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Twin deficits in Cambodia: An Empirical Study

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Abstract

This study examines the inter-linkages between Government budget balance, and external balance for a transition economy in South East Asia – Cambodia. The empirical results of the quarterly data between 1996 and 2006, support twin deficits hypothesis that is the budget deficits do cause external deficits, in the short run. These two macroeconomics variables are moving together in the long run. For implication, these findings provide an insight for the Cambodia''s policy design and formulation.

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1. Introduction

Numerous researchers have theoretically and empirically examined the possible linkages between government budget deficit (BD) and current account deficit (CAD) – twin deficits hypothesis. The twin deficits hypothesis initially depicts the effect of budget deficit on external balances (trade balances or current account deficits), in which the latter is caused by real exchange rate appreciation. Generally speaking, the 'twin deficits hypothesis' arose during the "Reagan fiscal experiment" in the 1980s, marked a period of strong appreciation of the dollar with unusual shift hike in current account deficits. In Europe, Germany and Sweden faced similar problems emerged in the early part of the 1990s where the rise in the country's government budget deficit was accompanied by real appreciation of their national currencies which adversely affect the current accounts position (see Ibrahim and Kumah, 1996). By and large, it is not an exception for developing countries as most have also experienced problem with their current account balances in early 1980s[1]. Several observations have confirmed that the unsustainable budget deficit during these periods has widened the external account deficits (i.e. trade account balances and current account balances). Despite been an age-old issue, there has been a revival of interest in the twin-deficit phenomenon into the forefront of the policy debate especially for the US economy in the new millennium (see Bartolini and Lahiri, 2006; Coughlin *et al*., 2006). Also, a series of papers in the special issue of *Journal of Policy Modeling* (Vol. 28 No.6, pp. 603-712, 2006) are dedicated to the debate on "*Twin deficits, growth and stability of the US economy*". The interest arose due to the recent declines in the US current account and fiscal balances and the impact to the world economic instability. Definitely, the twin deficits issue presented here is found to be relevant for other countries including transition economy as well.

The objective of this study is to study the existence of a causal relationship between the current account and the government budget for a transition economy in South- East Asia, namely Cambodia. In other words, the twin deficits hypothesis is tested for four possible causal patterns, namely (1) government budget deficit does Granger-cause current account deficit, (2) current account does Granger-cause government budget deficit, (3) no causal relationship between these variables, and (4) bi-directional causal pattern between government budget deficits and current account balances.

Cambodia is an interesting sample to examine the twin deficits hypothesis. Cambodia has undergone several episodes of transition in the 1990s from war to peace, from communism to electoral democracy, and from command economy to free market.[2] Based on the World Bank's statistics (as showed in Table 1), the Cambodian government has experienced budget deficits in the recent years ranging 2% to 4% of GDP between 2002 and 2006, except for a balanced budget in 2005. Meanwhile, the trade imbalances (net exports) are reported in

[1] The widening of CAD in a number of the Association of Southeast Asian Nations (ASEAN) countries (Indonesia, Malaysia, the Philippines and Thailand) over the past decades has generated policy concerns (Baharumshah *et al*., 2006; Baharumshah and Lau, 2007). Authors like Edwards (2001) and Obstefeld and Rogoff (2004) address the twin deficits issue from the point of view of macroeconomic stability of the country. They underlined that the negative implications of a combination of adverse factors (e.g. twin deficits, high interest rates and exchange rate depreciation) would increase the vulnerability of a country and that the fiscal instruments are crucial for sound macroeconomic policy for transition and developing countries. Therefore, twin deficits should be avoided.

[2] http://search.barnesandnoble.com/Political-Economy-of-the-Cambodian-Transition/Caroline-Hughes/e/9780700717378 (13 April, 2009)

deficits with 10 % (per GDP) in 2003, and the current account deficits are also in deficits with a range of between 3% and 6 % as ratio to GDP for the period 2002-2006.

Insert Table 1 about here

This paper proceeds as follows. Section 2 presents the theoretical paradigms and related literature on the connection between the two deficits. This is followed by the data and the empirical findings, while concluding remarks and further implications for empirical research is presented in Section 4 of the paper.

2. Theoretical Framework and Empirical Literature

2.1 Theoretical Framework

The conceptual understanding of the twin deficits hypothesis is mathematically built from the commonly documented - national income identity. Conventionally, the twin deficits hypothesis can be expressed in the following relation.

$$CAB = S^P + BD - I \quad (1)$$

where CAB stands for current account balance, S^p is private saving which is derived from Y – T – C, BD is government budget is in deficits, and I is investment.

A precise focus on this relation yields two theoretical observations. First, there are possible for at least one cointegrating relation or long run equilibrium among the variables CAB, S^P, BD, and I. More precisely, one of the long run relation identified is between CAB and BD. Thus, these two variables are cointegrated as demonstrated by this relation. The second observation is a positive relationship between CAB and BD in which BD does play a role in determining the CAB as predicted by the early mentioned twin deficits hypothesis.

2.2 Empirical Literature

Previous literature has mainly centered the discussions on the twin deficits issue based on two major theoretical models. However, these are not the only possible outcomes between the two deficits. In fact, there are four testable hypotheses arise from the twin deficits phenomena. The first testable hypothesis is based on the Keynesian (or conventional) proposition. Accordingly, an increase in budget deficits induces upward pressure on interest rates that in turn trigger capital inflows and appreciation of the exchange rate. Ultimately, the appreciation of the domestic currency will lead to an increase in the current account deficits, if any. A group of studies such as Hutchison and Pigott (1984), Zietz and Pemberton (1990), Bachman (1992), Vamvoukas (1999), Piersanti (2000) and Leachman and Francis (2002) found supports that a worsening budget deficits stimulates an increase in external accounts deficits. However, in recent Baharumshah and Lau (2007) have found a uni-directional causal pattern from budget deficit to external deficit in Thailand (i.e. the budget deficit does positively influence the current account deficit), while Acaravci and Ozturk (2008) and Hakro (2009) have confirmed a similar finding for Turkey, and Pakistan, respectively.

The second hypothesis refers to the Ricardian Equivalence hypothesis (hereafter REH) which is taken from the seminal work of Barro (1974). According to this view, an intertemporal