

**Research Article**

## **THE RELATIONSHIP BETWEEN POLICY RISK AND INFLATION FACTOR IN THE STOCK MARKET**

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### **ABSTRACT**

Present study is about the relationship between inflation and policy risk in the stock market and has been carried out on the firms listed in exchange market from the 2007 to 2011. This correlational and practical study and covers a wide range of users. Sampling is purposive sampling the condition of which has been mentioned in chapter 3. The main objective of the present research is to study the effects of inflation on the policy risk of listed companies on the stock market. And the secondary objectives include: developing a theoretical framework for the "inflation" and "systemic risk" of the industries in the stock market /the relationship between "inflation" and "systemic risk" of the industries in the stock market /the relationship between liquidity, interest rate, currency banking interest on inflation as inflation factors with policy risks. Some information, such as inflation, interest and liquidity were obtained from the Central Bank of the Islamic Republic of Iran website and others such as prices (for calculation of efficiency) from the Securities Exchange website and others such as beta coefficient obtained by calling on the stock. The factors such as exchange rates and interest and liquidity as the most important factors playing a role in inflammation which can be described as a creator have been used in the conceptual model. Given the above mentioned facts, the research has four hypotheses the main of which is the title of the study. By sorting the data in excel software and since the nature of the study is of correlation type and quantitative data in SPSS 22 were calculated using Pearson correlation coefficient, the results of which are as follows: The main hypothesis (the relationship between risk and inflation): based on the analysis of the data, this hypothesis is rejected.

Sub-hypothesis 1 (relationship between risk and interest): The analysis of the data, this hypothesis is rejected.

Sub-hypothesis 2 (relationship between risk and exchange rate): According to the analysis of the data, this hypothesis is accepted.

Secondary hypothesis 3 (the relationship between risk and liquidity): According to the analysis of the data, this hypothesis is accepted.

**Keywords:** *Relationship, Factor, Policy Risk, Stock Market*

### **INTRODUCTION**

The main reason for every business should be found in a profit, or in other words, the returns. Risk besides efficiency is considered an important criterion in evaluating the success of a business and an investor should consider these two criteria in his prospect as two sides of a coin. Although the word risk may seem simple at first glance but sources and factors affecting it have made this a magic word in the investment and investors face many problems in determining exact dimensions and estimates. Risks stems from different sources as diverse as business and financial risks, interest rate risk and inflation risk. The policy and country risk can be noted as one of them which despite its dramatic impact on the global business community have been less regarded than other sources in estimates. Therefore, it can be as cited hidden risk. Despite the fact that policy risks may be hidden, it can bring severe consequences and devastating fires ravaged the multinational enterprise and tragic end to their lives (Fathi and Kabir, 2012). Stock Exchange market is one of the most important financial markets which are an indicator of the economy of any country. Stock market recession and boom not only affects the national economy but also affects the economy of the region and the world. On one hand, the stock market is the place for collecting

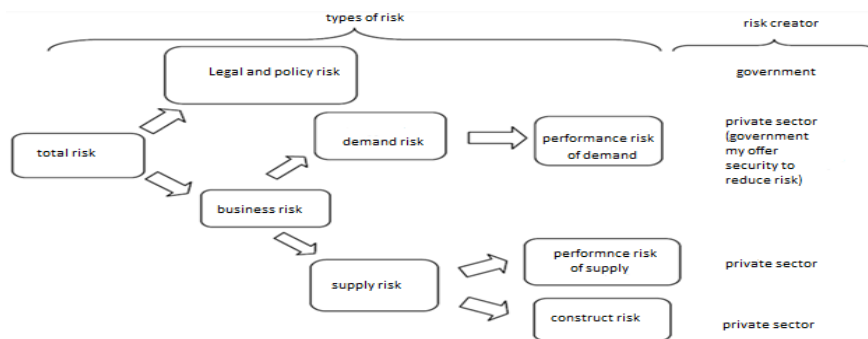
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the liquidity and savings of the private sector in order to support the investment projects financially. On the other hand, it is the official and confident reference that holders of savings can still find it as an appropriate and safe place to seek investment and to invest their funds in companies. Obviously, the boom and bust of the stock can be due to several factors in economy. If the market has no logical relationship to other segments, problems and shortcomings appear in their performance. Stock market and securities market as the inflation factor are always the critical parts of the financial market. These two markets are quickly affected by the cyclical fluctuations in the economy and reflect the economic changes immediately. However, turbulence in one or both market cause for concern among policy makers on the market (Taheri and Saremsafari, 2011). There is the constant principle in investment culture that the investment flees from risk and tends towards efficiency and profitability. So risk-averse investors refuse to enter their capital where there is risk or uncertainty. Generally in the economy and in particular in investment, it is assumed that investors act rationally and it is natural that in this case we can say that investors are not interested in risk but more precisely, the investors are risk-averse. A risk-averse investor is expected to receive a good return. Note that in this case taking risks is not an unreasonable task although the risk is too high; the expected return is too high, too. In fact, investors cannot logically expect that without the high risk, high efficiency is gained (Abzari *et al.*,).

