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# INVESTIGATE THE RELATIONSHIP BETWEEN POINT TO POINT INFLATION AND THE TEHRAN STOCK EXCHANGE OVERALL INDEX

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## **ABSTRACT**

Existing markets and efficiency financial organizations is the developed countries characteristics, which caused economic growth and development in these countries. Tehran price index is the most principal of the basis of property market in the country that provides the equipped and pours the country slag saving accounts and driving it towards production. Also it accelerates the movement to the growth and development. Since the value of existing stock in Tehran price index is in related with different elements especially inflation point to point, in the study, we examined the relation between inflation point to point and Tehran Stock Exchange overall Index during 2009 to 2013. The used data to study prepared from the central bank and Tehran price index organization, monthly and tested by regression and ranked by using of excel 2010, used SPSS 22 to analysis. The results show the meaningful relationship between inflation point to point and Tehran Stock Exchange overall Index.

Keywords: Inflation to Point to Point and Overall Index

# INTRODUCTION

Prediction of price index always, considered by many of financial and economic markets actives, also by economical programmers and analyzers.

In recent years different models has been used to modeling and prediction of index for different markets in the world. Meantime, nerve network has a certain place, so that the many of suggested models, has designed by nerve networks (Keroaner, 2010). In study of the effective elements behavior on market and no choice market economy, has many important the seeking variable or variables which can explains the relationship between economy financial departments to economy real department. The money markets and asset as financial department bases to responsible for sources for the economy real department. The efficiency financial part cause optimal appropriation of rare sources in to economic activities. The optimal of sources in turn, follows the self- optimal saving account and investment and so national economy growth about near to potential -economy capacities. Economist such as Gold Smith (1969), Miknon (1973), Show (1973) believed the financial markets play a key role in economic growth and development. In their belief, difference between the quality and quantity of suggested services by financial institutions, recalls the important part of difference in growth rate among countries.

## Research Theoretical Frame

Iran Stock Exchange, also, along to government economic micro-policies after the ending war and to participate the people investment and driving the slag and non-generated assets towards economic-generator activities and prepare financial requirement for production so the society required commodities, started the activity again to extent from, since 1990. Up to now, because of after war economic conditions and the effect of changeably caused economic micro variables such as inflation rate, price index had a lot of fluctuations. First, because to carry out the research about the effect of economic variables on stock efficiency and so its indexes is that can be effective in responding to main question consists of how is the stock valuation. Respond to above question can satisfy the main part of requirement for investors and stock holders. No doubt, content need by the right orientation of economic changes causes to develop the asset market so that prices supply and demand in the market carrying out more efficiency the past time. Phenomenon developing financial investment (vice versa investment in real assets) is one of the developed economies properties. Invest market develop, cause facilitated real investment. In fact, two

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types of financial and real investments are supplementary (Sajjady *et al.*, 2008). The stock efficiency affected by micro elements and macro-economy. The meaning of micro elements are the variables related to companies that commonly controlled by managers, in fact the variables carrying non-systematic risk. In macro level, different factors: economic, political, social and cultural that don't control by manager, effect on the stock efficiency. These elements consist of systematic risk. Changing in each micro and macro elements, effect on economic environment. Research of macro-economic situation is the most important investor roles in order to investment invaluable papers, so that the investor anticipates will face the prosper, there is a difference between making decision investment and anticipates the economy exposed to slag.

While, anticipating the economy the situation in future is that the fluctuations sometimes fast or delay time, Iran to price index. The major question in the research is what relation is there between inflation point to point and Tehran Stock Exchange overall Index?

There is a negative connection between inflation point to point and stocks price. Increasing inflation point to point to point, decrease desire to investment, because in the inflation condition, if the salaries and wages didn't increase up to inflation, decrease the possibility of staring account and the people revenues more used. In the other hand, increase the inflation point, economic real activity, because of rise final willing to consumption and asset accumulation is low and consequently, the efficiency of stock real and by profit static per stock decreased and vice versa. In Iran, because of lack of financial knowledge with increasing the cash inflation, people go to markets such as housing, gold and etc. to keep the asset value and the shopping power.

