The Great Leveraging

Five Facts and Five Lessons for Policymakers

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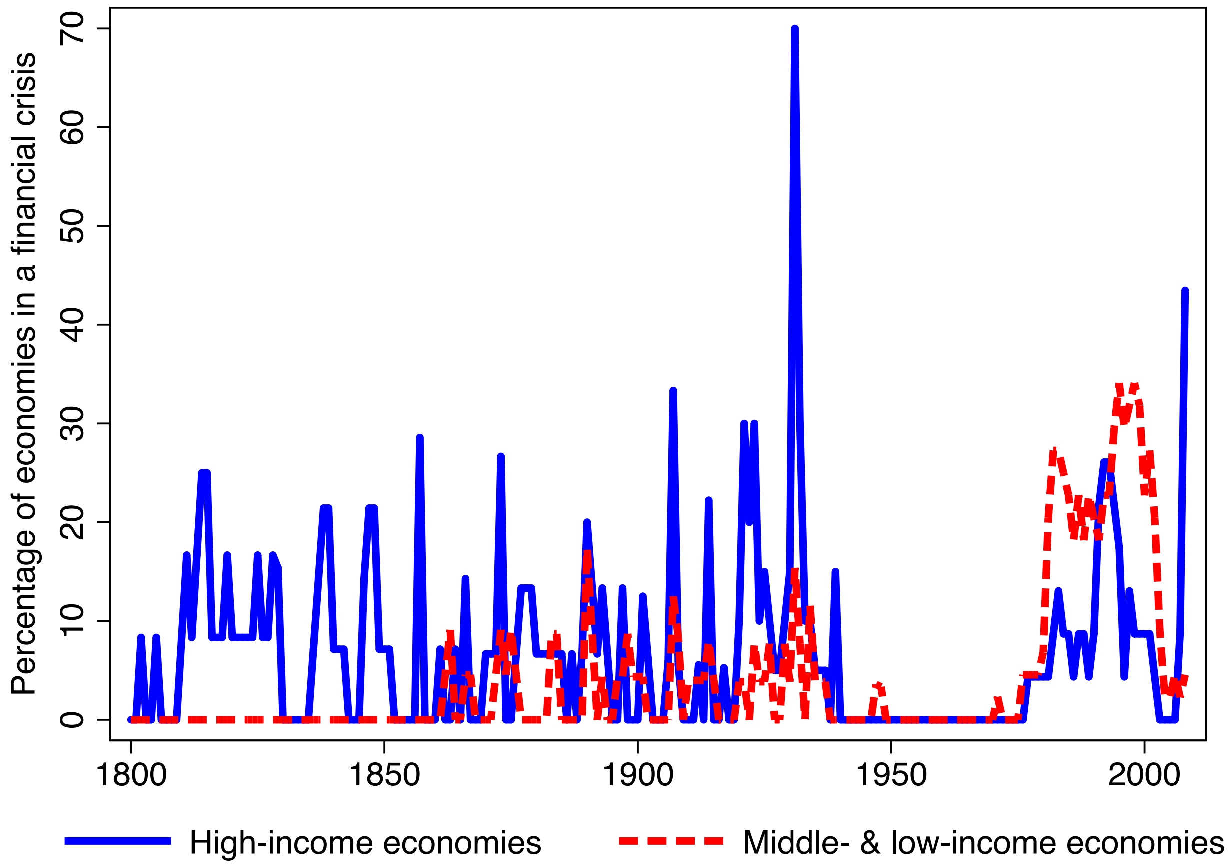
<u>Fact 1. Crises</u>: Almost forgotten: now they're back

