

The growth of Iran economy during the recession and boom

Zahra Parsaeian* and Fatemeh Etemad Moghadam

department of Economic, Yazd science and Research Branch, Islamic Azad University, Yazd, Iran

Corresponding author: Zahra Parsaeian

ABSTRACT: The study of the effect of great variables on economic growth has been one of the most important issues of improved countries that have formed the economic decisions. The data of this empirical research include a specific season of the year between 1993 and 2011 that are collected through International Bank website; and the econometrics model used is the Self-Regression Threshold Vector. This model examines the relation between inflation and economic growth in a way that it is organized in the form of two equations: one, the economic growth equation, and two, the inflation equation, and in the two regimes, regime one (the lower inflation from the threshold level), and regime two (the higher inflation from the threshold level). The findings of the study show that the threshold amount of inflation estimated in Iran is 7.71. In regime one of the Gross Domestic Product equation, the coefficient of inflation variable has negative relation with the economic growth in the first and the third interval and positive relation with the economic growth in the second interval. Furthermore, the graphs related to economic growth in the switching model showed that during the period of study on the economics of Iran, the slump period duration lasted more than the flow period duration.

Keywords: Economic growth, Regime, Switching model, Inflation.

INTRODUCTION

Economic instability can have different origins and causes: Poor macroeconomic policies and cross-sectional policies to solve everyday problems and consequent structure of the economic malaise could lead to uncertainty for decisions. Exogenous shocks, the lack of a reliable and stable currency and Therefore, trade turbulence and high and volatile inflation, exchange rate fluctuations, oil prices (especially oil-exporting countries) and ineffective fiscal and monetary policy, undermining the functioning of the price system broadly speaking, the process and decision making economic agents to cause adverse conditions could cause instability and economic uncertainty. The lack of price stability and inflation can be as one of the most important economic variables have a profound impact on economic growth and GDP. (Fountas 2002)

Inflation is one of the crucial variables in the economy, as inflation control by the government is one of the basic criteria of effective state to be considered and always one of the slogans is the inflation. Inflation can change distribution of wealth and the widening gap between advantageous the capitalist and prosperous people and when there's accelerated inflation by create uncertainty in relative prices reduce production and investment levels. However, gentle and quiet inflation as a reward for the investor because they have seen an increase in fixed assets, and the investment will lead to increased motivation. So helpful or harmful effects of inflation depends on its size. (2007, Dashtee)

Literature

Study Hadian and Parsa (2008), to estimate the impact of inflation in the economy with a lag changes in the surface of liquidity within the new Polion using ARDL technique is discussed. Based on the results, the amount of cash in a given period of at least three consecutive affect inflation; One percent increase in the volume of liquidity during t, 0.42 percent in the same period, the 0.19% in period t + 1 and t + 2 0.27 percent of the increase in inflation.

Haider (2010) investigate the effect of inflation as anti-nationalist and money on key economic variables autoregressive approach taken by the immediate impact of the shock and demonstrates that the variable And analysis of variance contribution rate varies due to changes in other variables show repeats shocks. According to the results of the Granger causality and impulse response function, the effect of inflation on the exchange rate, but the exchange rate on inflation is statistically ineffective. As the shock of inflation in 3 courses and increasingly on the exchange rate has affected the long-term equilibrium relationship between variables, Johansen test shows.

Sameti and Karimzade and Nilforooshan (2010) have been Analysis of Business Cycles using variables GDP growth, investment growth and consumption growth over the years (2007-1970). Statistical methods used in this study, a model ARMA (pq) is optimal and also the technique of Granger Causality test for causality between variables are used. The results obtained growth are suggest that the causality between the variables of production, consumption and investment And demand side shocks affecting the business cycle movements in Iran has been impressive.

