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The Effect of Governance and Political Instability Determinants on Inflation in Iran

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ABSTRACT

Empirical literature that examines the determinants of inflation in Iran has suggested inflation as a monetary phenomenon. This study investigates the effect of political instability and governance parameters on inflation in Iran over 1959 to 2010. This research sought to identify the profound factors which determine inflation in Iran. Using a combination of the predictions of Fiscal Theory of Price Level (FTPL) determination and Political Economy of Macroeconomic Policy (PEMP) literature and applying the Generalized Method of Moments (GMM), we study this relationship through two different models. The results of monetary model indicate that the effects of monetary determinants depend on the political environment of Iran. The political model expresses a positive relationship between inflation and political instability and governance parameters.

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INTRODUCTION

The negative effects of unbridled inflation are not covered for economists. Higher inflation creates inefficiencies that reduce social welfare. Abounoori *et al.* (2013) showed there is a threshold effect between inflation rate and economic growth in Iran. They stated when the inflation rate is larger than 20.59%, the economic growth decreases. In the empirical literature that examines the determinants of inflation in Iran, far too little attention has been paid to the governance and political instability as a possible factor. Following Friedman's famous dictum that "inflation is always and everywhere a *monetary* phenomenon." more than half of these studies have suggested inflation as a monetary phenomenon. In fact the majority of economists admit that the main reasons lie behind the inflation, are the monetary and fiscal policies. Although this interpretation leads to a deeper and more fundamental question of why economic policy makers, despite the general consensus on the negative effects of inflation, adopt specific monetary and fiscal policies leading to inflation? (Aisen and Veiga, 2006a) (Aisen and Veiga, 2006b)

In the last half-century, Iran has faced substantial changes resulting from the Islamic Revolution, the experience of eight-year war with Iraq, early dismissal of governments, the assassination of executives, frequent changes in government, the military coups and the formation of democratic institutions. Such political instability damages the implementation and continuation of policies and it also blemishes the governor's reputation. This instability would hinder the formation, implementation and effectiveness of policies such as attempts in bridling the inflation (Khan and Saqib, 2011). The inflation is shaded Iran's economy since 1971 and continues to be considered in macroeconomic decisions and plans as a big issue to deal with yet.

Objectives:

Our study is about to finding out the roots of inflation over the period 1959 to 2010 based on the relative importance of monetary and nonmonetary or political factors in Iran. We are going to understand how last half-century changes in the society of Iran such as revolution, war, frequent changes in government and etc. have affected inflation as a macroeconomic parameter.

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MATERIALS AND METHODS

The first time Sargent & Wallace (1981) showed that monetary policy cannot control inflation in the short term and long term without major changes in fiscal policy. In other words, they argued the issue of fiscal policy domination in which fiscal authority finance deficits by bond sales and seignorage and the monetary authority is not able to influence inflation.

Carlstrom and Fuerst (1999, 2000) examined two versions of the fiscal theory of price level (FT), weak-form FT and strong-form FT. Weak-form FT postulates that inflation is indeed a monetary phenomenon, although that money is dictated by the fiscal authority. Strong-form FT, on the other hand, argues that even if money growth is fixed, fiscal policy independently affects the price level and inflation rate. Thus the strong-form FT posits that fiscal policy influences inflation dependent on the changes in government debt or budget deficit and independent of changes in money growth. Khan and Saqib (2011) for illustrating this point assumed fiscal budget balance equation as $D + S(m_g) = B_0/P_0$ which D is the present value of the future budget surplus, $S(m_g)$ is the seignorage and m_g is the money growth. They suppose P_0 is the nominal price level and B_0 is the value of government debt. According to this framework, by a constant money growth ($m_g = 1$) the above equation would become $P_0 = B_0/D$. This indicates that for any future increase in budget surplus, prices shall fall and for any future decrease in budget surplus (increase in deficit) prices must rise to restore balance in the fiscal budget. Similarly increase in the value of government debt would also increase price level and vice versa.