### Significance of the Study

If the policy risks related to policy risk can be predicted by inflation and possible future losses can be prevented or the huge profits can be gained through inflation. Fluctuations in the financial market of each country have huge expenses for the companies which ultimately adversely affect the cost of production and increases policy risk. These macro variables have been the factors affecting financial decisions which in past years have influenced the country's capital market.

Economic institutions as part of the current economy like other environmental factors are constantly subject to change and interact with different dimensions and to understand them several factors should be considered.



**Figure 1: Classification of risks, Second International Conference on Financial System Development in Iran**

In a general classification, economic factors affecting business activity can be divided in two categories:

A) Internal factors (micro) factors that are controlled by management, including management and personnel issues, financial structure, demand for the company's products...

(B) External factors (macroeconomic) factors that are not under the control of corporate management, such as policy, legal, cultural, social, economic and technological.

Corporate managers in order to meet today's turbulent world, should select the appropriate position and correctly decide in addition to reviewing and being aware of these factors.

Only in this way, one can we expect the company's success. Since these factors, directly or indirectly affect the performance of an enterprise, stocks firm also depends partly on its performance, it seems that a detailed examination of the effectiveness of each of these variables whether for directors of companies and for individuals and entities that somehow interact with the firm.

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In Figure 1, the source of the risks is divided and as the picture is clear, policy risk is created by the government and has impact on all securities and is not controlled by shareholders.

In this paper an attempt is made to exploit the impact of macroeconomic variables on the policy risk paid or vice versa using the statistical tests and different methods and models to assess and then the received and the results are summarized.

**Research Questions**

*The Main Question*

Is there a logical relationship between inflation and policy risk?

*Sub-Questions*

1. Is there any significant relationship between the interest rates associated with a significant amount of policy risk in the stock market?
2. Is there any significant relationship between dollar ratio and amount of policy risk in the stock market?
3. Is there any significant relationship between cash rate by the amount of policy risk in the stock market?

**Research Objectives**

*Main Objective*

- The effect of inflation on the policy risk of listed companies on the Stock Exchange

*Secondary Objectives*

- Develop a theoretical framework for the "inflation" and "systemic risk" industries in stock
- The relationship between "inflation" and "systemic risk" industries in stock
- The relationship between liquidity, exchange rate and interest on inflation, inflationary factors as policy Risk

**Research Area**

The period of the study, the analysis of the data is from 2007 to 2011.

Spatial domain: Companies listed on the Stock Exchange

Field of research: the analysis of the relationship between inflation and policy risk factor in the financial sphere.

**Research Hypotheses**

Generally, the hypothesis is as follows:

*Main Hypothesis*

There is a significant relationship between the inflation factor and policy risk in the stock market.

*Sub-Hypotheses*

- 1: there is a significant relationship between interest rates and policy risk in the stock market.
- 2: there is a significant relationship between the dollar exchange rate and risk of investing in the stock market.
3. There is a significant relationship between the rate of liquidity and the amount of policy risk in the stock market.

**Data Collection**

Data were collected as follows:

- Library is used for method for gathering information such as literature and literature
- Website of the Stock Exchange and the Bank is used to obtain inflation and interest rates and ...

**Research Variable**

**Table 1: Research Variables**

Variable Row	Dependent	Independent
1	Policy risk	inflation
2	Policy risk	liquidity
3	Policy risk	Currency ration
4	Policy risk	Bank interest ratio