Kmyjany and Tavakkolian (2012) to analyze and test the asymmetry in the behavior of the central bank's monetary policy with Markov switching model for data seasonally adjusted monetary base, the consumer price index (CPI) and gross domestic product (GDP) to obtain the the rate of money growth and inflation and the output gap over the period 1367-1387 is used. Markov switching model estimation results indicate that the central bank of the boom more attention to deviations of inflation from the inflation target oriented While the slump in economic activity for the central bank to raise the more important.

Mulman (2004) in a study of the South African business cycle analysis using a Markov switching regime of (MS-AR) to estimate real GDP growth data is discussed. The results indicate that there are two distinct stages in the growth rate of high growth rates and a low growth rate. Also found a strong relationship between interest rates and the business cycle. This means that the monetary authorities can significantly affect the course of the business cycle since they can directly affect the interest rate. Furthermore accurate predictions about the different phases of the business cycle or in other words whether or not it can be shown that the economy is in recession.

Kholodlin (2006) to predict the German business cycle turning Markov switching dynamic factor model to simultaneously use two leading indicator (CLI) and simultaneously index (CCI) with the corresponding probability has been taken. The data used in this paper, time series data from 147 German industries along with the titles of the four indicators of expectations, interest rates in the money market of the Frankfurt Stock Exchange and prices of raw materials component (CLI) And the titles of the five leading indicator index of industrial production, new orders in manufacturing, retail and export of goods FOB price components (CCI) have been selected. This enables us to measure and predict the turning points in the business cycle is simultaneously. The results show that the dynamic two-factor Markov switching model to identify and predict the turning point of the recession much more useful than single-factor model is dynamic.

Research Tools

Given that this study is empirical and application requires the use of empirical data. The data collected in this study is based on a library method. Details of the study based on economic data of period 1992 to 2011 that has been collected from the World Bank or the Central Bank of Iran. All statistical analyzes in this study is performed by using the software package Eviews.

Model Research

Model of study is threshold vector autoregressive (TVAR) and data such as gross domestic product (GDP) as dependent variables and inflation (INF) as independent variables. Equation 1, Equation is (GDPR) and the corresponding equation (INF) each of the variables in the model with three lags is that their results are given in detail in the following chapters. Implicit relationships in Equation 1 and 2 are shown.

$$GDPR = f(GDPR_{t-1}, GDPR_{t-2}, GDPR_{t-3}, inf_{t-1}, inf_{t-2}, inf_{t-3}) \quad (1)$$

$$INF = f(GDPR_{t-1}, GDPR_{t-2}, GDPR_{t-3}, inf_{t-1}, inf_{t-2}, inf_{t-3})$$

Statistical Analysis

Evaluation of variable

Continuing is discussed the trend of the main variables of the model. The economic variables are shown in Figure 1. This chart is known as the largest economy in the years 1976 and minimal is 1980. This review of varies show damping a lot during the years. In recent years the trend of declining economic growth in 2011 was about zero.

MATERIALS AND METHODS

In order to achieve the objectives of the study and testing hypotheses, and given the nature of the data and time series of them, two things must be considered; Check Manayy static variables using time series models for interpretation and analysis of economic relations between variables.

The unit root test, Dickey-Fuller and Phillips Perron generalized Manayy the variables used in the model and so Autoregressive take-off of the econometric model (TVAR) and Markov regime switching model MS-AR (K), to determine the goals and assumptions described, have been selected.

Threshold VAR model

Vector regression model with a variable threshold regimes are observed in the wt-d and a transfer function F (wt-d) are defined. Assume that yt is a K × 1 vector of endogenous variables yt = (y1t, ..., ykt) 'are, as well as c a K × 1 vector of constants, Ai, j is a K × K matrix of coefficients i and lag regime j is. That s the number of diets with different regression parameters with i = 1, ..., s and p-order regression with j = 1, ..., p is. Thus, a threshold VAR model can be written as follows:

$$y_t = c_i + \sum_{j=1}^p A_{i,j} y_{t-j} + \varepsilon_{t,i} \text{ if } r_{i-1} < w_{t-d} \leq r_i$$

A K × 1 vector of disturbances process with mean zero and variance equal to the Σ. Transfer w variable yt is a vector of variables. The nonlinear multivariable model assumes that p is the same for each variable and state transfer function is similar to the equation.

