MONETARY POLICY AND SOVEREIGN RISK IN EMERGING ECONOMIES

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Discussion by
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THE PAPER IN A NUTSHELL

• Paper combines two benchmark frameworks in the literature: the New Keynesian small open economy model and the model of sovereign debt and default
  ● Nominal rigidities
  ● Monetary policy follows Taylor rule
  ● Government chooses optimally external debt without commitment, can default on debt

• Study interactions between fiscal and monetary policy under default risk
  ● Relevant for emerging markets (inflation targeting + default risk)
  ● Might be relevant for advanced economies too . . .

• Paper emphasizes two mechanisms:
  1. Sovereign risk makes it harder to stabilize inflation (even in absence of debt monetization)
  2. Nominal rigidities discipline Gov’t borrowing incentives
This discussion: Review mechanisms and make two points

1. Mechanism 1 appears robust

2. Mechanism 2 may depend on equivalence between fiscal and current account policies
The model in one slide

- Textbook SOE NK model, given default \((D)\) and borrowing \((B')\) policies of the Gov’t

\[
    c(S) + e(S)^\rho = z(D)n(s) \left[ 1 - \frac{\varphi}{2}(\pi(S) - \bar{\pi})^2 \right] \quad \text{(RC)}
\]

\[
    e(S)^\rho - e(S)c^f(S) = e(S)[B - q(s, B')B'](1 - D) \quad \text{(BoP)}
\]

\[
    C(S)^{-1} = \beta i(S)E_S \left[ \frac{C(S')^{-1}}{\pi(S')} \right] \quad \text{(Euler)}
\]

\[
    \tilde{\pi}(S) = \frac{\eta - 1}{\varphi} \left[ \frac{C(S)N(S)}{z} - 1 \right] + \beta \frac{C(S)}{z(D)N(S)}E_S \left[ \frac{z(D')N(S')}{C(S')} \tilde{\pi}(S') \right] \quad \text{(Phillips)}
\]

\[
    i(S) = \tilde{i} \left( \frac{\pi(S)}{\bar{\pi}} \right)^{\rho p} \quad \text{(Taylor)}
\]

\[
    \frac{C(S)}{C^f(S)} = \frac{\rho}{\rho - 1} e(S) \quad \text{(ToT)}
\]

- Government chooses policies \(\{D, B'\}\) to maximize welfare, given private sector equilibrium
**MECHANISM 1: IMPLICATIONS OF SOVEREIGN RISK FOR MONETARY POLICY**

- A default in the model reduces TFP and external debt payments: Inflation increases, Consumption declines

- What happens today when the likelihood of a default increases?

\[
C(S)^{-1} = \beta i(S) \mathbb{E}_S \left[ \frac{C(S')^{-1}}{\pi(S')} \right] \quad \text{(Euler)}
\]

\[
\tilde{\pi}(S) = \frac{\eta - 1}{\varphi} \left[ \frac{C(S)N(S)}{z} - 1 \right] + \beta \frac{C(S)}{z(D)N(S)} \mathbb{E}_S \left[ \frac{z(D')N(S')}{C(S')} \tilde{\pi}(S') \right] \quad \text{(Phillips)}
\]

- In calibrated model, Consumption ↓ (wealth effects) and Inflation ↑ (firms start adjusting prices)

- Expectations of a default ≈ cost-push shock in standard NK model

- Makes it harder for monetary authority to stabilize inflation
Mechanism 1: Implications of sovereign risk for monetary policy

Monetary authority needs to raise interest rates more aggressively after a negative shock
MY REMARKS ON MECHANISM 1

1 Great insight! Reminds me a little the papers on the stability of fixed exchange rates with realignment clauses (Obstfeld, 1994; Obstfeld, 1996)

2 Technically, result depends on the modeling of default costs as reduction in TFP. However, mechanism appears robust
   • Models with endogenous default costs have similar predictions
   • Would get similar results if defaults are associated to more passive monetary policy
   • In the data, defaults are associated to steep consumption drops and inflation hikes

3 Should operate for any shock that raise the likelihood of a default (even demand shocks)

4 Would be interesting to study optimal monetary policy in this environment
   • Monetary authority should internalize that current real rates affect expectations of future defaults
   • It would behave differently depending on whether is currently exposed to default risk or not
Mechanism 2: Nominal rigidities discipline borrowing incentives

Euler equation for Gov’t borrowing

\[
q + \frac{\partial q}{\partial B'} \left(1 - \tau^X_m\right) - \tau^C_m = \beta_g E_S \left[ (1 - D') \frac{C_f}{C^f} (1 - \tau^X_m') \right]
\]

- When labor inefficiently low, \( \tau^X_m > 0 \) and \( \tau^C_m > 0 \). *As if* debt is more expensive for government
- This is true even when prices are not moving against government \( \partial q / \partial B' \approx 0 \)

From welfare perspective, this might be good because Gov’t over-borrows

- Debt-dilution
- \( \beta_g < \beta \)

Not clear if result surprising: optimal fiscal policy in the model might be countercyclical *even in* absence of default risk
SIMPLE TWO PERIOD EXAMPLE

- No uncertainty ($z_1 = z_2 = 1$). Gov’t can commit on debt repayments, no present-bias

- Perfectly sticky prices in period 1, no sticky prices in period 2

- If $r = \beta^{-1}$, variables are time-invariant. No labor wedge at $t = 2 \rightarrow$ no labor wedge at $t = 1$

- If $r > \beta^{-1}$, $c_1 < c_2$. Labor at date 1 inefficiently low

- Optimal borrowing policy of the Gov’t satisfies

\[ q + \left( n_1 - \frac{1}{c_1} \right) A = \beta \frac{c^f_1}{c^f_2} \quad A > 0 \]

- Idea: By reducing external borrowing, Gov’t increases domestic demand
SIMPLE TWO PERIOD EXAMPLE
In the model, Gov’t surplus equals net exports

\[ NX = \Delta B - qB' \]

Fiscal and current account policies equivalent

Might be interesting to study borrowing incentives in a model where:
  - The two differs
    - Optimal fiscal policy is countercyclical in absence of default risk
  - Optimal fiscal policy is countercyclical in absence of default risk

Consider adding domestic public debt?
  - Breaks the above equivalence
  - Critical to account for recent debt crises (Bocola, Bornstein and Dovis, 2019)
CONCLUSION

Great paper on an important research agenda

- Default risk considerations are first-order for conduct of monetary policy in EM
- Paper provides model to think about interactions (and start quantifying them)

Suggestions for future steps of research agenda

- Optimal monetary policy in economies with default risk
- Integrating domestic public debt in the framework