

## **Chapter II**

### **A Review of Economy of Iran**

#### **2.1- Economy of Iran**

In this study I will focus on the economy of Iran. Many factors make Iran ideal for a high degree of participation of the private sector in investment: a high percentage of young population that is educated (literacy rate of people in 15-24 age group is 94 %), rich natural resources, cheap energy, income from oil resources, and suitable geographical location.

Year	1974	1980	1990	2000
Total population	32173990	39124000	54400000	63664000
Age between (15-64)%	51.19	51.75	51	61.5
Literacy (15 and above)%	40.5	49.67	63.16	76
Literacy (15-24)%	63	73	86.32	94
GDP Per capita \$ (constant 2000)	1785	1278	1196	1511

**Table 2.1- Comparison of socio-economical indices in Iran.**

As it is indicated in table-2.1, total population of Iran has doubled from 32 to 63 million between 1974 and 2000. The age composition of population has changed with dependency ratio declining. The share of population in the 15-64 changed from 51.19% in 1974 to 61.5% in 2000. The adult literacy rate (15 and above) has increased from 40.5% in 1974 to 76% in 2000. This literacy rate for youth (15-24 age group) has changed from 63% in 1974 to 94% in 2000. As it is indicated in figure-2.1 GDP per capita has fluctuated between U.S.\$ 1000 and \$ 2000 over this period. This figure indicates clearly that higher GDP per capita is associated with a higher rate of

private investment. For many years the real interest rate has been negative, for example, it was -9.22, -25.23 and -11.49 in 1989, 1993 and 2000. The government has tried to protect private investment by financial incentives and import barriers, but private investment has hardly gone above 15 percent of GDP in the last two decades. The low rate of investment has had disappointing consequences for sustainable development and poverty alleviation (through its negative effect on job creation for a flood of young unemployed population)<sup>1</sup>.

