Fiscal Stimulus under Sovereign Risk

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Summary of Paper

- New Keynesian models prescribe countercyclical fiscal policy
- In practice, governments often implement fiscal consolidation measures in times of crises
- This paper studies how **default risk shapes optimal fiscal policy**

1. Build a model of sovereign default with nominal rigidities
   - Public spending trade-off between stimulus and financial stress
2. Calibrate version of the model to Spanish data
   - Model with default risk matches procylicality of fiscal policy and volatility of unemployment in the data
3. Document dynamics of government consumption during recession episodes for countries with different sovereign risk
   - Findings are consistent with model predictions

Some Remarks

Fantastic paper: timely question, clean analytical results, & revealing quantification exercise

No need to trust me - accepted for publication at JPE!

Outline for today

- Understanding the mechanism
- Thoughts for future work
    1. Exploring alternative policy options
    2. Private versus public overhang

Understanding the Mechanism

Modified Samuelson Rule

$$0 = v'(g^N) - u_N(c^T, c^N)$$

Consider a small open economy with

- Consumption of tradables (endowment) and non-tradables
- Inelastic supply of labor to produce non-tradables
- Utility from public spending on non-tradables

Understanding the Mechanism

Modified Samuelson Rule

$$0 = v'(g^N) - u_N(c^T, c^N) \qquad + \mu\, F'(h)\, \frac{\partial \mathcal{P}^N}{\partial g^N}$$

Consider a small open economy with

- Consumption of tradables (endowment) and non-tradables
- Inelastic supply of labor to produce non-tradables
- Utility from public spending on non-tradables

\+ **Real wage rigidity: unemployment $\Rightarrow$ stimulus channel**

- ✓ Downward (nominal) wage rigidity & fixed exchange rate
- ✓ Higher g^N, higher aggregate demand, higher h
- ✓ Under DRS, c^N crowds out due to higher p^N

Understanding the Mechanism

Modified Samuelson Rule

$$0 = v'(g^N) - u_N(c^T, c^N)\,\Omega(h) + \mu\,F'(h)\,\frac{\partial \mathcal{P}^N}{\partial g^N}$$

Consider a small open economy with

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\+ **Real wage rigidity: unemployment $\Rightarrow$ stimulus channel**

- ✓ Downward (nominal) wage rigidity & fixed exchange rate
- ✓ Higher g^N, higher aggregate demand, higher h
- ✓ Under DRS, c^N crowds out due to higher p^N
- ✓ Imperfect unemployment insurance amplifies channel

Understanding the Mechanism

Modified Samuelson Rule

$$0 = v'(g^N) - u_N(c^T, c^N)\,\Omega(h) + \mu\, F'(h)\,\frac{\partial \mathcal{P}^N}{\partial g^N} - \eta\left(p^N + \frac{\partial \mathcal{P}^N}{\partial g^N}\,(g^N - F(h)\tau)\right)$$

Consider a small open economy with

- Consumption of tradables (endowment) and non-tradables
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\+ Real wage rigidity: unemployment $\Rightarrow$ stimulus channel

\+ **Financially constrained government $\Rightarrow$ austerity channel**

- ✓ Limited commitment & no lump sum taxes
- ✓ Higher g^N, tightens borrowing constraint directly
- ✓ Also through GE as p^N increases.

Austerity and Default Risk

The austerity term depends on the degree of default risk

To see this, consider the Euler equation

$$(\lambda_t + \eta_t)\left(q_t + \frac{\partial q_t}{\partial b_{t+1}} i\right) = \beta \mathbb{E}_t \left[(\lambda_{t+1} + \eta_{t+1})(1 - \chi_{t+1})(\delta + q_{t+1}(1 - \delta))\right]$$

- Borrowing one additional unit today helps relax today's government budget and resource constraint
- The cost is the tightening of both constraints tomorrow in the event of repayment.
- When an increase in borrowing raises default risk significantly, the cost of the stimulus rises

I. Exploring Alternative Policy Options

- Given limitations of fiscal policy, what can policymakers do?
- Occasionally binding constraints $\Rightarrow$ precautionary motive?
  * Create fiscal space or accumulate reserves in good times
  * Negative externality as in Schmitt-Grohe and Uribe (2016)
- What is the optimal design of emergency lending?
  * Reduction of lump-sum taxes
  * Fiscal forward guidance
- Fiscal policy rules that depend on debt levels or interest rate spreads.

II. Private vs Public Overhang

- Current paper is mostly silent about private debt
- In an extension, authors show main trade-off remains unchanged when allowing for household borrowing
- Does the composition of debt matter in shaping the cyclicality of fiscal policy?
  * Entering GFC, Spain had low public debt levels but high private debt levels
  * After Covid, public debt is 115% of GDP
- Focus on firm financing and investment
  * Similar trade-off with interplay between private and public debt
  * Including banks: diabolic loop

Conclusion

- Ease recessions at the expense of higher spreads or cut spending to reduces chances of debt crisis?
- Important state-dependent result: cylicality of fiscal policy varies with debt levels
- This is a must-read!