A threshold VAR 2 Regime be written as follows:

$$y_t = (c_1 + A_{1,1}y_{t-1} + \dots + A_{1,p}y_{t-p})I(w_{t-d} \leq r) + (c_2 + A_{2,1}y_{t-1} + \dots + A_{2,p}y_{t-p})(1 - I(w_{t-d} \leq r)) + \varepsilon_t$$

Where I (.) Is an indicator function. An example of a threshold 2R-VAR literature, modeling of growth and the gap between long-term and short-term interest rates in the country is America (Galvav 2002). To predict crack growth only when the value is negative, it helps. This implies that a model with a variable transmission gap, the threshold value is close to zero and the values of a21 the matrices A2, j are statistically equal to zero.

A threshold VAR 3 Regime be written as follows:

$$y_t = (c_1 + A_{1,1}y_{t-1} + \dots + A_{1,p}y_{t-p})I_1(wt - d \leq r_1) + (c_2 + A_{2,1}y_{t-1} + \dots + A_{2,p}y_{t-p})(1 - I_1(w_{t-d} \leq r_1))I_2(w_{t-d} \leq r_2) + (c_3 + A_{3,1}y_{t-1} + \dots + A_{3,p}y_{t-p})(1 - I_2(w_{t-d} \leq r_2)) + \varepsilon_t$$

A temporary organization that is expected theoretical concepts The gap between long-term and short-term interest rates to future changes in short-term rates over the period to maturity of long-term rates have anticipated. When the relationship between short-term rate and the gap with a 3R-VAR threshold were modeled, Pytaraksy (2008) show that the theory is expected to be positive in the three regimes and the large publication, is established, but the gap between the short-term rate is similar to the regime.

Unit root test variables

Unit root test results table variables are inflation and economic growth. The results show that 95% of all variables in the model is stable and on the other hand, all variables are I (0), respectively. Software output unit root tests are given in the Appendix.

Table 1. Results of the unit root test

Variables	Statistics t	Prob
Inf	-5.1855	0.0000
GDP _r	-17.9707	0.0001
MR	-13.8240	0.0001
EXGR	-8.2515	0.0000

ARDL Switching Markov model comparison and threshold vector autoregressive

ARDL model without Currency

In this section the results of the Markov Switching model ARDL regardless of the exchange rate is given. This results in stagnation regime (regime zero) and prosperity (regime) is given. Table 1 contains the results of a recession regime coefficients of the variables GDP, inflation and money supply at various intervals shown. Intercept at 0.003 and the stagnation regime is significant. Coefficients of gross domestic product (GDP) is negative and significant in all three intervals. Inflation rate in the first interval is a positive and significant coefficient on the variable volume for uninterrupted and interrupted the first and second positive but not significant. Thus, the variable GDP and inflation significant effect on the dependent variable (GDP) are.

$$gdpr = c + \sum_{j=1}^q \alpha_j gdpr_{t-j} + \sum_{i=m}^p \beta_i inf_{i-m} + \sum_{g=n}^y \delta_g m2g_{g-n} + \omega_t$$

Table 2. Table of variance, mean and standard variable Akaike GDP

Variable name	Variance	Average	Akaike criterion
Gross domestic product	0.00074	0.0039	-7.1668

Source: research findings

Table 3. Results ARDL model without exchange of recession

Variables	Coefficients	Std.Error	Statistics t	Prob Possibility
Intercept	0.003	0.007	0.417	0.67
GDP (1)	-0.61	0.08	-7.03	0.00
GDP (2)	-0.65	0.07	-8.66	0.00
GDP (3)	-0.63	0.08	-7.07	0.00
Inf (1)	0.06	0.03	1.73	0.08
M	0.12	0.13	0.93	0.35
M (1)	0.09	0.14	0.64	0.52
M (2)	0.06	0.13	0.47	0.63
σ	0.012	0.001	10.6	0.00
P ₀₀	0.93			
P ₀₁	0.49			

