

**CAN POLICY
TAME THE
CREDIT CYCLE?**

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WHAT HAVE WE LEARNED? NEW EVIDENCE ON THE CREDIT CYCLE

- In long cross-country panels, rapid growth in quantity measures of credit tend to forecast recessions and financial crises.
- There is important independent information in measures of sentiment that incorporate proxies for credit pricing and quality.
 - Narrow credit spreads and large fraction of high-yield issuance forecast low returns to credit investors going forward: as if markets are overly exuberant.
 - These same credit-sentiment variables forecast reduced economic growth at a 2-3 year horizon.
- Bank shareholders are systematically disappointed in wake of rapid credit growth.
- Overall: credit booms—especially those associated with exuberant sentiment, aggressive pricing and lower-quality issuance—tend to end badly, both for lenders and the real economy.

POST-CRISIS REGULATION: THE GOOD

- Higher capital in banks
- Stress testing
- Liquidity regulation
- A new resolution regime for large bank holding companies

POST-CRISIS REGULATION: THE WORRISOME

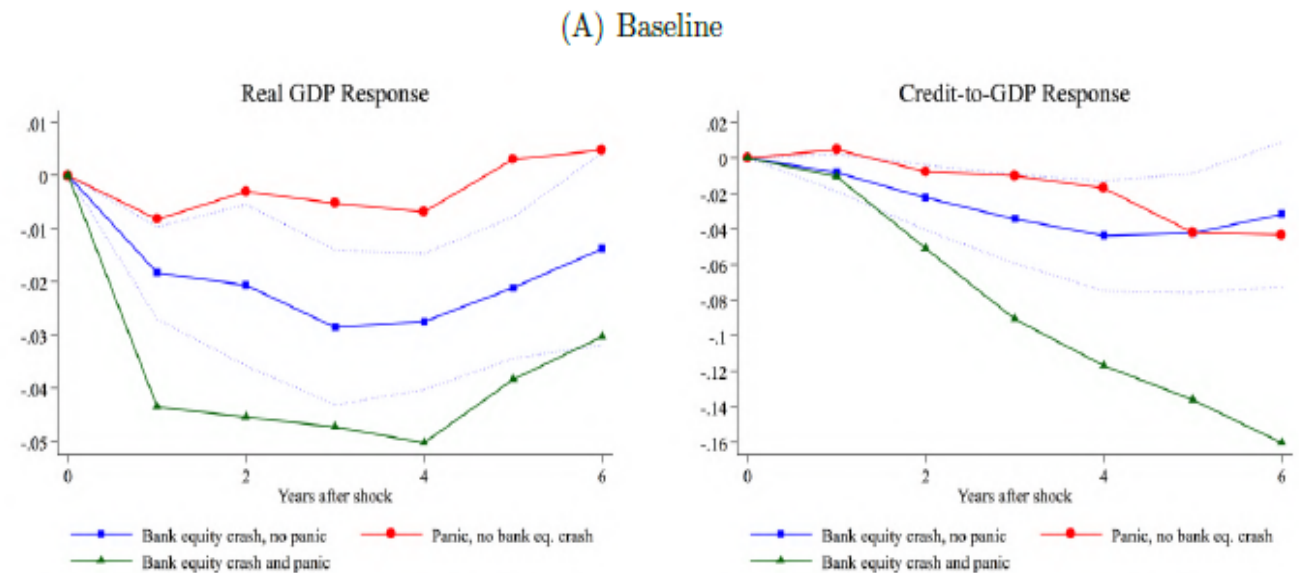
- Capital: levels vs. ability to recapitalize after a shock
- Regulatory arbitrage and regulatory backsliding *within* the banking industry
- No real time-varying macroprudential tools (in U.S.)
- What's happening *outside* the banking sector?
- Liquidity provision and the Fed's lender-of-last-resort role

CAPITAL CRUNCHES AND THE NEED FOR FAST RECAPITALIZATION

- Don't get too focused on *level* of capital. Without a mechanism to force banks to *rapidly recapitalize* after losses, will always be risk of credit crunches, even if we avoid panic meltdowns.
 - Baron-Verner-Xiong (2019) data for 46 countries 1870-2016: large (30%) bank equity declines predict persistent credit contractions and output gaps—even when there is no bank panic.
 - Greenlaw et al “Leveraged Losses” paper predicts large contraction in credit supply and GDP in Feb 2008, based solely on depletion of bank capital—well before Lehman and any widespread panic.