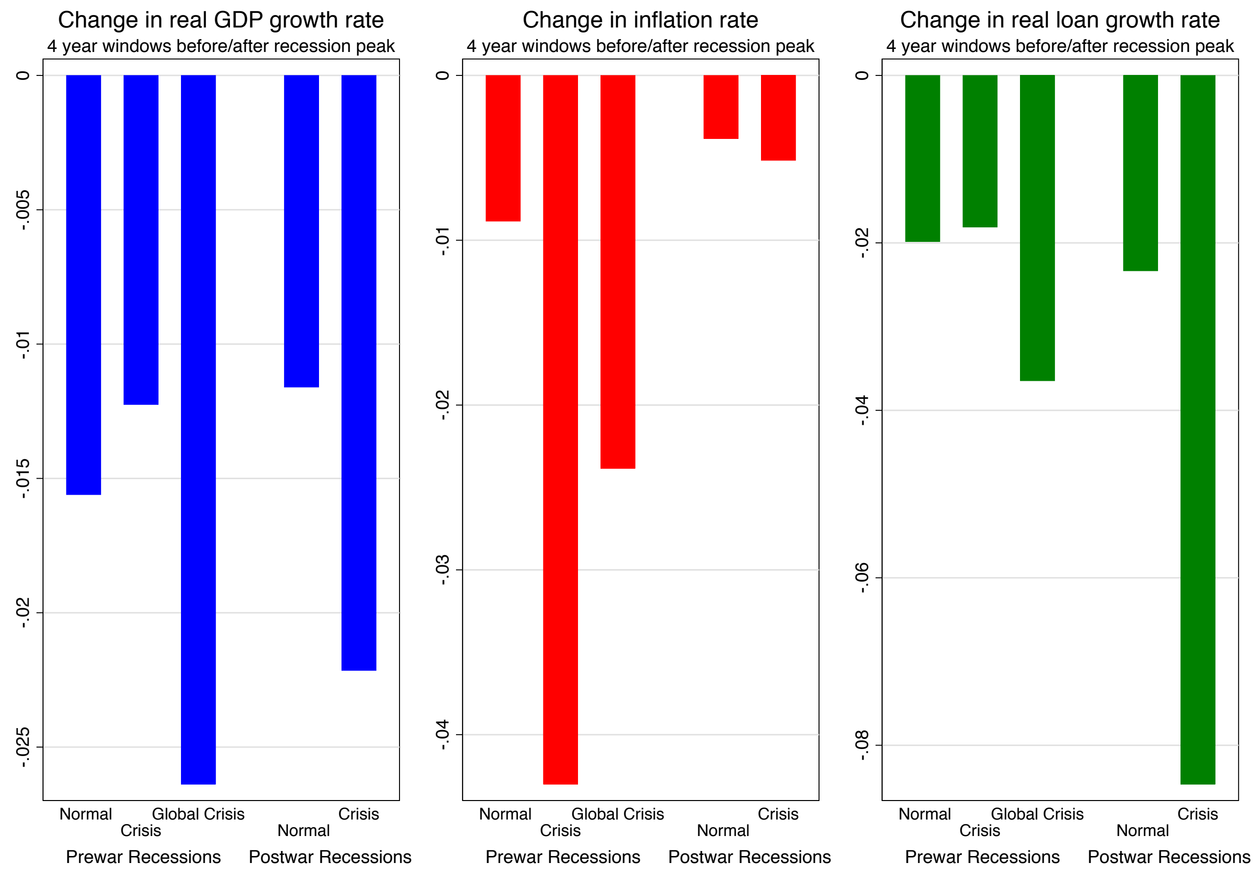
- A long standing problem
  - For DM and EM

- Exception: 1940 to 1970 period unusually quiescent. Why?
  - ***Internal or external constraints?***



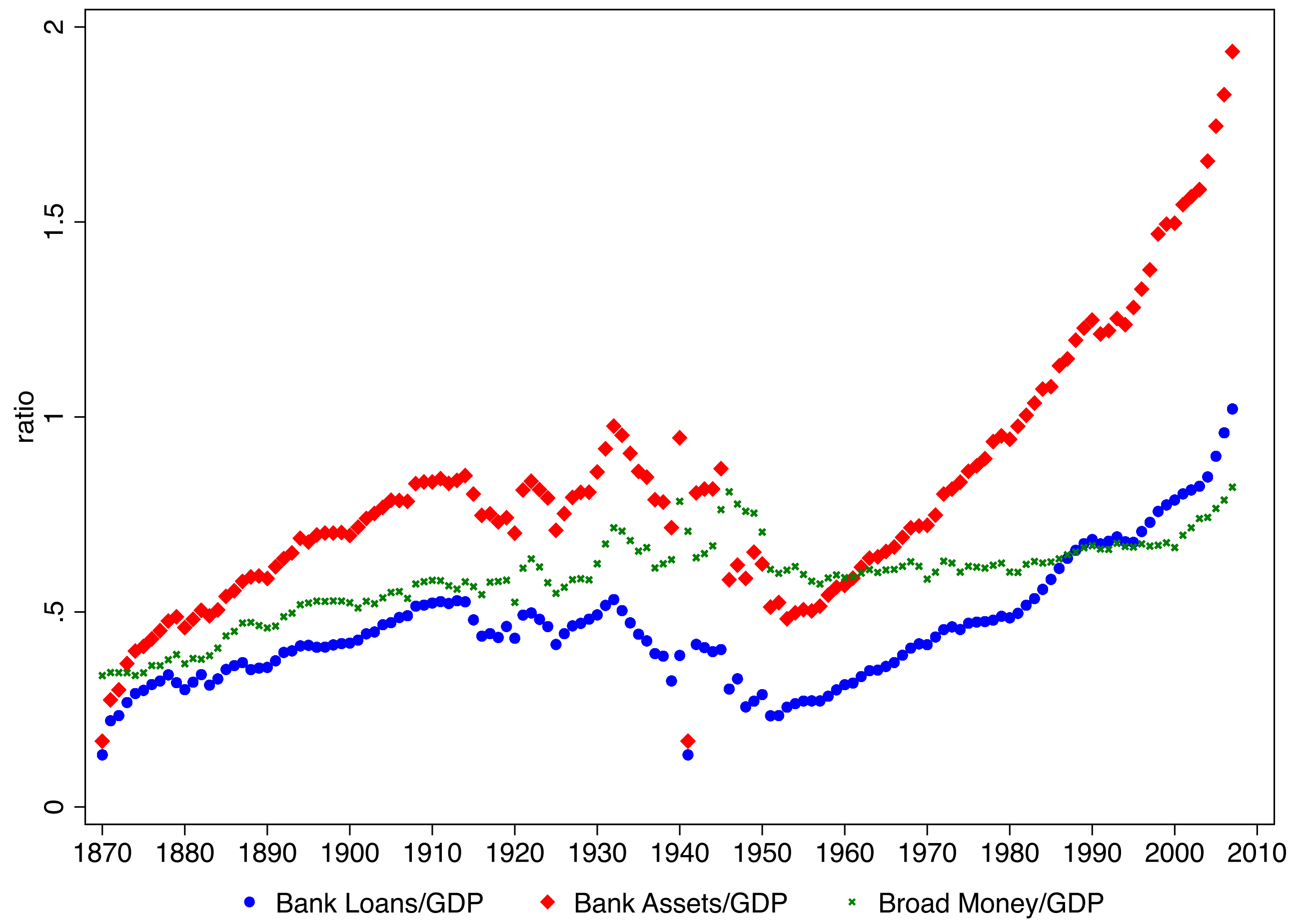
<u>Fact 2. Consequences</u>: forgot depressing/deflationary impacts

