

Evaluating the effects of economic factors on the attitude of private investors in Iran

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Abstract

Empirical studies regarding the economic factors affecting private investment in developing countries, including Iran, have demonstrated the importance of these factors on investment. In every country, private investment impressibility is not only to economic variables, such as inflation rate, exchange rate, mass of government investment, extent of foreign direct investment and so on, but also to institutional and security variables. This paper, considering the importance of investment in Iran, tries to evaluate the effects of economic factors on the attitude of private investors of Iran in 2013. Relative data and information is gathered by questionnaire and interview with 368 activists of different manufacturing and service sectors in the country.

Inflation and exchange rate volatility, according to the estimation results, have negative and also significant impacts on investment attitude. However, profitability variables, institutional and security variables have positive and significant effects on investment viewpoint. The inflation and the exchange rate, as important economic factors, can impress the investment. That is, the more stable economic is, or the fewer fluctuations in inflation and exchange rate, the more incentives for investors are attracted. Inversely, high inflation or innovations with more exchange rate, lowers the investment dramatically. Profitability of industry sectors, also, has an intensive effect on the investment attitude. Increasing the security factors increases the investor`s tendency toward investment since the security is one of the basic factors which is necessary for investment issues.

Keywords: Economic Component, Inflation Rate, Exchange Rate, Profitability, Security, Investment

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Introduction

In every country, capital stock, which is financed by domestic and foreign resources, is as one of the basic factors of economic growth process. So that, without capital stock, economic growth and development will be impossible. The reason of being underdeveloped in many countries, as thinker's believe, is inadequate investment as a result of shortage of income and saving. Lack of currency incomes, because of export and unfair trade rate (which most of the time is harmful for exporters of commodities and raw materials), crowd and relatively high consumption, are factors that restrict the saving sources in these countries, which are convertible to productive investment.

Investment and funding, as growth models shaped up and developed in economic literature, are the basic issues that researchers and policy-makers concern about. Investment is posed in a vast range of economic discussions. Prose of financial sources transmission, in order to invest from one point to another, provides the opportunity of funding to countries that suffer from lack of domestic sources of investment. Competing for attracting these valuable sources, which provide trade growth, improve the standards of living, and cause economic development by stimulating production sector, is not only at national level but also at the regional level. This competition is posed by preparing required conditions through facilitating investment legislation, financial support, tax and tariff incentives, providing the necessary security bed and so on.

So investment, in all countries, as engine of economic growth and development, has a specific importance. The importance of investment in the creation of positive economic effects in the world has become completely clear and governments either in developed countries or in developing countries consider investment as an important factor of employment, security and income; and they recognize it as a tool of improving income distribution (Hosseinzadeh, & Bahreini, 2004). In fact, economic growth and development, especially in early steps, requires infrastructures and suitable facilities. Obviously, expansion of these facilities requires sufficient capital, which has to be provided by attracting investment through different tools.

Private investment is a powerful means to innovation, economic growth and poverty reduction. Wide and deep private-sector investments usually accelerated growth in most of countries. As it creates more job opportunities and generates more revenues, it is important to an economy to increase its investment in private sector. Broad consensus has emerged on increasing share of total investment and private-sector development to long-term growth. But in most of developing countries, investment rates are too low, incentives for innovation are insufficient and even investment return is not predictable, which is the major cause of slow growth in developing economy. Econometric evidence (Beddies 1999, Ghura & Hadjimichael 1996, & Ghura 1997) indicates that private investment has a stronger, more favorable effect on growth rather than government investment, probably because private investment is more efficient and less closely associated with corruption. It is estimated that the ratio of private investment to GDP in the sub-

Saharan African countries, which had experienced poor rates of growth in the 1990s, was less than 10 percent, compared to 16 percent in Latin America, 18 percent in advanced countries and 16.5 percent in newly industrialized countries in Asia (Hernandez-Cata 2000).

Like other developing countries, Iran experienced an upward trend in private investment in recent decades. So that the rate of private investment to GDP in Iran had been 18 percent in 2005 and it goes to be 24 percent by the year of 2013. Government in Iran tries to provide an appropriate situation for private investors. policies and plans such as article 44 of Iranian constitution policies and resistance economics plans have been organized by the government to promote business and attract foreign and domestic private investment to increase economic growth rate.