Source: research findings

The results in Table 2 contains the coefficients of the variables GDP growth regime, inflation and money supply at various intervals shown. Intercept on the diet regime that reflects positively to 0.06 and is thriving. Variable coefficients GDP (GDP) is negative and significant in all three intervals. The first variable is negative and significant coefficient of the inflation gap and variable rate of money supply without interruption and at intervals of one and two are negative and significant. So between all variables of GDP, inflation and monetary are significant effect on the dependent variable (GDP). Variance of latency (zero regime) σ estimated to 012/0 and the boom (diet A) 1: σ is equal to 0.000, indicating that the variance of the recession is greater than the variance boom boom swing is less.

Table 4. Results Currency ARDL model without a boom

Variables	Coefficients	Std.Error	Prob Possibility
Intercept	0.06	1.41	0.00
GDP (1)	-1.17	1.92	0.00
GDP (2)	-1.13	1.71	0.00
GDP (3)	-0.63	1.65	0.00
Inf (1)	-0.14	1.46	0.00
M	-0.49	1.56	0.00
M (1)	-0.75	1.6	0.00
M (2)	0.49	1.66	0.00
σ	0.0000	-	0.99
P ₁₀	0.06		
P ₁₁	0.5		

Source: research findings

Estimated transition probability matrix for the boom and recession regimes as follows:

$$P = \begin{bmatrix} p_{00} & p_{01} \\ p_{10} & p_{11} \end{bmatrix} = \begin{bmatrix} 0.93 & .49 \\ .06 & .50 \end{bmatrix}$$

The transition probability matrix represents the probability that a recession tend to stay in the same situation, the recession has been estimated that 93 percent to P00 And the probability of recession is transferred to the boom P01 is equal to 49% And the probability that the boom tends to remain in its current state of development of P11 is equal to 50% And also tend to make the transition to the recession will boost P10 is equal to 6%. So according to the transition probability matrix concluded that the downturn in the business cycle of the country is more stable. Markov switching model can also assist in the transition probability matrix average remaining period of stagnation or stay in the boom may be achieved.

$$\text{The average stay in recession} = \frac{1}{1-p_{00}} = \frac{1}{1-0.93} = 14.28$$

$$\text{The average stay in the boom} = \frac{1}{1-p_{11}} = \frac{1}{1-0.5} = 2$$

The above results indicate that, Average remaining period of stagnation 28/14 years and the average stay in the boom period of 2 years.

ARDL model with Currency

In this section the results of the Markov Suiching model ARDL enter the exchange rate in the model is given. This is results in stagnation regime (zero regime) and prosperity (one regime). Table 3 contains the results of a recession regime coefficients of the variables GDP, inflation, monetary and exchange rate at different intervals shown. Intercept the recession regime against -0.007 and is non-significant. Variable coefficients GDP (GDP) is negative and significant in all three intervals. Positive inflation differential in all three intervals, but only in the third gap is significant. Variable rate of money supply without interruption and the interruption of the first and second and third positive but only in the third gap is significant. Uninterrupted and interrupted the exchange rate variable in the first, second and third in the model Negative in all interrupts except the first break and will only be meaningful exchange without interruption.

$$gdpr = c + \sum_{j=1}^q \alpha_j gdpr_{t-j} + \sum_{i=m}^p \beta_i inf_{i-m} + \sum_{g=n}^y \delta_g m2g_{g-n} + \sum_{v=l}^k \gamma_v exg_{v-l} + \varepsilon_t$$

Table 5. Table of variance, mean and standard variable Akaike GDP

Variable name	Variance	Average	Akaike criterion
Gross domestic product	0.00074	0.0039	-8.4879

