment return can be regarded as one of the factors determining economic and financial decision making (Salimi Afshar 2003).

The purpose of the present study is determining the effect of monetary economic policies and their dimensions including the amount of liquidity money, oil price, exchange rate, and budget deficit in Iran stock market.

### Theoretical Background

Today, organizations need financial support for various reasons such as increasing the capabilities and competitiveness, utilizing technology and new operational methods, using better equipment and investment on development projects. Since financial support is an important stage in the development of business firms, finding the ways of gaining it is especially important. Bonds market may have a remarkable role in using the opportunities for investment and consequently the prosperity and improvement of economic state, using the deposits and cash in private sector.

Capital market is the heart of economic system catering for the provision of financial support to different sectors. As such, one of the ways for the firms to collect foreign financial support is the distribution of their shares in bonds market (Jaafari Samimi et al, 2004). They would be encouraged to more savings and less consumption besides participation in the ownership of the business units and enjoying the benefits of investment. Moreover the stock market serves as a tool for turning the inefficient public or even private corporations into corporations with high productivity.

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Therefore, studying the factors influencing the changes in bonds market is of high importance since the factors congruent with the usual trend of stock cause a decline in prices and recession in the market (Barzgar 2009). The effects of financial policies on the growth of economy is divided into taxes, government expenditures, and aggregate budget balance, each of which affect the economic growth in one way or another. (Shafii et al 2006). The relationship between financial structures and economic development can be tested by different theories about the financial structure. Financial structures include bank, shares, and financial services.

The theory of 'bank basis' emphasizes the positive effect of banks in the economic development as well as the problems and the shortcomings of the monetary system of the shares. According to this theory, in developing countries banks are more effective in economic growth (Gereshenkon 1962). Based on the process of transfer of money, monetary policy makers do not often relate their policy making tools to the final goals since the effects of financial policies are unclear at different times, and there is uncertainty with regard to the effectiveness of monetary policies. As such, the policy makers delineate middle range objectives. Monetary policy making has a three stage process.

First, the central bank has tools and instruments for the fulfillment of its goals. Second, the use of mentioned tools affects the middle objectives such as the amount of money, interest rate, and the current predictions about the rate of inflation. Third, the assumption is that the middle objectives, if in the right direction, lead the economy to the final goals such as a specific level of inflation, unemployment, currency exchange, and stability in financial markets. However, if the middle objectives leading to the final goals are fully controlled, the problem of economic policy makers, measuring the final goals and determining their rate as well as simultaneous selection of several goals are, in some cases, incongruent.

In addition to the above-mentioned problems, simultaneous selection of several final goals may cause incongruities among them. In addition to the mentioned issues about the middle objectives, they are also important for their degree of effect on final goals. Financial markets are one of the basic, economically effective markets in any country. One of the important elements of financial markets is bonds stock market. Bonds market is also a center for collecting savings and the liquidity of the private sector for the financial support of long run investment projects.

On the other hand, it is a reliable official reference for those having unused savings as a relatively secure and appropriate case for investing their money for the purpose of investment in business firms. Recession and improvements in stock market can affect not only the national economy but also the world economy ( Karimzadeh and Soltani 2010). The present study is based on Lapodis (2009). In a research entitled "the effect of financial policy and stock market efficiency" he concluded that there is a relationship between budget deficit and stock market. In other words, budget deficit affects stock market.

This study tried to answer the question of whether the index of budget deficit, an indicator of financial policy, and the index of liquidity money, an indicator of monetary policy, affects stock market. On the one hand, the effect of budget deficit on the lower interest rate of bonds has been investigated, which, in turn, causes lower stock market activities. In other words, in addition to the national revenue, deposits, investment and budget deficits affect stock market. On the other hand, higher interest rate leads to lower investment and the collection of foreign investment. The research by Lapodis is important because higher budget deficit prepares those involved in stock market to expect increase in taxes in the future. The deficit helps the market match its expectations to the cash flow in the future and change it according to the changes in the interest rate. In this way, the investor is informed of the exact details of the budget deficit and acts accordingly.

