Discussion of "A Risk-centric Model of Demand Recessions and Macroprudential Policy" by Ricardo J. Caballero and Alp Simsek

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How does the model work?

- Standard consumption/portfolio problem:

$$c = \rho \cdot a\left(Q\right) \tag{1}$$

$$k = \frac{R\left(Q\right) - r}{\sigma^2} \cdot \left(1 - \rho\right) \cdot a\left(Q\right) \tag{2}$$

$$b = \left(1 - \frac{R\left(Q\right) - r}{\sigma^2}\right) \cdot \left(1 - \rho\right) \cdot a\left(Q\right) \tag{3}$$

- Aggregate demand: $y = c + k$

- Zero net supply of bonds: $b = 0$

- With common beliefs, the model is:

$$y = a\left(Q\right) \tag{4}$$

$$r = R\left(Q\right) - \sigma^2 \tag{5}$$

How does the model work?

- With common beliefs, the model is:

$$y = a(Q) \tag{6}$$

$$r = R(Q) - \sigma^2 \tag{7}$$

- How does the economy adjust to shocks to risk (σ)?

$$y = u \cdot A \cdot k_{-1} \tag{8}$$

$$r \geq 0 \tag{9}$$

- Two regimes (with $Q^B > Q^R$):

  ▸ Low risk: $u = 1$, $A \cdot k_{-1} = a(Q^B)$ and $r = R(Q^B) - \sigma^2 \geq 0$

  ▸ High risk: $r = 0$, $u = \dfrac{a(Q^R)}{A \cdot k_{-1}} < 1$ and $R(Q^R) = \sigma^2$

How does the model work?

- Assume the economy contains optimists (who believe risk is low) and pessimists (who believe risk is high)

- With belief disagreements, the model is:

$$y = a(Q) \tag{10}$$

$$r = R(Q) - \frac{1}{\dfrac{\alpha}{\sigma_O^2} + \dfrac{1-\alpha}{\sigma_P^2}} \tag{11}$$

- The share of wealth of optimists, α, matters. The higher is this share, the higher is output. We want the optimists to have a high share in recessions!

- Two important elements of the model:
  - Two regimes and two views about their likelihood
  - Speculation with Arrow-Debreu securities is allowed

- The wealth share of optimists in recessions is too low!

- Macroprudential policy can fix this by not allowing optimists to speculate.

Observations

- Very interesting and original model that emphasizes a realistic and potentially quite important mechanism.

- Do high asset prices reduce the demand for credit? Asset prices ...

  - ... reduce the cost of capital and raise the credit demand (rents, bubbles)

  - ... relax credit constraints and raise the credit demand

- Liquidity trap "details":

$$y = a\left(Q, \frac{m}{p}\right) \tag{12}$$

$$r = R(Q) - \sigma^2 \tag{13}$$

  - Real balances adjust with flexible prices or flexible money supply

  - With fixed $\frac{m}{p}$, who gets the money? How does rationing take place? Why can't the interest rate keep falling after the lucky ones get the scarce money?