Iran's economy, like most other oil-exporting countries is extremely vulnerable to oil price fluctuations. Due to the high share of oil sector in GDP, oil price fluctuations can destabilize the economy leading to high inflations. In this study based on the annual data for the period of 1982-2015 and using quantile regression method, inflation as the dependent variable is regressed on oil prices, GDP, liquidity and trade openness. According to the results, there is a positive relationship between inflation and oil price fluctuations in different deciles. The effect of GDP and trade openness on inflation is negative and the effect of liquidity is positive.

**Keywords:** Inflation, Oil Price, Quantile regression, Openness, Liquidity