ATTACHMENT A

UNITED STATES BANKRUPTCY COURT
SOUTHERN DISTRICT OF NEW YORK

SECURITIES INVESTOR PROTECTION CORPORATION, Plaintiff-Applicant, v. BERNARD L. MADOFF INVESTMENT SECURITIES LLC, Defendant.	Adv. Pro. No. 08 -01789 (LGB) SIPA LIQUIDATION (Substantively Consolidated)
In re: BERNARD L. MADOFF, Debtor.	

EXPERT REPORT OF BRUCE G. DUBINSKY
MST, CPA, CFE, CVA, CFF, CAMS, MAFF
October 23, 2024

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I. THE ASSIGNMENT

1. In June 2011, I was retained by the law firm of Baker & Hostetler LLP ("Baker"), counsel for Irving H. Picard, Trustee ("Trustee") for the substantively consolidated Securities Investor Protection Act ("SIPA") liquidation of Bernard L. Madoff Investment Securities LLC ("BLMIS") and Bernard L. Madoff ("Madoff"), to provide forensic accounting analyses and render certain expert opinions and conclusions ("the Assignment"). In this report, I render opinions related to:
    - Whether fraud permeated BLMIS, which included an investment advisory business (hereinafter referred to as the "IA Business") as well as a market making and proprietary trading business (hereinafter referred to as the "Proprietary Trading Business");
    - Whether BLMIS was solvent as of December 11, 2002, and thereafter; and
    - Whether Madoff Securities International Limited (hereinafter referred to as "MSIL") was used to facilitate the transfer of funds out of the IA Business.

II. EXPERT BACKGROUND AND QUALIFICATIONS

2. I am the founder of Dubinsky Consulting, LLC ("Dubinsky Consulting") and former Managing Director in the Expert Services practice at Kroll, LLC ("Kroll," formerly known as Duff & Phelps, LLC) and was retained by Baker to serve as an expert witness in connection with the Assignment. My practice at Dubinsky Consulting (and formerly at Kroll) places special emphasis on providing forensic accounting, fraud investigation and dispute analysis services to law firms litigating commercial cases, as well as corporations, governmental agencies, and law enforcement bodies in a variety of situations.
3. I earned a Bachelor of Science degree in Accounting from the University of Maryland, College Park, MD and a Master's in Taxation ("MST") from Georgetown University, Washington, D.C. I am a Certified Public Accountant ("CPA"), Certified Fraud Examiner ("CFE"), Certified Valuation Analyst ("CVA"), Certified in Financial Forensics ("CFF"), Certified Anti-Money Laundering Specialist ("CAMS") and a Master Analyst in Financial Forensics ("MAFF"), all in good standing. I was formerly a Registered Investment Advisor

Representative licensed by the state of Maryland and recognized by the Securities and Exchange Commission.

4. I have been qualified and have testified as an expert witness in various federal and state courts in the areas of forensic accounting and fraud investigations, bankruptcy, solvency, commercial damages, business valuations, investment theory, federal and state income taxation, abusive tax shelters, accounting ethics and standards, accounting malpractice, investment advisory issues, and a variety of other financial and tax matters. Additionally, I have professional experience in the area of computer forensics and related computer investigations and have undergone fraud and forensics training as a CFE, CFF and MAFF.

5. Some of the more notable fraud and forensic accounting investigations that I have conducted include:

    - International Brotherhood of Teamsters – Campaign compliance and related fraud investigations for the International Officer Elections;[1]
    - Lehman Brothers Bankruptcy;[2]
    - Washington Teachers Union fraud;[3] and
    - Firstpay payroll company fraud and Ponzi scheme.[4]

6. I was qualified as an expert witness in the areas of forensic accounting, fraud examination and securities fundamentals in the criminal trial of five former BLMIS employees: Daniel Bonventre, Jerome O'Hara, George Perez, Annette Bongiorno, and Jodi Crupi.[5] All of these employees were convicted for their roles in the operation of the Ponzi scheme at BLMIS.

7. A current and accurate copy of my curriculum vitae and Federal Rules of Civil Procedure Rule 26 disclosures are attached hereto as Appendix "A."

8. The opinions and conclusions expressed herein are based upon my understanding of the facts in this case, as well as information gained during the course of Kroll's performance of the

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[1] *United States v. Int'l Bhd. of Teamsters,* 725 F. Supp. 162 (LAP) (S.D.N.Y. 1989).
[2] *In re Lehman Brothers Holdings, Inc.*, No. 08-13555, 2008 WL 4902179 (JMP) (Bankr. S.D.N.Y. Nov. 5, 2008).
[3] *United States v. Hemphill*, 514 F.3d 1350 (D.C. Cir. 2008); *United States v. Hemphill*, No. 03-CR-00516 (RJL) (D.D.C. 2003); *United States v. Bullock*, No. 03-CR-00345 (RJL) (D.D.C. 2003); *United States v. Holmes*, No. 03-CR-00032 (RJL) (D.D.C. 2003).
[4] *Wolff v. United States*, 372 B.R. 244 (Bankr. D.Md. 2007); *Wolff v. United States (In re Firstpay, Inc.)*, No. 03 30102, 2006 WL 2959342 (PM) (Bankr. D.Md. Aug. 17, 2006).
[5] *United States of America v. Daniel Bonventre, Jerome O'Hara, George Perez, Annette Bongiorno, and Joann Crupi*, No. 1:10-cr-00228 (LTS) (S.D.N.Y.) ("Criminal Trial").

Assignment. I relied upon my education, training and over 40 years of professional experience in reaching the opinions and conclusions herein, all of which are stated to a reasonable degree of accounting certainty.

9. Litigation service engagements, such as this engagement, performed by CPAs are deemed to be consulting services as defined by the American Institute of Certified Public Accountants ("AICPA"). Accordingly, my work on the Assignment was performed in accordance with the applicable standards as set forth in the Standards for Consulting Services established by the AICPA, as well as the specific standards enumerated in the AICPA Statement on Standards for Forensic Services No. 1. Further, as a result of having other relevant professional certifications, I adhered to the applicable standards of those governing organizations in the performance of my work in this matter, and in the rendering of these opinions.

10. This report is based upon the information available to me and reviewed to date, and I hereby reserve the right to supplement or amend this report in the event additional information becomes available for my review.

11. In accordance with applicable professional standards of the Association of Certified Fraud Examiners, of which I am a member in good standing, this report contains no opinions on the guilt or innocence of any person(s) and/or party(s) named and/or discussed in the report.[6]

12. I am being compensated for my work in this matter at the rate of $1,350.00 per hour, and my fees are not contingent upon any finding or result in this matter.

[6] *Code of Ethics*, ACFE, http://www.acfe.com/code-of-ethics.aspx (last visited Nov. 21, 2011)(PUBLIC0669295); updated, https://www.acfe.com/-/media/files/acfe/pdfs/acfe-code-of-ethics---2020-11-01.pdf (last visited Sept. 19, 2024). Independent interviews of former BLMIS employees were not possible as of my August 2013 relating to the SIPA Liquidation of Bernard L. Madoff Investment Securities LLC because there were parallel, ongoing criminal investigations and indictments pending in actions related to this matter, and several former BLMIS employees have pled guilty and/or were cooperating with the Federal authorities. Since that time, the criminal investigations have concluded and additional employees have been convicted of fraud related crimes for their involvement in the Madoff Ponzi scheme.

III. SUMMARY OF ASSIGNMENT, SCOPE AND METHODOLOGY

A. Information Sources

13. A complete listing of the materials considered in forming my opinions and conclusions rendered in this report is attached hereto as Appendix "B."[7]

B. Conduct of Information Review and Analysis[8]

14. The work I conducted in connection with the Assignment was planned, supervised and staffed in accordance with applicable professional standards. The work included, but was not limited to:

- Review and analysis of customer statements, trade confirmations and other related documentation for the IA Business's customers dating back to the 1970s;
- Review and analysis of certain purported trading activity for the IA Business's customers dating back to the 1970s;
- Review and analysis of various bank accounts of BLMIS and Madoff;
- Review and analysis of various brokerage accounts held by BLMIS and Madoff;
- Review and analysis of the Proprietary Trading Business, including, but not limited to its overall profitability;
- Review and analysis of certain employment and compensation records for the IA Business and the Proprietary Trading Business;
- Restoration, reconstruction, review and analysis of major portions of the IBM Application System 400 ("AS/400") computer systems utilized by the IA Business and the Proprietary Trading Business;[9]
- Restoration, reconstruction, review and analysis of portions of the Proprietary Trading Business's computerized trading systems;

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[7] Access to documentation from the Trustee's counsel was not limited in any manner, and Kroll was allowed to search for information and documentation that both supported the opinions contained herein, as well as any countervailing evidence, if any.

[8] The time period in question spans nearly 50 years (1960-2008) and as a result certain records were not available. Nonetheless, the opinions contained herein are supported by available documentation dating back to the 1970s, and where historical documentation was no longer available, alternate sources were used.

[9] *See infra* (describing the BLMIS computer systems).

- Review and analysis of certain third-party information regarding BLMIS's purported trading activity;
- Review and analysis of accounting records;
- Review and analysis of BLMIS communications (*e.g.*, emails);
- Review and analysis of certain vendor files and invoices;
- Computer forensic analysis of electronic media; and
- Review of deposition transcripts and other sworn testimony.[10]

15. FTI Consulting, Inc. ("FTI"), retained directly by Baker, performed certain work and baseline analyses at the direction and supervision of Baker. Such work was conducted largely before the retention of Kroll, however additional work has been conducted by FTI at the direction of the Trustee. To the extent any such data was relied upon, or used to support analyses or the opinions herein, the accuracy of the data was independently tested by Kroll to ensure reliability.[11]

16. Given the sheer volume of transactional data and documents in this investigation, a vast number of analyses were performed using electronic computer analytics and data mining algorithms. Further, advanced computer models were developed and utilized for certain quantitative conclusions. Such analytics and models were developed and utilized consistent with applicable professional standards.

IV. SUMMARY OF OPINIONS

17. This section is meant to provide only a brief summary of my expert opinions in this matter and to highlight the bases for such opinions, which are fully discussed and supported herein.

18. Based on my training, education and experience, and the results of my investigation of BLMIS (described in detail throughout this report), I have concluded that:

[10] While I have considered and reviewed the Criminal Trial testimony, plea allocutions and deposition testimony, my opinions herein are independent of, and not predicated on, these sources.

[11] By way of example, Kroll conducted statistical sampling on transactional data. Random samples of data were selected and underwent extensive testing, including "ticking and tying" of information to source documents (*e.g.*, confirmation of information taken from historical microfilm customer statements or underlying bank statement transactional data).

- Fraud permeated BLMIS;[12]
- The IA Business was a Ponzi;
- BLMIS was insolvent from at least December 11, 2002 and all points after;[13] and
- MSIL was used to facilitate the transfer of funds out of the IA Business.

OPINION NO. 1: FRAUD PERMEATED BLMIS

A. The IA Business was a Fraud

19. There is no evidence that the purported investment transactions for IA Business customers ever occurred at least as far back as the 1970s. Reconciliations of: i) IA Business equity and US Treasury positions to available BLMIS Depository Trust & Clearing ("DTC") records, and ii) option trades to available Options Clearing Corporation ("OCC") records, indicate that no securities transactions were executed by the IA Business.[14]

20. There was no trading using the so-called "convertible arbitrage trading strategy" purportedly implemented by BLMIS in the 1970s. In fact, the convertible arbitrage trades were fabricated using historical market prices, which allowed the IA Business to reach predetermined targeted annual returns. In many instances, purported trades exceeded the entire reported market volume for particular securities on the days they were purportedly traded. On numerous trading days, trades were recorded at prices that were outside the range of market reported trading prices on a given day.

21. Convertible securities were reported by the IA Business as being traded on days after the actual date of conversion reported by the issuing corporation, thereby evidencing the fictitious nature of the purported trades. Further, dividend payments and/or accrued interest were not reported by the IA Business on many customer statements even though the real

[12] I am using the plain English meaning of the term "fraud" (and its derivative, "fraudulent") to mean "intentional perversion of the truth in order to induce another to part with something of value or to surrender a legal right." *Fraud Definition*, Merriam-Webster.com, http://www.merriam-webster.com/dictionary/fraud (last visited Sept. 20, 2012), updated, http://www.merriam-webster.com/dictionary/fraud (last visited Sept. 19, 2024).
[13] December 11, 2002 was a date selected by the Trustee's counsel for the six-year period prior to the BLMIS SIPA liquidation proceeding. As will be described *infra*, there is strong evidence to suggest that BLMIS was insolvent even decades before December 2002.
[14] *See infra* (discussing David Kugel's plea allocution where he stated that there was no legitimate trading in the IA Business as far back as the 1970s); *see also* Tr. of Plea Allocution, *United States v. Kugel*, 10-CR-228 (S.D.N.Y. Nov. 21, 2011).

convertible securities paid such dividends and/or interest. Lastly, there was no evidence that the purported convertible securities were ever actually converted, again supporting the fictitious nature of the purported trading activity.

22. Similarly, no trading occurred under the so-called "split-strike conversion" ("SSC") strategy, purportedly put into place by BLMIS in the 1990s. Many purported trades exceeded the entire reported market volume for particular securities on numerous trading days and were recorded at prices that were outside the range of reported trading prices on the days at issue.

23. The prices at which the IA Business supposedly bought and sold shares also evidenced the fictitious nature of the trades. The IA Business purportedly executed 83% of the buy transactions by share volume below the Volume Weighted Average Price ("VWAP") and executed 72% of the sell transactions by share volume above the VWAP.

24. Further evidence that trading did not occur is that certain purported trades were recorded as being settled on weekends or holidays when the U.S. stock and option exchanges were closed. In addition, billions of dollars of purported dividends that were reported on IA Business customer statements were fictitious and were never received by BLMIS, again showing the fictitious nature of the trades.

25. A small, limited group of IA Business customer accounts did not follow either the purported convertible arbitrage strategy or the SSC strategy. Instead, securities (typically equities) were purportedly purchased, held for a certain duration, and then purportedly sold for a profit. Trading anomalies reflected in these customer accounts also show how these purported trades could not have been executed and were therefore fictitious.

26. Other evidence of fraud in the IA Business was the creation of fake reports from the DTC trading clearinghouse. IA Business customer statements contained fictitious trades that were backdated using special software modified in-house to reprint customer statements after the fact. Extensive in-house computer programs were created and used to generate the fictitious investment transactions.

27. The IA Business was propping up, or "schtupping,"[15] certain IA Business customers' purported investment returns by providing those customers with extra fictitious trades that

[15] *See infra* (discussing the context surrounding the "schtupping" of certain IA Business customer returns).

were intended to generate additional fictitious gains. This was done in order to reach predetermined rate of return thresholds. The process involved a careful monitoring of certain accounts to attain levels of reported investment returns throughout the year. Those accounts that were falling short were given additional fictitious trades, typically in December of that year, in order to bump the purported yearly returns to levels that Madoff had targeted for those customers.

28. Additionally, various regulatory reports reflected false financial and other information.

B. The IA Business was a Ponzi Scheme

29. The IA Business was a Ponzi scheme, utilizing new customer monies to fund BLMIS's operations, as well as to fund the withdrawal of fictitious profits and principal for its older customers.[16] The Ponzi scheme had been operating for many years, as evidenced by the fact that the IA Business was not generating any legitimate profits since no trading activity was taking place. Additionally, the IA Business was not receiving legitimate financial support from the Proprietary Trading Business in amounts sufficient to satisfy the cash requirement needs of the IA Business customer withdrawals. Nor was the IA Business receiving any legitimate outside financial support vis-à-vis loans or otherwise.

C. The Proprietary Trading Business was engaged in pervasive fraudulent activity

30. The Proprietary Trading Business was also engaged in pervasive fraudulent activity. The Proprietary Trading Business's trading and other operations were funded from money taken from IA Business customer money. This funding was fraudulently reported as trading revenues and/or commissions on BLMIS's financial statements and other regulatory reports BLMIS filed.

31. The Financial and Operational Combined Uniform Single ("FOCUS") reports and financial statements filed with federal regulators were false, misleading, and grossly inaccurate. In reality, for certain periods, the Proprietary Trading Business was wholly dependent on enormous cash infusions of money derived from the IA Business. These cash infusions were falsely reflected as trading revenues or commissions on BLMIS's financial statements and

[16] As discussed hereinafter, the Ponzi also used new money from existing customers to fund payouts to other customers.

regulatory reports. Despite what BLMIS represented on the reported financials, the Proprietary Trading Business was incurring significant net losses beginning in at least mid-2002. Without the fraudulent infusion of cash from the IA Business, the Proprietary Trading Business would not have been able to continue as a "going concern" beyond 2002.

32. Further, BLMIS provided salaries and benefits to individuals who did not work for, or provide services to, BLMIS. (*See* discussion *infra* regarding payments to "ghost employees.")

OPINION NO. 2: BLMIS WAS INSOLVENT FROM AT LEAST DECEMBER 11, 2002

33. The overall solvency of BLMIS was assessed as a part of the investigation. Businesses operating as a Ponzi scheme, such as the IA Business, are hopelessly insolvent by their very nature. A Ponzi scheme, by its design, becomes progressively more insolvent with each new transaction. By utilizing proceeds from later transactions to repay obligations of earlier transactions, the Ponzi scheme's ability to repay all its debts is entirely contingent on bringing in new funds. The amount of new money needed, which must not only cover the repayment of prior principal but also the promised investment returns or interest, creates a situation where the company's liabilities exceed its assets by an increasingly larger amount. The effect is that the Ponzi scheme's continued existence is dependent on an ever-increasing supply of new money. Accordingly, a Ponzi scheme (*e.g.*, the IA Business), once initiated is hopelessly insolvent.[17]

34. The solvency of a company in a bankruptcy setting is typically determined by applying one of three tests, as will be described in greater detail *infra*: i) the Balance Sheet Test; ii) the Capital Adequacy Test; and iii) the Ability to Pay Debts Test. Under any of these tests, BLMIS was insolvent from at least December 11, 2002. The liabilities of BLMIS far outweighed its assets; BLMIS did not have adequate capital; and BLMIS could not pay its debts as they came due. Accordingly, BLMIS was deeply insolvent from at least December 11, 2002, and for all periods thereafter.

[17] *Armstrong v. Collins*, No. 01-CIV-2437, 2010 U.S. Dist. LEXIS 28075, at *64 (S.D.N.Y. Mar. 24, 2010); *Picard v. Madoff (In re Bernard L. Madoff Inv. Sec. LLC)*, 458 B.R. 87, 118 (Bankr. S.D.N.Y. 2011).

OPINION NO. 3: MSIL WAS USED TO FACILITATE THE TRANSFER OF FUNDS OUT OF THE IA BUSINESS

35. MSIL was wholly dependent on hundreds of millions of dollars in cash infusions from the IA Business to support its operations. Furthermore, hundreds of millions of dollars in cash infusions, which kept the Proprietary Trading Business afloat, were made possible in part through the Proprietary Trading Business's transactions with MSIL. MSIL advanced funds to the Proprietary Trading Business for the purported purchase of US Treasury bills that were recorded in an IA account in its name. MSIL then received distributions for the purported sale of these same US Treasury bills from the IA Business. Through these transactions, the Proprietary Trading Business received hundreds of millions of dollars in fraudulent revenue from the IA Business.

V. FACTUAL BACKGROUND[18]

A. BLMIS

36. In 1960, Madoff founded BLMIS as a sole proprietorship. BLMIS, a market making business in Over-the-Counter ("OTC") stocks, was registered as a broker-dealer with the Securities and Exchange Commission ("SEC") as of January 19, 1960[19] and operated three business units: (i) a market making business; (ii) a proprietary trading business (together with the market making business known inside BLMIS as "House 5"); and (iii) an investment advisory business (known inside BLMIS as "House 17").

37. In 1987, BLMIS moved from its location at 110 Wall Street to the iconic "Lipstick Building" located at 885 Third Avenue in Manhattan, eventually leasing the 17th, 18th, and 19th floors.[20] The Proprietary Trading Business was located on the 18th and 19th floors.[21] Eventually, the IA Business moved from the 18th floor to the 17th floor.[22]

[18] My understanding of the factual background is based upon various sources of information including, but not limited to, the pleadings in this case, deposition transcripts and/or testimonial transcripts in connection with the parallel liquidation proceeding in the United Kingdom.
[19] Form BD for Bernard L. Madoff, December 31, 1959 (PUBLIC0003607) .
[20] Bernard L. Madoff Lease Summary 885 Third Avenue (CWIE-BR00002468).
[21] LAZAA0004351-LAZAA0004352.
[22] Bernard L. Madoff Lease Summary 885 Third Avenue (CWIE-BR00002468).

38. In 2001, BLMIS was reorganized as a single-member LLC with Madoff as the sole member and transferred all of its assets to the newly created limited liability company, Bernard L. Madoff Investment Securities LLC.[23]

39. In August 2006, BLMIS registered as an investment adviser with the SEC claiming to have 23 accounts and $11.7 billion in assets under management.[24]

40. During 2008, the IA Business's cash reserves dwindled to the point where customer redemption requests exceeded the cash balance available. At his plea hearing on March 12, 2009, Madoff confessed to federal authorities that the IA Business was a fraud.[25]

1. The IA Business

41. The IA Business customer accounts were administered in two groups: (i) the split-strike conversion accounts; and (ii) the non-split-strike conversion accounts (which included the convertible arbitrage accounts).

