The Impact of Monetary and Fiscal Policies on Stock Returns in the Jordanian Amman Stock Exchange Case

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Abstract
The paper aims to discuss the impact of the monetary and fiscal policies on stock returns in Amman stock exchange in Jordan during the period 2006 to 2016. The analytical descriptive approach was adopted when collecting the required data. A model was developed for conducting a multiple regression analysis. The paper found that between 2006 and 2016, there was a statistically significant positive impact for inflation on the stock returns in Amman stock exchange. Moreover, there was a statistically significant causal relationship between the stock returns in Amman stock exchange from one hand and inflation and interest rate from another hand. There was also a long run co-integration relationship between all the investigated variables of the monetary and fiscal policies from one hand and the stock returns in Amman stock exchange from another hand. The paper suggests taking the nature of the relationship between the variables of the monetary and fiscal policies and the stock returns in Amman stock exchange into consideration when setting policies by the government.

Keywords: Monetary Policies, Fiscal Policies, Stock Returns, Amman Stock Exchange.

1. Introduction
Monetary policies are considered one of the significant components of any economic system. Such policies include all the procedures and decisions that are related to managing the expansion, contraction and control of the money supply. Such policies are set to control the impact of the economic variables. Monetary policies affect the economic activity. For example, these policies aim at maintaining the economic stability of such an activity and reducing its economic fluctuations. There are also expansionary monetary policies that aim at fighting against recession and unemployment through reducing the interest rates and raising the money supplies. There are also contractionary monetary policies which aim at reducing inflation through raising the interest rates and reducing the money supplies (Gh’adeer, 2010).

Monetary policies are considered one of the most significant key policies that are necessary to achieve an economic stability within the state. Such policies are directed according to their goals. The methods of implementing the monetary policy vary from one country to another due to the variation in the conditions of countries, especially the economic conditions. For instance, a certain country may direct its monetary policies oriented towards fighting against inflation and addressing it to achieve stability in the level of prices. Through monetary policies, a country may seek achieving stability in foreign exchange market, economic growth and other goals (Al-Gh’alebe and Al-Jbouri, 2008). Monetary policies are defined as being a group of instruments and procedures that aim at affecting the money supply in particular and the economic performance in general. Monetary policies also include the procedures approved by the government or monetary authorities to manage the money supplies and interest rates (Gh’adeer, 2010).

As for the fiscal policies, they are considered very significant among economic policies because they involve various instruments that can help in achieving the various economic goals. Achieving such goals shall help in achieving economic development and eliminating the problems that can lead to achieving a state of instability in the state’s economy (Al-Shibani, 2013). Al-Salhi (2006) defines fiscal policies as being a group of financial procedures and measures that are adopted by the government to achieve economic, social, and political goals sometimes cultural goals.

Hence, there are differences between monetary and fiscal policies. To illustrate more, monetary policies refer to a group of procedures and acts that are carried out by the central bank to enforce control on funds in the aim of achieving certain economic goals. As for the fiscal policy, it refers to a group of instruments used by the government to affect a certain economic activity.

Based on the aforementioned, the significance of this paper arises from seeking to investigate the role of the monetary and fiscal policies in promoting trade in the financial market and recovering the overall economy. That shall apply in case the monetary or fiscal appropriate policy was implemented in the right time. Economic recovery occurs as a result of having a rise in the returns of the stocks of various products and services that are often influenced by a group of monetary and fiscal policies. Companies’ stock returns are considered a fundamental part of economic policies. Thus, the paper aims to discuss the monetary and fiscal variables that affect companies’ stock returns. Identifying these variables shall enable the companies to focus on them and manage them in a way that shall improve their performance.

The paper aims to discuss the impact of the monetary and fiscal policies on stock returns in Amman stock
exchange in Jordan during the period 2006 to 2016. Therefore, the paper aims to achieve the following:
1) - Identifying the impact of money supply on the stock returns in Amman stock exchange during the period (2006 – 2016).
2) - Identifying the impact of inflation on the stock returns in Amman stock exchange during the period (2006 – 2016).
3) - Identifying the impact of interest rate on the stock returns in Amman stock exchange during the period (2006 – 2016).
4) - Identifying the impact of government expenditures on the stock returns in Amman stock exchange during the period (2006 – 2016).
5) - Identifying the impact of government debt on the stock returns in Amman stock exchange during the period (2006 – 2016).
6) - Identifying the impact of government revenues on the stock returns in Amman stock exchange during the period (2006 – 2016).

The analytical descriptive approach will be adopted when collecting the required data. A model will be developed for conducting a multiple regression analysis. Hence, the following hypotheses shall be tested:

The First Hypothesis:
H0.1: There isn’t any statistically significant impact for monetary policies on the stock returns in Amman stock exchange during the period (2006 – 2016).
The following sub-hypotheses are derived from the aforementioned hypothesis:
H0.1.1: There isn’t any statistically significant impact for money supply on the stock returns in Amman stock exchange during the period (2006 – 2016).
H0.1.2: There isn’t any statistically significant impact for inflation on the stock returns in Amman stock exchange during the period (2006 – 2016).
H0.1.3: There isn’t any statistically significant impact for interest rate on the stock returns in Amman stock exchange during the period (2006 – 2016).

The Second Hypothesis:
H0.2: There isn’t any statistically significant impact for fiscal policies on the stock returns in Amman stock exchange during the period (2006 – 2016).
The following sub-hypotheses are derived from the above hypothesis
H0.2.1: There isn’t any statistically significant impact for government expenditures on the stock returns in Amman stock exchange during the period (2006 – 2016).
H0.2.2: There isn’t any statistically significant impact for government debt on the stock returns in Amman stock exchange during the period (2006 – 2016).
H0.2.3: There isn’t any statistically significant impact for government revenues on the stock returns in Amman stock exchange during the period (2006 – 2016).

2. Overview
2.1. Monetary Policies
2.1.1. The Concept of Monetary Policies
Monetary policies are defined as being a group of procedures that are planned by the state’s monetary authorities in the aim of managing the money supply, and determining the interest rates. That is done in the aim of achieving the optimal utilization and avoiding the occurrence of any inflationary pressure in the state’s economy (Amer, 2010).