## Inflation

Inflation, idiomatically, includes to increase the general level if prices constantly (Roozbahan, 2001).

Inflation is a state that the general level of prices increases constantly and over the important point in inflation definition is time and continuation of increasing the general level of prices. The meaning that prices raise constantly during the time. If the prices increased in a certain period and then, the trend interrupts rousingly, the trend didn't attribute to inflation, why that the upward rise in prices should be continued (Qafari and Naimeipazhooh, 2011).

Inflation cause by state that in the economy of costs general level increase trend less, unsuitable, meaningful and continuous and often irrevsible. In this definition some point consider: First, it relate to the unsuitable, density for increasing costs in a inflation period. If this time relative rise if costs (p) is the same mean rise of profit or work force final production and nominal wage (NW) also increases The same proportion  $\cdot$  so that the amount of real wage increase the same proportion, and the extent of real wage (NW/P) in (mp<sub>1</sub>=NW/P) was fix, although the prices have prospered  $\cdot$  increasing prices general level is sppropriate. In this respect its possible the pressure on costs in certain situation and increased wage general level that due to increasing work force profit itself  $\cdot$  was fail.

In this case inflation economy no exist and as a result revenue was real and fix revenue reversely is not effected and don't decrease the real value of money. There fore it can't said in flation increasing normal of praising economy after a period of economic mild dropor slack. So when relative increasing of prices during time in above relation basis on reasons was more than rising mean profit or wore force final production and increasing monary wage inflation in real concept namely present un suitable increasing in costs and decreasing the money shopping paver because in this case real wage decreases or its relative rising is lower than nominal general level of costs increased and the result is inflation (Tajalli and Coworkers, 2010).

Second point in the definition is related to time element and continuous of increasing of costs general level. Economists about this different between static inflation and inflectional current. At First state inflation designed as a static phenomenon ' that after increasing the costs level for some reasons once and in a certain period finally stopped which it don't contribute to real inflation but is a static current that moves the economy from a balance situation to another. Now if in new situation of balance cost general level according to some reasons constantly increase and raise the inflation rate over time ' in this case ' inflation presents in its real concept which is dynamic and continuous phenomenon and it said in

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economy science language inflectional current or dynamic inflation. Milton frid man American famous economist and the winner of Noble in economy defined the inflation unsuitable emd continuous increasing in costs general level or continuous decreasing in money real shopping power (Frisman, 1986). Third point in analysis definition of inflation related to meaningful and considerable increasing of cost level 'but its mild increasing. Fourth point of above definition also related to identity irreversible of costs increasing. It is impossible the decreasing of cost absolute level commonly for resistant against inflation because it increases by inflation of production cost. In fact' because of that the production costs place the back of prices and they're not decreased easily inflation costs find adhesion property (Tajali and Coworkers, 2010).

The economists classify the inflation in two kind severely creeping inflation or mild inflation which commonly is between 5 or 6 0/0 or less than 10 0/0. Galloping inflation which was 15 to 20 percent and Hyper inflation which consists of more than 50 0/0 (Tafazoli, 2000).

The most important effect of inflation in society is decreasing the money shopping power and so people shopping power. Since people have to contest the current problems and unanticipated current costs that due to inflation (costs decreasing).

