

CAUSAL RELATIONSHIP BETWEEN INFLATION AND ECONOMIC GROWTH IN IRAN DURING THE YEARS 1978-2011

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Abstract

Achieving high and stable economic growth rate of any country is important. The deleterious effects, particularly on inflation and economic growth are the major problem countries. Therefore, researchers have attempted to explain how the relationship between inflation and economic growth has been concentrated. The hypothesis of this study is two-way causal relationship between inflation and economic growth in Iran during the years 2011-1978 Co-integration test method can be applied in the study of government spending, inflation as measured by CPI indicator, investment and total population GDP as independent variables and the dependent variable is used. The results of the tests show that the model estimates the relationship between inflation and economic growth in this research is one-sided. The inflation of the economy, there is a significant negative correlation between economic growth and inflation, but the relationship does not exist.

Keywords: inflation, economic growth, Economic, Iran Economic Growth

Instruction

Achieving high economic growth has distracted most of economic experts and authorities' mind and became one of the usual precautions of economists and politicians in different countries. In fact, there are various factors which can affect economic growth that some of these factors have positive effect and others have negative ones. Of the main factors which can effect positively on the economic growth and have reinforcing effects are amount of investment, increase of work force profitability and promotion of technology level. Moreover, such factors which have undesirable effects on economic growth of a country, especially on the developing countries, inflation could be mentioned. According to the available witnesses, the inflation imposes numerous undesirable economic and non-economic effects on a society. Economists believe that the expenditure that inflation tolerates could even be more serious than expenditures resulting from slowing down economic growth. High inflation interrupts efficiency of pricing system and reduces value of national money. Moreover, inflation destroys investors' motivation and lead to redistribution of income in benefit of variable incomes or to the detriment of fixed incomes, therefore, it leads to capital flight from real sectors to agiotage activities and finally to slowing economic growth.

Therefore, due to negative and sustainable effects of inflation on national economy, inflation control should be placed as a prioritized target on the top of macro economy of the objectives and economic policies which bring lower rate of inflation should be reserved. Among the macro objectives of each economic system, achieving high and sustainable economic growth rate, lower inflation rate, creation of full employment and fair distribution of income in the country. Inflation is of the harmful economics phenomenon and it imposes numerous costs to the society. Based on the positive, neutral or negative effects of inflation on economic growth, finding final effect on the growth considering specific condition of each country could be a fruitful guideline for politicians.

Problem Statement

Inflation and economic growth are of the controversial issues between economists following Barrow key studies; there is no agreement about the relationship between these two variables. In sum, we can say that most studies consider high inflation malicious on economic growth; therefore, the need to control inflation and inflation targeting has been mentioned as the macro main objectives. Study the results conducted around relationship between inflation and economic growth shows that no clear or accurate relationship is gained and abundance of conducted studies in this matter through recent years verifies this claim that researchers are still looking for introducing new ways to solve this riddle of macroeconomic. Accordingly, three economic theories have been proposed fitting predetermined assumptions that include:

1 - According to the structuralisms' theory, inflation has a positive effect on economic growth. In this theory, at least to a certain rate of inflation, there is a positive relationship between inflation and economic growth.

2- In theory of fundamentalists who believe in creating economic distortions caused by inflation, inflation has negative effect on economic growth. In fact, inefficiency caused by high inflation prevents economic growth.

3- Moreover, there is a third view belonging to Sidrouski. By the help of optimization attitude of economic growth and by considering real money balance in favorable function, he showed effect of monetary inflation on economic growth is neutral. This theory known as neutral theory has been raised by rational expectations (Jafari Samimi and Gholi Zadeh. 2007, p2). Now, despite the uncertainties in inflation and economic growth, empirical analysis is needed to resolve these ambiguities. Therefore, study the relationship between inflation and economic growth in Iran forms the main question of the research.

Research Objectives

Inflation is one of the most important macroeconomic problems that can affect all the other macroeconomic variables. On the other hand, accelerating economic growth and development of the economy are of the key objectives of economy. Relationship between inflation and economic growth has been always of the controversial issues among economists. This research studies theoretical subjects regarding inflation and economic growth. Study the relationship between inflation and economic growth are of the main issues in economics. Evaluation of effectiveness between these two categories of the economy could have applied useful results in the field of economic policy making. Since economy of Iran in after revolution years has experienced high rate of inflation, study effect of these changes in price index on economic growth is considered as the research necessities.