The Central Bank of Jordan defines the monetary policy as being a group of procedures and measures that are carried out by the central bank to affect the operational goals (which are represented in the interest rate and money base). That is done in the aim of providing an appropriate level of liquidity within the state that is in agreement with the actual economic activity and able to maintain the economic stability (www.cbj.gov.jo).

Salter (2014) states that monetary policies refer to the act of modifying the money supply by the central bank to avoid the occurrence of monetary equilibrium.

Based on the aforementioned definition of monetary policies, it can be concluded that such policies involve various monetary means and methods that aim at achieving economic welfare within the state and protecting the state from fluctuations and inflation risks that occur on the prices of services and products. Thus, monetary policies can be defined as being a group of policies and measures that are carried out by the state in the aim of managing and organizing its economy through increasing or decreasing the money supply in accordance with the current economic status of the state.

2.1.2. The Goals of Monetary Policies
The goals of monetary policies vary in accordance with the economic growth level and economic conditions of each state. The ones who set the monetary policies must make a balance between the economic and social goals. Such a balance can be made through reducing the extent of conflict between those goals in order to avoid having
any undesirable outcome from implementing the set policy

Khrais (2011) states that the monetary policy aims at achieving monetary stability which can be achieved through achieving a balance between the cash flow and commodity flow. Achieving monetary stability shall lead to achieving economic stability (price stability). As for Al-A’jlouny and Al-Halaq (2010), they suggest that monetary policies aim at reducing the money supply and affecting the velocity of money circulation in order to reduce the liquidity level of the private sector. That would be associated with a reduction in the bank credit to achieve a state of monetary stability. In order to achieve that, the central bank usually adopts the bank’s exchange rate policy, conduct open market operations, and change the statutory reserve ratio in order to have control over the amount of reserves within the state.

2.1.3. Instruments of the Monetary Policies

The instruments of the monetary policies are represented in a group of means that are adopted out by the government to enforce control on the money supply. Such means include: quantitative, qualitative, and direct control.

First: Means of Quantitative Control (Indirect Control) on the Bank Credit

The central bank affects the size of the bank credit through traditional quantitative means (policies). Through such means (policies), the central bank would be able to control the money supply. In this way, the central bank shall be able to affect the economic activity.

The instruments of the quantitative control that affect the amounts of credit and money in the economy are categorized into three categories. These categories are: discount price, open market operations, and the statutory reserve ratio (Al-A’jlouny and Al-Halaq, 2010).

1) Discount Rate Policy

Discount rate refers to the rate adopted by commercial banks for discounting the commercial papers provided by their clients. Commercial banks usually turn to the central bank for re-discounting those commercial papers. The rate at which the central bank re-discounts the commercial papers provided to it by commercial banks is called (the re-discount rate) (Khrais, 2011, p.173).

When experiencing a state of inflation, the central bank shall raise the re-discount rate which shall lead to raising the costs incurred by commercial banks for obtaining loans. Thus, commercial banks shall decide to lower the re-discount rates of the commercial papers they hold. That shall lead to reducing the amount of liquidity available at those banks for debt purposes and thus, the interest rate of the loans granted for their customers shall be raised. In this case, the demand for bank credit shall decrease leading to a decrease in the total expenditure volume. That shall participate in reducing the intensity of the faced pressures.

When experiencing economic contraction, the central bank shall reduce the re-discount rate which would result in reducing the costs incurred for obtaining loans. That shall encourage commercial banks to provide more commercial papers to discount them at the central bank. In this manner, their amount of liquidity of those banks that are devoted for loans shall increase, whereas their interest rates on loans and call and term deposits shall increase. That shall lead to increasing the demand on credit bank and the total expenditure volume. That shall participate in achieving economic recovery.

2) Open Market Operation Policy

The open market operation policy is considered one of the alternatives of the monetary policy. The former policy is a traditional method used by central banks for controlling the bank credit and liquidity levels of commercial banks. Open market operations can be defined as being the processes of purchasing and selling the instruments of the government internal debt (bonds and permissions). The central bank sells these instruments in case the money supply level is reduced. The central bank shall buy these instrument in case the money supply level was raised (Jaldah, 2008).

When experiencing a state of economic recession, the central bank enters the financial market to buy government securities and bonds. The sellers of such bonds and securities shall deposit cheques at commercial banks. The latter banks shall submit those cheques to the central bank to collect them. The central banks shall deposit the amounts of those cheques into the accounts of those commercial banks. That shall lead to an increase in the deposits owned by those banks and held at the central bank leading to an increase in their cash reserves. The latter increase shall help banks in increasing the volume of their bank credit and customers’ loans. All of that shall participate in increasing the total expenditure volume and recovering economy.

3) The Required Reserve Ratio Policy:

This instrument is considered the most widely used instrument among the monetary policy instruments. This instrument aims at protecting depositors and enabling them to withdraw their deposits when they need them. This policy represents an instrument that affects the abilities of commercial banks to grant credit.

When experiencing economic recession, the central bank shall reduce the reserve ratio. That shall increase credit facilities, transactions and demand leading to increase the gross national income (GNI) and operationalization of funds. When experiencing inflation, the central bank shall increase the cash reserve ratio in the aim of reducing banks’ abilities to grant credit. Such reduction shall reduce the investment and employment
rates leading to a reduction in demand. That will lead to a reduction in prices (Tashtoush, 2012).

Commercial banks are obliged to keep a certain ratio of their total deposits (current, time and saving deposits) held at the central bank as a mandatory statutory reserve. The commercial banks will not obtain any benefit for these deposits. This policy represents a measurement for the money supply. It is considered controllable and measurable. Therefore, it is characterized with being accurate and its data are obtained easily without any delay (Kosimbei et al., 2012).

2.1.4. The Qualitative Control Instruments
These instruments aim at affecting the quality of the bank credit. They also aim at organizing and directing the bank investment operations in a way that serves the goals of the state’s economic and monetary policies.