On the other hand, since the government's performance affects monetary policies, the more the increase in expenditures, the higher the budget deficit and the interest rate. The higher interest rate adversely affects economic growth, and the central bank is compelled to balance the mentioned effect by increasing the amount of money. As such, it is necessary to study the effects of monetary policy variable of M2 and the financial policy of BD on stock market. Therefore, Lapodis model would be as given in Formula (1), given below:

$$y_t = \alpha_0 + \beta_1 z_t + \sum_{i=1}^{n_1} B_{2,i} BDy_{t-i} + \sum_{j=1}^{n_2} B_{3,j} M_2 G_{t-j} + et$$

Formula (1)

in which  $y_t$  is the index of stock price,  $BDy_{t-i}$  is the budget deficit as a percentage of GDP,  $M_2 G_{t-j}$  is nominal liquidity, and  $Z_t$  shows the macro-economy variables vectors ( in this study  $Z_t$  is the oil price and the exchange rate)

Kurov (2010) studied the behavior of investors in stock market and the response of the stock market to the monetary policy. The results indicate that the shocks from the monetary policies have a great effect on the behavior of investors in recession periods. Meanwhile, stock market is extremely sensitive to monetary policies and shows extreme responses against them.

## LITERATURE REVIEW

Ioannidis and Kantonikas (2008) studied the effect of monetary policy on the return of shares for 13 OECD countries using ordinary Least Squares (OLS). The results indicated that monetary policy affects return of the shares, to a great extent, causing transfers and changes in stock market. In 80 countries, the changes in interest rate was related top return of shares; the criterion for the rate of interest for the monetary policies of the mentioned countries decreases the return of shares.

Janeson et al (2008) did a Semiparametric analysis of fiscal policy and asset market. In this study, the effect of fiscal policy on US asset market including stock market, bonds, and corporations. The results indicate that fiscal policies had small effect on asset markets; however, monetary policies had changing effects on stock returns and depend on fiscal expansion or contraction. Moreover, the results indicated a high correlation between financial and monetary policies and asset market.

Lim et al (2008), in an experimental research, studied the effect of financial crisis in 1997 on the stock return for Asian countries for the three periods before, during and after the crisis. The results indicate that the crisis had an unfavorable effect on the greater return of stock return, and in terms of policy making, the execution of reliable and efficient policies can lead to a lower pace of stock return and higher trust on the part of investors.

Chen (2007) studied the effects of monetary policy on budget deficit and the deficit of current accounts, using dynamic line system. The results indicated that monetary policy has a long run relationship with budget deficit, interest rate, and deficit of current accounts.

Lapodis (2006) used VectorAutoRegression to study the relationships among stock market, economic activity, inflation, and monetary policy. The results of research model indicate that there is a negative correlation between the rate of stock return and inflation. Also there is a negative relationship between the stock return and the public budget.

Osman and Yacup(2004) studied the performance of macroeconomic indices and the real return of shares in Turkey. The real efficiency of the return return in Turkey is analyzed regarding the macroeconomic indices including the supply of money, currency rate, and business balance, using the models offered by Engel-Gragner and Johansen Josillius. The results showed that the economic variables didn't have a significant role in directing the changes in the index of stock market prices. Moreover, there is no relationship between the index of the shares price and the stock, and no systematic relationship was observed between share prices and macroeconomic indices.

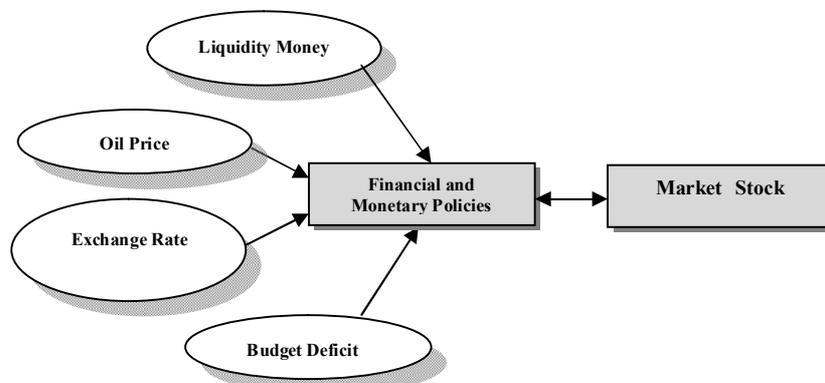
Mehrabian (2004) used VectorAutoRegression model and time series data to study market sensitivity to financial and monetary changes in stock market. The results indicated that, except for imports of goods and services, all other variables had a positive effect on the index of stock prices. In the long run, however, primarily impure domestic product, and then inflation had the most roles in the index of stock prices.

