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Trust plays a critical role in the investment advisory industry and shocks to investor trust have large and long-lasting effects on investors’ behavior and their investment decisions.

Industry Report on:

Trust Busting: The Effect of Fraud on Investor Behavior

In this study, IBECC expert Dr. Scott Yonker and colleagues Dr. Gurun and Dr. Stoffman investigated the role of trust on investor behavior in the investment advisory industry.

Read on to learn how the study was conducted, what IBECC expert Dr. Yonker and his colleagues found, and the key takeaways for your business!

1. Rationale

The economic importance of trust is well documented and understood. It is associated with economic growth, the size of firms, financial development and international trade and investments. However, there is no previous research that broadly examines or quantifies the effects of trust in the investment advisory industry. Thus, in this study Dr. Yonker and his colleagues investigated this topic using geographic variation in the intensity of the large negative shock to investor trust resulting from the Madoff fraud, uncovered in December 2008.

One of the challenges to identifying the effects of trust is that it is highly correlated with cultural factors. Most previous studies use cross-sectional variation to try to infer the impact of trust on various outcomes. Relying on a shock to the level of trust within areas allows the researchers to isolate the effect of trust on investment outcomes.

In this study Dr. Yonker and his colleagues focused on the spillover effects of the shock to trust on investment behavior. That is, the effect on people other than the fraud victims, rather than the wealth effects of the fraud victims themselves. They found that relatively more assets flow from investment advisers (RIAs) to safe assets such as bank deposits in areas more exposed to the Madoff fraud.
2. Background

Bernard L. Madoff Investment Securities (BMIS), the firm through which the Madoff Ponzi scheme was perpetrated, was regulated by the Securities and Exchange Commission (SEC) as a registered investment adviser (RIA). Ponzi schemes rely on new investors to pay off existing investors, thus when there are fewer or no new investors or when many existing investors want to withdraw funds, both of which happened to BMIS in the aftermath of the financial crisis, they tend to collapse. Furthermore, a common factor in the success of a Ponzi scheme is the existence of an “affinity” link between the perpetrator and the targeted victims. Common religion has been found to be one of the most frequent affinity links cited by the SEC (Deason, Rajgopal, and Waymire, 2015). Many victims of the Madoff fraud were Jewish people and organizations, thus here the Jewish community constitutes the “affinity group”. Since the Madoff fraud went undetected by the SEC despite several warnings, it caused many investors to lose trust in the underlying regulatory system, particularly in areas where Madoff’s victims lived.

3. Research Description

Drawing on previous research showing that social connections and geographic proximity influence investment behavior (Hong, Kubik, and Stein, 2005; Ivkovic and Weisbenner, 2007; Pool, Stoffman, and Yonker, 2015), the researchers hypothesized that investors socially connected to a Madoff fraud victim or members of the same affinity group were also likely to suffer a reduction in trust due to this trust shock, with larger effects expected in areas of higher exposure.

Since some areas of the country were more exposed to the fraud than others, the researchers were able to estimate differences in the changes in aggregate investment behavior between them. They expected to see abnormal outflows from RIAs and inflows into bank deposits, in areas where investors were more affected by the fraud. The study relied on three main sources of data: court documents listing the victims of BMIS; the SEC’s Form ADV; and the Federal Deposit Insurance Corporation (FDIC)’s Summary of Deposits data. These data allowed the researchers to estimate the effects of the shock to trust in the investment advisory industry using a difference-in-differences framework.

**How was this study conducted?**

The researchers used the list of BMIS clients from court documents released by the U.S. federal bankruptcy court in February 2009, to identify the direct victims of the Madoff fraud by name and address. After removing duplicates, investments funneled to Madoff through “feeder” funds and investors with foreign addresses they had 10,276 unique names at 5,907 unique addresses. They then aggregated the number of victims by specific geographic areas, and defined as the treatment variable for their analyses the relative concentration of victims in a specific area.

Through a series of Freedom of Information Act (FOIA) requests, the researchers were able to collect data on RIAs and their assets under management (AUM) from Part 1A of SEC Form ADV. RIAs that acted exclusively as financial planners or investment consultants were excluded from the sample in order to focus the analysis on “money managers”. Furthermore, since the interest was on studying the propagation of the trust shock to non-victims, BMIS and firms that were alleged to have invested in BMIS were excluded from the sample. Mutual funds were excluded as well, given that they have more stringent regulatory requirements than the typical investment adviser. The final sample had 3,951 unique RIAs with main offices in every state. The researchers constructed a panel of investment adviser flows and clientele locations from 2006 to 2010, for all the RIAs in the sample. In order to analyze the real
effect of the trust shock, they identified RIAs going out of business from data disclosed in form ADV-W (the withdrawal statement), obtained through additional FOIA requests.