Azerbaijan region of Iran is one of the few provinces that have natural, technical and commercial talent required to investment attraction and retaining. Some of these capabilities are: concentration of heavy industrial manufacturer of machines and equipment for the pharmaceutical, food, and textile industries and etc., having raw material for the development of transform industries, having rich and varied mineral reserves, the existence of upstream industries especially Tabriz Petrochemical and steel conglomerate, the existence of settlements and industrial areas in different points of the province, the existence of dedicated settlement of foreign investment in Tabriz, cheap labor force in various economic sectors, and sources of cheap consumable energy, such as water, electricity, gas, etc. Also, the impressiveness of investment and capital attraction to economic components such as inflation rate, exchange rate, financing, profitability, etc. are higher too. Therefore, this study tries to examine the impact of economic factors on the attitude of private investment in Iran.

This paper is organized as follows: after introduction, the theoretical foundations of the investment and the impact of economic factors on it and literature review are expressed in second part. The model which is used in the paper will be introduced in the third section and in the fourth section the estimated model and its results will be presented. At the end, summary and total conclusion is posed.

Theoretical Literature

Investment means expenditures which increase or preserve capital stack. Capital stack includes factories, machines, residential houses, stocks, as well as offices and other durable goods that are used in the production process (Dornbusch & Fisher, 2003). In other words, investment refers to the consumption of available money in order to access more money in the future (Jones, 2007). Investment, as the engine of growth and sustainable development in the communities, is the function to different economic and non-economic factors. Economic factors are the most important of these factors. In order to access high investment growth rate to fill the gap of funding to required productive investments, countries have to improve this index and provide suitable bed for domestic and foreign capitals' entrance to economic cycles. For many years, economists follow the fluctuations of investment by using economic variables. So that the strong bonds of economic

factors with the amount of investment are approved by all experts. Here are some of the most important factors:

- Inflation rate: Inflation has different effects on investment, that is, when the inflation rate is high, compared to the case is low, there are different effects. Low inflation rate does not damage investment, and due to temporary increase in profit, creates more incentives for investment. Given that the inflation rate is high in developing countries, therefore, it is considered by investors as an indicator of economic instability and it eliminates the investment incentives (Shakeri & Moosavi, 2003).

Inflation leads to misunderstanding of relative price levels and deviation from price indications results in inefficient investment programs and reduces the level of investment. When investment increases, capital stock reduces for a long time and in a stable way, leads economic growth to decrease (Safdari & Purshahabi, 2009). As an example, Serven and Solimano (1993) talk about negative effects of inflation on private investment in developing countries.

- Interest rate: Basically, one of the aims of bank interest rates reduction is to increase the investment and thus increase the production and employment. However, the increase in investment due to decrease in interest rate depends on the elasticity of the investment function to interest rate and the amount of changes in production and employment depends on IS and LM curves' elasticity. Also, it is expected that, from the theoretical prospect, interest rate has an inverse relationship with investment. Because by increasing the interest rate, based on either internal rate of return criterion or net present value criteria, there are fewer plans that are financially implemented. However, in developing countries, due to lower interest rates from the equilibrium interest rate, there are doubts about the accuracy of such an approach. In other words, when the interest rate is lower than the equilibrium interest rate, an increase in interest rate leads to an increase in the supply of capital and the subsequent increase in investment. Therefore, in a macro model, the coefficient of impact of interest rate on private investment may be positive (Tajali et al., 2010).

Usually, econometric tests suggest that the interest rate had little impact on investment and it is considered as a weak or negligible factor in demand for investment. A decrease in interest rate would result in more importance in future rather than past, and a same increase in the value of investment (the expected present value of profit stream) and expected value. The relative literature shows that various sources, such as uncertainty in profit fluctuations, in product's prices, input costs, exchange rate, taxation and regulatory policy, rather than interest rate, have important effects on investment. Reduction or elimination of unnecessary uncertainties may be the best type of public policies to stimulate the investment (Dixit & Pindyck, 1994).

- Exchange rate: Different exchange rate regimes determine the exchange rate in the economy. Specified and constant exchange rate regime governing the economy determines the condition of economic evaluation of the investment plans and expectations will be close to reality and provide favorable conditions to capital transfer into the country (Kiani &

Nahidi, 2011). If exchange rate is unstable, it leads to increase in uncertainty and thereby to increase the risk of business activities and investment (Cote, 1994). As Aizenman and Marion (1993) concluded, the uncertainty about exchange rate and money supply innovations has a negative impact on investment.