Azizi (2004) tested the relationship between inflation, return and the index of stock prices using the VectorAutoRegression and Grange causality. The results indicated that inflation accounts for the cash return index and total cash return but indicates the return price index.

Shafii et al (2006) studied the effectiveness of financial policies on economic development using ARDL and VDCF techniques. The results indicate that out of all government financial tools, construction expenditures and taxes respectively had direct, inverted, and significant effects on economic development, but consumption costs had no significant effect on it.

### The theoretical framework of the study

The present study has investigated the effects of financial and monetary policies on its factors including the amount of liquidity money, oil price, exchange rate, budget deficit on total stock exchange during 1999 and 2008.



**Figure 1. The theoretical framework of the study**

## Research Hypotheses

The following hypotheses were formulated:

1. Monetary policies affect stock market.
2. Financial policies affect stock market.
3. The effect of monetary policies on stock market is greater than the effect of financial policies.

## METHODOLOGY

The present study is a causal comparative internet based documented library research. The statistics and related information were collected from Central Bank statistical information and the annuals of Iran Stock Market. Data analysis was done by auto-distributed regression model in a periodical basis between 1999 and 2008. First the stability of the variables was studied. Later auto-distributed regression model, impulse response analysis (stimulus-response), and variance decomposition were carried out.

The first stage in estimating time series, is studying the stability of the variables. Using augmented Dicky-Fuller and Philip-Perron tests the stability of the variables was tested. Top-bottom approach was used to study the cointegration of the variables. To test the reliability of the variables, the third pattern was used (i.e. the pattern with width from the start and trend) and the significance of the variable of trend was tested. If the variable of trend is significant in the third pattern, it is suitable for studying the reliability of the variable.

Otherwise, the second pattern (which only has width from the start) is estimated. In this pattern, the significance of width from the start is studied. If the width from the start was significant, the stability of the variable was studied based on the second pattern. Otherwise, the third pattern (without width from start and trend) was used. Sims suggested two stages for Vector Auto Regression model: The first phase is determining the variables that must enter the model. The second phase is determining the appropriate number of pauses for the model.

The tests for determining the length of pauses are used to find the optimal pause. One should note that in VectorAutoRegression models, no attempt is made for eradicating or reducing the parameters in the model. In Vector Auto Regression model, the matrix for the width from the start includes  $n$  parameters and each of matrix coefficients also has  $n^2$  parameters.  $n+pn^2$  parameters are needed ( $p$  is the number of pauses and  $n$  is the number of variables).

To have stationary VectorAutoRegression model, the inverse roots of multi-sentential AR should be inside the same circle. Otherwise, the results of the analysis of impulse response and variance would not be correct. Totally there would be  $kp$  roots in which  $k$  shows the number of endogenous variables, and  $p$  shows the number of applied pauses.

In impulse response analysis, the effect of standard deviation of shock on other variables is analyzed. In contrast to impulse response in which the effect of the shock of a variable on other variables is studied, in variance analysis, there is an attempt to study the effect incurred by one variable on the other variables of the model. In fact, using this method the amount of the effectiveness of variables on a specific variable in short term, middle term, and long term are compared.

## RESULTS AND DISCUSSION

### 1. Analyzing the stability of the variables

1. The logarithm of Shares Return (LSR): Top bottom analysis indicates that the second model or the model with width from the start is suitable for determining the reliability of the logarithm of shares return. The results of the reliability analysis of the mentioned variable by generalized Dicky-Fuller test at this level indicate that the variable is not at a reliable level. The value of the obtained statistic is -1.90 that is smaller than the critical value at the probability level of 5. The test of Philips-Perron common root also showed an unreliable shares logarithm return.

