Attracting Flows by Attracting Big Clients: Conflict of Interest & Mutual Fund Portfolio Choice

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Motivation

- Fraction of retirement account assets invested in mutual funds is large and growing
  - ~ 60% of inflows in ‘04 from DC Plans and IRAs
  - Pension Protection Act ‘06 ⇒ lots more coming

- Raises interesting questions about how mutual fund families compete for firm 401(k) assets
  - Obvious considerations: fees, past and expected returns, whether family’s funds span set of investment objectives
  - Less obvious: take large position in firm’s equity

- Distorting fund portfolios to earn 401(k) business ⇒ (potential) conflict between Family and its Investors
Flow literature tends to focus on factors that influence retail (direct + broker) flows
- **Past returns**: Ippolito ‘92, Chevalier & Ellison ‘97
- **Fees**: Sirri & Tufano ‘98, Barber, Odean, Zheng ‘05
- **Media & Advertising**: Sirri & Tufano ‘98, Reuter & Zitzewitz ‘06, Gallaher, Kaniel, Starks ‘06

In this paper, inflow = new 401(k) assets

Relates to existing evidence fund families are willing to increase TNA at expense of existing shareholders
- Market timing and late trading (Zitzewitz ‘03 & ‘06, etc.)
- Favoritism (Gaspar, Massa, Matos ‘06, etc.)
- Original use of 12b-1 fees
Relates, more generally, to evidence that business relationships influence behavior of financial institutions:

- Analyst recommendations (Michaely & Womack ‘99)
- IPO allocations to mutual fund families *(Reuter ‘06)*
- Pro-advertiser bias in personal finance magazines *(Reuter & Zitzewitz ‘06)*
- Voting behavior of mutual fund families seeking 401(k) business *(Davis & Kim ‘06)*
Consider Market for 401(k)

401(k) Menu

Wrigley stock + 8 Putnam MFs
~ $500 million in 2000

Firm / Sponsor

Wm. Wrigley Jr. Co.

Family / Trustee

Putnam

Wrigley employee inflow

Assets managed by Putnam
Who Benefits?

- **Trustee** benefits from management fees on additional (sticky) assets under management.

- **Hypothesis**: In turn, **Trustee** agrees to buy and hold additional shares of **Sponsor’s** equity.

- How does this “overweighting” benefit the **Sponsor**?
  - Increases fraction of shares in “hands friendly to management”
    - helps with proxy voting (Davis and Kim ‘06)
    - takeover defense (Rauh ‘06)
  - Short-term price pressure when **Trustee** builds its position [?]
  - **Trustees** holds/buys reduce downward price pressure following negative shocks [?]
Conflict of Interest?

✓ Authors’ Main Hypothesis
  “Mutual fund families distort their portfolio allocations in order to secure being trustees for companies with large 401(k) plans”

✓ Novel idea... but is this a conflict of interest?

✓ Conflict of Interest ⇒ four things must be true
  ✓ Trustee has legal obligation to its Investors
  ✓ Trustee overweights Sponsor’s equity
  ✓ Sponsor benefits from over weighting
  ✓ Investors harmed by over weighting
### Table 1

**401(k) Plan Data**

<table>
<thead>
<tr>
<th>Number</th>
<th>Sample / Restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2500+</td>
<td>Form 11-K and 5500, 1993-2003</td>
</tr>
<tr>
<td>1537</td>
<td>Nonfinancial firms in CRSP/Compustat</td>
</tr>
<tr>
<td>899</td>
<td>Report mutual fund family as <strong>Trustee</strong></td>
</tr>
</tbody>
</table>

- Typical plan has average TNA of $553 million
- Annually: 392 plans with TNA of $178 billion

- I’d like to know more about plan sponsors
  - How do 899 **Sponsor** firms compare to typical CRSP firm in terms of size, industry, exchange, and institutional ownership?
  - What about 638 plans without **Families** as **Trustees**? Who are their **Trustees**? Predict ones that file 13F overweight **Sponsor’s** equity too? If not, why don’t these firms also pick **Families** as **Trustees**?
### Table 2
**13F Family Holdings Data**