- Monetary policies: Monetary policy, in each country, as a subset of the economic policies, is applied in order to stabilize the general price level, creating economic growth, employment, preserving the value of the national currency and establishing equilibrium in the balance of payments. According to the monetary transmission process, monetary policy makers do not relate their policy tools to the final objectives, directly. Because the effects of monetary operations over time is uncertain and there is uncertainty about the effectiveness of the monetary policy. For this reason, policy makers use medium-term tools. But the problem is that economic actors and researchers should be aware of the prevailing monetary conditions (contraction or expansion) and the central bank's position on monetary policy. In open economies such as the US economy, forecasting the interest rate movements is sufficient to identify the position of the central bank. But small economies, awareness and guessing about interest rate movements cannot show the prevailing monetary policy conditions (Khataee & Seifipur, 2005).

In addition, factors such as liquidity injections more than absorbing ability, extension of non-bank credit institutions without a license from the Central Bank or licensed with higher interest rate but easier lending conditions from public and private banks, and lack of diversification of financing sources of investment in the country cause monetary policies to be ineffective. Anyway, when monetary policy at the macro level, with any purpose, is implemented, it can affect the investment directly or indirectly. But, the thing that is even more important than the type of monetary policy (expansion and contraction) is to have an accurate prediction about these policies by capital owners, and programming.

- Fiscal policies: In economic literature, taxes and government spending are the most important tools of fiscal policy. The tax is a double-edged sword that even if it is podded, will have its preventive effect. Double-edged sword is to encourage productive investment, and to prevent destructive investment (Yan, 2009). The government can direct investing activities directly such as income tax and profit tax, or indirectly such as value added tax and customs duties. All of the investment sectors have tax exemption, and this is an important incentive to attract investment. But its cost is a loss in government confident income. Therefore, designing an efficient tax system is essential for each country. Of course, when such a system is designed, the country's ability in its implementation must be considered.

The next tool of fiscal policy is government spending. In general, government expenditure contains current expenditures, construction expenditures and investment expenditures. Government investment, in developing countries, increases investment possibilities in the private sector. Side effects of public investment which is done in infrastructure, increase productivity (or reduce production costs and transaction costs) and profitability and lead to an increase in private investment. In addition, public investment increases the demand of private sector productions and results an increase in investment of this sector. Also, private investment benefits from the imports of cheap technology and intermediate goods and capital (Mehrara & Maki Nayeri, 2009).

But, because in our country the government holds the majority of economic activities and use bank`s sources easily, by increasing the government's use of bank`s sources and credits, there will be few sources for private sector investment. When government`s intervention in economic

activities increases, it leads private sector out of this area⁶(Usefi & Aziznejad, 2009). Therefore, it can be concluded that, only the part of the government's fiscal policy which is limited to investment in infrastructure sectors, is in favor of private sector investment. But, if the government intervention in economic is in an extent that makes it a major economic institute, the private sector can easily be removed. A very important point in our country is government budgeting according to unstable and unpredictable oil income which results, in the short term and in the long term, in complex and weak financial management.

Empirical Evidence

Investment is a key variable in any economy, so that at the absence of investment, there is no opportunity for economic growth. What follows is a series of domestic and foreign studies about the subject of this paper, each of which performs an aspect of economic factors and investment.

Goldberg (1993) studies the impact of the exchange rate on industry-level investment in the United States and finds that in the 1980s the real dollar depreciation (appreciation) was likely associated with investment contraction (expansion). Brunetti and Weder (1997) evaluate the quantitative effects of uncertainty indicators on investment in 60 countries during the period of 1974- 1989. They have concluded that the lack of laws, high corruption and real exchange rate fluctuations are the factors that would destroy investment. Darby et al. (1999) examine real exchange rate uncertainty and aggregate investment for five OECD countries and find mixed results in the sense that there were circumstances in which rising volatility would increase or decrease investment. A couple of more recent studies on the effect of uncertainty on the level of private investment are by Serven (2003) and Pradhan, et al. (2004). Serven's study is based on cross-country time series data for 61 countries for the period of 1970-1995 and finds a strong negative effect of real exchange rate uncertainty on private investment. He finds the effect particularly large in relatively open economies. Pradhan, et al. (2004) examine the effect of real exchange rate uncertainty on aggregate private investment in Indonesia, Malaysia, the Philippines and Thailand using time series data from 1972-2000. After analyzing the time series properties of the data they estimate an error correction model for each of these countries. They found different results for different countries.