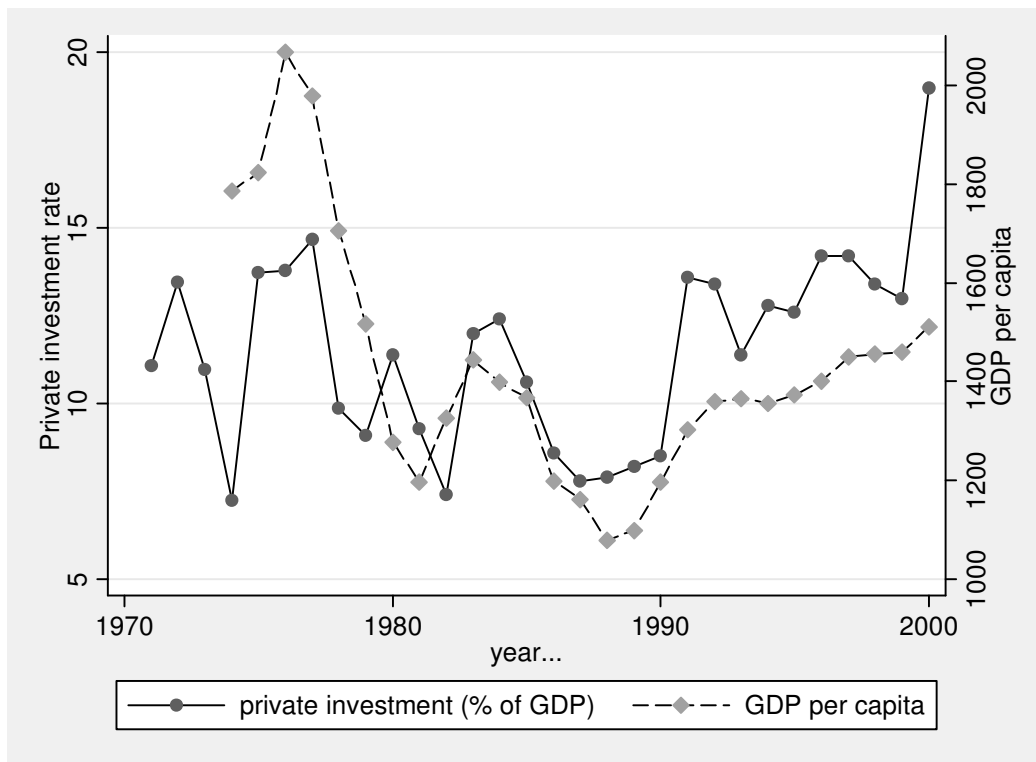
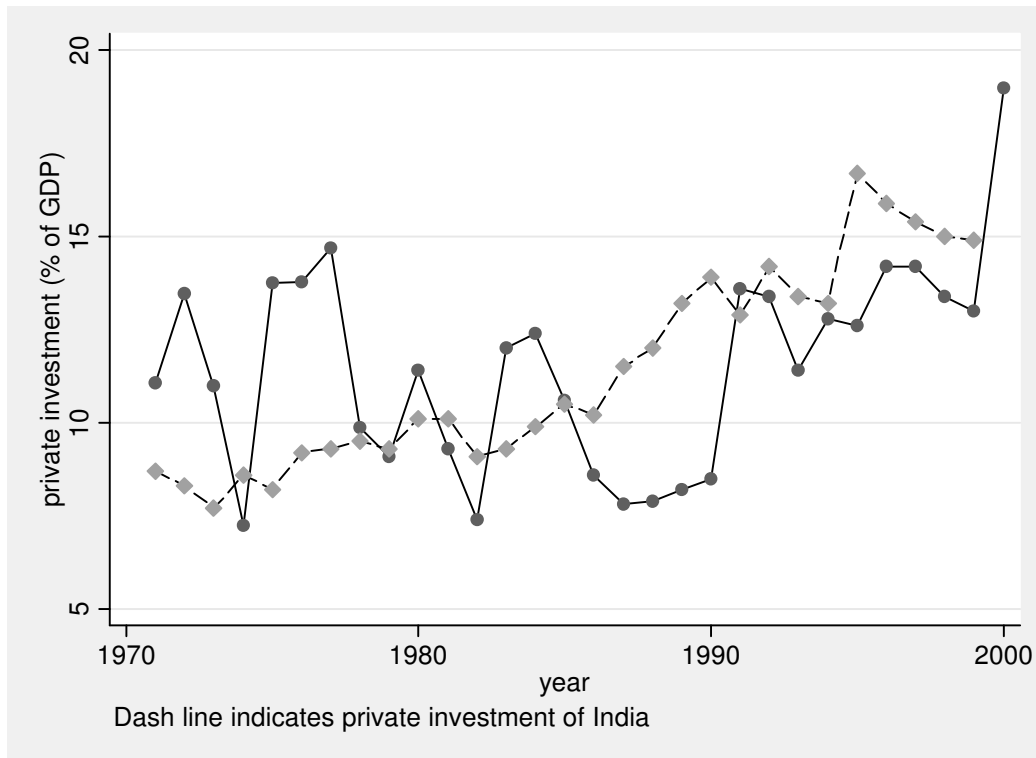


Figure 2.1-GDP per capita of Iran from 1974 to 2000(U.S. \$ constant prices of year 2000).

Figure-2.2 represents the rate of private investment in Iran. It fluctuated heavily between 1973 and 1989. As I will show later these fluctuations had different causes.

<sup>1</sup> - Some news about capital flight has occasionally been released by media.