Edwards and Tabellini (1991) in their empirical study find evidence which government change and polarization as the measures of political instability result in inflation in developing countries. Alesina and Tabellini (1990) present a model that indicates political instability and polarization influence the social choice function and hence budget deficits and debt. If a government believes it is unlikely to be elected again, excess expenditures could be financed with debt issuance since it does not internalize the associated costs of debt repayment and also confines the expenditures of opponent party who win the next election. Progressively this process leads to higher budget deficits and debt. They anticipate countries with more unstable political situation and more polarized circumstance would face higher budget deficits and thus, according to FTPL, more inflation rate. To study this prediction Cukierman, Edwards, and Tabellini (1989) showed higher degrees of political instability results in more inflation rates.

Alesina and Drazen (1991) argue another channel of deficit persistence which is called 'war of attrition' between different socioeconomic groups with conflicting distributional objectives. By applying the literature on dynamic games between a monetary and fiscal authority with conflicting objectives they found that even if termination of a deficit is efficient; each group attempt to wait the others out and it does not come to a political agreement until certain groups relegate their political opponents to partly tolerate the burden of fiscal adjustment. Finally stabilization would be extremely expensive for any group. Stabilization only occurs when a disproportionate share of the burden inevitably will be accepted and borne by one party. Thus more political parties in a parliament make it harder to reach an agreement and lead to a higher budget deficit and inflation rate.

Aisen and Veiga (2006a) argue in a country with frequent government changes, macroeconomic policies will also change consistently because the new economic executives want to pursue their own ideas which are different from their predecessors. Macroeconomic policy changes will threaten inflation. Moreover cabinet changes and government crisis will shorten the horizon of policy makers. Thus the importance of short term objectives will increase and keeping inflation in rational range would be difficult.

Cukierman, Edwards, and Tabellini (1989) and Aisen and Veiga (2006a) discuss that developing countries have an inefficient tax collecting system which propel government to print money for financing public expenditures. This reliance on seignorage results in inflation.

Paldam (1987) investigates the relationship between inflation and political instability in eight Latin American countries over 1946-83. He argues this relation is bi-directional and works in two paths. The main path is conveyed to inflation costs and responsibility hypothesis that states people recognize the government responsible for economic outcomes. One of the potent results of popularity functions literature is that higher inflation rate is accompanied by lower popularity and less partnership in election. Therefore when inflation rises, the popularity causes the current government to remain in power reduces. The path from politics to inflation is related to public expenditures which weak governments finance by inflation tax. Subsequently when inflation increases they cannot resist against political pressures and would alternate executives and plans.

Drazen (2000) argues interest groups ask other groups to undertake the burden of disinflation costs. Necessarily to fragmented communities with diverse groups of beneficiaries and weak political institutions are incapable in changing the status in the face of difficult economic conditions and their inflation rate is higher and more persistent.

Bonato (2008) studies Iran's decreasing inflation rate over 2002 to 2006 in spite of continuous fast growth of money and doubts the structural stability between money and inflation in Iran. By applying M1 in the model he finds out a strong relationship between money and inflation and also no evidence of a structural change in

their relationship. Actually he could predict this decline in inflation by the lagged impact of the past deceleration in M1 growth.

Results:

Alesina and Tabellini (1992) point out that the problem of joint endogeneity between economic and political variables should be resolved. Political instability could lead to economic difficulties; however, the weak economic situation increases the likelihood of government collapses. In Aisen and Veiga (2006a) study for investigating the effect of political instability on inflation, political instability variables which are affected by inflation were considered endogenous because there is a bi-directional relationship. They know the importance of their research in accounting for inflation inertia and for endogeneity of important economic and political variables affecting inflation. As mentioned in literature, Paldam (1987) has also points out the bilateral relationship between politics and inflation.

Also in this research there is a bi-directional relationship between explanatory and dependent variables which means inflation affects governance and political instability variables too. On the other hand we insert one period of lagged inflation as inflation inertia to the model thus conventional estimators such as OLS would present inconsistent estimates. Therefore we apply GMM method which is introduced by Arellano and Bond (1991) and more explanations are provided in Silva and Santos (2011).

Our empirical study to finding out the roots of inflation in Iran over the period 1959 to 2010 is based on the relative importance of monetary and nonmonetary factors in explaining inflation in Iran. After estimating a common monetary model according to the literature which considers inflation as a pure monetary phenomenon, we apply the political instability variables to identify their influences.