Research Hypotheses

The hypothesis base means achieving to a known and regulated order among a density of information. This important is done through process of analysis and hypotheses regarding performance of the economic systems. In the thesis, the below hypothesis was studied and tested: There is a causative mutual relationship between inflation and economic growth.

Research Literature

Alexander (1997)

Alexander in an article entitled as inflation and economic growth, a witness of the growth equation, studies effect of inflation and its effects on economic growth based on neoclassic growth equation. He used data of 11 countries member of Organization for Economic Co-operation and Development (OECD) through 1966-1988 as an order of sectional data and time series. Firstly, he regresses real growth rate of production on capital (K) and work force (L), then he states if production growth is only regressed on (L'/y) and (k'/y) , we probably have components of a great waste including eliminated variables from the model. That's why for adding other effective factors, first virtual variable (d) is entered into the model which was zero for the years before 1973 and for years after 1973 was considered 1.

Then, Alexander adds inflation variable step to step to the model so that he reaches the below equation:

$$\frac{\dot{Y}}{Y} = \beta_0 + \beta_1 \left(\frac{\dot{K}}{Y}\right) + \beta_2 \left(\frac{\dot{L}}{Y}\right) + \beta_3 d + \beta_4 \pi + \beta_5 \Delta \pi + \varepsilon$$

Then Alexander states by entering variables of the government's expenditure (g) and export (x), better results may be gained. Therefore, the said variables are entered in the model. It is also noteworthy to mention that Alexander estimates the model stage to stage by entering the above-mentioned variables to reach the final model. In this article he states the range of inflation between (-0/11266) and (-0/16652), he also states the range of the inflation was fluctuating from (0/79594) to (-0/16366). The aforesaid analysis shows that inflation and its changes have negative and significant effect on economic growth.

Bruno and Easterley (1998)

Bruno and Easterly, (1998) in another article entitled as "inflation crisis and long-term growth" using 31 countries' observations for fiscal years 1961-1994 look for this response whether economic growth before inflation crisis was less than normal or not?

How about during inflation crises and after that? The authors reached the below results in responding to these questions: Per capita growth during the inflation crisis is negative and after crisis is positive. Economic growth of 2/4% in the pre-crisis period declined comparing to the crisis period. After the crisis, economic growth has an acceleration equivalent to 3/3% , namely the growth rate after the crisis is 0/9% more than the pre-crisis growth rates. Another problem is that the growth rate per capita of the global average during the crisis in the long term was 1/9% and in short-term group was 2/6%. These discrepancies are not significant statistically. Moreover, in this research, a reason for several clear supply shocks such as wars, grants and exchange relationship which can explain negative relationship of inflation crisis with growth was not found.

Sarel (1996)

Sarel in an article entitled as " non-linear effects of inflation on economic growth" studies inflation effects on economic growth. He uses population variables (N), gross domestic product (GDP), consumer price index (CPI), terms of trade (TOT), real rates of currency, governmental expenses

and investment in his model. Sarel considers 77 countries for fiscal years from 1970 to 1990 using Panel method and divides observations into 12 groups and uses inflation rate as the base rates. Then he measures the effects that the inflation difference has on amount of growth in other groups. In here we could mention that inflation has ordinary positive effect on growth till group 7 and as of today, along with inflation more than 8%, inflation and growth are in relation with each other negatively. When inflation is extremely high (in group12), difference in inflation effect on growth compared to the group 6 is near to 4% (all other factors are kept fixed).

In this article, it is derived that the function linking growth rates to contain inflation includes a structural interval. When the inflation is low, it has no negative significant effect on economic growth and even it may have a bit positive effect. But when inflation is high, it has a significant negative effect on growth, this negative effect is large and statistically significant. Estimation of structural interval point is where the average annual inflation rate is 8%. If there is a structural interval, and it is not mentioned in the calculation, it leads to significant bias in estimating inflation effect on growth. In this paper it is proved that when a structural interval is entered into calculation, the estimation effect of inflation on economic growth increases. The structural interval also proposes a political goal and that is to maintain inflation always under structural interval.