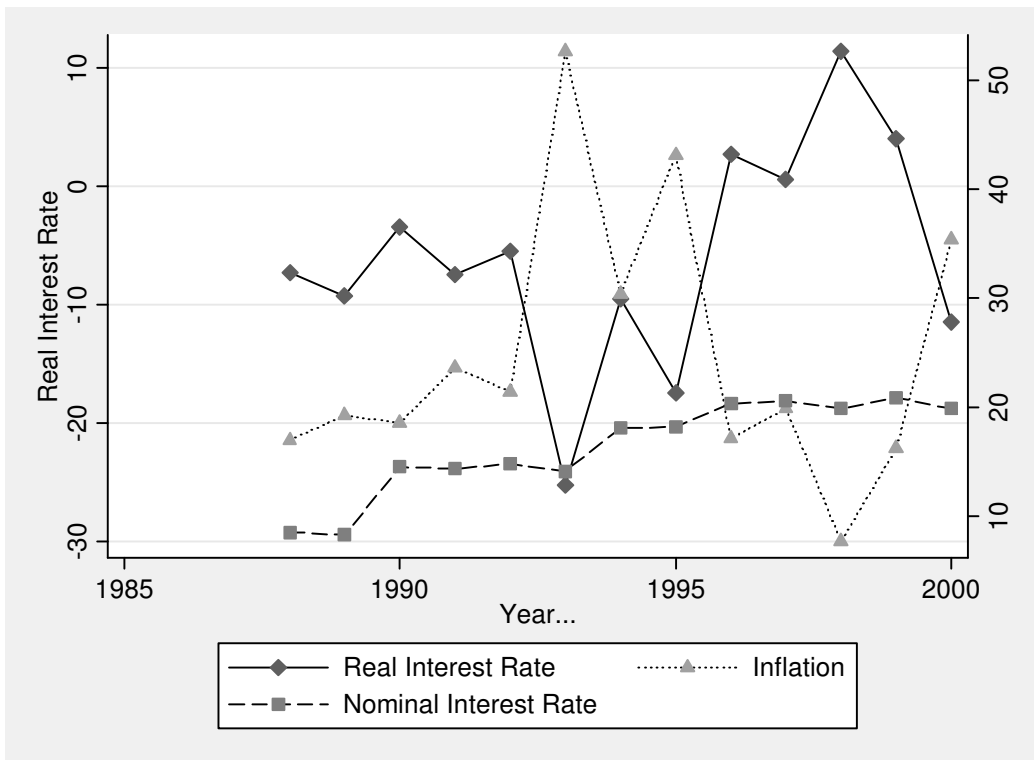


**Figure 2.2- Private investment rate in Iran and India since 1971 to 2000.**

It reached a minimum level of 7.23% in 1974 and a maximum of 19% in 2000 with an overall average of 11.5%. This rate has seen an upward trend since 1989 after the Iran-Iraq war. The rate of private investment in India has been shown for the sake of comparison (Figure 2.2). It varies less than that for Iran (the variance is 7.5 and 7.1 percentage point for Iran and India respectively). It has an obvious upward trend from 1973 to 1995 where it reaches the record high of almost 17%. However it shows a decline thereafter.

For a better perception of the economy of Iran, the special nature of financial and monetary markets must be regarded. After the Islamic revolution in 1979 fixed interest was prohibited because of Islamic rules. Thus, firms could not be financed by selling bonds. Furthermore, there was no advanced system of financial intermediation (e.g. venture capital). What remained were just a few big companies who could

