

Private Credit, Public Debt, and Financial Crises

Prepared for FRBSF Seminar: Understanding the Slow Recovery

April 10, 2013

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Thanks to Early Elias for research assistance, and FRBSF Community Development, Economic Research for advice. Based on work with Moritz Schularick (U. of Bonn) and Alan M. Taylor (U. of Virginia).

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

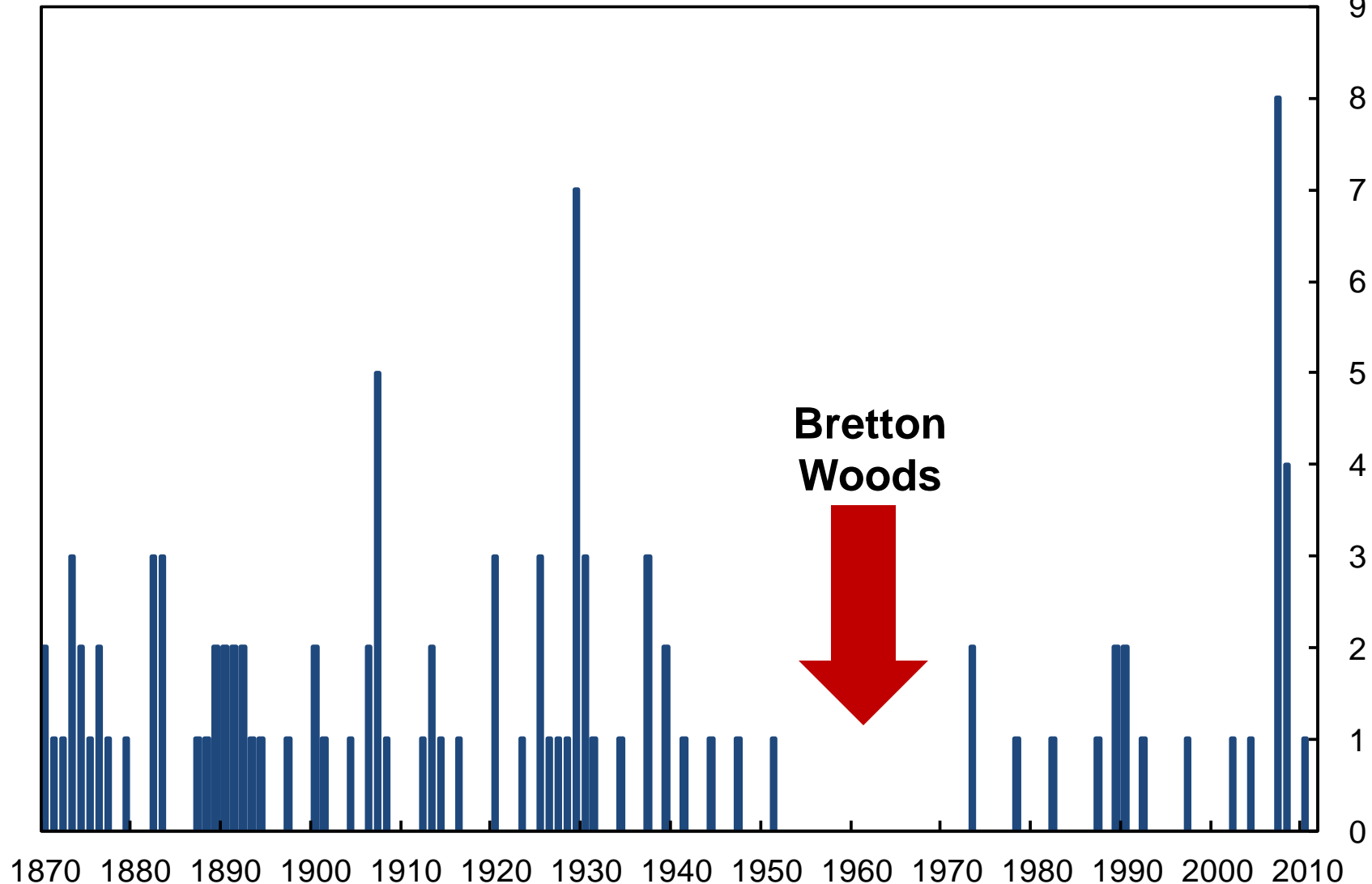
The long view and emerging trends

Financial crises return...Why?

Financial Crises

Countries experiencing a crisis in a given year

Out of 17



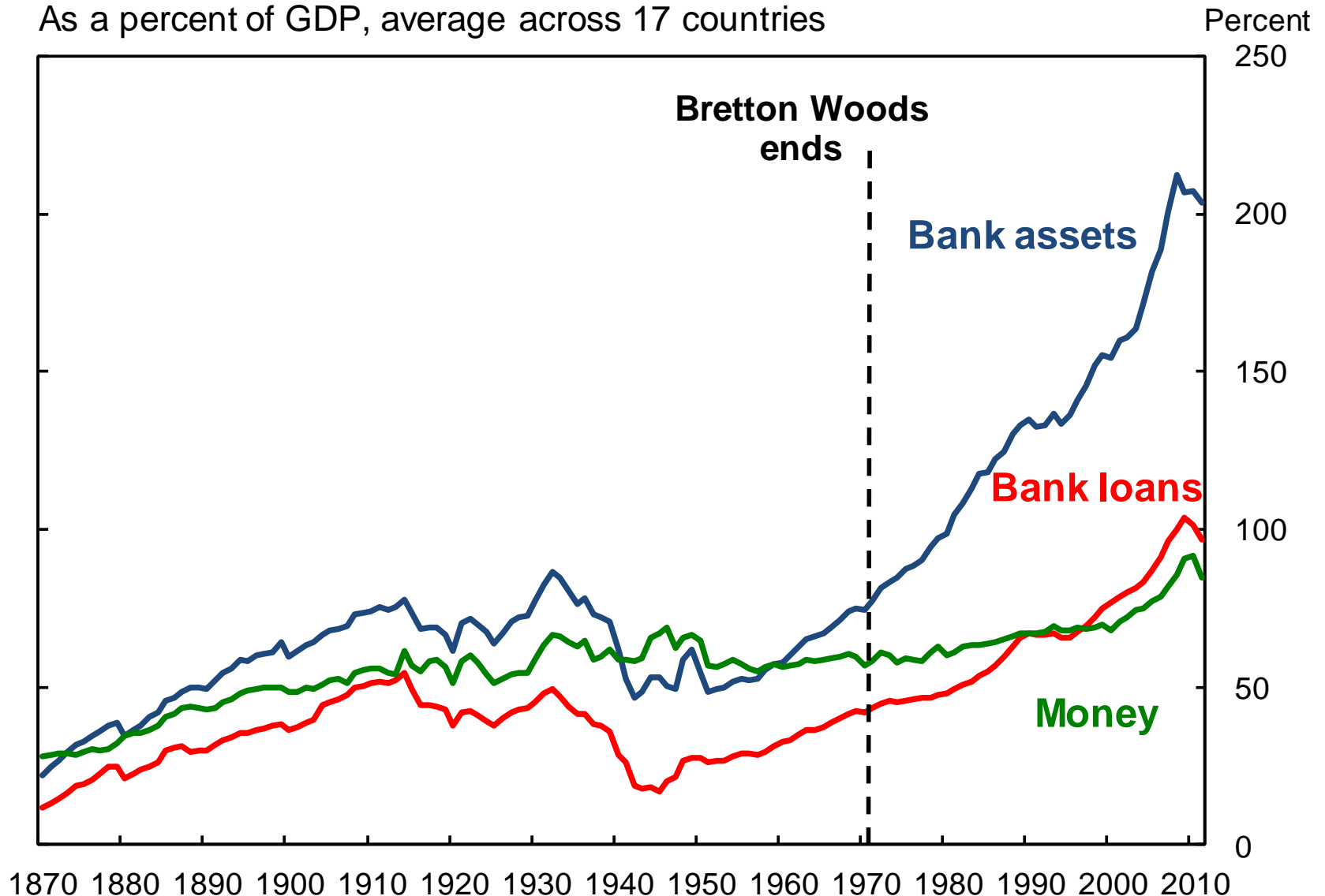
Bretton Woods: what was different?

