Cross-Asset Information Synergy in Mutual Fund Families

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Discussed by
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Indiana University

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- This is not true outside the family
- It appears that stock and bond funds share info with each other
  - Stock trades on co-held issuers are more likely to be profitable
  - Stock returns are predicted by changes in the bond holdings of families that co-hold the issuer but not by the corresponding changes by non-sister funds
  - Equity funds sell stocks before downgrades if they co-hold the issuer with sister bond funds, others react only about 2 quarters after the downgrade

Very interesting findings!

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  ➡ Maybe the driver is a common information source (more on this later), rather than direct communication between the managers

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- Of course, bond funds and stock funds within the same family may have correlated trades for many reasons
  - Correlated flows (e.g., due to family-level advertising)
  - Correlated mandates (e.g., social responsibility)
  - Family has business relationships with a set of firms (e.g., acts as a recordkeeper for retirement plans or has investment banking/commercial banking arms) - several papers argue that fund families may cater to these clients by holding their securities, for instance

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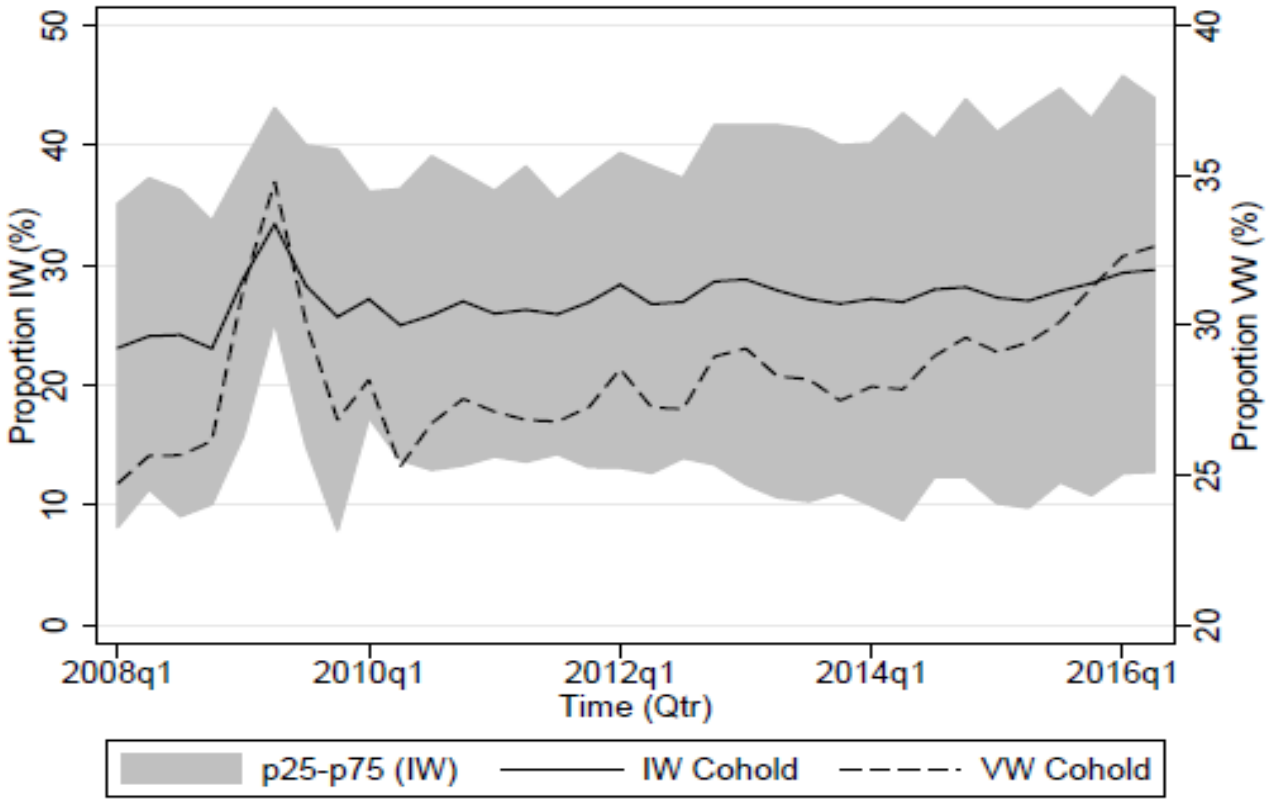
→ Since the performance results mitigate these concerns, I won’t spend time on these, but perhaps they are worth considering more carefully in the paper

Comment #1

Figure 2



(a) Cross-holding from the perspective of corporate bond funds

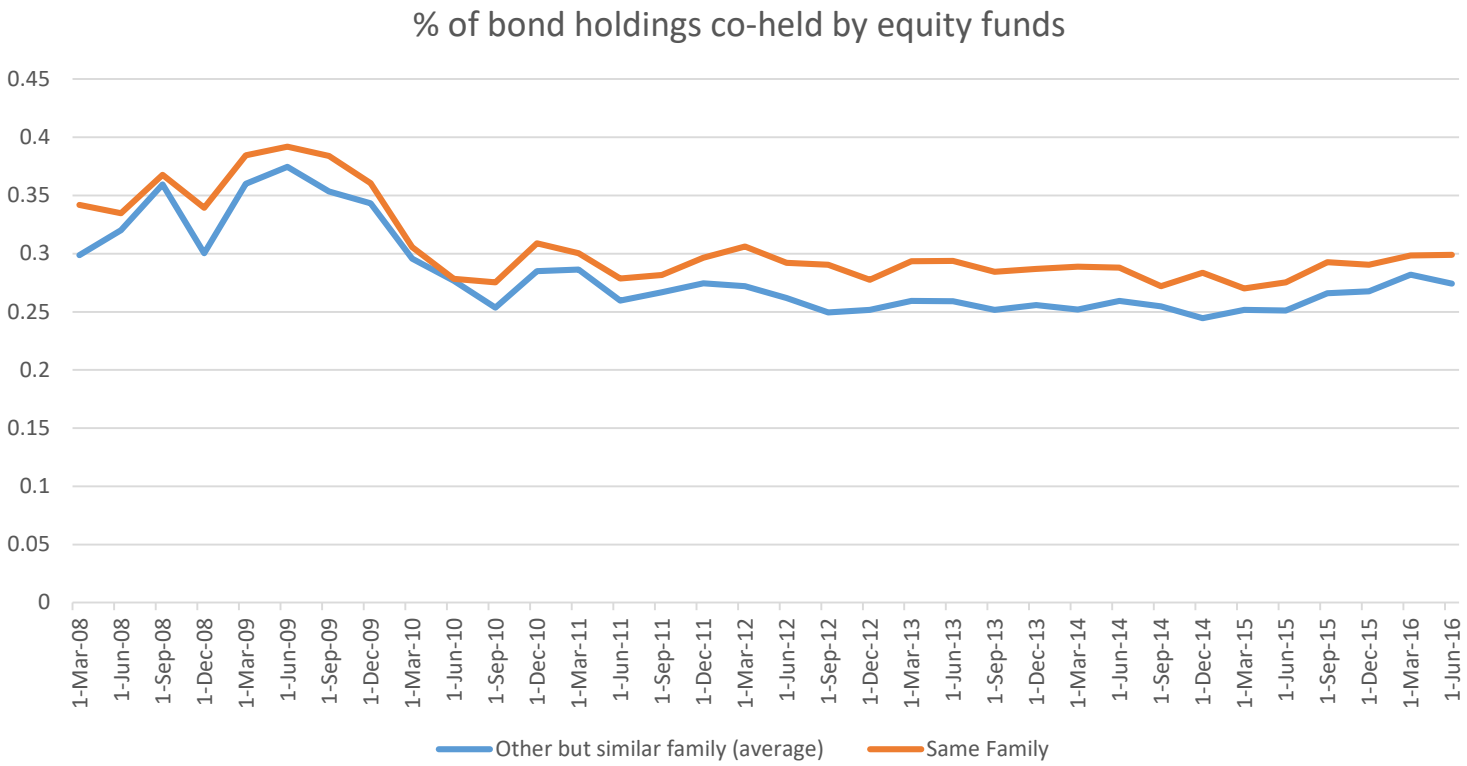
Comment #1

Is this high?
What should we expect?