Source: research findings

Table 6. Table ARDL model results with the exchange rate in recession

Variables	Coefficients	Std.Error	Statistics t	Prob Possibility
Intercept	-0.007	0.01	-0.6	0.49
GDP (1)	-0.67	0.11	-5.8	0.00
GDP (2)	-0.62	0.11	-5.3	0.00
GDP (3)	-0.64	0.14	-4.42	0.00
Inf (1)	0.03	0.04	0.65	0.51
Inf (2)	0.02	0.04	0.55	0.58
Inf (3)	0.07	0.04	1.72	0.09
M	0.23	0.19	1.24	0.22
M (1)	0.13	0.17	0.78	0.43
M (2)	0.03	0.14	0.26	0.79
M (3)	0.3	0.14	2.11	0.04
Ex	-0.15	0.05	-2.7	0.01
Ex (1)	0.2	0.12	1.61	0.11
Ex (2)	-0.14	0.1	-1.4	0.17
Ex (3)	-0.044	0.07	-0.6	0.54
σ	0.01	0.001	9.92	0.00
P ₀₀	0.88			
P ₀₁	0.49			

Source: research findings

The table includes results for the coefficients of the variables GDP growth regime, inflation, monetary and exchange rate at different intervals shown. Intercept of the boom in the diet regime that reflects positively 0.02 and is thriving. Variable coefficients GDP (GDP) is negative and significant in all three intervals. Variable rate of inflation in three significant interruption in the second interval is negative. Variable rate of money supply without interruption and at second pause pause first and third positive and negative in all interrupts is significant. Uninterrupted and interrupted the exchange rate variable in the first and second and third in the model In all interrupts except the first interval is negative and significant in all interrupts. Variance of latency (zero regime) 0σ is estimated to 0.01 and the boom (one regime) $1: \sigma$ is equal to 0.000. This indicates that the variance of the recession is that most of the variance boom swing is less.

Table 7. Results Currency ARDL model with a boom

Variables	Coefficients	Std.Error	Prob Possibility
Intercept	0.02	1.007	0.00
GDP (1)	-0.58	1.59	0.00
GDP (2)	-0.64	2.88	0.00
GDP (3)	-0.19	2.1	0.00
Inf (1)	0.24	1.75	0.00
Inf (2)	-0.41	1.67	0.00
Inf (3)	0.37	1.4	0.00
M	0.07	0.51	0.00
M (1)	-0.83	3.07	0.00
M (2)	0.44	2.00	0.00
M (3)	-0.047	2.23	0.00
Ex	0.01	2.19	0.00
Ex (1)	-0.1	1.67	0.00
Ex (2)	-0.009	2.007	0.00
Ex (3)	-0.16	2.17	0.00
1σ	0.0000	-	0.96
P_{10}	0.11		
P_{11}	0.5		

Source: research findings

Estimated transition probability matrix for boom and bust in exchange rate regimes as follows:

$$P = \begin{bmatrix} p_{00} & p_{01} \\ p_{10} & p_{11} \end{bmatrix} = \begin{bmatrix} 0.88 & .49 \\ .11 & .50 \end{bmatrix}$$

The transition probability matrix represents the probability that a recession tend to stay the same recession has been estimated P00 to 88% And the probability of recession is transferred to the boom P01 is equal to 49% And the probability that the boom tends to remain in its current state of development of P11 is equal to 50% And also tend to make the transition to the recession will boost P10 to 11 percent. Thus, according to the transition probability matrix model with exchange concluded that The downturn in the business cycle of the country is more stable. The average remaining period of stagnation or stay in the boom can be obtained as follows:

$$\text{The average stay in recession} = \frac{1}{1-p_{00}} = \frac{1}{1-0.88} = 8.33$$

$$\text{The average stay in the boom} = \frac{1}{1-p_{11}} = \frac{1}{1-0.5} = 2$$

The above results indicate that, Average remaining period of stagnation 33/8 years and the average stay in the boom period of 2 years.

