

Fire Sales and Funding Risks

Ravi Jagannathan

November 2018

Organization of the discussion

1. My views on the three papers
2. Background and policy implications

Paper 1: Detken Kalbhenn, Persson and Puttman, “Unexpectedly broke: Expectation errors and credit cycles”

Main findings

- ▶ Authors use Consensus Economics' GDP forecasts, made by a mix of banks, research institutes, market intelligent units, business organizations and central banks as a proxy for Households' expectation about future income.
- ▶ When consensus forecasts are more optimistic, households' leverage increase.
- ▶ No such pattern for corporate leverage.

Comments: Unexpectedly broke

- ▶ The motivation for this paper, as the authors mention, is from Mian, Sufi and Verner 2017 (MSV), who come to a similar conclusion based on IMF/OECD forecasts
- ▶ The innovation in the paper is in the use of Consensus Economics' forecasts available at monthly frequency. The authors use the forecasts made in the last month of a quarter since macro variables are quarterly

Comments: Unexpectedly broke .

- ▶ It is interesting that households' leverage is high when CE's GDP forecast errors are negative and vice versa. Holds in several countries and sub periods.
- ▶ A robust empirical regularity.
- ▶ It will be more helpful if the authors can show that CE's forecasts are good proxies for households' expectations about future income.
- ▶ And establish causality, and what drives expectations (may be extrapolation)
- ▶ May support the conventional wisdom (William McChesney Martin: “..removing the punch bowl just when the party was really warming up.”)

Comments: Unexpectedly broke ..

- ▶ Two sides: Demand for loans & Supply of loans
- ▶ When investors are optimistic, and more likely to default, lenders can ask for more equity and/or higher interest rates. So the loans may be fairly priced.
- ▶ Or lenders' agents may mislead households by under representing the costs of the loans to generate fees. And move to the next job fast. Indicates too much money and too few lending opportunities!

Comments: Unexpectedly broke . . .

- ▶ Which is the Horse in the proverbial Horse and Rabbit Stew?
- ▶ Mortgage bankers' perverse incentives for originating mortgages?
- ▶ Households' optimism?
- ▶ Interesting data. More can be done.

Paper 2: Gallo and Casu, “Beyond regulatory arbitrage: Novel evidence from ABCP market”

Main findings

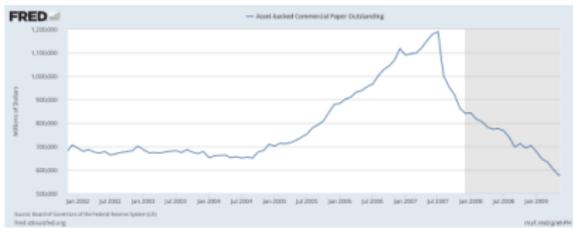
- ▶ Rising interest rate \Rightarrow Decline in ABCP issuance, more so for non US sponsors (operating on lower margin)
- ▶ Increase in demand for money like assets, as measured by (TBill yield - OIS) \Rightarrow increase in ABCP issuance
- ▶ Rising interest rate + increase in demand \Rightarrow ABCP conduits lower collateral quality
- ▶ Larger holdings of mortgages \Rightarrow higher need for Term Auction Facility (TAF), consistent with investors' fears about the ABCP market earlier

Comments: Beyond regulatory arbitrage

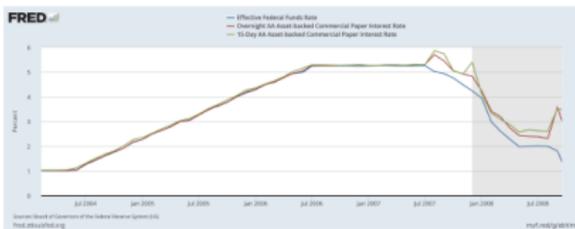
- ▶ Related to Sundaram (2014).
- ▶ More granular data helps examine asset mix changes and credit quality changes
- ▶ Banks must have known: “Conventional CP issues were typically supported by a line of credit from a commercial bank, guaranteeing 102% of the amount of ABCP outstanding” (page 9)
- ▶ Interesting findings

Comments: Beyond regulatory arbitrage .