- Evidence-based macroeconomics
  - Event study
  - 14 "advanced" countries
  - 140 years of data
- Recessions are painful
  - Those with financial crises are more painful
  - *Those with global financial crises are worse still*
- Prewar versus Postwar



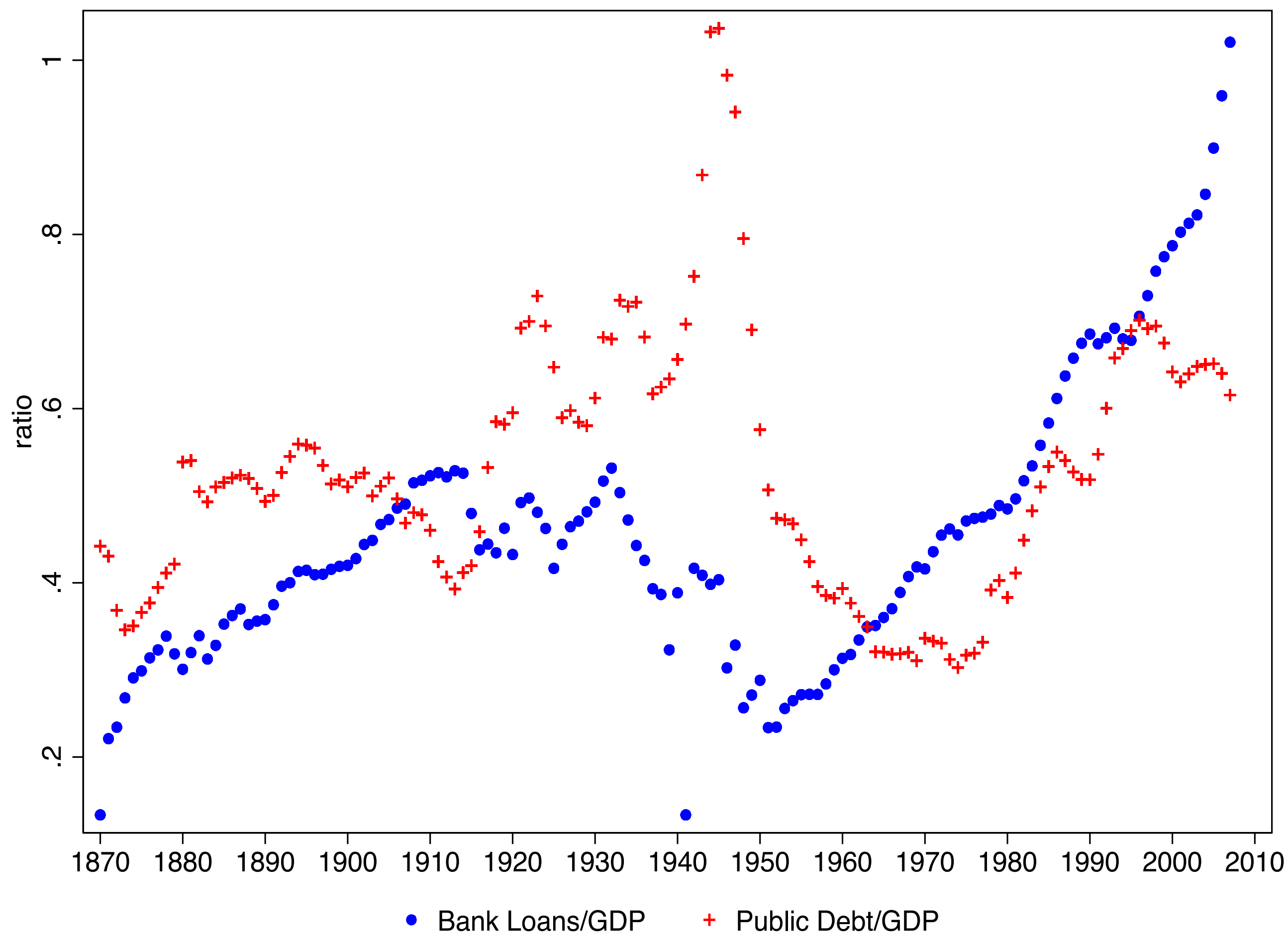
Fact 3. Extreme leverage: historically unprecedented

- Then
  - Age of Money
- Now
  - Age of Credit
- How?
  - More leverage
  - Wholesale funding
- Why?
  - Private actions (recovery from GD/WW2)
  - Government policies (financial liberalizations)