To measure the spatial distribution of bank deposits, the researchers collected branch-level cash deposits at banks using information from the Federal Deposit Insurance Corporation (FDIC) survey. They aggregated deposits across branches in a zip code dropping any observation that could not be unambiguously matched to a zip code. Most of the analysis was conducted using data from 2007 through 2010 which included aggregated deposit data from over 97,000 unique bank branches in 20,602 unique zip codes.

Finally, the researchers used several data sources to construct geographical control variables. Data on age, income, and population was taken from the 2000 U.S. Census. Data on religious affiliation was taken from the Religious Congregations and Membership Study, 2000.

What did IBECC researcher Dr. Yonker & colleagues find?

The researchers found evidence that the shock to trust caused by the Madoff fraud severely impacted the investment advising industry leading investors to move money from risky to low-risk assets, a behavior that resulted in an increased rate of RIA closures in affected areas. The strongest impact was on RIAs that most resembled Madoff’s firm (i.e. those managing private funds with custody of assets). Moreover, RIAs with clients who were more exposed to Madoff’s victims (i.e. more effected by the trust shock) were over 40% more likely to close due to the magnitude of the withdrawals. Interestingly, they also found that RIAs that provided additional services which help to build trust (e.g., financial planning advice) were able to markedly reduce the adverse effects of the trust shock, experiencing fewer withdrawals in the post-fraud period.

In addition they found that, following the revelation of the fraud, abnormal cash deposits increased over 5% for banks in zip codes with Madoff victims. However, banks with Madoff victims within 10 miles experienced lower abnormal deposits growth (almost 3%), and banks with Madoff victims further than 10 miles away didn’t see any abnormal deposit growth. These findings indicate that the effect of the fraud was transmitted through social networks rather than through local media, which would have had impact over a larger area. In addition, they found a strong correlation between the location of victims and the intensity of internet searching about the fraud, which provides evidence that the effect was highest among people living close to the fraud victims or socially connected to them.

Figures 1 and 2 clearly show that there was no effect on RIAs’ AUM or bank branch deposits abnormal growth until after the Madoff event. Figure 1 illustrates the change in the natural log of RIA-level AUM since 2005 for two groups of RIAs (treatment and control). The treatment group corresponds to RIAs that were more exposed to the Madoff fraud (those with at least one victim in the zip codes where their offices are located). All other RIAs are considered less exposed and constitute the control group. In 2009 and 2010, RIAs that were more exposed to the Madoff fraud (treatment) exhibited an abnormal loss of their AUM compared to the less exposed (control) group. Figure 2 shows the average change in the natural log of zip code-level aggregate bank branches deposits since 2005 for the treatment and control groups. The definition of the two groups in this case is the same as that used for RIAs. In 2009 and 2010, the treatment bank branches group clearly experienced abnormal increases in deposits, compared to the control group.
Figure 1. Average cumulative change in RIA log(AUM) by Madoff fraud exposure

Note: The figure plots changes in log(AUM), not flows. AUM also changes with returns, and the return on the CRSP universe was 28% in 2009.

Figure 2. Average cumulative change in log(bank deposits) by Madoff fraud exposure
Aggregating across all RIAs, the researchers estimated the abnormal withdrawals due to the trust shock at around $363 billion, which means that the wealth lost by direct victims ($17 billion according to the court-ordered restitution) represents less than 5% of the liquidation of assets from RIA accounts. Their estimates also indicate that at least 27% (approximately $97 billion) of the withdrawals from RIAs were deposited into banks. Finally, they found no evidence of withdrawals’ reversals, even up to four years after the fraud was revealed, which suggests that trust shocks have long-lasting effects on investment decisions.

What do these results mean?

Results from this study suggest that:

- The trust shock severely impacted the investment advising industry leading investors to move money from risky to low-risk assets
- Investors’ behavior due to the trust shock resulted in an increased rate of RIA closures in affected areas
- Bank deposit data point to the localized effect of the shock, which dies about ten miles of a bank branch
- Social networks played a critical role in the propagation of the effect

4. Takeaways for Your Business

Key Takeaway:

Trust plays a critical role in the investment advisory industry and shocks to investor trust have large and long-lasting effects on investors’ behavior and their investment decisions.

Other Important Takeaways

- Trust is key in the investment advisory industry and has real economic effects
- Investor perceptions play an important role on resource allocation in the economy
- The effect of trust on investor behavior is large and persistent
- Personal trust can serve as a substitute for trust in the underlying financial system
- Investing in resources to build trust with clients is beneficial

Caveats

- National media coverage of the Madoff scandal may have affected investors in general. In this case, the study results, even though quite large in magnitude, may underestimate the real size of the effect
- This study relies on identification from one particular ethnic group, but the fact that a shock to trust can be transmitted through social networks means the implications for investment behavior are likely to apply broadly