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**Definition of Key Terms**

**Inflation:** skyrocketing prices in a given time period which is expressed as a percentage

**Exchange:** Place and traded shares of companies that are part of the LLP

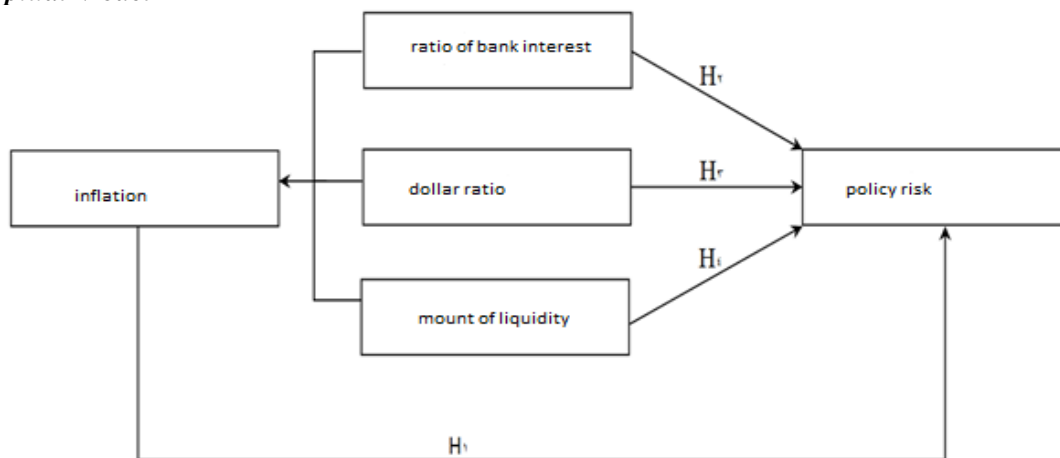
**Risk:** the risk that exists in the value of a stock or the overall market, and may change the rate of return expected by investors

**Currency:** it is the currency's exchange rate against the currencies of other countries say

**Liquidity:** it is the total amount of money and quasi money in the specified period of

**Interest:** it is the interest rate that banks during the period granted to depositors and the rate determined by the Central Bank

**Conceptual Model**



**Figure 2: Conceptual model**

**Introduction to the History of the Stock Exchange**

The term Bourse (means Exchange in English) comes from the surname of someone called "Wonder Bourse" who lived in the early fourteenth century in Burgee, Belgium and dealers came together in his house and traded goods, money and securities active. The name was later (1309) was applied to all sites of business money, goods, financial and commercial documents.

The growth of stock exchange and integration of trade and economic activities has been accompanied by the industrial revolution in Europe and a new economic boom. The first exchanges around the world, was established in 1611 in Amsterdam and the well-known East India Company offered its shares on the stock. The Amsterdam Stock Exchange is also an important source of financing at the international level. It should be noted that a significant increase in stock trading, European countries such as England, Germany, Switzerland, rules and imposed regulations on stock trading and legislative requirements to prevent any fraud and violating the rights of shareholders. Exchange opened in 1771 in Vienna, Austria and dealt with mainly government bonds to finance the war. Austrian market share 2500 at the end of the 19th century and was one of the most important financial centers of Europe. In London traders in exchange come together for trade in coffee houses. To regulate the market, the New Jonathan coffeehouse changed into the Stock Exchange in 1698.

New York Stock Exchange was established in the late eighteenth century (1792) and the presence of other competitors, in terms of volume and value of transactions in the US capital markets happened there. In America, the place known as the Stock Exchange was first in New York and the area under the shade of a large elm tree in "Wall Street", which was later moved to a nearby coffee house.

Wall Street charged the brokers for entrance (agents) and it strengthened the exchange to become a huge commercial complex which was later called "the New York stock exchange". The number of agents currently in stock amounted to several thousand individual or entity. Currently, securities exchanges are active in most countries (Stock Exchange website).

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### Tehran Stock Exchange Formation History

The basic idea of creating a stock exchange in Iran goes back to 1936. This year, two Dutch and Belgian experts came to Iran to investigate the action of the preparation of legal regulations governing the activities of the stock exchange. However, both studies were interrupted by World War II. After the coup of 28 1953, again in 1954 the mandate of establishing the Stock Exchange was given to The Chamber of Commerce, Industries and Mines, the Central Bank of Commerce. After twelve years of research, the group in 1966 established rules and regulations to provide the Tehran Stock Exchange and the bill was sent to the National Council which was approved in May 1966. With the introduction of bank shares of Pars Oil and mining industry, Tehran Stock Exchange began operations in February 1967. Subsequently, government bonds, Treasury bills and bonds, the development of industrial property and Abbas Abad bonds entered the market. During the eleven years of the stock before the Islamic Revolution, the number of companies, banks and insurance companies listed on the Stock Exchange with assets of 6.2 billion dollars increased from six to 105 firms with more than 230 million dollars capital in 1978. The value of transactions on the exchange increased from 15 million dollars to more than 150 billion dollars in 1978. In the years after the Islamic revolution and the changes that occurred, including:

- 1) Administration of the bank bill,
- 2) Nationalization of insurance companies,
- 3) Protection and Industrial Development Act
- 4) Owning of many enterprises by government that all stem from a spirit of opposition to the capitalist system which made our economy close to a socialist economy
- 5) eight-year war,

The number of companies listed on the stock was reduced from 105 companies to 56 companies in 1978. Stock slump was started since then and continued until 1988. Since 1368 and within the first five years of economic, social and cultural rights, stock resurgence of privatization happened attracting and collecting savings and investment. During the years after the revival of the stock so far, exchange has experienced numerous ups and downs, including the recession years of 1992 to 1994 and 1996 to 1999 and swings in a cross from the policy crises of the war in Afghanistan and Iraq. Since the beginning of 1997, the Tehran Stock Exchange has seen a new round of activity. Actions carried out in line with the organizational and administrative structure, use of technical innovations, reform of the regulatory and supervisory practices improve efficiency and provide the correct functioning of the market and efforts to coordinate policy with the real needs of the capital markets, have been on the focus of reform programs and the Stock Exchange.