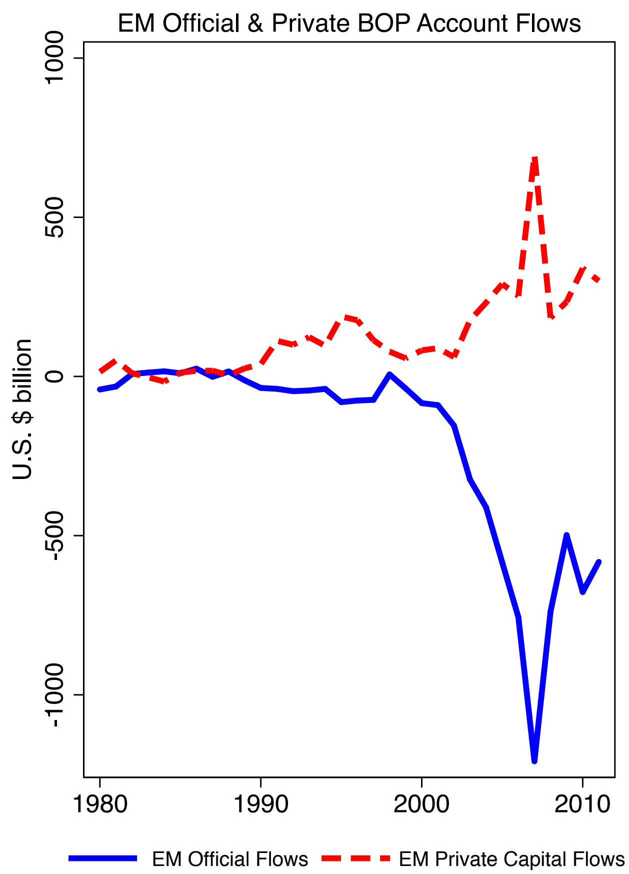
Fact 3. Extreme leverage: banks versus sovereigns

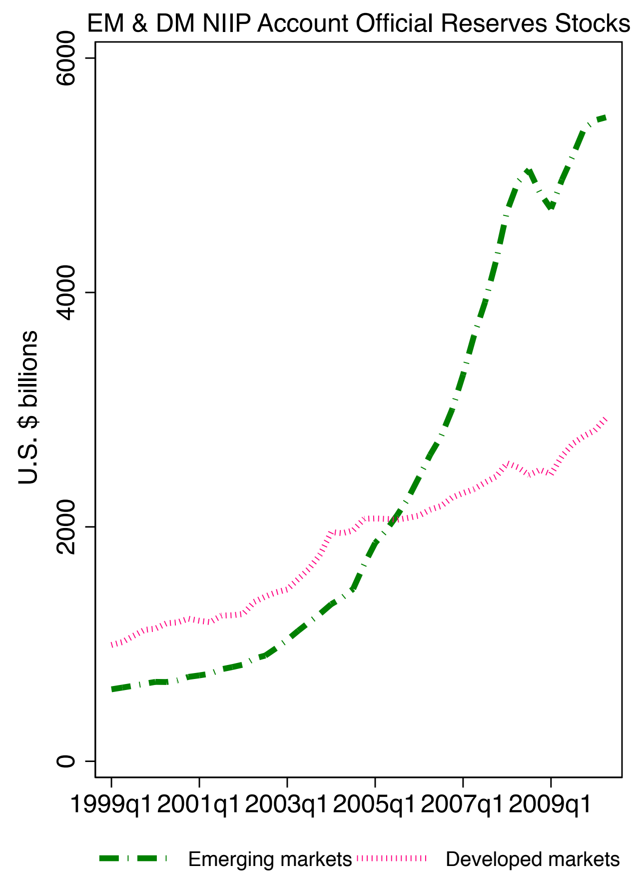
- Advanced countries
- Public debt crisis/ excess?
  - There is a post 2008 blip
- Private credit crisis/ excess?
  - Larger and trending up since 1990
- Reversal of ratios striking after 1960
  - “Safe assets”?