Due to the unreliability of logarithm shares return at this level, with one subtraction the stability of this variable may be tested. The results of both generalized Dicky- Fuller and Philips-Perron indicates that at the significance level of 95, the variable becomes stationary. Therefore, this variable has a cointegration value of one. (I(1)). (Table 1)

2. Budget Deficit (BD): The application of top-bottom analysis shows that the third pattern (the pattern including width from the start and trend) is the right pattern to study the reliability of budget deficit as a variable which is a percentage of GDP. Both Dicky-Fuller and Philips-Perron indicate that budget deficit at the significance level of 95 is reliable. The value for Dicky-Fuller test is -6.86, and the value for Philip-Perron test is 7.87 that are higher than the critical value at the probability level of 5. Therefore, the null hypothesis regarding the existence of the same root at the significance level of 95 is rejected, leading to the conclusion that at this level of probability the variable is reliable.

3. Logarithm of Real Exchange Rate(LRER): The third pattern (including the width from the start and trend) was used to determine the reliability of the real rate of exchange. As evident in Table (1), based on both Dicky-fuller and

Philips-perron tests, the mentioned variable is not reliable. To test the degree of cointegration of the mentioned variable, one subtraction is done and for its differential common root test is applied again. The value obtained from Dicky-Fullere test for the subtraction of the mentioned variable was 3.82, reflecting the lack of one root for the differential of the foreign exchange rate at the significance level of 95. The results from Philips-Perron tests is also similar to Dicky-Fuller test, and at the significance level of 95 percent, the null hypothesis referring to the existence of one root for the differential of the foreign exchange rate is rejected.

4. The logarithm for oil price (LOIL): The results of one root Dicky-Fuller common root test and Philips-Perron for logarithm of oil price are not the same. In the third pattern, (with width from the start and trend), according to Dicky-Fuller, the logarithm for oil price is not reliable, and after one subtraction, it becomes reliable, but it is reliable according to Philips-Perron test. Since the results of Philips-Perron test are more documented than generalized Dicky-Fuller test, the logarithm for oil price can be considered as being reliable (Table 1).

5. Increase in liquidity (M2): The second pattern (width from the start) was only used for determining the degree of cointegration for the growth of liquidity. As evident in table (1), the mentioned variable is not reliable based on Dicky-Fuller test; it becomes reliable after one subtraction, but based on Philips-Perron test, the variable is reliable.

**Table (1)**  
**The test of the stability of the variables in ADF and Philips-Perron Tests**

variable	level		One subtraction	
	ADF	Phillips-Perron	ADF	Phillips-Perron
LSR	-1/90	-2/10	***-3/91	***-3/91
BD	***-6/86	***-7/87	-	-
LRER	-3/11	-2/62	** -3/82	** -3/97
LOIL	-2/37	***-4/23	-	-
M2	-2/51	***-8/10	-	-

\* significant at 10 percent, \*\* significant at 5 percent, significant at 1 percent

According to the information given in table (1), except for logarithm of stock return and logarithm of real exchange rate which become stationary with one subtraction, the other variables are stationary and don't have a unit root.

**- Estimating Vector Auto Regression**

Having examined the reliability of the variables through statistical information, the maximal pauses of Vector Auto Regression model are analyzed. Table (2) shows the statistical data for Akaike Information Criterion (AIC), Schwarz Information Criterion (SC) and Hannan-Quinn Information Criterion (HQ), up to three pauses.

**Table (2)**  
**Determining the number of optimal pauses in auto-distributed regression**

The Number of Pauses	Akaike Statistical Information	Schwartz Statistical Information	Hannan-Quinn Statistical Information
0	-3/32	-3/10	-3/25
1	-11/37	*-10/00	-10/92
2	-11/62	-9/10	-10/79
3	*-12/63	-8/97	*-11/42

