

Discussion: All you Need is Cash

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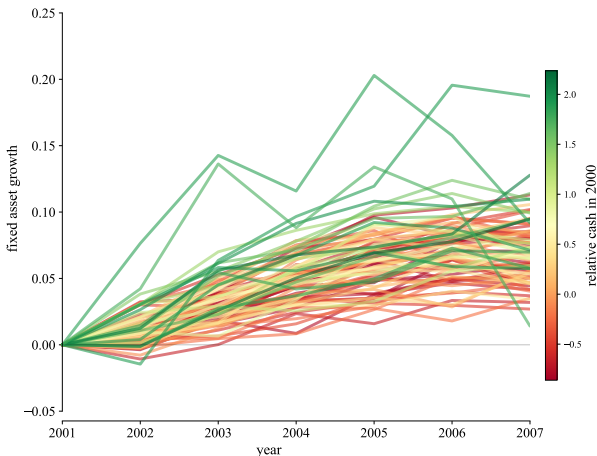
Paper documents three facts

1. Significant cross-sectional (within and across industries) variation in firms' cash holdings
2. Within firm, especially young & small, cash fluctuates over time
3. Firms with high cash holdings at onset of crisis invest more during crisis than cash poor firms

Stylized Fact 3: firms cash position at beginning of crisis matters

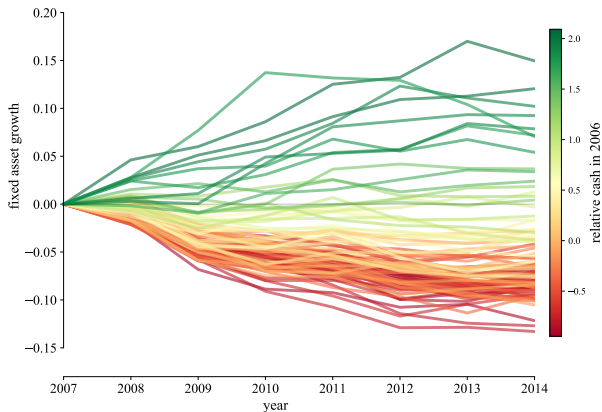
Figure 3: Investment high vs low cash firms: pre-crisis and crisis period

(a) Panel A: Pre-crisis period: 2001-2007



Stylized Fact 3: firms cash position at beginning of crisis matters

(b) Panel B: Crisis period: 2007-2014



Core of paper: Test feedback loop hypothesis

- Data: UK firm level data 1999-2014
- Feedback loop hypothesis and findings
 - lower cash holdings lead to/imply financial- and investment constraints
-ante cash poor and ex-ante cash rich firms widens
 - creates investment gap relative to high cash holdings firms at onset of crisis-ante cash poor and ex-ante cash rich firms widens
 - financial constraints and competitive pressure worsen the relative position of cash poor firms
 - investment gap between ex-ante cash poor and ex-ante cash rich firms widens
- Using local projection methods test with a bunch of firm level controls

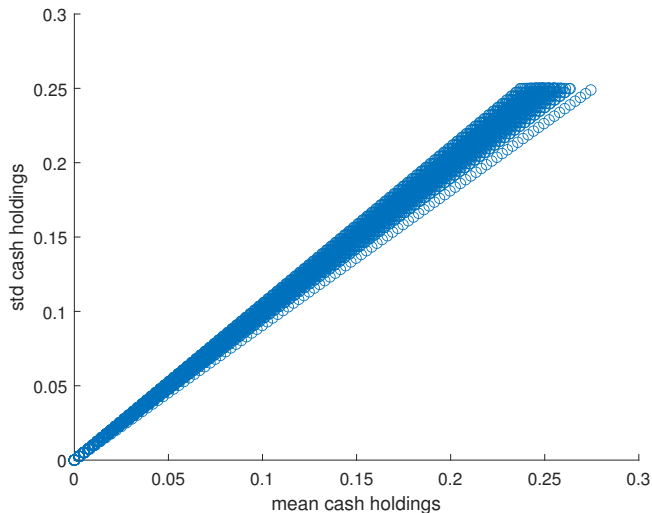
Comments overview

- Identification assumptions
 - Assume: cash levels randomly high or low at beginning of the crisis
- Looking at two firms at the beginning of the crisis:
 - One firm has internal funds, the other has not
 - What would you expect to happen?
 - Firms that has internal funds does better
 - That's what the paper finds
- How to interpret this finding?