Fact 4. Global asymmetry: EMs buy insurance, DMs sell it

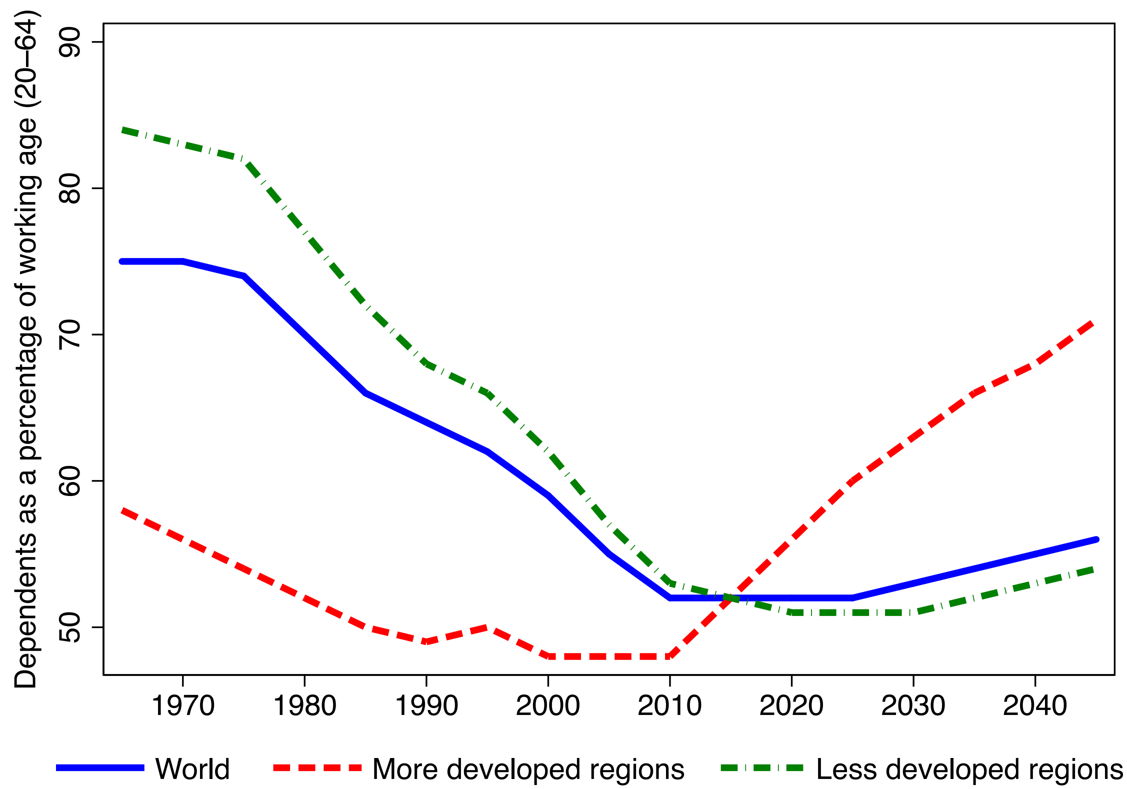
- Post-1990s EMs switch to safer, countercyclical polices and larger buffers
- "Great Reserve Accumulation"
  - Unique phase in history?
  - Gold standard
- Net capital flows
  - Private inflows
  - Official outflows
- No "Lucas paradox"?





Fact 5. Savings glut: short run panic v. long run demography

- Short term reasons to think the era of cheap capital is over
  - Investment rebound in EM and DM after panic?
    - Not quite yet!
  - EM reserve "step change" completed?
  - DM delevering slow?
- Longer term reasons?
  - Demography
- Offsetting/postponing factor
  - Recurrent and ongoing flights to safety in panic
- Real rate = 0% in Jun 2012!

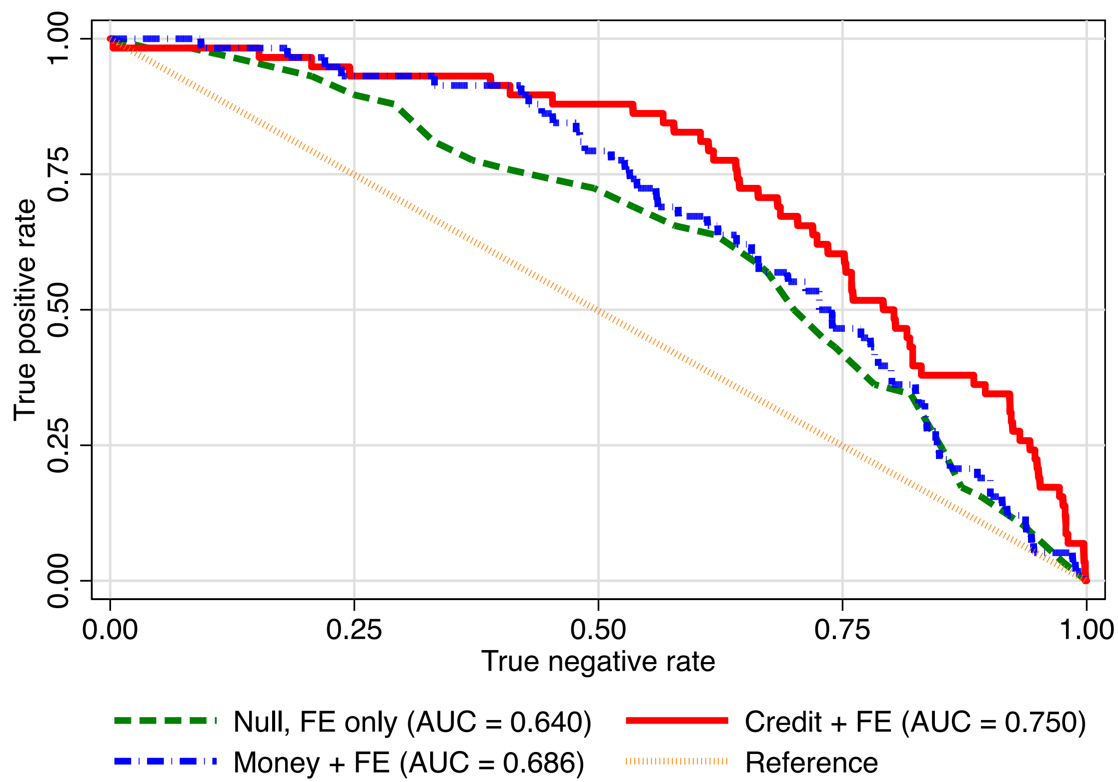


Summing up the facts

- An Inconvenient Truth
  - Crises just a fact of life in modern finance capitalism?
  - Exception was 1950–70 with financial repression, regulation, controls.
  - Period of low credit creation. But it was also still a period of high growth.
- Plus A Series of Unfortunate Events
  - Cheap capital in asymmetric world. Credit boom.
  - Good = productive projects. Bad = risk of boom-bust cycle.
- Sequel
  - Hunger for safe assets, demographic shifts slow (but coming).
  - Low real rates for now= deflationary shock continues, and credible sovereigns can be funded.
- Next
  - What lessons for policy in this kind of financial landscape
  - Macro policy / Financial policy

