Private Credit, Public Debt, and Financial Crises

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140 years, 17 countries: Lessons

1. The long view and emerging trends
2. Credit and financial crises
3. Public debt and the recovery
4. Implications for policymakers
The long view and emerging trends
Financial crises return…Why?

Financial Crises
Countries experiencing a crisis in a given year

Out of 17

Bretton Woods
Bretton Woods: what was different?

- Capital controls
- Fixed exchange rates
- Low leverage banking
- Govt. securities a much higher proportion of bank assets (less portfolio risk)
- BW eventually collapsed
Banking sector explodes since Bretton Woods

Bank Lending, Bank Assets and Money
As a percent of GDP, average across 17 countries

Bretton Woods ends
Bank assets
Bank loans
Money

0 50 100 150 200 250
Percent

0 50 100 150 200 250
Percent
Age of money ushers the age of credit

Bank Aggregates Relative to Money
Average across 17 countries

Percent

Bank assets
Bank loans
Ratio of US Real Estate Lending to US Total Lending

- **Total real estate**
- **Household**
- **Commercial**

From nuts and bolts to bricks and mortar
Unprecedented reversal of reserves

• Lesson of 1990s emerging markets (EM) crises:
  – Crisis more painful w/o foreign reserves

• Since:
  – Globalization = expansion of balance sheets
  – Private capital flows from DM to EM
  – Official capital flows from EM to DM

• *Great Reserve Accumulation*: $10T officially + $4T in sovereign wealth funds
Dependents as a Percentage of Working Age

Working age = ages 20-64; dependents = ages 0-19 and 65+

Source: U.N. Population Statistics; see Pradhan and Taylor (2011)
Recent trends are game changers


- The banks’ asset mix: govt. securities 60-70% in 1950; 0% in the 2000s

- Switch to wholesale funding (uninsured) from deposits (insured): Shadow banking

- Public debt growing globally before the crisis
Credit and financial crises
Financial crises are different

USA real GDP per capita
Cumulative change from the start of the recession

Percentage points

Years

USA real GDP per capita

Cumulative change from the start of the recession

Financial

Normal
Financial crises: disinvestment and deflation

USA Investment
Cumulative change from the start of the recession

USA CPI Prices
Cumulative change since the start of the recession
**Private credit predicts financial crises**

<table>
<thead>
<tr>
<th>Predict financial crises with:</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
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<tbody>
<tr>
<td>Change in private credit</td>
<td>✓</td>
<td>-</td>
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<tr>
<td>Change in public debt</td>
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<tr>
<td>Level of credit/GDP</td>
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<td>Level of debt/GDP</td>
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<td>Both interacted</td>
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<td>AUC</td>
<td>0.72</td>
<td>0.61</td>
<td>0.71</td>
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</table>

- Public debt does not work
- External imbalances (not shown) do no work
- Let’s not kid ourselves, financial crises are difficult to predict
Excess credit trumps debt accumulation

The Recession and the Recovery

Normal vs. financial as a function of credit and debt

- Normal
- Low credit and low debt
- Low credit and high debt
- High credit and low debt
- High credit and high debt

Years

Percent
Public debt and the recovery
Public debt growing again…

Total Public Debt to GDP Ratio

Percent of GDP


USA

Average (exclud. USA and Japan)
Excess credit buildup hurts in the downturn

Real GDP per capita
Cumulative change from the start of the recession

- Percentage points

- Financial
- Norm. + excess credit
- Norm. + excess credit
- Financial
Excess credit buildup hurts in the downturn
The level of debt matters in the downturn

- Real GDP per capita
- CPI Prices
- Lending
- Public Debt

Cumulative change from the start of the recession

Percentage points

Years

Percentage points

Years

Percentage points

Years

Percentage points

Years

Financial Debt/GDP = 50

Financial Debt/GDP = 100

Normal

Normal

Financial Debt/GDP = 50

Financial Debt/GDP = 100

Financial Debt/GDP = 50

Financial Debt/GDP = 100

Financial Debt/GDP = 50

Financial Debt/GDP = 100

Financial Debt/GDP = 50

Financial Debt/GDP = 100

Financial Debt/GDP = 50

Financial Debt/GDP = 100
US vs UK recovery (± shadow banking)

**USA real GDP per capita**
Cumulative change since the start of the 2007 recession

**UK real GDP per capita**
Cumulative change since the start of the 2007 recession
Implications for policymakers
Maybe this time is different

• Monitor credit and leverage. New age of credit:
  – Excess credit makes recessions worse, recoveries slower
  – Turns some into financial crises

• Excess public debt:
  – Not the same as credit
  – But high levels complicate recoveries from financial crises

• New EM and demographic trends
Further reading
Useful References