Vaon and Schiavo (2007)

In this study entitled as “non-parametric and semi-parametric evidences of the long-term effects of inflation on growth” , objective is to review long-term relationship between inflation and economic growth using non-parametric estimators and non-parametric instrumental variables and panel threshold method. In the under-study model, two features have been focused. Dependent variable of growth rate of GDP is constant in a currency. The first feature of control variables including inflation level, ratio of gross constant capital as a share of GDP, population growth, GDP logarithm per capita in ppp, level of training and share of government expenses in GDP.

The second feature is considered growth rate in exchange equation and 5 years standard deviation. The data include 167 countries and fiscal years from 1960 to 1999. Due to lack of relevant data, the equation has been regarded as only an effective factor in many countries and it is not used in the main feature of the model. Nonparametric data estimation is a tool for a time when it is supposed that the relationship between two variables is nonlinear. In addition, to control other variables, the use of semi-parametric estimators is also possible. Estimation based on Pavek studies (2003) using this equation has been done:

$$Y_i = X'_{1i} \beta + \varphi(X_{2i}) + v_i$$

In which y_i is dependent variable, X_{1i} for $j = 1,2$ is two sets of dependent variable, $(\bullet)\varphi$ is a non-linear function of the general form and i indicates i^{th} observation. The results in using nonparametric estimator and semi-parametric instrumental variable for a non-linear relationship between inflation and growth show that inflation has not a significant effect on economic growth. While inflation in developed countries is under 12%, due to high volatility in growth performance in developing countries, determination of the threshold level of inflation is not possible. When the issue of inefficiency allocation resulting from inflation is not regarded, the results of low inflation will be an exaggeration. However, high inflation is approved as a harmful factor for economic growth. Fariba Moslehi, aimed to assess the impact of monetary and fiscal policies on real and nominal variables done her analysis in the period of 1959-2004 with the model of seemingly unrelated regressions, and the SUR model derived from the MEG Gay - Astaysak and Yamak - Yakvp.

According to the results obtained, GDP growth and interrupted price growth has positive effect on GDP. Moreover, interrupted price growth has positive effect on price growth of current period.

(MOSlehi, p133-151). Ali Akbar Kamijani and Alavi in an article entitled as “ mutual effects of growth and inflation in Iran, an analysis of econometrics by focusing on inflation reasons and growth sources” used two patterns of Alexander (1997), Bang et al. (1997) to explain long-medium and short-term effects of inflation on economic growth. Based on the results of long-term effects of inflation on economic growth, it is found that economic growth of Iran is negative and equal to $-0/27$, in the medium term is $-0/61$ and in short term is $0/41$. The results also show that inflation targeting, although it can have significant effects on economic growth in short-term, it will have positive effects on economic growth in medium-term and long-term. It is stated that the main cause of inflation in Iran is liquidity growth, so that each one percent of increase in the growth rate of money in the long-time more than $0/88$ will lead to inflation, while the figure in short-time is about $0/33$ as well as the effect of liquidity in the medium-term on inflation is $0/92$. (Kamyjany and Alavi, 1999, p 58) A study of the central bank on estimation of inflation has estimated two long-term and short-term inflationary models based on Statistics of 2000-1979 period in which CPI represents index of goods' value and consuming services, M2 represents liquidity, CGDPCB represents GDP and BMERCB is representative of exchange rate at the Free Market.

Results of long-term model are as below:

$$\text{Log (CPI)} = -1/78 + 0/88\text{Log}(M_2) - 3/7\text{Log}(\text{CGDPCB}) + 0/13\text{Log}(\text{BMERCB}) + 0/9\text{Dum}(74) - 0/1\text{Dum}(79)$$

$$R^2 = 0.99984, \text{ DW} = 2/06$$

Due to inflation jump in 1995 and inability of currency rate in covering a part of inflation expectation, a virtual variable has been entered for years 1995 and 2000. Based on the results, GDP has negative effect on inflation. Moreover, negative relationship between growth and inflation in quarterly time series data has been confirmed.

Research Methodology

According to the variables which have been considered to be studied, data is collected using library method and official sites and data and statistics of the Central Bank of Iran, Statistics Center of Iran and other economic publications are used. Additionally, for data analysis, statistical methods and econometric analysis are used, so that Engle-Grangers, OLS and Juhensen test were mentioned. Furthermore, ADF test (Dicky Fuller) for determining static variables, Barivash Gadeфри test for self-correlation and Arch test for determining variance anisotropy in regression are used.