2.1.5. Direct Control Means
Direct control refers to a group of direct measures and procedures that concern financial and banking bodies and organization and are carried out by the central bank. These measures and procedures aim at achieving the goals of the monetary policy. The effectiveness of the central bank’s procedures depends on its position and its extent of moral influence on the banking institutions (Khrais, 2011, p. 179).

2.2. Fiscal Policies

2.2.1. The Concept of the Fiscal Policy
Fiscal policies refer to a group of goals, activities, procedures and guidelines that are adopted by the government to affect the national economy and society. They are adopted in the aim of maintaining and developing the national economy’s general stability, addressing the problems facing it, and facing all the changing circumstances surrounding it (Al-wadi and Zakareya, 2007, p.212).

This definition is considered in agreement with what is suggested by Salhi (2006). For instance, the latter states that fiscal policies refer to a group of financial policies and measures that are adopted by the government to achieve economic, social, and political goals and sometimes cultural goals.

Al-A’jlouny and Al-Halaq, (2010, p.227) define fiscal policies as being the government’s policy in matters related to government expenditures, taxes, government debt, and fighting against inflation. Such policies aim at reducing the government expenditures and increasing taxes. In this manner, the government can address the inflationary pressures of private uncontrolled expenditure. As a result, the total demand for products and services – relative to the ones offered – shall decrease. The extent of this decrease depends on the extent of reduction in the government expenditures.

Thus, it could be defined the fiscal policies as being the financial orientations of the government which aim at maintaining the state’s financial stability through controlling expenditures and earning revenues in a manner that can ensure the achievement of economic equilibrium in society.

2.2.2. The Goals of the Fiscal Policy
The fiscal policy aims at achieving several goals which are represented in the following ones (Salhi, 2006):

1) Allocating the society’s resources optimally: The government focus on producing a variety of products and services that fulfill the basis increasing needs of the society’s members in accordance with the available resources. For instance, the state may have non-renewable resources or limited depleted renewable ones. In order to satisfy the needs of the society’s members in accordance with the extent of availability of such resources, the government shall seek directing and encouraging the public and private sectors. Such direction and engorgement shall be made through using various instruments of the fiscal policies which concern the public revenues or public expenditures.

2) Distributing wealth and income equally: Allocating the society’s resources optimally shall lead to increasing and diversifying production in various services and commodities. The fiscal policies participate in distributing wealth and income to the society’s members equally. Such participation occurs through carrying out various procedures that are related to the primary distribution of wealth, and fair distribution of income obtained through using wealth sources and balanced distribution. Such procedures aim at correcting the imbalance resulting from misusing the available resources.

3) Achieving economic stability: The state seeks using the fiscal policies instruments in the aim of achieving economic stability. That is done through determining a minimum limit for stability in production, and operation. It is also done through carrying out preventative measures against the fluctuations that occur in production, and income, and prices levels. It is also done through carrying out preventative measures against various economic changes that concern economic recession and inflation. Such changes can lead to a state of imbalance in the social and economic fields.

4) Financial balance: It refers to the proper use of the state’s resources in the best possible manner.

5) General equilibrium: The state seeks achieving general equilibrium through making a balance between the gross national expenditure (the expenditures related to consumption, investment and the government expenditures) and gross national product (GNP) of the fixed prices. That is done within a level that allows operationalizing all the available production elements. To achieve that, the state uses several instruments of the
fiscal policies. Such instruments include taxes, loans, aids, and exemptions, making partnerships with individuals in investments, etc…

2.2.3. Instruments of the Fiscal Policies
Fiscal policies use public finance components to achieve the necessary objectives that can maintain the state’s economic stability. Fiscal policies play a significant role in supporting the state’s economy and its growth in a fair manner. The instruments of fiscal policies are represented in the following ones (Gasper, 2015):

A) The Revenue Policies: They Consists of Taxes Policies and Government Debts:
Public revenues are considered the most significant instruments that the government uses in implementing the development plans that can achieve economic welfare for the state. In general, the state is keen to increase its public revenues and maintain them. That is because public revenues represent an actual indicator that reflects how active and effective the government’s economic and financial performance are

First: Taxes:
The state imposes taxes or fees to achieve certain goals that serve the state’s economic policy. For instance, the aim of imposing taxes on certain commodities may be represented in protecting a certain national industry or re-distributing the actual national income. Such aims may include the state’s desire to affect its imported commodities in a way that serves the state’s public economic policy.

There are several types for taxes, such as: income tax, indirect taxes, companies’ tax and the customs fees that are imposed on local and foreign commodities and services (Ghadir, 2010). Setting tax policies is rarely easy. The tax income instruments play a major role in recovering financial sustainability and reducing the negative impacts that harm the state’s economic activity. The latter instruments play a significant role in supporting growth on the long term and achieving justice in the society (Keen, 2012).

Taxes are categorized into two types; direct and indirect taxes. The direct ones are imposed on capital according to the taxpayer’s profits or the capital elements he owns. Such taxes must be incurred by the taxpayer himself and he can’t assign the burden of paying them to someone else (Al-Ali, 2008, p. 316). As for the indirect tax, it refers to any tax incurred by the taxpayer, but can be assigned to someone else by the taxpayer. The latter kind of taxes is characterized with easiness in collecting them and having abundant collection (Awad Allah, 2003, p. 158).

Direct and indirect taxes are considered the most significant instruments of the fiscal policies. That is attributed to the following reasons (Ghadir, 2010, p. 14):
* Such taxes provide the state’s treasury with the largest portion of revenues
* They can be used to interfere with economic matters. For instance, some sectors can be exempted from taxes in the aim of promoting investments in them. In addition, the state may raise the taxes imposed on the active sectors. The state may also reduce the taxes imposed on the stalled sectors which the private sector doesn’t invest much in them.
* They are used to achieve social justice through reducing indirect taxes and using progressive taxes that are positively and directly correlated with income.

