Discussion of

Interest rate policies, banking and the macro-economy

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Overview

1. Puzzle: Why aren't low interest rates stimulating the economy?

2. Popular answers:

   - secular stagnation - the natural interest rate is low (Summers, 2013, Eggertsson, 2014)

   - Neo-Fisherian view - low rates eventually produce low inflation (Bullard, 2015, Cochrane, 2016)

   - low rates are bad for banks - can't make profits on deposits (Brunnermeier and Koby, 2016)

3. This paper: low rates crowd out corporate saving, which is a complement to production/employment $\Rightarrow$ lower employment/GDP

Redistribution channel

1. Low interest rates redistribute from savers to borrowers
   - Auclert (2015): impact depends on $Cov\left(MPC_i, Exposure_i\right)$
2. Conventional NK view: borrowers have high MPCs
   - strong evidence (Mian, Rao, and Sufi, 2013)
   - lower rates stimulate consumption $\Rightarrow$ higher GDP
   - subject to GE caveat; we don't see lenders' side
3. In this paper, the opposite is true - savers produce/create jobs, borrowers live in fixed-supply houses
   - lower rates $\Rightarrow$ lower investment/employment $\Rightarrow$ lower GDP

Summary/intuition for main result

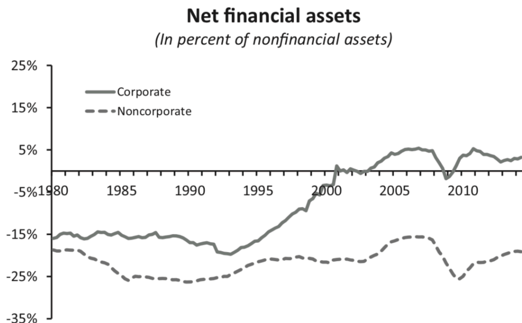
1. Firms hold financial assets to smooth cash flows (no credit lines)
   - $\max_{h_t} E_t \left[\log \left([z_t - w_t] \, h_t + b_t \right) \right] \Rightarrow h_t \propto b_t$
   - aggregate labor demand H_t is increasing in firms' financial assets B_t
2. Households face borrowing constraint, hold fixed supply of housing (no construction sector)
   - supply of financial assets inelastic: $B_t + M_t = D$
   - monetary expansion ($M_t \nearrow$) lowers B_t (lower interest rate)

$\Rightarrow$ Low rates crowd out firms' financial assets, lowers employment

   - requires that firms do not hold central bank liabilities ($= M_t$)

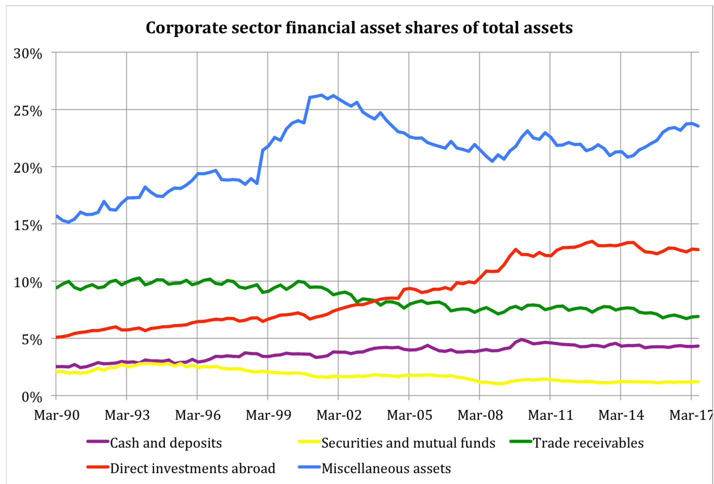
3. Lots of other results in paper; quantitative calibration

Net financial assets



1. From Quadrini (2017): corporate sector has become a net lender
   - interpretation is that financial assets insure against liquidity risk
   - why no increase for noncorporate sector? corporate sector more likely to have access to bond market, credit lines, other forms of liquidity insurance

Financial asset breakdown



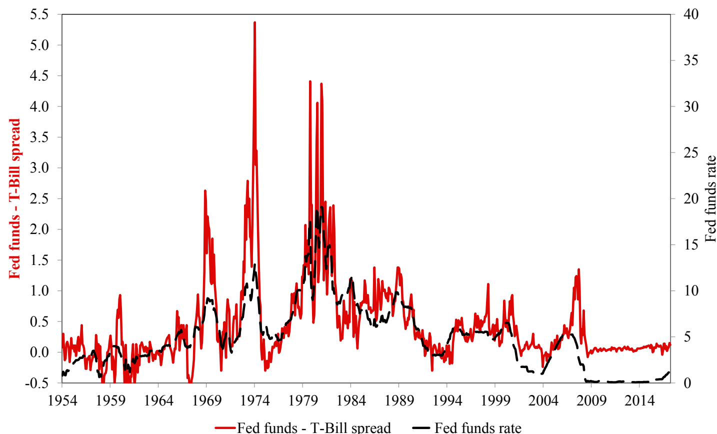
1. Almost all of the growth in financial assets is in just two categories:
   - miscellaneous assets - residual category
   - direct investments abroad - unrepatriated profits held abroad
   - no apparent relationship with interest rates (endogenous?)

Direct investments abroad

1. Unrepatriated profits seen as a *substitute* for firm investment/hiring, not complement
   - reinvesting funds in operations requires paying 35% corporate tax
   - 2004 repatriation tax holiday associated with increased dividends, not investment/hiring (CBPP, 2017)
2. Majority of unrepratriated profits invested in safe USD assets:

   About 93% of the $58 billion in cash held by Microsoft's foreign subsidiaries is invested in U.S. government bonds, U.S. corporate bonds and U.S. mortgage-based securities, according to SEC filings. (WSJ, January 22, 2013)

T-Bill liquidity premium and the Fed funds rate



1. Fed funds-T-Bill spread is one measure of the T-Bill liquidity premium
   - strongly increasing in Fed funds rate

   $\Rightarrow$ T-Bills are *cheaper* to hold as rates go down (lower opportunity cost)

Takeaways

1. Interesting new idea for low rates/low growth phenomenon
   - literature has focused on borrower MPCs, ignored savers
2. Other interesting results
   - low rates induce banks to lever up, build up fragility
   - QE exacerbates crowd-out
3. Paper in proof-of-concept stage
   - is there evidence that corporate financial assets are complements to investment? do low rates crowd them out?