

## Family Firms

- Family firms prevalent around the world (Shleifer et al.)
  - Berle and Means (1932)
- Two aspects:
  - (Founder, heir) management
  - Family ownership
- Main question: Are heirs better or worse managers?
  - implicit contract, long termism (renegotiate longterm implicit contracts as soon as outside management take over), reputation
  - Carnegie conjecture: give your heir not too few, not too much
- Important Implications for taxation (estate taxation, capital taxation, etc.)
- Large share of big companies with family majority ownership (more so in Civil Laws 50%, than in Common Laws 37%)
- Anderson and Reeb (JF, 2003):
  - 10% family ownership defines family firm (20% typical sufficient for control), which gets 30% of S&P 500 US firms.
  - within those, 15% founder CEO, 30% descendant CEO, 55% professional CEO.
  - look at performance of (young/old) family firms, effect of CEO hire, etc.
- France: employment half and half. within family firms, employment half and half (between family management and pro management)
  - Just looking at the cross-section, family firms managed by heirs have higher performance. But these are the firms that we exactly expect to perform the worst...
- Something obvious missing from the regressions. What is it?
- Endogenous decision for family founders to cash out (widely held firms mostly were once family firms). Which way is the bias?
  - Cash out when anticipate bad things in future. Fool the buyers.
  - Cash out when anticipate good things in future. Best time to avoid lemon's problem.
- Want IV to control for this endogeneity.

- Perez-Gonzales (AER, 2005):
  - Look at transitions in management: start with all firms in 1994 (year in which Edgar database started), look at family firms that are likely to have transitions and use news search to identify actual transitions. 335 firms. 122 within family successions and 213 unrelated successions.
  - Cumulative Abnormal Return of Succession Announcements is positive for unrelated successions and negative for family heirs.
  - Evidence opposite to Anderson and Reeb - what could be happening?
  - Inconsistency a problem.
- What is an instrument?
  - $ROA_{it} = \alpha_t + \beta FamilyHeir_i \cdot Post_t + \varepsilon_{it}$ .
  - But worry about endogeneity
  - Three possible sources of endogeneity
    - \* Omitted variable: wage: ability of individuals is a key factor of wage but usually not measured
    - \* Error in variables:  $x_k = x_k^* + e$ . Using  $x_k$  instead of  $x_k^*$  introduced a correlation between  $x_k$  and the perturbation. (attenuation bias)
    - \* Simultaneity: shock on demand is transmitted to price.
  - Instrument: exogenous to error term (exclusion restriction - something that you cannot test - must use economic reasoning/ or over-identifying test when you have more IVs than needed), correlated to  $x_k$  conditional on other exogenous variables.
    - \* related to transitions but exogenous to firm return.
  - Weak instrument problem: will be rejecting the null too often. Rule of thumb in first stage: one IV, t-stat > 3.3; multiple IVs, F > 10.
- A Really Bad Instrument:
  - Anderson and Reeb (2004)
  - Size, Square of Size, and Return Volatility
  - Does this affect firm return only through whether a firm is a family firm?
  - Fails exclusion restriction, big time.
- IV: Sex of first child of departing CEO,  $z$ 
  - Benedsen et al (2007)

- Danish economists working on Danish data.
- Can match firms with CEO (social security data)
- Is this a good instrument?
- “randomization” test: compare, before transition, the observable characteristics for firms with  $z = 1$  and  $z = 0$ . IV → those should be similar.
- Not a proof of exclusion restriction (because  $u$  is not observed), but pretty good already.
- Number of male children or Ratio of male children are not good IVs because they might be correlated to the founder’s dynastic concerns.
- Ways to do IV:
  - \* GMM:  $E[z_i u_i] = 0$
  - \* TSLS: first stage/second stage
  - \* Reduced form: regress outcome  $y$  directly on the instrument  $z$
  - \* Should report naive OLS too
- Finds greater negative effect of family heir (possible OLS bias because worse firms resorts to professional management)
  - \* ways IV finding larger effects:
    - true effect as described above
    - measurement error in OLS? IV might not subject to attenuation bias
    - weak instrument

- Breaking Down Differences in ROA

- $ROA = (L/A) \times (Y/L - w)$ .
- $\Delta ROA$  = unconditional difference in productivity - unconditional difference in wage + unconditional difference in capital intensity + difference in covariance
- French data has precise wage records.
- Founder CEO: higher labor productivity (long run implicit contract: not going to fire when things goes sour, but short term pay is lower - needs reputation - founder CEO)
- Heir CEO & Professional CEO: lower wages
- Implicit contract assumption: Founder CEO firms should have less firing response to industry-wide demand shocks. French data finds that heir firms reacts the least instead.
- $ROA_{it} = \alpha + \beta Fam_{it} + \varepsilon_{it}$ . Not identified because within 1800 firms, only 21 transitions.
- $\Delta Emp_{it}^j = \alpha + \beta Fam_i \times \Delta \log(sales_{jt}) + u_{it}^j$ . This is identified (think about why).