When the state reduces the ratios of indirect taxes, especially the personal income tax, people’s purchasing power shall increase. Thus, the consumer expenditures shall increase leading to an increase in the investment opportunities. That shall lead to increasing the state’s economic welfare. When the state raises the ratios of direct taxes, job opportunities and labor supply shall decrease leading to a reduction in productivity levels (Scarlett, 2011).

Second: Government Debt:
The size of the government debt represents a significant instrument that the state depends on for offsetting the shortfall of the government budget and funding various investment projects leading to affect the state’s economic status positively. When experiencing inflation, the state borrows money through selling government bonds to the public and such sale shall target the ones of low and middle income. Such a policy may lead to a decrease in the consumption rates of such categories of people. When the government faces difficulties in offsetting the shortfall of its budget, it must adopt a policy for addressing its inflationary pressures through reducing consumption. When the state experiences fiscal deficit during the period of economic recession, the government shall fund such a deficit through turning to financial institutions and individuals of high income who can lend the government money without having their consumption affected (Al-Rabee’i, 2015).

B) The Expenditure Policy
Expenditures are defined as being amounts of money that one spends to satisfy his needs (Al-Qaisi, 2008, p. 36). Public expenditures are considered the most significant instruments of the fiscal policies that can increase the size of the total demand in the national economy. The state uses the public expenditure policy to address inflationary or contractual gaps in the aim of increasing or reducing the size of the total demand in accordance with the problem being faced. Thus, the state uses the public expenditure policy to increase or decrease the size of the economic activities in accordance with the status of the national economy of the concerned state (Ghadir, 2010). The total public expenditure may be within a stable level without experiencing any increase or decrease.
However, re-distributing it on the economic activities has a great impact. For instance, the state may reduce the expenditures spent on roads, and construction and increase the expenditures spent on educational activities.

The state adopts the budget shortfall policy in increase the total public expenditure. For instance, the state issues money in the aim of funding the selected projects that can participate in offsetting the state’s budget. This policy is part of a fiscal expansionary policy that aims at increasing the size of the total expenditure and the total demand. Developing countries depend constantly on this policy due the shortage of the state’s public resources. The extent of this policy’s success depends on the country’s economic status. However, developed countries do not use this policy, unless they are experiencing economic contraction (Ghadir, 2010). In general, reducing the public expenditure and increasing taxes shall lead to generating cash surplus (Al-Ajouni and Al-Halaq, 2010).

3. Literature Review

Al-Oshaibat and Majali (2016) conducted a study that aimed at identifying the nature of relationship between inflation, interest rate, stock liquidity and employees' remittances from one hand and stock returns in Amman stock exchange during the period (1980 – 2014) from another hand. In order to achieve the study’s objectives, vector auto-regression (VAR) model was adopted. The latter researchers checked how stationary the time series data is. Cointegration analysis and Granger causality test were conducted between the study’s variables. The independent variables are represented in inflation, interest rate, stock liquidity and employees' remittances. As for the dependent variable, it refers to the stock returns in Amman stock exchange during the period (1980 – 2014). It was concluded that employees' remittances have a positive impact on the stock returns on the long term. That is because employees' remittances affect the total demand and increase the economic growth. In addition, it was concluded that there is a limited effect for stock turnover on the stock returns in Amman stock exchange. It was also concluded that there is a negative impact for the interest rate on stock returns in Amman stock exchange. Ramadan (2016) conducted a study that aimed at identifying the impact of the macroeconomic variables on price movement of the stocks in Amman stock exchange during the period (2000 – 2014). The study’s sample consists from 77 industrial companies in Amman stock exchange. Multiple linear regression analysis was conducted to identify the nature of the relationship between the study’s variables. The independent variables are represented in: interest rate, inflation, money supply and gross domestic product. As for the dependent variable, it is represented in the prices stocks. It was concluded that there is a statistically significant negative impact for the macroeconomic variables represented in the interest rate and inflation – on the price movement of the stocks of the Jordanian industrial companies. It was also concluded that the impact of the money supply and gross domestic product have a statistically significant positive impact on the price movement of the stocks of the Jordanian industrial companies.

Al-Kilani and Kaddumi (2015) conducted a study that dealt with the nature of the relationship between macroeconomic variables and the stock returns in Amman stock exchange during the period (2013 – 2005). The latter study conducted a multiple regression analysis to explore the relationship between the study’s variables. The independent variables are represented in: inflation rate, re-discount rate, gross domestic product, money supply and the interest rate on loans). As for the dependent variable, it is represented in stock returns. It was concluded that there is a statistically significant positive correlation between the stock returns in Amman stock exchange from one hand and inflation rate and re-discount rate from another hand. It was also concluded that there is a statistically significant negative correlation between the stock returns in Amman stock exchange from one hand and gross domestic product, money supply and the interest rate on loans from another hand.

Almutair (2015) conducted a study that aimed at exploring the nature of the relationship between money supply and the stock prices in the Saudi Stock Exchange during the period (1985 - (2013). In order to achieve the study’s objectives, cointegration analysis and Granger causality test were conducted and an error correction model (ECM) was adopted. The results showed that stocks prices cause money supply in the long run. There is a positive long term correlation between money supply and the stock prices in the Saudi Stock Exchange.

Adila (2014) conducted a study that aimed at exploring the relationship between monetary economic variables and the stock prices in Dubai financial market during the period (2010 – 2013). The latter researcher adopted a multiple regression model to identify the relationship between the independent and dependent variables. The independent variables are: (oil prices, money supply, and inflation). As for the dependent variable, it is represented in the stock prices. The model was analyzed using various statistical tests. Such tests include the Augmented Dickey-Fuller test for check that the time series data is stationary and Johansen cointegration test. Error correction model (ECM) was also adopted. It was concluded that there is a statistically significant negative relationship between the oil price and the stock prices. It was concluded that there is a statistically significant positive relationship between money supply and stock prices. It was concluded that there isn’t any statistically significant impact for inflation on the stock prices in Dubai Financial Market.