- **3. Inflation type:** we usually classify inflation in to some groups:
- **3.1Creeping inflation:** This type often comment "creeping inflation" and sometimes "peaceful" contribute to mild increasing of costs.
- **3.2eExpedite inflation:** This type, remind "hasty inflation" the rate of costs increasing is fast.
- **3.3 Galloping inflation:** This type, comments "super inflation" is the most severe case of inflation, usually occur in the crisis situation, such as war or collapse serious threat of political system and etc which probably doesn't expect.
- **3.4Closed inflation:** controlled by rules and different organizations and determined its extent and yearly border with programming.
- **3.5Open inflation:** Is the inflation doesn't any action to its control namely it is not extent and limit which requires to the government interference or basically there is not ability to decreasing or control (Sharif, 2008).
- **3.6 Expected inflation:** Is a ideal case that the costs increased by percent, all the economic agents expect, goes up and nobody surprise (Ketabi, 1992).
- **3.7Stag inflation:** This phenomenon, surrounded the world economy, after increasing the petroleum cost and follow shocks i(1973) and ii(1979). In the case, the inflation carries on stability or drop production and engagement. In other words, costs inflation will be created at the production drop condition and occurrence of stag situation. The created situation, know, to inflation-stag condition (stag inflation) (Sharif, 2008).
- **3.8 Inflation point to point:** comparison of costs changing percent last month and this month, last year, determined inflation point- to point you compare the last month costs with the same month, last year for inflation point to point. And if the costs had been changed recent month, easily recognized. While in formal inflation, if maximized the inflation last month, because take mean by last 11months, the change modified, and in fact, it exhibits less than what occur in economy, that moment. However, the change of cost, by a little delay and passing some months, showed in the formal inflation rate. Totally ,seems every indicators (indexes) have used the formal rate is more reliable and inflation point to point acts more warning and in fact, in this manner, show changes that created before the formal rate, or found the procedure for resolve the real problem in action world.
- **4. Inflation measurement indexes:** The purpose of build the index number is summarizing commodities costs and different services in economy in a number, during the time. In a supposed economy that there is just one commodity, it's very easy to build such index. In fact, the commodity cost will be the same 4 indexes of number while it won't be easy to build an index number, over 50/000 different commodity and services in real world (Qasemi, 2008).
- **4.1 Numbers Index:** Generally, index numbers use for composed the different parts and result in a certain number. Types of cost indexes include:

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**4.1.11aspeyers index**: building the index number, we used information about commodity basket in base year. The index defined the following:  $L_t = \frac{\sum_{i=1}^m P_i^t q_i^0}{\sum_{i=1}^m P_i^0 q_i^0}$ 

In above relation, suppose we have commodity group M and different service  $q^o_i$  is a basket of amount commodity and used service in base year that is zero here  $q^t_i$  is also the same commodity basket in year that calculated index for it.  $P^0_{i,p}t^i_i$ , consider. The cost of said commodity basket in base year and year, respectfully therefore, cost index will be acquire for t year is that Lt. we consider by a little care that the cost index will be 1 for base year (Qasemi, 2008).

**4.1.2Pacshe index:** To build the index, information about the commodity basket in a year for that index, will used current year. The index attains the following relation:  $P_{t=} \frac{\sum_{i=1}^{m} P_i^t q_i^t}{\sum_{i=1}^{m} P_i^0 q_i^t}$ 

In this relation p<sub>t</sub> is the cost index for consider year t (Qasemi, 2008).

**4.1.3 Ficsher index:** This index, in fact, is a composition of laspeyers and pacshe index, in more exact word, ficsher index is Geometric mean of said index which results the following relation:

$$F_t = \sqrt{P_t \times L_t}$$

The acquired number will be between las peyers and pacshe index, for above index. In the word, there will be following relation among the indexes described:  $P_t \le F_T \le L_T$ 

The presence equality sign in above relation indicates each 3 indexes were equal in base year and was up to 1 (Qasemi, 2008).

- **5. Types of inflation measurement indexes:** We use of different cost indexes to measure inflation, which per of them, indifferent economic problems, to be certain applicable
- **5.1 Customer index numbers (cpi):** This index, measures the price of buy a fix basket of commodity and services during the time. To building it also, we used laspeyers index However to build the cpi index, we need to 3 parts of information: the amounts related to commodity basket in a base year (given weight to the different groups of commodity and services) prices of the commodity and services in base year and considered year (the year which index built for it). Collected costs to build this index are the costs in the retail level namely the costs paid by users. For this reason the index, in fact is the best estimation of life price changes that sometimes recalled as the index of life prices (Qasemi, 2008).
- **5.2 Producer index numbers (ppi):** We call the index, whole saling price index (wpi). This index measure mean changes in the basket cost of commodity and services production case by inner crafts men and predictors which sell in the whole sale market, during time. Of course, the family of index consists of 3 member: index number for final or finished commodities, index numbers for mediator commodity and index numbers for material cost (Qasemi, 2008).
- **5.3 Inner gross production implicit index:** This index, calculate by data related to inner gross production. The method of calculation is such that if we have used pacshe index. This index defines to nominal inner gross production to inner gross that calculated by help of the base year costs. Consider able differences the index to consumption cost index is despite CPI, don't consist of import commodities and changing the import commodity price wont effect on this index (Qasemi, 2008).
- **5.4 Personal consumption Expenditures price index:** This index, also, like index CPI, mesear the price changes from the view of consumptions. Although this index is similar to CPI, but is different of different respects. These 2 indexes have some difference in the extent of commodity domain, used formula for calculation, given weight to different commodity group's also, elected costs. We use laspeyers formula for calculation of cost index, in fact is a mean with fix state. While we use ideal ficsher formula in collation pc EPI index which is pacshe and laspeyers geometric mean (Qasemimojtaba, 2008).
- **6. Inflation rate:** Inflation rate includes the change percent in prices general level. For example, if the inflation rate was 20%, in a certain year, level of prices that year, to last year, has been increased 20% (Tabibian, 2000).