<table>
<thead>
<tr>
<th>Number</th>
<th>Sample / Restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>251</td>
<td>Families belong to set of 100 largest mutual fund families at least one quarter, ‘93 - ‘03</td>
</tr>
<tr>
<td>197</td>
<td>Non-Trustees</td>
</tr>
<tr>
<td>54</td>
<td>Trustee for one or more 401(k) plan</td>
</tr>
</tbody>
</table>

- Trustee families are **much** larger ($30 vs. $9 billion)
- Analyze holdings of 899 **Sponsors** by 251 **Families**

**Two issues related to holdings data**

- If 54 **Trustees** are the only families able to serve 401(k) market ⇒ estimate specification excluding Non-Trustees
- 13F lumps mutual funds together with separate accounts, etc. ⇒ cannot determine which investors the overweighting harms
Empirical Strategy

General Specification

\[ \text{Holding}_{fs} = \alpha + \delta \text{TrusteeDummy}_{fs} + \Gamma \text{Controls}_{fs} + \varepsilon_{fs} \]

- \( f \) is family
- \( s \) is sponsor
- \( t \) is calendar quarter

Restricted to quarterly holdings of 899 sponsor stocks by 251 families between 1993 and 2003.

Pooled regressions include family & time FE$s$ and standard errors cluster on sponsor; report F-M regressions too.

Control for family’s investment in same style and industry.

- \( H_0: \text{No distortion} \quad \Rightarrow \quad \delta = 0 \)
- \( H_A: \text{Overweighting} \quad \Rightarrow \quad \delta > 0 \)
Table 3

Univariate Evidence – Levels

- Two measures of holdings
  - % TNA: sponsor’s equity as % family’s TNA
    (relevant measure for Family; Family size invariant)
  - % Company: sponsor’s equity as % shares outstanding
    (relevant measure for Sponsor but not size invariant)
- Both yield results consistent with overweighting

<table>
<thead>
<tr>
<th></th>
<th>Trustees</th>
<th>Non-Trustees</th>
<th>Raw Difference</th>
<th>Industry Matched Difference</th>
<th>Style Matched Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>% TNA</td>
<td>0.17</td>
<td>0.09</td>
<td><strong>0.08</strong>*</td>
<td><strong>0.07</strong>*</td>
<td><strong>0.07</strong>*</td>
</tr>
<tr>
<td>% Company</td>
<td>2.19</td>
<td>0.78</td>
<td><strong>1.41</strong>*</td>
<td><strong>0.66</strong>*</td>
<td><strong>0.62</strong>*</td>
</tr>
</tbody>
</table>

- Extra 0.66% translates into an extra $41 million in holdings
Tables 4 & 5

Multivariate Evidence

- LHS is % *Company*
  - Trustee dummy is positive & statistically significant \(\Rightarrow\) *Trustees hold extra 53.7%* ($64.4 million)

- Results consistent with relative bargaining power
  - Trustee dummy $\times$ Family TNA is negative & stat. sign. \(\Rightarrow\) *Overweighting greater for small families* (1 sd = -$25.4m)
  - Trustee dummy $\times$ 401(k) TNA is positive & stat. sign. \(\Rightarrow\) *Overweighting greater for larger plans* (1 sd = $16.4m)

- Results not consistent with superior information
  - Trustee dummy $\times$ Future Returns is indistinguishable from 0

- What if you restrict test to holdings of the 54 Trustee families?
- Cross-family differences in propensity to overweight?
  - Expect Putnam and Strong ("the fund scandal families") to overweight more than Vanguard
Figure 1
Changes in Trustees

Changes in the proportion of the TNA invested in the stock before and after the trustee status change
(Moving average of previous 4 quarters)
Figure 1 & Table 6