\*Optimal Pause

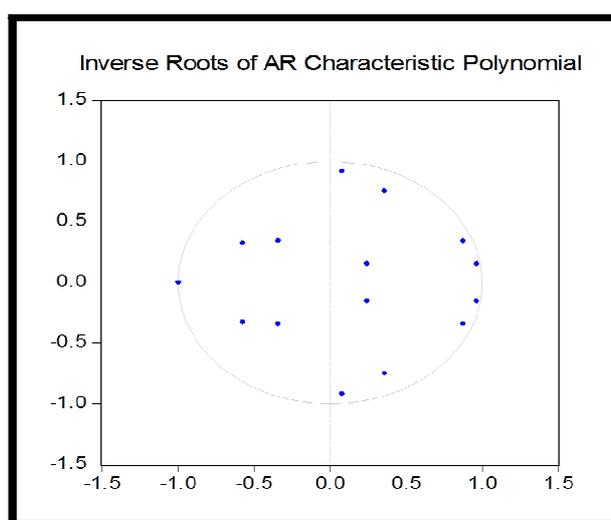
Table (2) shows that the number of optimal pauses for auto-distributed regression is 3 in both Akaike and Hannan-Quinn statistics; however, Shwartz statistics has found one pause for optimal pauses. Since both Akaike and Hannan-Quinn statistics have the same values, Akaike criterion was selected as the criterion for optimal pauses, and 3 pauses was selected as the optimal pause. Having determined the number of optimal pauses, auto-distributed regression model was estimated the results of which are given in table (3).

**Table (3) The result VAR**

	LSR	M2	LOIL	LRER	BD
<b>LSR(-1)</b>	0.775958 [ 3.46952]	-0.109832 [-0.01641]	-0.005372 [-0.39602]	-0.002722 [-0.06744]	0.216815 [ 0.41656]
<b>LSR(-2)</b>	0.082454 [ 0.28038]	0.949221 [ 0.10787]	0.007792 [ 0.43686]	0.056556 [ 1.06576]	-0.577296 [-0.84351]
<b>LSR(-3)</b>	-0.115595 [-0.63966]	2.073373 [ 0.38345]	0.015321 [ 1.39783]	-0.014487 [-0.44425]	0.462168 [ 1.09892]
<b>M2(-1)</b>	0.000880 [ 0.09316]	0.011323 [ 0.04005]	0.000336 [ 0.58707]	-0.000169 [-0.09901]	-0.010903 [-0.49578]
<b>M2(-2)</b>	-0.015185 [-1.82055]	0.407482 [ 1.63273]	0.000435 [ 0.85969]	-0.000793 [-0.52713]	-0.047403 [-2.44204]
<b>M2(-3)</b>	-0.015372 [-1.64005]	-0.567553 [-2.02376]	0.000143 [ 0.25200]	-0.001922 [-1.13670]	-0.005832 [ 0.26738]
<b>LOIL(-1)</b>	0.689514 [ 0.23072]	27.69503 [ 0.30972]	0.820096 [ 4.52453]	-0.353034 [-0.65466]	-1.778473 [-0.25572]
<b>LOIL(-2)</b>	0.071950 [ 0.02196]	-9.766964 [-0.09961]	-0.163021 [-0.82019]	0.176769 [ 0.29893]	-9.972073 [-1.30755]
<b>LOIL(-3)</b>	-3.767086 [-1.61140]	32.45262 [ 0.46394]	0.025109 [ 0.17709]	0.570776 [ 1.35304]	6.229377 [ 1.14499]
<b>LRER(-1)</b>	3.707458 [ 3.22606]	-83.85054 [-2.43849]	0.072908 [ 1.04600]	0.936509 [ 4.51600]	1.703009 [ 0.63675]
<b>LRER(-2)</b>	-1.506167 [-0.89610]	40.00876 [ 0.79553]	-0.008175 [-0.08019]	-0.143372 [-0.47271]	-1.988164 [-0.50827]
<b>LRER(-3)</b>	-0.854723 [-0.61886]	5.658257 [ 0.13692]	-0.015470 [-0.18467]	-0.192221 [-0.77128]	2.312280 [ 0.71939]
<b>BD(-1)</b>	-0.254776 [-2.33124]	2.938795 [ 0.89870]	-0.009258 [-1.39671]	0.000283 [ 0.01434]	-0.311696 [-1.22551]
<b>BD(-2)</b>	-0.371023 [-3.12498]	-1.178700 [-0.33179]	-0.022496 [-3.12403]	-0.018143 [-0.84682]	-0.184814 [-0.66887]
<b>BD(-3)</b>	-0.268502 [-1.98756]	-3.193812 [-0.79013]	-0.017131 [-2.09082]	-0.055006 [-2.25647]	0.081020 [ 0.25770]
<b>C</b>	17.36668 [ 1.94398]	-126.8563 [-0.47458]	2.266853 [ 4.18367]	-0.275548 [-0.17093]	30.92326 [ 1.48737]
<b>R-squared</b>	0.990821	0.728438	0.997533	0.993112	0.590992
<b>Adj. R-squared</b>	0.982217	0.473848	0.995220	0.986654	0.207547

for estimating VectorAutoRegression

Figure (2) and table (4) show the roots of VectorAutoRegression. All roots for VectorAutoRegression are estimated and are located inside a common circle. Therefore, the estimated model is stationary and the results can serve as sources for documentation.



