Credit Booms Gone Bust:
Monetary Policy, Leverage Cycles, and Financial Crises, 1870-2008

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comments by
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Credit booms often end in tears—indeed, credit booms help predict financial crises. In effect credit is the more robust predictor of financial crisis after WWII. The output costs of crises have remained large in the post war period and their inflationary consequences are greater.
Reactions (Part I)

This is a very promising line of research, which is grounded in solid stylized facts. This paper makes contributions along three dimensions:

1. Bringing the very relevant pre-war experience of advanced economies to bear on the stylized facts.
2. Doing a horserace between a “monetarist” model and a “credit-augmented monetarist” model of financial crises prediction. (I would argue these predict different types of crisis)
3. Suggesting (although in my view not presenting sufficient evidence) that credit introduces its own shocks and it is not merely an amplifier as in the financial accelerator BGG model.

The paper also provides food for thought on possible implications for the conduct of monetary policy and early warnings of financial crises (more on this later)
Some past and ongoing examples of credit surges ahead of financial crises...
Norway: Domestic Private Credit, 1900-2004
(Amount outstanding at year-end as a percent of GDP)
Ireland Banking Survey: Domestic Credit and Banking Crises, 1970-2008
(credit outstanding at end-of-period as a percent of GDP, 4-quarter moving average)

First year of the banking crisis

Reinhart (2010)
United Kingdom Banking Survey: Domestic Credit and Banking Crises, 1970-2008
(credit outstanding at end-of-period as a percent of GDP, 4-quarter moving average)

Reinhart (2010)
Colombia Banking Survey: Domestic Credit and Banking Crises, 1970-2008
(credit outstanding at end-of-period as a percent of GDP, 4-quarter moving average)

The 1998 banking crisis was associated with the worst recession recorded.

Coverage of domestic credit series expanded

First year of the banking crises (black lines)

Reinhart (2010)
Malaysia Banking Survey: Domestic Credit and Banking Crises, 1970-2008

(credit outstanding at end-of-period as a percent of GDP, 4-quarter quarter moving average)

First year of the banking crises (black lines)

Domestic credit aggregate expanded coverage

Reinhart (2010)
Reactions (Part II) or what is missing

I. A selective chronology pertinent to the credit cycle for the countries under study.

Financial liberalization (importantly including the lifting of capital account restrictions—more on this later)
Highlights from financial innovation (securitization of mortgages, for example).

This may prove invaluable in identifying “credit-specific shocks” and a role beyond the amplifier effect.

It will also help parse the post-war period into finer subperiods and help the interpretation of some of the main results.

THERE IS MASSIVE FINANCIAL REPRESSION DURING 1946-EARLY 1980S
Reactions (Part II) or what is missing

II. The “external connection” of the domestic credit cycle

*International capital flows “bonanzas” and external debt surges prior to crises*

*The “sudden stop” problem a la Calvo*

It may help in understanding the magnitudes of the booms and subsequent busts (over and beyond differences in pre war and post war monetary policy responses.

Also why countries with very different monetary frameworks have experienced similar cycles (remember UK-Ireland slides)
Financial liberalization and the sequencing of crises

Diaz-Alejandro's "goodby financial repression, hello financial crash"

Stock and real estate market crashes--economic slowdown begins

Kaminsky-Reinhart "twin crises"

Capital controls introduced or increased around this time

Reinhart and Rogoff (2009)
Banking crises and capital mobility, 1800-2008

Capital Mobility and the Incidence of Banking Crisis: All Countries, 1800-2007

Share of Countries in Banking Crisis, 3-year Sum
(right scale)

Capital Mobility (left scale)

Reinhart and Rogoff (2009)
Gross External Debt as a Percent of GDP: Averages for Selected 59 Countries, 2003-2009 (in percent)

-30 0 30 50 100 150 200 250
Change in debt-to-GDP ratio, 2003-2009

Europe-Advanced
Europe-Emerging
United States
Australia & Canada
Asia-Emerging
Former Soviet Union
Japan
Africa
Asia (ex. Hong Kong)
Latin America
Advanced economies
Emerging markets

Deleveraging
Increased indebtedness

Reinhart and Rogoff
United States: Private Capital Inflows from the United Kingdom and Banking Crises, 1865-1914 (capital flows as a percent of exports)

Reinhart and Rogoff (2010)
Final thoughts on policy

The paper also provides food for thought on possible implications for the conduct of monetary policy and early warnings of financial crises.

If there is a greater emphasis or awareness of the behavior of credit aggregates—should old and discarded tools of monetary policy (in advanced economies) be revived?

**Margin requirements to dampen booms and asset bubbles?**

**Ceilings on certain types of credit?**

**Countercyclical reserve requirements?**

**More heavy-handed enforcement of regulation and supervision?**