Abdul Kabeer et al. (2016) conducted a study that aimed at identifying the impact of the macroeconomic variables on the performance of the financial market in Pakistan (2005 – 2015). In order to achieve the study’s objectives, 100 companies in Karachi Stock Exchange were selected. The monthly data covers a period of 10
years. The ordinary least squares (OLS) model was adopted to identify the relationship between the study’s variables through using E-views and Excel programs. The independent variables are: inflation, foreign exchange rates, and direct foreign investment. As for the dependent variable, it is represented in the stock returns in the Karachi Stock Exchange. It was concluded that there is a statistically significant negative impact for inflation, foreign exchange rates, and direct foreign investment on the stock returns in the Karachi Stock Exchange.

Nguyen et al. (2016) conducted a study that aimed at identifying the impact of the monetary policy on the stock prices in financial market of Vietnam during the period (2006 – 2015). In order to achieve the study’s objectives, a model was developed to analyze the linear regression. The latter researchers collected the data of the stock prices and monetary variables. Such variables include: the interest rate, exchange rate, money supply and statutory reserve rate. ARDL and GJR – GARCH models were adopted. It was concluded there is a statistically significant long term negative correlation between the stock prices in the financial market of Vietnam from one hand and the monetary variables from another hand. That latter variables are represented in the interest rate, exchange rate, money supply and statutory reserve rate.

Abdioğlu and Aytekin (2016) conducted a study that aimed at identifying the impact of the monetary policy instruments on the stock returns of banks in Turkey during the period (2008 – 2012). The descriptive analytical approach was adopted. The means of the cumulative normal and abnormal returns were calculated. It was concluded that there is statistically significant impact for the monetary policy instruments on the stock returns of banks in Turkey. It was concluded that there is a statistically significant positive impact for the monetary policy instruments on the cumulative abnormal returns during the following months: (March, April, July, and November) in (2008). It was concluded that there is a statistically significant negative impact for the monetary policy instruments on the cumulative normal returns during the following months: (May, June, August, September and December) in (2008). It was concluded that there is a statistically significant positive impact for the monetary policy instruments on the cumulative abnormal returns during the following months: (January, March and November) in 2008. It was concluded that there is a statistically significant negative impact for the monetary policy instruments on the cumulative normal returns during the following months (February, April, June, July, August, October, and December) in 2008.

Namini and Nasab (2015) conducted a study that aimed at identifying the impact of the monetary and fiscal policies on the financial market of Iran during the period (2010 – 1991). In order to achieve the study’s objectives, the structural vector auto-regressions model was adopted. The independent variables include: the money supply and public expenditures. As for the dependent variable, it is represented in the stock market index of the financial market of Iran. It was concluded that there is a positive impact for the monetary policy on the financial market of Iran. For instance, it was concluded that the increase of the money supply leads to an increase in the stock market index of the financial market of Iran. It was also concluded that there is a negative impact for the fiscal policy on the stock market index of the financial market of Iran. For instance, it was concluded that the increase in the public expenditure shall lead to a decrease in the stock market index of the financial market of Iran.

Bhatti et al. (2015) conducted a study that aimed at exploring the nature of the relationship between the fiscal and monetary policies from one hand and the stock returns in the Malaysia Stock Exchange during the period 1991 to 2012. The latter researchers adopted the structural vector auto-regressions (SVAR) model. The independent variables include: oil price, public expenditure, interest rate and loans. As for the dependent variable, it is represented in the stock returns. It was concluded that oil prices have a positive impact on stock returns in the Malaysia Stock Exchange. As for the public expenditure, interest rate and loans, they do not have any impact on the stock returns in the Malaysia Stock Exchange. The latter researchers recommended examining the fiscal and monetary policies by investors and decision makers simultaneously. In other words, they should not be examined separately.

Kganyago and Gumbo (2015) conducted a study that aimed at exploring the nature of the relationship between the interest rate of the money market from one hand and the performance of the financial market of Zimbabwe during the period (2009 – 2013). A model was developed for conducting a multiple linear regression analysis. The later researchers collected the monthly data of the stock returns in the financial market of Zimbabwe and the monetary variables. The latter variables include: the interest rate of the money market, the growth rate of the money supply and the inflation rate. It was concluded that there is a long run negative causal relationship that is statistically significant between the interest rate of the money market, and the stock returns in the financial market of Zimbabwe. It was concluded that there is a statistically significant negative impact for inflation on the stock returns in the financial market of Zimbabwe. It was also concluded that there isn’t any statistically significant impact for money supply on the stock returns in the financial market of Zimbabwe.

Rifat (2015) conducted a study that aimed at identifying the impact of the money supply on the stocks prices in the Bangladesh Stock exchange during the period (2003 – 2013). The variables that represent the monetary policy include: discount rate, exchange rate, money supply and consumer price index. The latter researcher adopted the deceptive analytical approach through collecting monthly data. A model was developed...
for conducting a linear regression analysis. Johansen cointegration test was conducted and error correction model (ECM) was adopted. It was concluded that there isn't any statistically significant relationship nor a cointegration relationship between the stocks prices in the Bangladesh Stock exchange from one hand and the interest rate, exchange rate, money supply and consumer price index.

Aminzadeh and Irani (2015) conducted a study that aimed at identifying the impact of the monetary policy on the stocks' efficiency of the private banks of Iran. The analytical descriptive approach was adopted. A model was developed for conducting a multiple regression analysis. The monetary variables include: the interest rate and liquidity level. It was concluded that there is a weak positive impact for the liquidity level on the stock returns of the private banks of Iran. It was also concluded that there is a statistically significant negative impact for the interest rate on the stock returns of the private banks of Iran.

4. Methodology
The paper’s data that is related to the dependent and independent variables is represented in time series data for the period between 2006 to 2016. The financial data that concern the variables was collected through reviewing the reports presented on the official electronic websites of the Jordanian central bank, Amman stock exchange, and department of statistics.

4.1. Variables
* The Dependent Variable
Stock returns: this variable is represented by the return of the overall stock market index. Yousefi et al. (2013) define the stock returns as being the change in the value of company’s assets during a certain period of time. Such a change is attributed to the change in the stock prices and interest rates.