Comment #1

- I use CRSP holdings for the same period along with Capital IQ identifiers, as described in the paper. I also try to follow the filters employed in the paper.
- In each qtr, I sort each family into quartiles based on the total number of funds offered ('family size'), then within each family size quartile, by the % of bond funds
- Then calculate what % of the issuers held by the bond funds of family *i* are also held by the equity funds of family *j* in family *i*'s size & % bond fund quartile, for all *i*,*j* pairs ($i \neq j$)
- Average these for each family, each quarter, then average across families, to create a benchmark

Comment #1


% of bond holdings co-held by equity funds
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
1-Mar-08
1-Jun-08
1-Sep-08
1-Dec-08
1-Mar-09
1-Jun-09
1-Sep-09
1-Dec-09
1-Mar-10
1-Jun-10
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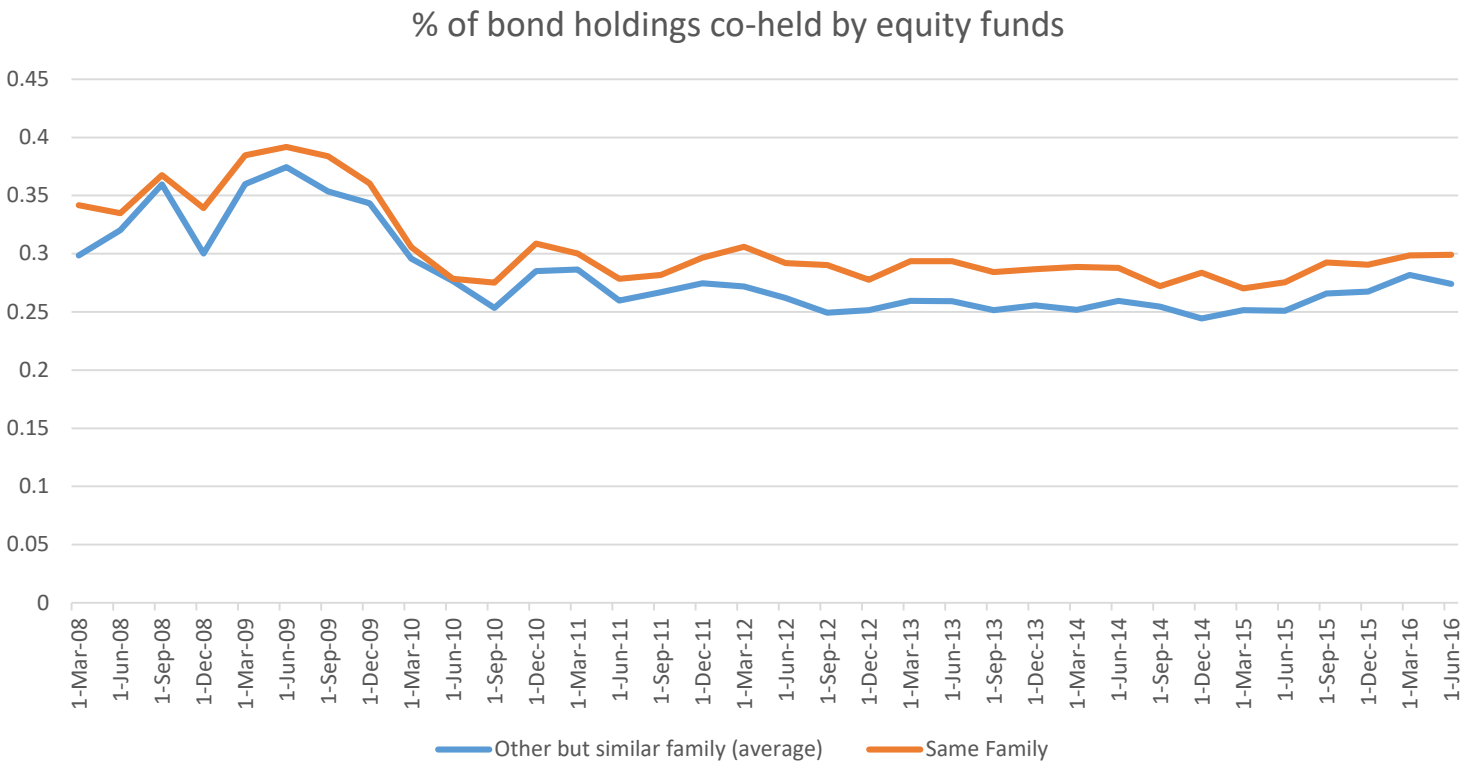
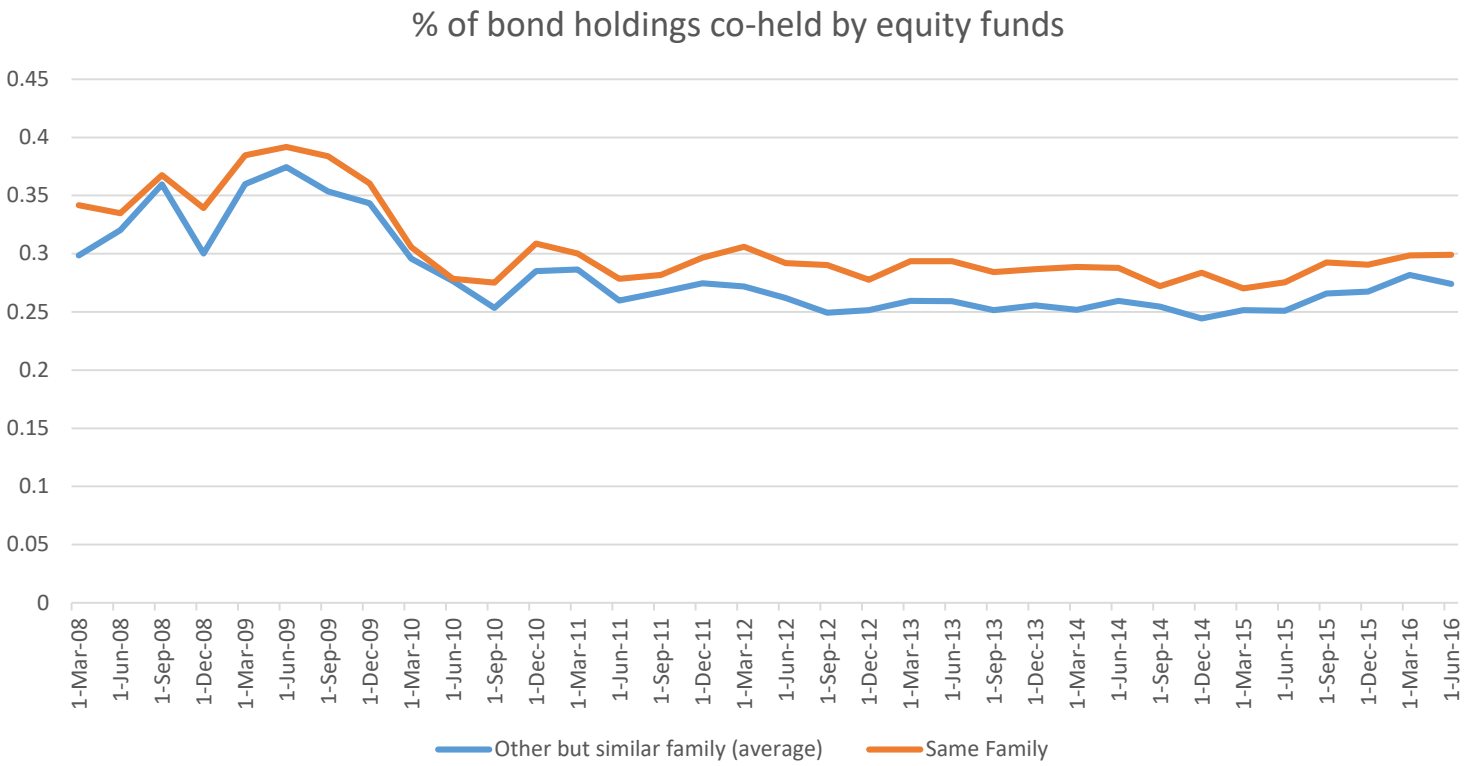
1-Jun-13
1-Sep-13
1-Dec-13
1-Mar-14
1-Jun-14
1-Sep-14
1-Dec-14
1-Mar-15
1-Jun-15
1-Sep-15
1-Dec-15
1-Mar-16
1-Jun-16
Other but similar family (average)
Same Family