Research Population

In this research, the causative mutual relationship between inflation and economic growth from 1978 to 2010 is studied. The variables are as below:

GDP with fixed price of 1997, the government's expenditure (G), CPI index, investment (I) and total population of the country (P) that all data are annual.

Presentation of Research model

In this research, the endogenous growth models are used to test causative relation between inflation and economic growth. In the recent years, various model of endogenous growth theory have been raised that AK model, endogenous growth model by a focus on human capital, endogenous growth model by a focus on governmental expenses and endogenous growth model by a focus on research could be mentioned. The choice model is selected and estimated by inspiration from Lucas model. For the reason we look for study of a causative mutual relationship between inflation and economic

growth, two models are used. To estimate the model, variables' algorithm has been used so that the coefficients are shown as strain in the model. Finally, the applied model is as below:

$$(4-1) \quad LY = \alpha_0 + \alpha_1 LCPI + \alpha_2 LG + \alpha_3 LI + \alpha_4 LP + U_t$$

$$(4-2) \quad LCPI = \alpha_0 + \alpha_1 LY + \alpha_2 LM + V_t$$

The variables used in the first model are as below:

Y :GDP based on fixed price of 1997

CPI :inflation index

G : Cost and expenditure of government

I : Total investment

P : Total population of the country

The applied variables in the second model to study the effect of the economic growth and inflation are as below:

CPI :inflation index

M :Money distribution and also V_t and U_t are interruption components of the two above equations.

Static Tests

In this part, due to the previous issues, we have studied stability of pattern variables using generalized Dicky Fuller test because non-stability of the pattern variable leads to estimation of spurious regression. In the table below, the generalized results of Dicky Fuller for pattern variables are stated:

Table1- Results of generalized Dicky Fuller test by hypothesis of intercept

Variable Name	ADF statistics	Critical Values of McQueen		
		% 1	% 5	% 10
LCPI	-0/92	-3/69	-2/97	-2/62
LG	0/56	-3/71	-2/98	-2/62
LY	1/51	-3/68	-2/97	-2/62
LI	-0/71	-3/68	-2/97	-2/62
LP	-2/05	-3/67	-2/96	-2/62
LM	-0/35	-3/67	-2/96	-2/62

As the table shows all variable are non-static because absolute value of DF statistics is less than critical values of Mc Queen, so that the variable are non-static. Therefore, it is necessary to measure the difference regarding these variables to identify by how many times of measuring differences, they will be static. Results of difference measurement of the first time of variables are shown in table 4-2

Table2-The generalized Results of Dicky Fuller for difference of the first time of variables

Variable Name	ADF statistics	Critical Values of MC Queen		
		% 1	% 5	% 10
LCPI	-2/97	-3/69	-2/97	-2/62
LG	-2/03	-3/72	-2/98	-2/63
LY	-4/88	-3/67	-2/96	-2/62
LI	-4/64	-3/68	-2/97	-2/62
LP	-1/36	-3/67	-2/96	-2/62
LM	-3/24	-3/67	-2/96	-2/62

According to the results of the above table, LY and LI will be static by one time difference measurement. LM in level of 1% non-static and LCPI in level of 5% and 1% is non-static. LG and LP are also non-static, so that we repeat result of generalized Dicky Fuller test for second time difference.

Table3-The generalized Results of Dicky Fuller for difference of the second time of variables

Variable name	ADF Statistics	Critical values of Mc Queen		
		% 1	%5	%10
LG	-6/84	-3/69	-2/97	-2/62
LP	-5/49	-3/68	-2/97	-2/62
LCPI	-4/77	-3/72	-2/98	-2/62
LM	-6/10	-3/68	-2/97	-2/62

Based on the table results, LP,LM,LG, and LCPI will be static by calculating the difference twice.

Grenger Causality Test

In order to study the causative relationship between inflation and economic growth, Grenger Causality test is used. The results are as below:

Table4- Results of Granger Causality Test

H0 hypothesis	Statistics	Probability	Decision
Inflation is not reason of growth Grenger	6/49	0/0061	Ho hypothesis is rejected
Growth is not reason of inflation Grenger	0/56	0/5766	Ho hypothesis isn't rejected

It means there is a one-way causative relationship between inflation and growth by probability of roughly 99%. But in the second row, since the probability of statistics is less than 5, H0 hypothesis is rejected, namely there is a one-way causative relationship from inflation side between inflation (CPI) and economic growth (Y). But in the second row, since the probability of the statistics is more than 5%, H0 hypothesis is accepted and lack of causative relationship from economic growth on inflation is verified by probability of 57%. The general result indicates there isn't any mutual causative relationship between inflation and growth, but there is a one-way relationship from inflation side to the growth. Considering the fact that hypothesis of a causative relationship from economic growth side toward inflation is rejected, there is no need to estimate the second equation and the first equation is estimated by OLS method.