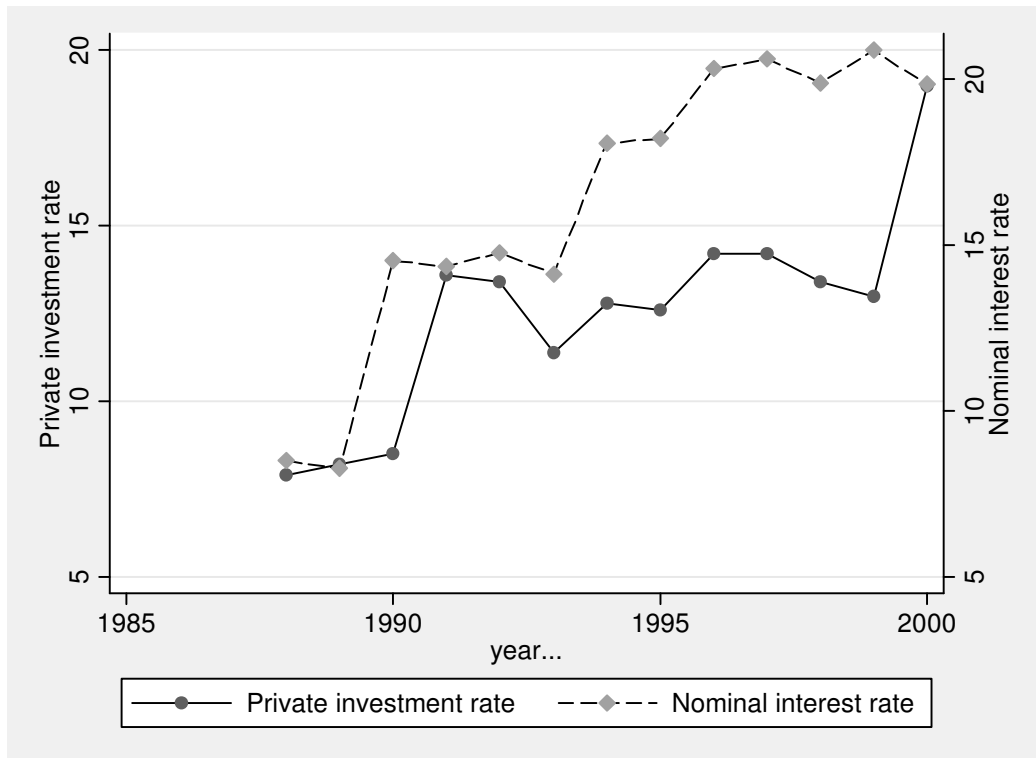
supply their securities to the stock market, and plenty of entrepreneurs who either could enter into partnership or rush to the banks.



**Figure 2.3- Fluctuations of inflation, nominal and real interest rates since 1988 to 2000 in Iran.**

Banking institutions in Iran lend funds at a rate called “bank commission for minimum expected profit” which is compatible with Islamic rules. This rate imposed by the Central Bank of Iran differs in different industries (e.g. agriculture, services, real state etc.) according to a fixed rate schedule which is administrated by the Central Bank. What I have considered in this study, as interest rate is a weighted average of these rates. The weights are given by the participation of each sector in the economy. Thus, my intuition is that banking funds must be a greater constraining factor with regard to private investment than interest rates in Iran. As real interest is often negative in Iran (Figure 2.5) a scarcity of funds would be a constraint on investment. Figure-2.3 indicates fluctuation of nominal and real interest rates and inflation. The

nominal interest rate increased from almost 10% in the late 80's to almost 20% in the late 90's. However, inflation fluctuated severely in this period and was of a high magnitude. The rate of 52.64% in 1993 was remarkable. Therefore, the real rate of interest turned negative in many years. Between 1988 and 2000, only four years yielded positive rates of real interest.



**Figure 2.4- Fluctuations of nominal interest rate and rate of private investment.**

Figures-2.4 to 2.6 show a comparison of the variations of inflation rate, nominal and real interest rate and the rate of private investment in Iran between 1988 and 2000. In this period the rate of private investment increased despite the fact that the nominal rate of interest rose as well. The real rate of interest and the rate of private investment vary with different patterns. From 1988 to 1997 they are positively correlated whereas there is negative correlation after 1997. Except for periods in which the rate of inflation has gone beyond 40%, increasing inflation has been associated with higher private investment.