Comment #1



	(1)
VARIABLES	coheld
Same family	0.0247***
	(0.0087)
Constant	0.2815***
	(0.0061)
Observations	68
R-squared	0.1092

Comment #1



Statistically different but the economic magnitude is not very large

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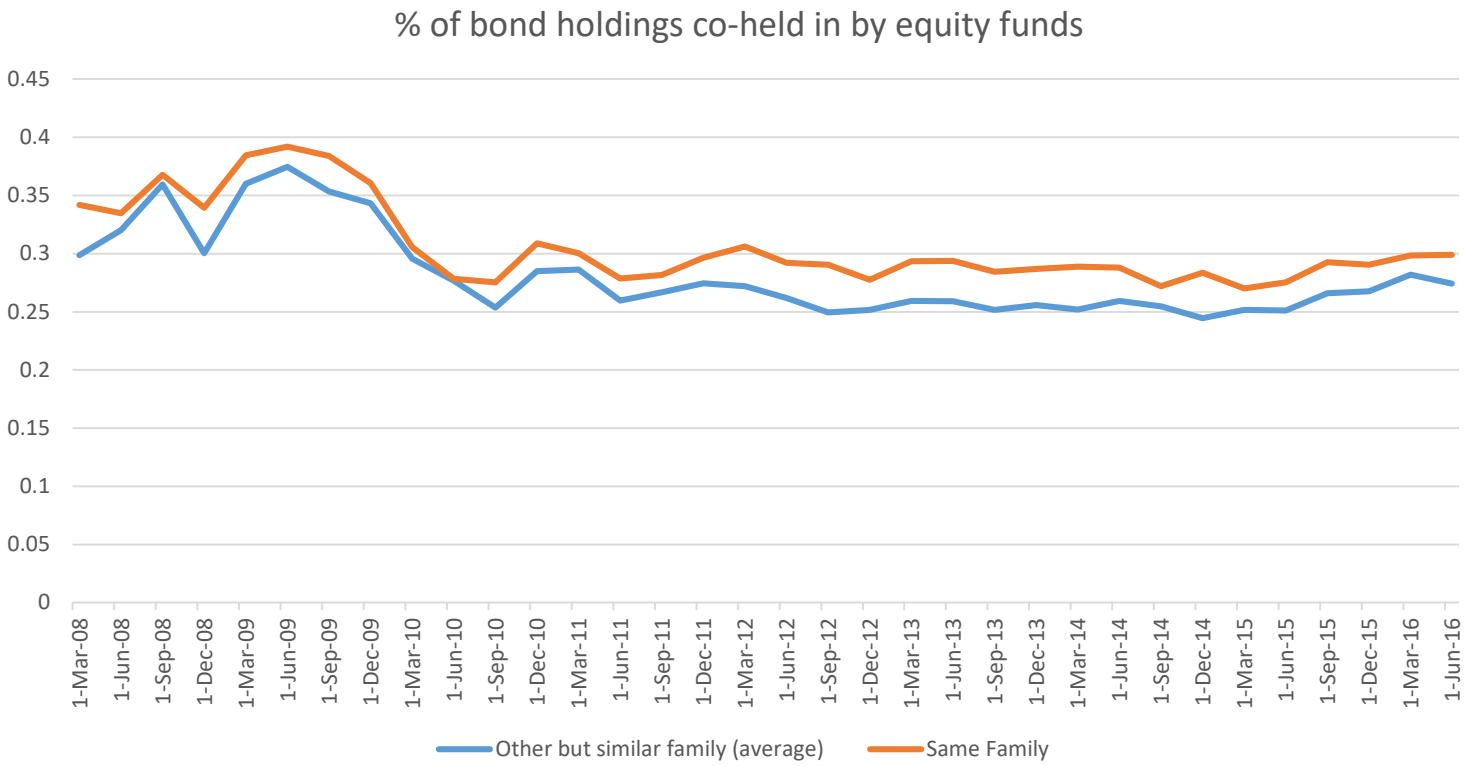

It would be useful to create a similar figure in the paper so we have a benchmark for understanding figure 2

Comment #2

The authors test for the collaboration vs. segmentation hypotheses using the following model using same family (sister) pairs:

$$\Delta H_{i,f,t}^{Equity} = \alpha + \theta \cdot \Delta H_{i,f,t}^{Bond} + \gamma \cdot Z_{i,t} + FE + \varepsilon_{i,f,t}$$

Then using non-sister pairs:

$$\Delta H_{i,f,t}^{Equity} = \alpha' + \theta' \cdot \Delta H_{i,f',t}^{Bond} + \gamma' \cdot Z_{i,t} + FE + \varepsilon_{i,f,t}$$

Comment #2

In the sister tests, only families that have at least one overlap during the quarter are included. Additionally, only those securities that are co-held:

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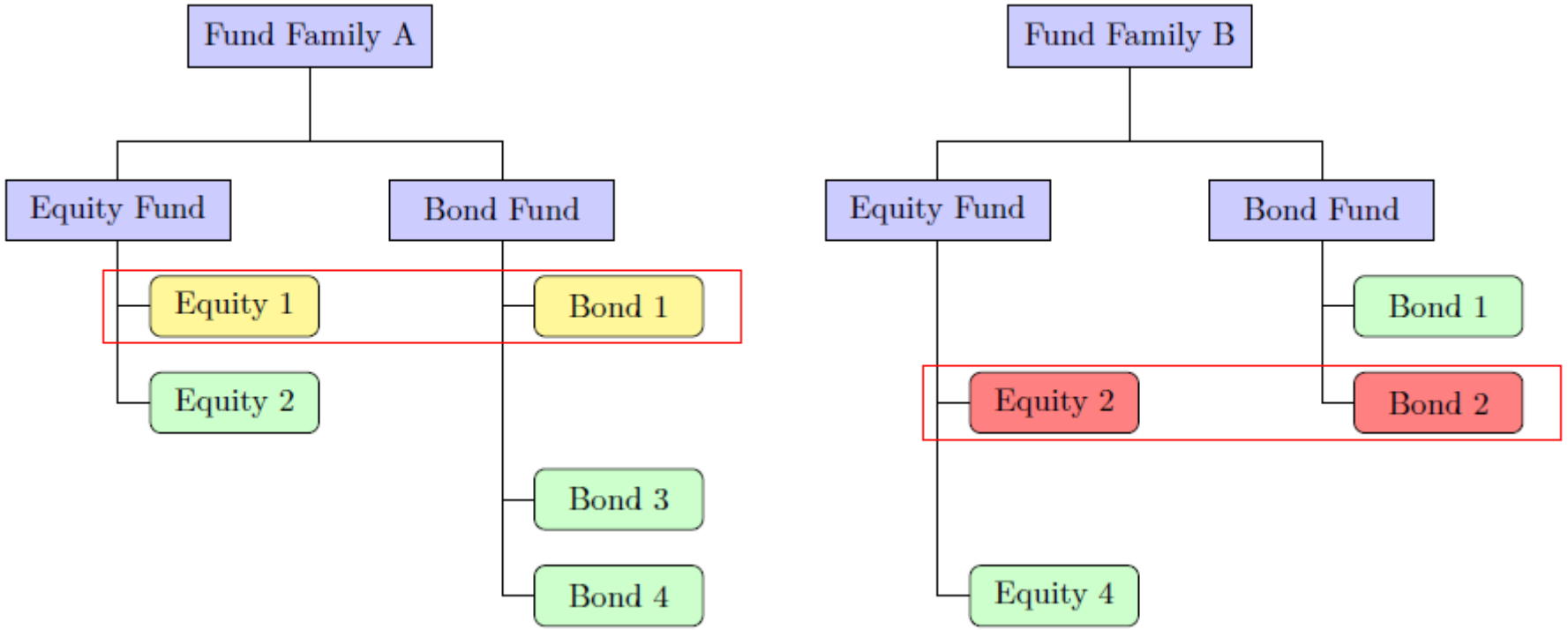

Comment #2

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$$\Delta H_{i,f,t}^{Equity} = \alpha + \theta \cdot \Delta H_{i,f,t}^{Bond} + \gamma \cdot Z_{i,t} + FE + \varepsilon_{i,f,t}$$

That is, it is a conditional statement…

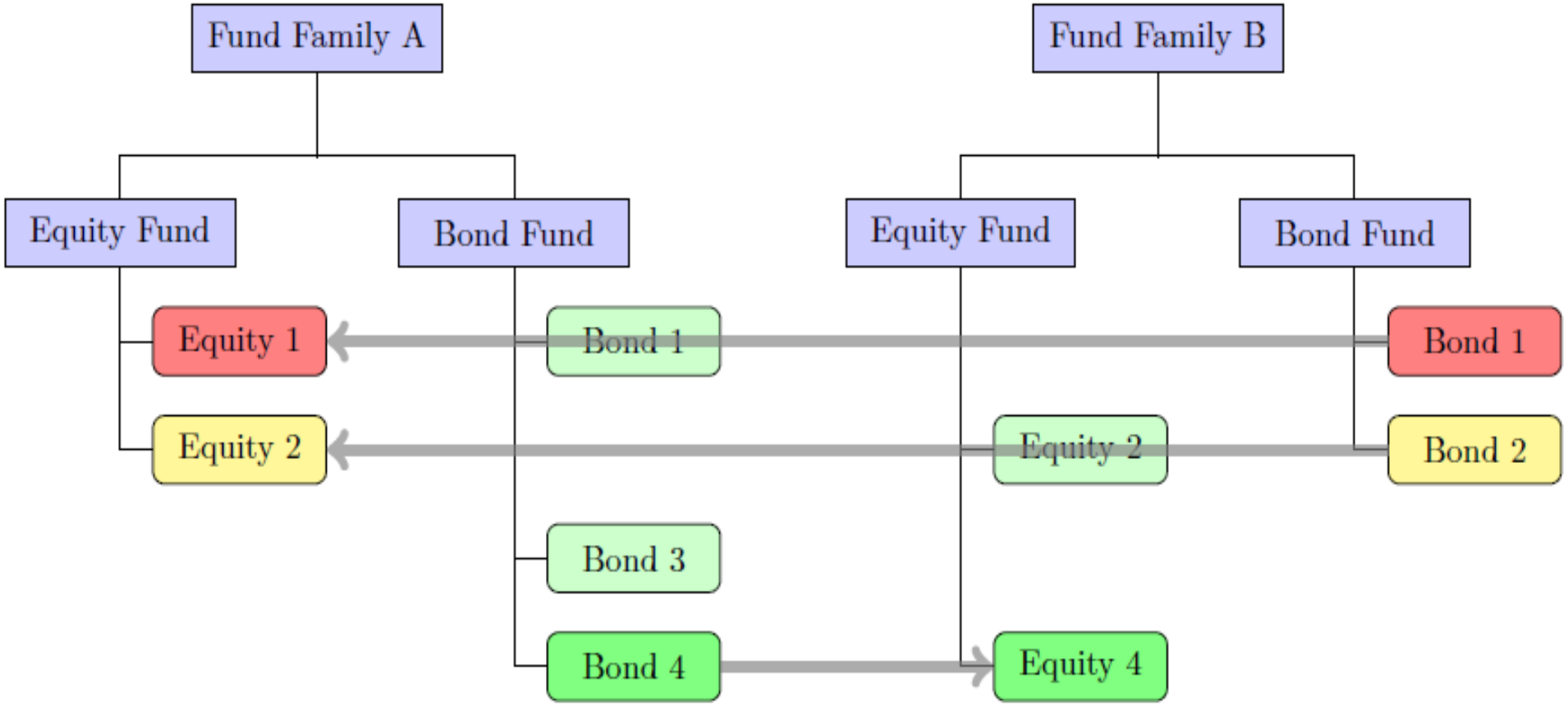
- The choice not to hold the issuer ('disagree') is not allowed –> that is, collaboration may be overestimated
- Only intensive margin trades are considered –> extensive margin could potentially be more interesting + important to consider for the true econ magnitude of collaboration