- Capital controls
- Fixed exchange rates
- Low leverage banking
- Govt. securities a much higher proportion of bank assets (less portfolio risk)
- Primitive finance did not hinder investment:
Average growth = 3.8% in 1947-1970, 3.2% in 1971-2007
- BW eventually collapsed

Banking sector explodes since Bretton Woods

Bank Lending, Bank Assets and Money

As a percent of GDP, average across 17 countries

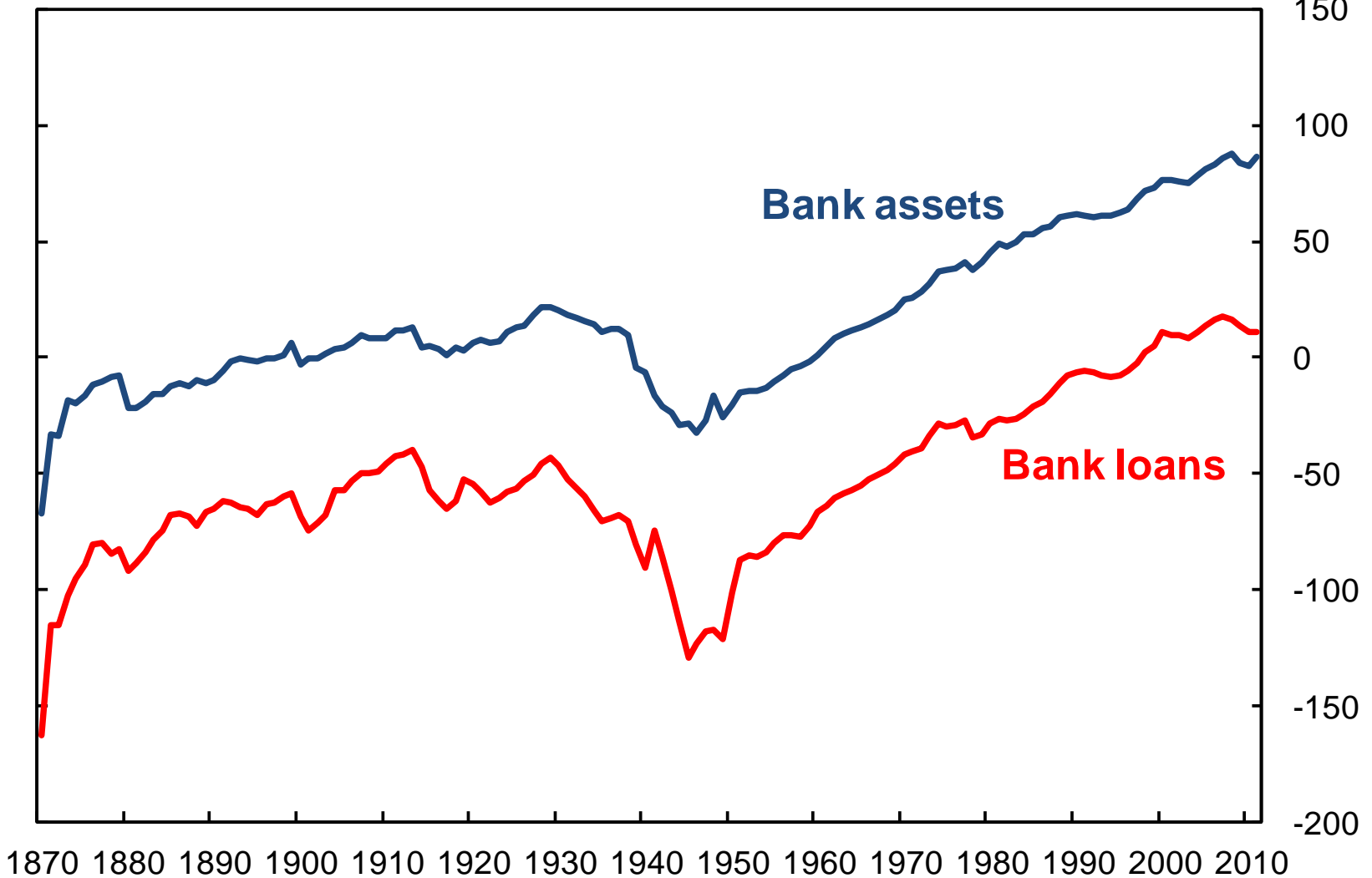


Age of money ushers the age of credit

Bank Aggregates Relative to Money

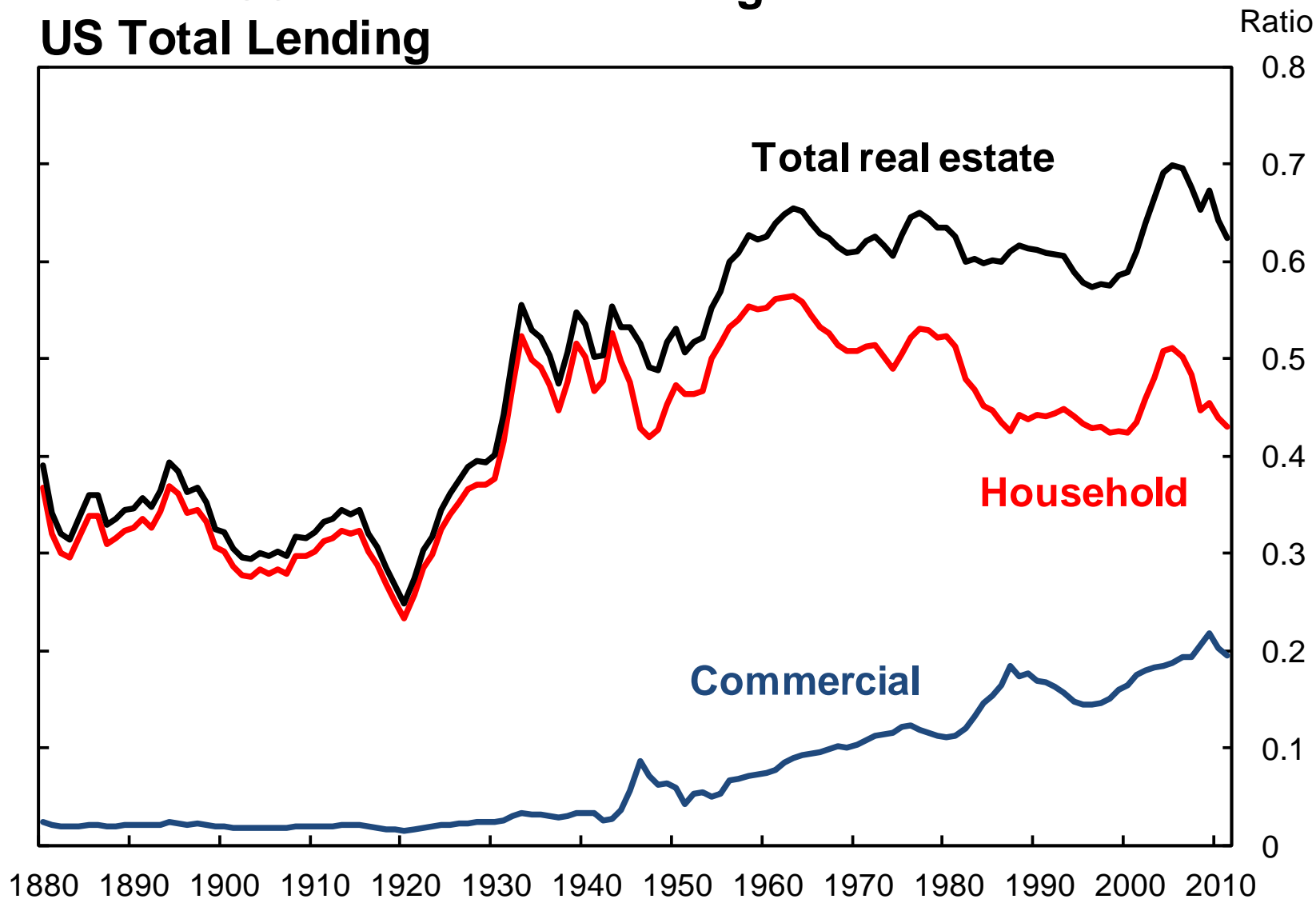
Average across 17 countries

Percent



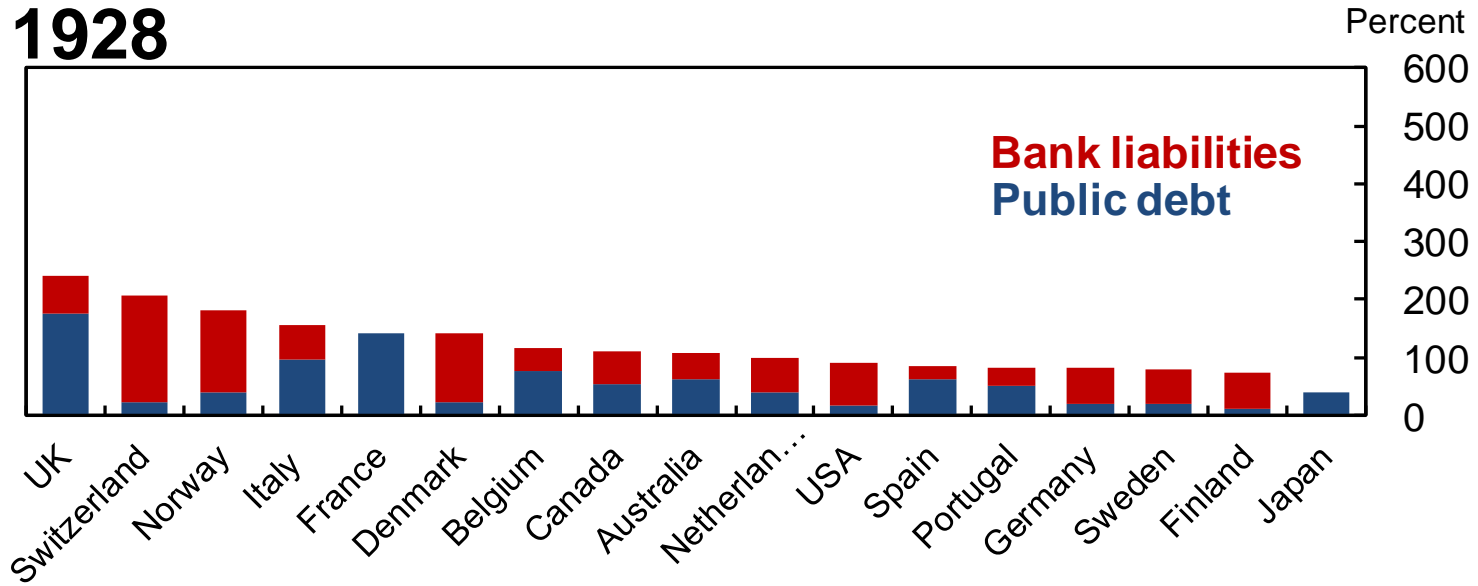
From nuts and bolts to bricks and mortar

