Fiscal multipliers and financial sector dynamics

By Konstantin Makrelov
Two examples of different views of the current fiscal situation

• “Faced with sky-high debt, a stagnant economy and disappointing tax collections, South Africa is on an unsustainable fiscal path. Difficult choices have to be made that can no longer be postponed” - Sandy McGregor, Business Report, 3 February 2019

• “Several economists have been arguing for a shift in macroeconomic perspectives away from old orthodoxies and in line with international trends. The speech hints at a shift in government thinking, although it might have been more bold. The performance of the economy means we cannot continue with a rigid adherence to fiscal discipline of the kind we have been pursuing” – Ben Turok, Business Day, 24 June 2019
# South African studies tend to find small multipliers

<table>
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<tr>
<th>Author &amp; date</th>
<th>Country</th>
<th>Multiplier (Number or range)</th>
<th>Comments</th>
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<tr>
<td>Jooste and Naraidoo (2017)</td>
<td>SA</td>
<td>0.6</td>
<td>DSGE model</td>
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<td>Mabugu et al. (2013)</td>
<td>SA</td>
<td>0.73 - 0.76</td>
<td>Depending on method of financing expenditure. CGE model</td>
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<td>Makrelov et al (2018)</td>
<td>SA</td>
<td>-1.7(expansion) to 2.5(recession)</td>
<td>Sustainable fiscal stance,, large output gap and low financial frictions, low and negative multipliers otherwise, financial sector amplifies impacts</td>
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<td>Auerbach and Gorodnichenko (2012a)</td>
<td>OECD countries</td>
<td>-0.2 (expansion) and 0.5 (recession)</td>
<td>Period: 1985 - 2012 (Old OECD members). Mid-1990s - 2012 (New OECD members).</td>
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<td>Auerbach and Gorodnichenko (2012b), United States</td>
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<td>Sample 1947 to 2008</td>
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<td>Owyang, Ramey, and Zubairy (2013)</td>
<td>Canada</td>
<td>0.4 (expansion) and 1.6 (recession)</td>
<td>Effects are amplified by financial dynamics.</td>
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<td>Canzoneri and others, 2012</td>
<td>Canada</td>
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<td>Effects are amplified by financial dynamics.</td>
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<td>Riera-Crichton, Vegh, and Vuletin (2015)</td>
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<td>1.3 (expansion) and 2.3 (recession)</td>
<td>Long-run 4 period multipliers, control for direction of government expansion during recessionary or expansionary periods</td>
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<td>Christiano et al. (2011)</td>
<td>United States</td>
<td>3.7</td>
<td>Under zero lower bound conditions and 1.1 otherwise</td>
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<td>Huidrom et al. (2016)</td>
<td>34 countries (19 advanced and 15 developing)</td>
<td>Ranges from almost 1 to negative</td>
<td>Depending on strength of fiscal position</td>
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<td>Nickel and Tudyka (2014)</td>
<td>17 European countries</td>
<td>Ranges from 1.2 to negative</td>
<td>Depending on strength of fiscal position.</td>
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The financial sector amplifies the size of the fiscal multipliers

Multipliers under different conditions
A bit of literature background

• The decisions of financial institutions were ignored in most macroeconomics until the financial crash.

• Output losses, measured as deviation from trend GDP, are on average 20 per cent during the first four years (Laeven and Valencia 2008; Laeven and Valencia 2010).

• Recessions caused by financial crisis tend to be more severe and to be followed by weaker recoveries (Reinhart and Rogoff 2009).

• Three channels: the borrower balance sheet channel, the bank balance sheet channel, and the liquidity channels (Basel Committee on Bank Supervision 2011).

• Disaggregated balance sheet dynamics are important for studying the impacts of sudden stops, fiscal policy, and general risk behaviour of agents in the economy (Calvo, Izquierdo, and Mejia 2004; Eggertsson and Krugman 2012; and Borio and Zhu 2012).
The risk behavior of the financial sector amplifies shocks

Adopted from Borio and Zhu (2012)
How does the mechanism work?

South Africa has a very well developed financial sector

• SA’s financial sector is not typical of middle income developing countries. It is characterised by highly developed banks, investment funds, markets, regulatory and legal institutions, and financial ecosystem.

• Some indicators:

  ➢ South Africa has the world’s 20th most highly developed financial sector (WEF Global Competitiveness Report 2016)

  ➢ The Johannesburg Stock Exchange is ranked 18th globally in terms of its market capitalisation.

  ➢ The SA rand is the 20th most traded currency globally (BIS Triennial Survey 2016).
... which can generate large multipliers

The impacts depend on:
1. Size of output gap
2. Capital flows
3. Health of balance sheets, particularly the financial sector
4. Sustainability of the fiscal framework

Expenditure multipliers

Source: Model simulations
Lending spreads have increased suggesting higher capital cost and risk aversion....
...also the money multiplier has been decreasing

Source: South African Reserve Bank
Bond yields and the risk premium are rising

Source: Haver
Conclusion

• Fiscal multipliers, neutral interest rates, output gaps are all in the same group of unobservable, important for policy and difficult to calculate economic indicators, subject to a lot of disagreement.

• The fiscal multipliers can be more positive or negative than previously estimated.

• The financial sector behavior amplifies economic shocks through its risk taking behavior, extension of loans and pricing.

• Financial sector risk aversion is rising