Monetary Model:

Following the literature the monetary model has the below form:

$$\pi_t = \alpha_0 \pi_{t-1} + \beta_1 M_t + \varepsilon_t \quad (1)$$

π_t is the inflation rate and π_{t-1} is one period lagged inflation rate as a representative of inflation inertia. M_t is a vector of monetary variables such as money supply, credit allocated to the private sector, exchange rate and fiscal balance. β_1 s are the parameters and ε_t is the error term.

Estimation of equation (1) by OLS method results inconsistent estimates because of simultaneity. Thus we apply GMM method using political instability as instruments. According to Khan and Saqib (2011), if the estimation results are significant then it obviously implies that without political instability the mentioned monetary model does not explain inflation in Iran sufficiently and also enables us to study nonmonetary determinants of inflation.

According to the equation (1), the specified model is as below:

$$INF = C(1) * INF(-1) + C(2) * M2 + C(3) * CREDIT + C(4) * FISCAL + C(5) * EXCH \quad (2)$$

The variables and sources of information are presented in Table 1.

Table 1: Variables of Monetary Model.

Variable	Description	Source
INF	Dependent variable is Inflation as the yearly growth rate of Consumer Price Index	World Bank (2013)
INF(-1)	One period of lagged inflation as inflation inertia	World Bank (2013)
M2	Annual rate of money supply or liquidity as a percentage of GDP (Money and quasi money as a percentage of GDP)	World Bank(2013)
CREDIT	Domestic credit to private sector as a percent of GDP	World Bank(2013)
FISCAL	Budget deficit as a percent of GDP	Central Bank of Iran (2013)
EXCH	Exchange rate in the informal market	Central Bank of Iran (2013)

C(1), C(2), C(3), C(4) and C(5) are the coefficients.

Estimation result of monetary model is as follow:

Table 2: Monetary model estimation.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INF(-1)	0.468	0.024	19.636	0.000
M2	0.272	0.014	19.045	0.000
CREDIT	-0.008	0.029	-0.269	0.789
FISCAL	0.300	0.066	4.527	0.000
EXCH	-0.000	0.000	-3.481	0.002
R-squared	0.386	J-statistic		8.827
Durbin-Watson stat	1.594	Prob(J-statistic)		0.996

Source: findings of research

The variable Credit allocated to private sector is not significant since the probability of type one error in rejecting H_0 is very high (=0.789). This result seems rational when we look into the structure of Iran's economy because the governmental companies cover whole economy and the private sector is very small. After neglecting CREDIT, below results are obtained:

Table 3: Second monetary model estimation (without CREDIT).

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INF(-1)	0.394	0.012	33.544	0.000
M2	0.320	0.007	42.766	0.000
FISCAL	0.535	0.059	8.953	0.000
EXCH	-0.0002	0.000	-4.446	0.001
R-squared	0.353	J-statistic		8.347
Durbin-Watson stat	1.763	Prob(J-statistic)		0.998

Source: findings of research

Considering the amount of Prob(J-statistic) which is greater than 0.05, estimation is not located at the criteria area of χ^2 distribution, therefore the authenticity of moments are approved and the GMM method is appropriate. As expected all monetary determinants of inflation model are positive and significant except exchange rate that is highly close to zero (0.0002).

As mentioned before, significance of the monetary model indicates that without political instability (as strong instruments of the monetary model), this model does not explain inflation in Iran sufficiently and also enables us to study nonmonetary determinants of inflation.

Nonmonetary (Political) Model:

According to the strong-form FTPL, the capacity and effectiveness of government in managing the economy are more important factors in determining inflation. Thus we consider the following model for studying this perspective of inflation:

$$\pi_t = \alpha_0 + \beta_1 W_t + \beta_2 PI_t + \varepsilon_t \quad (3)$$

W_t is a vector of nonmonetary determinants of inflation, PI_t is a vector of political instability variables and ε_t is the error term.