Ratio of US Real Estate Lending to US Total Lending

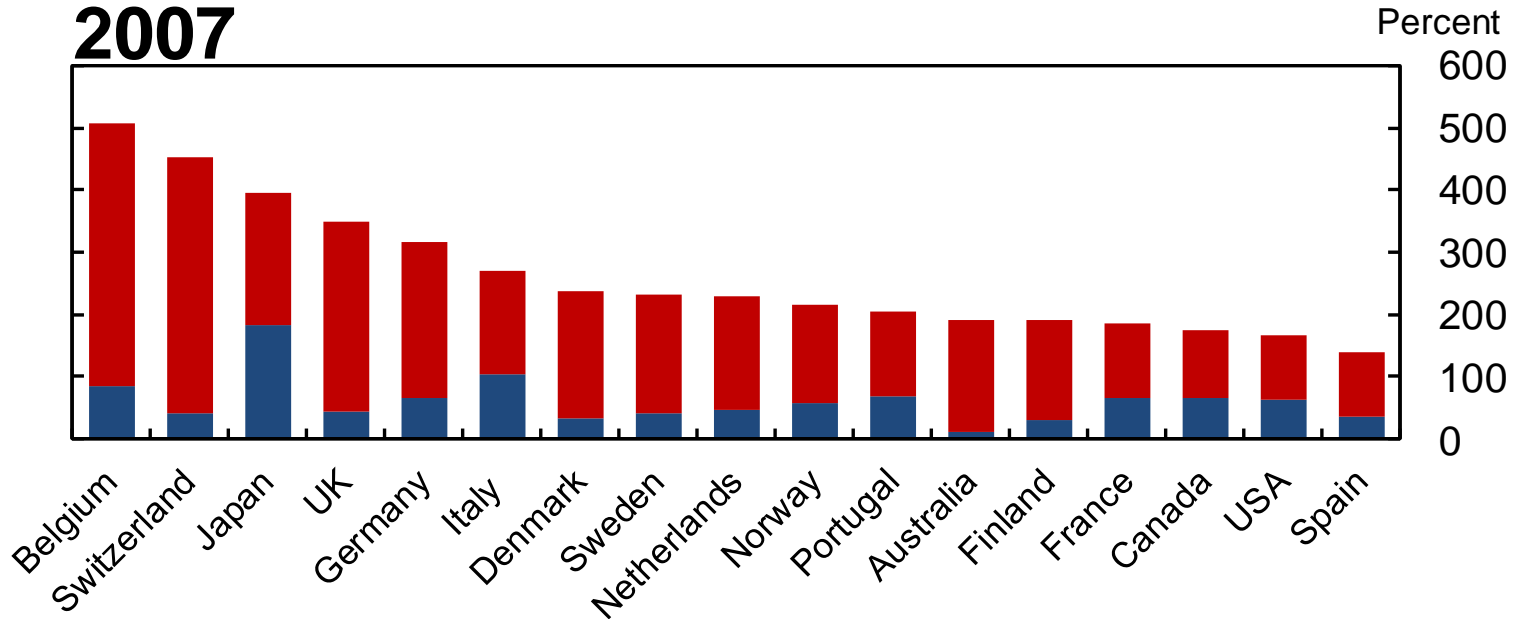


Total Liabilities then and now

1928



2007



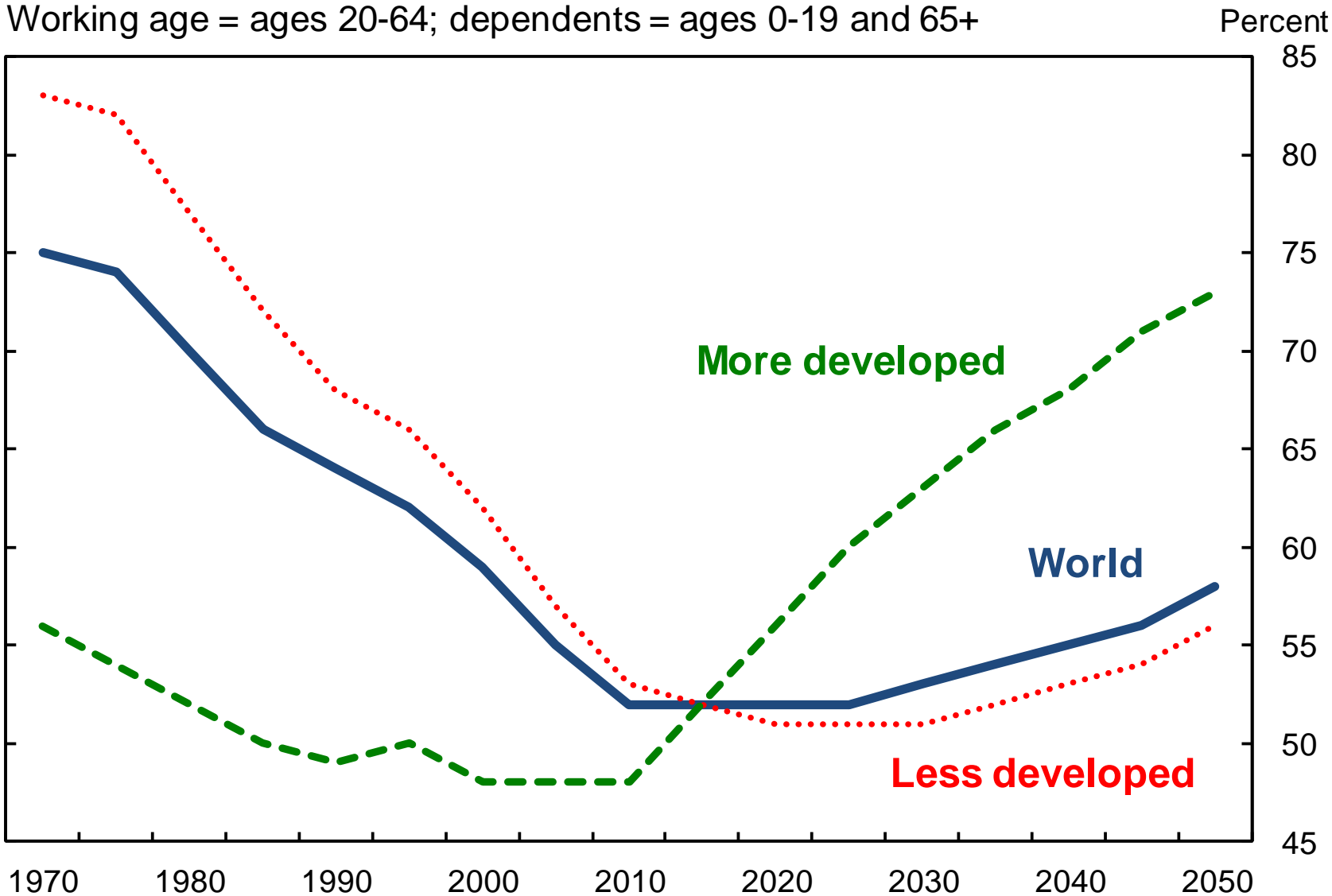
Unprecedented reversal of reserves

- 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

Demographic trends reversing: Savings?

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

- Unprecedented expansion of credit: financial assets/GDP = 150% in 1975 → 350% in 2008. Bank loans/GDP doubled.
- 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

