Chapter IV

Financial Stress and Economic Downturns

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Key Findings

- Financial turmoil more likely to be followed by severe and protracted downturns when
  - characterized by banking sector distress
  - preceded by rapid increases in credit, a run-up in house prices, and heavy borrowing by households and non-financial corporates

- Banks still key in transmitting financial shocks, especially in arm’s length financial systems

- Current conjuncture bears some resemblance to previous episodes of banking-related financial stress episodes that were followed by recessions
Example: FSI for United States

Note: Shaded areas indicate periods of financial stress.
Example: FSI for United Kingdom

Note: Shaded areas indicate periods of financial stress.
Example: FSI for Japan

Note: Shaded areas indicate periods of financial stress.
Example: FSI for Germany

Note: Shaded areas indicate periods of financial stress.
Example: FSI for France

Note: Shaded areas indicate periods of financial stress.
Example: FSI for Canada

Note: Shaded areas indicate periods of financial stress.
Main global financial stress episodes are captured by FSI

- Share of Countries Experiencing Financial Stress

- 1980q1 - 2008q1

- Highlights:
  - Nikkei/junk bond collapse
  - Stock market crash
  - Scandinavian banking crises
  - ERM crisis
  - LTCM collapse
Economic downturns tend to be more severe when preceded by financial stress...

Cumulative Output Loss during Slowdowns and Recessions (median; percent of GDP)

- Preceded by financial stress
- Not preceded by financial stress

Slowdowns

Recessions
Banking system stress is associated with larger output consequences.
Downturns more likely with financial imbalances and large corporate borrowing

Household Net Lending/Borrowing (percent of gross disposable income; deviation from trend one year before start of financial stress)

Nonfinancial Corporate Net Lending/Borrowing (percent of GDP; deviation from trend one year before start of financial stress)

Real House Prices (cumulative percent deviation from trend over six quarters before start of financial stress)

Credit (percent of GDP; cumulative percent deviation from trend over six quarters before start of financial stress)
Evidence of “credit crunch” in banking-related recessions

Change in Bank Assets (percent)

- Value = 0.05

Change in Cost of Capital (percentage points)

- Value = 0.00

Recessions Slowdowns Other
Investment banks’ leverage is procyclical

Top 50 Investment Banks

\[ \beta = 0.43 \]
...while for commercial banks evidence is mixed

- United Kingdom, Commercial Banks
  - Linear Regression
  - Linear Regression (excl. outliers)
  - Median Regression

- Germany, Commercial Banks
  - Linear Regression
  - Linear Regression (excl. outliers)
  - Median Regression

\[ \beta = 0.38 \]

\[ \beta = 0.13 \]
More evidence of procyclical leverage in arm’s-length financial systems...
...which may explain larger real spillovers from financial crises in these economies

Countries with above-median arm's-length financial systems
Countries with below-median arm's-length financial systems

Financial Stress Followed by Recessions: Output
(median; real GDP percent change from one year earlier)

Difference between medians statistically significant at time $t = 1$

years; start of financial stress episode at $t = 0$
The Current Episode in Historical Context: United States

House Prices (percent deviation from trend; quarters on the x-axis)

Household Net Lending/Borrowing Ratio (deviation from trend; years on the x-axis)

Credit (percent of GDP; percent deviation from trend; quarters on the x-axis)

Nonfinancial Corporate Net Lending/Borrowing Ratio (deviation from trend; years on the x-axis)
The Current Episode in Historical Context: Euro area

- **House Prices (percent deviation from trend; quarters on the x-axis)**
- **Household Net Lending/Borrowing Ratio (deviation from trend; years on the x-axis)**
- **Credit (percent of GDP; percent deviation from trend; quarters on the x-axis)**
- **Nonfinancial Corporate Net Lending/Borrowing Ratio (deviation from trend; years on the x-axis)**

- Median across financial stress episodes for six case studies
- Median across financial stress episodes followed by recessions
- Euro area (current episode)
One important take-away from this analysis is the importance of core financial intermediaries in the transmission of financial shocks to the real economy.

This underlines the importance of restoring the capital bases of these institutions to help alleviate economic downturns.