42. The non-split-strike conversion accounts initially represented a significant portion of overall IA Business accounts but became a small percentage of the total IA Business accounts in the 1990s. Generally, the non-split-strike conversion accounts were held in the name of

[23] BLMIS Articles of Organization for New York State (MADTSS01160346); 2001 BLMIS Operating Agreement of Bernard L. Madoff Investment Securities LLC (MADTEE00543376–379); 2004 Amended Operating Agreement of Bernard L. Madoff Investment Securities LLC (MADTEE00667839–845, MADTEE00668338–383); January 2008 Amended Operating Agreement of Bernard L. Madoff Investment Securities LLC (MADTNN00116099–105); May 2008 Amended Operating Agreement of Bernard L. Madoff Investment Securities LLC (MADTEE00533394–400). *See* 1/12/2001 Amended Form BD for BLMIS (PUBLIC0636416-30); *see also* Amended Form BD for Bernard L. Madoff, June 8, 1987 (PUBLIC0635963); Amended Form BD for Bernard L. Madoff, June 26, 1987 (PUBLIC0635972); Amended Form BD for Bernard L. Madoff, June 17, 1997 (PUBLIC0636377); Amended Form BD for Bernard L. Madoff, December 18, 1996 (PUBLIC0636548; Amended Form BD for Bernard L. Madoff, January 12, 2001 (PUBLIC0636416); Amended Form BD for Bernard L. Madoff, September 3, 2008 (PUBLIC0635864). *See also Picard v. JABA Assocs. LP (In re Madoff)*, 528 F. Supp. 3d 219 (S.D.N.Y. 2021), *aff'd*, 49 F.4th 170 (2d Cir. 2022); *Picard v. Sage Realty*, Nos. 20 Civ. 10109, 20 Civ. 10057, 2022 WL 1125643 (S.D.N.Y. Apr. 15, 2022), *aff'd sub nom. In re Bernard L. Madoff Inv. Sec. LLC*, Nos. 22-1107(L), 22-1110-bk(CON), 2023 WL 5439455 (2d Cir. Aug. 24, 2023), *denying cert. Sage v. Picard*, 144 S. Ct. 2607 (2024); *Picard v. RAR Entrepreneurial Fund, Ltd. (In re Madoff)*, No. 20-cv-01029, 2022 WL 21853367 (S.D.N.Y. Sept. 23, 2022), *aff'd sub nom. In re Bernard L. Madoff Inv. Sec. LLC*, No. 22-3006, 2024 WL 46662 (2d Cir. Jan. 4, 2024); Order, Ex. A, *Picard v. RAR Entrepreneurial Fund, Ltd. (In re Madoff)*, No. 20-cv-01029 (S.D.N.Y. Mar. 7, 2022), ECF No. 132.

[24] BLMIS Form ADV at 8, Aug. 25, 2006 (PUBLIC0673887 at -895); *see also* PUBLIC0003729 at -736.

[25] Tr. of Plea Allocution of Bernard L. Madoff, *United States v. Madoff*, No. 09-CR-213 (DC), at 23 (S.D.N.Y. Mar. 12, 2009).

BLMIS's oldest IA Business customers and many of these accounts were overseen by BLMIS employee Annette Bongiorno ("Bongiorno").

43. A convertible arbitrage trading strategy, as purported to have been executed by the IA Business, aims to generate profits by taking advantage of the pricing mismatches that can occur between the equity and bond/preferred equity markets.

44. The split-strike conversion accounts were overseen by BLMIS employee Frank DiPascali ("DiPascali").[26] This group of accounts purported to employ a strategy which invested in a basket of common stocks within the Standard & Poor's ("S&P") 100 Index. These baskets were hedged by call and put options to limit customer gains and losses. Madoff would purportedly decide when to unwind positions upon which the stocks were sold, and the investments were moved into US Treasuries and/or money market funds and cash reserves.

45. Although BLMIS was touted as one of the most technologically advanced brokerages in the country and was widely acknowledged as being "at the forefront of computerized trading,"[27] as discussed herein, the IA Business neither provided its customers with electronic customer statements nor provided real-time access to their individual IA Business accounts at BLMIS.

2. The Proprietary Trading Business

46. The Proprietary Trading Business operated as a securities broker-dealer registered with the SEC and was managed by the Co-Directors of Trading, Mark Madoff and Andrew Madoff.[28] It provided executions for broker-dealers, banks, and financial institutions, and was a member of the Financial Industry Regulatory Authority ("FINRA") (formerly the National Association of Securities Dealers ("NASD")).[29] The business was a market maker primarily

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[26] *See generally* DiPascali Plea Allocution, *United States v. Frank DiPascali*, No. 09-CR-764 (RJS) (S.D.N.Y. Aug. 11, 2009); DiPascali Information, *United States v. Frank DiPascali*, No. 09-CR-764 (RJS) (S.D.N.Y. Aug. 11, 2009).

[27] *Madoff Securities: Quality Executions and Service Through Innovative Technology,* BLMIS (Feb. 15, 1998), http://web.archive.org/web/19980215105508/http://www.madoff.com/public.asp?info_id=9 (accessed by searching for Madoff.com in the Internet Archive index) (PUBLIC0671018–022).

[28] *See* Complaint, *Picard v. Madoff*, No. 09-01503 (BRL), at 4-5, 10-11 (S.D.N.Y. October 2, 2009).

[29] *Brokercheck Report for Bernard L. Madoff Investment Securities LLC,* FINRA, 6-7, http://brokercheck.finra.org/Search/SearchResults.aspx?SearchGroup=Firm&IndlText=&FirmText=Bernard+Madoff+Investment+Securities&PageNumber=1 (last visited July 16, 2012); updated, https://brokercheck.finra.org/firm/summary/2625 (last visited Sept. 19, 2024).

in S&P 500 stocks, US convertible bonds, preferred stocks, warrants, units and rights.[30] The business also engaged in proprietary trading through various strategies, such as arbitrage.[31] The Proprietary Trading Business's reported revenues included fraudulent cash infusions directly from the IA Business, as well as from the IA Business via MSIL.

B. MSIL

47. In February 1983, BLMIS established its foreign operations with the registration of Madoff Holdings Limited in London and worked out of 12 Berkeley Street.[32] In September 1988, Madoff Holdings Limited began operating as Madoff Securities International Limited (MSIL).[33] MSIL was established primarily as a market maker until 2002 when it began to focus largely on its proprietary trading.[34] MSIL operated under the Financial Services Authority (and its predecessors) in the United Kingdom[35] and became one of the first U.S. members of the London Stock Exchange.[36] As of December 31, 2007, MSIL employed approximately 25 people.[37]

C. Key Individuals

1. Bernard L. Madoff

48. Madoff was the principal of BLMIS and oversaw both the IA Business and the Proprietary Trading Business.[38] On December 11, 2008, he was arrested for securities fraud and related charges.[39] On March 12, 2009, Madoff pled guilty to 11 counts of an indictment including

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[30] *Madoff Securities: Quality Executions and Service Through Innovative Technology*, BLMIS (Feb. 15, 1998), http://web.archive.org/web/19980215105508/http://www.madoff.com/public.asp?info_id=9 (accessed by searching for Madoff.com in the Internet Archive index) (PUBLIC0671018–022).
[31] BLMIS Written Plan of Organization (MESTAAX00096671).
[32] *See* Madoff Holdings Ltd. incorporation documents (PUBLIC0006083).
[33] "Special Resolution" indicating that Madoff Holdings Ltd. changed its name to Madoff Securities International Limited (PUBLIC0008959).
[34] Madoff Securities International Limited Internal Capital Adequacy Assessment Process High Level Summary (AWOO-BR00016097).
[35] *See* MSIL Financial Statement and Directors Report (PUBLIC0005755 at PUBLIC0005757).
[36] *Madoff Securities: Quality Executions and Service Through Innovative Technology*, BLMIS (Feb. 15, 1998), http://web.archive.org/web/19980215105508/http://www.madoff.com/public.asp?info_id=9 (accessed by searching for Madoff.com in the Internet Archive index) (PUBLIC0671018–022).
[37] *See* MSIL Financial Statement and Directors Report (PUBLIC0005785 at PUBLIC0005798).
[38] BLMIS Form ADV at 23, Aug. 25, 2006 (PUBLIC0003729).
[39] *United States v. Madoff*, 586 F. Supp. 2d 240, 244 (S.D.N.Y. 2009).

federal securities fraud and related offenses.[40] On June 29, 2009, Judge Denny Chin sentenced Madoff to the maximum of 150 years in federal prison.[41]

2. Peter Madoff

49. Peter Madoff, Madoff's brother, started at BLMIS in 1965. He served as the company's Senior Managing Director and Chief Compliance Officer until its collapse in December 2008. Peter was a licensed investment professional and served as Director of the Securities Industry Financial Markets Association ("SIFMA"), as well as Vice Chairman of FINRA's Board of Governors.[42]

50. In June 2012, Peter Madoff pled guilty to charges of conspiracy and falsifying records in relation to his employment at BLMIS.[43]

3. Mark Madoff

51. Mark Madoff, Madoff's son, joined BLMIS in 1986 after graduating from college. Mark held the job titles Co-Director of Trading at BLMIS and Controller and Director at MSIL. He acquired the Series 7, 24 and 55 FINRA licenses and at one point, managed both the proprietary trading desk and market making operations. Mark Madoff served many industry roles such as the Chairman of the FINRA Inter-Market Committee, Governor of the Securities Traders Association ("STA") and Co-Chair of the STA Trading Committee, among others.[44]

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[40] Madoff Plea Allocution, *United States v. Madoff*, 09-CR-213, at 7-8 (S.D.N.Y. Mar. 12, 2009).
[41] *Id.* at 49. In his plea allocution, Madoff admitted to operating a Ponzi scheme "to the best of his recollection" from the early 1990s until December 2008. Additionally, he stated that no securities had ever been purchased on behalf of the IA Business customers. *Id.* at 24, 29. While I have considered information contained in Madoff's Plea Allocution, my opinions are in no way predicated or based upon information contained therein, and as set forth herein, my investigation contradicts the length and duration of the fraud at BLMIS. David Kugel also pled guilty in this matter and has admitted that the fraud started in the early 1970s in the IA Business and that no trading activity actually took place for IA Business customers, further corroborating my opinions contained in this report. Information contained in the Madoff Plea Allocution was considered solely as part of the record in this matter. *See generally,* David Kugel Plea Allocution, *United States v. David Kugel*, 10-CR-228 (LTS), at 35-36 (S.D.N.Y. Nov. 21, 2011).
[42] *See* Complaint, *Picard v. Madoff*, No. 09-01503 (BRL), at 4 (S.D.N.Y. Oct. 2, 2009).
[43] Peter Madoff Information, *United States v. Peter Madoff*, S7 10-CR-228 (LTS) (S.D.N.Y. 2012); Peter Madoff Plea Agreement, *United States v. Peter Madoff,* S7 10-CR-228 (LTS), at 5 (S.D.N.Y. June 29, 2012).
[44] Madoff Complaint at 4-5.

4. Andrew Madoff

52. Andrew Madoff, Madoff's other son, worked at BLMIS beginning in 1988 after graduating from college. He also held the titles Co-Director of Trading at BLMIS and Controller and Director at MSIL. Andrew Madoff managed many aspects of the trading operations, including the trading floor, trade audit procedures and other related functions. He obtained the Series 7, 24 and 55 FINRA licenses. He took on numerous industry positions such as the Chairman of Trading, Trading Issues and Technology, and Decimalization and Market Data Committees and Subcommittees at SIFMA, FINRA District Ten Committee Member, and NASDAQ's Technology Advisory Committee Member.[45]

5. Shana Madoff

53. Shana Madoff, Madoff's niece and Peter Madoff's daughter, joined BLMIS in 1995 after graduating from law school. At various times she held different roles at BLMIS, including, Compliance Counsel, in-house Counsel, and Compliance Director. Shana was a member of the SIFMA Compliance and Legal Division Executive Committee, the FINRA Consultative Committee, Security Traders Association of New York, the NASD's Market Regulation Committee, the SIFMA Self-Regulatory and SRO Committee, and the SIFMA Continuing Education Committee.[46]

6. Frank DiPascali

54. DiPascali started at BLMIS in 1975 right after he graduated from high school.[47] Over his years with BLMIS, he worked as a research analyst and options trader,[48] in addition to other roles.[49] DiPascali managed the IA Business and was critical to its day-to-day activities, interfacing with customers and overseeing IA Business employees.[50]

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[45] *Id.* at 5.
[46] *Id.* at 6.
[47] DiPascali Plea Allocution at 45.
[48] *Id.*
[49] *Id.* at 47.
[50] *Id.*

55. In 2009, DiPascali was charged with a ten-count criminal information, and he subsequently entered into a plea agreement. In his plea allocution, DiPascali admitted to learning of the fraud in the late 1980s or early 1990s, and he stated that no purchases or sales of securities actually took place in the customers' accounts.[51] Instead, DiPascali created fraudulent account statements using information gleaned from historical stock data to create the returns that Madoff had promised his customers.[52]

56. On August 11, 2009, DiPascali pled guilty to federal securities fraud and related offenses. DiPascali, faced 125 years in prison.

7. David Kugel

57. David Kugel ("Kugel") worked for BLMIS for nearly 40 years, originally starting in 1970.[53] Prior to working for BLMIS, Kugel worked as a trader specializing in convertible securities.[54] For BLMIS, Kugel purportedly traded in convertible securities and applied an arbitrage strategy to these stocks, buying both the convertible security and then shorting the underlying stock.[55] This arbitrage strategy is similar to the purported strategy that BLMIS claimed to employ in IA Business accounts from at least the 1970s to the 1990s.[56]

[51] *Id.* at 46.
[52] *Id.* at 47.
[53] David Kugel Plea Allocution, *United States v. David Kugel*, 10-CR-228 (LTS), at 35-36 (S.D.N.Y. Nov. 21, 2011).
[54] *See generally id.*
[55] *See generally id.*
[56] *See infra* (discussing the convertible arbitrage strategy).

58. On November 21, 2011, Kugel pled guilty[57] to federal securities fraud and related offenses, admitting that the investment fraud in the IA Business started in the 1970s.[58]

8. Craig Kugel

59. Craig Kugel began his affiliation with BLMIS in 2001 as an employee of Primex Trading, N.A. ("Primex"), which was an electronic trading auctions system company nominally owned in part by members of Madoff's family.[59] At Primex, Craig Kugel completed tasks consistent with the role of Controller and was ultimately offered a job at BLMIS in 2003.[60] While at BLMIS, he was responsible for the Proprietary Trading Business's budget forecasting, BLMIS's healthcare plan, and certain employee-related forms and records.[61]

60. On June 5, 2012, Craig Kugel pled guilty[62] to one count of conspiracy and multiple counts of falsifying documents.[63]

9. Annette Bongiorno

61. Bongiorno worked at BLMIS from July 1968 until December 11, 2008. [64] She managed hundreds of IA Business accounts and supervised IA Business employees including the key

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[57] Kugel stated the following:

> As to Counts One, Three, Four, and Five, I provided historical trade information to other BLMIS employees, which was used to create false, profitable trades in the Investment Advisory clients' accounts at BLMIS. Specifically, beginning in the early '70s, until the collapse of BLMIS in December 2008, I helped create fake, backdated trades. I provided historical trade information – sorry – first to Annette Bongiorno, and later to Joanne (*sic*) Crupi, and others which enabled them to create fake trades that, when included on the account statements and trade confirmations of Investment Advisory clients, gave the appearance of profitable trading when in fact no trading had actually occurred. I helped Bongiorno, Crupi and others create these fake, backdated trades based on historical stock prices and were executed only on paper.

David Kugel Plea Allocution at 32.

[58] *See generally* David Kugel Information, *United States v. David Kugel*, No. 10-CR-228 (LTS) (S.D.N.Y. Nov. 21, 2011).

[59] Craig Kugel Information, *United States v. Craig Kugel*, No. 10-CR-228 (LTS), at 2 (S.D.N.Y. June 5, 2012); *see also* Complaint, *Picard v. Madoff Technologies LLC*, No. 08-01789 (BRL) (S.D.N.Y. Jul. 29, 2010).

[60] Craig Kugel Information at 2.

[61] *Id.* at 2-3.

[62] Craig Kugel Cooperation Agreement, *United States v. Craig Kugel*, No. 10-CR-228 (LTS), at 2 (S.D.N.Y June 5, 2012).

[63] *Id.*

[64] Superseding Indictment, *United States v. Bonventre*, No. 10-CR-228, at 4 (S.D.N.Y. Oct. 1, 2012).

punch operators responsible for entering the purported trades.[65] Many of the accounts that Bongiorno managed were close friends and family of Madoff and BLMIS employees and included some of the oldest Madoff clients.[66]

62. Bongiorno was charged with federal securities fraud and related offenses on November 17, 2010.[67] She was convicted of those crimes on March 24, 2014.

10. Daniel Bonventre

63. As BLMIS's Director of Operations, Daniel Bonventre ("Bonventre") ran the back office at BLMIS and oversaw the firm's accounting and securities clearing functions for at least 30 years.[68] He was responsible for overseeing the accounting functions for both the IA Business and the Proprietary Trading Business, including maintenance of the BLMIS general ledger.[69] Bonventre provided information that was used in the creation of the FOCUS reports and the BLMIS financial statements.[70]

64. Bonventre was charged with federal securities fraud and related offenses.[71] He was convicted of those crimes on March 24, 2014.

11. Enrica Cotellessa-Pitz

65. Enrica Cotellessa-Pitz ("Cotellessa-Pitz") began working for BLMIS in June 1978, eventually becoming Controller in 1998. She worked directly for Bonventre, helping to maintain the books and records of BLMIS, including the general ledger and the stock record, as well as the FOCUS reports and financial statements submitted to regulators.[72]

66. In December 2011, Cotellessa-Pitz entered into a plea agreement, pleading guilty to charges that she conspired to falsify records of a broker-dealer, falsify records of an investment

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[65] *Id.* at 4.
[66] *See generally id.*
[67] *Id.* at 94-152.
[68] *Id.* at 2-3.
[69] *Id.* at 2-3.
[70] *Id.* at 99-100.
[71] *Id.* at 94-152.
[72] Enrica Cotellessa-Pitz Cooperation Agreement, *United States v. Enrica Cotellessa-Pitz*, S5 10-CR-228 (LTS) (S.D.N.Y. Dec. 15, 2011).

adviser, make false filings with the SEC, and obstruct and impede the lawful government function of the IRS, among other charges.[73]

12. Irwin Lipkin

67. Irwin Lipkin, hired in 1964, was one of the first employees at BLMIS. He helped grow the business from a few key employees to a large-scale operation, and was considered a member of Madoff's inner circle. Through his positions as Officer and Controller at BLMIS, Irwin Lipkin participated in a variety of tasks in the IA Business, including monthly reviews of customer accounts and internal audits of securities positions.[74]

68. On November 8, 2012, Irwin Lipkin pled guilty to securities fraud for, among other things, creating false financial records, and related offenses.[75]

13. Eric Lipkin

69. Eric Lipkin started at BLMIS in the mid-1980s and by 1992 was working in BLMIS's payroll and benefits department, processing the payroll and administering the BLMIS 401(k) plan.[76] By 1996, he began working with Bongiorno, Bonventre, DiPascali, Jodi Crupi, Jerry O'Hara, and George Perez to maintain false customer accounts. Eric Lipkin created letters to customers indicating the purported balances in their BLMIS accounts.[77]

70. Eric Lipkin admitted to manufacturing customer statements to reflect the false holdings of customer accounts, as well as, falsifying the books and records of BLMIS. He was charged

[73] "I caused inaccurate ledgers and other books and records to be kept by BLMIS, including inaccurate general ledgers and stock records. I then transferred the same inaccurate record entries into FOCUS reports and annual financial statements that I knew would be sent to the SEC." Enrica Cotellessa-Pitz Plea Allocution, *United States v. Enrica Cotellessa-Pitz*, S5 10-CR-228 (LTS), at 30-31 (S.D.N.Y. Dec. 19, 2011).
[74] Complaint, *Picard v. Lipkin*, No. 08-01789 (BRL), at 3, 16-17 (S.D.N.Y. Nov. 11, 2010).
[75] Specifically, Irwin Lipkin pled guilty to securities fraud, falsifying records of a broker-dealer, falsifying records of an Investment Adviser, making false statements to the SEC and falsifying documents with respect to the Employee Retirement Income Security Act ("ERISA"). *See generally*, Irwin Lipkin Information, *United States v. Irwin Lipkin*, S9 10-CR-228 (LTS), (S.D.N.Y. Nov. 8, 2012); Irwin Lipkin Plea Agreement, *United States v. Irwin Lipkin*, S9 10-CR-228 (LTS) (S.D.N.Y. Nov. 8, 2012).
[76] Eric Lipkin Information, *United States v. Eric Lipkin*, No. 10-CR-228 (LTS), at 5 (S.D.N.Y. June 6, 2011); Press Release, U.S. Attorney's Office, *Manhattan U.S. Attorney Announces Guilty Plea Of Another Employee Of Bernard L. Madoff Investment Securities LLC* (June 6, 2011).
[77] Eric Lipkin Information at 5-7.

with federal securities fraud and related offenses.[78] Eric Lipkin entered into a cooperation agreement and on June 6, 2011, pled guilty to all six counts.[79]

14. Joann "Jodi" Crupi

71. Joann "Jodi" Crupi ("Crupi"), who worked for BLMIS for approximately 25 years,[80] performed many tasks for BLMIS. Crupi tracked the daily activity in the primary checking account for the IA Business operations to ensure there was enough money for pending redemptions, and she authorized wire transfers into and out of the account. Crupi created a Daily Report, delivered to Madoff every day, which reflected the bank account balance, customer deposits, and all pending customer redemptions.[81] Similar to Bongiorno, Crupi was also responsible for managing several IA Business customer accounts,[82] for which she manufactured statements in order to produce certain promised rates of return.[83]

72. Crupi was charged with federal securities fraud and related offenses on November 17, 2010.[84] She was convicted of those crimes on March 24, 2014.