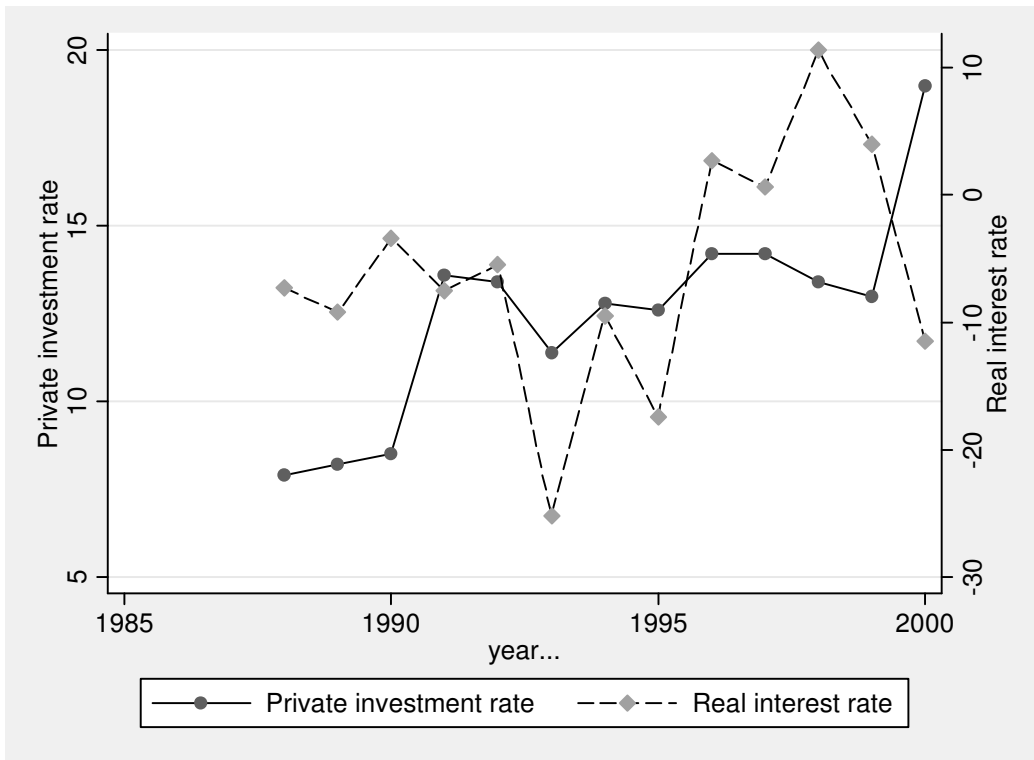


Figure 2.5- Comparison between fluctuations of real interest rate and rate of private investment in Iran.

