The hazards of fiscal consolidation and debt feedback

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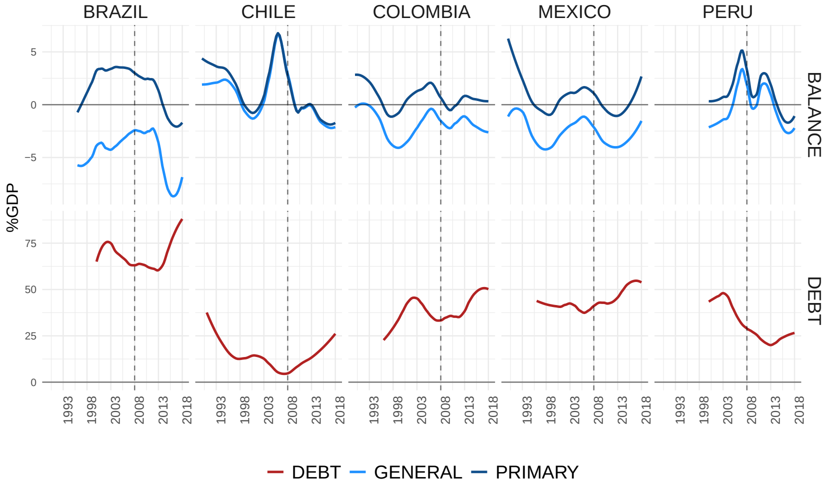
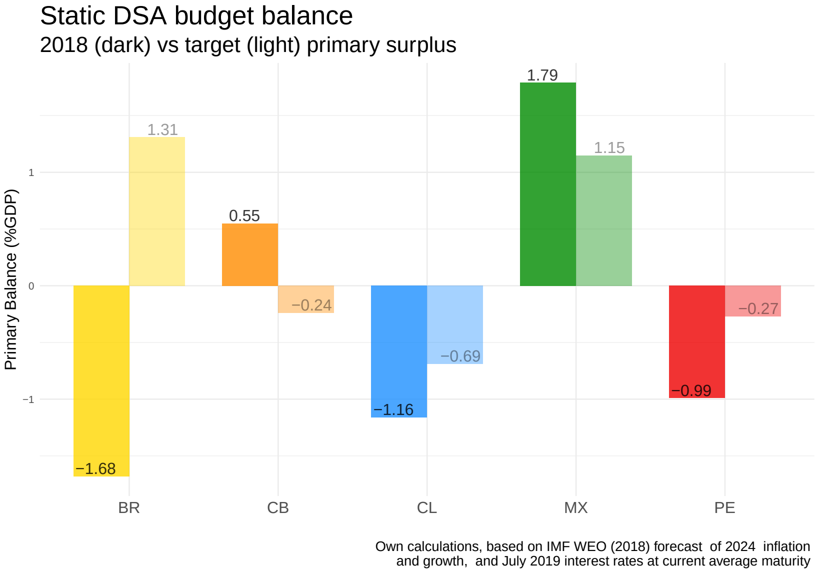
Why study fiscal consolidation and debt feedbacks?

- Fiscal constraints from the past: global crisis, commodity prices, etc
- Debt-to-GDP at a 2 decades historical maximum
- Country-specific fiscal problems (Brazil pensions, PEMEX)



How much do countries need to adjust their budget to achieve sustainability?



Question: The hazards of achieving the target primary surplus

Problem: Static DSA assume variables are exogenous; in practice deficit affects simultaneously debt, prices, output, and interest rates.

1. How large is the effect of fiscal consolidation on output, interest rates, and inflation (fiscal multiplier)?
2. How does the stock of debt interact with the effect of consolidation? (Debt feedback -Favero Giavazzi 2007)

Related literature

- **Fiscal consolidation/Multipliers** in emerging economies: Diniz (2018), Ilzetzki Mendoza Vegh (2013)
- **Debt feedbacks**. Favero Giavazzi (2007): suggests that the stock of debt induces non-linearities: ricardian effects, interest rates/market access, future fiscal policy.
- **Identification of fiscal shocks**: Many approaches: short run restrictions (Blanchard Perotti), sign identification (Mountford Uhlig 2009), local projections (Jorda 2015), narrative (Romer&Romer). . . .

What we do

- **Unified methodology.** Same S-BVAR for 5 Latin American Countries (Chile, Peru, Colombia, Brazil, Mexico)
- **Small open economies.** (two blocks)
- **Sign identification.** of "output" and "Fiscal" shocks
- **Debt feedbacks.** Compare IRF's *vanilla* (without debt), and *debt feedback* specification.
- **Main findings:** debt feedbacks appear only in Brazil and (less) in Mexico, and only on interest rates and inflation.

Small open economy BVAR: 2 blocks

Why Bayesian VAR?