15. Jerry O'Hara and George Perez

73. Jerry O'Hara ("O'Hara") was hired in 1990 as a computer programmer in the IA Business to create and maintain the systems and functions that falsified customer account statements. George Perez ("Perez") was hired in 1991 to assist O'Hara. Perez and O'Hara's programs and systems created fake trade blotters and reports.[85] Additionally, they maintained the systems that falsified the trading data using historical stock prices to manufacture the customer statements and other reports sent to customers.[86]

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[78] *Id.* at 7-9.
[79] *See generally* Eric Lipkin Information; Minute Entry, *United States v. Lipkin*, 10-CR-228 (LTS) (S.D.N.Y. Nov. 17, 2010).
[80] Superseding Indictment at 5.
[81] *Id.* at 5, 56-58.
[82] *Id.* at 16-17, 21-23, 29-30.
[83] *Id.* at 16-17, 21-23, 29-30, 38-39, 42-43.
[84] *Id.* at 94-152.
[85] *Id.* at 6, 11, 14, 31-51.
[86] *See, e.g.*, MDPTTT00000001-MDPTTT00002748.

74. O'Hara and Perez were both charged with federal securities fraud and related offenses.[87] They were convicted of those crimes on March 24, 2014.

16. Friehling and Horowitz

75. The BLMIS financial statements were purportedly audited by Friehling and Horowitz, C.P.A., P.C. ("F&H"), a three-person CPA firm.[88] Jerome Horowitz ("Horowitz"), a once licensed CPA in the State of New York,[89] worked for Alpern & Avellino before establishing his own accounting firm, F&H. Saul Alpern was Madoff's father-in-law and founder of Alpern & Avellino. When Horowitz retired, his firm retained the Madoff account and continued to perform the tax and audit services for the Madoff brokerage firm. These duties were transitioned to David G. Friehling ("Friehling") when Horowitz retired.

76. On November 3, 2009, Friehling pled guilty to federal securities fraud and related offenses.[90] As a result of the plea, Friehling was forced to surrender his CPA license to the State of New York.

D. Bank Accounts

77. The pervasive fraud in BLMIS was conducted through its main bank accounts. In the IA Business, the primary operating account was the JPMorgan Chase ("JPMC") account number 140-081703 (the "703 Account") and its associated controlled disbursement account, the JPMC account number 6301428151-509 (the "509 Account"). As later discussed, other money market accounts funded by the 703 Account were also used to perpetuate the fraud.

78. In the Proprietary Trading Business, the primary operating account was the Bank of New York ("BONY") account number 8661126621 (the "621 Account").

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[87] *See generally* Superseding Indictment.
[88] *See* Audit Report to the 2000 audited financial statements (MADTEE00046020).
[89] *Office of the Professions*, New York State Education Department, http://www.nysed.gov/coms/op001/opsc2a?profcd=07&plicno=017210&namecheck=HOR (last visited Nov. 20, 2011) (PUBLIC0670406), updated, https://eservices.nysed.gov/professions/verification-search?licenseNumber=017210&professionCode=007 (last visited Sept. 19, 2024).
[90] David Friehling Superseding Information *U.S. v. Friehling*, No. 09-CR-700 (S.D.N.Y. Nov. 3, 2009); Minute Entry of Plea entered by David Friehling, *U.S. v. Friehling*, No. 09-CR-700 (S.D.N.Y. Nov. 3, 2009) (Dkt. Entry 11-03-2009).

E. Computer Systems Overview

79. In operating a market making business, a proprietary trading business, or an investment advisory business, such as BLMIS, a minimum amount of computer hardware, software and connections to information sources and regulatory systems is required. Often, firms engaged in market trading activities develop information technology systems that enable and facilitate certain key functions, such as customer management and provision of timely market information.

80. Customer management systems obtain information from clients regarding deposits, market orders and withdrawals, as well as verify the accuracy of that information. Market information systems facilitate timely communication of news and current market information instrumental to investing decisions. This information may come from third-party vendors, such as Bloomberg, Dow Jones, and Thomson Reuters, as well as directly from the financial exchanges, such as NASDAQ. Systems that integrate customer management and market information systems aid in the trading and investment divisions' interaction with trading markets by, among other things, identifying investment opportunities and generating optimal execution strategies.

81. Table 1 provides a summary of the key systems, both hardware and software, implemented in the Proprietary Trading Business and the IA Business.

Table 1

Name	Description	Proprietary Trading Business	IA Business
ACES	Routed orders between order-entry firms and market makers that had established relationships with BLMIS.	✓	
Bloomberg	Provided nearly instant financial and economic data, primarily stock prices.	✓	✓
CTCI Circuit	Reported trades to tape and cleared trades through the NASDAQ/Trade Reporting Facility and received trade acknowledgements.	✓	

Name	**Description**	**Proprietary Trading Business**	**IA Business**
Custom Software	Software, using the Report Program Generator ("RPG") language, used to maintain customer accounts, individual securities, trading activity, pricing, dividend and proxy information, checks, and other information related to customer accounts.		✓
Data Warehouse (MDFDW2)	An Oracle database that received and processed data from various transactional databases and systems.	✓	
DTC System	Enabled securities movements for the National Securities Clearing Corporation's ("NSCC") (described *infra*) net settlements and settlements for institutional trades.	✓	
Fix Engine	Facilitated electronic communication of trade-related messages between equity market participants by incorporating the free Financial Information eXchange protocol, JAVA, XML and TIBCO integration technologies.	✓	
FormsPrint	Commercially available software used to generate forms and populate those forms with data from the AS/400.	✓	✓
Great Plains/Microsoft Dynamics - GP	Commercially available accounting software used to track accounts payable information.	✓	
IBM Application System 400 (AS/400)	A system for small and intermediate sized companies that hosted BLMIS's information systems.	✓	✓
M2	A proprietary trading system that provided traders with the ability to generate, route and manage orders. M2 provided user interfaces for placing orders, managing risk (via review of Profit & Loss information), and maintaining supporting data (*e.g.*, a master list of securities).	✓	

Name	**Description**	**Proprietary Trading Business**	**IA Business**
Maid	Tool providing the ability to query and review executions and make corrections in a batch process rather than one at a time.	✓	
MIMIX	Commercially available software for the AS/400 that provided the ability to perform backups and disaster recovery for data and software stored on the AS/400 platform.	✓	✓
MISS	A central order management system for most proprietary trading activities, including market making and proprietary activities. MISS handled, on average, 400,000 trades a day with a capacity of over 1.4 million executions. The system was comprised of numerous individual software applications.	✓	
Muller	Delivered bond and dividend announcement data.	✓	
NASDAQ QIX	Provided real-time market data and trading system.	✓	
Network Connectivity	Approximately 80 connections to handle order flow and reconciliation of trades to automated clearing systems. These systems included extranet providers, private lines and Virtual Private Network internet connections.	✓	Limited[91]
Oracle Discoverer and Oracle Reports	Commercially available reporting system that provided web-based reporting of operations information (*e.g.*, trading activity, profit and loss information) from various Oracle databases.	✓	
Order Audit Trail System ("OATS")	Tracked order events, including origination, transmission and cancellation or execution.	✓	
ROBO and Blackbox	Trading platforms that executed trades and managed Profit and Loss accounting.	✓	

[91] The IA Business had very limited connectivity capabilities that basically consisted of an internet connection and a File Transfer Protocol ("FTP") site, and had no connections to the DTC or exchanges.

Name	**Description**	**Proprietary Trading Business**	**IA Business**
Securities Industry Automation Corporation ("SIAC")	Provided real-time market data from SIAC's Consolidated Tape/Ticker System and Consolidated Tape Association.	✓	
Settled Cash	Data file containing a record of customer account activity.	✓	✓
STMTPro	Custom software built in the RPG programming language that provided the ability to revise and print customer statements from previous months or years.		✓
StorQM	Off-the-shelf software product that enabled viewing and managing legacy reports.	✓	✓
Stratus VOS	Front-end processing system to maximize trading speed that interacted with various third-party systems to process trades placed through the M2 and MISS systems.	✓	
Superbook	A component of the M2 system that provided a consolidated view of all available market data for a particular security.	✓	
Thomson One	Provided trading functions.	✓	
Ticker Plant	A custom software package developed by BLMIS using the C++ programming language to manage data distribution within the M2 and MISS systems.	✓	
Time and Sales	Used by clients to view their historical trade data.	✓	
Time Slicing Web Application	Customer order portal that enabled registered clients to enter and track orders.	✓	

82. As discussed in greater detail later in this report, while the Proprietary Trading Business had robust computer systems typically found in a broker-dealer trading environment, the dearth of such comparable systems in the IA Business is in stark contrast and shows that trading in the IA Business did not occur.

VI. OPINION NO. 1: FRAUD PERMEATED BLMIS

A. THE IA BUSINESS WAS A FRAUD

1. Fictitious Trading in the IA Business - There is no evidence that the purported investment transactions for IA Business customers ever occurred at least as far back as the 1970s. In fact, the evidence shows the trading did not occur.[92]

a. The Purported Convertible Arbitrage Strategy – the 1970s to the 1990s: There is no evidence that the purported convertible arbitrage strategy for IA Business customers actually occurred. In fact, the evidence proves that the purported trades did not occur.

83. Convertible securities are generally fixed income and preferred equity instruments that allow the purchaser to convert that security to shares of stock under pre-specified conditions set forth by the issuer. Although there can be myriad covenants for convertible securities, the most common conditions include a predetermined strike price (*i.e.*, the price at which the securities can be converted) and a predetermined timeframe necessary in order to convert the security into shares of common stock.[93]

84. Corporate convertible securities include the following:

- Convertible Bonds: Corporate bonds that can be converted to company equity at some predetermined ratio during a certain period of time.
- Warrants: Similar to call options in that they provide an investor with the right (but not the obligation) to purchase a security at a predetermined price during a certain period of time but issued by the company usually as a benefit to bondholders.

[92] All discussion and opinions related to trading activities or positions held in the IA Business are assumed herein to be purported, including, but not limited to, all references to "trades," "securities held" or "trading." The opinion herein encompasses: (i) the convertible arbitrage and split-strike conversion trading strategies for the IA Business, which were the trading strategies purportedly utilized for nearly all of its customers, and (ii) the transactions purportedly executed for a small number of IA Business customer accounts described herein as "Buy and Hold Accounts." A few self-directed trades for a single IA Business customer were identified as being purportedly executed through the Proprietary Trading Business. The *de minimis* number of these transactions does not impact my opinions herein.

[93] Frank J. Fabozzi, *The Handbook of Fixed Income Securities* 1372 (7th ed. 2005).

- Convertible Preferred Stock: Preferred stock that can be converted to common equity at some predetermined ratio during a specified period of time.

85. A convertible arbitrage trading strategy aims to generate profits by taking advantage of the pricing mismatches that can occur between the equity and convertible instruments. This strategy is implemented when the convertible instrument is incorrectly valuing the option component of the security relative to the underlying common stock price. The investor is looking then to benefit from a change in the expectations for the stock or convertible security over a period of time.

86. Normally, this arbitrage is initiated by simultaneously purchasing convertible securities and selling short enough shares of the underlying common stock to create a delta neutral hedge.[94]

87. With this trading strategy, if the underlying stock loses value, the potential arbitrageur will benefit from the short sale of the stock, while still receiving constant interest payments to the extent the underlying instrument was a bond. Conversely, if the stock price improves in value, the loss on the short sale will be mitigated by the increase in the option value of the underlying security.

(i) Convertible arbitrage strategy - IA Business Customers

88. During the 1970s through the early 1990s, Madoff purportedly utilized a convertible arbitrage investment strategy. IA Business customer statements and ledgers suggest that this purported trading strategy occurred by showing long convertible positions, corresponding short positions, and positions converted and unwound (*i.e.*, the short positions were purchased back and/or the convertible security was sold).[95]

89. In order to investigate the IA Business's purported convertible arbitrage strategy, BLMIS's books and records were analyzed to identify the mechanics of how the convertible arbitrage transactions were purportedly executed by the IA Business. In addition, customer transactions and ledgers containing these fake convertible arbitrage trades were analyzed

[94] "Delta neutral" implies that the investor is protected from price movement of the common stock. B. Arshanapalli, *New Evidence on the Market Impact of Convertible Bond Issues in the U.S*. 17-18 (2004).
[95] Similar to customer statements, the customer ledgers contained the monthly transactional details for the IA Business accounts. In certain instances, customer ledgers reflected the purported purchase and sale of warrants. These transactions were included in the analyses as described *infra*.

both in the aggregate (*i.e.*, across all convertible arbitrage customer accounts) and on an individual customer account basis.[96]

(ii) The Mechanics of How the Convertible Arbitrage Strategy was Purportedly Executed Show that the Convertible Arbitrage Transactions Never Occurred

90. While the IA Business purportedly engaged in a convertible arbitrage trading strategy, there are several reasons why none of the purported trades actually occurred:

- The convertible arbitrage trades were fabricated after-the-fact using historical market prices; and
- The IA Business set a targeted rate of return for those accounts that were purportedly using the convertible arbitrage strategy and fabricated trades to hit these predetermined targeted returns each year.

91. Each of these issues is discussed in greater detail below.

a. The convertible arbitrage trades were fabricated to hit a preordained rate of return and reverse engineered using historical market prices.

i. Convertible Arbitrage transactions were fabricated

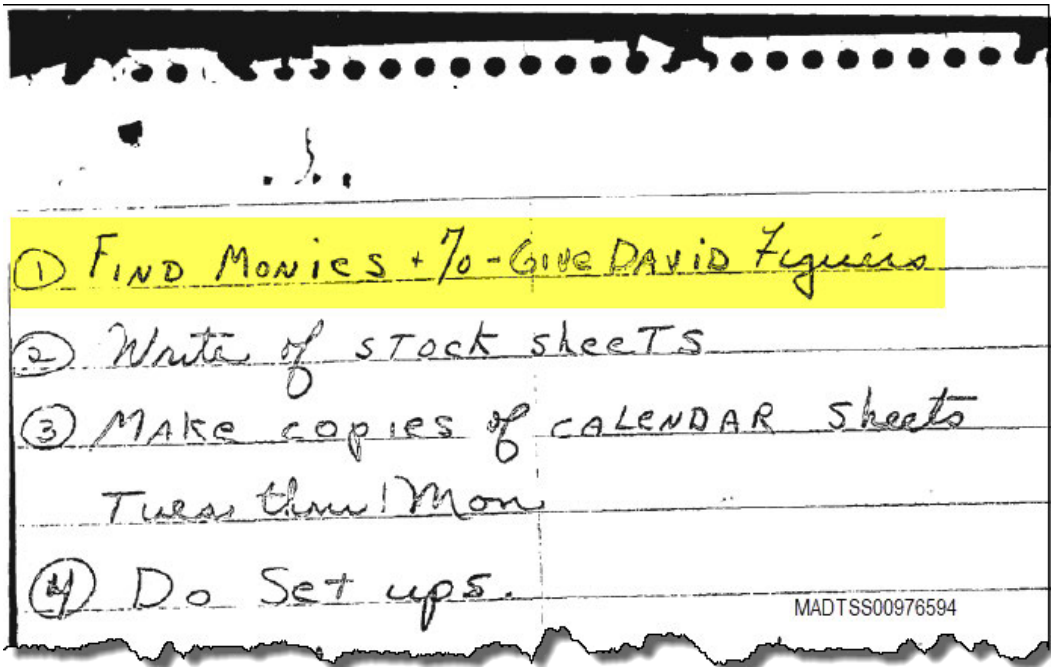
92. Unlike the actual securities market, the convertible arbitrage transactions purportedly executed by the IA Business were fabricated in order to achieve a predetermined monthly return for the IA Business customers. The IA Business followed certain internal procedures that relied upon using historical, after-the-fact trade pricing data. None of these internal procedures involved actual trading using a convertible arbitrage strategy.

93. The internal process of fabricating the convertible arbitrage trades from the 1970s through the 1990s began by selecting a customer's account, the dollar value to be invested, and the return the IA Business targeted through the trade.[97] The IA Business would then find

[96] *See* **Exhibit 1** and **Exhibit 2** for examples of a customer statement and a customer ledger, respectively.
[97] MADTSS00976593.

convertible stocks that could be used to generate the desired return.[98] (*See* Figure 1, which reflects handwritten notes, excerpted from a larger notebook, used by the IA Business in following the step-by-step practices of the convertible arbitrage trade set ups. The highlighted section states, "1. Find Monies + % - Give David Figures.").

Figure 1



94. As stated by David Kugel in his sworn testimony at the Criminal Trial and in his criminal plea allocution, the IA Business would provide Kugel with a dollar figure, a duration for the trade to run in weeks, and a desired monthly return.[99] Specifically, Kugel stated that he received "regular requests, probably one a week, asking for a certain dollar amount of trades that would earn a certain percent" and that he provided historical, post-facto trade information to the IA Business "which enabled them to create fake trades that, when included

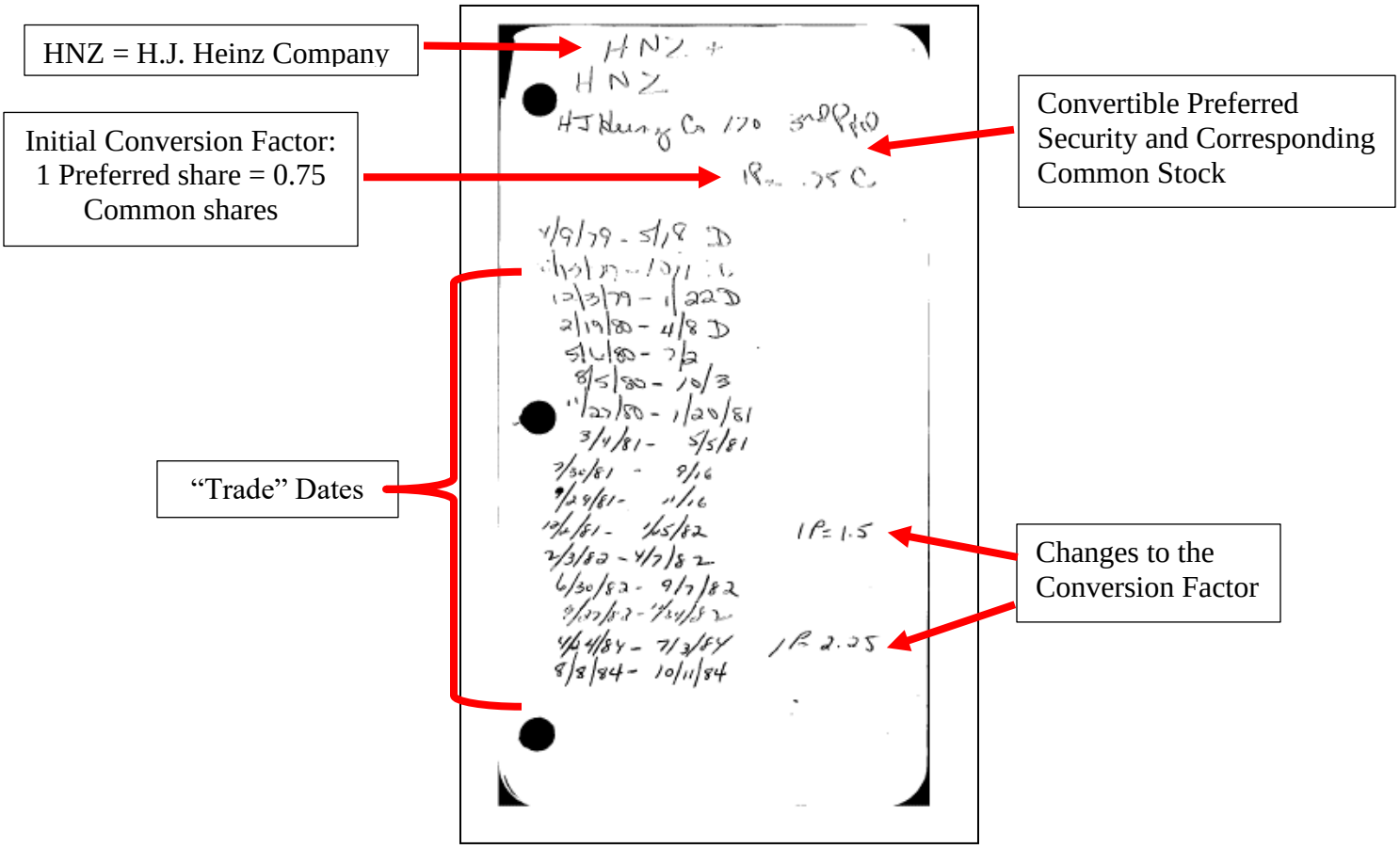
[98] MADTSS00976593. *See also* Kugel's Plea Allocution, November 21, 2011, 36.11-38.1.
[99] Criminal Trial, October 31, 2013, Trial Transcript at 1806.13-1812.5; Kugel's Plea Allocution, November 21, 2011, 32.1-23. *See also* Criminal Trial, December 2, 2013, Trial Transcript at 4544.17-22, 4545.16-4546.22, 4551.20-4552.18. As noted above, my opinions are not predicated on the testimony of David Kugel, but that testimony further corroborates my conclusion that the convertible arbitrage transactions did not occur.

on the account statements and trade confirmations of Investment Advisory clients, gave the appearance of profitable trading when in fact no trading had actually occurred."[100]

95. The IA Business would then record the name of each convertible security used to create the fictitious trades on separate index cards.[101] These cards were continuously updated with the following information: (1) the convertible security name and its corresponding common share name, (2) the conversion factor(s) for converting preferred shares to common shares, and (3) the date ranges that could be used to complete the fictitious trades. Approximately 1,100 index cards, covering a wide range of publicly traded companies, were identified at BLMIS. Figure 2 is an example of one of these index cards for the Heinz $1.70 convertible preferred stock:[102]

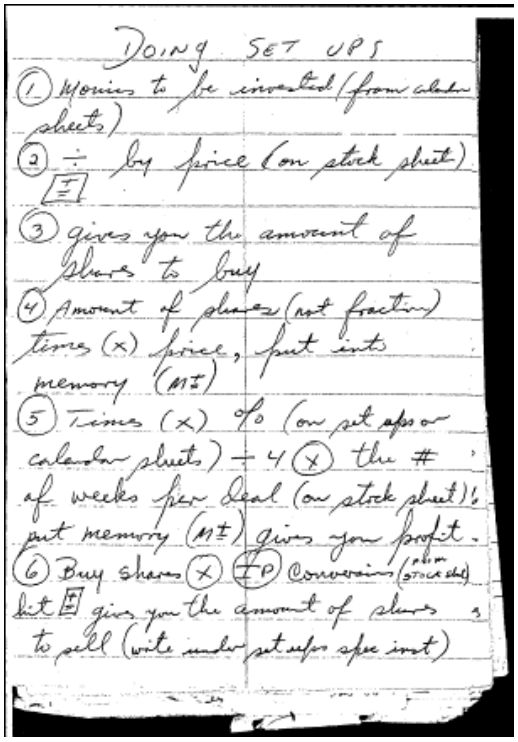
[100] Criminal Trial, October 31, 2013, Trial Transcript at 1808.22-1809.6. *United States v. David Kugel*, Plea Allocution, November 21, 2011, 32.8-12.
[101] MADWAA00491976-3118.
[102] MADWAA00492484.