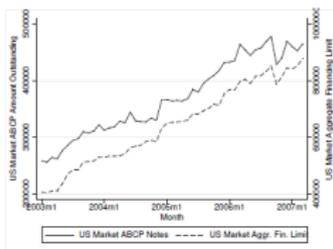
- ▶ Fig 2: Fed funds and ABCP rates flat after Jul 2006
- ▶ Fig 1: Agregate ABCP outstanding continues to increase after Jul 2006 till Jul 2007. But not in the paper's data that ends in 1Q 2007.
- ▶ Why did this happen even when TBill-OIS spread did not change much? Need to examine this in more detail otherwise the explanation is incomplete.



(a) Growth of Asset backed Commercial Paper Market in US in the run-up of the 2007-2008 crisis



(a) ABCP rates and Federal fund rates



(a) Aggregate Amount of ABCP Outstanding and Financing Limit (Portfolio) (mil.\$)

Paper 3 Capponi, Glasserman, and Weber, “Swing pricing for mutual funds: Breaking the feedback loop between fire sales and redemption”

Motivation

- ▶ Third Avenue Focused Credit Fund: Open ended mutual fund investing in High Yield securities
- ▶ AUM declined by \$1.3B to \$769M in December
- ▶ Fund had lost 27% during the year
- ▶ Investors' redemptions + Illiquid underlying assets => Shuttering of the fund

Main results: Swing pricing for mutual funds

- ▶ SEC requirement: Open ended funds must pay the end of the day NAV to those who redeem by a certain time of the day.
- ▶ Paper assumes:
- ▶ Exogenous asset price shock \Rightarrow redemptions (return chasing behavior)
- ▶ Fund pays the First Movers their redemption, and then sells the assets the next day to cover the payments. So First Movers do not pay liquidation costs.
- ▶ Fund sells shares at the end of the day to pay redemptions by Second Movers, so they bear associated liquidation costs

Main results: Swing pricing for mutual funds

- ▶ First Movers who anticipate liquidations by Second Movers' price impact redeem more. This results in larger redemptions than otherwise would obtain – call it “Run”.
- ▶ The authors advocate swing pricing that allows deducting the liquidity costs associated with redemptions for all investors
- ▶ Removes the First Movers' incentive to “Run”

Comments: Swing pricing for mutual funds

- ▶ First Movers do not bear liquidation costs whereas Second Movers do
- ▶ The authors need to provide some institutional support for this modeling feature

Comments: Swing pricing for mutual funds .

- ▶ Natural question: Why funds investing in illiquid high yield bonds organized as “no load open ended” subject to SEC redemption rule?
- ▶ Why not organize as closed end funds like REITS?
- ▶ Or impose a minimum notice period for redemptions, say 6 months to facilitate orderly liquidation of the underlying assets
- ▶ Or a back end load that declines with the notice period for withdrawal

Comments: Swing pricing for mutual funds ..

- ▶ Will there be contagion? Not necessarily

Background & Context

Fire sales and funding risks have been receiving attention since the Financial Crisis

Fire sales => depresses prices far below “fair value”

=> collateral value of affected affected comes down

=> Other firms' hit their regulatory capital limit

=> other firms sell assets to meet capital requirements

=> downward price spiral

=> funding shortfall

Background & Context .(Kacperczyk & Schnable, 2010)

- ▶ Industry worries about mortgage defaults, early 2007 (asset side of ABCP affected)
- ▶ Bear Stearns (subprime mortgages), July 2007
- ▶ BNP Paribas (suspension of withdrawals, funds invested in mortgages), August 2007

=> Investors reluctant to buy ABCP with similar collateral

- ▶ Reserve Fund broke the buck (held Lehman CP), Sep 2008
- ▶ Fed direct purchase of CP (stabilize market), Oct 2008
- ▶ Lehman failure => TARP, Sep 2008

Why no one saw it coming?

- ▶ Some on the Street saw what was coming!
- ▶ Examples (from “Big Short”): John Paulson, Michael Burry and others
- ▶ Some in the banks must have seen it coming

Why no one saw it coming?

- ▶ Gary Stern and Rod Feldman contended too-big-to-fail as a serious problem, may be they felt the ground shifting!
- ▶ But opposing views: Fred Mishkin argued Stern and Feldman were wrong (JEL December 2006)
- ▶ Academics often are not good at seeing signs of regime shifts. It is not their job to watch

Why no one saw it coming? .

- ▶ Is there a way to bring information from Wall Street, Main Street and the Banks to help in the regulatory decision making process, in a better way?
- ▶ Gathering and organizing relevant data on how institutions are interconnected and making it available will help deeper analysis and insights