- Flexible, unified methodology across countries
- Constraints specific to emerging economies (non-stationarity, short series)

Specification

- **External block** US GDP, Fed funds.
- **Domestic variables**
  - Endogenous: exchange rate, growth, interest rates, inflation, primary balance
  - Exogenous: debt level (in one specification)

Identification by sign restrictions

Problem correlation between GDP and fiscal policy can respond to:

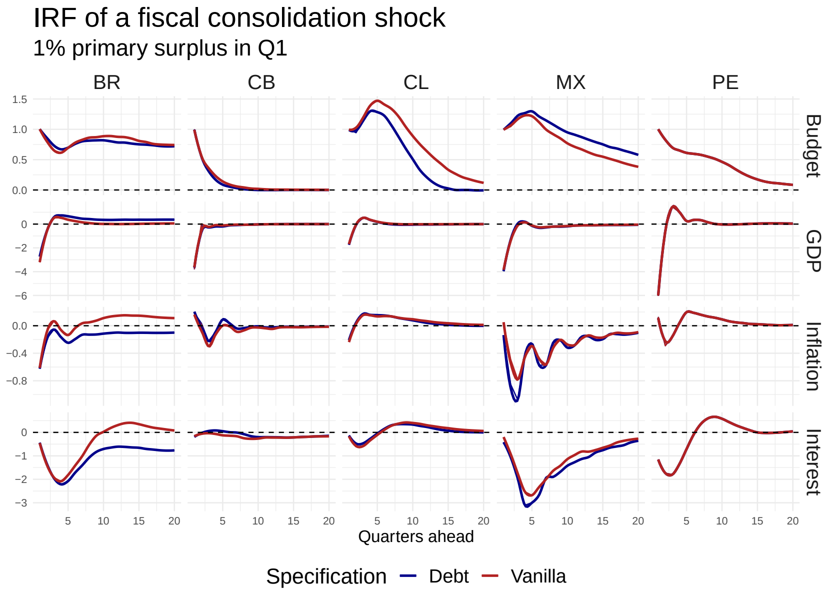
- *"Revenue/expenditure elasticity to GDP"*: GDP $\rightarrow \Delta$ primary balance
- *"Fiscal multiplier"*: Fiscal consolidation $\rightarrow \Delta GDP$

Solution: sign identification (Mountford-Uhlig 2009):

- **Output shocks**: last at least one period, and increase primary surplus.
- **Fiscal consolidation shocks**: last at least one period, and have weakly negative effect on GDP

Variable	Fiscal Shock	Output Shock
Primary Surplus	+	+
Inflation		
Exchange rate		
Interest rate		
GDP	-	+

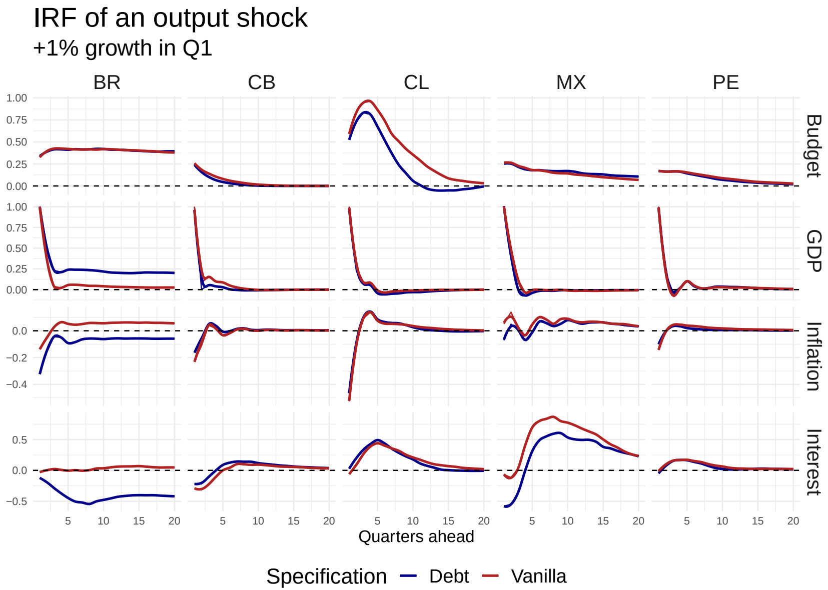
Results: Fiscal shocks



Comment on results of fiscal shocks:

- Fiscal consolidation shocks have expected effects: reduce interest rates, reduce inflation, contract output.
- The debt feedback effect is noticeable in Mexico and Brazil:
  - **No debt feedback on fiscal multipliers:** effect on output is similar in both "vanilla" and "debt specification"
  - The reaction of **interest rates** and **inflation** is *larger* when we include debt.
  - Countries where fiscal concerns are more important (higher debt, higher default risk). In line with Favero and Giavazzi (2007). Fiscal dominance? Crowd-in? Credibility effect? Signaling

Results: reaction to output shock



Extensions and avenues of improvement

- Longer quarterly time series? Sources?
- More/less variables? e.g. revenue/expenditure growth? Commodities?
- More shocks to be identified? e.g. demand vs supply

Thank you!