Referring to the literature and based on the studies of Aisen and Veiga (2006a) and Khan and Saqib (2011), the nonmonetary model is specified as following:

$$INF = C(1) * INF(-1) + C(2) * CAB(-1) + C(3) * GOV + C(4) * POLITY + C(5) * LOG(EXCH) + C(6) * LOG(GDP) + C(7) * LOG(OIL) + C(8) * LOG(AGR) + C(9) * LOG(TRADE) \quad (4)$$

Following Aisen and Veiga (2006a) we are not going to consider money supply and budget deficits in our nonmonetary model since we are looking for deep determinants of inflation. We intent to answer this question precisely: which parameters affect monetary and fiscal policies and hence inflation?

We hypothesize that inflation is explained by three different types of variables:

1. Political instability in Iran is scaled by three different variables which to the appropriate extent reflect the political environment of the public:

- Cabinet changes, $CAB(-1)$, is the most important variable in measuring political instability. It represents the number of times in a year a chief executive and/or 50% of cabinet posts are occupied by new ministers. Serious changes in government composition can be the consequences of an election, a government crisis, a coup d'etat and etc. Cabinet changes variable is lagged one period since if a cabinet change happens in the end of a year, it leads to higher seignorage and inflation in the next year (Aisen and Veiga 2008). Moreover, in Iran the old fashioned bureaucratic system reduces the affecting speed of any alternatives thus such an approach to the style of cabinet changes' effect on inflation would be rational.

- Government crisis, GOV , accounts for the number of situations in a given year that menace and threaten to undermine a current regime. Greater Cabinet changes and Government crisis implies increase in political instability, thus positive coefficients are expected.

- Polity IV dataset, $POLITY$, represents political regime characteristics and transitions. It is the output of *Polity IV project* coding democratic and autocratic "patterns of authority" and regime changes. Polity ranges from -10 (absolutely Autocratic) to +10 (absolutely Democratic), that means increase in Polity then signifies a more democratic polity and decrease for a more autocratic one.

2. Variables which reflect a government's capacity to control inflation:

- Logarithm of Agriculture value added as a percent of GDP, $LOG(AGR)$.

- Trade share, $LOG(TRADE)$, is the sum of exports and imports of goods and services measured as a share of gross domestic product.
- Logarithm of Exchange rate, $LOG(EXCH)$.
- 3. A set of variables accounting for government performance and exogenous shocks:
 - Annual percentage growth rate of GDP per capita based on constant local currency, GDP .
 - Logarithm of Oil Price, $LOG(OILP)$, Dollars per Barrel.

We use annual time series data for the years 1959–2010 that potentially covers the economic and political environment of Iran. Cabinet changes, $CAB(-1)$, and Government crisis, GOV , are obtained from Cross National Time Series Data Archive. Polity IV dataset, $POLITY$, comes from Center for Global Policy, George Mason University. GDP per capita growth, $LOG(GDP)$; Trade share, $LOG(TRADE)$ and Agriculture value added, $LOG(AGR)$ are from World Bank. Oil Price, $LOG(OILP)$, is gained from Dow Jones & Company; Exchange rate in the informal market, $LOG(EXCH)$, is from Central Bank of Iran. The source of Inflation is presented in Table 1.

According to mentioned references for GMM method, instruments are the levels of variables lagged two or more periods.

Table 4: Nonmonetary model estimation.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INF(-1)	0.371932	0.000332	1118.595	0.0000
CAB(-1)	2.470013	0.003923	629.6652	0.0000
GOV	-3.777085	0.000765	-4936.068	0.0000
POLITY	-1.433207	0.000930	-1540.885	0.0000
LOG(EXCH)	5.613199	0.003471	1617.399	0.0000
GDP	-0.644474	0.000245	-2628.633	0.0000
LOG(OILP)	-6.724100	0.005565	-1208.300	0.0000
LOG(AGR)	-2.983707	0.004145	-719.8499	0.0000
LOG(TRADE)	-1.964120	0.002800	-701.5715	0.0000
R-squared	0.342608		J-statistic	9.479449
Durbin-Watson stat	1.586007		Prob(J-statistic)	0.999582

Source: findings of research

Considering the amount of $Prob(J\text{-statistic})=0.99$ which is greater than 0.05, estimation is not located at the criteria area of χ^2 distribution, therefore the authenticity of moments are approved and the GMM method is appropriate. All coefficients are significant and have an effect on inflation.