Comment #2

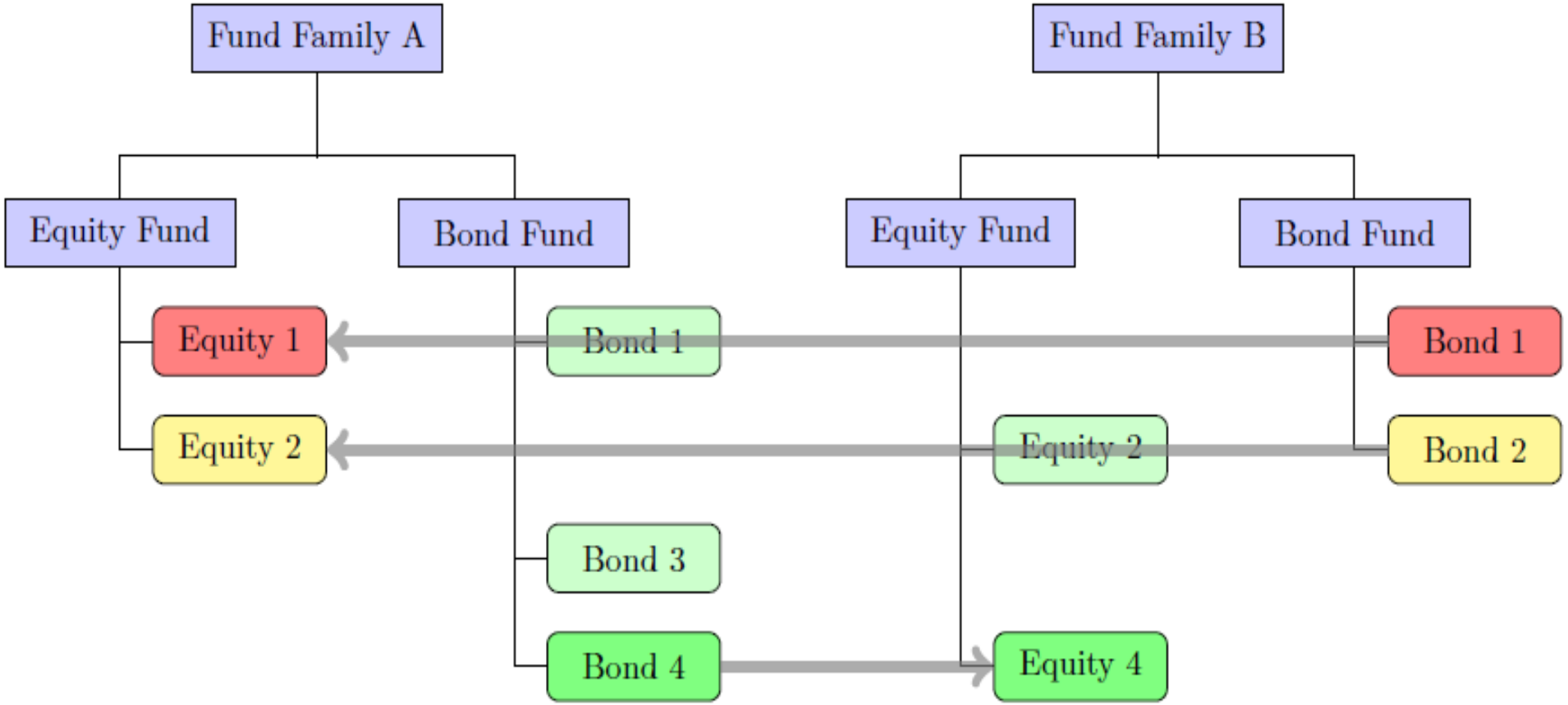
More importantly, the non-sister tests are a little more confusing…

$$\Delta H_{i,f,t}^{Equity} = \alpha' + \theta' \cdot \Delta H_{i,f',t}^{Bond} + \gamma' \cdot Z_{i,t} + FE + \varepsilon_{i,f,t}$$

I am not sure how the matching is done…



‘We randomly match a bond fund of a family to another equity fund in a different family requiring both funds to hold the same firm’s assets’ (page 17)

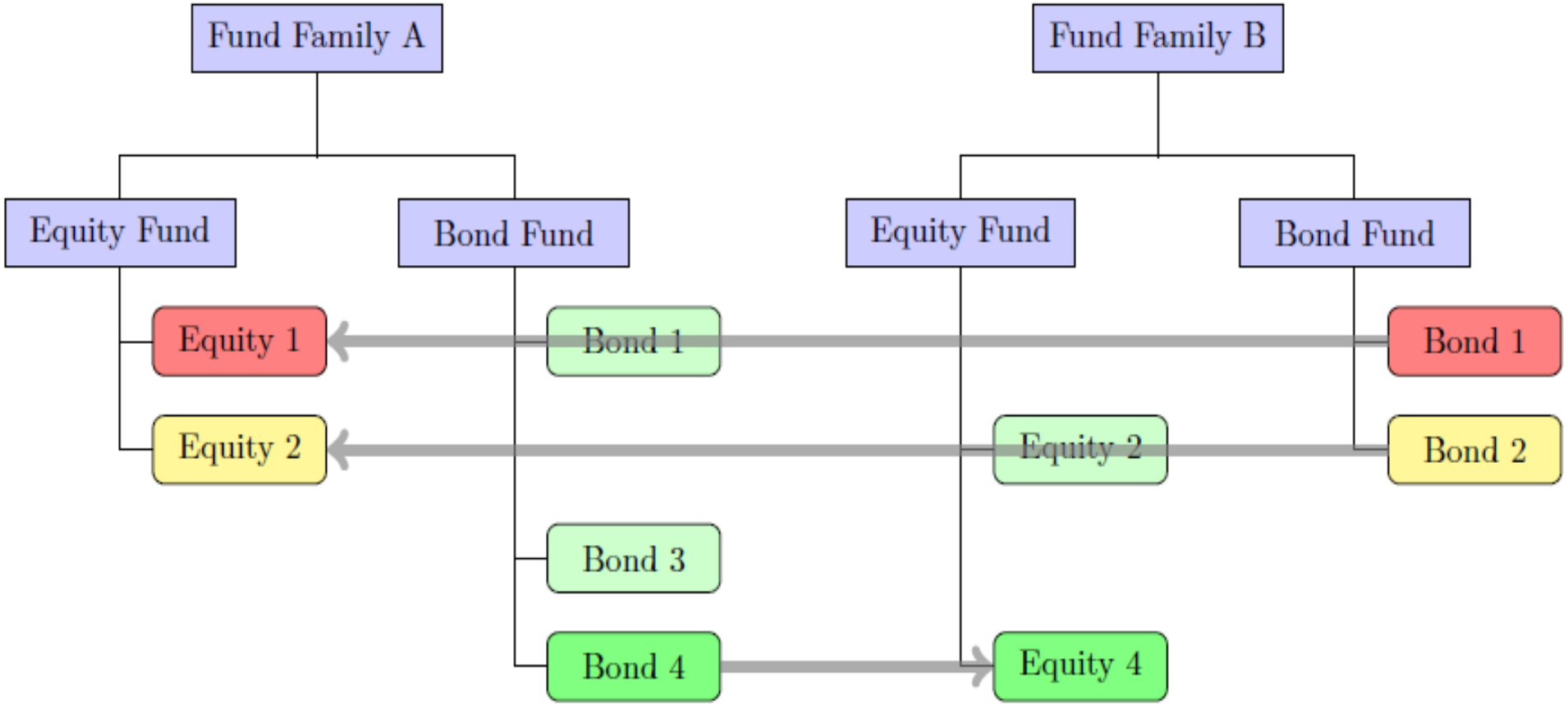


Does this mean that each bond fund in the family is randomly matched to a non-sister equity fund based on each holding? Or just one holding? If so, which one? (This could explain why we have so few obs in Table 3 vs. Table 2)

