

論文の要旨

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論文題目

Essays on the macroeconomic effects of fiscal policy in Japan
(日本における財政政策によるマクロ的影響について)

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This dissertation aims to provide new empirical evidences and shed some new light on the effectiveness of fiscal policy in Japan by employing three different identification approaches to investigate the impacts of tax and government spending shocks on macroeconomic variables. In addition, the research compared these above effects between fixed exchange rate regime period and floating exchange rate regime period; and between the normal time and the ZLB time. To examine whether the state-dependency hypothesis of fiscal policy is true for other economies, the thesis analyzed and compared the effects of fiscal shocks during and outside the ZLB in Japan and three developed countries including Canada, the United Kingdom and the United State.

The dissertation is comprised of five chapters on the macroeconomic effects of fiscal policy shocks in Japan. Chapter 1 introduces the main themes of the thesis. Chapter 2 explains the identification problem, the empirical vector autoregressive (VAR) model and presents two different identification approaches to explore the effect of fiscal policy in Japan. The first technique is the recursive VAR approach, which is relied on the Cholesky decomposition of the variance-covariance matrix of the VAR disturbances and imposed assumptions about the contemporaneous links between the endogenous variables. Second, following the study of Blanchard and Perotti (2002), the thesis used the structural VAR approach that based on institutional information about tax and transfer systems to estimate the automatic responses of tax revenues and government spending to economic activity. Furthermore, in order to fully understand the transmission mechanism of fiscal policy shocks, the chapter proposes four different VAR models with various endogenous variables. The baseline VAR model (model (1)) consists of three endogenous variables: tax revenues, government expenditure and GDP. In addition, model (2) included the private consumption variable while model (3) added imports to the baseline model. In model (4), two monetary policy variables: interest rate and inflation, were incorporated.

It is argued that the two approaches discussed in chapter 2 rely on assumption about the sluggish reaction of relevant variables to macroeconomic shocks,

and hence, they may not provide analyses based on a purely VAR framework. Therefore, chapter 3, based on a similar VAR framework, introduces an alternative approach namely the sign restriction approach. This approach was proposed by Uhlig (2005) and Mountford and Uhlig (2009). Unlike the recursive VAR and the structural VAR approach, the sign restriction approach imposes restrictions directly to the impulse responses and hence, it may provide more convincing results.

In chapter 2 and chapter 3, the VAR models were first applied to the full sample dataset over the period 1960Q1-2018Q4 to examine the effects of fiscal policy (including tax and government spending) shocks on macroeconomic activity in Japan. In the second stage of the analysis, the impacts of fiscal policy under various economic circumstances were focused. First, these effects under fixed exchange rate regime and under floating exchange rate regimes were compared. Second, the study investigated whether the impacts of fiscal policy were enhanced or reduced during the zero lower bound (ZLB) period.

The main findings of chapter 2 and chapter 3 are as follows. Drawing on the full sample over the 1960-2018 period, the study showed that an unexpected increase in taxes lead to a decrease in output while a similar shock to government spending has positive impacts on output. Surprisingly, interest rates and prices decreased in response to a positive spending shock. With respect to the role of exchange rate regime, the empirical evidences demonstrated that fiscal policy was not necessarily more effective under fixed exchange rates as predicted by conventional wisdom. In addition, the findings revealed that the expansionary impacts of government spending shocks on output were stronger in the ZLB period. An increase in government spending during this ZLB period could even lead to higher inflation, although with a lag.

In chapter 4, the thesis adopted the sign restriction approach to compare the effects of fiscal policy during and outside the ZLB period in Japan and three other developed countries including Canada, the UK and the US. The results showed a significant and stronger effect of tax shocks on output during the ZLB period in all four countries. The findings were less conclusive in the case of a government spending shock, as only in Canada and Japan, the effect of an increase in spending on output was stronger in the ZLB and with a lag. The empirical evidences also demonstrated that the tax and spending multipliers in Japan were relatively larger than those in other developed countries.

Chapter 5 concludes and summarizes the thesis and provides discussions on main findings of the previous chapters, policy implications, limitations of the thesis and makes some suggestions for further research.