

Discussion of “Global Footprint of Fiscal Policy” by S. Y. Kim

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The Global Financial Cycle

Helene Rey's 2013 Jackson Hole address:

- There is a GFC in capital flows, asset prices, and credit growth
- One common factor that drives these variables for countries with open capital accounts
- When the GFC is positive, global risk appetite is high and risk premia are low
- Open capital account countries experience inflows, asset price appreciation and credit growth
- This naturally has real effects in these countries, affecting their business cycle

Miranda-Agrippino & Rey (2020) argue that US monetary policy is the key driver of the GFC

This Paper: Summary

- What if instead of US monetary policy, the GFC is driven by **US fiscal policy**, and the **global innovation network** is at its core?
- **Main Hypothesis:** US fiscal policy stance, proxied by the US surplus-debt ratio S/B , drives the GFC by affecting incentives to innovate
- This paper:
 1. presents suggestive empirical evidence for this hypothesis
 2. develops a DSGE model that rationalizes this fact
 3. validates the model mechanism by empirically testing some of its predictions

Motivating Empirics

Show that $\Delta_{t,t-4}(S/B)^{US}$ has an impact on changes in log dividend yields and market excess returns across countries

- $(S/B)^{US} \downarrow \Rightarrow r^i \downarrow$
- Holds when controlling for local S/B , changes in risk-free rates, other global factors...
- Also holds for each country individually
- Mostly driven by changes in *tax revenue*, not govt spending

Model: Description

- Neoclassical endogenous growth model with N countries and a “central country” (US)
- Production employs intangible capital that can be produced domestically (“innovation”) or imported (“adoption”)
- US is different in two respects:
 1. it only innovates; does not adopt foreign technology
 2. other countries have a bias towards US technology
- Fiscal policy: GBC subject to spending shocks, financed with debt and distortionary taxes on intermediate goods producers and intangible capital producers

Model: Mechanism

Negative fiscal shock in the US

- Financed with a mix of debt and corporate taxes
- Rising corporate income taxes distort/reduce incentives for US innovation
- This negatively impacts foreign economies due to the central role of US innovation, triggering local fiscal responses

Negative fiscal shock in the US \Rightarrow deterioration of real, financial, and fiscal conditions abroad

Model Validation

Model produces a series of testable hypotheses, which the author tests:

1. **US is central to Global Innovation:** US R&D growth predicts R&D growth across countries
2. **US fiscal shocks predict lower domestic and global innovation:** $(S/B)^{US}$ predicts global GDP growth forecasts as well as R&D growth across countries
3. **US fiscal policy leads the global fiscal cycle:** $(S/B)^{US}$ predicts surplus-debt ratios across countries

Assessment

- Very thought-provoking paper!
- Author does a lot of work, both in the motivating and validation empirics
- Even if one does not buy the dismissal of monetary policy as the main driver of the GFC, this paper definitely establishes fiscal policy as a separate force that is relevant for the GFC

Main Comments

1. Empirics: identification of fiscal policy shocks
2. Empirics: the role of revenue vs. spending
3. Model: is innovation special?

Main Comment I: Identification of FP Shocks

- Fiscal policy/stance is endogenous!
- Governments spend more in recessions, either due to automatic stabilizers or discretionary policies
- Bad growth prospects may trigger discretionary responses \Rightarrow fiscal policy predicts the cycle!
- This is a well-known problem in the fiscal multiplier literature (Blanchard & Perotti 2002, Mountford & Uhlig 2009, Ramey 2011)
- Progressivity/nonlinearity of stabilizers and “lumpiness” of discretionary policy imply that including measures of the business cycle as a control is not enough
- **Suggestion:** use series of identified fiscal policy shocks (recursive, narrative, etc.) as instruments for (S/B)

Main Comment II: It's all about revenue

- Most series of identified fiscal policy shocks focus on *spending* (i.e., Ramey's defense shocks)
- One of the most interesting findings of this paper is that **revenue** is the component of S/B that matters for the GFC
- This raises a conceptual issue, since truly exogenous changes to fiscal policy predominantly occur in the spending, not the revenue side
- **Suggestion I:** event studies around plausibly exogenous changes to the structure of US fiscal revenue, i.e. 2017 TCJA
- **Suggestion II:** recursive identification of shocks to US revenue

Example: Recursive Identification of Revenue Shocks

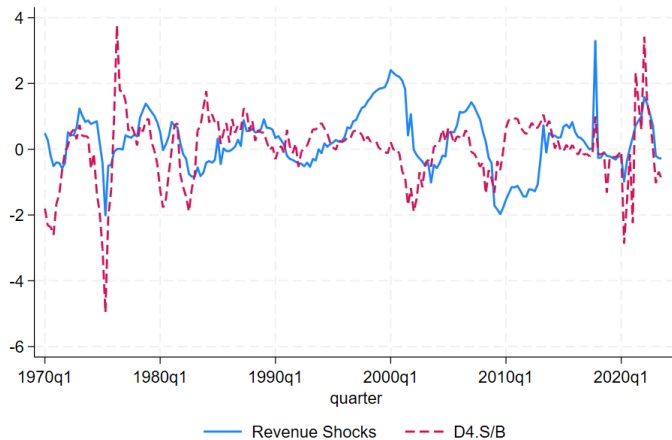
- Ramey & Zubairy (2018): can extract recursively identified shocks from

$$(t/y)_t = \sum_{i=1}^4 \beta_i (t/y)_{t-i} + \sum_{i=1}^4 \alpha_i (g/y)_{t-i} + \sum_{i=1}^4 \gamma_i \hat{y}_{t-i} + u_t$$

where (t/y) , (g/y) are revenue and expenditure normalized by potential GDP and \hat{y} is the output gap

- Note: potential GDP extracted as the prediction of real GDP on a quartic trend
- \hat{u}_t are \propto to structural shocks obtained in VAR w/ recursive ordering
- First-stage regression of $\Delta_{t,t-4}(S/B)^{US}$ on \hat{u}_t has a F-stat > 20

Fiscal Shocks and $\Delta_{t,t-4}(S/B)^{US}$



Main Comment III: Is innovation special?

- Author makes a convincing case that US fiscal policy matters for the GFC, beyond other factors (subject to the previous caveats)
- I was less convinced by the explanation for why this is the case
- Is innovation special, relative to other sectors (i.e. finance)?
- My reading is that a stationary version of the model (w/o growth) where US is central in some relevant sector would deliver very similar insights
- US fiscal shocks lead to future distortionary taxes, which reduces investment in the production of central commodity, triggers global recession and fiscal response by other countries
- Could such model deliver the same implications for risk premia, etc? Probably not \Rightarrow author should emphasize that

Minor Comments

- Paper refers to the FTPL: this is a purely real model, I do not think that it has anything to do with the FTPL. It is just about intertemporal GBCs and transversality conditions.
- It would be nice to see the responses to a bad fiscal shock abroad in the model. Are they substantially different than the responses to a bad US fiscal shock?
- The model has many non-standard parameters: a more thorough discussion of their calibration/identification would be welcome.

Conclusion

- Thought-provoking exploration of the determinants of the GFC
- Very complete paper, with a lot of convincing results
- Author convinced me that US fiscal policy is important for the GFC
- I'm still skeptical of the specialness of innovation for the GFC