Changes in Trustees

- “The changing of trustee gives a more precise experiment to measure the effect of being trustee on portfolio choice”
- Only 58 trustee changes occur during sample period
- Figure 1 provides univariate evidence % TNA rises when Trustee relationship begins and falls when relationship ends
  - Suggests no net benefit when changing trustees
- Signs on coefficients in multivariate regressions are predicted but some are of marginal significance

- Alternative? What if Trustee becomes custodian of equity held within 401(k) plan by Sponsor employees?
- Footnote 3 claims this is unlikely… but I’d like to see that magnitudes of increases and decreases are inconsistent with this alternative
Table 7

Trustees & Negative Shocks

- Best test of the “overweighting” hypothesis
- Consider two types of negative shocks
  - Families (including Trustee) collectively sell more than 1% of Sponsor’s shares outstanding (~10% of the time)
  - Earnings announcements with negative CAR
  - Trustee interaction terms imply Trustee is net buyer during quarters with both types of negative shocks
- Very interesting patterns but two questions remain
  - How much do Sponsors benefit from overweighting?
  - How much are Trustees’ investors harmed by overweighting?
Benefits to Sponsors?

- More shares in hands “friendly to management”
  - Will going from 0.78% to 1.44% of shares out. swing a proxy vote?
  - Lacking direct evidence on outcomes that benefit Sponsors, is there anecdotal evidence that Sponsors actively seek overweighting?

- Upward price pressure when Trustee builds position?
  - Old Trustee sells when new Trustee buys ⇒ one time benefit

- Trustees reduce downward price pressure following negative shocks by holding or buying Sponsor stock
  - Given size of holdings, seems like a small, short-lived benefit
  - Evidence of more overweighting at firms that would benefit more?
    - ♣ 899 using Families have more stock comp. than other 638?
    - ♣ Any evidence that overweighting correlated with insider sales?
Tables 8 & 9
 Costs to Investors?

- **Table 8:** When Families are selling lots of shares, Trustees’ returns for providing liquidity are at best zero

- **Table 9:** Overweighting ⇒ deviation from optimal Sharpe ratio
  - Cost depends on where Trustee puts extra Sponsor stock
    - Dump in one fund ⇒ estimated cost of 0.23% per year
    - Spread across funds ⇒ only 0.03% per year per fund
    - ∼ 2x larger when small family serves large 401(k) plan

  Ideally, study performance of “overweighted” funds relative peers

- What is opportunity cost of overweighting / what is underweighted?
- If overweighting restricted to separate account that serves 401(k) ⇒ conflict between Sponsor and its employees but not other investors

- How much would alternatives cost?
  - Third-party administrator plus consultant (who may favor funds with high past return and high fees!) can cost upwards of 0.20% per year
Consistent with our hypothesis, we find that:

- Trustee status affects families portfolio allocation (overweighting)
- Overweighting is more severe for big plans & small families
- Overweighting is not result of superior information
- Some evidence that families increase (decrease) position when become (end being) trustees
- Trustees buy/hold stock at times of price pressure

Overweighting produces significant cost to investors

Problem worsens as 401(k) plans grow in use and size

- Pension Protection Act of 2006 has the potential to create large inflows from DB to DC plans ⇒ intensifies need to address this conflict of interest
My Conclusion Slide

- Paper reflects lots of data work and thoughtful analysis
- Novel idea to ask whether desire to manage 401(k) assets creates conflict of interest within fund families
- 95% sold on fact **Trustees** overweight **Sponsor** equity
- Much less sold on economic significance of benefits to **Sponsors** or, more importantly, costs to **Investors**
- Bit uncomfortable with call for independent **Trustees**
  - “This could greatly reduce the overweighting behavior currently seen by ostensibly ridding the relationship of its embedded, and unneeded, conflict of interest.”
  - Independent trustees will bring new conflicts ⇒ good news for researchers and independent trustees but not obvious it will be good news for investors