The Impact of Public Debt on Private Investment in Sri Lanka

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Introduction

Government debt can be considered as one of the major sources for financing the government operational activities under the fiscal policy. If borrowed funds are used for long-term development it may lead to have higher returns. However, if borrowings are not efficiently utilized it may have detrimental impacts on the long-term economic development. Borrowings from domestic banking sources may affect interest rate and then the ability to access loanable funds for private sector may discourage. Also, a huge amount of debt service payment impedes the flowing resources towards economic development and broadening the fiscal deficit. Sri Lankan experience shows the accumulation of large public debt and recorded an increasing trend in both foreign and domestic debt over the last few decades. As a result, the economy has been led to a macroeconomic instability (Sanderatne, 2011). After significant changes happen in monetary policy with introducing liberalization economic policy in 1977, along with domestic debt foreign debt also increased for the purpose of development activities and to face the difficulties of the balance of payment. Then, total public debt was 68.6 as a percentage of GDP by 1977 and it increased up to 103.3 in 2001 with the economic recession and in 2015 domestic debt was 44.3 percent and foreign debt was 31.7 percent (Central Bank of Sri Lanka, 2015). Sanderatne (2011) reported that, along with public debt, large debt servicing cost, growing fiscal deficit, limited and low level of revenue and big losses on public

enterprises so have caused further borrowings by the government. Along with the government sector, the private sector which holds a major role of the economy can be affected through the increasing debt which may impede the availability of resources for the private sector.

With the end of civil war in 2009, investment has become one of dynamic forces leading the country to well-equipped economy through infrastructure. In order to contribute to the economic development of the country, private sector also has tended to hold a significant portion of the total investment. In 2014, private investment was 22.9 as a percentage of GDP, but public investment was only 6.8 as a percentage of GDP (CBSL, 2014). Hence, it is clear that both private and public investments are not at the sufficient level in order to accelerate the economic growth and development. Crowding-out effect is one of the main scenarios which can be used to explain how public debt affects private investment. Under the Ricardian Equivalence view there would be no crowding-out of private investment when the government borrows money. In contrast, Neo-Classical School shows that increases in budget deficits cause increases in interest rates. Thus, budget deficits "crowd-out" private spending since the private sector borrows less at high interest rates (Carassco, 1998). Keynesian economists argued that public investment crowds-in private investment because of the multiplier effect (Saeed et al., 2006).

When public investment increases aggregate demand increases and then it causes more motivations for private investment. Along with this theoretical back ground many researchers have focused their attention towards examining the crowding-out effect. A study conducted by Akomolafe et al. (2015) using Johnasen Co-integration test and Vector Error Correction Model (VECM) shows that domestic debt crowds-out domestic investment in both short-run and long-run while external debt crowds-in domestic investment in the long-run. In contrast, Apere (2014) pointed out in his study, domestic debt has a linear and positive impact on private investment while external debt has a U-shaped impact on private investment in Nigeria. According to a study

conducted by Dayrathna-Banda and Priyadarshanee (2013) there is no financial crowding-out effect of fiscal expansions in Sri Lanka because of accommodative monetary policy. With this theoretical and empirical back ground, it is worthwhile to examine that whether there is a crowding-out effect of public debt on private investment in Sri Lankan economy. Since the lack of consistency in conclusions, further research on this problem will help to provide clear policy directives for economic development.

Objectives

The primary objective of this study is to identify whether public debt crowds out/in the private investment through both domestic and foreign public debt in Sri Lanka. Secondary objective is to emphasize the importance of public debt management to increase the private investment.

Methodology

The theoretical framework constructed by Akomolafe et al. (2015) which considered public debt crowds out/in private investment using an econometric model (Johnasen Co-integration test and Vector Error Correction Model) has been modified appropriately to address this research problem regarding the Sri Lankan context including Debt Servicing Payments, Domestic Credit to Private Sector and Political Stability as new variables.

$$\mathrm{PI_t} = \beta_0 + \beta_1 \mathrm{GDP}_t + \beta_2 \mathrm{INT}_t + \beta_3 \mathrm{DSP}_t + \beta_4 \mathrm{DCP}_t + \beta_5 \mathrm{EXD}_t + \beta_6 \mathrm{DD_t} + \beta_7 \mathrm{PLS} + \varepsilon_t \quad (1)$$

Where PI is the Private Investment as a percentage of GDP, EXD is the External Debt as a percentage of GDP, DD is Domestic Debt as a percentage of GDP. GDP is the Growth Rate of Gross Domestic Product, INT is the Real Interest Rate, DSP is the Debt Service Payment as a percentage of GDP, DCP is the Domestic Credit to Private Sector as a percentage of GDP, PLS is the Political Stability, ε

is the error term, t is the time period (1988-2015). Data were extracted from annual reports of Central Bank of Sri Lanka and Ministry of Finance. Johenson Co-integration and Vector Error Correction Model were used to investigate the crowding out/in effect. Before doing these tests, ADF test and PP test are used to test the stationary property of time series data.

Results and Discussion

According to above mentioned two unit root tests, all variables are stationary at their first difference, suggesting that they are integrated in order one [1(1)]. Then, to examine the lag length SIC, LR, FPE, AIC and HQ criteria were used. As SIC criterion suggested that no lag length and other criteria suggested that one lag length, one lag length was used for other tests. Then, Johanson Co-integrating test was done to ensure that whether there is a long-run relationship between variables. According to this test, two co-integrating equations are identified at 5 % significant level which implies that there is a long-run relationship between variables. In order to identify the nature of the long-run relationship Johanson Co-integration technique is adapted and long-run adjustment and short-run relationship are examined using Vector Error Correction Model. According to co-integrating results, the long-run relationship between the variables is shown in Equation 2. Only significant variables were included into the estimated model which is given as below.

$$\hat{\text{PI}} = -49.14 - 0.234\text{INT} + 0.48\text{DSP} + 0.34\text{DCP} - 0.25\text{EXD} - 0.26\text{DD} \qquad (2)$$

$$[6.767] \quad [-7.192] \quad [-8.361] \quad [7.919] \quad [7.259]$$

As shown in Equation 2, the results of all variables are significant at 5 % level of significance in long-run. Since the primary objective of this study is to identify the crowding out/in effect using both external and domestic public debt, the impact of both kinds of debt on private investment was observed. When domestic debt increases by 1 % of GDP private investment decreases by 0.261 % of GDP and when

external debt increases by 1 % of GDP private investment decreases by 0.255 % of GDP. Then, it is clear that public debt crowds out the private investment in long run. By supporting to this effect interest rate negatively affects the private investment in long-run according to above results.

Since Error Correction term of the model is significant and negative the long-run adjustment relationship can be identified related to private investment. This result shows that speed of adjustment is 0.56 which means that after an external shock, private investment moves from short-run disequilibrium to long-run steady state with speed of 0.56 in each year. And also, as domestic debt variable is significant at 1 percent and positive long-run adjustment relationship exists between domestic debt and private investment.

Conclusion and Policy Implications

The empirical results indicate that both domestic and foreign debt crowd-out private investment in long-run, but not in the short-run. Also domestic credit to private sector and debt servicing payment positively affect the private investment in long-run. Furthermore, political stability seems to associate closely for the volatility of private investment in short run showing that private investment responses instantly for the instabilities in the economy. The results of this study can be contributed for policy making considering the impact of public debt on private investment. Hence, the government should make maximum effort to manage public debt appropriately in order to mitigate the pressure on interest rate. Also measures should be taken to improve revenue through appropriate tax policy reforms and using of non-bank borrowings in the long-run.

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