

## Monetary Policy in a Financial Accelerator Models with Sticky Price and Wage

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### Abstract

**Goal:** The financial system could be a source of prosperity or decline of the economy. Asymmetry of information in this system can cause adverse selection and moral hazard, that can increase the risk of facilities.

As a result, the risk reward increased and cause increased interest rates to facilitate comparison with the interest rates on deposits. By raising interest rates Facilities, risk taker people, attempted to take more facilities that the result will be an increase in deferred bank.

On the other hand, Raising interest rates make it more facilities in the purchase and sale of property and speculative which on average have high efficiency in Iran's economy to be used, that cause diversion of resources

In such situation, economic actors stated that Lack of necessary liquidity, especially from the banking sector and high interest rates on the facility are the major constraints to the manufacturing sector.

To check this subject, and the effectiveness of monetary policy in such situation from a financial accelerator model in a New Keynesian dynamic stochastic general equilibrium model was used.

**Methodology:** The financial accelerator model used in this research is based on Nolan and Thoenissen (2009) study that is a new Keynesian fairly standard model with financial frictions. The model includes the household sector, retailers, entrepreneurs (producers of wholesale goods), the government and the central bank.

The representative household acquires utility from consumption goods and services and maintenance of money, and by working their utility is reduced. Entrepreneurs use the services of capital and labor to manufacture wholesale goods and sell to retailers.

The entrepreneurs need external funds to purchase capital, that they are exposed to financial market frictions. The retailers buy wholesale goods produced by the entrepreneurs and make changes and offer them to the final consumer.

Retailers operate in monopolistic competition and in accordance with the method of Calvo, acting in their pricing. Government revenue includes oil revenues, money creation and tax revenues that provide their cost to them. In Iran, the interest rate is determined in an order of magnitude. Therefore, in this study, the rate of money growth is used instead of the interest rate. In which, with regard to the conversion of oil revenues into domestic currency and the independence of the central bank and the provision of part of the government's expenditure from

the seigniorage income, oil revenue shock and government's expenditure on the volume of money is effective.

**Results:** After solving and log - linearization model using Bayesian method for the Iran economy in the period 1357-1393 using annual data for the gross domestic product, inflation, private consumption, investment, monetary base and government spending, was estimated as the observable variables from time series database of the central Bank of the Islamic Republic of Iran,

Survey the immediate response function figures show that:

Monetary shocks, as much as the estimated standard deviation by creating conditions of inflation, Because of falling real interest rates, increased consumption via Euler Equations And also Because of falling real wage increase employment and investment.

Oil revenue shocks in this model via a change in the monetary base and through changes in government oil revenues, affect the government spending and ultimately stimulate aggregate demand in the economy. With increasing oil revenues, consumer goods by households increases.

**Conclusion:** The positive shocks in government spending, cause increased in private consumption. An increase in government spending causes inflation because government spending is as one of the important components of aggregate demand, assuming all other factors be constant, cause an increase in the general price level, we are seeing the effect of crowding out of public sector rather than the private sector.

Scenario Building of financial friction parameters indicates that with greater transparency and reducing financial friction, The impact of monetary policy on production increases and money has a smaller effect on inflation.

**Keywords:** Monetary policy, Financial Accelerator, Sticky Price and Wage, Dynamic stochastic general equilibrium model.

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