Figure 2



96. Upon receiving and recording the pricing of trades that had previously occurred in the market as described above, the IA Business created a fake trade following the established IA Business convertible arbitrage instructions. The written notes (and the corresponding typed version of the text I have provided) shown in Figure 3 outline the approximately 11 steps IA Business employees followed to create and record the fictitious trades.

Figure 3



DOING SET UPS
(1) Monies to be invested (from calendar sheets)

(2) ÷ by price (on stock sheets) (+ =)

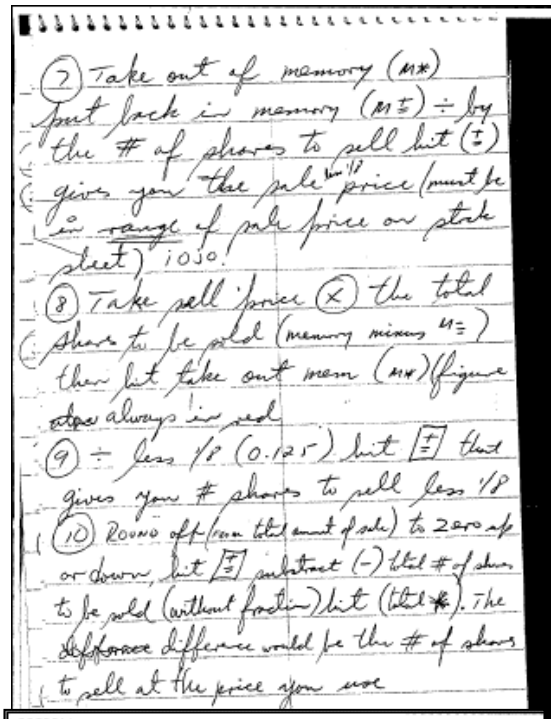
(3) Gives you the amount of shares to buy

(4) Amount of shares (not fraction) times (x) price, put into memory (M+=)

(5) Times (x) % (on set ups on calendar sheets) ÷ 4 (x) the # of weeks per deal (on stock sheet); put memory (M+=) gives you profit

(6) Buy shares (x) (IP) Conversions (from stock sheet) hit (+=) gives you the amount of shares to sell (write under set ups spec inst) [103]

[103] MADTSS00976522.

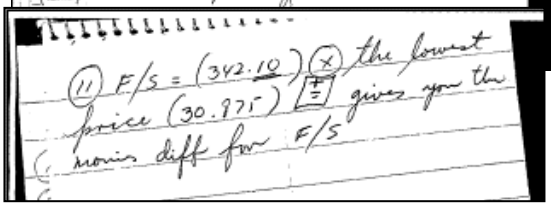


(7) Take out of memory (M*) put back in memory (M+=) ÷ by the # of shares to sell hit (+=) gives you the sale less 1/8 price (must be in range of sale price on stock sheet)

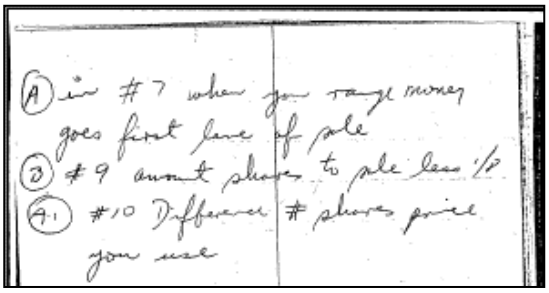
(8) Take sell price (x) the total shares to be sold (memory minus M-=) then hit take out mem (M*) (figure always in red)

(9) ÷ less 1/8 (0.125) hit (+=) that gives you # shares to sell less 1/8

(10) Round off (from total amount of sale) to zero up or down, hit (+=) subtract (-) total # of shares to be sold (without fraction) hit (total *). The difference would be the # of shares to sell at the price you use[104]



(11) F/S = (342.10) (x) the lowest price (30.875) (+=) gives you the monies diff from F/S[105]



(A) in #7 when you range money goes first [illegible] of sale

(B) #9 amount shares to sale less 1/8

(A-1) #10 Difference # shares price you use[106]

97. These calculations were done on adding machine tapes. Obviously, the process described above is not the way convertible arbitrage transactions are executed in the actual securities market.

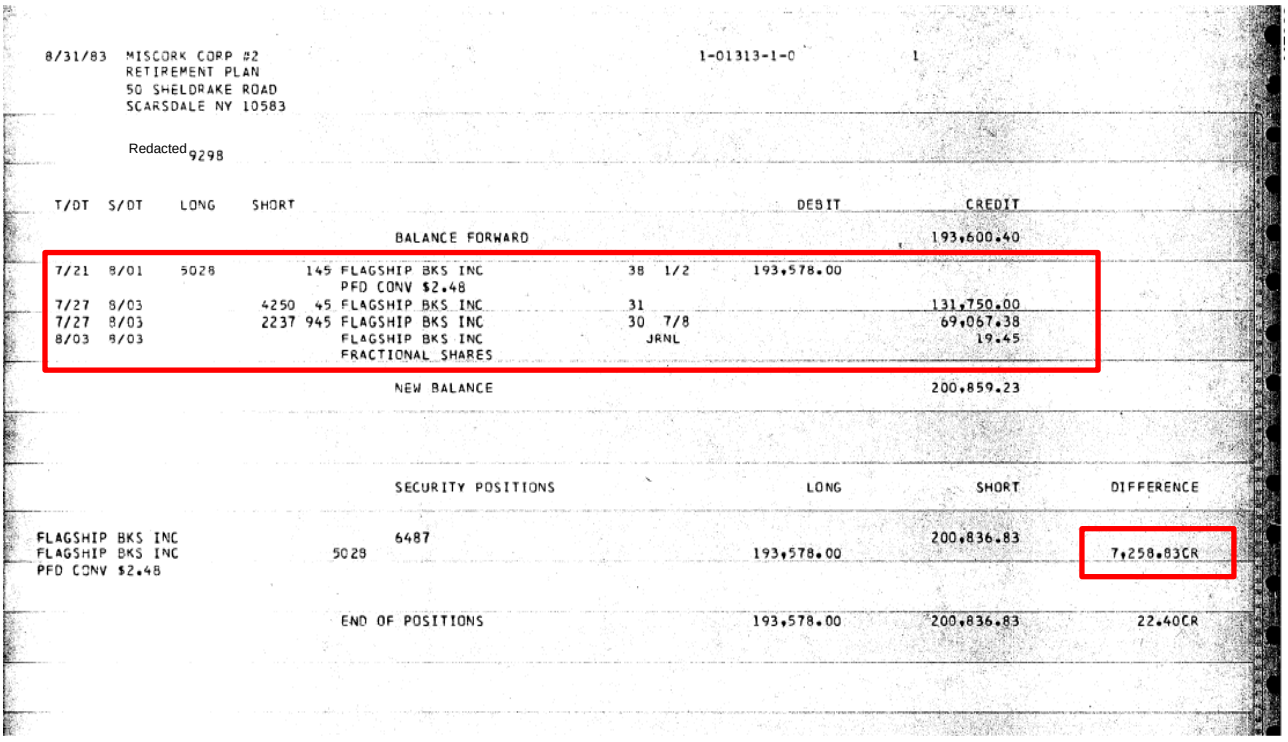
[104] MADTSS00976524.
[105] MADTSS00976525.
[106] MADTSS00976523.

ii. Fictitious Convertible Arbitrage Trading Example: Miscork Corp #2

98. To demonstrate how the steps described above were used by the IA Business to fabricate the convertible arbitrage transactions that eventually appeared on customer statements, I selected an IA Business account from the 1980s with purported convertible arbitrage activity.

99. As shown in Figure 4, Miscork Corp #2 Retirement Plan's August 1983 IA Business account statement for account 1-01313-1-0 reflects a convertible arbitrage transaction for the purchase of 5,028 shares of Flagship Bks Inc $2.48 convertible preferred stock at 38 ½ ($38.50), the sale of 4,250 shares of Flagship Bks Inc common stock at 31 ($31.00) and another 2,237 shares at 30 7/8 ($30.875), and the recording of $19.45 in fractional shares. The profit supposedly generated from this transaction was $7,258.83, as shown in Figure 4 and Figure 5.

Figure 4[107]



8/31/83 MISCORK CORP #2 1-01313-1-0 1
RETIREMENT PLAN
50 SHELDRAKE ROAD
SCARSDALE NY 10583

Redacted 9298

T/DT	S/DT	LONG	SHORT			DEBIT	CREDIT
				BALANCE FORWARD			193,600.40
7/21	8/01	5028	145	FLAGSHIP BKS INC PFD CONV $2.48	38 1/2	193,578.00	
7/27	8/03		4250	45 FLAGSHIP BKS INC	31		131,750.00
7/27	8/03		2237	945 FLAGSHIP BKS INC	30 7/8		69,067.38
8/03	8/03			FLAGSHIP BKS INC FRACTIONAL SHARES	JRNL		19.45
				NEW BALANCE			200,859.23

		SECURITY POSITIONS	LONG	SHORT	DIFFERENCE
FLAGSHIP BKS INC		6487		200,836.83	
FLAGSHIP BKS INC PFD CONV $2.48	5028		193,578.00		7,258.83CR
		END OF POSITIONS	193,578.00	200,836.83	22.40CR

MF00369219

[107] MF00369219.

Figure 5

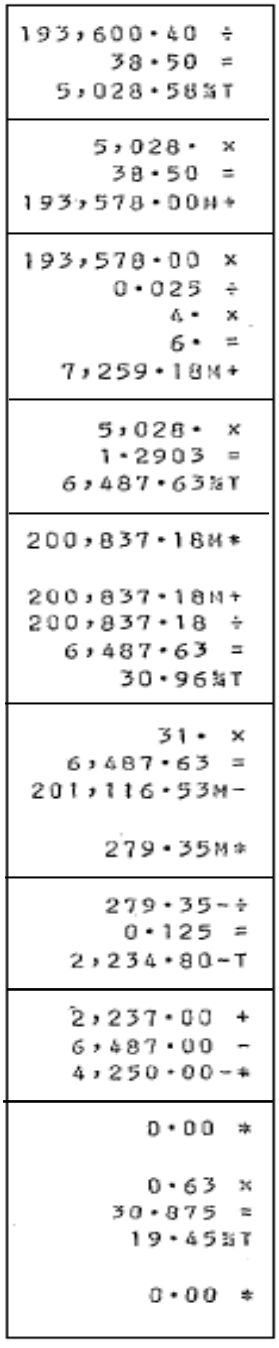
Sell	4,250 shares	x	$31.000	=	$ 131,750.00
					$ 131,750.00
Sell	2,237 shares	x	$30.875	=	$ 69,067.38
					$ 69,067.38
Fractional Shares					$ 19.45
Buy	5,028 shares	x	$38.50	=	$ 193,578.00

Profit = ($131,750.00 + $69,067.38 + $19.45) - $193,578.00
Profit = $200,836.83 - $193,578.00
Profit = $7,258.83

100. The calculations detailing how the IA Business arrived at this purported profit of $7,258.83 are recorded on adding machine tape records and handwritten notes about the purported transaction.[108] Below, in Figure 6, is the actual adding machine tape (without the handwritten notes) found in BLMIS's records that were used to calculate the values associated with the fictitious Flagship Bks Inc transaction, with each calculation corresponding to one of the 11 steps laid out in the "Doing Set Ups" instructions above.[109]

[108] MADTSS00976560.
[109] *Id*.

Figure 6



Steps 1-3: Calculating the number of shares to purchase – 5,028.58 shares

Step 4: Calculating the value of shares purchased – $193,578.00

Step 5: Calculating the profit that will be generated by the transaction based on a predetermined 2.5% monthly return – $7,259.18

Step 6: Calculating number of shares to sell using the preferred to common conversion factor – 6,487 shares

Step 7: Calculating the ideal share price at which to sell all shares – $30.96

Step 8: Calculating the difference between selling all shares at the closest 1/8 above the ideal price ($31) and the closest 1/8 below the ideal price ($30.875)

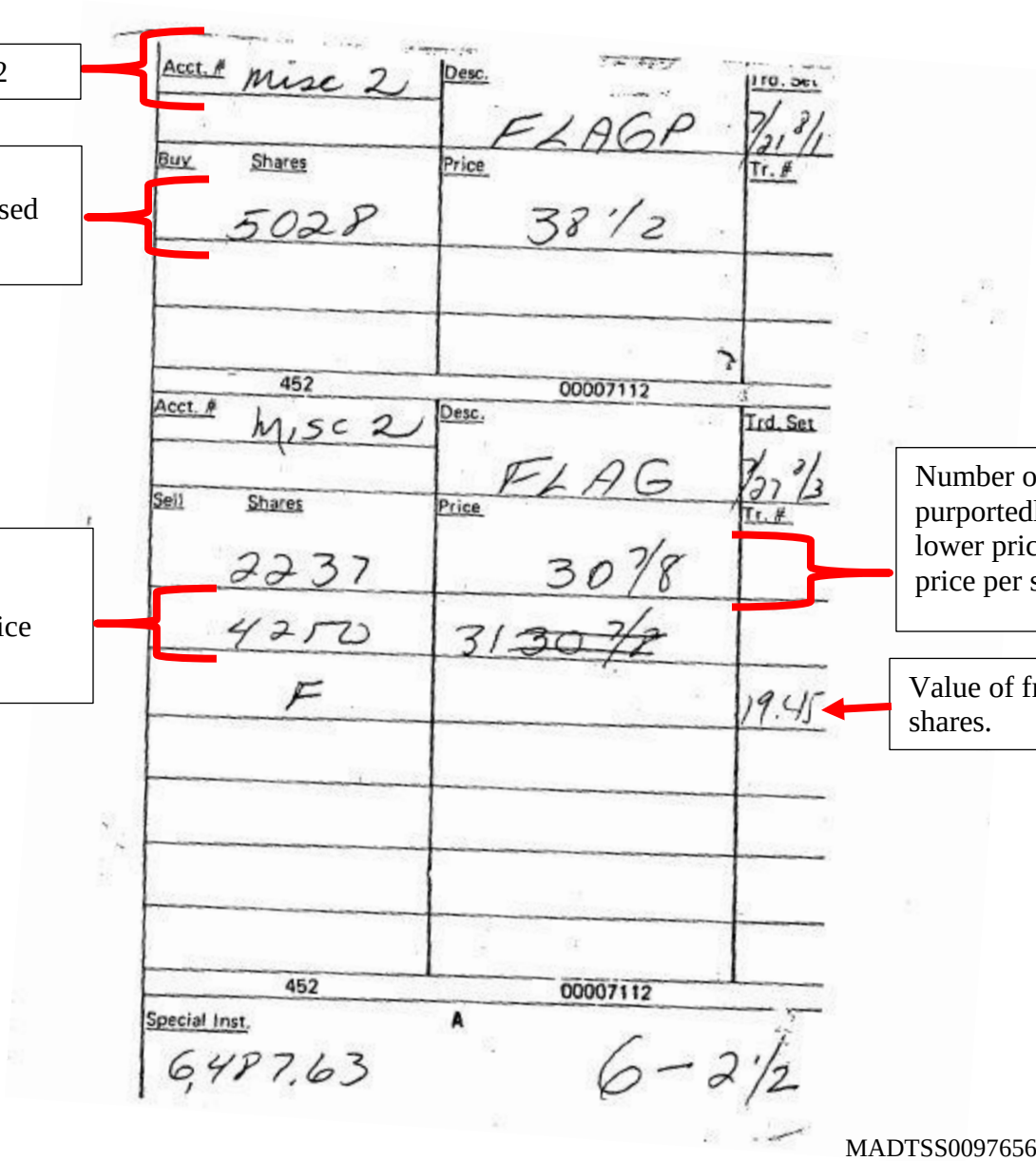
Step 9: Calculating the number of shares to sell at the lower of the two sale prices – 2,234 shares

Step 10: Calculating the number of shares to sell at the higher of the two sales prices – 4,250 shares

Step 11: Calculating the value of the fractional shares – $19.45.

101. The following IA Business handwritten note shows a summary of the purported buy and sell sides of the Flagship Bks Inc transaction, including the value of the fractional shares, all of which correspond to the numbers calculated on the adding machine tape.[110] (*See* Figure 7.)

Figure 7



MADTSS00976560

[110] MADTSS00976560. Other examples of the use of the index cards and adding machine tapes include the following documents: MADTSS00401092-288, MADTSS00403179-350, MADTSS00403351-528, MADTSS00400964-MADTSS00401091.

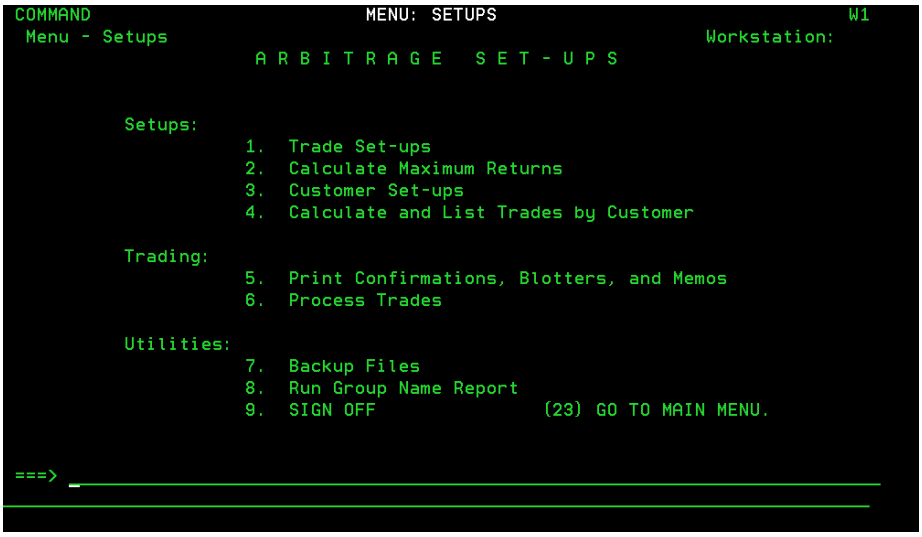
102. The Miscork #2 example is illustrative of the fictitious trades stemming from the convertible arbitrage strategy in the IA Business. That is, the convertible arbitrage trades were all fake and were predetermined in order to meet targeted rates of return.

iii. Computer Set-Ups to Generate Fake Convertible Arbitrage Transactions

103. While the IA Business' process of generating specified convertible arbitrage results was initially a manual one, as shown using the handwritten notes above, the process eventually became automated through the use of the AS/400 computer and its predecessor systems.[111]

104. The starting point for these fake transactions was a screen simply called "Arbitrage Set – Ups." (*See* Figure 8.)[112]

Figure 8



105. The first step in the process, "Trade Set-Ups," required the IA Business to enter the following information:

- Buy ("B") or Sale ("S")
- Symbol
- Par value

[111] A detailed description of the AS/400 is discussed later in the report. *See* ¶¶276-277.
[112] All screenshots were produced directly from the AS/400 that was procured by Kroll (*see* discussion below) and reflects a restored working version of the IA Business AS/400 system, software, and data from BLMIS.