Atukeren (2005) analyzed the interaction between public and private investment by using long-term co-integration analysis and Granger causality tests on a sample of 25 developing countries. The findings indicate that both crowding-in and crowding-out effect of public investment occur in developing countries but there is no clear general verdict on whether public investment crowds out private investment or vice-versa. The effects vary from country to country. Moreover, the study also reveals that in some countries there may be crowding-out effect of public investment in the short-run but the overall effect on the private sector might be positive in the longer term.

Tariq Majeed and Khan (2008) investigated the determinants of private investment and the relationship between private and public investment in Pakistan using annual data for the period 1970-2006. The results suggest that the overall relationship of public and private investment is one of substitutability. It means there is a "crowding out" effect indicating that most of the physical and financial resources are utilized by public sector, thereby exerts a negative influence on private investment.

⁶. Economists call this situation "Crowding – out ".

Morrissey and Udomkerdmongkol (2012) investigate the relationship between foreign direct investment (FDI) and private investment in a sample of 46 developing countries for 1996–2009. The results suggest that total investment is greater in countries with good governance, evidence of crowding out, and the extent of crowding out is related to governance. Corruption and political instability are the governance indicators that appear to have the greatest impact on investment. Political stability is found to be the most important aspect of governance in terms of the relationship between FDI and domestic private investment: and an increase in FDI has the greatest effect on reducing private investment in politically stable regimes.

Sultana and Pardhasadhi (2012) investigate the factors that influence the behavior and decisions of individual investors in India. In this study, 10 individual features were focused, after factor analysis. They mentioned factors such as: wealth maximization, risk minimization, perception of the brand, social responsibility, financial expectations, accounting information, government and the media, economic expectations and supportive recommendations, which are effective factors.

Poveda (2013) examines the empirical relationship between economic development, investment, savings, social situations and insecurity for Colombia over the period 1993- 2007 and uses the method of dynamic heterogeneous panels. The empirical findings suggest that there is a long-term relationship between economic development, investment, savings, social situations and insecurity so that, an increase in investment and saving leads to an increase in economic development. While the Gini coefficient and the number of murders have a negative coefficient, indicating that greater inequality and insecurity, undermines economic development. The results show that political strategies create required incentives, through more savings and investment, reducing inequalities in income distribution and better security situation, in order to promote growth and development.

Lee et al. examine how investor behavior and decision making factors on stock market performance is impressed in Taiwan. They state that the common analytical methods about the investment decision can be classified in fundamental methods (economic conditions, industry trend), technical (market experience, innovations), the volume of trade and political factors. They also remind about mental factors and macroeconomic (interest rate, exchange rate, consumer price index) as other effective variables on investing behavior in stock market of Taiwan in 2007, and conclude that these factors have a significant impact on investment decisions while other variables such as age, gender, marital status, education and income levels were not significant. In addition, among the studied variables, macroeconomic factors and investor`s expectations are the most important factors affecting the performance of the stock market and investment performance in Taiwan.

Chigozie (2015) using time series data evaluates the determinants of private investment in Nigeria between 1970 and 2012. The result of the real interest rate variable suggests that the real rate of return on bank deposits has a statistically significant positive effect on investment behaviour in Nigeria. The results of the analysis also show that investment has been slowed down in Nigeria as a result of increased lending rate, reduced public expenditure, reduced savings, political instability and inadequate infrastructure.

Rahbar et al. (2007) identify factors affecting investment security and quantitatively calculate investment security for the years 1984-1994 and 1995-2005. The results show that the investment security has a significant positive impact on investment and economic growth.

Ahanghari and Saadat Mehr (2008) evaluate the impact of security on private investment in Iran during 1984-2005, by using the Vector Auto-Regressive (VAR). The results show that security

investment has a significant effect on private investment in Iran so that an increase in investment risk index, in average, 0.22 billion reduces the private investment in Iran.

Kiani and Nahidi (2011) in their study examined the impact of some macroeconomic variables on FDI in the period of 1973-2006, by using ARDL and GARCH approach. Model estimation results indicate that an increase in exchange rate has a negative impact on attracting foreign direct investment, and investment security and economic openness have a positive impact on attracting foreign direct investment.

Usefpor et al. (2012) investigate the effects of the effective variables on private investment in uncertain economic space in Iran. They have estimated the Iran's investment function for years 1971 -2011 by using OLS and ARDL methods. In this study, in addition to quantitative variables such as national income and inflation, they have examined qualitative variables such as revolution, sanctions, war and so on. Qualitative variables, with raising the uncertainty in the economy, reduce the investment volume while these variables affect the quantitative variables in the model.

