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Does devaluation improve trade balance in small island economies? The case of Fiji☆

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ABSTRACT

A number of countries, mostly small and island economies manage fixed exchange and often devalue it as a stabilisation strategy. The current paper investigates the effectiveness of devaluation in improving trade balance with reference to Fiji. A small island economy has limited exportable and hence highly depends on imports for both consumption and production purposes. A devaluation, therefore, inflates domestic price and appreciates the real exchange immediately by raising importable consumption and discouraging imports used in domestic production. The paper applies various econometric models for empirical investigation of its impact and transmission mechanism. Strong long-run relationship found between real exchange rate and trade balance explains that appreciation of currency has been responsible for the rising trade deficit in the economy. Moreover, the devaluation did not demonstrate J-curve phenomenon. The effect of devaluation strongly contributed to the domestic inflation has been while quite weak on stimulating aggregate demand.

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1. Introduction

During the last couple of decades, a large number of countries switched from fixed to flexible exchange regime mainly to allow the monetary instruments sufficient space in stabilising the domestic economy while fiscal measures continue to be quite tight and risky in most of the countries. Though the effectiveness of devaluation has not been supported in large volume of existing literature, still a sizeable number of countries maintain the fixed exchange regime. Interestingly, majority of them are small and island economies and belong to African, Caribbean, and Pacific regions. The existing literature on these economies too does not strongly support to move towards flexible regime with an expectation that the devaluation could stimulate the aggregate demand at the time of recession (e.g., Jayaraman, 1999).

Macroeconomic conditions of most small and island economies are heavily influenced by the external economic conditions because of their heavy dependence on imports. They depend much on remittances with limited export activities. Trade also contributes to GDP and is one of the major sources of foreign exchange. While trade expands the product markets to derive welfare gains, it exposes countries to the external shocks too and this is greater for small economies. In order to deal with such external shocks, fiscal and monetary measures cannot be exercised in many cases. As a result, the economy relies frequently on the exchange manipulation which acts as a cushion and shock absorber. Therefore, the obvious questions are: Do they receive favourable benefits from managing the exchange rate? Does a devaluation stimulate aggregate demand? These issues are still under-researched for such economies. Whatever the limited literature available on these economies does not deny such status quo, assuming that a deliberate change in the exchange rate can significantly influence aggregate demand during recession. The devaluation is assumed to improve trade balance by raising exports and discouraging imports and thereby increase GDP. However, this does not take place instantaneously. In response to devaluation, the trade balance drops immediately and then improves gradually as both exports and imports start responding with a time lag. Obviously, the improvement of trade balance depends on how quickly exports and imports respond. This is known as J-curve phenomenon in the literature. A number of literature support this phenomenon, but many of them suffer from analytical reason.

The present paper attempts to investigate this issue for Fiji, a small island economy located in the South Pacific that has experienced four rounds of devaluation during the last three decades. The obvious questions would be whether such strategy has been favorable for improving trade balance and economic growth and if so, for how long. The various devaluation episodes in Fiji since 1987 have prompted scholarly debate on the appropriateness of devaluation and investigation of its consequences on trade and output in the country (see Reddy (1997); Chand (1998); Jayaraman (1999); Narayan and Narayan (2004a, 2004b, 2005); Rao and Singh (2007); Narayan and Narayan (2007); Narayan

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(2013)). The literature on this issue is still limited for Fiji and suffers from analytical reasons. The general consensus has been that devaluation improves exports and reduces imports in both the short and long run. If this is the consensus, then the question is why a number of devaluation has been undertaken in the last three decades. The answer is not clearly provided in the literature.

In spite of the plethora and increasing number of studies on the relationship between exchange rate and trade balance, the ultimate effect of exchange rate on trade performance is still an open and controversial issue. This study will make a modest attempt empirically to investigate the impact of devaluation on the trade balance at the goods and service sectors using recent data that extends beyond the 2009 devaluation. The paper tries to argue that devaluation cannot be effective in stimulating aggregate demand and hence cannot demonstrate J-curve phenomenon on the trade balance path. It attempts to contribute the literature on following aspects. First, the paper builds a macroeconomic framework and applies various econometric models to investigate its effectiveness in the context of Fijian economy and such framework is almost non-existence for the economy. Second, the current paper argues that the devaluation cannot be effective in stimulating trade balance for a small island economy because of limited exportable productions and heavy import dependence. The dependence of imports raises domestic price leading to an appreciation of real exchange rate and discourage some domestic activities which use importable as intermediate goods. These two forces seem to be stronger in such economies compared to the outside world. On top of this, the export sector faces additional costs to compete in the international market because of the distance and remoteness. These have been the principal reasons for its ineffectiveness. Third, the currency appreciation immediately after devaluation is responsible for the rising trade deficit. The extent of appreciation depends largely on higher imports costs for import dependent economy, not for the increased effective demand. Fourth, even if the devaluation stimulates aggregate demand, it cannot demonstrate J-curve phenomenon on the trade balance movement over time in the medium run due to a strong trade-induced income effects originated from devaluation and to be working adversely on the net trade balance. The negative consequence of the increased income through the improved trade balance originated from devaluation in the medium run particularly for small economies is rarely emphasised in the literature.