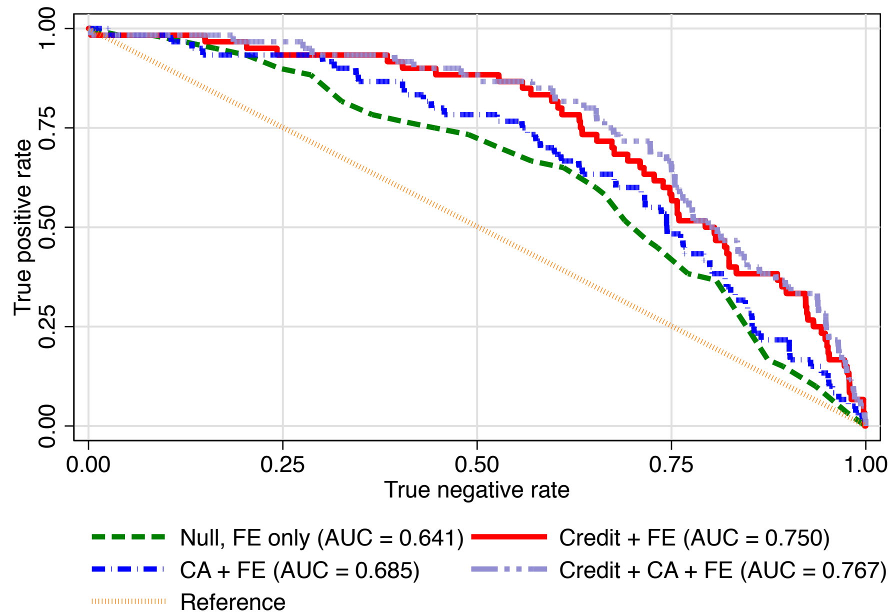
<u>Lesson 1</u>: Past private credit growth does contain valuable predictive information about likelihood of a crisis

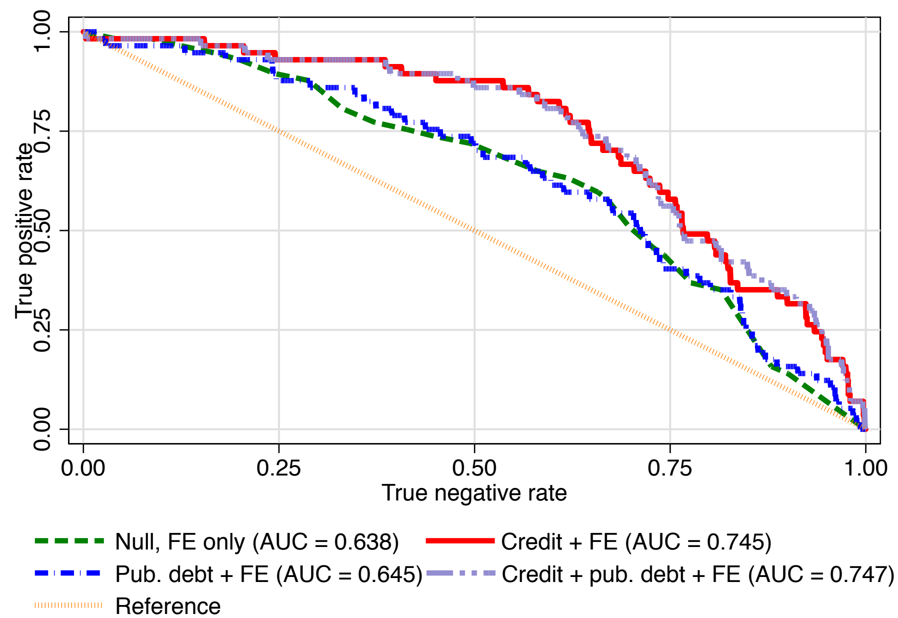
- Schularick and Taylor 2012 AER "Credit Booms Gone Bust"
- Use lagged credit growth T–5,..,T–1
- Forecast of a financial crisis {0,1} in year T
- Ex ante credit boom makes a financial crisis more likely
  - Beats null (cointoss)
  - Beats narrow or broad money
  - Robust to other controls including macro, interest rates, and stock prices