Convergence Test

By this definition, convergence test means in spite of time series which are all non-static, linear combination including one or several time series, there is an equilibrium relationship or long-term between them. In this research, Johansen Convergence test has been used.

Johansen Convergence Test

In order to conduct Johansen Convergence test, we firstly determine optimum interval using recurrent Pattern Vector 2. In one model of VAR, identification of length of optimum interval is highly important. To achieve this, variables of determining length of Akaike and Schwarz are used. To do it, VAR pattern should estimate by various latency periods such as 1,2 and 3 or more and

then by comparing Akaike Variables 2 and Schwartz 3, in each latency period which gives us smallest answer, it is selected as optimum Lag.

Table5-Determination of Optimum Interval

1	0	Interval
61/36	76/72	AIC
62/79	76/95	SC
61/79	76/79	HQ

In the conducted comparison between the aforesaid indexes in different Lags and based on the above table considering length of favorable interval, Lag has been considered as 1 (Lag=1). After determination of optimum interval, in order to study convergence, Johansen Convergence test is used.

Table 6- Results of Johansen Test

Hypothesis H0	Hypothesis H1	Test statistics	Critical value 0/5%
r =0	r >1	114/51	69/81
r <1	r >2	62/87	47/85
r <2	r >3	35/23	29/79
* r <3	r >4	15/18	15/49
r <4	r >5	4/20	3/84

By study the above table, it's observed that the test statistics by hypothesis H1=r>4 and H0=r is 15/18 that comparing to the critical value of 15/49 is smaller and H0=r<3 is not rejected. As a result, three vectors of convergence are accepted in this level. Therefore, there is a long-term equilibrium relationship between pattern variables and the regression resulting from these variables are not false and R², t and F are reliable.

Engle-Granger test

Method Engel - Granger (EG) is such that the regression is firstly estimated by method of OLS and the error terms are obtained. Then, by using Dickey Fuller or generalized Dickey Fuller test, we test the stability of the error terms. If the error terms are static, we conclude the discussing variables are accumulated (Nofarasti, 1999). The results of this test are as below:

Table7-Single root test for distributing terms on the surface or by hypothesis of intercept (I), intercept and trend (T) and without Intercept and trend (N)

Variable name	ADF statistics	Algebraic factors	Critical values of Mc Queen		
			%1	%5	%10
RES	-10/88	I	-3/69	-2/97	-2/62
RES	-10/26	T	-4/33	-3/58	-3/22
RES	-11/16	N	-2/65	-1/95	-1/60

As shown in the results of the table, the absolute value of ADF statistics is greater than critical values of Mc Queen, therefore, static error terms and based on the stability of error terms, and the research variables are accumulated.

Model Estimation

In order to estimate the pattern, OLS method is used and the following results are obtained:

Table8-Results of Model Estimation Using OLS method

Variable	Coefficient	statistics Test	Prob
LCPI	-0/19	-3/58	0/002
LG	0/18	5/66	0/000
LI	2/31	5/72	0/000
LP	Aug-1	Feb-5	0/0001
		D-W	1/97
		R-squared	0/99
		Adjusted R-squared	0/99

The estimation results indicate that the coefficients of the model were significant and generally the regression is significant. Determination coefficient indicates the regression could explain the relationship between variables very well.

Anisotropy Test of Variance

As the assumption of variance constancy of error terms is violated, the problem of variance anisotropy occurs. So that, regression results won't be efficient, namely it won't have the least variance and t and F statistics value will be misleading. One of the most advanced tests used for variance anisotropy is Arch 1 test. In this test, H0 hypothesis indicates variance consistency. The results from Eviews are interpreted in a way that $Obs * R\text{-squared} < \chi^2_{0/05,p}$, H0 hypothesis is accepted. It means problem of variance anisotropy does not exist in regression or if prob is more than 0/05, H0 is approved. Based on the results of Arch, the gained probability is 0/5 which is more than 5%. Then, there isn't problem of variance anisotropy in regression.

