



UNIVERSITEIT
iYUNIVESITHI
STELLENBOSCH
UNIVERSITY

100
1918 · 2018

forward together · saam vorentoe · masiye phambili

BER-ASSAf Webinar on How to Fund Interventions to Reduce Poverty in South Africa,

June 2021

Stan du Plessis

Chief Operating Officer

Professor of Economics

Stellenbosch University

Background to South Africa's fiscal constraints



Debt dynamics

- Three factors affect the evolution of the Debt:GDP ratio at the macro level:
 1. Government's primary deficit
 2. The real growth rate of the tax base (proxied by GDP)
 3. The real interest rate on government debt
- The **effective burden** of public debt is determined by the balance between the interest bill on outstanding debt and the tax base

Simulations of the debt burden



Method*

- The goal is to identify the specific shocks to fiscal policy, monetary policy and real output that drive debt dynamics
- Use a 3 variable {real GDP growth, primary surplus, real interest rate} Structural Vector-Autoregressive model (sVAR)
- To identify the shocks we imposed long-run structural restrictions in the tradition of Blanchard and Quah**
- Identifying restrictions: Fiscal and monetary shocks have zero long run impact on real output growth, and monetary shocks have zero long run impact on the primary surplus

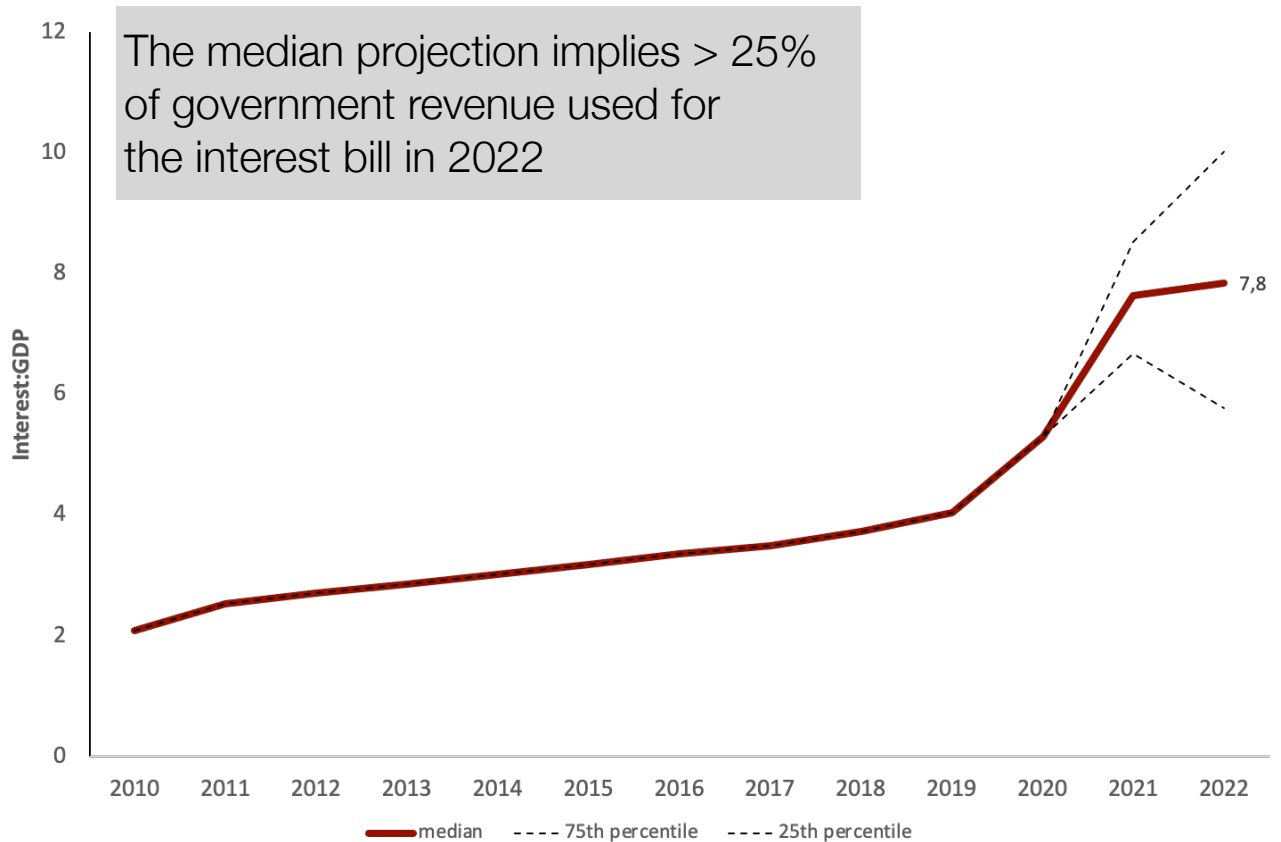
* Calitz, E., du Plessis, S.A., and F.K. Siebrits, (2014). Fiscal sustainability in South Africa : will history repeat itself? *Journal for Studies in Economics and Econometrics*, 38(3), 55-78

** Blanchard, O. J. and D. Quah (1989). "The Dynamic Effects of Aggregate Demand and Supply Disturbances." *American Economic Review* 79(4): 655-673.

Prospective analysis*

- What will happen in the foreseeable future to the **debt ratio** and **interest burden** from now until if the model is based on a reasonable description of underlying shocks?
- Assume the same shock distribution for the primary surplus as we have seen since 2000 (i.e. assume no deterioration in fiscal policy apart from what we have already seen)
- GDP growth assumed to vary around 1.5% with standard deviation of 1.8%, and the real interest rate with a mean of 2%
- Created 100 simulations of the relevant variables and their interactions in the system and calculated the implied paths for the debt ratio

Using the BER's GDP forecasts to 2022



Ratio of government's interest bill to GDP
Data: SA Budget reviews plus scenarios

the **end**