



## RESEARCH ARTICLE

## The Impact of Inflation on the General Index of the Iraqi Stock Market for the Period (2010 - 2022)

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ARTICLE INFO	ABSTRACT
Received: May 25, 2024 Accepted: Jun 27, 2024	The research aims to measure and analyze the impact of inflation on the general index of the Iraqi Stock Exchange for the period (2010 - 2022), and The importance of the research comes from the economic importance of inflation and its role in the economy. Through the researcher studying inflation and the extent of its impact on the economy in general and the financial market in particular, it will help securities investors in making decisions to invest in securities., And The research problem is centered by answering About the following questions: Does inflation play an important role in affecting the general index of financial markets? Is the Iraqi Stock Exchange affected by the inflation variable during the period (2010 - 2022)? In light of the aforementioned questions, the research was based on the hypothesis that: There is a relationship and a significant effect between inflation and the general index of the Iraqi Stock Exchange. The researcher developed a statistical model, so inflation was an independent variable and the general stock price index for the Iraq Stock Exchange was a dependent variable. The research reached the following results: The standard test showed that the changes in the dependent variables increased by (20%), which means that the effect of inflation on the general index of the Iraqi Stock Exchange is weak.
<b>Keywords</b> Inflation The general indicator Stock market	
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### INTRODUCTION

Inflation can affect the general index of stock prices in the stock market by diminishing the real value of earnings. When inflation occurs, the price level generally rises in the economy. Since stocks represent a share in profitable companies, an increase in the price level reduces the real value of the profits achieved by those companies. This, in turn, can lead to a decline in the value of the stock in the market. Also by increasing the cost of borrowing: in the case of inflation, borrowing is more expensive due to higher interest rates. This can negatively impact companies that rely heavily on borrowing to finance their activities. If the cost of borrowing increases, it may be difficult for those companies to achieve high profits, affecting the value of their shares. Also, as investment preferences shift, inflation may affect investors' preferences regarding investment assets. For example, some investors may prefer to shift their investments from stocks to other assets such as commodities or real estate that they consider more stable under inflation. This shift in investment preferences may lead to a decline in the market value of stocks.

## Research Importance

The importance of the research comes from the economic importance of inflation and its role in the economy. Through the researcher studying inflation and the extent of its impact on the economy in general and the financial market in particular, it will help securities investors in making decisions to invest in securities.

## Research Aims

The research aims to measure and analyze the impact of inflation on the general index of the Iraqi Stock Exchange for the period (2010 - 2022).

## Research Problem

The research problem centers on answering the following questions:

1. Does inflation play an important role in affecting the general index of financial markets?
2. Is the Iraqi Stock Exchange affected by the inflation variable during the period (2010 - 2022)?

## Research Hypothesis

The research is based on the hypothesis that there is a relationship and a moral effect between inflation and the general index of the Iraqi Stock Exchange.

## Search Limits:

1. Spatial boundaries: Iraq Stock Exchange.
2. Time limits: (2010 - 2022).

## RESEARCH METHODOLOGY

The research relied on the deductive approach using the general descriptive analytical method, as well as the quantitative (statistical) method using standard methods to test the relationship between inflation as an independent variable and the general index of the Iraqi Stock Exchange as a dependent variable.

### The first requirement: The theoretical framework of inflation and the general index of the Iraqi stock market:

#### First: Definition of inflation:

It is also known as an upward movement characterized by self-perpetuation resulting from the increasing surplus of demand over supply capacity, that is, the continuous rise in prices as a result of the increased demand for goods and services and the lack of production to meet this demand (Jamea, 2018, 224; Kanval et al., 2024).

#### 1. Indicators for measuring inflation:

##### Consumer price index:

It is the most common indicator for measuring inflation. It measures changes in the prices of consumer goods and services during the year, and is calculated according to the following formula (Al-Fatlawi and Al-Zubaidi, 2009, 274; Jam et al., 2016).

$$\text{CPI} = \frac{\text{CPI 2} - \text{CPI 1}}{\text{CPI 1}} \times 100$$

Since:

CPI: Consumer Price Index.

CPI2: Consumer price index for the current year.

CPI1: Consumer price index for the previous year.

**Product price index:**

These numbers measure the prices of goods at different stages of production, and publish index numbers according to the stages of production. They are index numbers for final goods, intermediate materials, and raw materials, but the index numbers for the production stage remain more useful than the index number for all goods, because the latter exaggerates price changes (Al-Fatlawi Al-Zubaidi, 2009, 274).

**GDP deflator:**

The implicit deflator is a measure of the prices of final goods and services produced in the national economy during a certain period of time. This indicator is used to exclude changes in the general level of prices. The gross domestic product reflects the market value of goods and services, and is calculated according to the equation The following:

$$\text{GDP deflator} = \text{x } 100 \frac{\text{الناتج المحلي الاجمالي الاسمي}}{\text{الناتج المحلي الاجمالي الحقيقي}}$$

**Second: Definition of the general stock market index:**

It is a statistical indicator that measures the overall performance of the market, and it consists of the average prices of a group of stocks used as a measure of the general movement of the market (Al-Moussawi, 2009: 58).