Summing up internal and external studies, it is concluded that in most studies, they have focused on examining the relationship between private investment and fluctuations of macroeconomic indicators. As an example, Serven and Solimano (1993) have concluded on the negative impact of inflation and exchange rate fluctuations on private investment in developing countries. Aizenman and Marion (1995) have achieved a negative correlation between the fluctuations of macroeconomic indicators (terms of trade, inflation, & real exchange rate) and private investment. Also, Aizenman and Marion (1993) conclude that Uncertainties about fluctuations in exchange rate and money supply have a negative impact on investment. Also, most of these studies have been done on a macro level, while the present study has been done at the provincial level using data collected from investors by questionnaire.

Database

This study based on data collection is a research field, analytical- descriptive type and from the results perspective, is an applied research. Data are collected through questionnaires and interviews, and then the data is analyzed by econometric methods and techniques.

The population consists of investors of various economic sectors in Azerbaijan region of Iran in 2013. But, since access to all the desired people to respond to the questionnaire is difficult and it is unjustified, in terms of time and financial cost, the sampling method is used. Basically, the purpose of the sample study is to maximize information in exchange for the cost. The important point, in sample selection, is that researchers should be able to extend the results. According to the latest available data of applied research office of the police force in Azerbaijan, until September 2011, there were 8793 active workshops, overall, in the province. The size of the sample is obtained using a sample of 368 people by Cochran approach.

$$n = \frac{Nt^2pq}{Nd^2 + t^2pq} = \frac{8793 \times 0/5 \times 0/5 \times 3/84}{8793 \times (0/05)^2 + (0/5 \times 0/5) \times 3/84} = 368$$

In order to check the reliability of questionnaires, opinions and viewpoints of academics, enforcement officials of the province, investors of various economic sectors and other experts were gathered and they were applied in setting the final questionnaire. Also, the values of Cronbach's alpha, obtained for all the items of the questionnaire, are more than 80%, which between variables

show the high compatibility and reliability of the used questionnaire. The results of variables' stability have been reported in the following table.

Table 1- The results of reliability of the independent variable: investment attitude

Cronbach's alpha	Items	Row
0.59	When I start doing a job, I'll end it up efficiently.	1
	You Should not be very worried about the difficulties ahead, since the God has reserved everyone's daily bread.	2
	All should be responsible for society, job creation and its development.	3
	Investors of production units are risk-taking people, because there is always uncertainty.	4
	It is better for capital to be used in the production process rather than the bank deposit.	5
	In order to protect properties and assets, we can trust and rely on the police force.	6
	The performance of the police to keep track of checks, promissory notes and other financial instruments is proper.	7
	We live in a province that due to the vigilance and authority of the police force the possibility of crime is low.	8
	In the event of security problems, the accountability and presence of police 110 is appropriate.	9
	Collection of police activities has provided appropriate psychological environment for economic activity.	10

Source: research findings

The dependent variable, investment attitude, is measured with 10 items. The alpha coefficient for this variable is 59 percent for which we can say that its stability is in average and reliable.

Table 2- The results of the reliability of the independent variable: economic factors

Cronbach's alpha	Items	Row
0.69	One of the main reasons for the continued operation in a plant is that we know it is profitable.	11
	High inflation is considered as one of the reasons for the decline in investment incentives.	12
	Exchange rate fluctuations have negative effects on continuing plant's activity.	13
	Customs permission to enter the similar goods would harm the production units.	14
	When necessary, we can rely on financing from the banking system (such as loans, etc.).	15

	When applying for a loan from the bank, there are no problems such as the need to guarantee, heavy collateral and long-term trend.	16
	Tax received by the government is proportion with revenues of production unit.	17
	All the promises of the government about private sector support are reliable and usually achieved.	18
	Infrastructure in the province (such as roads, railways, electricity, water, etc.) is desirable for investment attraction.	19
	Aras Free Zone is one of the reasons of encouraging investment in the province.	20

Source: research findings

Cronbach's alpha coefficient measured for the independent variables (economic factors) is 69%, which shows good reliability.