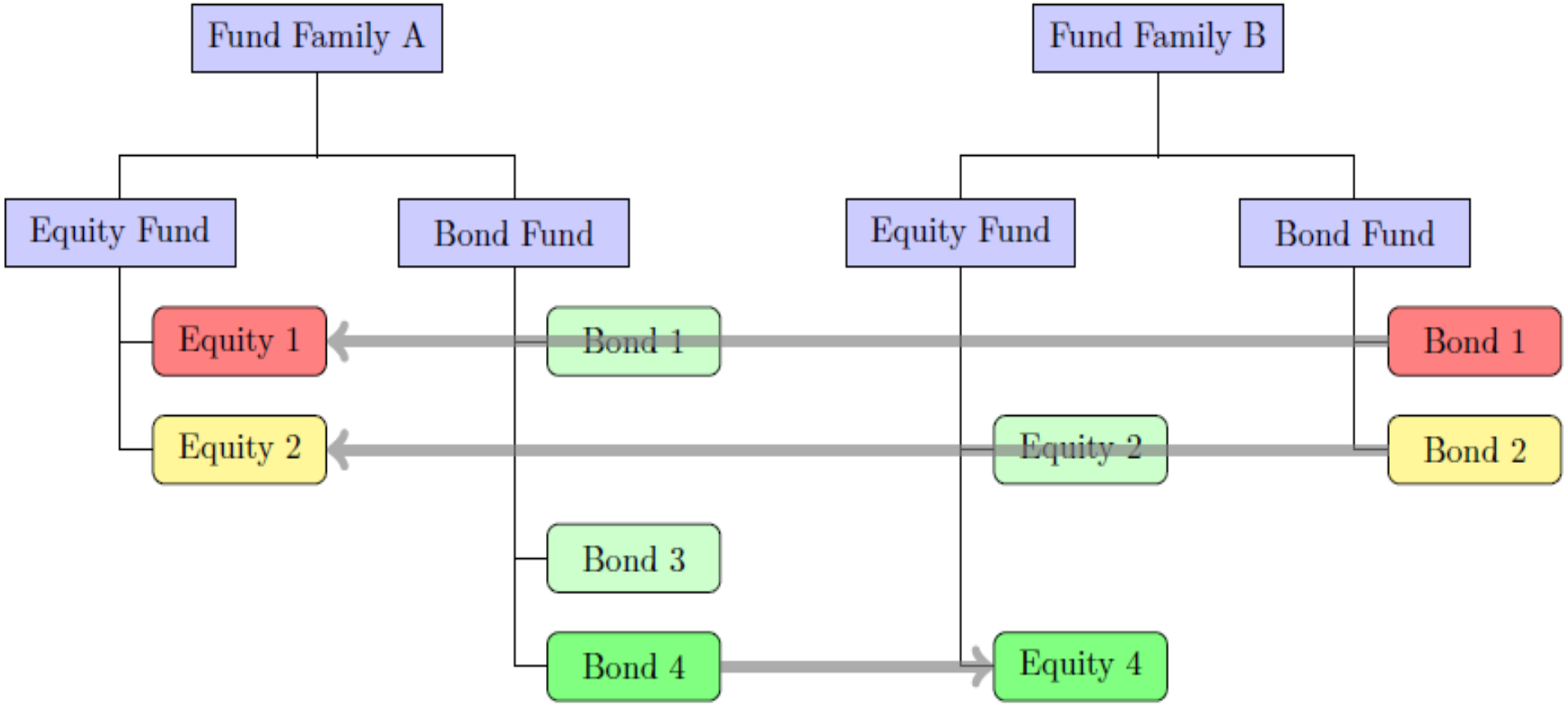
Comment #2

- It is problematic if only a few holdings are matched…

- On the other hand, if each bond fund in the family is randomly matched to a non-sister equity fund based on each holding, then each ‘pseudo’ family will have a large number of equity funds from different families (which are then aggregated across by stock).

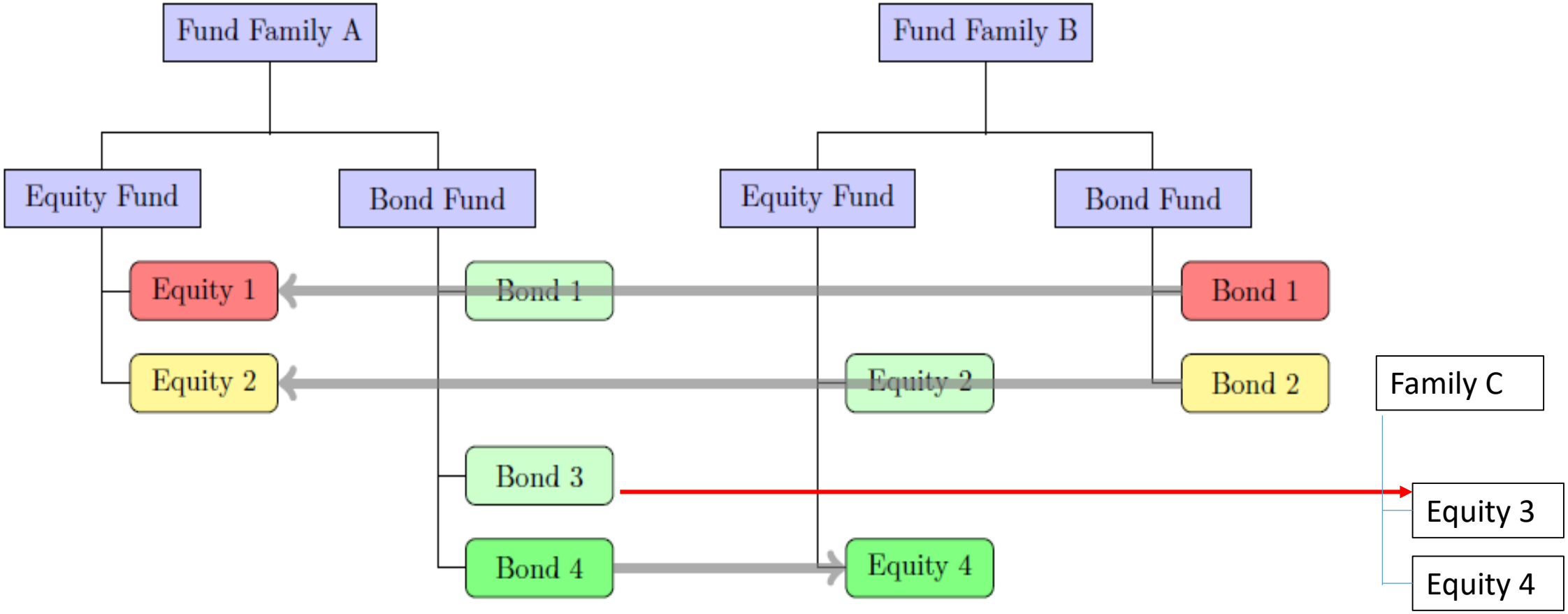


Or maybe these holdings are already aggregated within each family before the match?



Even if they are aggregated, how does it work?

Most families will be matched to several other families (and different sets of families for different issuers).



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$$\Delta H_{i,f,t}^{Equity} = \alpha' + \theta' \cdot \Delta H_{i,f',t}^{Bond} + \gamma' \cdot Z_{i,t} + FE + \varepsilon_{i,f,t}$$

- This method no longer aggregates across bond (equity) holdings within the same family (independent variable): breaks the synergies *within* the asset classes, which may affect the result even if there is no collaboration *across* asset classes in reality

- More generally, this matching approach may destroy some of the data features that contribute to observing a positive θ coefficient in the sister tests but have nothing to do with collaboration across the equity and bond funds