VAR model to test linear VAR model with one or two threshold

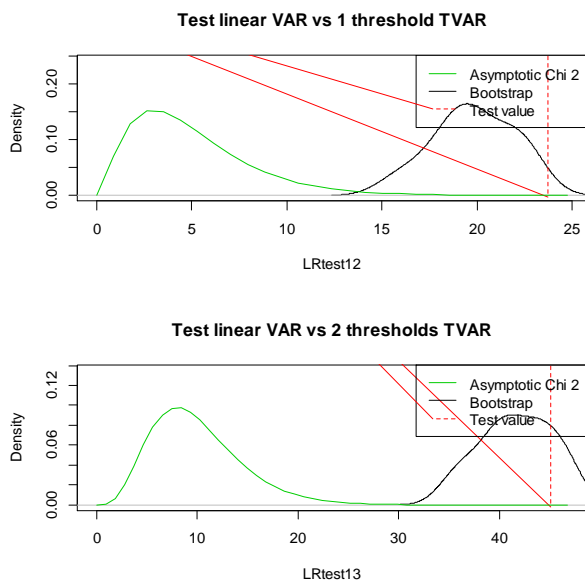
This test is an extension of linear multivariate test of Hansen (1991) has been proposed by Lu and Zivot. The results shows that there is a linear VAR model against a threshold VAR model with a threshold rejected But there are two thresholds confirmed. Thus the study of the dynamics of the relationship between inflation and economic growth in the form of a VAR model with a threshold limit is superior to the linear VAR.

Table 8. TABLE test threshold VAR model

Significant level	χ^2	Statistics
(0.0000)	23.7266**	LR

** Significant level %5

LR test results to verify the existence of a threshold or thresholds stipulated in the VAR model is also presented in Fig.



The results of estimating a threshold VAR model

Threshold VAR model helps us to establish a causal relationship between economic growth and inflation variables in different regimes examined. For this purpose, at the threshold of a four-variable models, three univariate and bivariate relationship between variables are used. The results of the four-variable threshold VAR model is given in the table. As the table shows the results of the equation GDPR none of the coefficients are significant variables. The exchange rate has removed from the model and to investigate the relationship between money supply, inflation and GDP will be discussed.

Table 8. The results of the four-variable VAR model eve

Regime I	GDPR Equation	Inf Equation	MR Equation	EXGR Equation
C	0.0682* (0.0312)	3.9438*** (0.8632)	0.0776*** (0.0158)	0.0197 (0.0206)
GDPR	-0.2339 (0.1256)	-0.3537 (3.4789)	-0.0843* (0.0405)	-0.0468 (0.0830)
INF	-0.0085 (0.0068)	0.4244* (0.1886)	-0.000089 (0.0022)	0.0048 (0.0045)
MR	-0.4426 (0.3894)	-24.3642* (10.7875)	-0.2690* (0.1255)	-0.3270 (0.25740)
EXGR	0.0779 (0.2486)	1.0222 (6.8864)	-0.1082 (0.0801)	0.3496* (0.1643)
Regime II				
C	-0.0098 (0.1192)	10.4043** (3.3030)	0.1521 (0.0384)	0.1602* (0.0788)
GDPR	0.0384 (0.7631)	52.9226* (21.1392)	0.0539* (0.2460)	0.08801 (0.5044)
INF	0.0053 (0.0145)	0.5115 (0.4018)	-0.0027 (0.0047)	0.0174 (0.0096)
MR	-0.1398 (0.6607)	-74.8443 (18.3026)	-1.1817*** (0.2130)	-2.0458*** (0.4368)
EXGR	-0.2160 (0.4180)	-12.7791 (11.5809)	-0.0613 (0.1348)	-0.7690** (0.2664)

- Values in parentheses represent the standard deviation values.

- Signs *, ** and *** indicate significant coefficients, respectively, at 10%, 5% and 1% respectively.