Figure 4: Impact of non-panic banking distress

This figure presents the response of real GDP and credit-to-GDP to 30% bank equity crashes, distinguishing between 30% bank equity crashes that coincide with a bank panic and crashes that are not associated with a panic. The impulse responses are estimated from Equation 3. Panel A presents the results from the baseline specification. Panel B defines episodes of banking sector distress as years with a 30% bank equity crash *and* narrative evidence of widespread bank failures. The responses are estimated using local projections, controlling for contemporaneous and lagged nonfinancial equity crash indicators, real GDP growth, and the change in credit-to-GDP. All specifications also control for country fixed effects. The dashed lines represent 95% confidence intervals based on standard errors double-clustered on country and year.



CAPITAL CRUNCHES AND THE NEED FOR FAST RECAPITALIZATION

- **Example: regulation forces all banks to hold 10% capital. Worst-case-scenario losses are 5%. So banks are never insolvent, and there are no runs or panics.**
 - But still, after a realization of 4% losses, if banks don't issue new equity, their assets must fall by 40% in order to maintain compliance with the regulation.
 - And banks won't want to issue equity at this point, given debt overhang problems.
 - Recall that banks paid out over \$100 billion in dividends and repurchases in 2007-08, and raised little new equity capital. This was a critical policy failure.
- **Moral of the story: imperative for regulators to promptly cut off all dividends, and compel new equity raises, as we begin to slip into next major downturn.**
 - I don't have great confidence on this point, especially the forced equity raises.
 - Ambiguity as to whether the stress test rules provide an adequate mechanism.

WHITHER MACROPRUDENTIAL?

- Unlike other countries (e.g. the U.K., Sweden, Norway), Fed has not deployed the countercyclical capital buffer (CCyB), in spite of strong economy, and widespread concerns about elevated asset valuations and overheating in credit markets.
- Supervisory guidance on leveraged lending has been weakened in wake of October 2017 determination by GAO that guidance was a “rule” subject to the procedural requirements of the Congressional Review Act—meaning that guidance has to be submitted to Congress for review before it can take effect.
- Bottom line: no real time-varying macroprudential tools exist in U.S.

A ROLE FOR MONETARY POLICY?

- Janet Yellen (2011): *“The evolving – though by no means settled – consensus is that monetary policy is too blunt a tool to be routinely used to address cyclical risks to financial stability, and that more targeted micro- and macroprudential tools should be used to address these risks.”*
- Ben Bernanke (2015): *“In light of our recent experience, threats to financial stability must be taken extremely seriously. However, as a means of addressing those threats, monetary policy is far from ideal. First, it is a blunt tool... For these reasons, I have argued that it’s better to rely on targeted measures to promote financial stability, such as financial regulation and supervision, rather than on monetary policy.”*
- These arguments implicitly assume that regulation is reasonably effective in taming the credit cycle.
- If not, opens door for monetary policy to play a supportive role.

BUT IS THE FED SMARTER THAN THE MARKET?

- A common objection: elevated sentiment cannot be reliably assessed in real time—if it could, hedge funds and other investors would have huge incentives to take contrarian positions.
- How can Fed have information and conviction to act when other highly sophisticated market participants won't?
- A limits-to-arbitrage perspective: what holds back hedge funds from betting aggressively against—and thereby correcting—long-horizon macro mis-pricings is not scarce information, but rather constraints of organizational form.
- Non-financial firms appear to be aggressive and generally successful macro market timers. Presumably not because they are smarter than hedge funds, but have a structural advantage:
 - Closed vs. open-end structure.
 - No mark-to-market: settle up by paying out cashflows as they come in.
 - If a firm issues overvalued stock or junk bond and it keeps going up, what's the problem?

