Does Cash Flow Really Matter for Corporate Investment Decisions?
Long ago and far away...

- Long-observed relationship between corporate investment and cash flow:
  - Fisher (Econom., 1933); Gurley and Shaw (AER, 1955); Meyer and Kuh (1957).

- *Prima-facie* evidence of financing constraints.

- Motivated capital rationing literature (‘BODs’):
  - Charnes et al. (JB, 1959); Baumol and Quandt (EJ, 1965);
An economics-inspired takeover

- Modigliani-Miller insights and perfect/efficient markets paradigm lead to a sea change in thinking:
  - A project’s ‘worth’ is determined solely by its NPV. Financing considerations, including the firm’s cash reserves, are irrelevant.
  - All ‘good’ projects receive funding.

- Capital rationing discussions begin to be relegated to little more than a footnote in textbooks.

- What about the empirical relationship between investment and cash flow? ‘Explained’ as emanating either from:
  - cash flow a proxy for profitability and investment opportunities; or
  - agency problems (Jensen & Meckling, JFE 1976) ⇒ overinvestment!
Corporate finance theory during the 1980s began to emphasize the sensitivity of the M-M paradigm to market imperfections and the role of these in constraining firms’ access to funds, e.g., Stiglitz and Weiss (AER, 1981), Greenwood et al. (AER, 1984), Myers and Majluf (JFE, 1984).

Empirical support provided by Fazzari et al. (BPEA, 1988) - found that ‘more constrained’ firms had greater investment-cash flow sensitivity
⇒ positive relationship between investment and cash flow is evidence of financing constraints.
Other studies found similar results across a wide range of investment ‘types’, e.g., R&D, inventories, labour.

Objection: Q not adequately controlling for investment opportunities.

- but ‘natural experiment’ studies found same results when cash flow shocks clearly independent of investment opportunities, e.g., Lamont (JF, 1997), Blanchard et al. (JFE, 1994), Froot and O’Connell (NBER, 1997).
The great debate

- Kaplan and Zingales (QJE, 1997)
  - no theoretical reason for investment-cash flow sensitivity to monotonically increase in constraints;
  - FHP firms that are most constrained exhibit lower sensitivities than less constrained firms.

- Ensuing debate (FHP, QJE 2000; KZ, QJE 2000) centred on disagreements over
  - theoretical conditions for monotonicity;
  - appropriateness of KZ data sample (but see Cleary, JF 1999);
  - definition of ‘financially constrained’.
An uneasy truce

- Acceptance that the different findings of FHP and KZ at least partly reflect their different classification systems: frictions proxies versus financial strength indices.

- But not clear why.

- Subsequent work has focussed on refining and clarifying this state of affairs.
  - is the investment-cash flow relationship explained by financing constraints, or agency problems, or even something else entirely (Microsoft conundrum)?
Consolidation?

- Studies of theoretical underpinnings have tended to muddy the waters
  - Alti (JF, 2003): can get FHP-type results in frictionless markets;
  - Boyle & Guthrie (JF, 2003): can get KZ-type results in presence of a binding financing constraint.


- Bushman et al. (2007): sensitivity insignificant under alternative measure of cash flow.

- Chen & Chen (2009): investment-cash flow sensitivity has disappeared!
The way forward...

- Dynamic considerations - firm faces other constraints that may stop it using cash immediately.

- Reverse causality and second-order effects: the impact of investment on cash flow.
  - ordering of investment.