The Great Recession: A Self-Fulfilling Global Panic

by Philippe Bacchetta and Eric van Wincoop

Discussion by: Fabrizio Perri
Minneapolis Fed & NBER

NBER IFM, October 2013
Background
The questions

- Why was the 2008 crisis so synchronous across countries?
- Can the high synchronization help us understand the cause of the recession? In particular is it suggesting a switch from good to bad equilibria?
Results and takeaways

• Results
  • Self fulfilling low output expectations Households expects low future output -> lower current demand -> nominal rigidity implies low current output/profits -> fixed operations costs imply firms exit -> exit of firms validates low income expectations
  • Extending this set-up to 2 countries, show recessions are necessarily synchronous, as long as there is some (not complete) trade integration
Results and takeaways

• Results
  • **Self fulfilling low output expectations** Households expects low future output -> lower current demand -> nominal rigidity implies low current output/profits -> fixed operations costs imply firms exit -> exit of firms validates low income expectations
  • Extending this set-up to 2 countries, show recessions are necessarily synchronous, as long as there is some (not complete) trade integration

• Takeaways
  • Synchronization indication of low demand trap
  • Policies that stimulate demand can be very effective
Plan

- More intuition for key theory result
- What type of global self-fulfilling crisis? Demand or credit?
A closed economy with continuum of equilibria

\[ c = y, \text{ Demand} \]
\[ y = c, \text{ Market Clearing} \]
\[ y \leq 1, \text{ Capacity constraint} \]
A closed economy with continuum of equilibria

\[ c = y, \text{ Demand} \]
\[ y = c, \text{ Market Clearing} \]
\[ y \leq 1, \text{ Capacity constraint} \]
An open economy with multiple equilibria

\[ c = \psi y + (1 - \psi)y^* \]
\[ c^* = \psi y^* + (1 - \psi)y \quad \text{Demands} \]
\[ y = c, \quad y^* = c^*, \quad \text{Market Clearing} \]
\[ y, y^* \leq 1, \quad \text{Capacity constraints} \]
An open economy with multiple equilibria

\[ c = \psi y + (1 - \psi) y^* \]
\[ c^* = \psi y^* + (1 - \psi) y \] Demands
\[ y = c, \quad y^* = c^*, \quad \text{Market Clearing} \]
\[ y, y^* \leq 1, \quad \text{Capacity constraints} \]

• If \( \psi = 1 \) (Autarky), all \( y, y^* \leq 1 \) are possible equilibria
An open economy with multiple equilibria

\[ c = \psi y + (1 - \psi)y^* \]
\[ c^* = \psi y^* + (1 - \psi)y \quad \text{Demands} \]
\[ y = c, \quad y^* = c^*, \quad \text{Market Clearing} \]
\[ y, y^* \leq 1, \quad \text{Capacity constraints} \]

- If \( \psi = 1 \) (Autarky), all \( y, y^* \leq 1 \) are possible equilibria
- As long as \( \psi < 1 \) (some integration) demands imply \( y = y^* \)
Range of Multiple Equilibria, $\psi = 1$
Range of Multiple Equilibria, $\psi < 1$
Intuition

- Trade integration (at any level), makes demand linearly related
- Since demand = output, output also linearly related
- Multiple equilibria plus integration reduces dimensionality of equilibrium space, equilibrium output are necessarily correlated
An alternative self-fulfilling global crisis (Perri and Quadrini, 2012)

- Firms use credit to hire workers
- Credit depends on resale price of capital
- Resale price depends on whether firms are constrained or not
- Multiple equilibria in credit markets
  - Markets expect low resale prices
  - Low resale prices -> tight credit
  - Tight credit validates low resale prices
  - Hiring collapses

If financial markets integrated, expectation of low resale prices are coordinated across countries. Recessions can be driven by self-fulfilling global credit crunches.
An alternative self-fulfilling global crisis (Perri and Quadrini, 2012)

- Firms use credit to hire workers
- Credit depends on resale price of capital
- Resale price depends on whether firms are constrained or not
- Multiple equilibria in credit markets
  - Markets expect low resale prices
  - Low resale prices -> tight credit
  - Tight credit validates low resale prices
  - Hiring collapses
- If financial markets integrated, expectation of low resale prices are coordinated across countries
- Recessions can be driven by self-fulfilling global, credit crunches
Was the 2008 recession a global credit crunch?

Source: Bank for International Settlements, *Long series on credit to private non-financial sectors*. The credit series are divided by the GDP deflator and normalized at 100 in 2006:Q1. The non-US G7 series is computed using relative PPP-adjusted GDP weights.

No?
Was the 2008 recession a global credit crunch?

Yes?
Was the 2008 recession a global credit crunch?

- Not so global in total credit
- Certainly global in business credit!
Key insight: high international synchronization in 2008 crisis, for countries with different fundamentals, strong hint of multiple equilibrium

Is crisis driven by pessimism in asset prices (PQ) or in demand (BV)?

Both mechanism generate international recessions, but policy implications different

Global demand crises calls for standard demand policies, global asset prices calls for less conventional policies (TARP)

The fact that both were used suggest both mechanism possibly at work