**Figure (2). Inverse roots of AR multi-sentential index**

**Table 4. Inverse roots of AR multi-sentential index**

Root	Quantity in Absolute values
-0.994221	0.994221
0.963483 - 0.152499i	0.975477
0.963483 + 0.152499i	0.975477
0.876112 - 0.340610i	0.939993
0.876112 + 0.340610i	0.939993
0.080938 - 0.917468i	0.921031
0.080938 + 0.917468i	0.921031
0.359455 - 0.751752i	0.833270
0.359455 + 0.751752i	0.833270
-0.572289 - 0.324092i	0.657686
-0.572289 + 0.324092i	0.657686
-0.339212 - 0.342156i	0.481805
-0.339212 + 0.342156i	0.481805
0.244719 - 0.152782i	0.288495
0.244719 + 0.152782i	0.288495

Having ensured the stability of the estimated auto-descriptive regression model, the features of disturbance VectorAutoRegression sentences were examined. The sentences for the disturbance VectorAutoRegression model should be normal and without auto-correlation and Heteroscedasticity of variance. Table (5) shows the results of normalized disturbance sentence. Jarque-Bera was used for testing the normalization of disturbance sentences. As the results indicate, the null hypothesis was not rejected in terms of normal disruptive sentences at the probability level of 5. Therefore, we can conclude that the distribution of the disruptive sentences was normal. Auto-distribution in disruptive sentences in VectorAutoRegression model is often due to the lack of optimal determination of pauses, or the pause in the inclusion of appropriate variables to the model. Table (6) shows the results of LM test for examining the auto-correlation of the disruptive sentences.

The disruptive sentences of the auto-descriptive regression model have no correlation. The auto-descriptive regression model is often due to the lack of exact determination of the number of optimal pauses or the inability to include the appropriate variables to the model. Table (7) shows the results of the heterogeneity of the disruptive sentence models. The results indicate that the disruptive sentences of the auto-descriptive regression model have no heterogeneous variance. Since the auto-descriptive regression model has no theoretical basis, and the coefficients in this model have no economic interpretations. Therefore, to test the mutual effect of the variables, using auto-descriptive regression model, the impulse response and variance analysis was used.

**Table (5)  
The Results of test for Normal Disruptive Sentences**

Statistical Value of Jarque-Bera	Degrees of freedom	Probability value
87.57	105	0.89