Some of these reforms were stalled due to the lack of appropriate legal container.

Reform of Stock Exchange happened after forty years in December 2005, with approval of the new law of the securities market by Parliament. The new Securities Market Act has much strength in relation to the previous law such as the separation of supervision, organizing the primary market, diversification of financial instruments and legal supervision organs and institutions in the capital market (Site of the Tehran Stock Exchange) .

## MATERIALS AND METHODS

### Methods

The research method is correlational and practical. Data have been recorded before and are historical. Reasoning: inductive-referential since the theoretical and research background and literature have been collected through reading books and articles and numbers to test a priori hypotheses have been obtained inferentially.

The annual output is obtained from the following formula:

$$R = \frac{En - E(n-1)}{En} * 100$$

En: The price of shares in the nth year

E(n-1): The price of shares in the (n-1) year

(3-1)



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$$\beta = \frac{COV(r_i, r_m)}{VAR(r_m)} \tag{3-2}$$

Since policy risks include the risk of systemic Haas, the beta coefficient is the best way to calculate it. However, the general formula obtained by visiting the company's stock for calculation is as follows:

$r_i$  return on assets and  $r_m$  return the market

Since the nature of the research data is correlational and data are quantitative, Pearson correlation coefficient is used. In general, this time factor is used when the data is normal or large numbers. Pearson correlation coefficient was calculated in the following manner.

**Hypotheses**

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**The relationship between the variables in the Final state of the hypothesis hypothesis**

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The relationship between inflation and stock market risk	rejected
The relationship between interest and risk in the stock market	rejected
The relationship between exchange rates and stock market risk	accepted
The relationship between liquidity and risk in the stock market	accepted

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**Research Suggestion**

This study, like other similar researches have two suggestions:

Proposals for research hypotheses: it is created according to the analysis of assumptions.

Suggestions for future research, which is usually due to the limitations of the study, the researcher provide future researchers with practical suggestions t to remove this restriction.

**Suggestion for Research Hypotheses**

In the third hypothesis, there was a significant relationship between exchange rate risks although it was a very weak intensity. In the long term the stock market has a huge impact on the policy risk. Thus, the study of the economy of Iran, it is realized that the highest rates of inflation occurred at a time when exchange rate has jumped suddenly and caused a rise in the rate of exchange and finally policy risk in the stock market.

The only way to deal with the increase in the foreign exchange market and exchange rate stability is that with fiscal and monetary policies, liquidity is directed towards production and capital markets is strengthened. Otherwise, the speculation in the foreign exchange market led to an increase in the price of the currency bank and lack of exchange due to sanctions and creates problems for the economy.

In the fourth hypothesis, there was significant relationship between liquidity and risk although it is a very weak in intensity. In the long term the stock market has a huge impact on the policy risk (that is exchange rate), thus:

Thus, the study of the economy of Iran, it is realized that the highest rates of inflation occurred at a time when exchange rate has jumped suddenly and caused a rise in the rate of exchange and finally policy risk in the stock market.

The only way to deal with the increase in the foreign exchange market and exchange rate stability is that liquidity has recently increased and since it is one of the key elements in inflation in all countries according to Fama it can be said that increased inflation causes reduction in investment and lack of investment leads to increased risk.

Therefore, the amount of cash should be reduced and led to the production

What the central bank has done to reduce liquidity in the past few years are as follows:

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The coin sales, raising interest rates, selling bonds and increase the debt ceiling  
According to the above conditions, several solutions have been offered for stable cash:  
Petrodollars prevent conversion to dollars and did not permit the government to withdraw money from the central bank and changes in the form of subsidies that makes a huge amount of cash each month into society. Finally, a stable investment environment both spiritually and materially encourages investors to invest.

### **Recommendations for Future Research**

Since investors in the stock should have a long-term vision, it is recommended that a broader scope of the study is considered. Variables in the research should be calculated weekly and even daily if possible. It is suggested that the results are also examined according to industries that desperately need to import and export.

### **Limitations**

Due to the cross, the results of testing are not applicable to all courses and may differ from the results obtained in other rounds. Restrictions on the collection of information and data problems of access to the market return and the beta coefficient of inefficiency Tehran Stock Exchange may have an impact on results but this inefficiency could not be controlled by the researcher.

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