The price-weighted index value of free stocks was identified to measure the amount of the stock returns. The latter index value is characterized with representing the movement in the stock prices in a better manner. Through this index, there won’t be a great bias for the favor of the companies of great market value. In this manner, that shall generate a diversity in the components of the sampled price-weighted index through giving small and medium sized companies a greater opportunity to affect the movement of this index. This value of this index is calculated through weighting the market value of the free stocks that can be circulated. Thus, it is not calculated through calculating the total number of the stocks of each company. (www.ase.com.jo)

The market stocks were measured through the following equation:
\[MKT = \ln \left( \frac{\text{Index}_t}{\text{Index}_{t-1}} \right)\]

The independent variables: They include the following ones:
A) The Monetary Policy Variables
1) The money supply (M2): It refers to the supply of money and deposits that are under demand in foreign currencies. It also refers to the supply of time saving deposits deposited at the Jordanian central bank and owned by the private sector, non-banking financial institutions, public institutions, and other banking institutions (www.cbj.gov.jo).

Money supply was measured through the following equation:
\[M2 = \ln \left( \frac{\text{M2}_t}{\text{M2}_{t-1}} \right)\]

2) Inflation: It refers to an overall rise in the prices with being associated with a decrease in the purchasing power of the local currency. That is attributed to the increase in the overall demand relative to the overall supply of commodities and services during a certain period of time (Morosan and Zubas, 2015). It was measured through identifying the percentage of the change in consumer prices index (CPI). The latter index measures the overall level of the prices of a certain group of consumer services and products.

Inflation was measured through the following equation:
\[INF = \ln \left( \frac{\text{CPI}_t}{\text{CPI}_{t-1}} \right)\]

3) Re-discount rate: It refers to the interest rate at which the Jordanian commercial banks borrow money from the Jordanian central bank.

This variable was measured through the following equation:
\[INT = \ln \left( \frac{\text{INT}_t}{\text{INT}_{t-1}} \right)\]

B) The Fiscal Policy Variables:
1) Government expenditures: It refers to the overall direct expenditure of the government that is necessary for purchasing commodities and services. Government expenditures may be consumption or investment expenditures.

This variable was measured through the following equation:
\[GE = \ln \left( \frac{\text{GE}_t}{\text{GE}_{t-1}} \right)\]

2) The government debt: It refers to the amount of money that the government borrows from foreign countries, individuals, or local bodies due to the shortfall of the government budget. Such amounts are borrowed to fund the government expenditures when there aren’t adequate earnings.
This variable was measured through the following equation:

\[ GD = \ln \left( \frac{GD_t}{GD_{t-1}} \right) ^3 \]

3) Government Revenue: It is the financial instrument through which the state would be able to provide the necessary amounts of funds. Such funds are collected through taxes, or other sources of funds to fulfill the public needs, perform services and carry out the functions assigned to it. Government revenues are considered an effective instrument for affecting the social and economic aspects and achieving the state’s public goals. This variable was measured through the following equation:

\[ GR = \ln \left( \frac{GR_t}{GR_{t-1}} \right) \]

The Model:

In order to explore the relationship between the dependent variable (i.e. the stock returns) and the dependent variables (i.e. the monetary and fiscal policies), the following multiple regression model was adopted:

\[ MKT_t = \beta^0 + \beta_1 M_{2t} + \beta_2 INF_t + \beta_3 INT_t + \beta_4 GE_t + \beta_5 GD_t + \beta_6 GR_t + \mu_t \]

Whereas:
- MKT: The dependent variable (i.e. the stock returns)
- \( \beta^0 \): The constant value
- M2t: Money supply
- INF: Inflation
- INT: Interest rate
- GE: Government expenditure
- GD: The gross government debt
- GR: The government revenue
- \( \mu_t \): The random error coefficient
- \( \beta_1 \): The movement in the stock returns that results from the change in money supply
- \( \beta_2 \): The movement in the stock returns that results from the change in inflation
- \( \beta_3 \): The movement in the stock returns that results from the change in the interest rate
- \( \beta_4 \): The movement in the stock returns that results from the change in government expenditure.
- \( \beta_5 \): The movement in the stock returns that results from the change in gross government debt.
- \( \beta_6 \): The movement in the stock returns that results from the change in the government revenues

The change percentages were calculated for each variable to ensure that the time series data is stationary when estimating them.

4.2. Data Analysis Methods

In this paper, the dependent variable is the stock returns. As for the independent variables, they are represented in the monetary and fiscal policies. The variables of the monetary and fiscal policies include: money supply, inflation, interest rate, government expenditure, the government debt, and government revenues. The E-Views program was used to analyze the collected data statistically and test hypotheses. The following statistical methods were used for data analysis:

1) The descriptive tests: Arithmetic means and standard deviations were calculated. The highest and lowest means and standard deviations were identified
2) The multiple regression analysis: it was conducted to test the hypotheses of the paper through the model that was built. In addition, the following tests were conducted: the Augmented Dickey-Fuller test, Granger causality test, and Johansen cointegration test.

Statistical Analysis:

The statistical analysis of data and the hypotheses test shall be presented. Such analysis and test are done through using standard methods for analyzing the time series data.

The Descriptive Analysis for the Variables:

First: The Results of the Descriptive Analysis:

In this part, the results of the descriptive analysis for the variables shall be presented. For instance, table (1) presents the variables, arithmetic means, standard deviations, maximum value, and minimum value.
Table (1): Results of the Descriptive Analysis for the Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Arithmetic Means</th>
<th>Standard Deviations</th>
<th>Maximum Value (max)</th>
<th>Minimum Value (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M2 (Million JDs)</td>
<td>22724.5</td>
<td>6059.9</td>
<td>32718.9</td>
<td>12137.3</td>
</tr>
<tr>
<td>INF</td>
<td>0.0030</td>
<td>0.0088</td>
<td>0.0586</td>
<td>-0.0352</td>
</tr>
<tr>
<td>INT%</td>
<td>5.2%</td>
<td>1.3%</td>
<td>7.5%</td>
<td>3.8%</td>
</tr>
<tr>
<td>GE (Million JDs)</td>
<td>524.9</td>
<td>163.1</td>
<td>1061.3</td>
<td>180.0</td>
</tr>
<tr>
<td>GD (Million JDs)</td>
<td>14949.7</td>
<td>6167.4</td>
<td>26045.6</td>
<td>7589.3</td>
</tr>
<tr>
<td>GR (Million JDs)</td>
<td>440.8</td>
<td>165.7</td>
<td>1212.6</td>
<td>230.4</td>
</tr>
<tr>
<td>MKT</td>
<td>-0.0055</td>
<td>0.0442</td>
<td>0.1037</td>
<td>-0.2502</td>
</tr>
</tbody>
</table>

The following can be concluded:

**M2:** The highest value of the money supply variable is 32718.9 million JDs. As for the lowest value of the money supply variable, it is 12137.3 million JDs. As for the arithmetic mean of this variable, it is 22724.5 with having a standard deviation of 6059.9.