- Trade and settlement date
- Fractional shares
- Upper and Lower price limits

106. Based on this information, the program would provide the maximum returns that could be produced based on these parameters (*see* Figure 9 and take special note of the apparent even percentage returns being calculated, *i.e.*, 3.750, 3.000, 2.5000). These same required inputs and report format were identified on documents dating to the 1980s, reflecting the automation of these trades even prior to the implementation of the AS/400 in the early 1990s.[113]

Figure 9[114]

ARBITRAGE SET-UPS

NAME AGC

B/S	SYMBOL	DESCRIPTION	PAR	TRADE DATE	SETTLE DATE	CONVERSION RATIO	LOWER/LIMIT $	LOWER/LIMIT FRACT CENTS	UPPER LIMIT $	UPPER LIMIT FRACT CENTS	SHRT
B	AGC.V	AMERICAN GENERAL CORP	1000	12/19/86	12/29/86	18.7200000	2020		2060		
S	AGCXX	AMERICAN GEN CORP		12/16/86	12/23/86	1.0000000	39		39	1/ 4	

MAXIMUM RETURN	4 WEEKS	5 WEEKS	6 WEEKS	7 WEEKS	8 WEEKS	9 WEEKS	10 WEEKS	11 WEEKS	12 WEEKS
	3.750	3.000	2.500	2.125	1.875	1.625	1.500	1.375	1.250

MINIMUM RETURN	4 WEEKS	5 WEEKS	6 WEEKS	7 WEEKS	8 WEEKS	9 WEEKS	10 WEEKS	11 WEEKS	12 WEEKS
	3.125	2.500	2.000	1.750	1.500	1.375	1.250	1.125	1.000

CUSTOMER #	NAME	%	WEEKS	DUE DATE	INVESTMENT	PL ADJUSTMENT

107. The IA Business then inputted the customer accounts to which the predetermined trade, based on the number of weeks for the proposed deal and the targeted rate of return, would be attributed. In this example, the trade was applied to 1-A0011 and 1-A0019. (*See* Figure 10.)

[113] *See* for example, MADTSS00321132.
[114] This figure is created from the purported trading information on the IA Business customer statements using the same AS/400 software used at BLMIS.

Figure 10

```
                          C U S T O M E R   S E T - U P S

     DEAL NAME AGC___

    ACCOUNT#  NAME                    WEEKS  %   DUE/DATE    INVEST      PL ADJUST

     1A0011 HENRIETTA ALBERT TRUST___  06  01875  022487  00035000000 ___________
     1A0019 LEONARD ALPERN___________  06  02000  022487  00021524919 ___________
     _____

     PRESS ENTER/REC ADV TO ACCEPT
           CMD KEY 1 FOR NEW SETUP
           CMD KEY 7 TO END JOB
```

108. After the selected return and time period were chosen, the AS/400 code generated the purported trade and populated a fake trade blotter for the selected accounts. (*See* Figure 11.)

Figure 11

C U S T O M E R S E T - U P S

BUY/SELL	SYMBOL		TRADE/DATE	SETTLE/DATE	SHARES	PRICE	BUY/SIDE	SELL/SIDE
1A0011	HENRIETTA ALBERT TRUST							
350,000.00	1.875%	6 WEEKS DUE 2/24/87						
BUY	AGC.V	AMERICAN GENERAL CORP WHEN ISSUED	12/19/86	12/29/86	172	2020 3/8	347,504.50	
SELL	AGCXX	AMERICAN GEN CORP	12/16/86	12/23/86	700	39		27,300.00CR
SELL	AGCXX	AMERICAN GEN CORP	12/16/86	12/23/86	.0341	39		1.33CR
SELL	AGCXX	AMERICAN GEN CORP	12/16/86	12/23/86	8,488	39		331,032.00CR
						TOTALS	347,504.50	358,333.33CR
						ADJUSTED NET PROFIT		10,828.83CR
						ADJUSTMENT AMOUNT		
						DIFFERENCE		1,055.25CR
						NOT WORKING		2,495.50CR
1A0019	LEONARD ALPERN							
215,249.19	2.000%	6 WEEKS DUE 2/24/87						
BUY	AGC.V	AMERICAN GENERAL CORP WHEN ISSUED	12/19/86	12/29/86	106	2020 1/4	214,146.50	
SELL	AGCXX	AMERICAN GEN CORP	12/16/86	12/23/86	3,600	39		140,400.00CR
SELL	AGCXX	AMERICAN GEN CORP	12/16/86	12/23/86	.3931	39		15.33CR
SELL	AGCXX	AMERICAN GEN CORP	12/16/86	12/23/86	2,062	39		80,418.00CR
						TOTALS	214,146.50	220,833.33CR
						ADJUSTED NET PROFIT		6,686.83CR
						ADJUSTMENT AMOUNT		
						DIFFERENCE		262.45CR
						NOT WORKING		1,102.69CR

109. Once the transaction was produced by the AS/400 code, fake trade confirmations and fake trade blotters were generated to give the appearance of a real trade.

110. Lastly, customer ledgers were created containing the fake trades (*see* Figure 12) and those ledgers were used to create customer statements reflecting the fake trading activity and related fictitious profits.

Figure 12

12/31/86 HENRIETTA ALBERT TRUST 1-A0011-1-0 1
C/O GLORIA SANDLER
115 POST ROAD
WALNUT CREEK CA 94595

68-6133871

T/DT	S/DT	LONG	SHORT				DEBIT	CREDIT
				BALANCE FORWARD				.13
12/16	12/23		700	84108 AMERICAN GEN CORP	39			27,300.00
12/16	12/23		8488	84109 AMERICAN GEN CORP	39			331,032.00
12/19	12/29	172		84107 AMERICAN GENERAL CORP WHEN ISSUED	20	3/8	347,504.50	
12/23	12/31			AMERICAN GEN CORP FRACTIONAL SHARES	JRNL			1.33
				NEW BALANCE				10,828.96

SECURITY POSITIONS		LONG	SHORT	DIFFERENCE
AMERICAN GEN CORP	64316		358,335.99	
AMERICAN GENERAL CORP WHEN ISSUED	1204	347,504.50		10,831.49CR
END OF POSITIONS		347,504.50	358,335.99	347,507.03

12/31/86 LEONARD ALPERN 1-A0019-1-0 1
525 FARMERSVILLE ROAD
FLEMINGTON NJ 08822

073-40-0827

T/DT	S/DT	LONG	SHORT				DEBIT	CREDIT
				BALANCE FORWARD				.81
12/16	12/23		3600	84111 AMERICAN GEN CORP	39			140,400.00
12/16	12/23		2062	84112 AMERICAN GEN CORP	39			80,418.00
12/19	12/29	106		84110 AMERICAN GENERAL CORP WHEN ISSUED	20	1/4	214,146.50	
12/23	12/31			AMERICAN GEN CORP FRACTIONAL SHARES	JRNL			15.33
				NEW BALANCE				6,687.64

SECURITY POSITIONS		LONG	SHORT	DIFFERENCE
AMERICAN GEN CORP	39634		220,863.99	
AMERICAN GENERAL CORP WHEN ISSUED	742	214,146.50		6,717.49CR
END OF POSITIONS		214,146.50	220,863.99	214,176.35

111. Thus, the IA Business was able to generate a full suite of confirmations, trade blotters, and customer ledgers based on a preordained set of protocols, and using historic trade data to produce purported convertible arbitrage transactions.[115] No real trades with real counterparties were actually executed in the securities markets.

[115] *See* Criminal Trial, December 5, 2013 Trial Transcript at 4981.3-4981.19.

(iii) The Purported IA Business Convertible Arbitrage Transactions Contained Significant Market Anomalies

112. All BLMIS customer accounts utilizing the purported convertible arbitrage strategy were analyzed for the following months (the "Monthly Time Period"):

- October 1979, November 1979;[116]
- every March and December from 1981-1992;[117] and
- randomly selected months, other than March and December, between 1983 and 1992.[118]

113. In addition to the accounts selected and analyzed for the Monthly Time Period, eight Avellino & Bienes ("A&B")[119] accounts were analyzed from November 1978 through July 1992 (the "A&B Time Period").[120]

114. For the Monthly Time Period and the A&B Time Period, IA Business customer ledgers purportedly employing the convertible arbitrage strategy were tested against historical, independent market trading records for the applicable securities.[121] The daily price range, total daily volume, and corporate actions (*e.g.*, dividends) of each security in question were analyzed in comparison to those identified on the customer ledgers.

115. In addition to the analysis of how the fake convertible arbitrage trades were input on the customer statements, I also compared the purported convertible arbitrage trades to market data and conclude that the convertible arbitrage trades reflect market impossibilities including:

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[116] The customer ledger data for these months were fully coded into a database by the Trustee's consultants.
[117] This was the time period prior to the dissolution of Avellino & Bienes, when, thereafter, there was a movement away from purported IA Business investments pursuant to the convertible arbitrage strategy and towards the SSC strategy. March was chosen because it was a quarter-end statement; December was chosen because it was a year-end statement.
[118] A random number generator selected one additional month for each year to be analyzed in the 10-year period.
[119] A detailed overview of A&B is discussed later in this report.
[120] These accounts include: 1A0045 through 1A0050, as well as 1A0051 and 1B0018, which belonged to Frank Avellino and Diane Bienes, respectively. These eight accounts were utilized as the customer data associated with these accounts were fully coded by the Trustee's consultants into a database. As noted *supra* in this report, the underlying data used in these analyses were validated and tested. This is the time period for which convertible arbitrage information was available for these accounts.
[121] Market data sources include: New York Stock Exchange Daily Stock Price Record, Over-the-Counter Exchange Daily Stock Price Record, American Stock Exchange Daily Stock Price Record, Wall Street Journal New York Exchange Bonds, Moody's Industrial Manual, Moody's Bank and Financial Manual, Frankfurter Allgemeine Zeitung and The Times (London).

- Transactions that exceeded the entire daily market volume;
- Transactions that exceeded the total outstanding issuance for certain securities;
- Transactions that were executed at prices outside the daily trading price range;
- Transactions that were traded even after they were called for conversion; and
- Transactions that did not account for dividend payments and or accrued interest on the convertible securities.

a. Purported convertible security trades exceeded the entire reported market volume for certain days

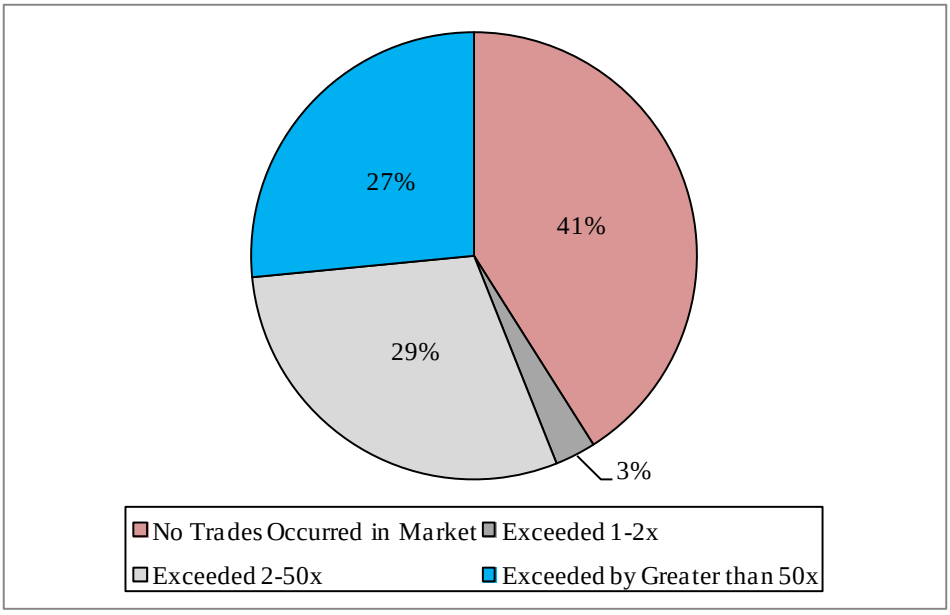
116. To test if the purported trades could have been legitimate, the daily volume from the long convertible positions as indicated on the customer ledgers was compared to the historical market volume for those securities on the specific days the trades purportedly occurred. Customer ledgers from the Monthly Time Period were aggregated to analyze the relevant transactions.

117. During the Monthly Time Period, the historical daily trading volume of 432 unique convertible security transactions reflected in BLMIS's records was analyzed.[122] The purported trading in 407 of the 432 unique convertible securities transactions (94%) exceeded the daily market volume traded by an average of over 200 times the entire reported daily volume for all market trades in those securities. (*See* Figure 13 and **Exhibit 3** – "Convertible Arbitrage IA Business Volume Analysis, Monthly Time Period".)[123] In fact one security, Westinghouse Electric Corp. Sub Debenture Convertible 9% due 8/15/2009, purportedly traded on November 28, 1989 nearly 5,051 times the actual daily volume, a fact

[122] There were 165 additional instances where publicly available market data could not be identified.
[123] A volume analysis was also performed for all the common equity that was shorted for the transactions executed during the Monthly Time Period. Data was collected from the Daily Stock Price Record-New York Stock Exchange and the Daily Stock Price Record-American Stock Exchange, which provided the end-of-month short positions. The purported IA Business month-end short positions for the Monthly Time Period were then compared to the publicly available data. The investigation concluded that of the 489 short positions for which data was publicly available, 31% of the IA Business purported short common shares positions exceeded the end-of-month historical volume for the common shares. (*See* **Exhibit 4** – "Convertible Arbitrage IA Business Securities Short Interest Analysis, Monthly Time Period".) In fact, one position, purportedly traded in February 1991, exceeded the volume by approximately 382 times the actual reported total market short position.

that shows the purported trades were fictitious.[124] Forty-one percent of the trades occurred where there was no reported volume at all in that particular security for that particular day.

Figure 13
Breakdown of Purported Securities Exceeding Daily Volume for the Monthly Time Period

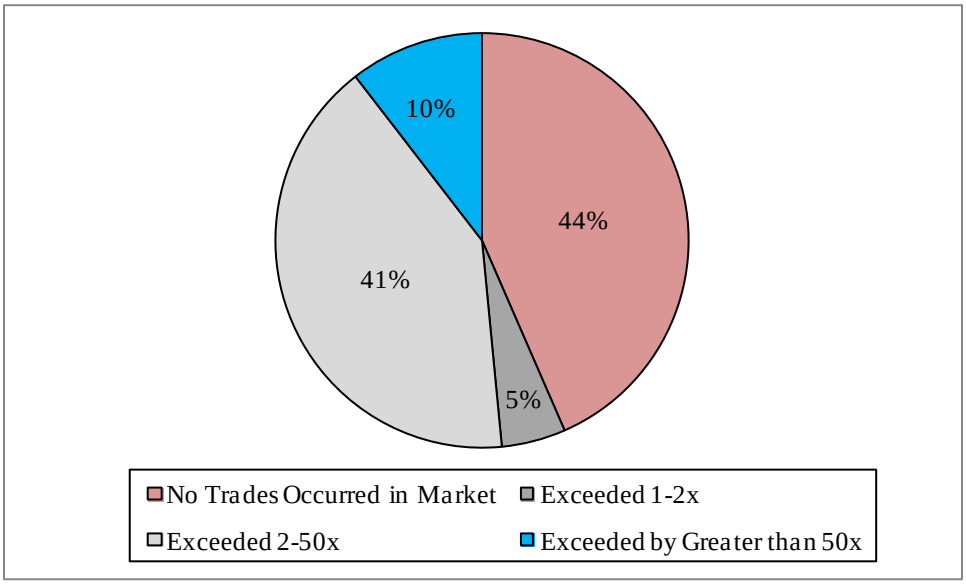


118. To further test the volume analysis, eight A&B accounts were similarly tested to determine whether the transactions exceeded the actual daily market volume for the chosen convertible securities during the A&B Time Period. The daily historical volume for these convertible securities was compared to the volume the IA Business purportedly traded per the customer account records, and results were similar to that of the Monthly Time Period analysis described above. Of the 1,189 convertible securities in these eight accounts, over ninety percent of the total exceeded the daily volume on the transaction day by an average of nearly 30 times the actual daily volume. (*See* Figure 14 and **Exhibit 5** – "Convertible Arbitrage IA Business Volume Analysis, A&B Time Period".) Forty-four percent of the trades occurred

[124] Two of the largest European exchanges (London Stock Exchange and the Frankfurt Stock Exchange) were analyzed to assess whether or not these securities were traded in those markets. For the Monthly Time Period, the investigation showed that none of the convertible securities was traded on those exchanges and therefore could not have accounted for the potential excess volume that was not traded on the U.S. exchanges.

where there was no reported volume at all in that particular security for that particular day. In one instance, the volume in a particular security reported by the IA Business was over 500 times the total volume reported in the entire market for that security.

Figure 14
Breakdown of Purported Securities Exceeding Daily Volume for 8 A&B Accounts for the A&B Time Period



119. An example of how the purported transactions in the IA Business were constructed can be seen in Table 2 below. Customer ledgers from the IA Business depicted that the customers were long in convertible securities and short in the underlying common stock. In this instance, the ledgers purport to show that the customer was long Macmillan Inc. convertible debentures and short the underlying common stock. However, as described in the following paragraphs, there are a number of reasons this trade, and the majority of the IA Business convertible arbitrage transactions, could not have occurred.

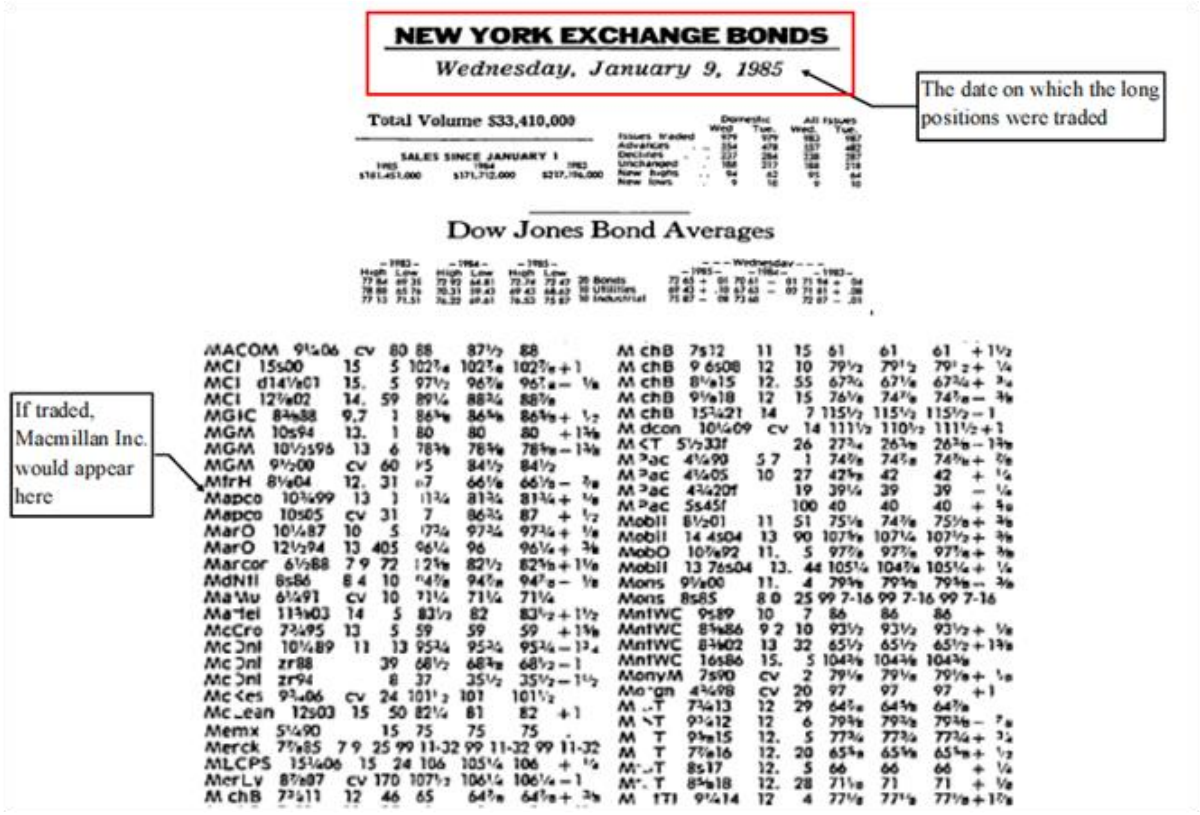
Table 2
A&B 1A0045 Account – Macmillan Inc. Sub Deb Conv 8.75 – Due 2/15/2008

	Bates	Statement Date	Transaction Date	Long	Short	Security	Price	Debit	Credit
A	MF00370649	1/31/1985	9-Jan	706,000		MACMILLAN INC SUB DEB CONV 8.750 2/15/2008	138	$ 1,000,191.12	
B	MF00370649	1/31/1985	9-Jan	705,000		MACMILLAN INC SUB DEB CONV 8.750 2/15/2008	138	998,774.42	
C	MF00370649	1/31/1985	10-Jan		41,300	MACMILLAN INC	44 7/8		$ 1,853,337.50
D	MF00370649	1/31/1985	10-Jan		5,152	MACMILLAN INC	44 3/4		230,552.00
E	MF00370649	1/31/1985	17-Jan			MACMILLAN INC FRACTIONAL SHARES	JRNL		30.20
F	MF00371844	3/31/1985	14-Mar		705,000	MACMILLAN INC SUB DEB CONV 8.750 2/15/2008	DELV		
G	MF00371844	3/31/1985	14-Mar	41,300		MACMILLAN INC	RECD		
H	MF00371844	3/31/1985	14-Mar		706,000	MACMILLAN INC SUB DEB CONV 8.750 2/15/2008	DELV		
I	MF00371844	3/31/1985	14-Mar	5,152		MACMILLAN INC	RECD		
							Total	$ 1,998,965.54	$ 2,083,919.70

120. Accordingly, the purported securities trades underlying the convertible arbitrage strategy for IA Business customers could not have been legitimate trades as they exceeded the reported volume of the entire market on the securities the IA Business purportedly executed.[125] These volume discrepancies are further illustrated by an individual transaction on a single customer ledger. Referring to Table 2, on January 9, 1985, the A&B customer ledger for account 1A0045 reported that $1,411,000 par value of Macmillan Inc. subordinated debt was traded (together Row A and Row B). However, on that day, this security did not change hands in the open market. (*See* Figure 15 below for listing of traded securities for January 9, 1985.)[126] Accordingly, the IA Business simply could not have traded Macmillan Inc. subordinated debt on that day.[127]

[125] This conclusion stands, whether or not the convertible bond trading occurred OTC or on the NYSE.
[126] *New York Exchange Bonds Daily Record*, Wall St. J., Jan. 10, 1985.
[127] The Macmillan Inc. subordinated debt could not have traded on the OTC market either. While the New York Exchange Bonds listing does not reflect OTC trading, the S&P Bond Guide captures the month-end high and low traded prices for the exchanges and the OTC market. A review of the February 1985 S&P Bond Guide as of month-end January 1985 for the exchanges and the OTC market indicates that the high traded price for the Macmillan Inc. subordinated debt in January 1985 was $154 and the low was $141.5. Given that the IA Business customer ledgers indicate a traded price of $138 as of January 9, 1985, this price is outside the possible traded range in both the exchanges and OTC market and could not have been traded in either market. S&P Bond Guide, Feb. 1985, at 10. Nor did I find any evidence of OTC contracts (such as International Swaps and Derivatives Association ("ISDA") agreements with counterparties) documenting any such OTC trades at BLMIS.

