The Long and Short of Financing Government Spending

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Discussion:

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Summary

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- Does the effect of fiscal expansions depend on whether they are financed with short- or long-term debt?
- Yes! The size of the fiscal multiplier is higher for short-term debt financing
- The paper provides
  - strong empirical evidence
  - clear theoretical mechanism
  - quantitative results
  - policy implications

Empirical evidence (I)

- Proxy-SVAR
  - run VAR with 4 variables: $[G_t, Y_t, C_t, I_t]$
  - use proxy for exogenous government spending shocks
    - defense spending news

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- Two shocks

$$\tilde{p}_t = \begin{bmatrix} \tilde{p}_{s,t} \\ \tilde{p}_{l,t} \end{bmatrix}$$

where

$$\tilde{p}_{s,t} = \text{news}_t \text{ if } R_t \text{ increases}$$

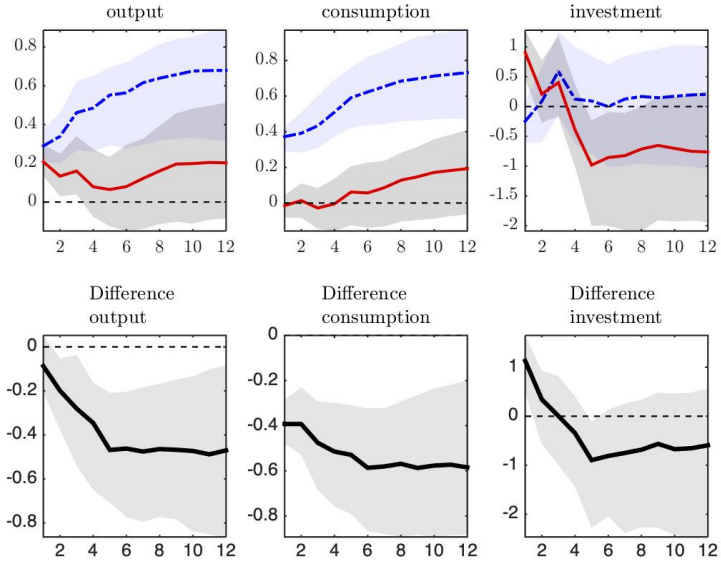
$$\tilde{p}_{l,t} = \text{news}_t \text{ if } R_t \text{ decreases}$$

and

$$R_t = \frac{b_{s,t}}{b_{l,t}}$$

- Namely, spending shocks are classified as short-term financed or long-term financed if
  - ratio of short- to long-term debt increases or decreases (I think...)

Figure 1: Proxy-SVAR: Baseline specification. Impulse response functions



Notes: Top panel: Impulse response functions following a shock to short-term (blue, dash-dotted) and long-term debt-financed (red, solid) government expenditures. Lines correspond to median responses. Shaded areas correspond to confidence bands of one standard deviation. Bottom panel: The difference in impulse response function between long-term and short-term debt financed government expenditures. Shaded areas correspond to confidence bands of one standard deviation.

Empirical evidence (I)

- Why not use a non-binary classification? For example

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- The figure suggests low power to identify investment responses
  - can you reject that the difference for I_t is as large as for Y_t and C_t?

Empirical evidence (I)

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- The maturity of debt issuance can be endogenous
  - issue short-term debt when yield curve is upward sloping
  - but upward sloping yield curves predict economic expansions
- It is not completely clear than adding the term premium to the VAR is enough

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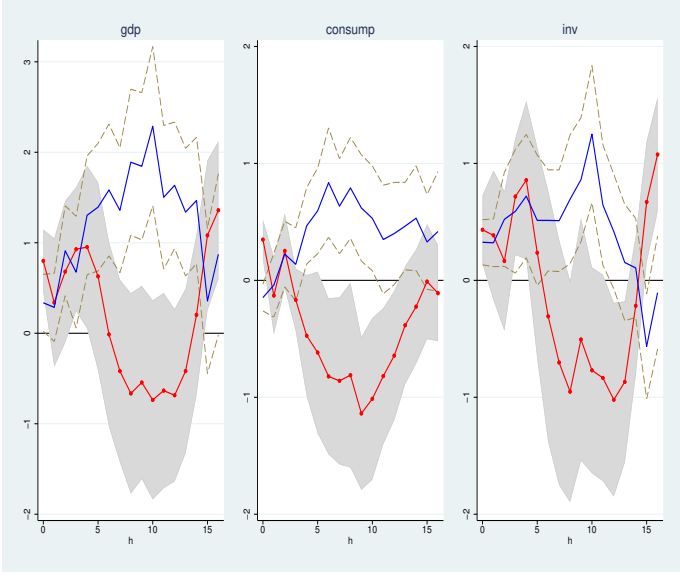
  - but upward sloping yield curves predict economic expansions
- It is not completely clear than adding the term premium to the VAR is enough
- I would like more information on the nature of shocks
  - is there any trend over time?
  - is there any cyclicality?
  - plots of the shocks and of $b_{s,t}/b_{l,t}$ would be nice

Empirical evidence (II)

- Local projections
  - state-dependent effects of government spending shocks
  - now use change in $b_{s,t}/b_{l,t}$ between $t-2$ and $t-1$

Figure 4: State-dependent local projections: Baseline specification. IRFs News shock.



Notes: Impulse response functions following a shock to short-term (blue) and long-term debt-financed (red) government expenditures. Lines correspond to median responses. Shaded areas correspond to confidence bands of one standard deviation. The specification includes the following control variables: GDP, private consumption, private investment, wages, long-term rate, and total debt, as well as their lags.

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Theoretical mechanism

- Short-term debt provides liquidity services
  - agents can increase consumption more easily if they hold short-term debt
  - fiscal expansion financed with short-term debt increases consumption

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where C_t^i and c_t^i denote consumption in sub-periods t_1 and t_2 and θ_t^i is a random variable reflecting a liquidity shock

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- Only short-term debt can be used to face liquidity shock

$$c_t^i \leq b_{s,t}^i$$

- Thus, an increase in $b_{s,t}$ has a direct positive effect on consumption c_t

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  - it works as a short-cut in a simple model
  - but it probably overstates the distinction between short- and long-term debt in the quantitative analysis
- An empirical prediction?
  - for low levels of debt
    - debt maturity should be short-term because liquidity needs are high
    - fiscal multipliers with short-term financing should be much more expansionary
  - for high levels of debt
    - debt maturity should be long-term because liquidity needs are low
    - fiscal multipliers with short-term financing should not be very different

Final comment

- Overall, this is a very convincing and relevant paper
- Preliminary, but has lots of potential!