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**6.1 Inflation rate calculation method:** When we introduced all kinds of cost indexes. Indexes, deal with how calculate the inflation rate cost indexes. In fact, inflation rate, measures changes in the cost indexes. In other words, suppose, we use CPI index to calculation of Inflation rate, we'll have:

$$\pi_t = \frac{CPI_t - CPI_{t-1}}{CPI_{t-1}} * 100$$

H<sub>t</sub>: Hige relation in inflation rate between t year and t-1 yare. By using each index that introduced the previous pages, we can calculate in flation rare (Qasemi, 2008).

7. Index: The term indicator or reference in the common concept is a meaning or number that deter mines the extent of special quantity (Amani, 1975). Indeed, index common meaning is the same number or population crueler or absolute statistics (Tamana, 2008). But in the special concept, is a number which shows the proportion of certain quantity to Base quantity that usually get 100 or 1000 (Amani, 1965). In other words, this term is a told to determination of any subject (Salehi, 2001). Indexes include data summary zed series, in relation to balances and current to measure it, designed social and egnomic condition aspects and for analyzing and making decision about policy, is important .Many of indexes are simple series that expressed in form of absolute numbers, mean, and proportions (Shahdadi, 1988). The validity of this index depend on wheatear said index built such that a) Firstly, daftness and question about correlation between constituent and potential variables does not create: b the index can show its constituent variables (Shah, 1988).

# 8. Types of Index in Terns Stock Exchange

- **8.1 Industries index**: The Accepted companies in Tehran exchange, classified in different industries. The classification is basis on IsIc method, led to separation of 36 industries in Tehran exchange until April, 2010. Tehran exchange, calculates the cost index for each industry that All of them calculate by similar formula of total costs index. In a more general separation, accepted companies in the exchange, divided into 2 financial and industry groups, financial group consists of industry companies for financial mediations, and industry group consists of all of exchange companies cost index for these 2 general groups that distribute. Named financial index (Roozbahan, 2002) and industrial index (Salehi and Mohammad, 2010), and both follow the total price index criteria in design, calculation and adjustment (Tehran Exchange of Valuable Papers Organization, 1998).
- **8.2 Financial mediations index:** This index show the financial mediation companies' performance includes Holdings, investments and leasing.
- **8.3 Overall index:** Total index is that cost and sash efficiency index that can takes account one of the more complete indexes for calculation in Tehran exchange valuable papers, because both consider the element of profit division in companies and stocks efficiency result in increased price of the companies in it. By considering to significant effect of price movement calculated, of appropriate cash profit to any stock price index and cash efficiency and stock cash efficiency since 1998 (Tehran Exchange Valuable Papers Organization, 1998).
- **8.4 Performance index at the main hall:** This index show only, the movement trend of stock price of inserted companies at the main hall Tehran exchange according to total index calculation standards.
- **8.5 Performance index at the second hall:** This index shows the trend of the movement stock price and reported companies in Tehran exchange according to criteria for the calculation overall index. Also, indicates the general and total information about exchange structure index, a tool to compare changes of a phenomenon at 2 different times, the changes potential of prices in future and a tool to compare changes groups for some phenomena with each other.
- **8.6 Index of 50 active companies:** Recognition of superior companies or in higher situation often is basis on one or more criteria, following (Tehran Exchange Valuable Papers Organization, 1998):
- 1. The power of stock cashed meaning lots of transactions.
- 2. The amount of company effect on exchange or its stock in the careen value of exchange.
- 3- The company situation in term of financial proportions superiority specially, the amount of profitability for each stock.