Lagged inflation by a coefficient of 0.37 indicates that 37% of inflation is explained by inflation inertia which is relatively equal to the coefficient of this variable in monetary model (0.39) and this fact implies political instability and monetary policies have the same explanatory power in determining inflation. According to Table 4, the results for three types of variables are as following:

Lagged Cabinet changes, $CAB(-1)$, has a positive and significant effect on inflation in parallel with literature. Government changes oblige policy makers to heighten short term objectives in pursuing their own ideas and consequent macroeconomic policies lead in higher inflation rates. Research shows that a unit increase in Cabinet changes would raise the inflation rate with the coefficient of 2.47. this result is consistent with those of Aisen and Veiga (2006a), Khan and Saqib (2011), Paldam (1987), Edwards and Tabellini (1991), and Alesina and Tabellini (1992).

The most intriguing and controversial result is the effect of Government changes, GOV , on inflation rate of Iran. In contrary to what was thought the coefficient of this variable is -3.7 and has a negative and significant effect on inflation. This result is inconsistent with those of Aisen and Veiga (2006a) and Khan and Saqib (2011). In this case we can point out the following items:

1. In Econometrics perspective most of major Government crisis were accompanied by Cabinet changes and since the lagged one period of the latter is imported to the model, the time series analysis indicates if the inflation rate raises simultaneously by the increase of the Cabinet changes and the Government crisis, the pure inflation upward fluctuation is due to the effect of previous cabinet changes.
2. Government crisis in Iran has often driven the economy into a recession and with high degrees of *Polity* index and to some extent the possibility of increasing the price controls and subsidies, the combined effect of these two variables could be negative.
3. Iranian society during crises has always been on the scene until can return the situation to normal.
4. Religious movement in the country, due to its deep penetration in various social ranks, has exhorted people to support the government and the subsequent synergy kept prices low.

Although these four points can clarify some aspects of the issue, for better interpreting further studies should be performed.

For *Polity* the viewpoint of Aisen and Veiga (2006a), Haggard and Kaufman (1992), and Paldam (1987) which acknowledge that developing countries with high levels of *Polity* index may have a better ability to control inflation, is not corroborated in Iran, because this variable with the coefficient of -1.43 has a negative and significant effect on inflation rate and indicates in long term the mandatory price controls do not occur. It is consistent with the conventional understanding that a democratic form of government ensures economic freedom and a systematic way of governance. Thus more the Iran moves towards a more democratic form of government, the more inflation decreases.

$LOG(AGR)$, $LOG(TRADE)$ and $LOG(EXCH)$ as representatives of the government capacity in bridling inflation have the coefficients of -2.98, -1.96 and 5.61 respectively. Obviously with the support and investment in agriculture and then increase in production and supply the inflation rate will decrease that is consistent with the findings of Khan and Saqib (2011). Cukierman, Edwards, and Tabellini (1989) argue difficulty of the agricultural sector taxing may increase reliance on seigniorage and consequently inflation. However this research is not approving this perspective.

