# Discussion: Optimal Sovereign Defaults in the Presence of Financial Frictions

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May 25th, 2017

# Summary

- What is the effect of domestic sovereign default on the real economic aggregates?
- What determines the government choice on sovereign default?
- Sovereign defaults affect the asset side of the bank's balance sheet.
- Worsening balance sheet impairs bank's ability to issue credit to the production sector. So production falls.
- Default is an optimal choice when cost of production loss is lower than the cost of distorting taxes of repaying debt.

# Bank's constraint

- The bank's enforcement constraint

$$\xi(k_{t+1} + q_t b_{t+1}) \geq l_t, \quad \frac{k_{t+1} + q_t b_{t+1} - l_t}{k_{t+1} + q_t b_{t+1}} \geq 1 - \xi$$

- Consider the bank's balance sheet

| Asset | Liability |
|---|---|
| loans $l_t^f$ | deposits $l_t$ |
| gov bonds $q_t b_{t+1}$ | |
| capital $k_{t+1}$ | |
| | equity |

- Once loan is issued, it will appear on the asset side of the balance sheet.

# Asset channel

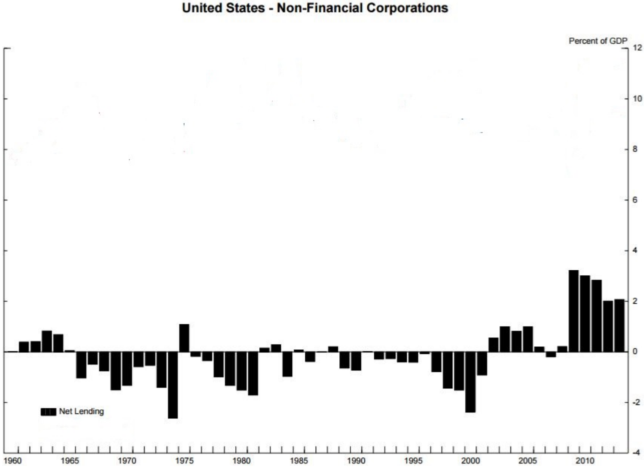
| Asset | Liability |
| --- | --- |
| loans $l^f$ | debt (deposits $l$) |
| gov bonds $b$ | |
| | equity (capital $k$) |

- Gov. debt is risky $\rightarrow$ bank's asset $\rightarrow$ liability.
- Limited supply of financial assets $\rightarrow$ saving corporates $\rightarrow$ production.

# Corporate savings glut

- Corporate savings glut: since 2000, the corporate sector has moved from borrowing funds from the rest of the economy to being a net saver.

# Corporate savings glut




Gruber and Kamin (2015)

# Credit channel

- Can firms hold government bonds directly?
- Firm's borrowing is limited to part of the asset that can be liquidated in the wake of default.

$$
\begin{aligned}
V(k, b; S) &= \max d + \Lambda_{t,t+1} V(k', b'; S') \\
\textit{subject to} & \\
y + (1 - D\lambda)b &= qb' + wn + x + d \\
\xi(k' + qb') &\geq wn \\
k' &= x + (1 - \delta)k
\end{aligned}
$$

# Default dynamics

- In the data, there are lagged effects on GDP, investment and employment.
- In the model, the lagged effect is on consumption only.