The remainder of the paper is organised as follows: the next section presents a brief survey of the literature along with related studies in Fiji. The third section discusses the analytical framework for our analysis. In the fourth section, we present a brief overview of Fiji's economy. The empirical analysis and the discussion of the empirical results are done in Sections 5 and 6. Section 7 develops a structural model to understand the transmission mechanism of domestic inflation originating from currency devaluation and section 8 discusses the empirical results of the model. The final section concludes with policy implications.

2. Literature review

The trade literature investigating the relationship and effectiveness of currency devaluation along with the J-curve phenomenon has evolved over time using different methodologies. This has effectively allowed scholars and practitioners to gain greater insights and policy prescriptions on the role of currency devaluation. The dominant view until the late 1970s was that devaluation improves trade balance and consequently output. This view was challenged by Acar (2000) towards the end of 1970s. In the post-1970s oil crisis, the studies started arguing that devaluation could be contractionary especially in developing countries. This is on the ground that imports (e.g., mineral oils, plant, and machinery) increase cost of production and business in the developing economies because it forms a significant part of the production process.

In spite of the plethora of empirical studies on the nexus between exchange rate and trade balance, the validity of the J-curve phenomenon has not been widely endorsed. Some studies found favourable impact of devaluation on the trade balance for a number of countries (see Gupta-Kapoor and Ramakrishnan, 1999; Narayan, 2004; Gomes and Paz, 2005; Rahman and Islam, 2006; Soleymani and Saboori, 2012; Bahmani-Oskooee and Zhang, 2013; and Musawa, 2014). They highlighted that the trade balance for the respective countries experienced deterioration in early periods followed by positive impact at longer lags. The major argument was that the currency devaluation resulted in expenditure-switching from importable commodities to domestically produced products. This caused changes in the composition of expenditures within the country. Hence, the currency devaluation appeared to be a reasonable way to improve a country's trade balance in the long run.

On the contrary, other studies did not find support for the J-curve phenomenon and argued that currency devaluation further deteriorated trade and output performance in an economy (see Acar (2000); Yazici (2006); Bahmani-Oskooee and Kutan (2009); Galebotswe and Andrias (2011) and Ayen (2014)). Acar (2000) argued that depreciating the currency caused a significant increase in import bills for import dependent developing economies which results in an adverse impact on the trade balance. Developing countries that have external debt obligation ended up paying more in foreign currency after depreciation. This also contributed to the contractionary effects of depreciation. Hence, the effect of devaluation could be ineffective or even be adverse in the long run. This raises the concern in reaping the benefits from devaluation in the long-run.

To the best of our knowledge, there is only one study on the enquiry of the J-curve phenomenon in the context of Fiji as well as Pacific island developing economies done by Narayan and Narayan (2004). The study found favourable impact of devaluation on the trade balance for Fiji over the periods of 1970–2012, but noted that devaluation results in the deterioration of the trade balance for the first 2 years followed by an improvement in the trade balance at longer lags. The study investigated the issue econometrically but failed to provide any strong analytical reason why the devaluation will or will not improve trade balance for the economy. Moreover, the study is a decade old, covering the period only until year 2000. Since then, Fiji's economy has also undergone another round of devaluation in 2009 which provides an opportunity to investigate whether the J-curve phenomenon on Fiji's trade balance is still valid. Besides, it failed to provide strong argument why the economy undertook several rounds of devaluation when the previous devaluation has been effective.

3. Brief overview of Fiji's economy

Since independence in 1970, Fiji did not demonstrate an impressive growth. The economy has traditionally been dominated by agriculture particularly sugarcane, mining, and fisheries. In the recent past, the services sector, mostly the tourism industry, has become the largest foreign income earner. Nevertheless, the sugar industry, along with garments and fisheries, continue to be the important industries providing export earnings and livelihood for many people in the country. To foster trade integration into the global economy, Fiji has become party to several bilateral, regional, and international trade agreements since 1989. Trade liberalisation has continued to be an important agenda for Fiji's economic reforms and aimed at improving trade performance. As a result, Fiji's exports of goods and services have been increasing since the 1970s. However, overall trade balance on goods and services has been consistently in deficit for a relatively longer period of time (Fig. 1). The goods sector has continuously faced an increasing trade deficit while the services trade performance has remained in surplus balance since independence. By and large, the services sector performance has remained stable with some signs of modest improvements in the recent past.

The growing trade deficit has often put pressure on the economy's level of foreign reserves to meet the ever-increasing import bills.

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