Table 3- The results of the reliability of the control variable: institutional

Cronbach's alpha	Items	Row
0.81	Administrative system, its legal and long-term trends can be a reason for reducing investment incentives.	21
	Process of obtaining a license or receiving other government services, do not require frequent visits.	22
	Behavior of employees of government departments is respectful and compassionate with investors.	23
	Provincial police force has sufficient ability to identify and prosecute the criminals.	24
	Provincial police officials deal with offenders firmly and without discrimination.	25
	When referring to police authorities, there is no need for favoritism.	26
	Payments and receiving gifts (bribes) in the province is not common among law enforcement officials.	27
	High police security in the Eastern Azerbaijan province, compared to other parts of the country, makes this province as a desirable place to attract investment.	28
	Police force facilities such as police patrol cars, stations, mobile connex and ..., is desirable, in order to establish security in society.	29

	The capacities of the police, such as telecommunications equipment, computers, the Internet, etc. is desirable to establish security in the community.	30
	Access to information needed from government agencies (such as tenders, etc.) is time consuming and difficult to achieve.	31
	State administrative system in the process of investing is healthy enough (in terms of embezzlement, bands, and so on).	32
	To speed up the work of government administrative and semi-state, there is no need to a bribe.	33
	Government agencies do not make any discrimination when giving information to investors.	34

Source: research findings

Cronbach's alpha coefficient obtained for control variable, institutional, is 81 percent, so this variable is highly reliable. The institutional variable is measured with 14 items. The institutional variable contains a set of formal and informal rules of conduct and is as a restriction on interaction between people and groups in the society.

Table 4- The results of the reliability of the control variable: Security

Cronbach's alpha	Item	Row
0.67	Efforts of the police to prevent crime, which affect investment, is satisfactory	35
	Disciplinary rules for economic offenses are deterrent.	36
	Police solves the investor`s problem with respect and compassion.	37
	Political party's being in power has no significant effect on the activity of production units.	38
	Political conflicts and military threats of other countries do not affect commercial relations with those countries.	39
	Raw material smuggling causes losses for production units.	40
	Provincial police officials deal with smuggling firmly and desirably.	41

Source: research findings

To measure the control variable, security, 7 items are used. Alpha coefficient for this variable is 67 percent which shows a good reliability of the questions of questionnaire.

This study examines the impact of economic factors on the investor`s attitude in East Azerbaijan province of Iran. Attitude of investors means that the owners of capital have enough motivation to employ their capital in manufacturing or services of their community and do not prioritize opportunities, such as

speculative and non-productive activities. In addition, independent variables, here, are exchange rates, inflation, financing and profitability, which are among the economic factors. In addition to the independent variables, control variables, such as institutional and security variables are present in the model. After selecting variables, by using items related to each variable, the considered index is created. To put all the indexes in a range of (1, 0), formula (1) is used. In fact, the minimum score for each indicator is subtracted from each questionnaire score and the results are divided to the domain of that index (the difference between the minimum score of the index and the maximum score). In other words, according to the raw score of the index (X), the deflator index is calculated as follows:

$$X_i^{\text{adj}} = \left[\frac{X - \min(X)}{\max(X) - \min(X)} \right] \quad (1)$$

Another important factor in shaping investors' attitude is the economic component. In this component, investor's economic concerns have been put on the test. The results of descriptive statistics of economic variables are as following:

- Profitability: The response of respondents indicates that about half of the respondents consider profitability as a condition of investors' entry and only about 13 percent do not consider this component effective for investment and count other factors important for investment.
- Inflation rate: One of the factors that the vast samples have acknowledged its importance is the issue of inflation. Evaluating the responses shows that about 77 percent of those surveyed think that high inflation is one of the reasons for the reduction in investment incentives. So that, 42.3 percent completely agreed and 34.4 percent agreed about the destructive impact of inflation on people's attitude towards investment. On the other hand, only 6% of respondents are opposed to such thinking.
- Exchange rate volatility: About 82 percent of the respondents believe that the exchange rate fluctuations have a negative effect on production unit to continue. Therefore, according to descriptive statistics, the majority of investors think that exchange rate stability is effective to enter and continue activity in investment field, and they introduce exchange rate fluctuations which led to a tendency in people's deposits toward unproductive activities.
- Financing: Responses indicate that about 24% of people are confident that through banking facilities such as loans, they can provide the needed capital. In this regard 7% strongly agree and 17% agree in the existence of banking system's positive performance in the field of investment. While about 38 percent of people believe that the way of lending and banking services is not appropriate and they don't rely on banking system when entering the field of investment. Overall, economic factors affecting the investment attitude reveal that in the subset of economic factors, the majority of supporters agree with the exchange rate stability effect on trends and encourage investment.