Figure 15



b. Purported convertible bond and preferred stock transactions exceeded the total outstanding issuance for certain securities

121. The daily IA Business trading volume as indicated on the customer ledgers was compared to the total outstanding issuance for the particular convertible bond and preferred stock securities as of the purported transaction date. This analysis focused on determining if the IA Business ever purportedly traded more than what was actually available and outstanding in the entire market.

122. Between October 1979 to December 1998, I have identified several instances where the purported trading volume in convertible bond and preferred stock transactions exceeded the

total amount of issuance outstanding in the market or exceeded at least 85% as of each respective transaction date.[128]

123. For example, on 2/25/1992, the IA Business purportedly purchased $60,961,000 of principal in Bindley Western Industries Inc Sub Deb Conv 8.625 4/15/2010. However, the total outstanding principal available in the market was only $53,200,000 in February 1992.[129] Even if the IA Business had purchased the entire outstanding issuance for this convertible bond, the purported transaction could not have been legitimate as it is not possible to purchase more than what is available in the market.

c. Purported purchase prices of convertible securities on customer ledgers did not represent market prices

124. The purchase prices for the convertible securities as stated on the IA Business customer ledgers were tested against the historical market prices to determine if the purported IA Business trades fell within the actual daily market trading range. As the IA Business often purportedly executed the same convertible security several times per day for the accounts, each unique trade price was tested against the historical trading range for that day.[130] For the Monthly Time Period, 582 unique trade prices were tested.[131] Of the 582 unique trade prices, 444 (76%), were outside the actual daily market trading price range showing that the prices

[128] For convertible bonds, the "total issuance outstanding" reflects the total amount of principal available for purchase in the market as of each respective transaction date. For convertible preferred stock, the "total issuance outstanding" reflects the total number of shares outstanding in the market as of each respective transaction date. The "total issuance outstanding" was sourced from the S&P Bond Guide and S&P Stock Guide for the month of each respective transaction date.
[129] Standard & Poor's Corporation Bond Guide, February 1992.
[130] A price analysis was also performed for all the common equities that were purportedly shorted for the transactions executed during the Monthly Time Period. Data was collected from Center for Research in Security Prices, the Daily Stock Price Record-New York Stock Exchange, the Daily Stock Price Record-American Stock Exchange and the OTC Exchange Daily Stock Record. The investigation concluded that of the 2,223 short transactions for which data was publicly available, 9% of the IA Business purported short common shares transactions were outside the daily price range for the common shares. (*See* **Exhibit 6** – "Convertible Arbitrage IA Business Securities Short Sale Price Analysis, Monthly Time Period".)
[131] In some instances, historical data was unavailable. In the cases of the OTC transactions and certain convertible bond transactions, the only publicly available information was the bid-ask and close prices. Therefore, no conclusive range could be determined. In instances where publicly available daily high price and low price data were not available, the purported trades were excluded from the analysis. For example, beginning in 1988, the *Wall Street Journal* no longer provided the daily high price and low price for bonds.

listed on the customer ledgers were fictitious. (*See* **Exhibit 7** – "Convertible Arbitrage IA Business Price Analysis, Monthly Time Period".)[132]

125. The pricing discrepancies were further tested during the A&B Time Period for the eight A&B accounts to determine if the same anomalies described above occurred. Of the 1,118 securities with unique prices that were tested, 848 (76%) were outside the actual reported daily market price range. (*See* **Exhibit 8** – "Convertible Arbitrage IA Business Price Analysis, A&B Time Period".)[133]

126. This pricing discrepancy is further illustrated earlier in Table 2 with the Macmillan Inc. subordinated debt long position. The ledger for account 1A0045 shows that $1,411,000 par value of the Macmillan Inc. convertible bond was traded on January 9, 1985 at a price of $138 (Row A and Row B). However, given that there was no trading of the bond on this date, the IA Business could not have purchased the Macmillan Inc. subordinated debt for $138.[134]

d. Convertible securities were purportedly traded by the IA Business even after they were called for conversion

127. Many convertible securities have the option for the company to call the security at a predetermined date or at the company's discretion. That is, the company has the right to convert the convertible securities into common shares. In instances where the bond or preferred equity is called, the shares are converted on the record date at a determined amount. Once the security is converted by the company it can no longer be held by an investor. However, there are multiple instances where customer ledgers show that a convertible

[132] In those cases where the purported IA Business trades were higher or lower than the actual recorded daily market traded prices, the IA Business prices themselves would have been the daily high or low. In the event that the out of range prices on the IA Business customer statements were the result of an inadvertent typing error (sometimes referred to as "fat fingering"), the IA Business would have had to issue corrected trade confirmations and customer statements with actual market prices. There is no evidence of any corrections or reissuances to account for these "corrections."

[133] The publicly available prices for bond transactions executed on the NYSE are close proxies of the prices for bond transactions executed in the OTC market.

[134] New York Exchange Bonds Daily Records, Wall St. J., Jan. 10, 1985.

arbitrage security was purportedly still being held by an IA Business customer despite the fact that the security had already been called.

128. For example, in the case of Macmillan Inc., the IA Business purportedly closed out its position on March 14, 1985 (Table 2, Row H); however, the subordinated debentures were converted into 1,645,071 shares of common stock in January 1985.[135] This transaction simply could not have been legitimately completed, as reflected on the customer ledger, given that the debentures were retired by Macmillan Inc. well before the March 14, 1985 date when the IA Business purported to have converted the convertible security and to have bought back the common shares.

(iv) Additional Anomalies Contained in the IA Business Convertible Arbitrage Strategy

a. The IA Business did not account for dividend payments or accrued interest on the convertible securities thereby evidencing the fictitious nature of the underlying transactions

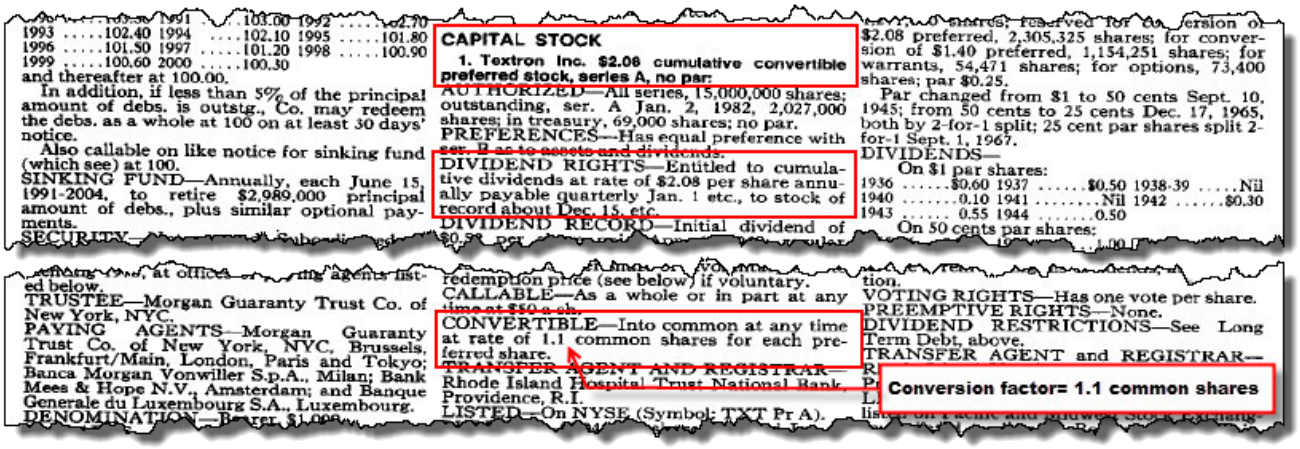
129. One major component of a convertible arbitrage transaction is that the underlying convertible security pays a regular coupon or dividend. This coupon or dividend is considered in the valuation of the underlying security, which is used to determine whether an arbitrage situation exists. In many instances, however, the IA Business did not account for the coupon or dividend payment during the purported convertible arbitrage transactions.

130. In the Monthly Time Period, an analysis was performed to identify actual dividend or coupon payments for those convertible securities in which the IA Business customers were purportedly invested as of the ex-dividend date. The dates and amounts were then reconciled to the customer ledgers to confirm whether the IA Business accurately recorded these payments. In most instances, the coupon or dividend payments were not recorded as being paid to the customer.

[135] *Macmillan Inc*., Moody's Industrial Manual 1985 at 4083.

131. For example, Textron Inc. Preferred Convertible security paid a quarterly dividend of $0.52/share to record holders as of June 15, 1982. (*See* Figure 16.)[136] A&B account 1A0045, for example, was an account holder as of this record date and should have received a dividend payment worth $6,592.56 (12,678 shares times quarterly dividend of $0.52/share). However, this payment does not appear on the A&B account 1A0045 ledger.

Figure 16



132. Based upon the foregoing discussion regarding dividend discrepancies, this investigation and analysis further support the conclusion that trading in the IA Business did not occur.

b. There is no evidence that the IA Business converted the convertible securities into common shares

133. Companies that have publicly traded securities typically use third-party institutions known as transfer agents to keep track of the individuals and entities that own their stocks and bonds. Most transfer agents are banks or trust companies. Although a company sometimes acts as its own transfer agent, companies that issue preferred convertible stock and convertible subordinated debt must do so through these transfer or conversion agents.[137]

[136] *Textron Inc*., Moody's Industrial Manual 1982 at 4493.
[137] *See Transfer Agents*, U.S. Securities and Exchange Commission, http://www.sec.gov/answers/transferagent.htm (last visited Nov. 20, 2011) updated, http://www.sec.gov/answers/transferagent.htm (last visited Sept. 19, 2024).

134. The transfer agent maintains records of pertinent shareholder information, such as names, addresses and number of shares owned. The transfer agent also administers dividend payments for companies, including dividends to be paid to each shareholder and makes dividend distributions by mailing out dividend checks or through other means.[138]

135. Given that these agents stand directly between the issuing company and the security holder, operations with these agents would have been essential to carrying out the IA Business's purported convertible arbitrage strategy. The Securities and Exchange Act of 1934 requires that transfer agents be registered with the SEC, or if the transfer agent is a bank, with a bank regulatory agency.[139] As a result, the SEC has strict rules and regulations in place for all registered transfer agents that include minimum performance standards regarding the issuance of new certificates and related recordkeeping.

136. In order to convert shares of preferred convertible stock or convertible subordinated debt into common stock, shareholders must contact the company's transfer agent and:

- Complete and sign a conversion notice provided by a transfer agent, and deliver such notice to the transfer agent;
- Deliver a certificate or certificates representing the shares of convertible preferred stock/subordinated debt to be converted by the transfer agent; and
- If required, furnish appropriate endorsements and transfer documents.[140]

137. In order to have converted preferred convertible stock and convertible debt into common stock, the IA Business would have needed documentation regarding the conversion of the securities. To test whether proper documentation existed, ten purportedly converted securities were tested as shown in Table 3.[141]

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[138] *Id.*

[139] The Securities Exchange Act § 17A(c), 15 U.S.C. §78 (2010).

[140] Such documentation usually contains most, if not all, of the following information: conversion date, conversion factor (shares or price), total principal amount, total number of shares, name(s) and address(es) of person(s) in whose name(s) the shares required to be delivered on conversion of the shares are to be registered.

[141] Data obtained from Moody's Industrial Manual for each of the respective years indicated in Table 3. The transfer agent for each company is listed by year; data was reviewed for the year in which conversion occurred. *Aetna Life*, Moody's Bank & Finance Manual 1980 at 4303; *Reliance Group Inc.*, Moody's Bank & Finance Manual 1980 at 2478; *Eaton Corp.*, Moody's Industrial Manual 1984 at 296; *GATX Corp.*, Moody's Industrial Manual 1980 at 1156; *Lear Siegler*, Moody's Industrial Manual 1979 at 3898; *Liberty National Corp.*, Moody's Bank & Finance Manual 1981 at 1493; *TenneCo Corp.*, Moody's Industrial Manual 1979 at 3143; *Texas Gas Transmission Corp.*, Moody's Public Utility Manual 1979 at 1942; *Trane Co.*, Moody's Industrial Manual 1982 at 6053; *TRW Inc.*, Moody's Industrial Manual 1982 at 4518.

Table 3
Transfer Agents as of Conversion Date

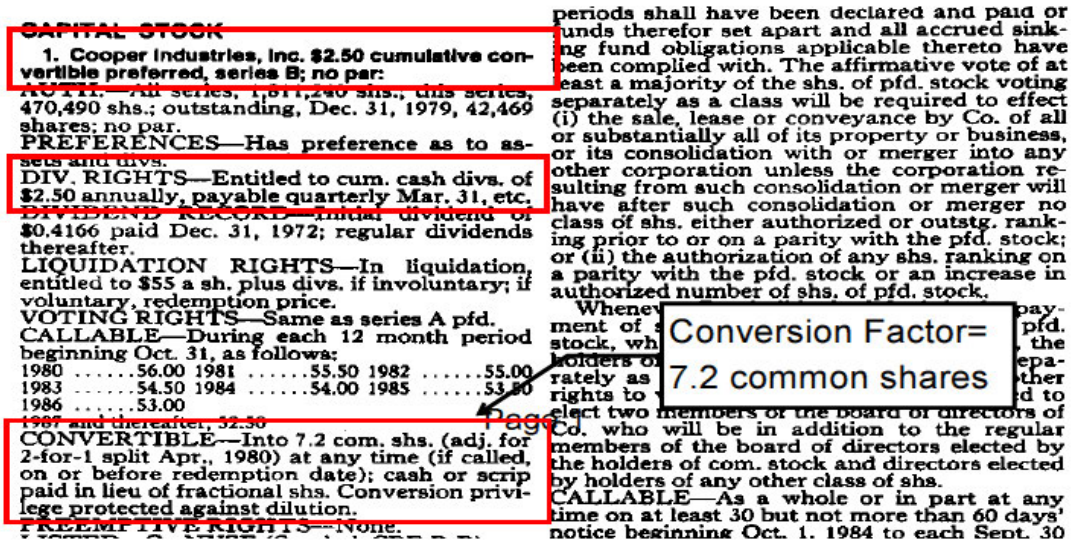
Security	Date of Purported Conversion	Transfer Agents for Date of Purported Transaction
AETNA LIFE & CAS CO PDF CONV $2	8/22/1980	Hartford National Bank & Trust Morgan Guaranty Trust
RELIANCE GROUP INC PFD SER B CONV $2.20	7/25/1979	First Jersey National Bank Jersey City
EATON CORP PFD SER B CONV $10	3/13/1984	AmeriTrust Co., Cleveland
GATX CORP PFD CONV $2.50	6/3/1980	Manufacturers Hanover Trust
LEAR SIEGLER INC PFD CONV $2.25	1/10/1979	Irving Trust Co. United California Bank
LIBERTY NATL CORP PFD CONV $2.125	7/13/1981	Liberty National Bank & Trust
TENNECO CORP PFD $1.60	10/24/1979	Chemical Bank
TEXAS GAS TRANSMISSION CORP PREF CONV $1.50	12/12/1979	Chemical Bank
TRANE CO SUB DEB CONV 4.000 9/15/1992	9/23/1982	Morgan Guaranty Trust
TRW INC PREF SER 1 CONV $4.40	12/11/1981	Morgan Guaranty Trust

138. No supporting documentation related to transfer agents or the conversion of these underlying convertible securities was identified. Absent this documentation and/or evidence of communication with the transfer agents (which also was not identified), the IA Business could not have converted the underlying shares into common stock for any of the thousands of transactions in its convertible arbitrage strategy.

139. Further, the IA Business consistently did not report on the customer ledgers that it had converted the convertible securities into the required number of common shares based on the correct conversion factor. For example, Cooper Industries, Inc. Preferred Security B was purportedly purchased by the IA Business on May 19, 1980. The adjusted conversion factor at that time was 7.2 common shares per convertible security; the adjustment was effective as of April 1980 due to a 2-for-1 stock split (*i.e.*, prior to April 1980, the conversion factor was

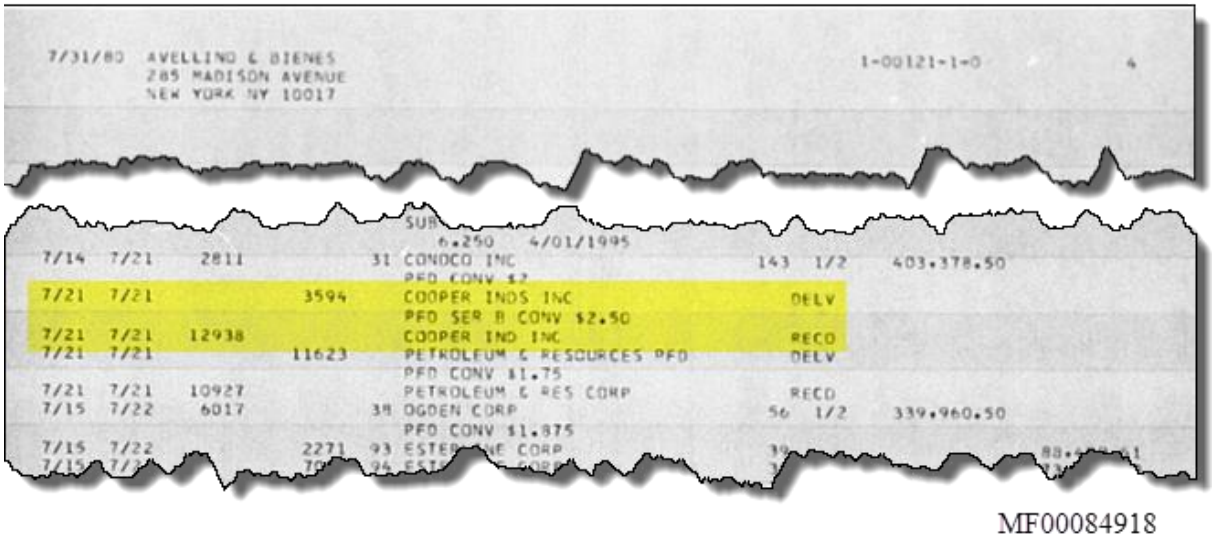
3.6). (*See* Figure 17.) The IA Business, however, did not account for the stock split and continued to use the unadjusted conversion factor of 3.6 shares. As a result, the IA Business customers who purportedly owned Cooper Industries, Inc. Preferred Security B as of May 19, 1980, received half the common shares when the convertible security was converted to common shares in July 1980. As shown in Figure 18, IA Business customer account 1A0045 (formerly 1-00121) received 12,938 common shares when it should have received 25,876 shares based on the adjusted conversion factor.

Figure 17[142]



[142] *Cooper Industries Inc.*, Moody's Industrial Manual 1980 at 126.

Figure 18



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140. Additionally, when the convertible security is converted into common stock, a fractional share often remains, as the number of shares-to-par value is not cleanly divisible by the conversion factor/price. For example, if the conversion factor on 100 convertible securities is 0.3 common shares, upon conversion the owner would receive 33 1/3 common shares. When this occurs, the company will pay out the fractional share in cash on the date of the conversion. The payment value is the fraction of a share multiplied by the trading price for the common stock on the date converted.