In relation to Trade share it should be noted that the openness and the increasing volume of trade with the world reduces inflation. Thus the conventional knowledge that the rise of world trade leads to lower prices, will be confirmed. In this regard study of Khan and Saqib (2011) shows trade share with the coefficient of 20.7% has a positive and significant effect on inflation rate of Pakistan. Aisen and Veiga (2006a) state countries with a larger foreign trade sector are more exposed to external shocks that may increase inflation and expect a positive sign for openness. On the other hand Edwards and Tabellini (1991) indicate that greater openness to trade may favor the adoption of trade-related taxes in developing countries reducing the need of other distortionary forms of taxation such as the inflation tax. According to their view, greater openness to trade should be associated with lower inflation. Possibly, one could argue that the sign of the coefficient of trade openness is the net effect of two opposing channels affecting inflation namely, external exposure to shocks and tax substitutability. Apparently in Iran; with very large, heavy and strict laws and customs tariffs and duties and governmental intrusion and subsequent rental associated with corruption proceedings; the latter attitude is happening and the net effect of increase in trade share is to reduce inflation rate. Moreover Trade share is the sum of exports and imports of goods and services measured as a share of gross domestic product, considering the fact that one of the greatest resources of Iranian government income is revenues from the sale of oil, thus increase in Trade share variable can be caused by the bilateral influence of the global rising oil prices. Trade share goes up from rising oil prices because of both the increase in export value due to the rising oil prices as the main part of the Iran's export basket, and the increase in imports, the supply of goods due to growing foreign exchange revenues and hence controlling prices. Government reliance on seigniorage will also reduce by increase in revenues. With regard to the recent point and view of Edwards and Tabellini (1991), the total effect of trade share on inflation is negative; that is, the more Trade share increases more capacity of government in controlling inflation rises and more inflation reduces. This upward capacity of government could be both caused by increasing efficiency and competitiveness in economy and rising oil prices.

Comparison between monetary and nonmonetary indicates that mechanism of Exchange rate effect on inflation is through Money supply, $M2$, and Lagged inflation, $INF(-1)$, since the coefficient of Exchange rate in the informal market, $EXCH$, in monetary model is approximately equal to zero; however, in nonmonetary model has the coefficient of 5.61. This positive and significant effect of Exchange rate is consistent with those of Davoodi (1997), Nazifi 1997) and Masoudi and Tashkini (2005). The study of Kia (2006) shows the exchange rate policy has been a major effective variable on inflation over the long run in Iran. He considers exchange rate as a monetary instrument which its increase leads to a depreciation of the domestic currency and hence increase in the price level. Bahmani-Oskooee (1995) also concludes inflation is not merely a monetary phenomenon and it is to some extent a result of the depreciation of the Iranian Rial in the black market and partly of imported inflation.

Variables accounting for government performance and exogenous shocks; annual percentage growth rate of GDP per capita, GDP , and logarithm of Oil Price, $LOG(OILP)$, have the coefficients of -0.64 and -6.72 respectively. Government performance improvement, equivalent to the per capita GDP growth, would reduce inflation. This finding is consistent with those of Aisen and Veiga (2006a), Khan and Saqib (2011), Tabibian and Soori (1996), Masoudi and Tashkini (2005), Emadzade, Samadi, and Hafezi (2005), Dehmordeh and Kasai (2011), and Hosseini nasab and Rezagholizade (2009).

However the Oil price affecting mechanism is more wrapped and sophisticated since various government policies could drive inflation in different directions. This research indicates Oil price as a proxy for exogenous shocks on Iran's oil-based economy, has a negative and significant effect on inflation which contradicts the results of Hosseini nasab and Rezagholizade (2009) about inflation rate of Iran and also Khan and Saqib (2011) about inflation in Pakistan as an oil-poor country. These two Pakistani economists estimated the coefficient of oil price variable 2.4%. It should be noticed that Oil price is correlated with both growth rate of GDP per capita and Trade share because; firstly, a large proportion of the country's GDP is derived from oil revenues and hence

rising oil prices would improve government performance; secondly, rising oil prices would raise government's foreign exchange revenues and enables government to manage inflation rate by adapting importation.

Discussion:

In this section we intend to peruse the study of Bonato (2008) who argues Iran's declining inflation rate over 2002 to 2006 in spite of continuous fast growth of money and doubts the structural stability between money and inflation in Iran. By applying M1 in the model he finds out a strong relationship between money and inflation and also no evidence of a structural change in their relationship. Indeed he could predict this decline in inflation by the lagged impact of the past deceleration in M1 growth.