**INF:** The highest value of the inflation variable is 0.0586, whereas the lowest value for this variable is -0.0352. As for the arithmetic mean of this variable, it is 0.0030 with having a standard deviation of 0.0088.

**INT:** The highest value of the interest rate variable is 7.5%, whereas the lowest value for this variable is 3.8%. As for the arithmetic mean of this variable, it is 5.2% with having a standard deviation of 1.3.

**GE:** The highest value of the government expenditure variable is 1061.3 million JDs, whereas the lowest value for this variable is 180.0 million JDs. As for the arithmetic mean of this variable, it is 524.9 million JDs with having a standard deviation of 163.1.

**GD:** The highest value of the government debt variable is 26045.6 million JDs, whereas the lowest value for this variable is 7589.3 million JDs. As for the arithmetic mean of this variable, it is 14949.7 million JDs with having a standard deviation of 6167.4.

**GR:** The highest value of the government revenue variable is 1212.6 million JDs, whereas the lowest value for this variable is 230.4 million JDs. As for the arithmetic mean of this variable, it is 440.8 with having a standard deviation of 165.7.

**MKT:** The highest value of the stock returns variable is 0.1037, whereas the lowest value for this variable is -0.2502. As for the arithmetic mean of this variable, it is -0.0055 with having a standard deviation of 0.0442.

Correlation Coefficient

Table (2) presents the correlation matrix between the variables. Through it, the following can be concluded:

Through table (2), it can be noticed that the correlation coefficient values are low between variables. This indicates that there isn’t any multicollinearity problem. For instance, all the correlation coefficient values are less than 70% (Gujarati, 2003).

Dickey–Fuller test

Table (3) presents the results of the Dicky fuller test for stationarity. Through it, the following can be concluded:

Through the former test is statistically significant (P ≤ 5%). That means that the null hypothesis that states that there is a unit root problem (stationarity) in the data rejected.

Model Estimation through using the multiple regression analysis

Dickey-Fuller test was conducted to ensure that the variables are stationary. In this case, the ordinary least
The results of the multiple regression analysis of time series data have showed the following:

1) There is a statistically significant positive impact for inflation on the stock returns in Amman stock exchange. The significance value (Sig.) is 0.0018 which is statistically significant at the significance level (P ≤ 5 %) and the value of the inflation coefficient is 1.2642. That means that the rise in the inflation rate shall lead to an increase in the stock returns in Amman stock exchange. As for the decrease in the inflation rate, it shall lead to a decrease in such returns. Based on that, the following hypothesis is rejected:

H0.1.2: There isn’t any statistically significant impact for inflation on the stock returns in Amman stock exchange during the period (2006 – 2016).

2) There isn’t any statistically significant impact for money supply on the stock returns in Amman stock exchange. The significance value (Sig.) is 0.8810 which is not statistically significant at the significance level (P ≤ 5 %). Based on that, the following hypothesis is accepted:

H0.1.1: There isn’t any impact for money supply on the stock returns in Amman stock exchange during the period (2006 – 2016).

3) There isn’t any statistically significant impact for the interest rate on the stock returns in Amman stock exchange. The significance value (Sig.) is 0.3630 which is not statistically significant at the significance level (P ≤ 5 %). That can be attributed to the stability in the re-discount rate during the paper’s period. Based on that, the following hypothesis is accepted:

H0.1.3: There isn’t any statistically significant impact for interest rate on the stock returns in Amman stock exchange during the period (2006 – 2016).

4) H0.2.3: There isn’t any statistically significant impact for government revenues on the stock returns in Amman stock exchange. The significance value (Sig.) is 0.0806 which is not statistically significant at the significance level (P ≤ 5 %). Based on that, the following hypothesis is accepted:

H0.2.3: There isn’t any statistically significant impact for government revenues on the stock returns in Amman stock exchange during the period (2006 – 2016).

5) H0.2.2: There isn’t any statistically significant impact for government debt on the stock returns in Amman stock exchange. The significance value (Sig.) is 0.1524 which is not statistically significant at the significance level (P ≤ 5 %). Based on that, the following hypothesis is accepted:

H0.2.2: There isn’t any statistically significant impact for government debt on the stock returns in Amman stock exchange during the period (2006 – 2016).

6) H0.2.2: There isn’t any statistically significant impact for government debt on the stock returns in Amman stock exchange. The significance value (Sig.) is 0.0901 which is not statistically significant at the significance level (P ≤ 5 %). Based on that, the following hypothesis is accepted:

H0.2.2: There isn’t any statistically significant impact for government debt on the stock returns in Amman stock exchange during the period (2006 – 2016).

7) The value of the determination coefficient (Adjusted R-Squared) is 0.1467. That means that the paper’s independent variables jointly can explain 14.7 % of the changes that occur in the stock returns in Amman stock exchange. There are other factors that can interpret 85.3 % of the changes that occur in the stock returns of those companies

Granger Causality Test
Granger causality test was conducted to identify the direction of the causal relationship between the variables on the short term level.
Table (5): The results of Granger causality test.

