Bank of PNG Working Paper Series

Macroeconomic Impact of Budget Deficits in Papua New Guinea

Non-technical summary

By Mark Ofoi, Diana Tuam

Fiscal deficits, which are typically associated with expansionary fiscal policies, have various consequences for an economy. The issue of the impact of fiscal deficits is widely discussed and debated amongst policy makers, academics and researchers given its far-reaching implications. While studies on fiscal deficits in developing economies are numerous, there is limited literature in the Pacific Island region, notably in PNG. This study aims to fill the gap.

In recent years, PNG's fiscal policy has been characterised by persistent budget deficits and growing debt levels. Starting in the year 2023, the Government pursued consecutive expansionary fiscal policy to sustain the economic activity and growth brought about by the construction of the PNG LNG project. These budget deficits were mainly due to lower revenue combined with higher expenditures. Consecutive budget deficits resulting in an increase in the debt level of the country, has provoked an increased interest among the policy makers. This warrants an assessment on impact of the deficits on the economy. A specific focus, which is of interest to the Bank of PNG, is to see the link between the deficits and other macroeconomic variables such as the real GDP growth, inflation, money supply, exchange rates and interest rates.

This study aims to explore this issue by answering this critical research question: *'What is the macroeconomic impact of budget deficits in PNG'.*

The researchers employ annual data from 1980 to 2018 and the Structural Vector Autoregressive (SVAR) and Vector Error Correction Models (VECM) to explore the macroeconomic impact of budget deficits on PNG's economy, especially on economic growth, inflation, money supply, exchange rate and interest rates.

The findings show that the impact of budget deficits on economic growth, and overall price level is minimal and persistent in PNG. Although its impact on real exchange rate is immediate and negligible, budget deficits has somewhat significant impact on monetary conditions, notably through its influence on money supply and lending rates of the banks. The evidence of the link between budget deficits and monetary conditions may imply that the Central Bank's ability to influence money supply and interest rates, and hence, inflation may be a challenge in the presence of persistent budget deficits – suggesting elements of fiscal dominance. Also, changes in lending rates can also be influenced by budget deficits and suggests some crowding out effect as government competes with firms for domestic banking liquidity through domestic borrowing.

The study also provided evidence that lending rates and inflation features prominently in the variations in budget deficits. This illustrates the vicious fiscal financing cycle whereby budget deficits are complemented by higher appetite for domestic loanable funds, which in turn exert upward pressure on lending rates. Higher lending rates means that future cost of fiscal operations increases, thus increasing the budget deficit again.

For inflation, the impact from fiscal deficit to prices imply that high government spending, could lead to overall increase in aggregate demand, and hence, exerts pressure on overall prices. On the feedback channel, an increase in the cost of living exerts pressure on overall government spending which results in a subsequent increase in fiscal deficits.

Furthermore, the minimal impact of budget deficit on exchange rate movements is explained through the import demand channel. As PNG is an import dependent country, an increase in government spending would spill over to the foreign exchange market, hence, affect exchange rate movement

Conclusion and policy implications

In conclusion, on the fiscal front the study finds that budget deficits aimed at stimulating economic growth are negligible and suggest that overall government spending remains sluggish. Excess investment by the government may bring about a negative effect on the economy, due to government investment crowding-in from the monopoly of government activities that causes the allocation of resources to be not fully utilized. The growth motivations are further constrained when lending rates increase in response to deficits. Budget deficits remain unsustainable and less effective as suggested by recent rise in debt levels and low growth. Gradual fiscal consolidation and effective government spending may be pursued in the short to medium term to rein in rising debt levels and assist with sustainable macroeconomic policies.

For the Central bank, the ability to influence money supply, lending rates and inflation remains a challenge in the presence of persistent budget deficits – given elements of fiscal dominance. The pass-through to inflation is observed directly and via its impact on money supply and exchange rates. The price increases feeds back into budget deficit financing through rise in cost of government operations, particularly debt servicing and recurrent spending, suggesting wage-price spiral.

The study is only limited to its scope and further work can be undertaken integrating commodity cycles using a fiscal and monetary policy mix setting. It would also be useful to look at other key variables such as international commodity prices, employment and the evolution of interest rate spreads in PNG, and how government revenues and expenditures respond to these changes.