Fiscal Foresight and the Effects of Government Spending: It's All in the Monetary-Fiscal Mix (by Ascari, Beck-Friis, Florio, Gobbi)

Discussion by Dmitry Matveev (Bank of Canada)

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Summary

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Fiscal foresight is pervasive

- fiscal policy is plagued with legislative/implementation lags;
- private sector receives news before policy realization;
- economy is affected through expectations.

Q: what are the effects of anticipated govt. spending ($\mathbb{E}G$) shocks?

A: depends qualitatively on the monetary-fiscal policy mix.

Novel results that contribute to empirical and theoretical literature, deepening understanding of macro effects of govt. spending.

Main Empirical Result

Identify effects of anticipated govt. spending ($\mathbb{E}G$) shocks using VAR:

- existing measures of $\mathbb{E}G$;
- focus on two subsamples: 60s-70s and 80s-00s.

Main result

- $\mathbb{E}G$ stimulus is expansionary in 60s-70s (Great Inflation),
- $\mathbb{E}G$ stimulus is contractionary in 80s-00s (Great Moderation);

Prior studies associate these period with different policy mixes

- Great Inflation is described well under fiscal regime
- Great Moderation is described well under monetary regime

Theoretical Explanation

Workhorse models with $\mathbb{E}G$ shocks generate data-consistent effects.

Policy representation with simple feedback rules:

$$i_t = \phi \pi_t,$$
$$\tau_t = \psi b_{t-1}.$$

- passive monetary, active fiscal: $\phi < 1$ and $\psi < (1 - \beta)$;
- active monetary, passive fiscal: $\phi > 1$ and $\psi > (1 - \beta)$.

Novel feature: introduce $\mathbb{E}G$ shocks into a model

$$\varphi(L) g_t = \varepsilon^g_{t-j}, \quad \varepsilon^g_{t-j} \text{ is i.i.d.}, \quad j \geq 0,$$

where j is the foresight horizon, and ε^g_{t-j} is a news shock when $j > 0$.

Comments

(1) Theories of Great Inflation/Moderation

Role of monetary-fiscal mix in explaining Great Inflation/Moderation:

- rules-based policy with different regimes (Bianchi, 2012);
- optimal strategic interactions (Chen, Leeper, Leith, 2020);
- imperfect knowledge of long-run policy (Eusepi & Preston, 2018).

Broader contribution: evidence for testing other theories

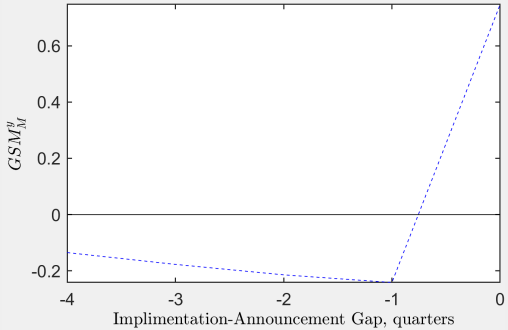
- scope for additional benchmarks beyond signs of $\mathbb{E}G$ multipliers,
- e.g., how do $\mathbb{E}G$ multipliers vary with public debt burden?
- fiscal regime vs imperfect knowledge: opposite effect of debt on wealth effects, hence (likely) opposite effect on $\mathbb{E}G$ multipliers;
- downward trend in the debt/GDP ratio during the Great Inflation may provide enough variation to identify this effect empirically.

(2) Monetary Regime: Recap

Consider small-scale NK model under active monetary policy

- informative analytical characterization of anticipated multiplier;
- several factors, net effect is in general ambiguous.

Negative net effect in the calibrated model:



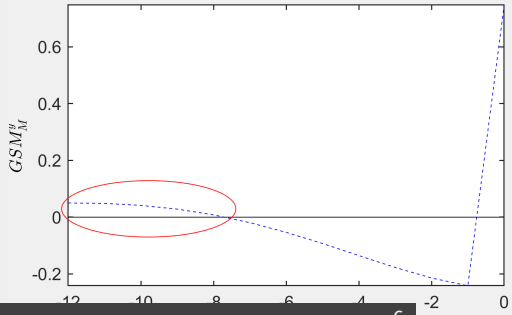
(2) Monetary Regime: Foresight Horizon

Competing factors change in strength/direction with foresight horizon

- net effect may flip as j increases (see graph below)

Is there an empirically relevant range for foresight horizon?

- average post-WW2 US income *tax* foresight is 7 mths (Yang, 2007);
- Yang (2005) and Traum (2011) use $j = 1$ to model *tax* foresight.



(3) Fiscal Regime: Mechanics

Consider small-scale NK model under active fiscal policy

Backbone of fiscal regime: government debt valuation equation

$$\underbrace{\tilde{b}_{t-1} - \frac{b}{y}\hat{\pi}_t}_{\text{real value of debt, } vb_t} = \underbrace{\mathbb{E}_t \sum_{k=0}^{\infty} \beta^k \tilde{s}_{t+1}}_{\text{budget surpluses, } \tilde{S}_t} - \frac{b}{y} \underbrace{\mathbb{E}_t \sum_{k=0}^{\infty} \beta^k \left[\hat{i}_{t+k} - \hat{\pi}_{t+k+1}\right]}_{\text{real discount rates, } \hat{\Lambda}_t},$$

- anticipated fiscal stimulus $\tilde{S}_t(\varepsilon_t^g) \downarrow$ absorbed by $\hat{\pi}_t \uparrow$ or $\hat{\Lambda}_t \downarrow$

Intertemporal substitution: $\hat{y}_t = -\sigma \underbrace{\mathbb{E}_t \sum_{k=0}^{\infty} \left[\hat{i}_{t+k} - \hat{\pi}_{t+k+1}\right]}_{\text{real interest rates, } \hat{R}_t}$

- output $\hat{y}_t$ is high when real interest rates $\hat{R}_t$ are low

(3) Fiscal Regime: Characterizing Multiplier

Characterization of the multiplier taking the limit $\beta \to 1$:

$$\hat{y}_t = -\sigma \hat{\Lambda}_t = \sigma \frac{y}{b} \left[v b_t - \tilde{S}_t \right],$$

- multiplier of anticipated spending is in general ambiguous;
- positive if $\tilde{S}_t(\varepsilon_t^g) \downarrow$ is not fully absorbed by inflation ($v b_t > \tilde{S}_t$).

Monetary policy rule is an important determinant of the multiplier

$$i_t = \phi \hat{\pi}_t, \quad \phi < 1,$$

- ϕ affects if (and to what extent) $\tilde{S}_t(\varepsilon_t^g) \downarrow$ is absorbed by real rates;
- passive $\neq$ irrelevant (Bhattarai, Lee, Park, 2014).

(3) Fiscal Regime: Role of Monetary Policy

Dynamics of real rates changes with monetary rule coefficient

- real rates may stop accommodating shortfall of surpluses as $\phi \uparrow$

Is there an empirically relevant range for ϕ during Great Inflation?

- estimated models that identify regimes may be informative
- also, consider using one of those models instead of S&W (2007)