The general index aims to know the general trend of the movement of stock prices in the financial markets in terms of their rise and fall. It also helps in making buying and selling decisions, as a section of investors uses these indicators as an investment tool and contracts are made on their basis, such as financial derivative contracts. As for the movement of change in... Indicators are measured by (point), which is the amount of change by one unit in the index or stock price, up or down. There are several factors that affect these indicators, through their impact on buying and selling operations and on the stock prices from whose prices the movement of these indicators and these factors is derived. It is (Al Shabib, 2008: 217):

1. Accuracy and transparency of news in financial markets.
2. The ability of traders to use rumors to influence price movement and trading volume.
3. Timing.
4. The nature of competition and speculation in financial markets.

The general stock price index is used for many purposes, the most important of which are (Asran, 2010: 281):

**Giving a quick idea of the portfolio's performance:**

The investor or investment manager can compare the change in the return of his securities portfolio (positive or negative) with the change that occurred in the market index as it reflects a well-diversified portfolio, without the need to follow the performance of each security separately, and if his investments (for the investor) In a particular industry that has its own indicator, then it is better for him to follow that indicator.

**Judging the performance of managers:**

Judging the performance of professional managers according to the idea of naive diversification. An ordinary investor who owns a portfolio of randomly selected securities can achieve a return approximately equal to the market return reflected by the index. This means that if a manager uses advanced methods of diversification, he is obligated to achieve a return higher than the average return. The comparison should not focus on return only, but rather the discrepancy between portfolio risk and market risk should be taken into account.

### **Forecasting the economic situation:**

If the analyst can know the nature of the relationship between some economic variables and the variables that occur in economic indicators (or what is known as fundamental analysis), then he may be able to predict in advance what the market situation will be like in the future, and conducting technical and historical analysis of the indicators that measure the market situation may reveal the existence of a pattern of changes occurring in it. If the analyst comes to know this pattern, he can then predict future developments in the direction of price movement in the market.

### **Estimating portfolio risk:**

The indicator helps measure the systemic risks of a securities portfolio.

### **Third: The relationship between inflation and the general stock market index:**

Economic theory indicates that inflationary pressures lead to a decrease in the value of money, which makes a unit of money buy fewer goods, and in light of the relationship between price levels and inflation, the decrease in the value of money will affect stock returns, because in times of increasing inflation individuals realize that the stock market is in a difficult situation and they are retreating from investing in securities due to low stock returns, and in accordance with the economic theory that a high inflation rate will lead to a decrease in money and an increase in the cost of living, those financial resources turn to consumption instead of investment, and this leads to a decrease in demand for securities and a decrease in the volume of traded stocks and the decline of those markets (Richard, 2018, 16).

### **The second requirement: Analysis of the reality of inflation and the general index of the Iraqi stock market:**

It is clear from Table (1) that the inflation rate rose from (31.6%) in (2005) to (64.8%) in (2006) in the Iraqi economy, while the general stock price index decreased from (25.64) points in (2005) to (25.28%) in the year (2006), and in the two years (2007 - 2008) inflation rose to (4.7%, 6.8%) respectively due to the increase in demand for consumer goods, and the general index of stock prices also rose due to the improvement of the economic situation in the country and thus encouraged investors to invest in their shares.

In 2009, the inflation rate decreased to (4.4%) due to the negative effects of the global financial crisis (2008), which led to a decline in demand for goods and services and a decline in the level of production and income. While the general index of stock prices rose to (100.86) points, while the inflation rate rose to (3.3%) in (2010) and the general index of stocks to (100.98) points due to the improvement of the global and local economic situation and the disappearance of the effects of the global financial crisis.

As for the period (2011-2016), the inflation rate witnessed a continuous decline, reaching (6%) in (2011) and reaching (2.3%) in (2014), and the general stock price index declined and continued until (2016) due to the deterioration of the economic, political and security situation in the country, which had a negative impact on economic activity, and thus led to a decline in the performance of the Iraq Stock Exchange. The general index continued to decline until 2019.

In the years (2020-2022), inflation witnessed a continuous rise, as well as the general stock price index, reaching (508.03, 569.20, 585.950) points, respectively, due to allowing electronic trading in the Iraqi Stock Exchange.