**Table (6)  
The results of test for auto-correlation of disruptive sentences**

pause	The value of LM statistics	Probability value
1	21.27	0.67
2	29.11	0.25

**Table (7)  
The Results for the Normal Disruptive Sentences**

Statistical value	degree	value
460.46	450	0.35

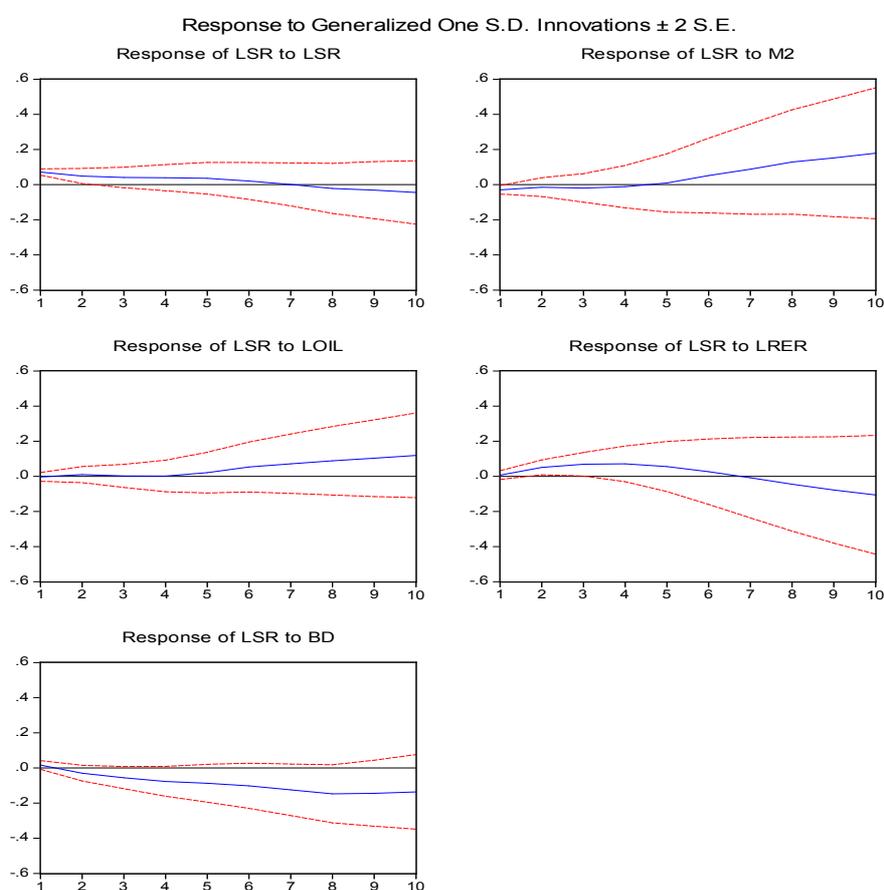
### Impulse Response Function

Figure (3) shows the reaction of the logarithm of stock return to the shocks on the variables of budget deficit, real foreign exchange rate logarithm, oil price logarithm, and increase liquidity. The results in table (8) show that the response of the variable of shares return. Logarithm to the incoming shock to budget deficit until the eighth round has a falling trend, but later the decreasing trend stops and gradually increases.

The decrease in stock return as a response against the incoming shock on budget deficit is due to the fact that the increase in budget deficit increases the rate of interest, which, in turn, decreases the amount of investment and consumptive expenditures leading to a decrease in real economic activities. The final result is a decrease in the price of return and family wealth in financial markets.

In addition, the costs of rent (a kind of investment) increases leading to a decrease in investment. Ultimately, higher interest rates and a decrease in real activities leads to more budget deficit, and the negative effects will be repeated. The response of the stock return to the incoming shock has a rising trend, to the extent that, during the ten periods under study, the return of the stock return was growingly increasing due to the shock on cash increase.

The increase in liquidity causes a decrease in interest rate which, in turn, causes an increase in investment and an increase in real economic activities. This causes higher benefits for the production enterprises and consequently an increase in stock return. As a response to the shock on the rate of real exchange rate, the return of shares had a rising trend until the fourth round, but later it takes a falling trend. Therefore, after the seventh period it causes the return of shares decrease to lower than its balanced amount. Moreover, the shock on oil price logarithm has caused a continuous increase in return of shares.



**Figure (3).** The response of return of shares logarithm to the shocks on the model variables

### Analysis of Variance

The results of variance analysis for 20 periods are given in table (8). The periods can be divided into three short term, middle term, and long term periods. In the first period, all changes in return of shares are explained by the variable itself. In the short run, (period 1 to 6), budget deficit and the rate of real foreign exchange are the most indicators of the changes in return of shares.

Until the seventh period the percentage of explainability of budget deficit was increasing which ultimately reached 39 percent. In other words, in the seventh period, 39 percent of the changes in logarithm of shares return is explained by budget deficit. After the seventh period (i.e. in middle term) the degree of explainability of this variable decreases, and finally, in the long run, the degree of explainability of the variable becomes fixed at 18 percent.

The degree of explainability of real foreign exchange rate was continuously increasing up to the sixth period, but after this period, it decreased and amounted to almost 13 percent. The variable of oil price in the short run, middle term, and long term didn't have high explainability. During the mentioned 20 periods, only one percent of the changes explained the shares return variable.

The variable of liquidity money during the period had an accumulative effect on the return of the shares so that the effect of this variable on the initial periods is very little effect, but with an accelerated growth reached 17 percent in the seventh period. In others words, the mentioned variable, in the short run, could explain 17 percent of the changes in the return of the shares. The degree of explainability of the changes in the return of shares by this variable in middle term increased a lot and reached 57 percent.