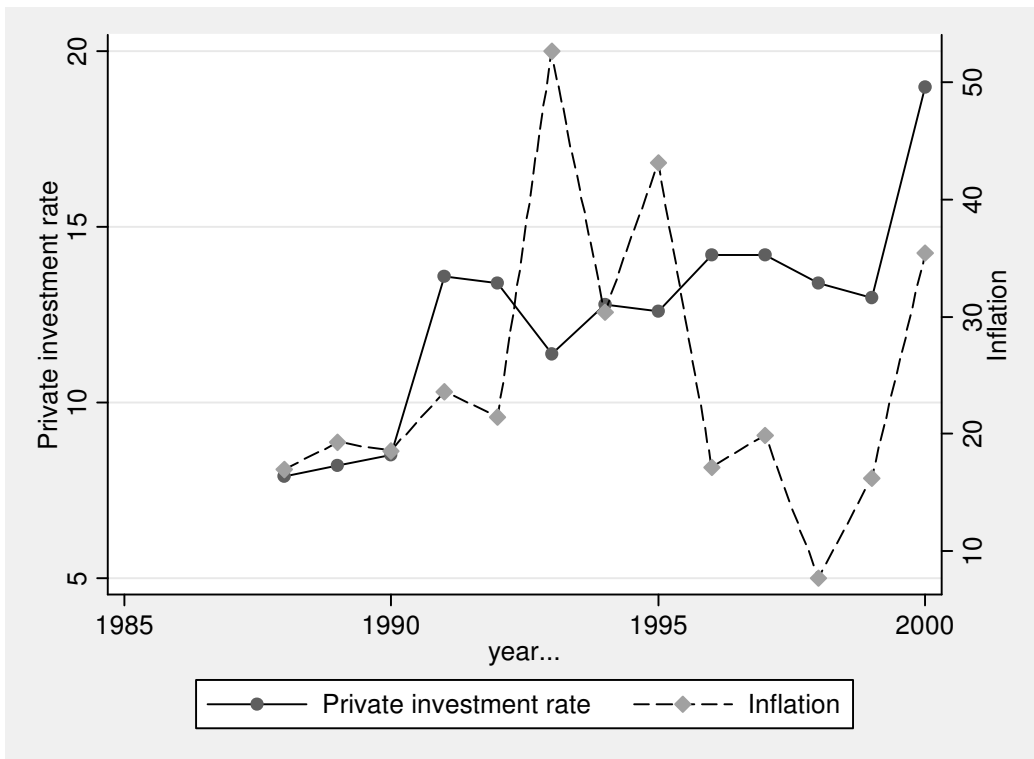
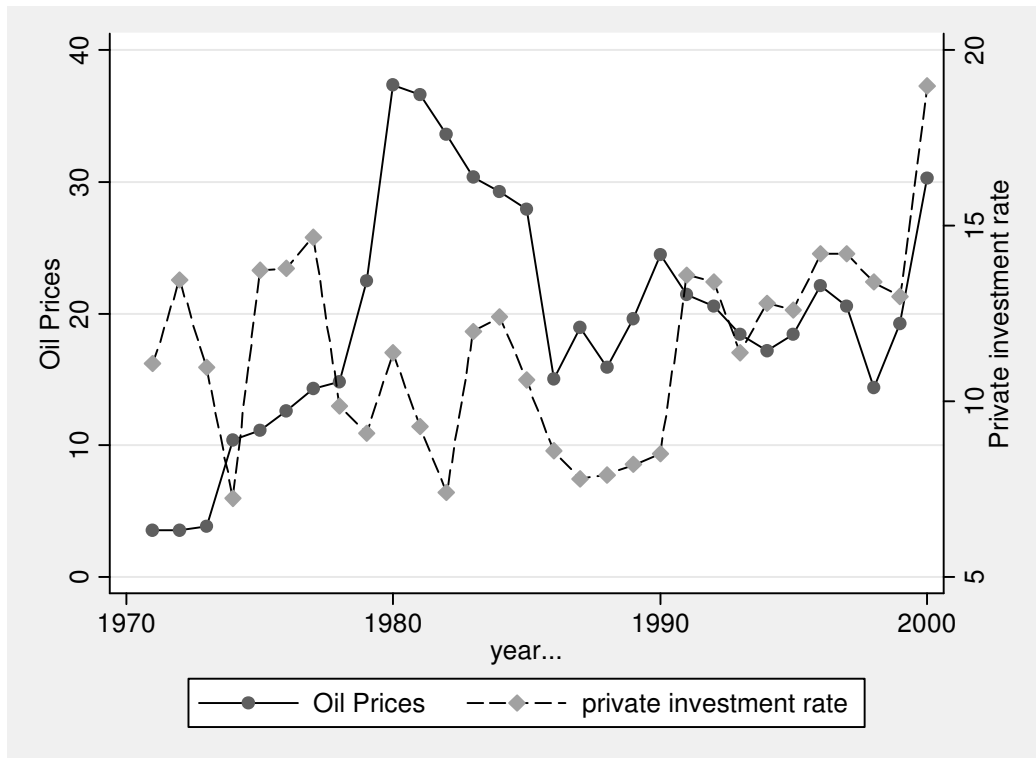


Figure 2.6- Variation of Inflation and the rate of private investment in Iran.

We cannot review the economy of Iran without a look at the oil economy. Iran is one of the main oil producers in the world. It is a member of Organization of Petroleum Exporting Countries (OPEC) with an export of about two million barrels per day.



**Figure 2.7- The price of crude oil (\$ U.S.) and the rate of private investment (% GDP).**

A major portion of the country’s export revenue consists of incomes from the export of crude oil. It has hardly ever come below 80% of the total value of aggregate exports. Figure-2.7 presents the variations in the price of crude oil as well as the rate of private investment between 1971 and 2000. The prices of oil used are the spot prices of crude oil (Dollars per barrel) in West Texas Intermediate<sup>1</sup>. However, the real

<sup>1</sup> - Downloadable data is available in <http://www.economagic.com> .

prices of oil exported out of Iran is quite below these prices though their movements are correlated with each other. Figure-2.7 shows that from 1971 to 1989 the prices of oil and private investment rates were not correlated with each other. A decline in the private investment rate contemporaneous to the oil shock of 1974 and a small increase following a big fall in 1980 are worthy of mention. This shows that higher incomes corresponding to higher levels of oil prices not affect private investment contemporaneously. The indices have become more correlated after the war between Iran and Iraq.

