Newsletter of the BNP Paribas Hedge Fund Centre at SMU

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Mission of the BNP Paribas Hedge Fund Centres

The mission of the BNP Paribas Hedge Fund Centres is to facilitate, encourage, and sponsor high-level academic research on hedge funds. The Centres also provide outstanding education to students, executives, and investors, and publish objective and independent information on hedge funds, while promoting understanding and awareness of alternative investment strategies. Through excellence in research on alternative investments, the Centres are recognized for their capacity to foster stimulating exchange of opinions, and to develop a knowledgeable and objective information base regarding hedge funds.

The primary objectives of the BNP Paribas Hedge Fund Centre at the Singapore Management University are to

1. conduct and disseminate high quality academic hedge fund research
2. educate finance practitioners and the investor public on hedge funds, and
3. raise the profile of the hedge fund industry in Asia and Singapore

To achieve these goals, the Centre will collaborate closely with its sister centres at the London Business School and HEC. Moreover at all times, the Centre is absolutely committed to the highest ethical conduct and will actively avoid any conflicts of interest with outside parties.

Lessons from Hedge Fund Fraud

Melvyn Teo[1]

Abstract

We examine two of the most fascinating fraud cases that rocked the hedge fund industry: Bernard L. Madoff Investment Securities (henceforth BMIS)[2] and Bayou Management. From academic research and news reports, we distill important lessons for the hedge fund investor. Our key conclusions are (i) conflicts of interests are often symptomatic of more serious problems at hedge funds, (ii) auditing statements from obscure accounting firms should provide little assurance to investors, (iii) a comparison between the actual fund risk exposures based on realized returns with the theoretical risk exposures from the trading strategy serves as a useful cross-check for investors, and (iv) for funds with a master-feeder structure, it is important that due diligence is conducted for both the master fund and the feeder fund.

Introduction

On 10 December 2008, Bernard Madoff told two of his senior employees that his investment advisory business was “just a one big lie,” and basically a “giant Ponzi scheme”. A massive SEC investigation soon followed which culminated with the sentencing of Bernard Madoff to life imprisonment for engineering a $65 billion Ponzi scheme, one of the largest in financial history. What intrigued market watchers was not so much the pool of well-heeled investors, including celebrities, charitable organizations, pension funds, large banks, hedge funds, and fund of funds, that were taken in by Madoff, but rather how Madoff was able to escape detection for so long.

From the SEC investigations, we know that Madoff leveraged on his thriving brokerage business to reel in clients. To escape detection, he compartmentalized duties amongst his employees, forbid employees from archiving email, and settled trades by hand using an ageing IBM AS/400 machine. Madoff also relied on a network of well-run feeder funds for fund raising and to further distance himself from his investors.

Smaller in scale but no less interesting is the fraud case of Bayou Management. Started by Sam Israel and Daniel Marino in 1996, Bayou Management compensated for their poor investment

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[2] Officially, Madoff never claimed to be a hedge fund. He only claimed that BMIS operated a conservative strategy that invested in specific stocks and options. BMIS also did not charge the usual hedge fund management and performance fees. Instead, it levied commissions on each trade. Some industry watchers question why Madoff was willing to leave hundreds of millions of dollars on the table by forgoing management and performance fees. See, for example, “Don’t ask, don’t tell – Bernie Madoff is so secretive, he even asks investors to keep mum,” Barrons, 7 May 2001.

skills by generously padding their returns and lying to investors. They managed to fleece investors of $400 million before a suspicious wire transfer placed by Bayou Management in 2004 caught the attention of U.S. Arizona state regulators. Prior to incarceration, Sam Israel even staged his own suicide by abandoning his car on a bridge over the Hudson River with the words “suicide is painless” written in dust on its hood. This led to a massive manhunt that ended when Sam Israel surrendered to the authorities after running out of medication for his back problems.

These fraud cases are not only interesting from a layman point of view but are also extremely educational, especially for hedge fund investors. Some natural questions to ask include: Were there signs that something was amiss at Madoff and Bayou Management? What were the mistakes that investors made when conducting due diligence on these funds? In this issue of our newsletter, we explore some of the lessons that can be learnt from these two fraud cases.

Lesson 1: Be wary of conflicts of interests

The presence of conflicts of interests at BMIS and Bayou Management would have thrown up some red flags for potential investors. Bayou Management funneled all their trades through Bayou Securities, a stock trading subsidiary that earned commissions from Bayou Management’s trading. This was an unusual practice in the hedge fund industry. Because Bayou’s trading strategy called for the buying and selling of tens of millions of dollars worth of stock nearly every day it meant that Bayou Securities racked up enormous commissions.[3] This was true regardless of whether those trades resulted in a profit or a loss for Bayou Management’s investors. The conflict of interest inherent in this arrangement incentivized Israel to trade more frequently so as to generate greater commissions for Bayou Securities.