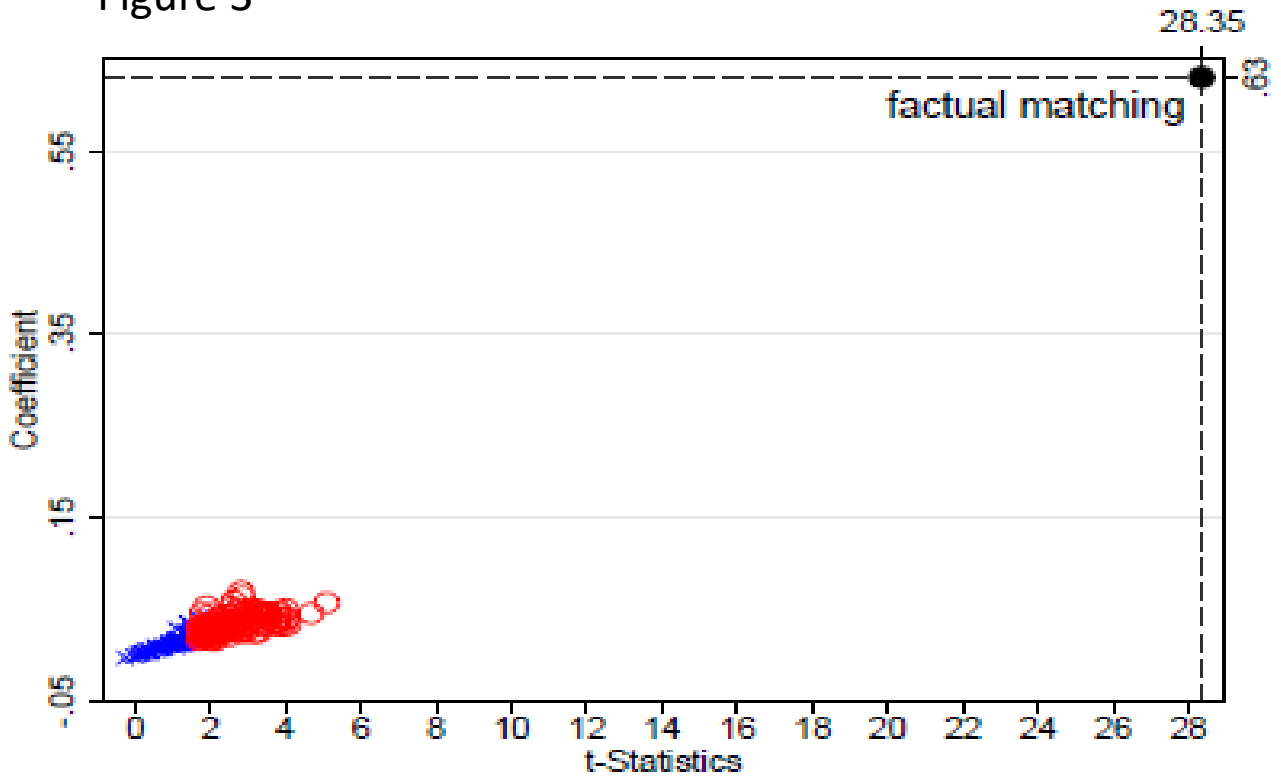
Comment #2

Why not employ a more standard methodology:

1. Calculate $\Delta H^{E}_{i,f,t}$ and $\Delta H^{B}_{i,f,t}$ for each family in each quarter for each security that the bond/equity funds of the family hold
2. Do a diff-n-diff: you have same family (sister) pairs and non-sister pairs

Comment #2

Figure 3



In the diff-n-diff setup, the same family pairs are only marginally significantly larger than those that are from different families. In contrast, the difference based on the matching approach in the paper is huge (Figure 3: the same-family coefficient is roughly 10-times larger than the average matched estimate).

Comment #3

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  - I think not! I don't expect a large correlation between trades
  - The coordination hypothesis does not have clear implications about holdings and trades…
    - First, not all trades are information driven.
    - Second, (more importantly) the issuer is the same but the security is not. New information on the issuer should be incorporated in both the prices of bonds and stocks but the value relevance may not go in the same direction
    - It would be interesting to simply document how many times bond and equity funds trade in the opposite direction and how many times they trade in the same direction

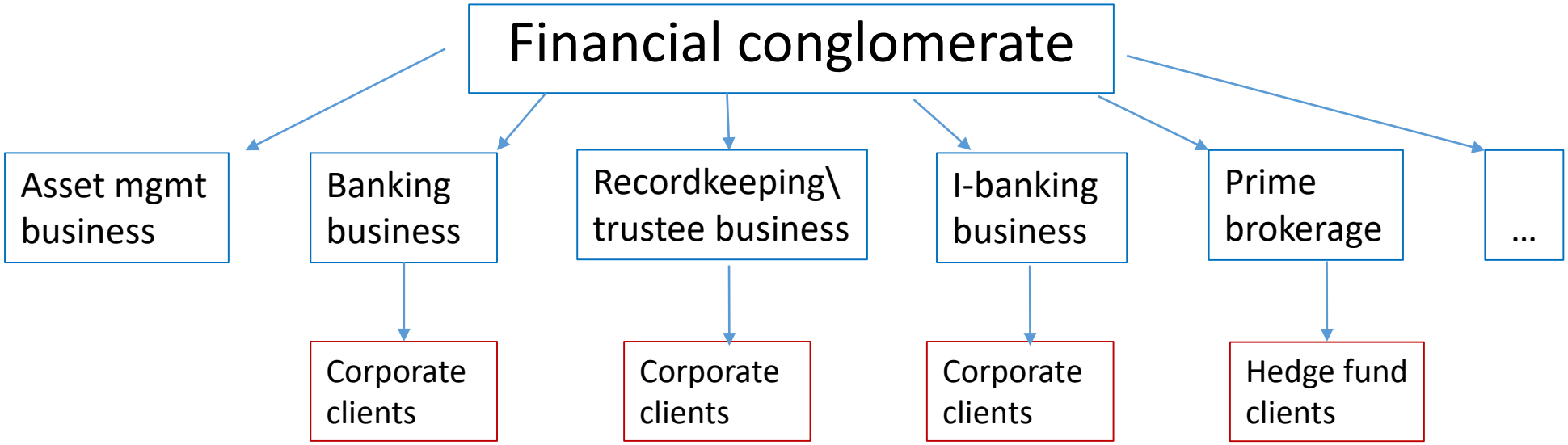
Comment #3

- Not having much significance in the general tests on trades does not hurt the paper (again, there is no clear economic reason why coordination would imply trading in the same direction!)

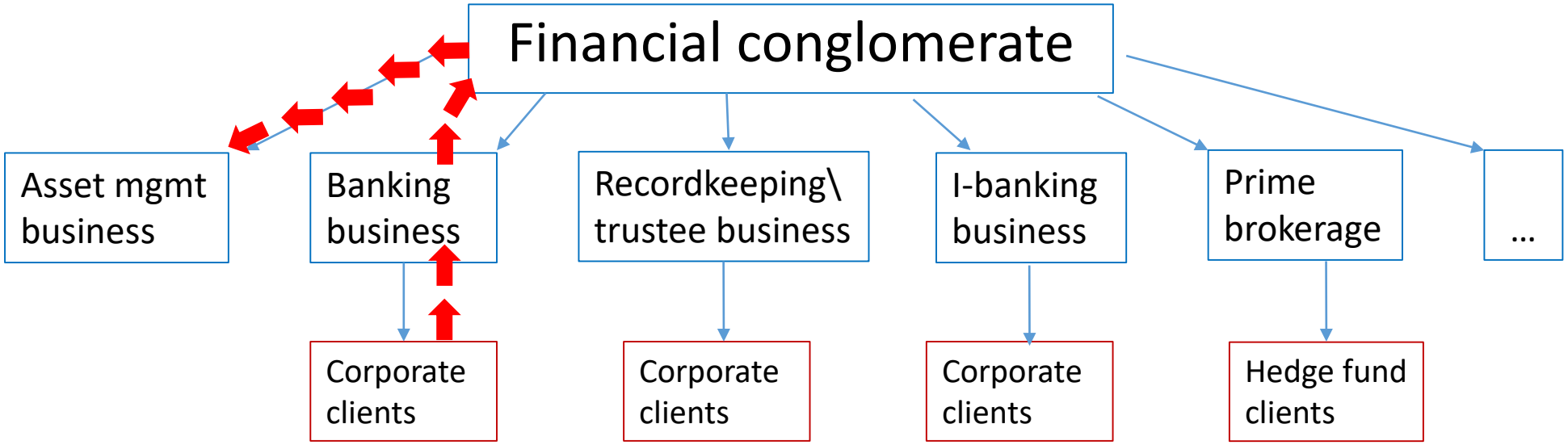
- The more interesting/telling results are those that involve events

  - Are they trading in the same direction around events that affect the securities similarly (e.g., downgrades)?
  - Are they more likely to have the correct 'opposite-sign' trades around other events that have opposite effects on the prices (e.g., spinoffs (Maxwell and Rao (2003), M&As (Billett and Mauer (2004))?

Micro channel?