Research Findings

The results show that all variables are statistically significant that they are described fully as below:

- The tension coefficient of LG is 0/186738. The positive sign of the coefficient shows positive effect of G on the economic growth. Namely, the economic growth is a direct function of the government expenses and by increasing one logarithm unit of the government expenses, logarithm of GDP is increased by 0/18.
- The tension coefficient of investment in growth function is 2/318208. It shows its positive effect on the economic growth of the country. On one hand, as logarithm of total investment is increased by one unit, it lead to increase of roughly 2/31 units in GDP logarithm.
- The tension coefficient of total population in growth function is 1/08 that indicates its positive effect on economic growth. According to the selected model, derived from the Lucas model, which focuses on the impact of human capital on economic growth, the results also indicate a positive impact of human capital on economic growth.

In general, economic growth is a direct function of government expenses, total investment and population. And finally, the most important used variable of CPI which is the symbol of inflation, its tension coefficient is -0/194181. Therefore, the negative sign shows negative effect of inflation on economic growth. In fact, a one-percent-increase in inflation reduces rates of economic growth by 19%, which is a confirmation of the disruption theory of inflation based on inflation inhibits on economic growth in the economy of Iran.

- Results of regression estimation indicate that $R^2=0/99$, it means 99% of the dependent variable which is the very economic growth, is explained by the explanatory variables of the model.

- The probability of the F statistics for this regression is equal to zero, which is less than 5%, so that H_0 hypothesis which demonstrates the lack of regression validity is rejected and we can conclude the total regression has statistical analysis. In general, the results obtained from this study will be briefly stated as follows:

According to the Grenger Causality test, merely one-way causative relationship from inflation to the growth is approved. It means one of the effective factors on the economic growth is inflation and the inflation changes result in some changes in the economic growth. Thus, the research hypothesis based on a mutual causative relationship between the economic growth and inflation is rejected.

1- Experimental results obtained (using the model estimation) show a one-way causative relationship from inflation to the economic growth, therefore, 1% increase on inflation will lead to reduction of economic growth around 19%.

2- According to the said results, political recommendation in order to remove recession problem of Iran includes that inflation should be reduced to create economic growth and boom or it will be maintained fixed at least.

Because inflation increase and reduction of money value through cost increase and danger for productive investment, improper dedication of investing resources to the benefit of less-productive activities, pressure increase on government toward controlling prices of necessary commodities and as a result, insufficient dedication of resources and lack of commercial balances plus formation of capital outflow lead to slow economic growth trend or even halting it.

Conclusion and Proposal

The main reason of inflation is lack of coordination in money increase in the society and production increase. Since liquidity has been injected to the Economy of Iran through various ways, there are different ways to control and prevent it. Some of these solutions are short-term and some are long-term that they are stated as below:

1- Supply liquidity of economic institutions through people's capital: according to contractionary policies taken by banks and problems that may occur for small and medium firms, using people's liquidity and wandering liquidity with agreed profit between economic institutions and people can return a large part of available liquidity to the production cycle, so that banking system and government can take a step in the operation of this proposal by presentation of guarantee to these institutions in addition to confidence making between private sectors.

2- Infrastructure development and domestic production: A large number of people's liquidity can be served in providing small machineries and raw materials as a part of products and required components of large or medium-sized manufacturing units. By creation of this basis, the government could be able to have a control over inflation growth, in addition to reducing

unemployment rate, income distribution and employment by guiding liquidity toward the production cycle.

3- Collecting Banks' demands: Public and private banks should make action immediately for some arrangement as penalties clemency for obtaining due mortgage and their demands from the private sector. Collection of due demands of banks decreases a considerable amount of liquidity in circulation. In particular, it has been demonstrated that each additional unit of perceptions that banks takes from the central bank, if it comes back to the central bank, it can have 4/5 times of itself deflationary effect and be effective on controlling the growth of money and liquidity.

3- Minimization of government: the main insist on privatization has been in fact making the government more efficient by minimizing it. The least effects of government minimization and privatization reinforcement is reduction of numerous expenses of government and also reduction of liquidity size and inflation pressures.

Privatization: means changing the governing space on governmental institutions; in a way that along with maintenance of original structure of activity, the aforesaid space is changed and the market conditions affect working style of the institution, so that motivation and mechanisms of private sector have been benchmark of decision-making and in this situation, an economic firm will get disinflation feature.