The degree of explainability of cash in the long run was also stabilized at this rate. In other words, in long run, this variable could also explain 58 percent of the changes in the return of the shares.

In the middle term, the amount of liquidity money has explained a higher percentage of the changes in the stock return. The variable of budget deficit has the second rank in middle term and the rate of foreign exchange has the third rank. The variable of oil price with the least degree of explainability is in the last rank. Moreover, in the long run, the degree of changes in the return of the shares is like middle term periods.

**Table (8)**  
**The results of Variance Decomposition for the variable of stock return**

	S.E.	LSR	M2	LOIL	LRER	BD
1	0.071198	100.0000	0.000000	0.000000	0.000000	0.000000
2	0.106865	65.12656	0.356449	0.879619	24.36070	9.276671
3	0.148487	41.14649	0.216072	0.669786	35.24040	22.72724
4	0.190806	29.17820	0.206170	0.406362	38.42307	31.78620
5	0.224241	23.70940	1.563907	0.432871	37.27716	37.01666
6	0.253561	19.17545	8.023276	0.875460	33.44137	38.48444
7	0.287696	14.89555	17.61979	1.076010	27.05335	39.35530
8	0.331234	11.66392	29.05823	0.970119	20.45840	37.84932
9	0.376282	9.749169	39.08317	0.904219	16.14566	34.11777
10	0.424522	8.770481	47.88592	0.879194	13.61702	28.84738
11	0.468544	8.447456	53.24130	0.778735	12.81201	24.72050
12	0.506148	8.465759	56.27750	0.667409	12.82582	21.76351
13	0.531092	8.439582	57.42770	0.615966	13.58139	19.93536
14	0.546182	8.430666	57.79043	0.594463	14.33458	18.84987
15	0.552826	8.420338	57.42684	0.618761	15.04501	18.48905
16	0.555508	8.405114	56.94114	0.730452	15.42787	18.49542
17	0.558549	8.316662	56.68544	0.899180	15.49394	18.60478
18	0.564771	8.202582	56.83211	1.023953	15.18429	18.75707
19	0.576329	8.062505	57.56414	1.100528	14.58435	18.68848
20	0.590822	7.871191	58.61715	1.167162	13.95309	18.39140

### CONCLUSION AND SUGGESTIONS

The results of the research hypotheses are as follows:

1. The expanding financial policies had a negative effect on the return of shares. This hypothesis was tested with the impulse response function. The results indicated that the expanding financial policies had a negative effect on the return of the shares.
2. The expanding monetary policies had a positive effect on stock market. This hypothesis was also was tested by impulse response function. The results indicated that the hypothesis was correct, and the expanding monetary policies had a positive effect on the return of the shares.
3. The effect of monetary policies on the stock return of more shares from the financial policies. This hypothesis was tested by the analysis of the variance. The results indicated that the monetary policies improved the return of the shares, in the long run, but in short term, it had a negative effect on the return of the shares.

The reason for this negative effect is the fact that an increase in budget deficit causes an increase in the interest rate which, in turn, causes a decrease in investment and the expenditures resulting in the lower real

economic activities. As a result, the price of stock and the wealth of the families decrease. Moreover, the expenditures on the rent (a kind of investment) increases, but investment decrease. Ultimately, higher interest rate and lower real activities leads to higher budget deficit, and the negative effects would be repeated.

The results indicate that the monetary policies had a positive effect on the return of the shares. In economy, assets in cash causes a lower interest rate which increases investment and higher real economic activities leading to higher benefits for the production enterprises and higher return of the shares. Moreover, the results of the study indicate that oil price has a positive effect on the return of shares, and the real foreign exchange rate causes an initial increase in the return of the stock return, but later the trend decreases.

The economic explanation for this issue is the fact that higher real foreign exchange rate (decrease in the value of national currency) causes higher competitiveness of the enterprises and there are more foreign demands for exports. This leads to higher marginal benefits of the production enterprises and higher return of the shares. On the other hand, the fluctuations in the real rate of foreign exchange can increase the price of the intermediary investment goods for the domestic firms causing a lower return of the shares for the firms.

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