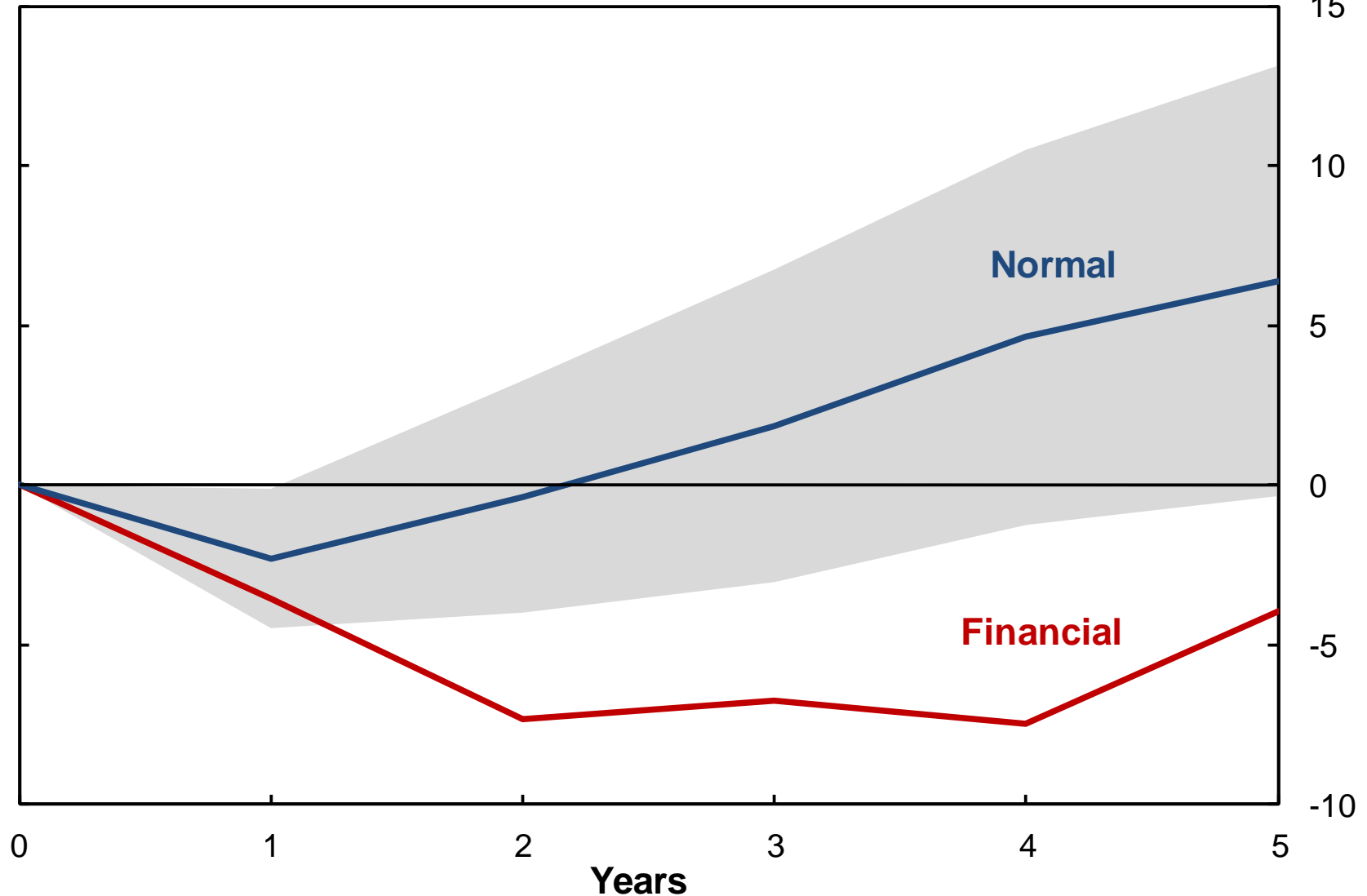
Credit and financial crises

Financial crises are different

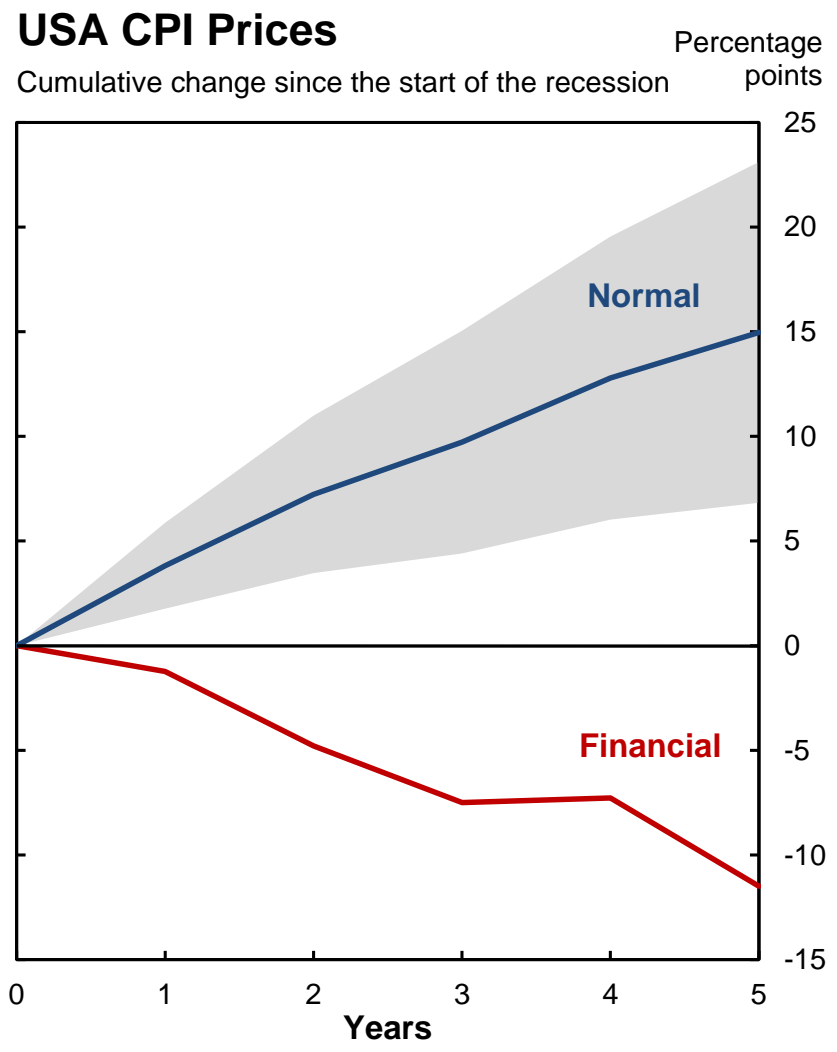
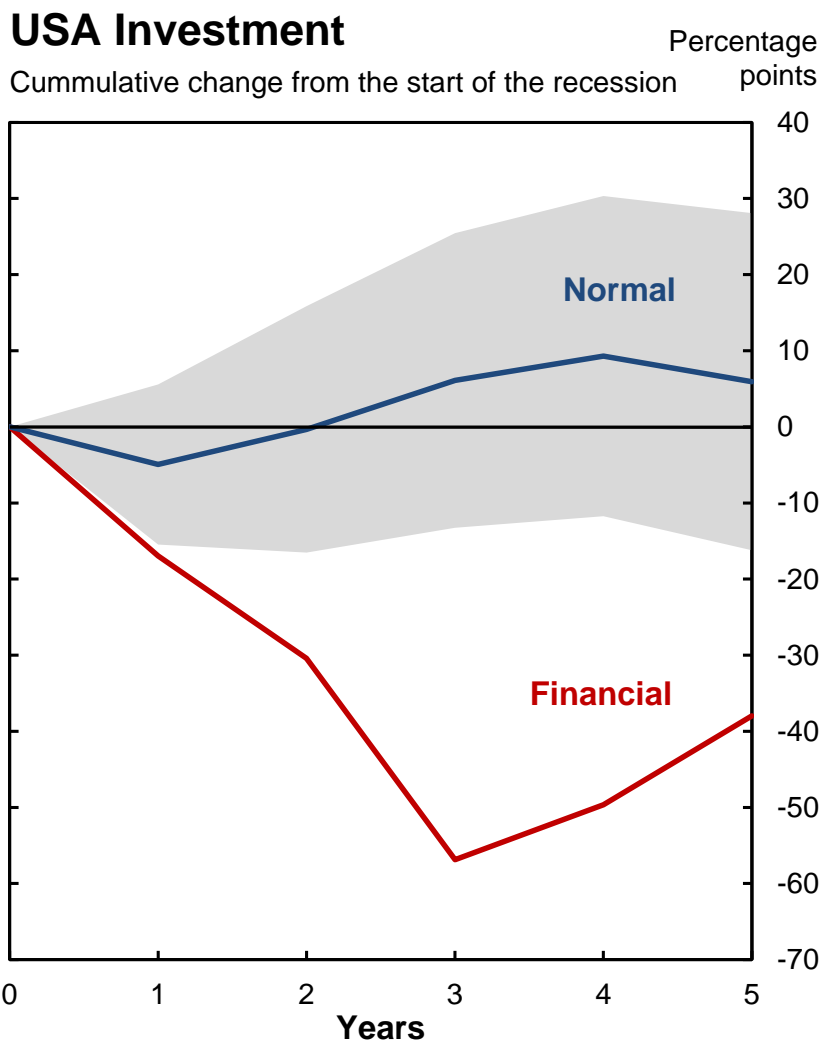
USA real GDP per capita

Cumulative change from the start of the recession

Percentage points



Financial crises: disinvestment and deflation



Private credit predicts financial crises

Predict financial crises with:	(1)	(2)	(3)	(4)	(5)
Change in private credit	✓	-	✓	✓	-
Change in public debt	-	✗	✗	-	✗
Level of credit/GDP	-	-	-	✗	-
Level of debt/GDP	-	-	-	-	✗
Both interacted	-	-	-	✗	✗
AUC	0.72	0.61	0.71	0.71	0.62

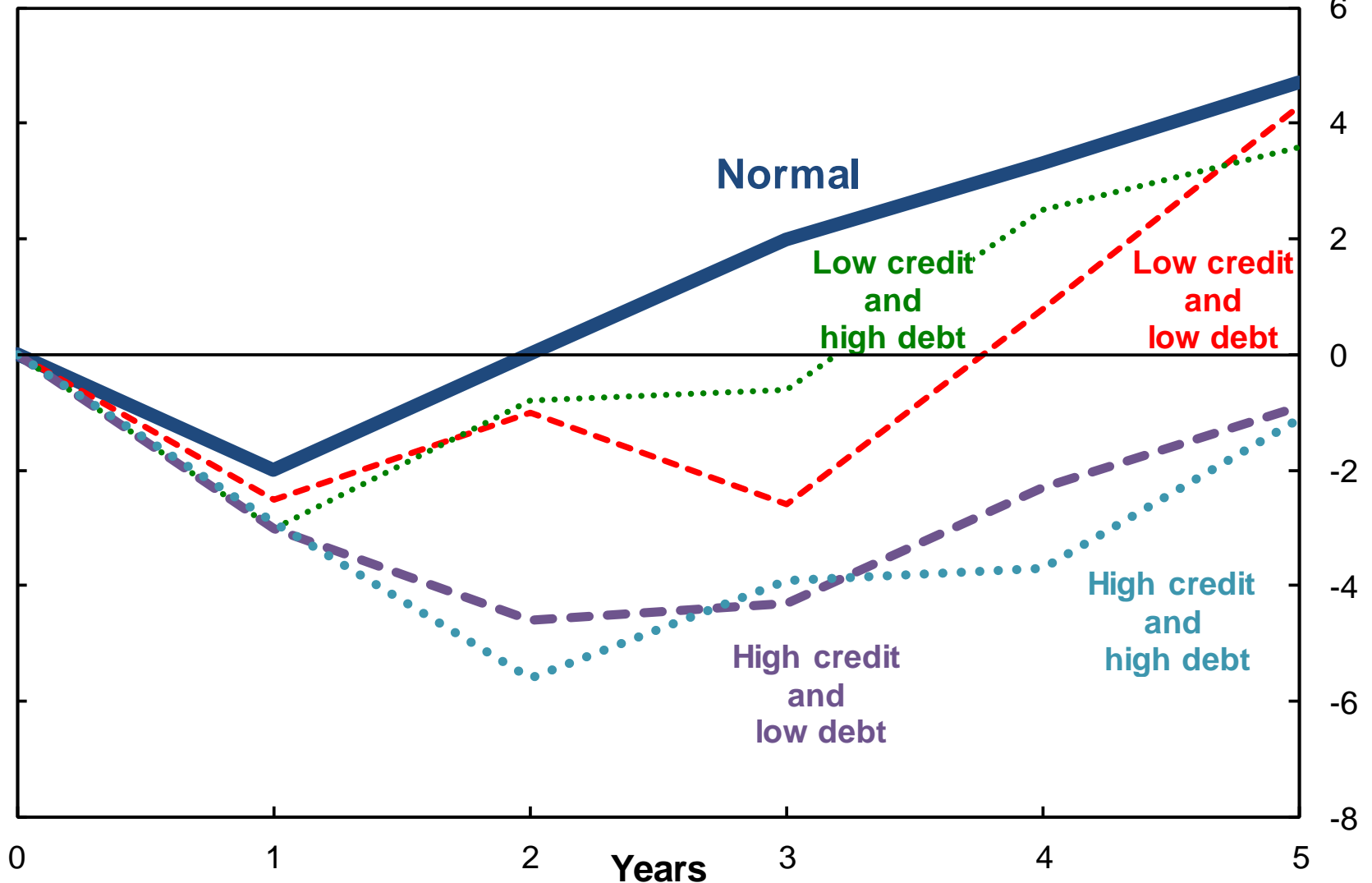
- Public debt does not work
- External imbalances (not shown) do no work
- Let's not kid ourselves, financial crises are difficult to predict

