Who You Know Counts:
Social Networks and Stock Returns

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Mutual funds earn significantly higher returns on stocks when their managers are connected to the companies' by social networks. New research shows fund performance improves when a fund manager shares a common educational background with corporate CEOs, CFOs, and Board members.

Chris Malloy, professor of finance at the Harvard Business School, shared the results of his research with alumni in a presentation on February 17, 2009. Malloy's findings are published in his paper, The Small World of Investing: Board Connections and Mutual Fund Returns, which he co-authored with Andrea Frazzini of the University of Chicago and Laruen Cohen, also of Harvard Business School. In a related paper, Sell Side School Ties, Malloy and his co-authors showed that sell-side analysts' recommendations perform better when there are educational connections between the analyst and key company personnel.

"Information is a big determinant in performance," Malloy said, "but it is less clear how it moves."

Malloy's paper begins to answer that question by highlighting the role of educational background. Malloy and his co-authors identified four levels of connections between fund managers or sell-side analysts and key company personnel (CEOs, CFOs, and Board members), depending on whether they attended the same school, attended the same school and earned the same degree (e.g., MBA), attended the same school at the same time, and whether they attended the same school and earned the same degree at the same time.

Malloy and his co-authors studied data from 4,000 mutual funds and 5,000 companies, examining data over a 16-year period, from 1990 to 2006. Outperformance in the mutual fund study was persistent over this period, whereas the outperformance in the sell-side analyst study diminished following the enactment, in 2000, of Regulation FD (which forced broader disclosure by sell-side analysts).

The stronger the connection, the better the results. When the individuals attended the same school and earned the same degree at the same time, the highest investment returns occurred.

Stocks that were connected at one of the four levels noted above outperformed unconnected stocks by 7.8% on a risk-adjusted basis.

But fund managers are not placing big bets on these stocks. The average holding for a connected stock is only 6.28% of total assets, and a mere 0.22% for stocks connected at the fourth (closest) level. As a result, connectedness earns managers only two basis points in overall outperformance.

Stocks given “buy” recommendations by sell-side analysts similarly connected to corporate management delivered between 5% and 6% outperformance on a risk-adjusted basis, compared to stocks where no connection existed.

For a real-world illustration of the principle at work, Malloy cited an unnamed (but real) mutual fund manager. In 1996, this individual, who had $3 billion in assets and a Harvard MBA (class of 1983), began buying shares of a company, 62% of whose top managers had Harvard degrees and 46% of whose Board had Harvard Business School degrees. In the year following the initial purchases, the company announced a significant joint venture, after which the fund manager added to his or her position. Later, the company announced another joint venture and was chosen for a special, lucrative project. It announced record earnings and was taken over by another company. The fund manager unloaded at its peak, after which the price of its shares fell 18%.

The fund manager earned a 72% return on his holding.

It was not an isolated case. For this particular fund manger, all investments where a Harvard connection existed exhibited significant outperformance.

Malloy’s research offers no conclusive proof of insider trading, although he found that abnormal returns are concentrated around specific events, such as earnings announcements. He has shared his results with the SEC, who may use it as part of ongoing surveillance efforts.

Information could be communicated directly, as in a phone call or e-mail, or the manger may simply know who to call or get his or her calls returned more often. The information benefit may be a result of networking, whereby a fund manager has an edge in assessing corporate managers’ skill through common contacts. All these factors benefit fund managers and analysts by improving information flow.

Top schools, based on national rankings, are disproportionately represented among corporate executives, mutual fund managers, and sell-side analysts, while 10% of corporate executives and 17% mutual fund managers have Harvard degrees.

But the networking effect was not limited to top schools. Malloy stressed that his findings do not show an "elitist" effect. Even when he eliminated the top 30 institutions from his data, social networking still led to superior performance.

Nor is this a school-specific phenomenon. Investing solely in fund managers who went to prestigious colleges does not result in outperformance, nor would selecting only companies with – for example – Harvard-educated management teams.

"The key is that fund managers and sell-side analysts pick the right stocks" based on their personal social networks, Malloy said. "It is all about information flow."

Although he studied only educational connections, Malloy said his research could be extended to other types of social networking – country club memberships, military backgrounds, or religion, to name a few. "The stronger the tie – where strength is defined by the likelihood of interaction and information flow – the bigger the results," he said.

Information on when to buy securities was more valuable than information on when to sell – that is, the outperformance of purchased securities exceeded the underperformance of those that were sold. That may indicate that management is more willing to share good news than bad, Malloy said.

Implications for advisors

Malloy's research does not offer any guidance for mutual fund selection, primarily because the overall level of outperformance attributable to connectedness is small (only two basis points). It also does not indicate whether better-educated or better-connected fund managers deliver superior performance or, more broadly, whether skillful fund managers possess any characteristics that allow them to be identified beforehand.

But Malloy's work suggests one very useful strategy for stock selection. Most funds hold between 30 and 50 stocks. Typically, about five of those stocks will have an educational social network connection of the type studied by Malloy and his co-authors. "If you just buy only those connected stocks, you will achieve considerable outperformance," Malloy said.

Executing this strategy requires a lot of data. You would need to go to a vendor like BoardEx or ZoomInfo to obtain data on the educational background of corporate management teams and to Morningstar for fund manager resumes. No commercial solutions exist for combining this data – which may account for the superior level of outperformance – so implementing the strategy would require a substantial IT investment.

But Malloy is confident in the validity of his results. "The evidence does not suggest there is long-term fund manager outperformance persistence," Malloy said. "But our results, over a 16 year period, show a strong source of persistent advantage."

Will this advantage continue into the future? Malloy says yes – "Networks are a lasting source of competitive advantage," he said.