Results analysis

As discussed in the theoretical literature, formation of any desire to investment is the function of many factors. Economic factors are the important factors for private investment in all societies and can direct most of the investing decisions. But what is certain is that, none of the mentioned variables can affect the investment attitude lonely and isolated from the rest. So to investigate the effect of each of these factors,

simultaneously, regression analysis is used, since regression analysis can model the relationship between variables simultaneously.

Basically, one of the main objectives of statistical studies is to find a relationship between two or more variables. In the present paper, in order to model fitness ordinary least squares (OLS) is used, in which the attitude of private investment in East Azerbaijan is a function of economic variables such as exchange rates, inflation, profitability, and financing.

The following is Bayai and Nyangara (2013) the model which was used as given in Equation (1)

$$inv_i = \beta_0 + \beta_1 pro + \beta_2 inf + \beta_3 ex + \beta_4 ins + \beta_5 sec + \varepsilon_i$$

Where *inv* is private investment, *inf* is change in inflation rate, *pro* is the profitability, *ex* is exchange rate volatility, *ins* is institutional, and *sec* is security.

high inflation brings with it the expectation of currency devaluations which will increase the cost of imported capital goods and inputs to an unknown extent. Moreover, open economics often experience high private investment rate since an outward-oriented trade regime helps to increase the credibility of the national economic policy by exposing the economy to the competitive discipline of international markets.

In this study, we report the empirical results based on the cross-sectional data for Iran in 2013. The generalized least squares method (GLS) was applied to equation (1).

Table 5- Results of regression model (independent variable: investment attitude)

Variable	Coefficient	T statistics	P- value
Profitability	0.096	3.41	0.001
Inflation	-0.08	-2.14	0.034
Exchange rate volatility	-0.22	-7.75	0.000
Institutional	0.26	5/52	0.000
Security	0.18	5.40	0.000

Source: research findings

The results of the model estimation indicate that inflation and Profitability have a negative and significant effect on investor attitude. A one percent increase in inflation is associated with a 0.08 percent percentage point decrease in investor attitude to investment because when inflation increases, the investor attitude to investment decreases. Inflation rates also are an indicator of macroeconomic stability, which can have adverse impact on private investment. High inflation creates uncertainty about the returns on savings and investment, thus creating a disincentive for capital accumulation. Inflation also increases the risk of longer-term investment and thus it is associated with lower investment spending (Greene and Villanueva (1991) and Oshikoya (1994)).

On the other hand, exchange rate volatility has a negative and significant effect on investor attitude. This implies that a 1 percent increase in the exchange rate is associated with a 0.22 percent reduction in the

investor attitude. This result suggests that the exchange rate plays a crucial role in investment decisions by private entrepreneur; especially in this globalized world it becomes more important. A change in currency value changes the real costs of purchasing imported capital goods, and the profitability of the private sector is affected and possibly causes investment to change. Furthermore, this may result into change in real income of the economy as a whole, thus altering the production capacity. The change in exchange rate also affects the investment through sectors producing internationally traded goods, due to its impacts on competitiveness and export volumes. The other thing that is important in investment decision-making is irreversible nature of investment in capital goods. The findings are consistent with the findings of the Goldberg (1993), Darby et al (1999), Serven (2003) and Pradhan, et al. (2004) and Pradhan, et al. (2004) found evidence that exchange rate volatility can have significant negative long run effects on investment. In the model, coefficient of inflation is 0.08, and exchange rate volatility is 0.22 that shows the impact of exchange rate higher than inflation.

Profitability, institutional and security variables have a significant positive impact on the attitude of investors. Positive effects of security factors on investment cause much tendency in investors of province toward investing. Since security is one of the basic required factors in investment improvement in security contribute to the rise of private investment by decreasing downside uncertainty on the return to investment. On the other hand, security factors that decrease the uncertainty on the return to investment across capital goods also directly bear on growth by enhancing efficiency of resource allocation, independent of their effect on private investment. So, it can be concluded that the security issues are a great and effective factor on investing in the province.

Profitability has a positive impact on private investment, that is, the more the profitability of production units, the more orientation toward investment. This implies that a 1 percent increase in the profitability is associated with a 0.09 percent increase in the investor attitude. So, when, in province, production unit's activity is profitable, investors invest their capital in the province and make more profit. In the model, coefficient of profitability is 0.09, institutional is 0.26, and security is 0.18 that indicates the impact of institutional higher than profitability and security. The findings are consistent with the findings of the Poirson (1998), Dixit and Pyndick (1994) and Serven (1997).