The results in Table, The three variables suggests that despite the changing amount of money, inflation and GDP in equation variable GDPR significant amount of money and inflation are And GDPR only affect GDP is interrupted by two. Since the main objective of this research is to investigate the causality between GDP and inflation,

That is why the monetary variable excluded from the model and the model with the variables inflation and GDP respectively.

Table 9. Tuesday threshold variable VAR model estimation results

Regime I			
	GDPR Equation	Inf Equation	MR Equation
C	0.0354 (0.0323)	5.8485 (0.9886)	0.0602*** (0.0128)
GDPR _{t-1}	-0.3681*** (0.0937)	-1.8872 (2.8694)	-0.0630 (0.0373)
GDPR _{t-2}	-0.7502*** (0.1013)	-2.0452 (3.1012)	0.0943* (0.0403)
INF _{t-1}	-0.0040 (0.0046)	0.4776 (0.1422)	0.0018 (0.0018)
INF _{t-2}	-0.0007 (0.0032)	-0.0490 (0.0983)	-0.0040** (0.0013)
MR _{t-1}	-0.4002 (0.2770)	-39.7629*** (8.4828)	-0.2935* (0.1103)
MR _{t-2}	0.4824 (0.2873)	-16.2422 (8.7970)	0.4086*** (0.1143)
Regime II			
	GDPR Equation	Inf Equation	MR Equation
C	0.0698 (0.1380)	-5.9981 (4.2295)	-0.0227 (0.0549)
GDPR _{t-1}	0.3144 (0.7418)	102.1872*** (22.7142)	0.1179 (0.2952)
GDPR _{t-2}	-0.3433 (0.6316)	-109.4760*** (19.3401)	-0.6024* (0.2514)
INF _{t-1}	0.0061 (0.0168)	1.7865*** (0.5134)	0.0087 (0.0067)

For the purposes of this section, a bivariate threshold model is used to examine the relationship between variables. The results of the estimation of the VAR model is given in Table threshold.

Table 10. Results threshold bivariate VAR model

Variables	GDPR Equation	Inf Equation	GDPR Equation	Inf Equation
	Regime I		Regime II	
C	0.0646*** (0.0158)	2.3099** (0.7690)	0.0563 (0.1175)	36.6157*** (5.7178)
GDPR _{t-1}	-0.8229*** (0.0856)	-4.0165 (4.1667)	0.4923 (1.8557)	518.6541*** (90.3111)
GDPR _{t-2}	-0.9545*** (0.0746)	1.2445 (3.6313)	-0.8671 (0.7671)	-18.5006 (37.3425)
GDPR _{t-3}	-0.7278*** (0.0890)	-6.0054*** (4.3337)	-0.4656 (0.9940)	179.8353*** (48.3874)
inf _{t-1}	-0.0073* (0.0031)	0.3117* (0.1505)	0.0116 (0.0127)	0.2539 (0.6179)
inf _{t-2}	0.0005 (0.0022)	-0.1620 (0.1086)	-0.0101 (0.0146)	-1.0479 (0.7119)
inf _{t-3}	-0.0002 (0.0020)	0.3024** (0.0959)	-0.0139 (0.0259)	-5.2053*** (1.2597)

According to the results, the threshold value is estimated inflation 7.71 in Iran. Accordingly 88.7% of observations in regime (inflation below the threshold level) and 11.3% of observations in regime (inflation above the threshold level) are located. As the results table shows, The diet of an equation of GDP, inflation rate in the first and third interrupt negative and positive relationship with economic growth in the second interval. In summarizing the results of the threshold VAR model can be expressed as The relationship between inflation and economic growth in a regime of inflation in the first interval was significant And the regime II of no significant impact on economic growth will lag inflation.