5 - Implementation of General Policies of Article 44 of the Constitution: As mentioned the government miniaturization requires the full implementation of Article 44 of the Constitution.

In article 44, the production capital issue has been determined as wealth distribution based on mechanism of Free Market and the government role is regulatory and all activists in production and trade sectors are from private sectors. In case this goal is fulfilled, needs for oil incomes will be lower and liquidity amount will decline.

References

1. Abrishami, H, 2002, applied econometrics (modern approach), Tehran university publication.
2. Olfati, S., Babaei, E., 2002, "Study models of endogenous growth in Iran economy", economic revenue, No.5, p 169-184.
3. Central Bank of Iran," Balance sheet of Central Bank of Iran", 2007.
4. Jafari Samimi , A. . , Gholizdeh Kenari, S. . , 2007 , "Exploring the relationship between inflation and economic growth in developing countries : new evidence " , Journal of Economic Sciences
5. Dadgar , ie. , Keshavarz, Hadad , GR . , Tyatrj , Ali . , 2005 , " Explaining the relationship between inflation and economic growth in Iran," Economic Queries , No. 5 , pp. 88-59 .
6. Davoodi , P. , Rabiei, Hussein . , 2003 , " Effects of inflation and the volatility of the Iranian economy (with an overview of endogenous growth models) " , Journal of Business Administration , No. 26 , pp. 33-1 .
7. Dargahi , H . , Qadiri , Amrollah . , 2003 , " The analysis of the determinants of economic growth in Iran (with an overview of endogenous growth models) ," Business Research Letters , pp. 32-1 .
8. Dornaboush ,R . , Fischer , Stanley . , Bag , David . , 1991 , " Macroeconomics " , translated by Mohammad Hossein bright shine , Jangal publisher.
9. . Tabatabai Qummi g. , 2001, "Exploring the relationship between inflation and economic growth in Iran" , Journal of Banking and Economics , No. 20 , pp. 57-52 .

10. A. M. , b. , 2004, " Causality relationship between consumption growth and economic sectors of energy carriers " , MSc Thesis , University of Tarbiat Modarres
11. Kamyjany , b. , Alavi , Seyed Mahmoud . , 1999 , " Interactions between growth and inflation in Iran : an econometric analysis with emphasis on the causes of inflation and growth " , Institute for Monetary and Banking Studies , pp. 58-21 .
12. Mardukhi , n . , 1999 , "Exploring the relationship between inflation and growth in the economy : Statistical analysis of econometric methods " , Journal of Planning and Budget , No. 36 , p . 63-43 .
13. Moslehi , p . , 2006 , " the effect of monetary policy on the economy " , Iranian Economic Research , No. 27 , pp. 151-133 .
14. Norouzi , c . , 1999 , " The impact of volatility on growth , " MS Thesis , School of Economics , Shahid Beheshti University .
15. Alexander W.Robert j. 1997, "Inflation and Economic Growth: Evidence from a Growth Equation", Applied Economic, Vol 29,PP 33-288.
16. Barro, R., 1990,"Government spending in a simple og edogenous growth", journal of Political Economy.
17. Barro, R. J, 1995, "Inflation and Economic Growth", NBER Working Paper, 5326.
18. Bruno, M. and W. Easterly, 1998, "Inflation Crises and Long Run Growth", Journal of Monetary Economic, Vol 42, PP 3-26.
19. De Gregorio, J. 1993," Inflation, Taxation, and Long Run Growth", Journal of Monetary Economic, Vol 31, PP 98-271.
20. Faria, J. R. and Carnerio, F.G., 2001." Does High Inflation Affect Growth in the Long and Short Run?", Journal of Applied Economic, Vol 5, PP 89-105.
21. Mallik, G. AND Chowdhury, 2001, "Inflation and Economic Growth: Evidence from Sowth Asian Countries", Asia-pacific Development Journal, Vol 8, PP 123-135.
22. Sarel, M. 1996, "Nonlinear Effects of Inflation on Economic Growth", IMF Staff Papers, PP 199-215.
23. Satya, Paul, Colm Kearney and kabir Chowdhury, 1997, "Inflation and Economic Growth: A Multi-country Empirical Analysis, Applied Economics. 1997, 29.