Identification

- Identification issues
 - Main assumption “ex-ante cash levels exogenous” not likely to hold
 - But main gist of paper is plausible
- Cash policy is a decision
 - Generally, better firms take better decision
 - Super simple model version of Begenau and Palazzo (Forthcoming)
 - Firms' cash flow $\pi = z * k^\alpha$
 - Productivity shocks are mean reverting: low shock today means higher shock tomorrow
 - Firms enter industry small (far away from optimal scale) and with low productivity shock
 - Firms choose cash today when expecting future investment opportunities and financial constraints

Simple model consistent with facts (e.g., figure 1)



- Firms *decide* to save a fixed portion out of positive cash flow
- Firms' cash policy is a fraction β of *positive* cash flows i.e. $\max(\beta\pi, 0)$

What is the identification issue the model highlights?

- Cash is not a time-independent firm characteristic, but a choice
- Some firms could have “aimed” to hold higher cash - higher β
- Also, π depends on firm decisions in conjunction with shocks
 - For example, $\pi_{1,t} = \pi_{2,t}$ but $E_t[\pi_{1,t+1}] > E[\pi_{2,t+1}]$
 - Controls (industry, regional fe, etc don't get at this in principle) to get at future investment opportunities
- Controlling for **ex-ante firm growth** better (not perfect)
 - Authors control for pre-turnover growth = sales / assets two years prior
 - Not bad: $z_t \approx z_t * k_t^\alpha / k_t$ if $\alpha \rightarrow 1$
 - most estimates of α are well below 1 - e.g., Hennessy and Whited 2007
 - Side note: Tobin's Q alone does not control for investment opportunities (see Hennessy Levy Whited 2006) in the presence of financing frictions
 - Turnover rate is measured in book values - not forward looking market value

Policy implications?

- Identification question (whether ex-ante cash levels were high by pure chance) matters here particular for policy
- Crisis leads to firm failure
 - uncompetitive firms (high cost, low profitability, low earnings growth)
 - competitive firms that just were unlucky
- This paper suggests competitive firms end up unlucky
 - We should pump cash into all firms in need
 - Great policy if good firms are trapped in unfortunate situation
- Differentiating between these firms key for effective and efficient policy

Connection to the literature

- Authors point out quite a few papers that find similar effects, but more focussed on the short run
- Access to credit lines and trade credit literature
- For example: Garcia-Appendini and Montoriol-Garriga JFE 2013
Using a supplier–client matched sample, we study the effect of the 2007–2008 financial crisis on between-firm liquidity provision [...], we find that **firms with high precrisis liquidity levels increased the trade credit extended to other corporations and subsequently experienced better performance as compared with ex ante cash-poor firms. [...].** These findings [...] offer an **important precautionary savings motive for accumulating cash reserves.”**
- Hedge fund (dry powder) business model

What do we learn and where to go next?

- Nice paper on an important topic
- Key contribution
 - Long run correlations
- Where authors could push harder is the mechanism and identification
- Strengthen your identification?
 - Example: Peruse the Annual Return (AR01) for examples of sudden cash windfalls or change in investment opportunities
- What is the mechanism?
 - Select more efficient firms? Low cost providers? Innovative firms?
 - Or simply, unlucky firms entered the feedback loop?
- Maybe consider estimating a structural model to get sense of
 - what are useful controls for investment opportunities in this setting
 - benchmark: what investment gap would have expected if cash was not randomly different?