Excess credit trumps debt accumulation

The Recession and the Recovery

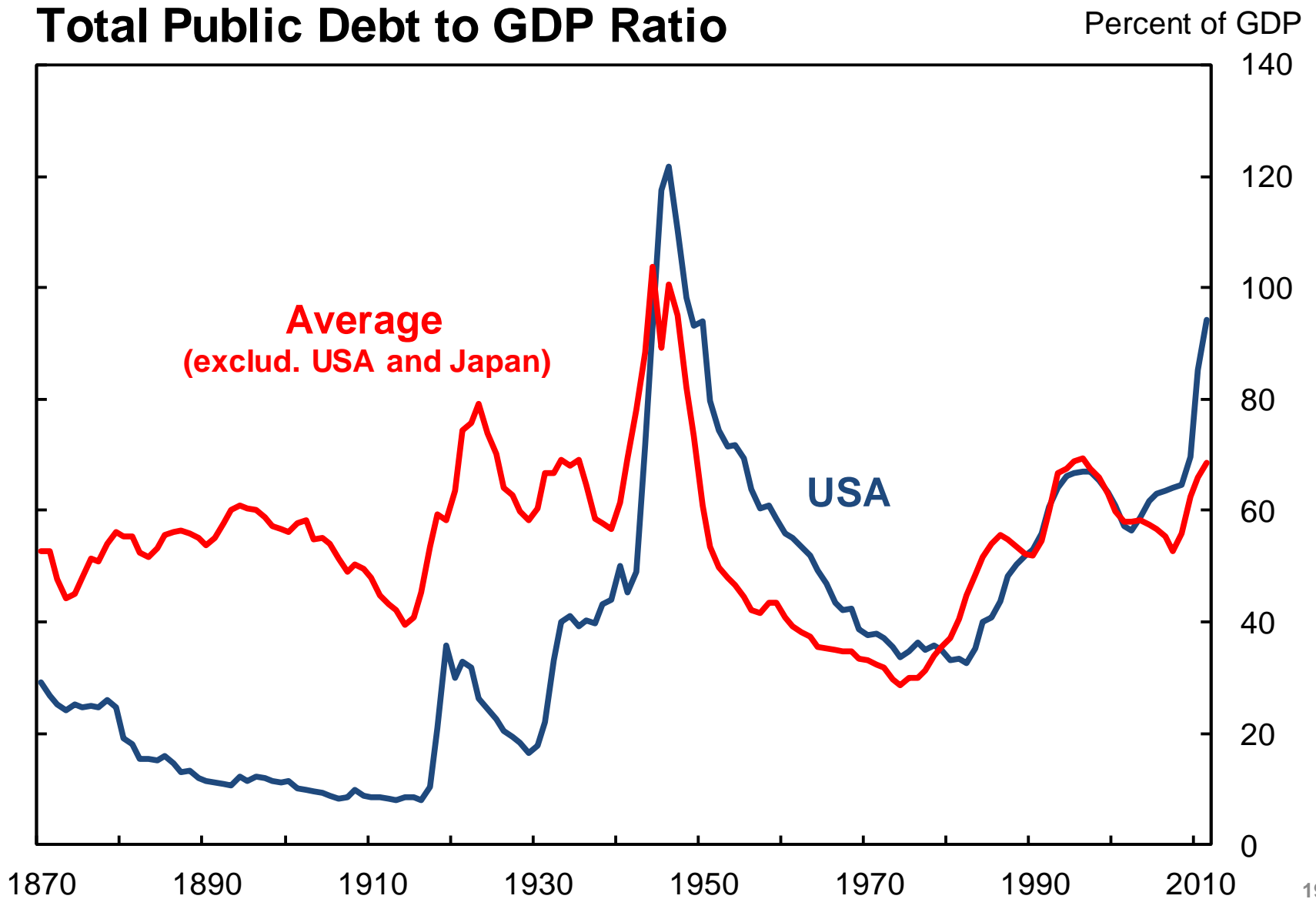
Normal vs. financial as a function of credit and debt

Percent



Public debt and the recovery

Public debt growing again...