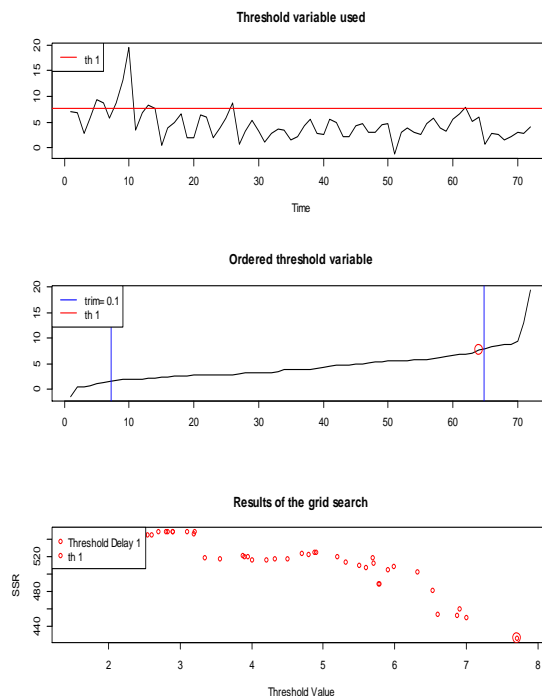


Chart 1. Results of the variable threshold

The plot revolves around a threshold value calculated trend inflation (7.71) is shown. As the diagram above the level of inflation during the period 1992 - 2010 has been a lot of volatility, The highest level of inflation is for the year 1994 show few signs of inflation in 2004. Only in 2004: 4 levels of inflation will be calculated according to a threshold level. During the period 1992 - 1995 inflation is above the threshold level fluctuates but from 1996 onwards the inflation rate is below the threshold level of inflation.

Conclusion

According to the main findings of the survey results can be explained as follows. Test results of the VAR model with linear VAR model showed that there were one or two threshold linear VAR model against a threshold VAR model with a threshold rejected But there are two thresholds confirmed. Thus the study of the dynamics of the relationship between economic growth in the form of a VAR model with a threshold limit is superior to the linear VAR.

The results showed that the threshold vector pattern autoregressive threshold value calculated in 7.71 inflation is estimated. The 88.7% of observations in regime (inflation below the threshold level) and 11.3% of observations in regime (inflation above the threshold level) are located. In each regime INF and GDPR two equations are estimated for GDP and inflation, but since the present study sought to examine the impact of inflation on economic growth is the result of the equation GDPR the study. The diet of an equation of GDP, inflation rate in the first and third interrupt negative and positive relationship with economic growth in the second interval. The rate of inflation has meaning only in the first interval. This shows that when inflation is lower than a threshold value (regime) with an interval variable inflation can have a significant impact on economic growth. Second and third lags of inflation have a significant effect on economic growth. It should be noted that the theoretical framework of research in inflation below the threshold will have a positive impact on economic growth According to the results obtained in the economy and this is not true in the study And only second interval is a positive factor which can not have a solid base for the non-certified interface inflation and economic growth.

GDP differential equation in the regime of inflation in the first interruption positive and negative sign in the second and third intervals Which indicates that the interrupt with inflation above the threshold (7.71), economic growth is reduced. None of the variable coefficients are significant inflation. This shows that when inflation is greater than a threshold value on economic growth is not impressive.

Figures based on variable threshold level of inflation during the period 1992 - 2010 has been a lot of volatility, The highest level of inflation for 1994 and 2004 is at least the level of inflation. Only in 2004: 4 levels of inflation will

be calculated according to a threshold level. During the period 1992 - 1995 inflation is above the threshold level fluctuates but from 1996 onwards the inflation rate is below the threshold level of inflation.

The relationship between inflation and economic growth in the diet has a negative and significant inflation in the first interval And the regime II no significant impact on economic growth have been interrupted by inflation. The impact of inflation on economic growth at levels above and below the threshold are not. The root of this issue can be found in other factors affecting economic growth (such as Currency) or the Non-economic factors Search The study of these factors is beyond the scope of this investigation.

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