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>F-Statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>M2 does not Granger Cause MKT</td>
<td>0.6723</td>
<td>0.6453</td>
</tr>
<tr>
<td>MKT does not Granger Cause M2</td>
<td>0.7034</td>
<td>0.6220</td>
</tr>
<tr>
<td>INT does not Granger Cause MKT</td>
<td>0.6238</td>
<td>0.6819</td>
</tr>
<tr>
<td>MKT does not Granger Cause INT</td>
<td>2.5115</td>
<td>0.0339</td>
</tr>
<tr>
<td>INF does not Granger Cause MKT</td>
<td>2.0562</td>
<td>0.0761</td>
</tr>
<tr>
<td>MKT does not Granger Cause INF</td>
<td>3.3223</td>
<td>0.0077</td>
</tr>
<tr>
<td>GR does not Granger Cause MKT</td>
<td>0.5061</td>
<td>0.7711</td>
</tr>
<tr>
<td>MKT does not Granger Cause GR</td>
<td>0.2082</td>
<td>0.9584</td>
</tr>
<tr>
<td>GE does not Granger Cause MKT</td>
<td>0.9897</td>
<td>0.4273</td>
</tr>
<tr>
<td>MKT does not Granger Cause GE</td>
<td>0.9492</td>
<td>0.4522</td>
</tr>
<tr>
<td>GD does not Granger Cause MKT</td>
<td>1.4332</td>
<td>0.2177</td>
</tr>
<tr>
<td>MKT does not Granger Cause GD</td>
<td>1.7855</td>
<td>0.1213</td>
</tr>
</tbody>
</table>

Through the above table, the following can be concluded:

**First:** A unidirectional causal relationship

*Through Granger causality test, it can be concluded that there is a short run statistically significant unidirectional causal relationship between inflation (INF) and stock returns (MKT). To be specific, the change in the stock returns causes a change in inflation*

*Through Granger causality test, it can be concluded that there is a short run statistically significant unidirectional causal relationship between the interest rate and stock returns. To be specific, the change in the stock returns leads to a change in the interest rate*

**Second:** The Absence of Any Causal Relationship:

*Through Granger causality test, it can be concluded that there isn’t any long run causal relationship between the stock returns from one hand and money supply, and government expenditures, revenues and debts from another hand. There is a clear gap between the economic variables (whether they are the variables of the fiscal or monetary policy) from one hand and the performance of Amman stock exchange from another hand on the short term level*

**Johansen Co-integration Test**

Table (6) below presents the results of the co-integration test conducted upon the variables through using the Johansen co-integration test.

Table (6): The results of Johansen co-integration test.

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigen value</th>
<th>Trace Statistic</th>
<th>0.05 Critical Value</th>
<th>Max-Eigen Statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>M2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.2130</td>
<td>50.7221</td>
<td>15.4947</td>
<td>29.9404</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.1532</td>
<td>20.7817</td>
<td>3.8415</td>
<td>20.7817</td>
<td>0.0000</td>
</tr>
<tr>
<td>INF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.2754</td>
<td>58.3109</td>
<td>15.4947</td>
<td>40.2669</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.1344</td>
<td>18.0440</td>
<td>3.8415</td>
<td>18.0440</td>
<td>0.0000</td>
</tr>
<tr>
<td>INT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.2475</td>
<td>51.4102</td>
<td>15.4947</td>
<td>35.5394</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.1192</td>
<td>15.8708</td>
<td>3.8415</td>
<td>15.8708</td>
<td>0.0001</td>
</tr>
<tr>
<td>GE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.4583</td>
<td>105.1024</td>
<td>15.4947</td>
<td>76.6360</td>
<td>0.0001</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.2037</td>
<td>28.4664</td>
<td>3.8415</td>
<td>28.4664</td>
<td>0.0000</td>
</tr>
<tr>
<td>GD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.2570</td>
<td>58.3141</td>
<td>15.4947</td>
<td>37.1385</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.1558</td>
<td>21.1756</td>
<td>3.8415</td>
<td>21.1756</td>
<td>0.0000</td>
</tr>
<tr>
<td>GR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0.3605</td>
<td>85.3573</td>
<td>15.4947</td>
<td>55.8921</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.2100</td>
<td>29.4652</td>
<td>3.8415</td>
<td>29.4652</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

The above Table shows that there is a long run statistically significant equilibrium (cointegration) relationship between the stock returns in Amman stock exchange and all the examined economic variables (whether they are the variables of the fiscal or monetary policy). These examined variables include: money supply, inflation, interest rate, and government expenditure, debt and revenues.
5. Conclusion

The paper discussed the impact of the monetary and fiscal policies on stock returns in Amman stock exchange in Jordan during the period 2006 to 2016. The analytical descriptive approach was adopted when collecting the required data. A model was developed for conducting a multiple regression analysis. The E-view program was used to analyze the collected data statistically and test the paper’s hypotheses. The Dickey-Fuller test was conducted to make sure that the time series data is stationary. Granger causality test was also conducted to explore the causal relationships existing between the paper’s variables. Johansen co-integration test was also conducted. The independent variables are represented in the monetary and fiscal policies. The variables of the monetary policies are represented in money supply, inflation and interest rate. As for the fiscal policy variables, they are represented in the government expenditures, debt and revenues. As for the dependent variable, it is represented in the stock returns.

It was found that there was a statistically significant positive impact for inflation on the stock returns in Amman stock exchange during the period 2006 to 2016. Through Granger test, it was concluded that there was a statistically significant causal relationship between the stock returns in Amman stock exchange during 2006 to 2016 from one hand and inflation and interest rate from another hand. Through Johansen co-integration test, it was found that there is a long run co-integration relationship between all the investigated variables of the monetary and fiscal policies from one hand and the stock returns in Amman stock exchange during 2006 to 2016 from another hand. Thus, the paper suggests taking the nature of the relationship between the variables of the monetary and fiscal policies and the stock returns in Amman stock exchange into consideration when setting policies by the government.

References

Salhi, Saleh (2006), “The alternative developmental approach in Islamic economics: An examination for the concepts, goals, and priorities, and an analysis for elements, policies and institutions”, Dar Al-Fajer Publishing and Distribution House, Ed. 1, Cairo, Egypt.