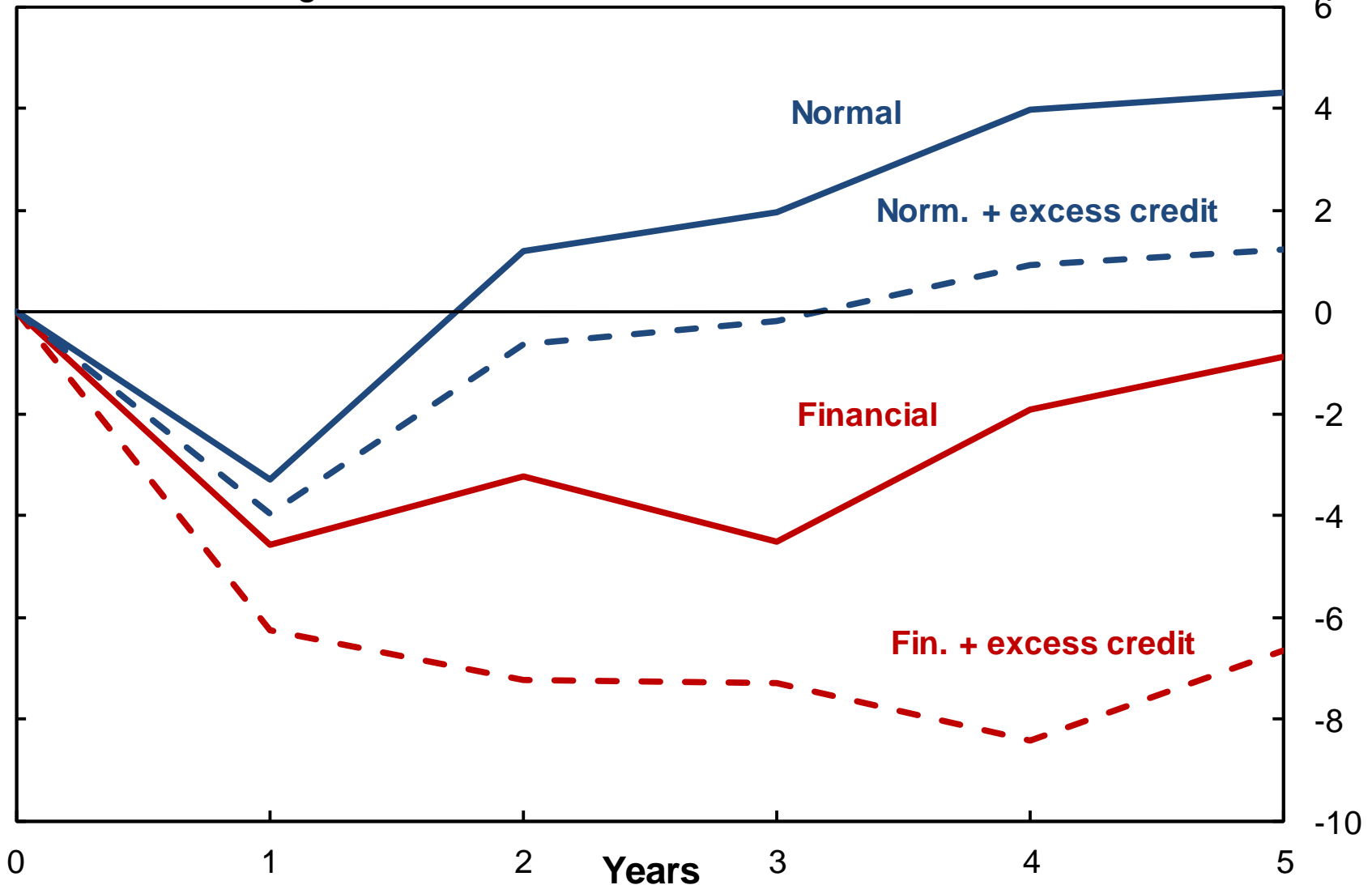


Excess credit buildup hurts in the downturn

Real GDP per capita

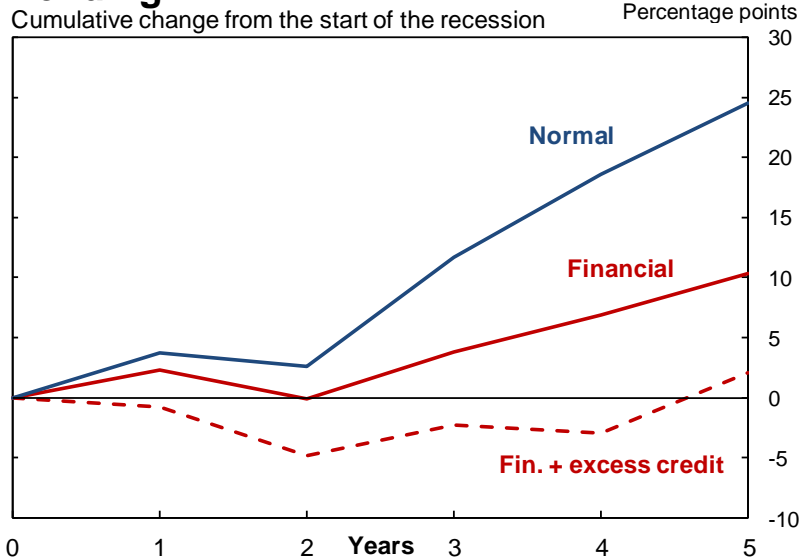
Cumulative change from the start of the recession