141. In instances where fractional shares appeared on the IA Business customer ledgers, they were not paid out at the price on the conversion date as required. For example, the IA Business recorded a journal entry of $18.90 on May 7, 1982 for fractional shares of Textron Inc. (*See* Table 4, Row D.) First, the fractional share should not have been reported on the customer ledger until the actual conversion date of June 30, 1982. Second, the price of $18.90 equates to a common share price of $23.63 multiplied by the fraction of a share left after converting 12,678 shares of Textron Preferred at the conversion factor of 1.1 shares of common per share of preferred. As of the conversion date, $23.63 was <u>not</u> the price of the common stock. The value of the fractional share would not be known until the conversion date, which in this case was June 30, 1982 (Row E in Table 4). On June 30, 1982, the common share price for Textron was $18.88, which, after converting at the conversion factor of 1.1 shares, would

result in a fractional share payment of $15.10, not the $18.90 that the IA Business recorded on May 7, 1982 (*i.e.*, a difference of 25%).

Table 4
A&B 1A0045 Account – Textron Inc. Pfd Conv $2.08

	Bates	Statement Date	Transaction Date	Long	Short	Security	Price	Debit	Credit
A	MF00147263	5/28/1982	29-Apr		7,065	TEXTRON INC	23 3/4		$ 167,793.75
B	MF00147263	5/28/1982	29-Apr		6,880	TEXTRON INC	23 7/8		164,260.00
C	MF00147263	5/28/1982	30-Apr	12,678		TEXTRON INC PFD CONV $2.08	25 1/8	$ 318,334.79	
D	MF00147263	5/28/1982	7-May			TEXTRON INC FRACTIONAL SHARES	JRNL		18.90
E	MF00147806	6/30/1982	30-Jun		12,678	TEXTRON INC PFD CONV $2.08	DELV		
F	MF00147806	6/30/1982	30-Jun	13,945		TEXTRON INC	RECD		
							Total	$ 318,334.79	$ 332,072.65

142. Based upon the foregoing discussion regarding the IA Business's incorrect conversion processes, this investigation and analysis show that trading in the IA Business did not occur.

c. Fictitious Convertible Arbitrage Trade Confirmations

143. Trade confirmations fabricated by the IA Business to support the convertible arbitrage trades were actually prepared backwards as though BLMIS was trading as a principal rather than an agent as represented in the customer account opening agreements.[143] A good exemplar of this is a purported convertible trade executed for the account referenced in the customer statement depicted in Figure 19.

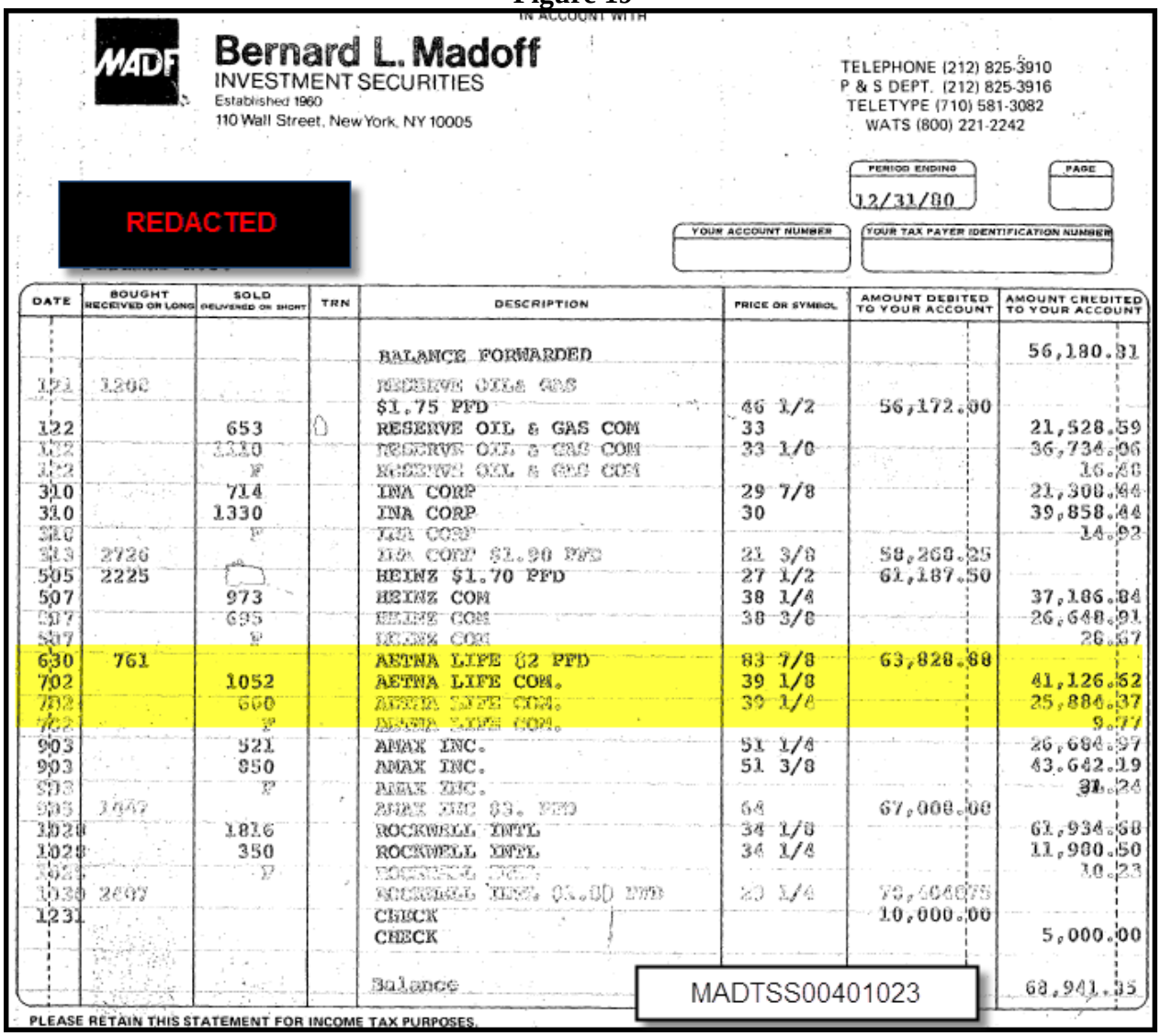
144. The purported convertible trade was as follows:

- A purchase of 761 shares of Aetna Life & Casualty $2 Pfd ("Aetna Pfd") on 6/23/80, settlement on 6/30/80 at $83 7/8 per share. The shares had a conversion factor of 2.25.[144]
- Two sales of Aetna Life & Casualty common stock: one for 1052 shares at $39 1/8 and one for 660 shares at $39 1/4, both sold on 6/25/80 and settled on 7/2/80.

[143] The customer account opening agreements state that BLMIS was acting as an agency broker in the purported transactions for its customer and not as principal, unless otherwise notified. Accordingly, the trade confirmations should follow the form and substance of those agreements. *See*, *e.g.*, AMF00000624.
[144] The customer statements showed only the settlement dates and not the trade dates; June 30, 1980 was the settlement date for the purported June 23, 1980 trade for Aetna Pfd. The trade confirmations included the trade dates (*see* Figure 20, Figure 21 and Figure 22).

- The purported trade was to be an eight-week trade that was pre-calculated to generate $3,191 in total profits with a close out date of 9/1/80.[145]

Figure 19



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WATS (800) 221-2242

REDACTED

PERIOD ENDING 12/31/80 | PAGE

YOUR ACCOUNT NUMBER | YOUR TAX PAYER IDENTIFICATION NUMBER

DATE	BOUGHT RECEIVED OR LONG	SOLD DELIVERED OR SHORT	TRN	DESCRIPTION	PRICE OR SYMBOL	AMOUNT DEBITED TO YOUR ACCOUNT	AMOUNT CREDITED TO YOUR ACCOUNT
				BALANCE FORWARDED			56,180.31
121	1200			RESERVE OILS GAS $1.75 PFD	46 1/2	56,172.00	
122		653	D	RESERVE OIL & GAS COM	33		21,528.59
122		1330		RESERVE OIL & GAS COM	33 1/8		36,734.06
122		F		RESERVE OIL & GAS COM			16.46
310		714		INA CORP	29 7/8		21,308.64
310		1330		INA CORP	30		39,858.44
310		F		INA CORP			14.92
313	2726			HEINZ CONV $1.90 PFD	21 3/8	58,269.25	
505	2225			HEINZ $1.70 PFD	27 1/2	61,187.50	
507		973		HEINZ COM	38 1/4		37,186.84
507		695		HEINZ COM	38 3/8		26,648.91
507		F		HEINZ COM			26.67
630	761			AETNA LIFE $2 PFD	83 7/8	63,828.88	
702		1052		AETNA LIFE COM.	39 1/8		41,126.62
702		660		AETNA LIFE COM.	39 1/8		25,884.37
702		F		AETNA LIFE COM.			9.77
903		521		AMAX INC.	51 1/4		26,684.97
903		850		AMAX INC.	51 3/8		43,642.19
903		F		AMAX INC.			31.24
905	1042			AMAX INC $3. PFD	64	67,008.00	
1028		1816		ROCKWELL INTL	34 1/8		61,934.68
1028		350		ROCKWELL INTL	34 1/4		11,980.50
1028		F		ROCKWELL INTL			10.23
1030	2697			ROCKWELL INTL $3.00 PFD	29 1/4	78,962.75	
1231				CHECK		10,000.00	
				CHECK			5,000.00
				Balance			68,941.35

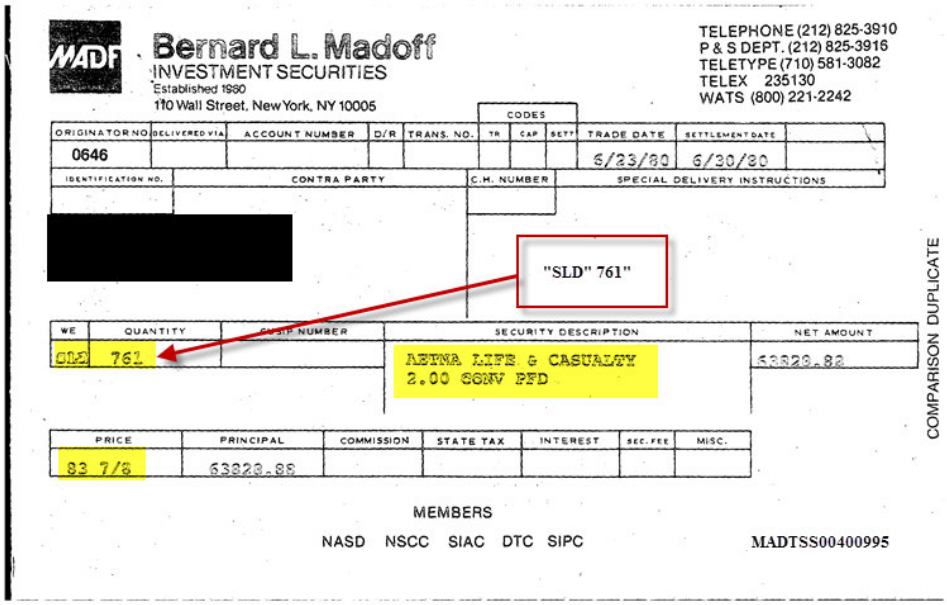
MADTSS00401023

PLEASE RETAIN THIS STATEMENT FOR INCOME TAX PURPOSES.

[145] *See generally* **Exhibit 9** for examples of Adding Machine Tapes calculating projected profit on the purported trade *see* MADTSS00401002; for handwritten notes detailing the purported trades *see* MADTSS00400966 at MADTSS00400966; MADTSS00401003; MADTSS00400994; MADTSS00400966 at MADTSS00400986; MADTSS00400988; MADTSS00400990; MADTSS00400992; MADTSS00400993; MADTSS00401023; MADWAA00497515.

145. This customer statement shows the purported purchase of the Aetna Pfd and short sale of the Aetna Life & Casualty common stock. However, the purported trade confirmations fabricated by the IA Business show the opposite. The trade confirmations in Figure 20, Figure 21, and Figure 22, show that the Aetna Pfd was sold rather than bought on 6/23/80, and that the Aetna Life & Casualty common stock was bought on 6/25/80 -- the direct opposite of what the customer statement showed for the purported trades.[146]

Figure 20



[146] *See also* **Exhibit 10** for an example of a trade confirmation.

Figure 21

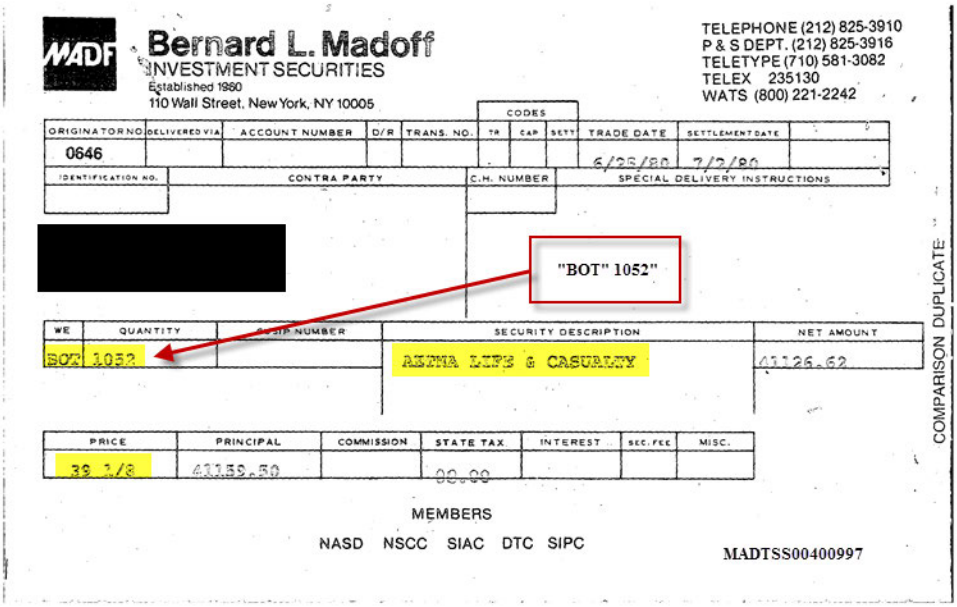
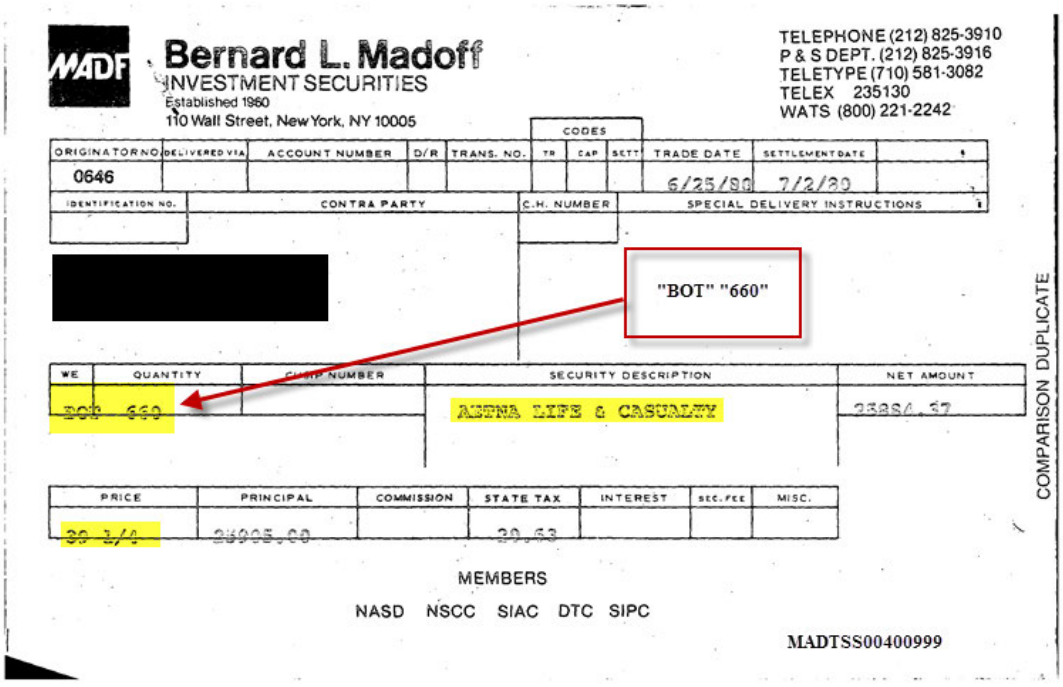


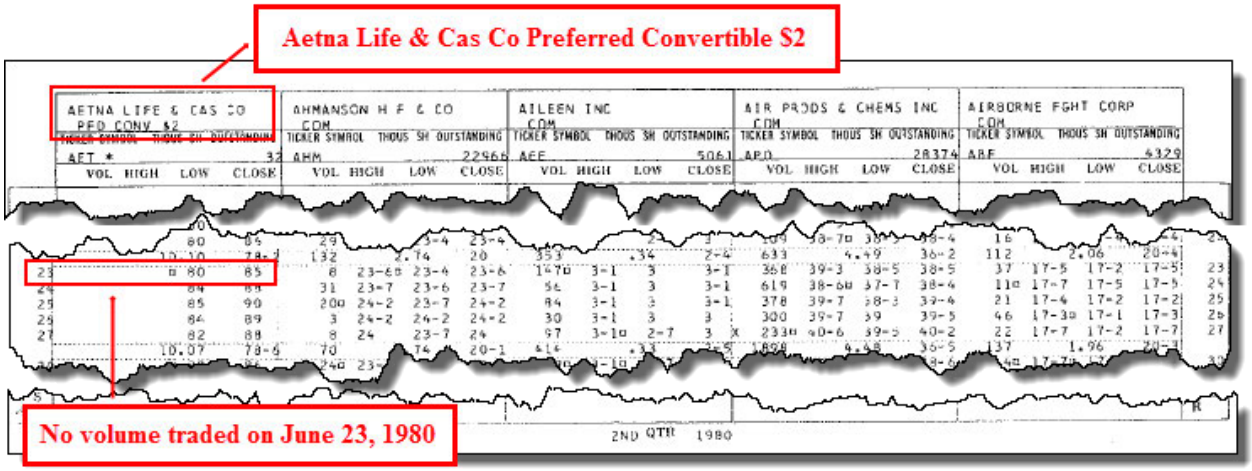
Figure 22



146. As shown on the customer statement (*see* Figure 19), Madoff purportedly purchased 761 shares of Aetna Pfd for $83.875. However, as shown below in Figure 23, the Daily Stock Price Record reflects that this security did not change hands in the open market that day.

Therefore, it would not have been possible for the IA Business to legitimately trade Aetna Pfd on that day.

