

# Socially Connected Firm Return

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## ABSTRACT

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JEL classification: XXX, YYY.

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## II. Data

I collected data from four different sources. A standard database used in mutual fund research literature is the CRSP Survivorship Bias Free Mutual Fund Database. The CRSP Mutual Fund Database includes mainly fund characteristics, such as fund returns, total net assets, expense ratios, investment objectives, fund manager names, and etc. One constraint imposed on researchers using CRSP is that it does not include detailed information about fund holdings. My data on mutual fund holdings come from the Thomson Reuters CDA/Spectrum S12 database, which includes all registered mutual funds filing with the Securities and Exchanges Commission (SEC). The third database I use for this study, Morningstar Direct, provides mutual fund managers' biographical information including educational background. On the helded company side, I obtain data from BoardEx of Management Diagnostic Limited, a research company specialized in social network data on company officials in U.S. and European public and private companies and other types of organizations. BoardEx provide employment history and educational information of senior company officers (such as Chief Executive Officer, Chief Financial Officer, Chief Technological Officer, Chief Operating Officer and Chairman) and board of directors.

Following Wermers (2000), I merge the CRSP Survivorship Bias Free Mutual Fund database with the Thomsom Reuters CDA/Spectrum S12 database using the MFLINKS table. The focus of my analysis is on actively managed U.S. equity funds, with the investment objective of aggressive growth, growth, or growth and income in the Thomsom Reuters CDA/Spectrum dataset<sup>2</sup>. I apply several filters to form my sample (following Kacperczyk, Sialm, and Zheng (2006)). I remove passive index funds by manually searching through fund name, index fund indicator, and Lipper objective name. I only include comonon stock <sup>3</sup> holdings of mutual funds. Education history of mutual fund managers from Morningstar is linked to the combined CRSP/Thomsom Reuters data by matching manager names. My final mutual fund sample includes surviorship-bias-free data on holdings and biographical information for 1,408 funds and 3,220 mutual fund managers and spans the period from 2006 to 2016 <sup>4</sup>.

For companies in the mutual fund holding, I map the identities and educational background information of board members and senior directors from BoardEx by firm CUSIP identifier<sup>5</sup>. My final matched company data contains educational background on 52,583 directors for 6,257 stocks between January 2006 and December 2016<sup>6</sup>.

complication: TR holding data: 1. matching (with mflink2) using fdate, fundno 2. prc correspond to fdate (quarter-end) don't use this! since fdate is legacy date no meaning!! 3. shares correspond to rdate (actual (effective) date of the holdings)

## Appendix A. An Appendix

Here's an appendix with an equation. Note that equation numbering is quite different in appendices and that the JF wants the word “Appendix” to appear before the letter in the appendix title. This is all handled in `jf.sty`.

$$E = mc^2. \tag{A1}$$

## Appendix B. Another Appendix

Here's another appendix with an equation.

$$E = mc^2. \tag{B1}$$

Note that this is quite similar to Equation (A1) in Appendix A.

## REFERENCES

- Cohen, Lauren, Andrea Frazzini, and Christopher Malloy, 2008, The small world of investing: Board connections and mutual fund returns, *Journal of Political Economy* 116, 951–979.
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- Kacperczyk, Marcin, Clemens Sialm, and Lu Zheng, 2006, Unobserved actions of mutual funds, *The Review of Financial Studies* 21, 2379–2416.
- Putnam, Robert D, Robert Leonardi, and Raffaella Y Nanetti, 1994, *Making democracy work: Civic traditions in modern Italy* (Princeton university press).
- Wermers, Russ, 2000, Mutual fund performance: An empirical decomposition into stock-picking talent, style, transactions costs, and expenses, *The Journal of Finance* 55, 1655–1695.

## Notes

<sup>1</sup>Here's a sample footnote (endnote).

<sup>2</sup>These funds have Investment Objective Code (IOC) of 2,3,or 4.

<sup>3</sup>Stocks with share code 10 or 11 in CRSP.

<sup>4</sup>A sanity check: The base sample of ? includes survivorship-bias-free data on holdings and biographical information for 1,648 US actively managed equity funds and 2,501 portfolio managers between January 1990 and December 2006. My sample size is comparable to theirs in magnitude

<sup>5</sup>BoardEx use ISIN, which is derived from CUSIP

<sup>6</sup>A sanity check: In ?, the matched sample of combining company officials' biographical information to stock return data from CRSP includes educational background on 42,269 board members and 14,122 senior officials (56,391 combined senior directors) for 7,660 CRSP stocks between January 1990 and December 2006. My sample size is comparable to theirs in magnitude



**Figure 1. Structure of model: capital can be invested in a bank sector and an equity sector.** An intermediary has the expertise to reallocate capital between the sectors and to monitor bank capital against bank crashes.