## **2.2- Uncertainties and Economy of Iran**

Diagrams pertaining to macroeconomic uncertainties are given in appendix B<sup>1</sup>. The uncertainty about trade in Figure-B5 and uncertainty about credit to private sector in Figure-B1 are continuously decreasing. Thus, such decreases cannot justify the fluctuations in the rate of private investment in the 70's and 80's. The uncertainty about exchange rate distortion, (Figure-B2) is also decreasing except for a structural break in 1994 and the uncertainty about inflation (in Figure-B7) cannot describe the fluctuations in the private investment rate as well. Contrary to the other uncertainties, uncertainties about real interest rate, (Figure-B4) and terms of trade, (Figure-B6), are continuously increasing. Therefore, this kind of homogeneous movement cannot justify the fluctuations of private investment in the 70's and 80's followed by an increase in the 90's. The positively correlated increment in uncertainty about real interest rate and private investment is contrary to conventional wisdom. The contemporaneous effect of other factors (e.g. postwar era) might cover the negative

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<sup>1</sup> - For more information about the definition and method of their calculation Chapter IV might be studied.



effect of real interest rate uncertainty. Maybe, among the macroeconomic variables, uncertainty about growth is the best justification for variation of the rate of private investment. Uncertainty about growth shows a severe fluctuation in late 70's and early 80's and starts to reduce investment after the mid 80's.

Diagrams of socio-political institutions have been presented in appendix B, too. Inequality (from Estimated Household Income Inequality Dataset, University of Texas) shows a U shape over time (as it is clear from Figure-B8) in Iran. If we ignore some increases in the period ranging from the early 80's to mid 90's then we can conclude that inequality and rate of private investment are positively correlated with each other in Iran. The index of democracy<sup>1</sup> is graphed in Figure-B9. This index is almost constant except for some changes in the early 80's in Iran. Therefore, it cannot reasonably justify fluctuations in private investment. The period of war has been graphed against the private investment rate in Figure-B10. It almost contains all time periods in the 80's. The diagram shows that the peaks of private investment achieved in wartime are a little bit lower than those in other times. Furthermore, there are two nadirs in 1982 and 1987 with the rate of private investment falling below 8%.

Figure-B11 shows a plot of the incidence of civil war against private investment rate. In the period between 1978 and 1982 Iran was involved in different civil wars. In 1978-1979 there was a conflict between the Central government and the Anti Shah coalition. In 1979-1980 and also in 1982 there was a conflict between the Central government and the Kurdistan Democratic Party of Iran. In 1981-1982 there was a conflict between the Central government and Mujahedin e Khalq. Even though there were some minor and intermediate conflicts in other years those have been ignored. Other types of social unrest occurred around 1979: revolution, riots and strikes as they

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<sup>1</sup> - The definition of this index is given precisely in Chapter IV.

are indicated in Figures-B12, B15 and B16. However, there was no coup in Iran at all. There was a constitutional change (Figure-B13) in 1979. The largest number of assassinations in a year occurred in 1981. As Figure-B17 indicates, some purges occurred contemporaneously with nadirs in private investment rates in 1971, 1979 and 1986. Unfortunately, a considerable time series for the quality of indices of governance is not available with respect to Iran rendering it impossible to study its association with the private investment rate.

To sum up, among the observable variables in Iran, we can see that uncertainty about growth, war and civil war, purges, constitutional changes, and a set of social unrests (i.e. revolution, riots strikes, assassinations) might explain decline and fluctuations in the rate of private investment<sup>1</sup>.

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<sup>1</sup> - As the number of observations is not enough for time series especially in case of governance in which three observations are available per variable, therefore a panel data method is applied for examination.