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Impact of Fiscal Policy on Private Investment in Iran and the Role of Tax Policy in That Approach DSGE

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Abstract

This paper, in terms of government financing bonds as a distinguishing feature of this study from other studies, seeks to examine the impulsive effects of government investment policy on private investment and its interaction with these bonds in a dynamic general equilibrium model. It is a coincidence with the Bayesian solution method in the 70s and 90s. Also, this article seeks to compare the effects of this policy by eliminating tax shocks. The results show that in the event that the government issues bonds to finance itself, initially public and private investment have crowd out effect and with the completion of government development projects and the preparation of infrastructure by the government, private investment will increase. Also, value added and price levels increase. Also, these results may not lead to such results if tax policies are not implemented. Due to government intervention and government investment, and thus the formation of the total investment by government, it is obviously, with this intervention, there is no traditional relationship between interest rates and private investment and the other hand, this traditional link, between interest rates and investment has been dispelled by domestic resource theorists. In particular, as Shaw and Mckinnon show, this relationship is eliminated in developing countries, although the lack of this relationship is also observed in other developed countries. The results of the present study confirm these economic theories about the Iranian economy.

Keyword: Government Bonds, Investment, Government Finance, Tax Policy, Stochastic Dynamic General Equilibrium Model (DSGE).

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1. Introduction

The influence of government interventions and policies such as the increase in construction spending as part of fiscal policy from the 1930s with the advent of the Great Depression in the economy and Keynes' theories were considered and in this regard, various studies on the effects of each Public and private capital on economic growth as well as the effects of these two types of investment on each other have been done.

The purpose of this paper is to survey the impacts of government capital expenditure policy on private investment in terms of Q_Tobin theory, also in the absence of tax shocks is examined.

The main questions of this paper are that considering the issuance of various types of government bonds as one of the sources of government financing, what is the impact of government capital expenditures as a fiscal policy, over time, on important economic variables with emphasis on private investment? What will this be like in a situation where there are no tax shocks policies?

The hypotheses represent for the above questions, which are also confirmed by the economic theories and realities of Iran's economy, are that the effect of the increasing government investment that partly financed through government bonds, first leads to the crowd out of private investment and then it will increase private investment by completing infrastructure investments that made by the government.

Mckinnon and Shaw in the 1970s, especially in developing countries,said there is no traditional relationship between interest rate and investment and that confirme in Iran economic,because entervention of investment government. However, the lack of tax shocks policies will not necessarily have these consequences.

This paper uses a dynamic stochastic general equilibrium model including household, corporations, government and Q_Toubin and uses Bayesian solution method to the shock effect of government investment and the interaction of government bonds with other important variable economic. Also, once it examines the results by eliminating tax shocks.

It should be noted that the scope of this study is includes central government and corporation government. In other words, it does not include the public sector, including banks and municipalities

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2. Model and data

In this article, the dynamic stochastic general equilibrium (DSGE) model includes the household, firms, government and q_tobin is considered and in monetary policy, rules have been used to cover inflation and production targets that are emphasized in the Irans monetary laws,with Bayesian solution method for the years 1376 to 1396 based on several articles , in particular, with the focus on the model of Nora Tram and Nora and Shu_Chun (2015) and Smets and Wouters (2007). and is assumed New Keynesian conditions in which wages and prices are sticky. Also, it is considered in a closed economy and is adapted to the conditions of the Iranian economy.

Initially, the equations for the household sector, firms, and government became linear logarithms. The per capita variables were calculated. These variables include value added, private and public consumption, savings, capital accumulation, private and public investment, government subsidies and transfers, and real wages. In order to de-trend the variables, the logarithm and then the moving average and finally the Hadrick and Prescott filters have been used.

The proposed model has 12 shocks. In this article, the impulse response of government investment policy is described and expanded. Consumption tax, capital tax and Labor taxe have been removed from the model for survey model results.

3. Results

The results of policymaker' s show when government investment increases that part of financing with bond government, at first crowd out private investment. On the other hand, with the increase development infrastructure projects, gradually, increases private investment.

The next point to consider in analyzing economic variables is changes in bank interest rates. According to a some of economists, such as Mckinnon and Shaw, and other studies in Iran traditional views on the negative relationship between investment and interest rates have been ruled out. Now, if there is no shock taxs that results do not necessarily exist.

4. Conclusion

4-1. In the short run, by reducing the credit available to households, increasing the volume of government investment has an crowd out effect on private investment, and then in the medium and long term, with the increase of infrastructure, public investment plays a complementary role to private investment. On the other hand, if the government does not taxes shocks, private investment will increase with the credit available to households.

4-2. Traditional theories about the relationship between investment and interest rates are discarded. But if the economic model is simplified and the effect of tax shocks is eliminated, the traditional connection is observed.

4-3. The effects of increased government investment on value-added are incremental, and if there are no tax shocks, the value-added growth rate is greater.

4-4. An increase in government investment as part of government development projects temporarily lowers the general level of prices, although the general level of prices rises again. However, with the elimination of tax shocks in the economy, the general level of prices increases and then decreases over time.

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