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**9. Indexes calculation way:** Design and calculation of stock cost indexes in the world asset exchanges applied by different ways that each has the debility and power. Stock price indexes usually is based on 2 properties giving weight way and meaning way from the view of giving weight classified. We can place indexes in to 3 class weightless cost indexes equal weight cost indexes and price indexes with equal weight to stock exchange value. Weight less price index acquires of mean stock prices without using the weight price indexes with equal weight attains by considering with price changes for each stock to ratio base amount by pricing ratio. Finally price indexes with weights equal to stock exchange value result of multiply the number of stock in the current price of companies distributed stock. In method meaning we used 2 ways calculate mean and geometric mean (Raei, 2012).

Table 1: The methods of calculation types of exchange indexes

| Mean method    | Weightless price index                 | Price index by weight                             | Price Equal to                                       |  |
|----------------|--|---|--|--|
|                |  | equal to stock value                              | weight stock   |  |
| Calculate mean | $\sum_{i=1}^{n} (pit/n)$               | $\sum_{i=1}^n w_i(p_{it}/p_{ib})$                 | $\left[\sum_{i=1}^{n}(p_{it}/p_{ib})\right]/n$       |  |
| Geometric mean | $(\prod_{i=1}^n p_{it})^{\frac{1}{n}}$ | $(\prod_{i=1}^n p_{it} / p_{in})^{\frac{1}{w_i}}$ | $(\prod_{i=1}^n p_{it} \bigg/ p_{ib})^{\frac{1}{n}}$ |  |

Pi=stock price ith t=calculation time n=the number of companies b=base time wi=1, ratio of stock exchange value of company ith to total exchange value of index member companies and  $\sum_{i=1}^{n} w_i = 1$   $0 \le w_i \le 1$  a:multiply operator sing (Raei and Pooyan, 2012).

**10. Research method:** present research method is inductive and pro-event (by using the last in formation) and statistical method is sectional correlation.

The period of present research also, is the company's data and Tehran overall index exchange between 2009 to 2013. In present research, overall index statistic—society is during 2013 to 1970. Statistical sample of the present research is also Tehran overall index exchange during 2009 to 2013. In the research, the method of available incident. Sampling used to select the statistical sample. In research used by library Method to Gllect the data and information .The Information related to theoretical bases of investigation have collected from articles and books. The information about financial statements for companies, have extracted and collected by using Rahavard Novin In formation banks and the statics present in central bank publication and companies financial information in Tehran exchange of valuable papers.

- 11. Variables: Research variables The First step is complete and suitable definition for research hypothesis test of variables that provides measuring the significant characteristics in research. These variables 'classified in to 2 independent and dependent variables to hypothesis test that examine the continuation.
- **11.1 Dependent variable:** In this research Tehran overall index exchange of valuable paper considered as dependent variable.

**Overall index:** Total index, price index and cash efficiency, indicates general level of price and stock profit of accepted companies in the exchange, more simple is "total index changes, in fact, indicate mean efficiency investors in the exchange". Each index consists of special calculate methods that usually expressed in term of change of a base value. Tehran overall index exchange calculated by a little adjustment and value 100, basis on formula laspeyers. Tehran overall index exchange, TEPIX consist of total accepted stock in the exchange. The index similar to financial and industry indexes indicates changes stock price during a time.

**How calculate price index:** TEPIX = (Pn \* Qn / Base) \* 100

pn=last cost ,Qn= company asset, Base= base number. For price index, sum last price product in all companies asset divided by base and calculated by multiplied by 100. That in the calculation, base year iS 1990. The index indicates total value became double to base year (or the same 1990)

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**11.2 Independent variables:** Independent variables explicated or anticipated by dependent variable. This called motive or internal variable and to measure its relation to another variable, be measured, manipulated and selected by investigator.