Here we are not going to violate Bonato's opinion or present more evidence. What he stated is definitely approved and the lagged impact of the past deceleration in M1 growth decreased inflation rate over 2002 to 2006. However as discussed in the literature our fundamental aim is to extract deep determinants of inflation rate in Iran. Thus this research basic question is that why did past M1 growth decelerate? Referring to political instability parameters, we apprehend that Polity has a relative great condition over 1997-2003. Polity from the value (-6) in 1996 reached to (+3) in 1997 and remained the same until 2003 and this increase in the number of Polity implies the more democratic governance during these years. Therefore, it is argued that a disciplined government with less political instability decelerated M1 growth over 1997 to 2003 and this decline led to a decrease in inflation rate over 2002 to 2006 despite continuous fast growth of money. The purpose of this mention was to present a practical approach for the hidden thought behind this study. Although most policy makers know the consequences of excess money creation, just some of them can implement right policy in practice. Actually governments should organize a disciplined structure with low political instability distortions.

Conclusion:

Understanding the fact that fiscal and monetary policies are the main determinants of inflation through FTPL, along with the way political issues affect government's budget deficits and debt through PEMP; in this research we attempted to extract deep determinants of inflation in Iran. We investigated the question that why those particular monetary and fiscal policies were applied which opened up inflation context in Iran's economy and they still continue. This is how Game Rules would change by the parameters such as governance and political instability which could not even be comprehensively observable in our dynamic model; however, the prevailing direction of the economy and social circumstances that this model offers should be observed with a quite look of contemplation and pondering.

In this study, in order to provide an appropriate analysis of inflation, two models of monetary and non-monetary determinants have been estimated. The monetary model demonstrated without political instability, is not able to provide an adequate explanation of inflation in Iran. Furthermore this result enables us to study nonmonetary determinants of inflation. Non-monetary (political) model emphasized the significant effect of political and governance variables such as Polity, Cabinet changes, and Government crisis on inflation. More Cabinet changes increase inflation since by incessant government changes, macroeconomic policies will also be altered consistently. These changes in stabilization policies accompanied by heightening short term objectives due to higher likelihood of being replaced before the term consequently will result in great inflation rates.

The result for the variable Polity refutes this perspective that developing countries with high levels of Polity index may have a better ability to control inflation. The negative effect of Polity on inflation rate indicates in long term the mandatory price controls do not occur in Iran and it is consistent with the conventional understanding that a democratic form of government ensures economic freedom and a systematic way of governance. Thus more the Iran moves towards a more democratic form of government, the more inflation decreases. From a social-economic aspect to this issue, it can be noted to the fact that democracy is a form of teamwork with a range of whole community. When all members of a team know themselves the owner of team's achievements, they obviously spend greater efforts and the results presumably tend to be relatively more worthy. If individuals of a society acknowledge themselves effective to their own destiny and have an active presence in the elections and other social events, incentives rise and better economic outcomes will be achieved.

The most interesting result of this study is the effect of Government changes on inflation rate of Iran. Contrary to what is assumed, government changes will decrease inflation. Although for better interpreting further studies should be carried out, in the framework of this paper we presented an econometric, an economical and two social explanations. Econometric explanation states most of major Government crisis in Iran were accompanied by Cabinet changes, thus if the inflation rate raises simultaneously by the increase of the Cabinet changes and the Government crisis, the pure inflation upward fluctuation is due to the effect of previous cabinet changes. Indeed the shortened horizon of the members of government will raise reliance on seignorage due to frequent cabinet changes not government changes. In economical view Government crisis in Iran has often driven the economy into a recession and with high degrees of Polity index and to some extent the possibility of increasing the price controls and subsidies, the combined effect of these two variables could be negative. One of the social explanations is extracted from Iranian pursuit of freedom and democracy; Iranian

society during crises has always been on the scene until can return the situation to normal. Another social explanation is induced by religious movement in the country. Religious movement due to its deep penetration in various social ranks has exhorted people to support the approved government and the subsequent synergy kept prices low.

Increased level of Agricultural output, development in Openness and rising Trade share would reduce inflation rate. Exchange rate with the increase in liquidity and inflation expectations has an impact on inflation thus managed floating exchange rate policy and maintaining the exchange rate within a reasonable range and avoiding sharp fluctuations by creating buffers against fluctuations in oil prices such as foreign currency reserves account and national development fund which are beyond the reach of government, can prevent inflation.

Improving government performance (equivalent to increase in per capita GDP growth), will decline inflation. Oil price as a representative of shocks has a negative effect on inflation of Iran's economy that is considered as an oil-based economy.

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