

# **Discussion: Surviving the Cycle: Cyclical Investment Opportunities and Firms' Risky Financial Assets**

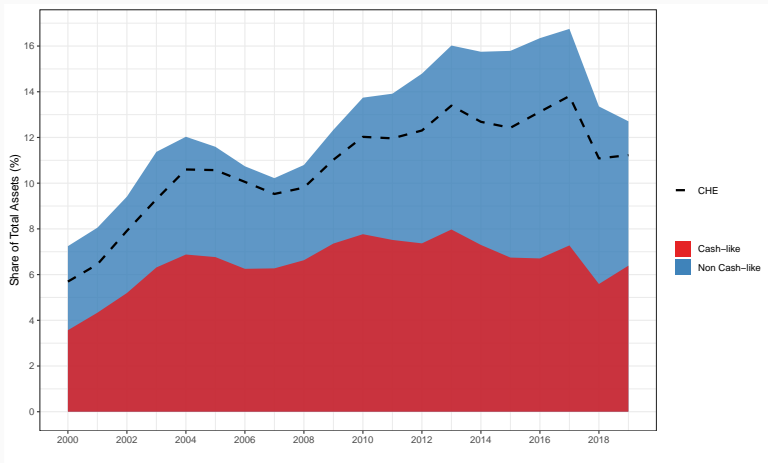
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Juliane Begenau (Stanford & NBER & CEPR)

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# Non-financial firms invest a sizeable share in financial assets

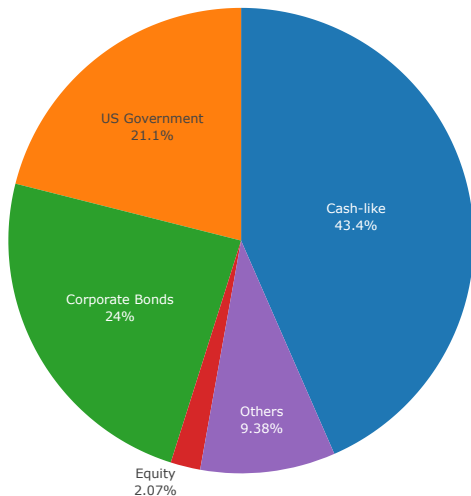
Figure from Darmouni and Mota 2020.



(b) Financial Assets over Assets

# Compustat *CHE* contains large fraction of risky financial assets

Figure from Darmouni and Mota 2020.



# Summary of the paper

## Explanation why non-financial firms invest in risky financial assets

- Dynamic corporate investment and financing model (Riddick & Whited, 2009)
  - DRTS production technology with aggregate and idiosyncratic mean reverting productivity shocks
  - Convex adjustment costs
  - Firms finance themselves by
    - “Saving” using risky (market return) and riskless assets
    - Issuing costly equity
- Calibrated to study policy functions and to derive testable hypothesis
  - (1) +Corr b/w investment rate and risky asset values | cdt on MB of investment
  - (2) +Corr b/w equity payout and risky asset values | cdt on MB of investment
  - (3) +XCorr: firm with more procyclicality of the investment funding gap hold more risky fin. assets | ext. finance costs
  - (4) +XCorr: firms with more external financing costs hold more risky fin. assets
- Test hypotheses on Compustat data on 10-K extracted data and find empirical support

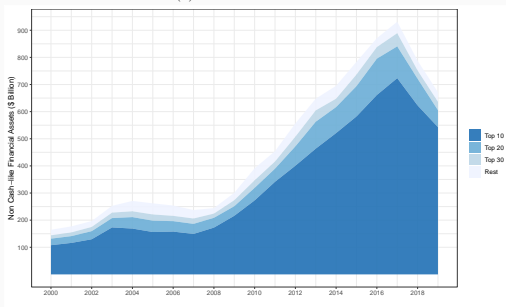
# What is the quantitative importance of this mechanism?

- Mechanism in the paper
  - With equity issuance costs, firms' investment is constrained by their internal funding capacity
  - Investment opportunities and investment funding demand are procyclical
  - When the firm's production revenue is less procyclical than its investment demand  $\Rightarrow$  incentives to invest in the risky financial security
  - Procyclical risky assets helps shift funds from low to high investment opportunity states
- Who are the firms with a higher risky financial asset share
- What drives their behavior?

# Risky financial assets concentrated in the very largest firms

- Within top 10 firms: Alphabet, Apple, Facebook, Gilead, Merck, Oracle...

Figure from Darmouni and Mota 2020.