BMIS faced similar conflicts of interests. As discussed in Lhabitant (2006), a typical hedge fund employs a network of service providers that normally includes one or several brokers to execute trades, a fund administrator to determine NAV, and one or several prime brokers or custodians to custody the positions. As noted by Gregoriou and Lhabitant (2008), with Madoff, all the above mentioned functions were performed internally and without independent third-party oversight. Madoff traded through his affiliated broker dealer, which also executed and cleared his trades. In addition all the assets were custodied and administered within his organization. Madoff was able to do so because he was a broker dealer running a series of managed accounts. With a broker, the absence of an independently calculated net asset value was acceptable as clients typically only receive brokerage statements. Moreover, it seems reasonable that custody was done in-house given the nature of his core business.

Nonetheless, this unique arrangement allowed Madoff to create fictitious trades and manipulate the performance of his investment portfolio.[4] In general, conflicts of interests are often symptomatic of bigger problems within hedge funds. Brown, Goetzmann, Liang, and Schwarz (2008) investigate the information content of Form ADV filings by hedge funds. They find that

[3] See, for example, “Empty promises in hedge fund fraud,” USA Today, 30 September 2005.
[4] See, for example, “The bucks stopped here,” The Financial Times, 5 September 2009.

funds which face internal or external conflicts of interests are often problem funds that answered yes to any of the questions on Item 11 of the Form. Problems covered in Item 11 include any past felony or financial-related misdemeanor charges or convictions. Item 11 also includes questions concerning any SEC, CFTC, federal, or state agency, or other regulatory disciplinary action as well as civil lawsuits. Brown, Goetzmann, Liang, and Schwarz (2008) show further that problem funds who grapple with external conflicts of interests (e.g., funds that employ affiliated broker dealers) earn lower appraisal ratios than problem funds that do not face such conflicts of interests.

A key takeaway from Bayou Management and Madoff is that investors should avoid investing in hedge funds with conflicts of interests. In particular, they should seek out only those funds with independent service providers (administrator, prime broker, custodian, and broker dealer). The independence between service providers facilitates the cross-checking of fund trades and assets, and serves to reduce the risk of fraud.

Lesson 2: Invest in funds with reputable auditors

One reason why both BMIS and Bayou Management were able to escape detection was that they essentially employed sham companies as auditors. According to the SEC, Bayou Management could not hide the manipulation of its fund performance from its auditors Grant Thornton. Therefore, they fired Grant Thornton and replaced them with Richmond-Fairfield Associates. Unbeknownst to Bayou Management's investors, Richmond-Fairfield Associates was a sham company that was owned entirely by Daniel Marino and had no other clients. Ostensibly, its sole purpose was to assure investors that Bayou Management's financial statements had been audited.

Similarly, BMIS was audited by an obscure accounting firm known as Friehling and Horowitz. According to Gregoriou and Lhabitant (2008), this firm operated from a small 550-square foot office in New York and only had three staff members: a secretary, Jerome Horowitz, a partner in his late seventies living in Miami, and David Friehling, the only active accountant. It was neither well-known in the investment management industry nor peer reviewed. Therefore, there was no independent check on its quality. It turns out that every year since 1993, Friehling and Horowitz have declared to the American Institute of Certified Public Accountants that it was conducting no audits.

By requiring that the hedge funds engage reputable accounting firms as auditors, hedge fund investors would have been able to avoid investing in BMIS and Bayou Management altogether. An auditing statement is helpful only to the extent that it represents the opinions of an independent and qualified accountant. Should investors choose to invest in hedge funds audited by unknown accounting firms, then the question of who monitors the monitors (i.e., the auditors) will always remain.

Lesson 3: Understand the strategy involved

A notable feature of the BMIS case was that Bernard Madoff was extremely evasive about the strategy he employed. BMIS claimed that it operated a split-strike conversion strategy by trading options on the S&P 100 index. But when pressed by investors to discuss further, Madoff would often become angry and threaten to expel them. According to Madoff, if they did not invest with him, many other well-heeled investors were still lining up to do so.

Actually, by simply comparing Madoff's actual exposure, based on his past returns, with the theoretical exposure of a split-strike conversion strategy, investors would have been able to gain significant insight into the validity of his investment advisory operations. According to Gregoriou and Lhabitant (2008), the split-strike conversion strategy used by Madoff was in theory remarkably simple and consists of a combination of a protective put and a covered call. The strategy can be summarized as follows:

1. Buy a basket of stocks that are correlated with the S&P 100 index
2. Write out-of-the-money call options on the S&P 100 index such that there is a ceiling value beyond which the increase in the value of the basket of stocks is exactly offset by the liabilities from the call options.
3. Buy out-of-the-money put options on the S&P 100 index such that there is a floor value beyond which the decrease in the value of the basket of stocks is exactly offset by the gains in the put options.

The diagram below illustrates the theoretical payoffs from the split-strike conversion strategy employed by Madoff.