**Inflation point to point:** Includes comparison percent of changing the costs in last month or the same month last year.  $IPP_n = (\Delta P_n/P_{n-1})*100$ 

IPP=inflation point to point m, P<sub>n</sub>=price

## 12. Data Analysis

**Research hypothesis:** There is a relation between inflation point to point and Tehran Stock Exchange overall Index to research relation between variables require transform the hypothesis of internal state to regression model, used statistic models in the research is single-variable regression.

TEP  $_{it}=B_0+B_1infla_{it}+e$ 

Hypothesis test we need to recognize the descriptive statistic related to variable to review the general and base properties of variables for estimate model, complete analysis and statistic society recognition in research.

Table 2: Indicates what's investigation variable characteristics

| Variable      | Number<br>of data | Mean     | Standard deviation | Curve | Strain | Minimum of data | Maximum of data |
|---------------|-------------------|----------|--------------------|-------|--------|-----------------|-----------------|
| Inflation     | 59                | 22.25    | 11.19              | .55   | 72     | 7.4             | 45.1            |
| Overall index | 59                | 21142.72 | 21142.72           | 1.42  | 1.2    | 7915.00         | 87726.00        |

**Kolemgroph-smiern of test:** To use the statistic technique, first should be determined that collected data consist of the normal distribution or a normal?

In this stage, we review the results of above test about each independent and dependent variable and select hypothesis of research, basis on results suitable test to research accuracy and wrong.

Table 3: Kolemgroph-Smiern of test

| Variables                       | Inflation |  |
|---------------------------------|-----------|--|
| Number of data                  | 59        |  |
| Mean                            | 22.25     |  |
| Standard deviation              | 11.19     |  |
| Absolute volume ofmax deviation | .158      |  |
| Max positive deviation          | .158      |  |
| Max negative deviation          | 092       |  |
| Statistic z                     | .158      |  |
| p-value(sig)                    | .001      |  |

Judgment method: according to table (3), because significant in dependent variable is less than %5, namely data don't follow by normal distribution. In other word data not include normal distribution. So, we don't accept the hypothesis normal dependent variable.

Research Hypothesis Test

 $H_0$ =there isn't any meaning full relation between inflation point to point and the Tehran Stock Exchange overall Index

 $\mathbf{H_{1}}$ = there is meaning full relation between inflation point to point and the Tehran Stock Exchange overall Index

Sometimes, two or more variables have main effect on dependent variable in this case, we use multiple regression to anticipate dependent variable in multiple regression, also there is line at premise the relation between variables and therefore, multiple regression equation is defined by 3 variables following: TEP  $it=\beta 0 + \beta 1$  infla it+e

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Table 4: Correlation coefficient, R-square between independent and dependent variables

| Model | Summary <sup>b</sup> |                   |                            |                      |
|-------|----------------------|-------------------|----------------------------|----------------------|
| R     | R Square             | Adjusted R Square | Std. Error of the Estimate | <b>Durbin-Watson</b> |
| .66   | .44                  | .43               | 15892.89                   | 1.06                 |

a. Predictors: (Constant), inflation b. Dependent Variable: TEPIX

By considering to table (4) correlation coefficient® between independent and dependent variable is %66, indicating correlation relatively server between dependent and independent variable. R-square is %44, namely we can describe 44.5% dependent variable changes (price index) by model.

Adjusted R square 3 is .43. Difference between R square and adjusted R square can be due to sample volume and the number of variables. While the sample is small adjusted R square is more suitable to comment, if the sample volume was larger both squares are close. The error amount of estimation criterion in table (4-3) indicating decrease the distribution of regression line around points. According to table (4), Durbin -Watson 4 test statistic is 1.06 .So, lack of correlation among lines accepted and we can use regression. Following output table (5) consists of analysis regression variance to research certainty of linear relation among variables.