Percentage points

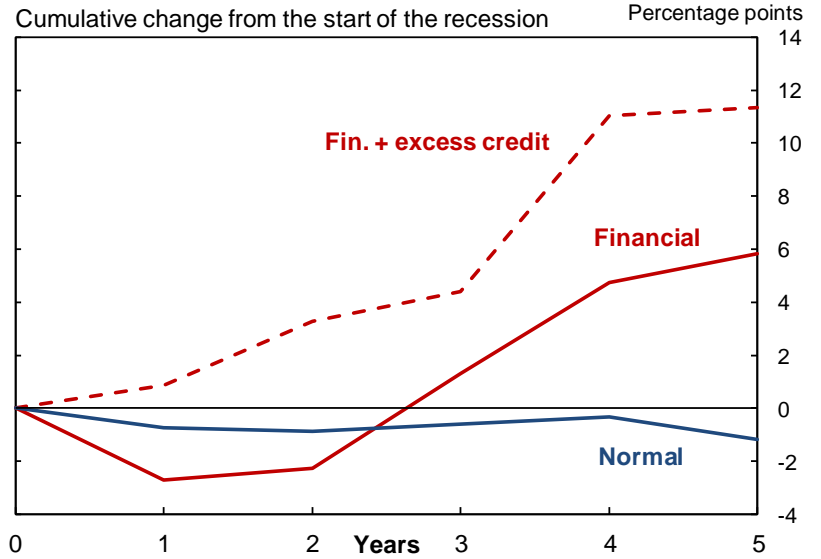


Excess credit buildup hurts in the downturn

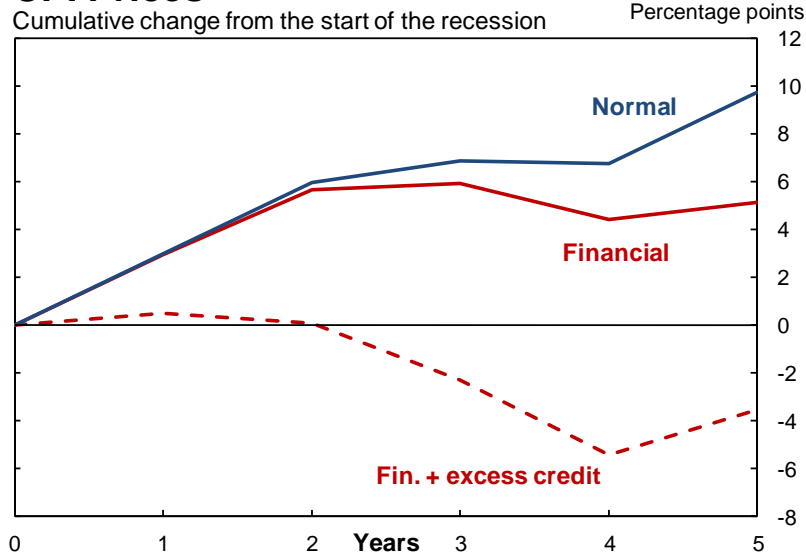
Lending



Public debt

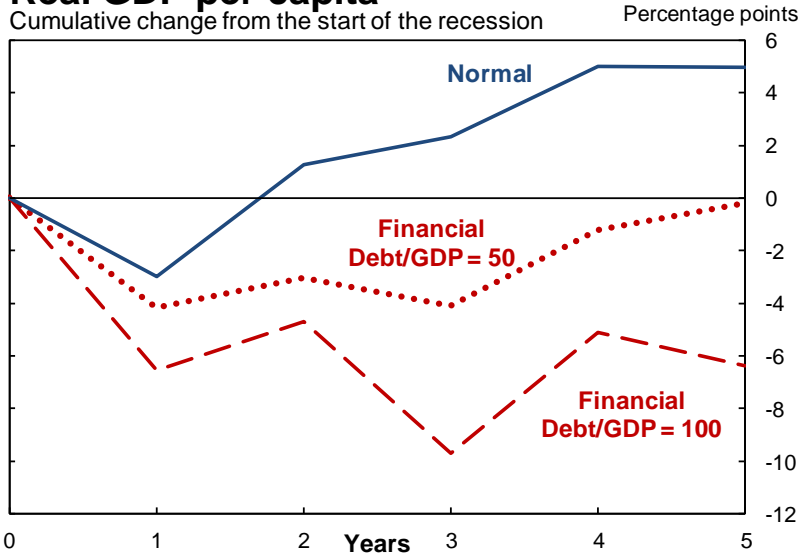


CPI Prices

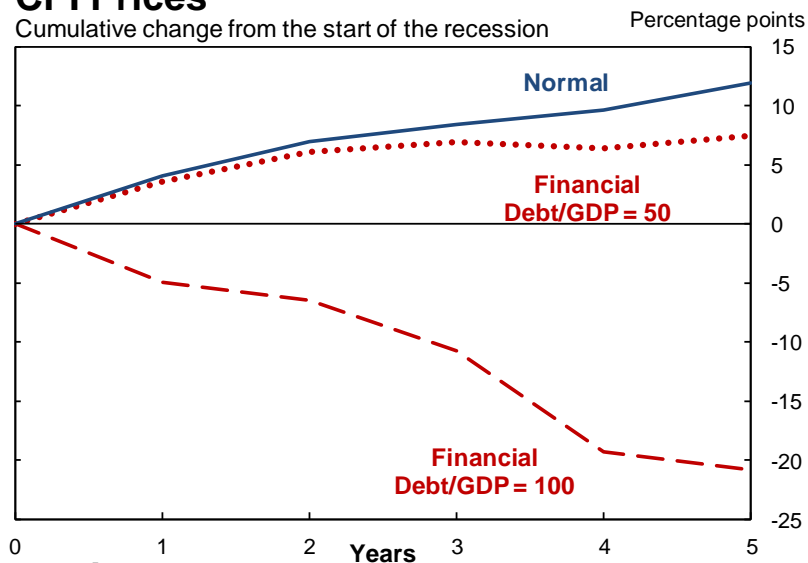


The level of debt matters in the downturn

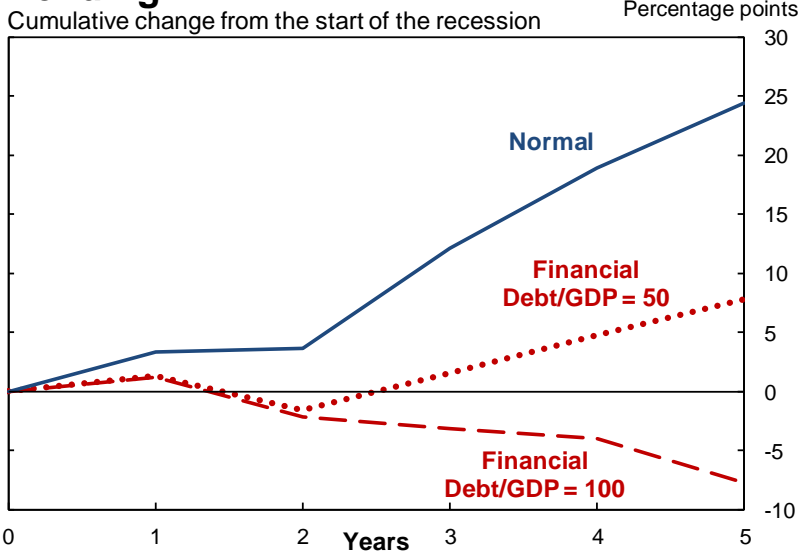
Real GDP per capita



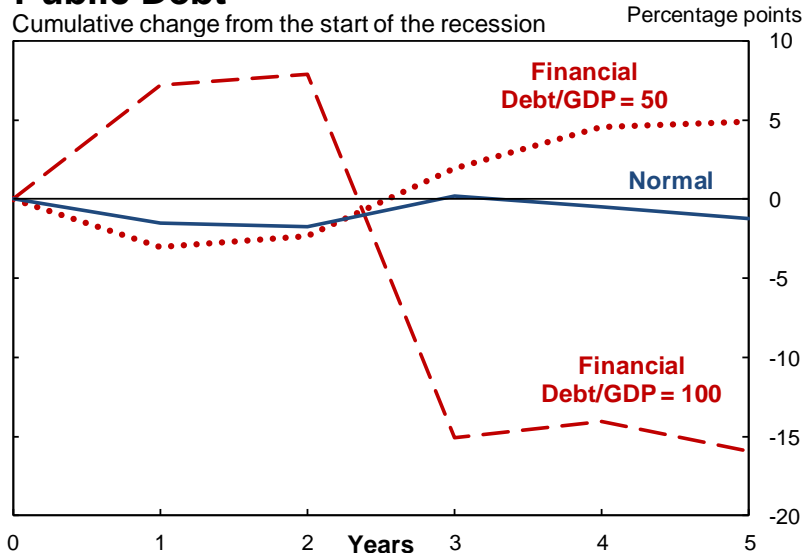
CPI Prices



Lending



Public Debt

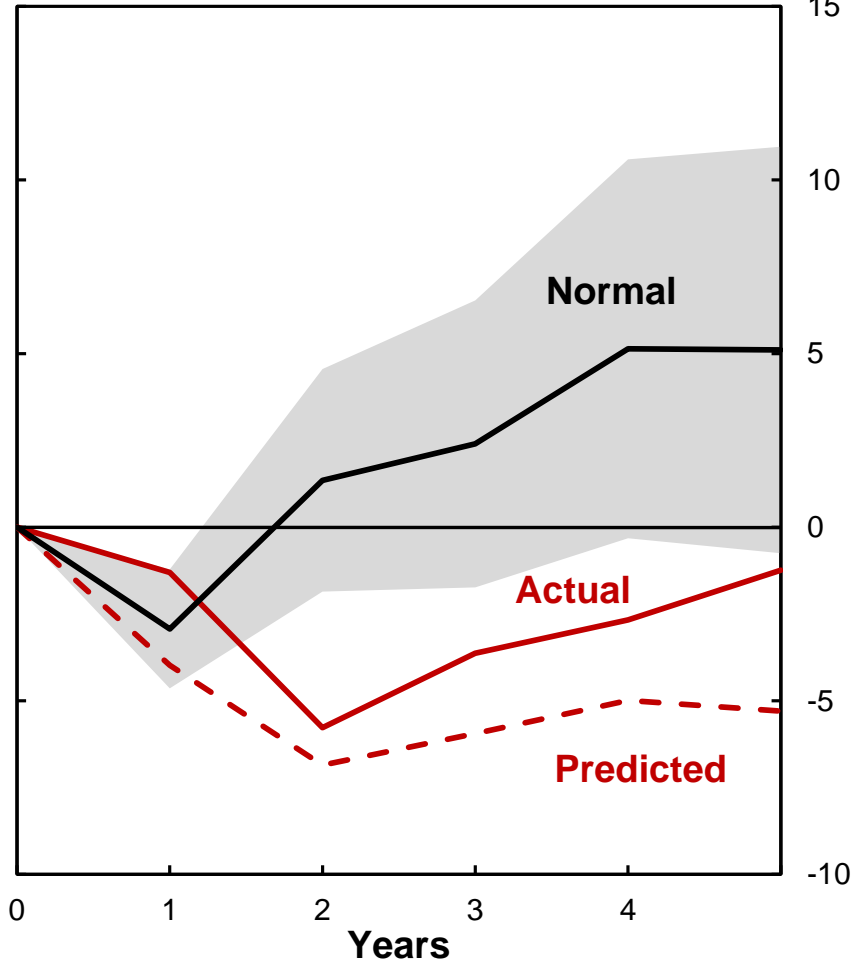


