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Changing impact of fiscal policy on selected ASEAN countries☆

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ABSTRACT

This paper investigates the effectiveness of fiscal policy in five Association of Southeast Asian Nations: Indonesia, Malaysia, the Philippines, Singapore and Thailand. Through a small open economy structural vector autoregression model, government spending is found to have weak and largely insignificant impact on output, while taxes are found to have outcomes contrary to conventional theory. Extensions using a time-varying VAR model reveal that the positive impact from higher taxes on output mainly reflects heightened concerns over public finances during the Asian financial crisis and the recent global financial crisis. On the other hand, for Thailand, there is some evidence that government spending can at times be useful as a tool for short-term countercyclical policy.

1. Introduction

The flurry of fiscal stimulus packages implemented in the last few years both in the developed countries and developing countries in response to the sharp economic slowdown seem to suggest an unequivocal support for fiscal policy in stabilizing economic fluctuations. The reality is quite the opposite. A debate hosted by *The Economist* amid the global recession in early 2009 on whether "Keynesian principles" should dominate policymaking of the day ended with a vote of 63% against the motion.[2] Meanwhile, despite the massive stimulus efforts, the pace of economic recovery especially in the advanced countries has been lackluster. In developing Asia, there has largely been an absence of the debate on the efficacy of fiscal stimulus. The fact that the region has recovered much faster than the rest of the world seems to suggest that the stimulative policies implemented have worked well. Yet surprisingly there is very little empirical evidence to conclusively say whether this was the case.[3]

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[2] See http://www.economist.com/debate/overview/140.
[3] See ADB (2010, Part 2) for some recent work.

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This paper asks the question whether, since the 1990s, fiscal policy in the five main Association of Southeast Asian Nations (ASEAN) (Indonesia, Malaysia, the Philippines, Singapore and Thailand) has been effective as a macroeconomic stabilizing tool. As part of this exercise, the paper also estimates the size of each economy's fiscal multiplier – how much a dollar spent by the government translates into a change in output. The paper extends the structural vector autoregression (SVAR) model by Blanchard and Perotti (2002) to capture the small open economy feature of the five selected economies. Blanchard and Perotti's model has been widely employed in the study of countercyclical fiscal policy for developed countries, but application to developing countries, in particular developing Asian economies, has been relatively scarce. However, a notable drawback of the approach is the inability of the model to examine a specific episode of countercyclical policy. Put differently, it only portrays an average estimate over the selected sample period. To do this, a time-varying VAR is employed to investigate possible changes to the effectiveness of fiscal policy over time. This is perhaps the first paper that applies a time-varying VAR model to study the evolution of fiscal policy for developing countries.

To preview the results, government spending is found to have no immediate and statistically significant impact on output in all the countries studied here. Yet for Singapore and Thailand, there is some evidence to show a stronger impact during the Asian financial crisis and the current global financial crisis. For Indonesia too, there has been an improvement in the effectiveness of government spending since the Asian financial crisis. On other hand, somewhat surprisingly, tax increases generate positive output growth in all the countries (a phenomenon commonly known as expansionary fiscal contraction in the literature), but this is only statistically significant in Thailand and Indonesia. In general, there seems to be greater evidence of the phenomenon during the Asian financial crisis and the global financial crisis, particularly in the Philippines and to a lesser extent Malaysia. For Indonesia, however, the puzzle seems to have waned in the 2000s, after the Asian financial crisis.

The rest of the paper is structured as follows. Section 2 reviews the theoretical and empirical literature on the study of the effectiveness of fiscal policy. Section 3 introduces the SVAR and time-varying VAR methodologies, while Section 4 delves into data and estimation issues. Section 5 presents and discusses the results, and Section 6 concludes.

2. Literature on the impact of fiscal policy

2.1. Theory

The effectiveness of fiscal policy as a tool of macroeconomic management has been widely debated, as many empirical studies find different and sometimes conflicting results. The theoretical literature itself prescribes different fiscal multiplier sizes. The Keynesian school generally argues that the spending multiplier is greater than one, while the neoclassical school says it is less than one. Table 1 summarizes the main theoretical results.[4]

The standard Keynesian multiplier of greater than one does not always hold, and may vary depending on, among other factors, the degree of monetary policy accommodation, the exchange rate regime, an economy's trade openness, and the extent of financial development. For example, it may be less than one in a flexible exchange rate regime, where higher interest rates caused by higher government spending leads to an appreciation of the domestic currency, which increases imports at the expense of exports. Similarly, if an economy is very open, the leakage of government spending via higher imports will be larger, and leads to a smaller multiplier. In a Ricardian equivalence world, fiscal spending is said to have no impact on output (Barro, 1974). Households who are forward-looking know that debt-financed government spending (or tax cuts) today translates into higher taxes in the future to pay for the higher debt, and hence the net effect on current output is zero.

There is another literature that posits the multiplier can in fact be negative, what is known as the non-Keynesian or expansionary fiscal contraction (or conversely, contractionary fiscal expansion) effect.[5] Theories that explain this phenomenon appear to have followed the empirical work by, among others, Giavazzi and Pagano (1990), Alesina and Ardagna (1998, 2009), and Alesina and Perotti (1997). They relate to several core ideas such as credibility of fiscal policy, uncertainty, debt sustainability, and risk premium over government bonds. Blanchard (1990) formulates a simple theoretical argument to show that the benefit of early fiscal consolidation could incease households' total wealth by reducing the uncertainty of more costly and painful adjustment later on.[6] Alesina and Ardagna (2009) add a further channel based on agents' expectations on changes in interest rate or risk premium on bonds. They show that a credible commitment to avoid a debt default or build-up in debt can lower agents' expectations of interest rate levels and the risk premium on government bonds. Hemming, Kell, and Mahfouz (2002) argue that if a fiscal expansion is linked to increased uncertainty and the government's credibility is questionable, precautionary behavior by households and firms will dominate and this contributes to the negative multiplier.

2.2. Empirics

Empirical studies on the effectiveness of fiscal policy are largely done via structural macroeconomic or VAR models. There is a wide variation of fiscal multiplier estimates – from less than zero to over four – depending on the type of identifying

[4] For a more detailed discussion, please refer to the working paper version of this paper (http://ideas.repec.org/p/ris/adbrei/0070.html).
[5] Occasionally, the term "anti-Keynesian" is also used, for example, Miller et al. (1990).
[6] Blanchard provides a caveat that the effect is most likely in the face of high debt levels.