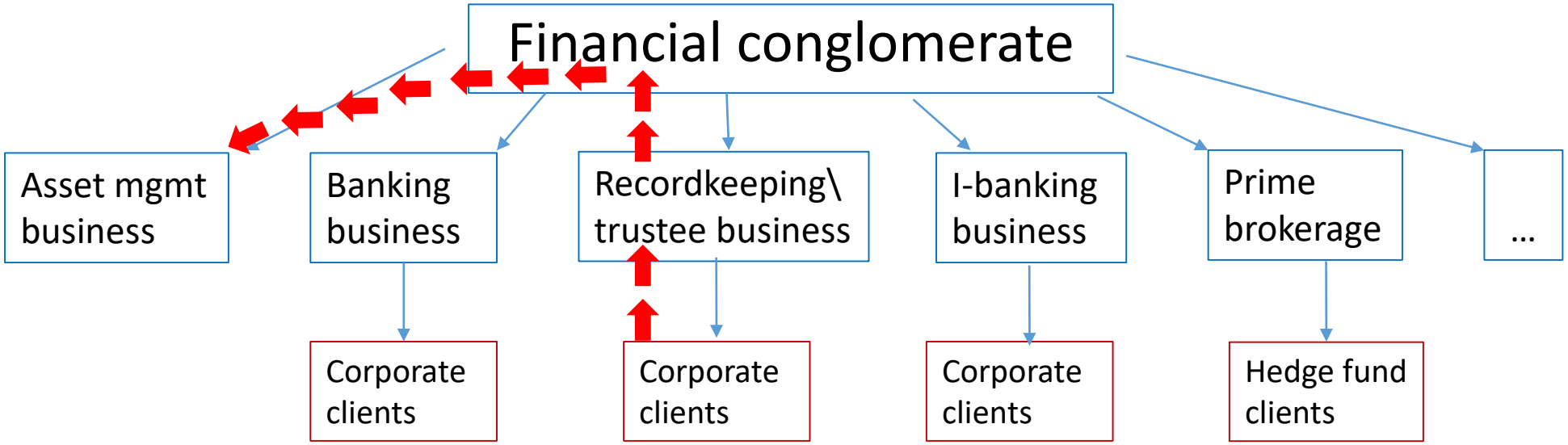
Micro channel?



Affiliated mutual funds receive private information from their parents on the parents' banking clients:

- Massa, M., and Z. Rehman. 2008. Information flows within financial conglomerates: Evidence from the banks-mutual funds relation. *Journal of Financial Economics*, 288–306.

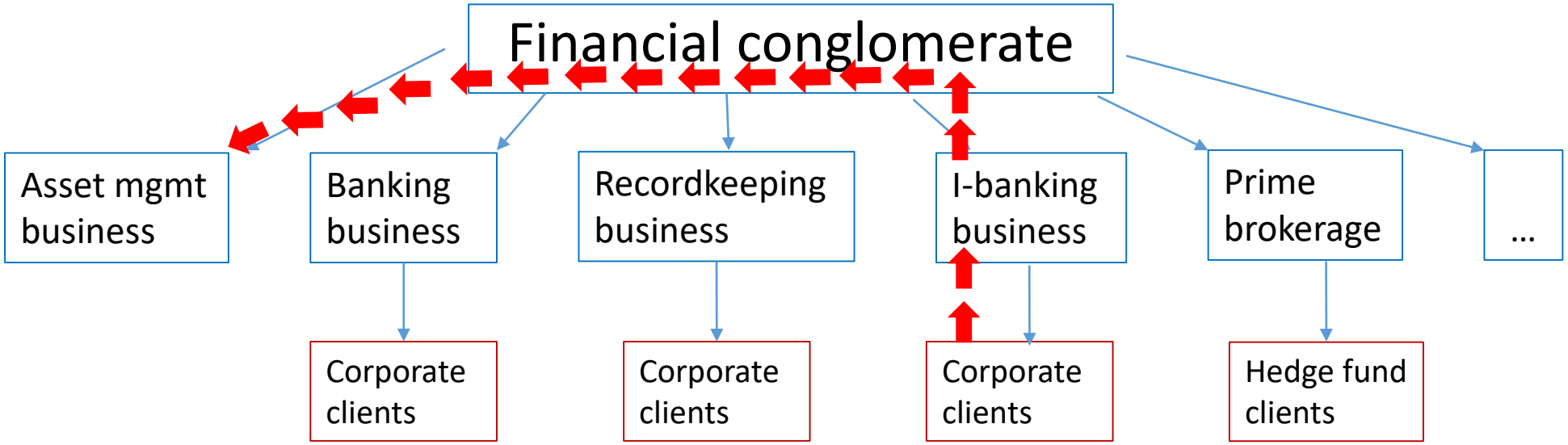
Micro channel?



Affiliated mutual funds receive private information from their parents on the parents' DC clients:

- Duan, Y, E. Hotchkiss, Y. Jiao, 2018. Business Ties and information Advantage: Evidence from Mutual Fund Trading. *Contemporary Accounting Research*, forthcoming.

Micro channel?



Affiliated mutual funds receive private information from their parents on the parents' IB clients:

- Bodnaruk, A., M. Massa, and A. Simonov. 2009. Investment banks as insiders and the market for corporate control. *Review of Financial Studies*, 4989–5026.
- Jegadeesh, N., and Y. Tang. 2010. Institutional trades around takeover announcements: Skill vs. inside information. Working Paper, Emory University
- Kedia, S., and X. Zhou. 2014. Informed trading around acquisitions: Evidence from corporate bonds. *Journal of Financial Markets* 18:182–205.

Micro channel

- Existing evidence mainly concerns stock funds but there is no reason to believe that bond funds are not receiving information from the conglomerate parent

- Therefore, common holdings in the same issuer may just indicate that the issuer is a corporate client of the fund conglomerate -> if information does flow to affiliated funds then trading client stocks/bonds may be more likely to be information driven

- This also means that the redundancy argument is not necessarily true

- Caveat: of course, there is a quid pro quo argument in the literature as well:

  Affiliated mutual funds support the stocks of the parents' corporate clients:

  - Ferreira, M., P. Matos, and P. Pires, Asset Management within Commercial Banking Groups: International Evidence, *The Journal of Finance* (forthcoming)
  - Cohen, L., and B. Schmidt, 2009, Attracting flows by attracting big clients, *Journal of Finance* 64, 2125-2151.
  - See many other studies (Berzins, Liu, and Trzcinka (2013), Golez and Marin (2015), etc.)

Other comments

- Do stocks for which there is a large co-ownership have better price efficiency? (of course, endogenous)

- Cross sectional analyses for fund families: use measures of cooperation vs. competition from Evans et al. (2018) - although the tournament incentives may be mitigated by being in a different asset class.

- It is not clear why other funds respond to the downgrade only 2 qtrs after the event…. There is no reason to 'respond' then, the price should already incorporate the news.

- Why are there so few observations in the table 2 compared to table 3?

Other comments

- Identifying corporate bond funds is not straightforward. Why not start with the issuers first. Then check if any actively managed bond fund holds the issuer… It is not relevant what kind of bond fund it is. Using per_corp or the CRSP objective codes is very noisy

- How do we deal with CDS's or futures?

- CRSP holdings information for the same crsp_portno tends to be more frequent in recent years (often monthly)

Conclusion

- Very interesting paper, uncovers a new finding. I find it very likely that bond and stock funds benefit from being in the same family ('collaborate'), though managers may not communicate with each other directly.

- The economic magnitudes of the general trade correlations are probably much lower. There is not a strong economic argument as to why coordination means trading in the same direction, given that the securities are different.

- Focus on specific events: these results are more intuitive and convincing.