Lesson 2: External imbalances/public debts are a distraction

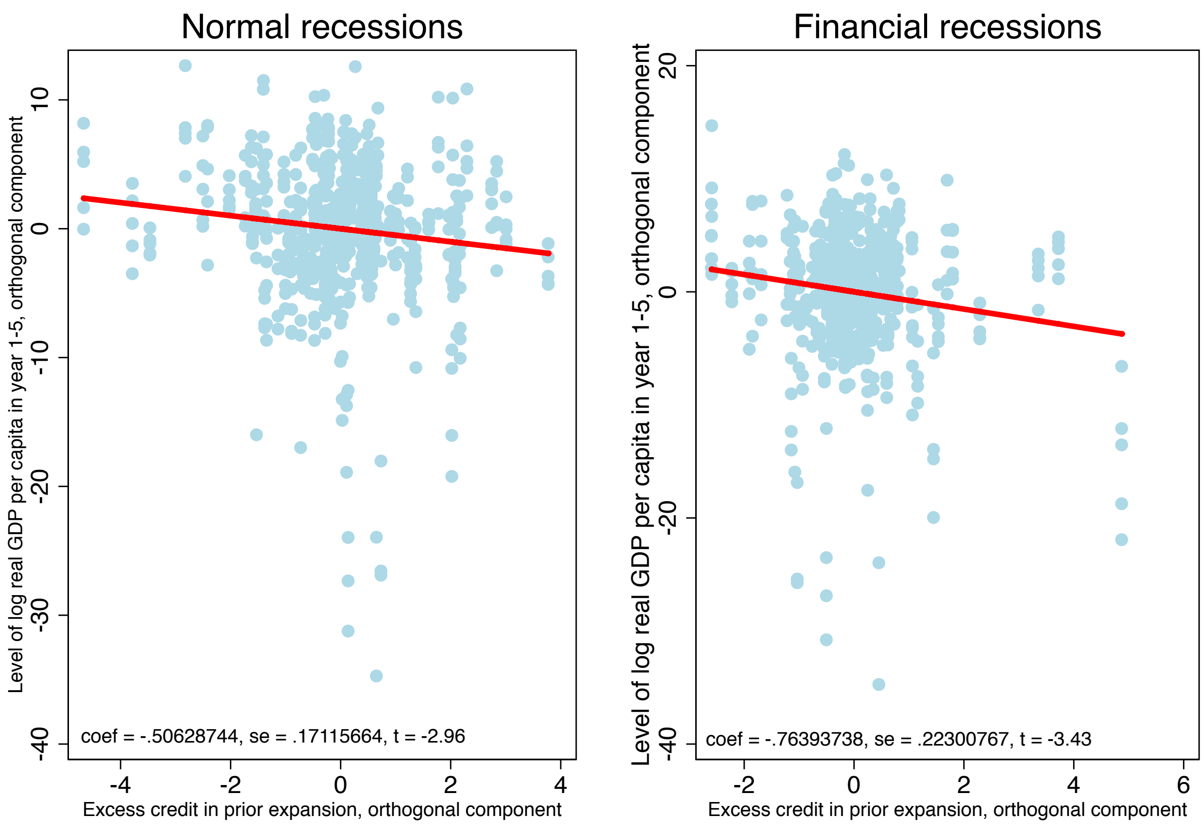
- Jordà, Schularick, Taylor 2011 IMF Economic Review "Financial Crises, Credit Booms, and External Imbalances: 140 Years of Lessons"
- Couldn't it all be down to external imbalances rather than internal?
  - Add current account (%GDP) to the forecast system and run a horse race.
  - As a policymaker, which signal has more valuable information about incipient financial fragility?
- Not CA/GDP
- Same result holds for public debt/GDP





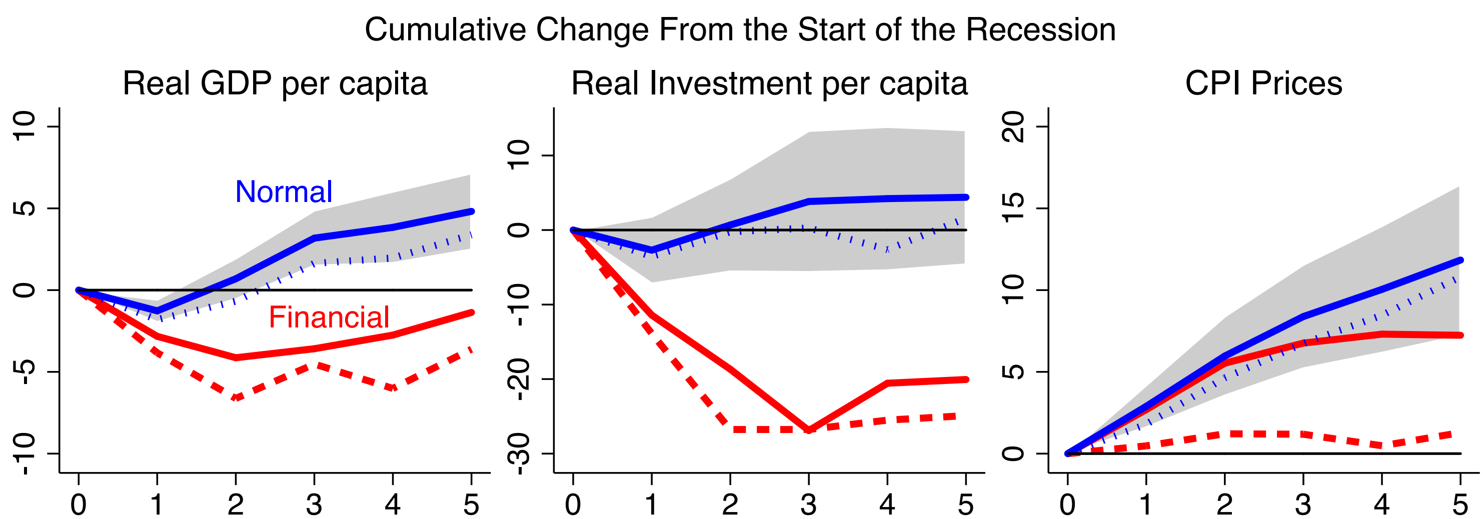
<u>Lesson 3</u>: After a credit boom, expect a more painful recession, normal or financial-crisis