(b) Non-Cash Financial Assets

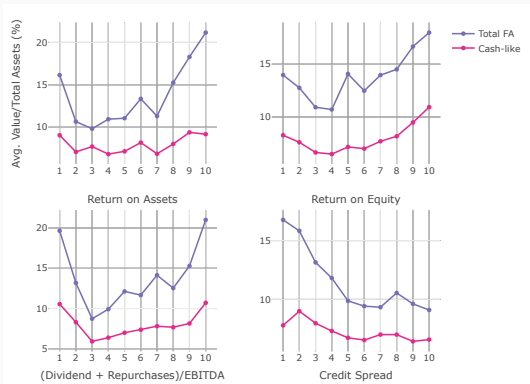
Figure A.5 – Concentration in Financial Assets

- Tend to be successful tech and pharma firms
- Using equal weighted regressions will pick up overwhelmingly small firms' behavior if distribution is highly skewed

# Do Financial Constraints Explain Risky Fin. Asset Share?

- Paper: external financing costs essential to explain risky asset holdings  
Authors test their mechanism on a battery of financial constraints measures
- More profitable firms, with lower credit spreads, and larger payouts hold more risky financial assets

Figure from Darmouni and Mota 2020.

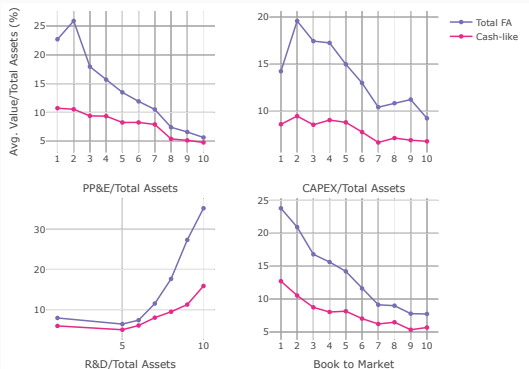


(a) Credit Constraints

# R&D-intensive firms risky fin. asset share

- Risky financial asset share in paper measured relative to physical assets  
⇒ overweights R&D intensive firms who invest more in risky fin. assets

Figure from Darmouni and Mota 2020.



(b) Intangibles



# Why do these firms hold financial assets?

- Darmouni and Mota (2020): Risky asset share is sensitive to
  - Tax incentives (using the “Tax Cuts and Jobs Acts” event)  
Firms depleted corporate bond holdings after tax holiday
  - No evidence for liquidity needs story (based on Covid episode event study)  
Firms build up traditional cash buffer or used bond holdings as a bank would do (Apple acted as a financial intermediary in the Repo market)
- Faulkender, Hankins, Petersen (2019): cash balances are built up particularly by foreign subsidiaries of multinational firms
  - Firms with intellectual property (read R&D intensive firms) have the greatest ability to shift income to low tax jurisdictions
- Time trend in these financial assets consistent with sample selection effect as in Begenau-Palazzo (2021)
  - Larger fraction of pharma and tech firms that traditionally held more cash and marketable securities

- This is an interesting paper!
  - The view that firms hold simply cash is certainly outdated
  - Proposed mechanism based on standard precautionary savings motive
  - Promising future direction
    - explore the quantitative strength of the mechanism (how big of a deal is it?)
    - potential alternative explanations why R&D intensive firms began to manage large financial portfolios
- I look forward to the next iteration.

## Smaller comments

- The model description could be improved / paper is hard to read
  - Looks like you introduce  $c_{jt}$  on page 11 without defining it.
  - Do you really have 5 state variables? Looks like you could condense things a bit
- The model implies that equity payout is countercyclical - but in the aggregate it is procyclical. It's also procyclical for larger firms that are more likely to hold financial assets.
- The funding gap in the model implies that the firm cannot take up investment opportunities given its current cash flow state. Cash flows are not equal to profits in the data.
- Crouzet and Eberly (2020) suggest that intangibles might be undermeasured. For instance, how do you measure the human capital that is so important for R&D intensive firms. The share of risky financial assets will be mechanically higher for intangible heavy firms as long as intangibles are not well measured. Table 11 says risky assets are normalized by sum of physical and intangibles but everywhere else it's over physical capital only.
- Figure 6 is hard to read. Labels seem inconsistent. Economic magnitude in Figure 6 of the effects appear small. Is there a way to convey how large a difference from 1 to 1.1 in terms of  $\beta_\pi$  for instance?
- Table 6 is also hard to read. FCL, adding up the constrained and unconstrained dummy?