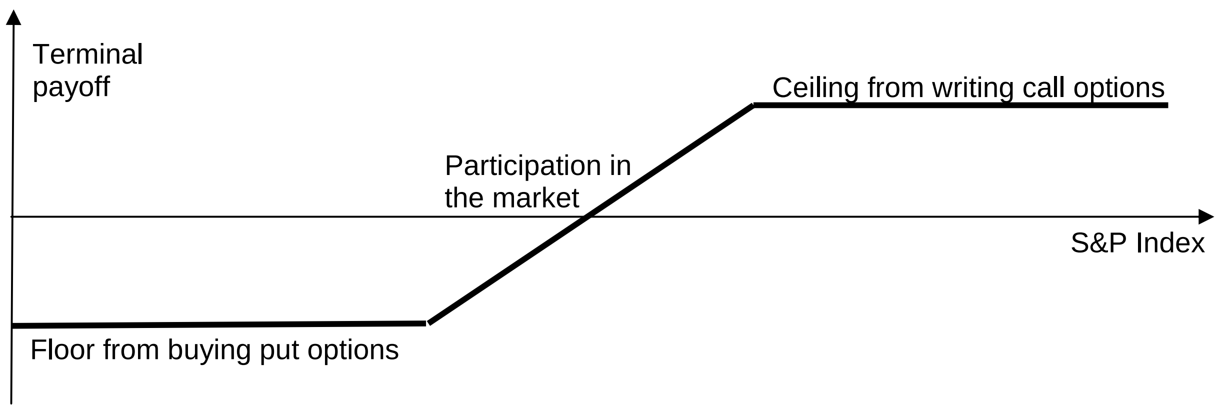

Figure 1: Payoffs from a split-strike conversion strategy
Reproduced from Gregoriou and Lhabitant (2008)

Yet when Markov (2008) evaluated the actual exposure of Madoff's fund to various factors, he found that the best combination of factors that explained the returns of Madoff was a dynamic portfolio that was long cash, long the S&P 100 index, short the CBOE S&P 500 Buy-Write Index and long the CBOE S&P 500 Put-Write Index. In other words, instead of selling call options and buying put options as in a split strike conversion strategy, Madoff was actually buying call options and selling put options. This suggests that Madoff's return exposure with inconsistent with his purported investment strategy, and raises questions about his integrity and the validity of his investment advisory operations.

Conclusion

Investors can go a long way towards avoiding fraud by ensuring that the hedge funds they invest in engage independent and reputable service providers, and are trading according to how they say they will trade. In the Madoff case, due diligence efforts were made complicated by the fact that one had to go through feeder funds to invest with Madoff. The feeder funds (e.g., Fairfield Sentry Ltd) all employed reputable service providers and auditors, adding an aura of respectability and legitimacy to the operation. Therefore, for funds that have a master-feeder structure, investors should conduct due diligence both on the master fund and the feeder fund. After all, a chain is only as strong as its weakest link.

References

Brown, S., Goetzmann, W., Liang, B., Schwarz, C., 2008. Mandatory disclosure and operational risk: evidence from hedge fund registration. Journal of Finance 63, 2785-2815.

Gregoriou, G., Lhabitant, F.S., 2008. Madoff: a riot of red flags. Unpublished working paper. HEC Lausanne.

Lhabitant, F.S., 2006. The Handbook of Hedge Funds. John Wiley and Sons, London.

Markov, M., 2008. Madoff: a tale of two funds. Unpublished working paper. MPI quantitative research series (December).

Update on the Centre's Activities

Education

We are organizing an exclusive two and a half day executive education program on hedge funds from the 28th-30th October this year. The program will be taught by professors from the London Business School and the Singapore Management University, as well as by hedge fund managers. It will give participants the opportunity to learn from recent advances in academic research and will provide valuable insights into how the industry is evolving and where it is headed. The program is also highly practical with numerous case studies designed to stretch and challenge the individual. As an added bonus, the program will feature an investor panel comprising thought leaders from family offices, foundations, and university endowments who will discuss a myriad of issues of interest to hedge fund investors.

To date, more than 20 practitioners, including institutional and private investors, have already signed up for the program. Registrations will close shortly in mid-October 2009. Please visit our executive education website for more information:

http://www.smu.edu.sg/centres/hfc/events/hfee09/index.asp

Research

We have received 21 submissions following our call for papers placed on SSRN. The submission deadline was 31 July 2009.

Academics from University of Michigan, Monash University, University of North Carolina, University of Illinois, University of California at Irvine, University of Notre Dame, Southern Methodist University, Loyola University, UCLA, San Diego State University, Singapore Management University, National University of Singapore, Pennsylvania State University, Georgia State University, Columbia University, University of Wisconsin-Madison, University of Konstanz, University of Sydney, Bocconi University, Emory University, Ohio State University, University of Lugano, University of Maryland, MIT Sloan School of Management, and University of Massachusetts at Amherst submitted research papers and proposals.

The research board comprising Professor Bill Fung, Professor Narayan Naik, Vasan Srinivasa, Praveen Kanakamedala, and Aaron Low will decide on the award of the research grants.

For more information regarding the BNP Paribas Hedge Fund Centre at SMU and our upcoming activities, please contact Ms Karyn Tai, centre coordinator (Tel: +65-6828-0933, E-mail: hfc@smu.edu.sg) or visit our webpage at http://www.smu.edu.sg/centres/hfc/index.asp. We look forward to receiving your suggestions and comments.