- Credit boom before v lost output afterwards
- Jordà, Schularick, Taylor 2012 “When credit bites back”
- Larger credit boom ex ante correlates with deeper recessions in each case
  - In addition to the larger credit boom making more painful financial crisis case more likely to occur



Lesson 4: In a financial crisis with large run-up in private sector credit, mark down growth/inflation *more*

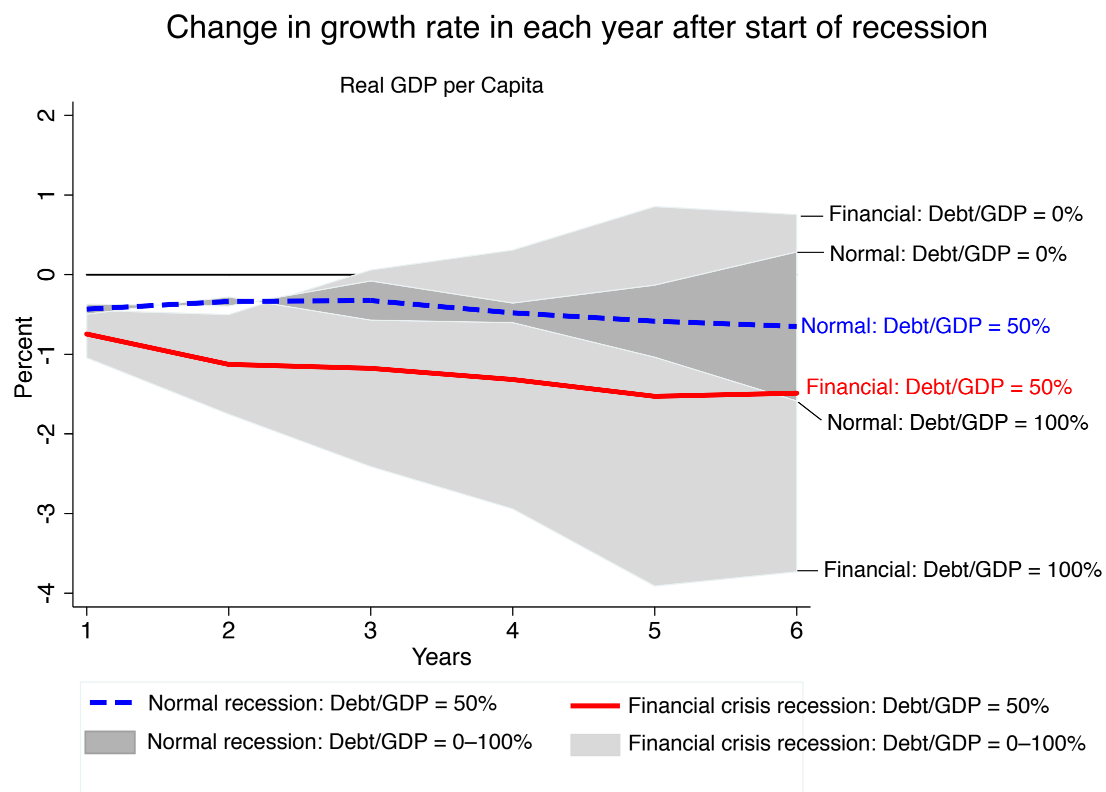
- Credit boom before v other outcomes
- Jordà, Schularick, Taylor 2012 "When credit bites back"
- Larger credit boom ex ante correlates with deeper recessions in each case
  - In addition to the larger credit boom making more painful financial crisis case more likely to occur
  - Also depressing for investment and inflation outcomes



<u>Lesson 5</u>: In a financial crisis with large public debt, and large run-up in private sector credit mark down growth/ inflation *even more*

JST, work in progress

- Zero reference = "no treatment"
- Blue = normal recession after +1% extra credit/ GDP ppy "treatment"
- Red = financial recession after +1% extra credit/ GDP ppy "treatment"
- Lt gray = Blue line path as public debt/GDP vary from 0% to 100%
- Dk gray = Red line path public debt/GDP vary from 0% to 100%



Summing up the lessons

- Pre-crisis prevention

  - Central bank complacency, with two obvious and key failures
    - Inflation targeting not enough, unable to avert credit boom/bust crisis
      - Didn't we know this already from history of the gold standard, etc.?
    - Not having well thought out banking supervision/resolution, LOLR regime
      - Ditto
    - Both failures present with a vengeance in the Eurozone with amplification factors

- Post-crisis response

  - What will the path look like?
  - Worse than people thought/think
    - Massive deflationary shock; CBs beware of premature tightening
    - ECB rate rise in 2011?
    - Fed/BoE/BoJ responses more accomodative, but large headwinds also

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