NON-FINANCIAL FIRMS AS MACRO ARBITRAGEURS

- Firms appear to time the equity market: issue more equity in advance of aggregate stock market underperformance. (Baker-Wurgler 2000).
- And time the Treasury market with their debt maturity choices (Baker-Greenwood-Wurgler 2003).
 - In part by taking the other side of US Treasury debt maturity policy shifts (Greenwood-Hanson-Stein 2010).
- High ratios of junk-bond to investment-grade issuance predict poor returns on junk bonds (Greenwood-Hanson 2013).
- Cross-market arbitrage: firms borrow to repurchase shares when term premiums and credit spreads are low (Ma 2018).



BAKER-WURGLER (2000): EQUITY SHARE AND STOCK RETURNS

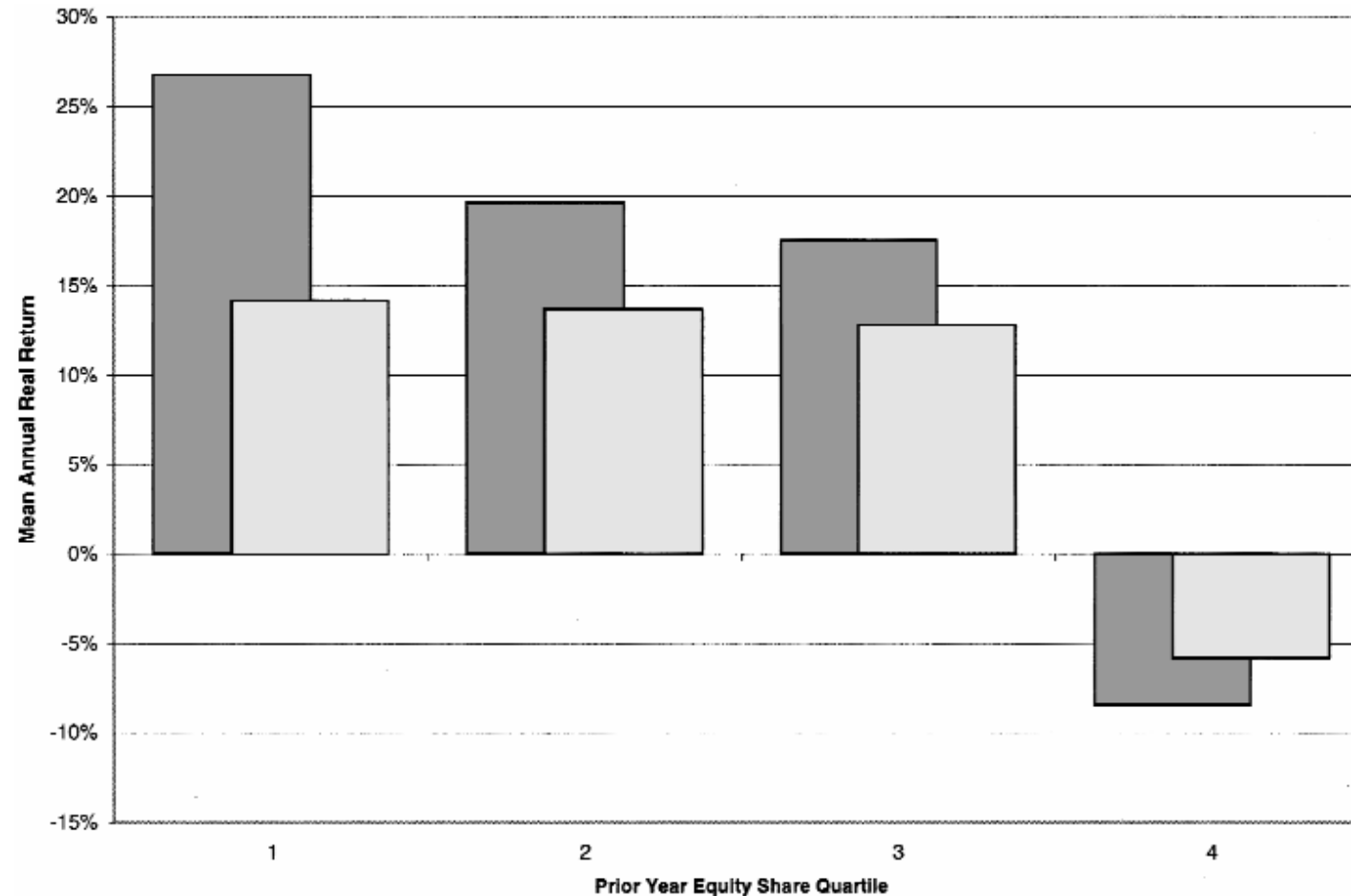
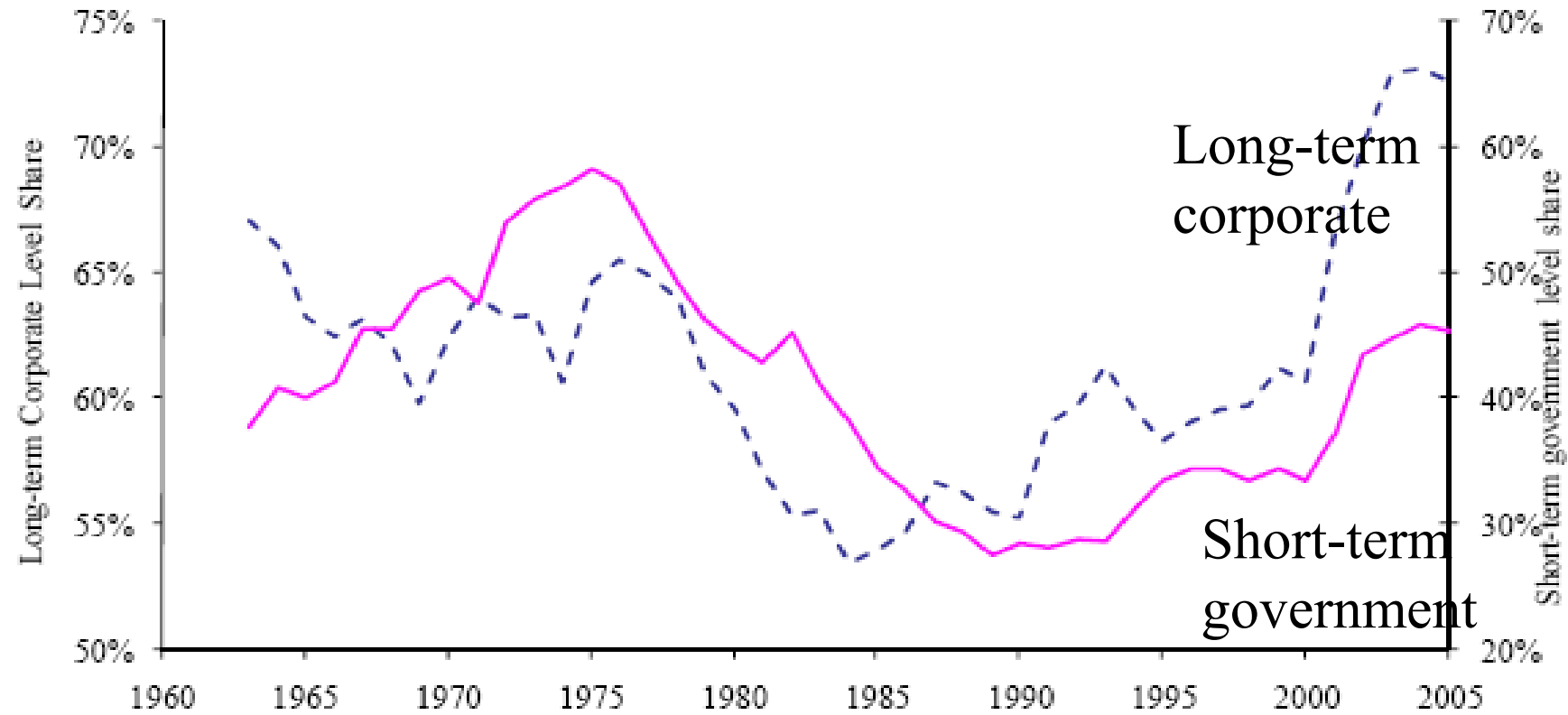


Figure 2. Mean equity returns by prior-year equity share in new issues, 1928–1997. Mean annual real returns on the CRSP value-weighted (light) and equal-weighted (solid) indexes by quartile of the prior-year share of equity issues in total equity and debt issues. Real returns are created using the Consumer Price Index from Ibbotson Associates (1998).