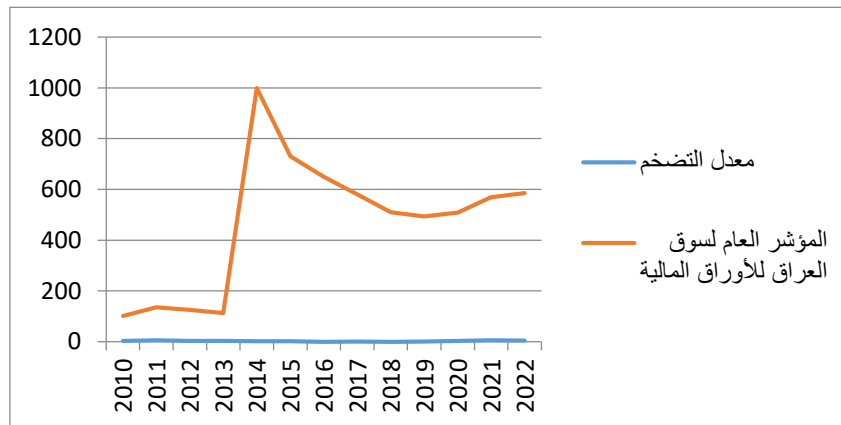
**Table (1) The development of the relationship between the inflation rate and the general index of the Iraqi Stock Exchange  
(Indicator: point, inflation: %)**

Annual rate of change %	General index of stock prices	Inflation rate %	years
-----	100.98	3.3	2010
34.70	136.03	6	2011
8.09 -	125.02	3.6	2012
9.49 -	113.15	3.1	2013
782.20	998.21	1.6	2014
26.81 -	730.56	2.3	2015
11.09-	649.48	0.7-	2016
10.61-	580.54	0.8	2017
12.13-	510.12	0.1-	2018
3.20-	493.76	0.1	2019
2.89	508.03	3.2	2020
12.04	569.20	5.3	2021
2.94	585.950	4.3	2022

**Source:**

1. Central Bank of Iraq, annual reports, Directorate of Statistics and Research, for the period (2005 - 2022).
2. Iraq Stock Exchange, annual reports, for the period (2005 - 2022)

**Figure (1) development The inflation rate and the general stock price index (ISX).**



Source: Prepared by the researcher based on the data in Table (1)

**The third requirement: measuring and analyzing the impact of inflation on the general index of the Iraqi stock market:**

What is meant by the standard model is an economic model expressed in mathematical symbols that represents the nature of the economic relations of the studied phenomenon in a manner that is closer to accuracy, using the factors that are specific or influencing the behavior of the phenomenon partially or completely, including the non-specific factor represented by the random variable (Random Variable) (Al-Saifu et al., 2006, 47), and at this stage the variables of the model will be determined, and here the researcher relied on the information available about the phenomenon in question, as in the following equation:

$$Y = b_0 + b_1X_i$$

**Table (2) Standard model variables**

Its symbol is in English	His type	The variable is in Arabic
Y	continued	General index of stock prices
X	independent	Inflation

Source: Prepared by the researcher.

The relationship between the independent variable and the dependent variable can be explained through the results of Table (3).

**Table (3) Results of testing the relationship between the independent variable and the dependent variable.**

Dependent Variable: Y				
Method: Least Squares				
Date: 04/10/24 Time: 23:15				
Sample: 2010-2022				
Included observations: 12				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	667.2580	148.2390	4.501231	0.0011
X	-70.44274	44.15220	-1.595453	0.1417
R-squared	0.202899	Mean dependent var		465.9092
Adjusted R-squared	0.123189	SD dependent var		287.7008
SE of regression	269.3978	Akaike info criterion		14.18127
Sum squared residue	725751.6	Schwarz criterion		14.26208
Log probability	-83.08760	Hannan-Quinn crater.		14.15135
F-statistic	2.545469	Durbin-Watson stat		1.326709
Prob(F-statistic)	0.141695			

Source: Outputs of the statistical analysis programEVIEWS10

It is clear from the results of testing the statistical model that the inflation regression coefficient on the general price index amounted to (70.44 -), which means that there is an inverse relationship between inflation and the general price index, and it is consistent with the logic of economic theory. Therefore, if it rises, inflation decreases by one unit, it will lead to an increase The general index of the Iraqi Stock Exchange (70.44%). The explanatory power coefficient was (R-Squared = 0.20), which means that there is explanatory power that explains that (20%) of the changes occurring in the dependent variable are caused by changes in the independent variable, while the remaining (80%) is due to other variables that were not included in the estimated model. The calculated value of (F) was (2.54), which is less than its tabulated value at a significance level of (1%), which is (7.55), so we accept the null hypothesis which states that there is no significant effect between the independent variable and the dependent variable.

## CONCLUSIONS AND RECOMMENDATIONS

### First: Conclusions:

1. The relationship between inflation and the general stock market index is inverse according to the logic of economic theory.
2. The results of the statistical test showed that there is an inverse relationship between inflation and the general index of the Iraqi Stock Exchange.

3. The standard test showed that the changes in the dependent variables increased by (20%), which means that the effect of inflation on the general index of the Iraqi Stock Exchange is weak.

**Second: Recommendations:**

1. Following economic policies to address deflationary and inflationary gaps in the Iraqi economy to stimulate economic activity.
2. Increasing investment awareness among investors and encouraging them to invest in securities in the Iraqi Stock Exchange by utilizing their financial surpluses.
3. Increasing the contribution of the Iraqi Stock Exchange to economic activity by encouraging local and foreign investments and the entry of foreign companies into the Iraqi market.

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