US vs UK recovery (\pm shadow banking)

USA real GDP per capita

Cumulative change since the start of the 2007 recession

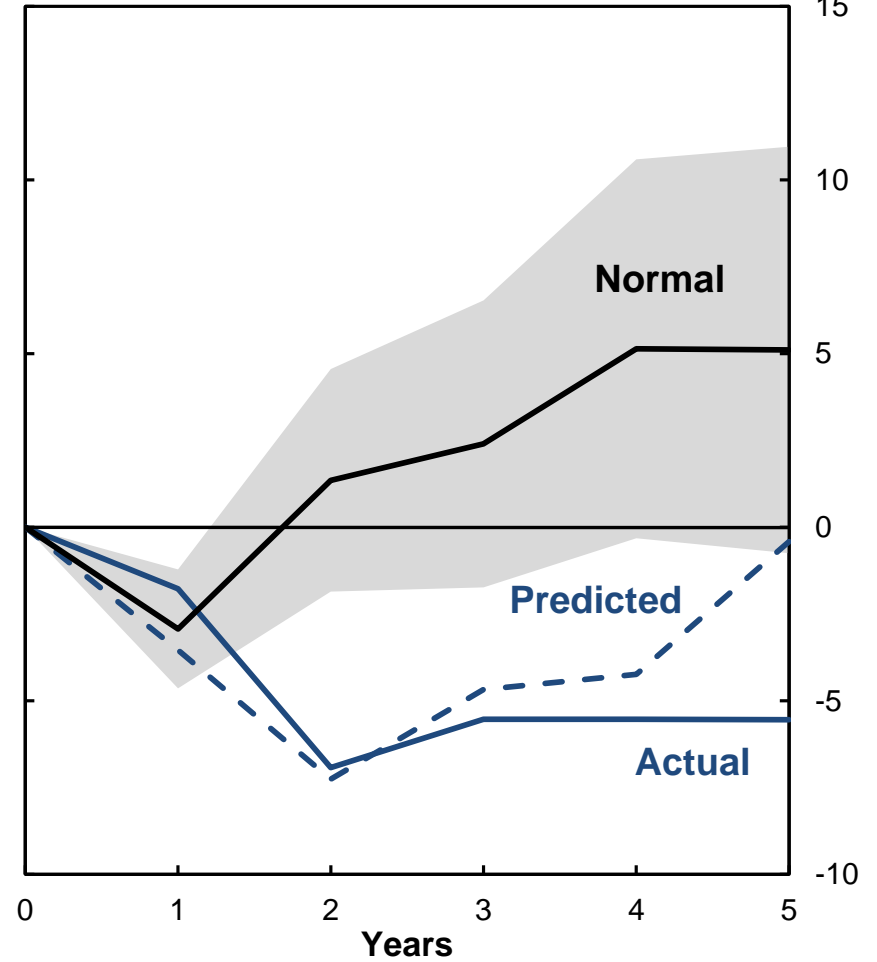
Percentage points



UK real GDP per capita

Cumulative change since the start of the 2007 recession

Percentage points



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

- Jordà, Òscar. 2012. [Credit: A Starring Role in the Downturn](#). FRBSF [Economic Letter](#), 2012-12.
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