GHS (2010): FIRMS FILL IN GAPS LEFT BY TREASURY



RELEVANCE FOR CENTRAL BANKS?

- Evidence suggests that simple valuation metrics and firm decisions encode valuable information on long-horizon expected returns—i.e., sentiment.
 - And credit-market sentiment in particular seems to matter for real economy.
- We know that Fed and other central banks already pay close attention to such measures of “financial conditions”.
 - E.g. credit spreads, term premiums, corporate issuance.
 - Am not proposing any clever new metrics.
- So practical question is not whether to attend to financial conditions. Rather, just how much weight to give them, and **with what objective in mind?**
- No need for a “third mandate” re financial stability. But **recognize key intertemporal tradeoff with overly easy financial conditions: can help provide stimulus today, at risk of a reversal down the road.**
 - So trading off U closer to target now, vs. potentially further from target later.

IMF ON THE INTERTEMPORAL TRADEOFF

- From October 2019 GFSR: “The shift toward a more dovish monetary policy stance....has been accompanied by a pronounced decline of longer-term yields..... Lower government bond yields have contributed to easing of global financial conditions compared with six months ago, particularly in the United States and the euro area. While easier financial conditions have supported economic growth and helped contain downside risks to the outlook in the near term, they have also encouraged more financial risk-taking and a further buildup of financial vulnerabilities, putting medium-term growth at risk.”

DON KOHN SAW THE SIGNS

- From March 2004 FOMC transcript:

“A second concern is that policy accommodation—and the expectation that it will persist—is distorting asset prices. Most of this distortion is deliberate and a desirable effect of the stance of policy. We have attempted to lower interest rates below long-term equilibrium rates and to boost asset prices in order to stimulate demand. But as members of the Committee have been pointing out, it’s hard to escape the suspicion that at least around the margin some prices and price relationships have gone beyond an economically justified response to easy policy. House prices fall into this category, as do risk spreads in some markets and perhaps even the level of long-term rates themselves, which many in the market perceive as particularly depressed by the carry trade or foreign central bank purchases. If major distortions do exist, two types of costs might be incurred. One is from a misallocation of resources encouraging the building of houses, autos, and capital equipment that won’t prove economically justified under more-normal circumstances. Another is from the possibility of discontinuities in economic activity down the road when the adjustment to more sustainable asset values occurs. Neither of these concerns, in my view, is sufficient to overcome the arguments for remaining patient awhile longer.”

THERE ARE MANY CAVEATS

- We are beginning to understand the consequences of supply-driven credit booms; less clarity on what causes these booms.
 - Recent work stresses importance of extrapolative beliefs.
 - Monetary policy also appears to play a role: reaching-for-yield behavior leads to compressed risk premiums.
 - But hard to assess quantitative importance. And event-study methodology has serious limits in gauging magnitudes.

- Nevertheless, some qualitative insights:
 - If unemployment is 8% and you are not courting some financial-stability risk with aggressive policy, you're probably not trying hard enough.
 - If unemployment is 3.5% and inflation is just a bit below target, financial-stability considerations loom relatively larger.
 - With flat Phillips curve, may have to push very hard on financial conditions to get inflation to move from 1.7% to 2.0%.

IN SUM

- **Supply-driven credit booms—accompanied by aggressive pricing and erosion of credit quality—appear to play a big role in fluctuations in economic activity.**
 - Across a wide range of sample periods, countries, and institutional arrangements.
 - Not just financial crises, but garden-variety recessions as well.
- **Hard to believe that financial regulation alone can solve the problem.**
 - Especially in economies where a large fraction of credit creation happens outside the regulated banking sector.
- **This leaves a (second-best) role for monetary policy. Qualitative point seems clear, but so far little guidance to offer on magnitudes. An important agenda for future research.**
 - If Don Kohn could go back to March 2004 in a time machine, how much higher should he set the funds rate?
 - I don't know.