**Table 5: Consists of analysis regression variance** 

| <b>ANOVA</b> <sup>a</sup> |                |    |                |         |                   |
|---------------------------|----------------|----|----------------|---------|-------------------|
|                           | Sum of Squares | df | Mean Square    | ${f F}$ | Sig.              |
| Regression                | 11529582580.36 | 1  | 11529582580.36 | 45.64   | .000 <sup>b</sup> |
| Residual                  | 14397286863.25 | 57 | 252583980.05   |         |                   |
| Total                     | 25926869443.62 | 58 |                |         |                   |

a. Dependent Variable: TEPIXb. Predictors: (Constant), inflation

Above table indicating analysis of variance or regression significance. By considering the output, significance of total regression model has been test by table (ANOVA) and statistic hypothesis. Statistic F acquires of divided mean square regression by mean Residual Square. In table (5) statistic f equals 45.64 indicating significance regressions in certainty level 95%. The amount of significance is evidence of claim. So, hypothesis H0 denied and significant relation between inflation point to point and total index, approved.

Table 6: Coefficients of regression equation (step wise) independent and dependent variable

| <b>Coefficients</b> <sup>a</sup> | Unstandardized<br>Coefficients |            | Standardize<br>d<br>Coefficients | t     | Sig. | Collinearity<br>Statistics |       |
|----------------------------------|--------------------------------|------------|----------------------------------|-------|------|----------------------------|-------|
|                                  | В                              | Std. Error | Beta                             |       |      | Toleranc                   | VIF   |
|                                  |                                |            |                                  |       |      | e                          |       |
| (Constant)                       | 1929.309                       | 4634.178   |                                  | .416  | .679 |                            |       |
| inflation                        | 1258.981                       | 186.344    | .667                             | 6.756 | .000 | 1.000                      | 1.000 |

a. Dependent Variable: TEPIX

Test related to regression coefficients, one of real test of hypothesis about model parameters has been used to measure suitable of regression model. To research the significant independent variables coefficients used by statistic. By considering table (6) statistic is significance 95% for variable range reported financial. That amounts of significance in the column is the evidence the claim. So, H0 denied and we don't have to take the variance out regression model. In coefficient column (B), constant and

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independent variable coefficient given in regression equation, respectively. In column variance inflation factor 1, all amounts are less than 5, indicating non-linear among independent variables. In column B standardized coefficients; inflation coefficient B equals .66 indicating the relation between inflation point to point and price index.

Table 7: Summary of results hypothesis test

| Indepen<br>dent<br>variable | Depende<br>nt<br>variable | Statistic | sig  | Statistic<br>F | Coefficie<br>nt<br>correlati<br>on | Durbin-<br>Watson | test<br>result     | Hypothe<br>sis<br>of<br>research |
|-----------------------------|---------------------------|-----------|------|----------------|------------------------------------|-------------------|--------------------|----------------------------------|
| Inflation point to point    | Price<br>index            | 6.75      | 0.00 | 45.64          | 0.66                               | 1.06              | direct<br>relation | approved                         |

## RESULTS AND DISCUSSION

## Results

According to finding present research, the relation inflation point to point and Tehran Stock Exchange overall Index had been analysis. Attained results of collecting data were completed by analysis on collected questioners and software's and Spss 22, indicating the approval of research hypothesis and final reply accepted, also that following suggested descriptions in field approval or disproval the hypothesis:

The research hypothesis indicates there is significance relation between inflation point to point and Tehran Stock Exchange overall Index. The hypothesis acquires divided mean regression square by mean residual square possibility 95% according to statistic F and as we observe in table (1), statistic F equals 45.64 indicating significance regression by certainty 95%, p-value is evidence of the claim. Therefore, hypothesis H0 denied and significant relation approved between inflation and price index.

- **14. Operational suggestions:** In this section, we refer to that suggestions that investors of exchange can by apply, improve the application and efficiency of their stocks:
- 1. Suggested to investors. Consider problems about inflation in subject of investment in exchange.
- 2. Suggested to investors determine the trend of inflation effect on special exchanges and making decision basis on in buying any certain stock.
- 3. Suggested to investors in exchange when the inflation appears.
- 4. Suggested to investors who working in exchange, decrease the investments. When inflation rate and continuous trend of inflation rate decreased.

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