In addition, variable of financing and intercept didn't have significant effect on investor attitude, so they have been removed from the original model. The model's determination coefficient is equal to 94% which shows 94 percent of models variation is explained by the independent variables which shows a good fitness. It is worth mentioning that the model suffers from heterogeneity of variance and to eliminate this problem we use weighting (GLS). Table 6 reports the tests of goodness of fitness.

Table 6- The results of goodness of fitness tests

Test	T statistics	p- value
Co-linearity test	1.25	-
Autocorrelation test	2.07	-
Heterogeneity of variance test (after eliminating the heterogeneity)	0.17	0.67
Ramsey test	1.95	0.12
Determination coefficient	0.94	
Number of observations	232	

Source: research findings

In this model the linear test statistic (Vif) is lower than 10, and it is confirmed that there is no co-linearity between independent variables. Durbin-Watson statistics reveals that there is no autocorrelation between dependent and independent variables. Not rejecting the null hypothesis by the Ramsey test indicates that there is no specification error in the model. The results of Breusch-Pagan test, which is used to investigate heterogeneity of variance, show that heterogeneity of variance exist in the model and weighting was used in order to eliminate it; of course, the test reported in Table (6) is after removing the variance heterogeneity. It is worth noting that the results reported in Table 5 are after eliminating of heterogeneity and meaningless variables.

Conclusion

Investment, as an engine of economic growth and development, is one of the important factors of job creation, income and security and a means to improve income distribution. In order to enter the field of economic activities, having capital and financing are required. Therefore, it is necessary to have solutions for removing barriers and creating appropriate strategies to attract more investment. Investment attitudes are more affected by economic and security factors, which are focused in this paper. So, the main objective of this paper is to examine the effects of economic factors on the attitude of private investment in the province in 2013 by using a questionnaire. The samples used in this study are the investors of moderate industrial workshops. Classification criterion is based on the number of people employed in the industry. In general, industrial workshops with 10 to 500 employees are known as intermediate workshops.

Items related to economic factors are profitability, inflation, exchange rate and financing. According to data gathered from the questionnaire, about 50% of respondents think that profitability is the condition of entrance to investment activities and about 77 percent of them take high inflation into account as a factor that reduces investment incentive. 82% of respondents evaluate exchange rate fluctuations as a tendency to invest in non-productive economic activities and 70% of them believe that the customs licenses for importing similar domestic goods harm the domestic production and the tendency of investing. Evaluating the responses show that only 24% of people are confident about banking facilities such as loans to provide needed capital. The need to guarantee, heavy collateral and long-term trends are mentioned as the reasons of uncertainty in financing through the banking system. According to 49% of people, the taxes received by the government do not fit with the production unit's revenues and 53% of investors don't believe that government's promises come true about the private sector. On the other hand, 34% of respondents think that the infrastructures, in the province, are adequate and 51% of them know the Aras Free Trade Zone and its associated benefits as one of the reasons of investment tendency. In general, the economic security of activities of environments in the province is evaluated above average. Results of regression model indicate that inflation and exchange rate fluctuations have a significant negative impact on investor's attitude, which means that when inflation increases, there is a reduction in investors tendency to invest since inflation is a disruptive economic factor which affects investment decisions. Inflation and exchange rate are important economic factors that can affect the investment. It means the more stable in economic, that is low inflation and exchange rate, the more incentives for investment attraction, and inversely, the more the fluctuations of the exchange rate, or high inflation, the less the investment. So investors' responds to the questions of the questionnaire indicate that one of the greatest concerns of investors is related to the economic variables. Profitability, security and institutional variables have positive and significant impacts on investor attitude. The more the profitability of the production unit's activities, the more is the tendency for investors to invest. Also, security and institutional factors are important factors to attract and increase investment. But,

variables of financing and intercept, because of being meaningless, are removed from the model. In general, it can be said that, although profitability and financing are important factors affecting the investment, their impact on investment are not as well as the effects of inflation and exchange rate. The findings are consistent with the findings of the previous literature on investment characteristics (e.g., Brunetti and Weder, 1997; Kiani and Nahidi, 2011; Serven and Solimano, 1993; Aizenman and Marion, 1995).

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