Figure 23



Daily Stock Price Record, NYSE, Q2 1980

b. Following the 1992 SEC investigation of A&B, BLMIS transitioned from convertible arbitrage to the split-strike conversion strategy

147. A&B was an accounting firm at its origin, but developed exclusively into a "private investing" firm in the mid-1980s.[147] Given that the investing business had increased in relative importance, it became "financially wise" to end the accounting practice.[148] A&B, however, was never registered as a broker-dealer, an investment company, or an investment adviser.[149] As of 1992, A&B had three partners: Frank Avellino ("Avellino") was a 50% partner, and Michael Bienes ("Bienes") and Dianne Bienes were each a 25% partner.[150]

148. A&B first began investing with the IA Business in the 1960s through its predecessor firm, Alpern & Avellino.[151] Saul Alpern was Madoff's father-in-law and founder of that firm. A&B attracted investor funds by promising guaranteed rates of return (typically 13%-18%)

[147] Avellino and Bienes Dep. Ex. 02901-02902, July 7, 1992.
[148] *Id*.
[149] *See* Avellino and Bienes Dep. July 7, 1992 (MADOFF_EXHIBITS-03014).
[150] Avellino & Bienes Agreement of General Partnership, executed Aug. 12, 1988 (MBISAA0003076; MBISAA0003079).
[151] Complaint, *SEC v. Avellino & Bienes*, No. 92-CV-08314 (JES) (S.D.N.Y. Nov. 25, 1992).

on money collected from individuals and entities[152] and labeling the transactions with investors as "loans."[153] A&B issued letters to investors that specified the rate of return on these loans.[154] A&B in turn invested customer funds with BLMIS and retained the difference between the "returns" BLMIS paid to A&B and the returns A&B promised to its underlying investors.[155] At the time of the SEC's investigation in 1992, A&B was one of the IA Business's largest sources of investor monies, funneling hundreds of millions of dollars into the IA Business.[156]

149. On November 25, 1992, after its investigation, the SEC filed a complaint against A&B and Avellino and Bienes individually, seeking, among other things, a permanent injunction for having unlawfully operated as an unregistered investment company.[157] To settle the claims against them, Avellino and Bienes entered into a consent decree in which they agreed not to sell securities without a registration statement or to act as an investment company. In addition, they agreed to pay fines to the SEC totaling $350,000.[158]

150. Prior to approximately June 23, 1992, A&B maintained IA accounts with the following account numbers: 1A0045, 1A0046,[159] 1A0047, 1A0048, 1A0049 and 1A0050 (the "Existing A&B IA Accounts").[160] During that time, A&B used these IA Business accounts to invest money pooled from investors.[161]

151. Documents provided in connection with the SEC investigation of A&B indicated that as of June 18, 1992, A&B owed its investors almost $399,819,455 despite the fact that the

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[152] A&B Loans Detail by Investor (SECSDK0000325-SECSDK0000834); *see also* Avellino & Bienes SEC Complaint.
[153] *See, e.g.*, Avellino and Bienes Dep. Exs. 02913; 02925-02934, July 7, 1992.
[154] *See generally* Avellino & Bienes SEC Complaint.
[155] *Interview: Michael Bienes*, Frontline (May 12, 2009), http://www.pbs.org/wgbh/pages/frontline/madoff/interviews/bienes.html, updated http://www.pbs.org/wgbh/pages/frontline/madoff/interviews/bienes.html (Sept. 19, 2024); Avellino & Bienes SEC Complaint (MADOFF_EXHIBITS-03058).
[156] BLMIS customer statements for A&B accounts through June 1992.
[157] *See generally* Avellino & Bienes SEC Complaint.
[158] Final Judgment of Permanent Injunction and Other Equitable Relief and Consent Against Avellino & Bienes, Frank J. Avellino and Michael S. Bienes, *SEC v. Avellino & Bienes*, No. 92-CV-08314 (JES) (S.D.N.Y. Nov. 25, 1992).
[159] Account number 1A0046 was in the name of the A&B Pension Plan & Trust. Account Maintenance File for 1A0046 (AMF00309438-9450).
[160] *See* Arbitrage Portfolio Transaction Reports (MF00545002-MF00545003); Portfolio Management Reports as of June 30, 1992 (MF00011542-MF00011551); *see also* Avellino and Bienes Dep. Ex. 03223, Nov. 20, 1992.
[161] BLMIS customer statements for A&B accounts through June 1992. *See* Avellino and Bienes Dep., Nov. 20, 1992.

purported aggregate equity balance of the Existing A&B IA Accounts only totaled approximately $364 million.[162] On July 7, 1992, Avellino and Bienes testified to the SEC that A&B utilized Chemical Bank account(s) to handle investor funds and that the account balance was typically $2 million to $3 million but never higher than $6 million.[163] Assuming that the Chemical Bank account(s) held all $6 million, this meant that A&B had a funding shortfall of at least approximately $29.8 million ($399.8 million owed to investors less $364.0 million purported aggregate equity balance of the Existing A&B IA Accounts, and less a maximum of $6 million that could be purportedly held at Chemical Bank at any time) in its IA Business accounts.[164]

152. The shortfall explained above demonstrates that a cushion did not exist in June 1992. In or about June 1992, the IA Business created an additional account for A&B (the "1A0053 Account") and manufactured fictitious trading in order to account for the shortfall.[165] Backdated transactions manufactured in the 1A0053 Account were designed to show realized and unrealized gains from securities and options transactions totaling approximately $65.9 million, which satisfied the shortfall and provided some of the purported cushion.[166] The creation of the 1A0053 Account in June 1992 allowed Avellino and Bienes to state, in sworn testimony provided to the SEC in July 1992, that A&B had a significant "cushion" between what it owed on "loans" from investors and what it held in capital in its accounts at BLMIS,

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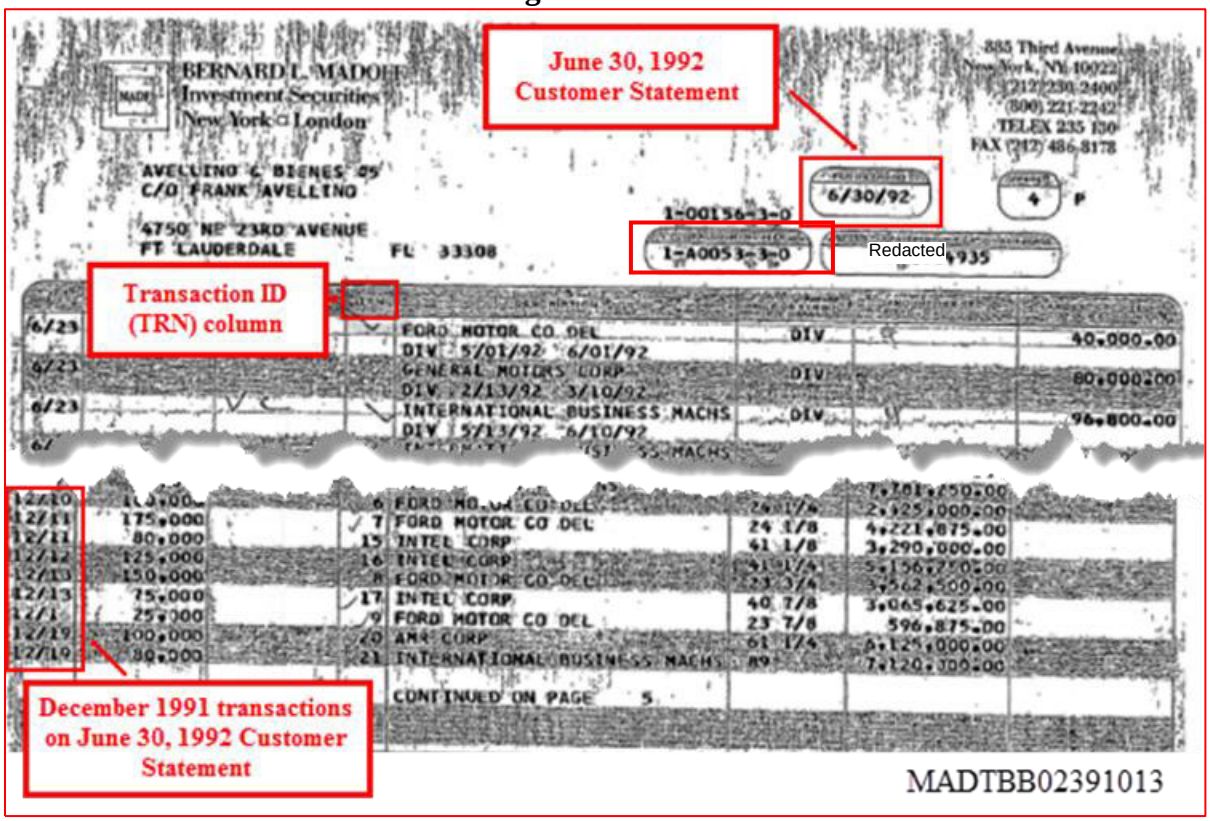
[162] *See* A&B Loans Detail by Investor (SECSDK0000325); Arbitrage Portfolio Transaction Reports (MF00545002-MF00545003); Portfolio Management Reports as of June 30, 1992 (MF00011542-MF00011551); *see generally* Avellino & Bienes Dep., July 7, 1992.
[163] Avellino and Bienes Dep. Ex. 02917-02918, July 7, 1992.
[164] *See* A&B Loans Detail by Investor (SECSDK0000325); Arbitrage Portfolio Transaction Reports (MF00545002-MF00545003); Portfolio Management Reports as of June 30, 1992 (MF00011542-MF00011551); Avellino and Bienes Dep. Ex. 02917-02918, July 7, 1992.
[165] 1A0053 Account June 30, 1992 statements (MADTBB02391076-MADTBB02391078; MADTBB02391007-MADTBB02391017).
[166] 1A0053 Account Nov. 1989 to Dec. 1992 statements (MADTBB02397292; MADTBB02397300; MADTBB02397304; MADTBB02391086; MADTBB02390998-2391007; MADTBB02391009; MADTBB02391011; MADTBB02391013; MADTBB02391015; MADTBB02391017; MADTBB02391076; MADTBB02391078; MADTBB03346469; SECSDK0010189; MADTBB03347804; MADTBB03346114; MADTBB03345819-5823; MADTBB02391071; MADTBB03345824; MADTBB03345825-5830; MADTBB03345817-5818; SECSDK0000035; MADTBB03345466-5467; SECSDK0000141, 143-149; MADTBB03345474-5475; MADTBB03345492; MADTBB03345476-5484; MADTBB03347613-7614; MADTBB03345495-5496; MADTBB03345485-5487; MADTBB03345497-5503; MADTBB03347604-7605; MADTBB03345504; MADTBB03114024; MADTBB03114026).

which would protect customers from potential losses.[167] However, there is no evidence that this balance was the result of deposits and investments of funds received by either A&B or by A&B clients.[168] Instead, the IA Business created fictitious backdated transactions to make it appear that the account had equity sufficient to make up the shortfall.[169]

153. In addition, generally the IA Business created new account numbers sequentially, based on the date on which they were opened (*e.g.*, 1A0045, 1A0046, 1A0047, etc.). For example, account 1A0052 (opened for a different BLMIS customer), was created in May 1992 and the first transaction posted to the account was the purported purchase of S&P 100 options on May 1, 1992.[170] Account 1A0054 (opened for a different BLMIS customer) was created in September 1992, with the first transaction posted on September 22, 1992 for the purported purchase of McKesson Corp. convertible subordinated debt.[171] Chronologically, the 1A0053 Account would have been created after 1A0052 (May 1992) and before 1A0054 (September 1992), and the 1A0053 Account therefore should not have reflected any transactions as occurring in 1989, 1990, 1991 or at any time prior to its creation in June 1992. However, the account statements generated for the 1A0053 Account reflected backdated transactions as early as November 1989.[172] The out of order sequencing of the account creation dates, as well as the backdated trades on the June 1992 customer statement, support the conclusion that the 1A0053 Account was fabricated by the IA Business specifically in response to the SEC investigation. (*See* Figure 24.)

[167] Avellino and Bienes Dep. Ex. 02944-02951, July 7, 1992.
[168] 1A0053 Account June 30, 1992 statements (MADTBB02391076-MADTBB02391078; MADTBB02391007-MADTBB02391017).
[169] *Id*.
[170] 1A0052 Account May 31, 1992 statement (MF00462572).
[171] 1A0054 Account September 30, 1992 statement (MF00454666).
[172] 1A0053 Account November 30, 1989 statement (MADTBB03346469).

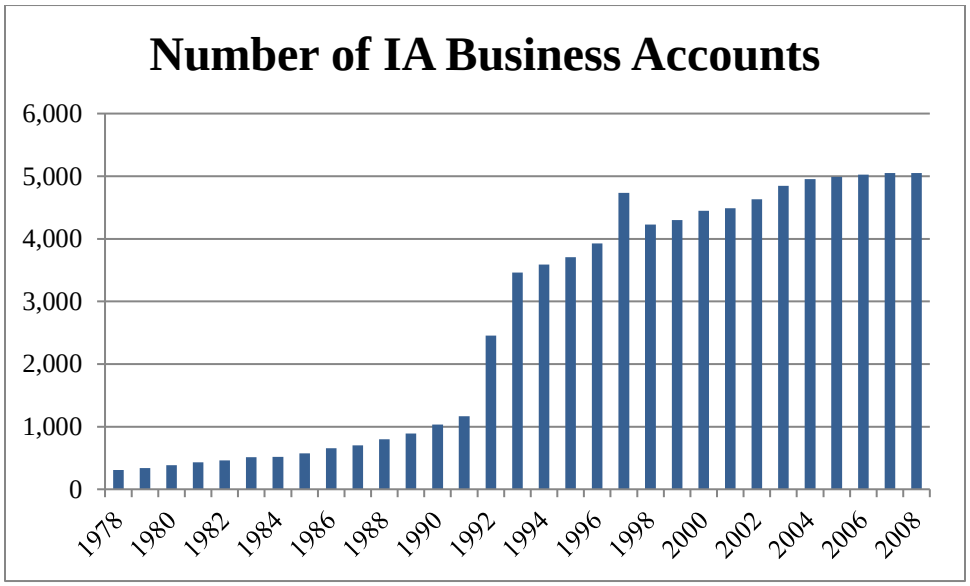
Figure 24[173]



154. After the liquidation of A&B many of its former investors reinvested their returned funds directly with BLMIS, leading to a great influx of new BLMIS accounts.[174] (*See* Figure 25 below which highlights the dramatic increase in the IA Business customer accounts after the liquidation of A&B in 1992.) With the advent of these new accounts, the IA Business purportedly implemented a new investment strategy.

[173] The Transaction IDs ("TRN" column) for the various transactions on this customer statement are out of sequence with the reported dates of the transactions.
[174] *See* Portfolio Netcap Totals by Group-A&B dated March 31, 1993 (MADTBB03079814-MADTBB03079910).

Figure 25

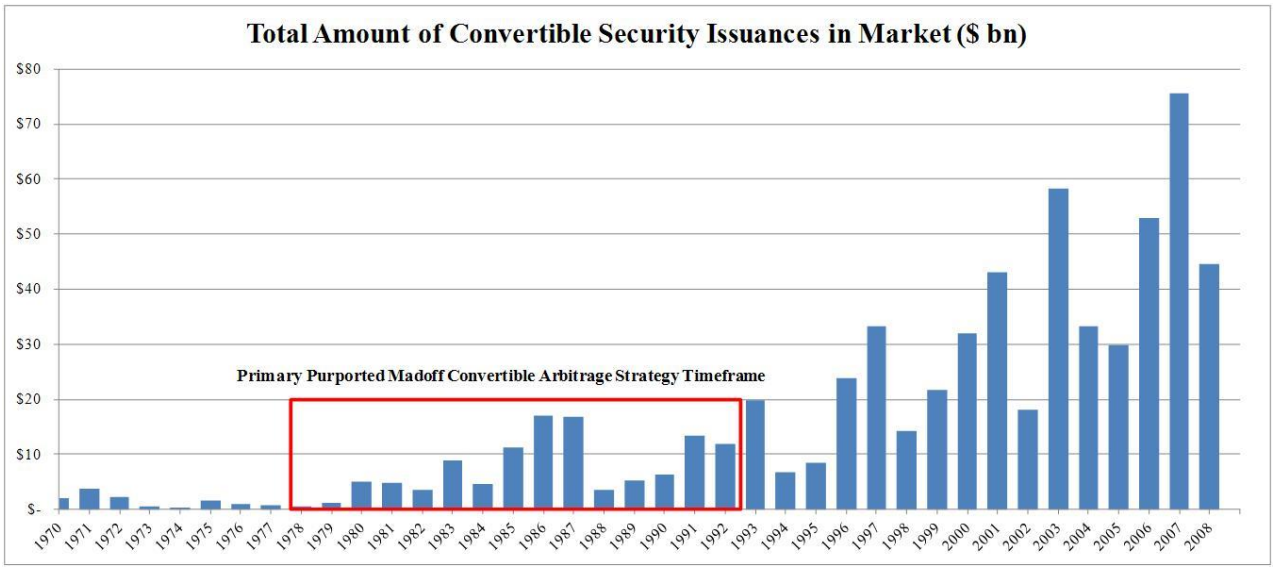


c. The Purported Split-Strike Conversion Strategy - the 1990s and later: There is no evidence that a split-strike conversion strategy for the IA Business customers ever occurred. In fact, the evidence shows that these transactions were fictitious.

155. In the early 1990s, the IA Business changed its primary purported investment strategy from convertible arbitrage to a split-strike conversion strategy, stating that the "opportunity within the marketplace to trade convertible arbitrage has decreased."[175] This, however, is in contrast with the increasing volume of convertible security issuances in the market. (*See* Figure 26):[176]

[175] Bernard Madoff – Letter to Client, March 16, 1999 (AMF00139075).
[176] SDC Database of Convertible Securities Issuances includes only issuances greater than $100 million. Frank Fabozzi, Jinlin Liu, & Lorne N. Switzer, *Market Efficiency and Returns from Convertible Bond Hedging and Arbitrage Strategies* (2009).

Figure 26



156. A SSC investment strategy typically involves the buying of a basket of stocks closely correlated to an index, while concurrently selling call options on the index and buying put options on the index. The IA Business purportedly used a SSC strategy that was purchasing a basket of stocks and options based on the S&P 100 equity index, which included the 100 largest U.S. stocks as determined by the S&P Index Committee.[177]

157. A SSC strategy reduces a portfolio's volatility (and risk) by limiting the investor's possible gains and losses. This is commonly referred to as a "collar strategy," in which the investor purchases a put option to provide protection on the downside (*i.e.*, limiting losses the investor would incur if the market value of the equity portfolio drops); this protection is partially paid for by selling a call option that limits the upside gain.

158. The collar strategy limits, but does not entirely eliminate, risk due to volatility. In fact, a properly designed and executed SSC strategy would trade with the same or very similar volatility as the S&P 100 index (or other market index) anytime the market value of the equity portfolio falls between the exercise prices of the options.

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[177] Michael Ocrant, *Madoff tops charts; skeptics ask how* at 1, 89 MAR/Hedge, May 2001; *see also S&P 100*, Standard & Poors, http://www.standardandpoors.com/indices/sp-100/en/us/?indexId=spusa-100-usduf--p-us-l-- (last visited Nov. 6, 2012), updated https://www.spglobal.com/spdji/en/indices/equity/sp-100/#overview (last visited Sept. 19, 2024).

(i) Purported equity and option trades exceeded the entire reported market volume for certain days

159. Over the period January 2000 through November 2008 (the "Analyzed Time Period"),[178] there were 105 days when the IA Business transacted in equities above the market volume in the exchanges.[179] In total, over the 105 days, there were 912 instances when the IA Business purported stock transactions exceeded the overall market volume for the day. (*See* **Exhibit 11** – "Split-Strike Conversion IA Business Equity Volume Analysis, Analyzed Time Period".)[180]

160. For the Analyzed Time Period, the IA Business traded 376 unique options in 1,388 unique transactions. Of these purported transactions, 71.1 percent of the contracts traded above the daily market volume, including 62.0 percent of transactions with purported volume occurring at 10 times above the daily market volume. (*See* **Exhibit 12** – "Split-Strike Conversion IA Business Options Volume Analysis, Analyzed Time Period".)

(ii) Hundreds of thousands of purported IA Business trades, affecting over 5,500 accounts, were priced outside the trading day's price range evidencing that they could not have been executed

161. During the Analyzed Time Period, 99,972 equity transactions were purportedly executed outside of the daily market traded price range. (*See* **Exhibit 13** – "Split-Strike Conversion IA Business Equity Price Analysis, Analyzed Time Period".) These purported transactions were derived from 496 unique transactions: 321 of which, based on what was recorded on the IA Business customer statements, traded above the daily high price and 175 of which traded below the daily low price. The purported prices for these transactions exceeded the daily high by as much as $8.96 and were below the daily low by as much as $105.04.

162. Equity trades (such as the purported transactions recorded by BLMIS on IA Business customer records) that were reported as having been executed outside the daily price range of

[178] This time period was chosen based on the available trade data in the IA Business Settled Cash ("SETCSH17") database. *See* description of the Settled Cash database in Table 1.
[179] Market volume as reported by Bloomberg.
[180] An analysis was also performed on the Frankfurt and London Stock Exchanges for these securities. The analysis confirms that for those securities that were traded on these exchanges, the IA Business purported volume exceeded the aggregate historical daily volume for the U.S., London Stock Exchange and Frankfurt Stock Exchange.

the entire U.S. equities market could not have occurred. The data used in this analysis was obtained from Bloomberg, which receives its data directly from the exchanges and the OTC markets. In the event that the out of range prices on the IA Business customer statements were the result of an inadvertent typing error, the IA Business would have had to issue corrections with the appropriate prices.[181] There is no evidence of any corrections or reissuances of customer statements for these "mistakes."

163. Most importantly, for the period during which DTC records are available, there are no DTC records evidencing the trades the IA Business purportedly executed.

164. In addition to the equity transactions discussed above, there were thousands of purported option trades executed outside of the daily price range. During the Analyzed Time Period, 34,501 options transactions traded outside of the daily price range. These trades were allocated across 5,271 customer accounts. (*See* **Exhibit 14** – "Split-Strike Conversion IA Business Options Price Analysis, Analyzed Time Period".) Of the 49 unique options traded, 25 were purportedly sold above the daily high price and 24 were purportedly purchased below the daily low price.

165. Options traded above the daily high price by as much as $15.25 higher and at an average of $2.17 above the high price. Options traded below the daily low price by as much as $6.05 lower and at an average of $1.48 below the low price.

166. Similar to the equity trades discussed above, the purported options transactions recorded by BLMIS on IA Business customer records were reported as having been executed outside the daily price range of the entire U.S. options market and could not have occurred. The data used in this analysis was obtained from the Chicago Board of Options Exchange ("CBOE").[182]

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[181] *Rules and Procedures,* National Securities Clearing Corporation, 51 (Sept. 4, 2012), http://www.dtcc.com/legal/rules_proc/nscc_rules.pdf (last visited Oct. 24, 2012), updated https://www.dtcc.com/-/media/Files/Downloads/legal/rules/nscc_rules.pdf (last visited Sept. 19, 2024). As the BLMIS Training Manual itself states, "An investor can sell a security from a long position at any price as long as a buyer can be found." BLMIS Trading Manual (MMAD-BR00021287). As there would have been no buyer on the other side of these trades, these transactions could not have been executed.

[182] The S&P 100 Index options (OEX), purportedly traded by the IA Business, were traded exclusively on the CBOE. *OEX & XEO S&P 100 Index Options, A Discussion on the Benefits and Uses of the First Listed Index Option,* CBOE, (Dec. 4, 2001), http://www.cboe.com/LearnCenter/pdf/OEX_12-05-01.pdf (last visited Nov. 18, 2011), updated https://www.cboe.com/tradable_products/sp_100/sp_100_options/ (last visited Sept. 19, 2024).

167. Based upon the foregoing discussion regarding pricing discrepancies, this investigation and analysis show that the SSC trading in the IA Business did not occur.

(iii) **The IA Business purportedly bought low 83 percent of the time and sold high 72 percent of the time (VWAP Trades) evidencing the fictitious nature of the trades**

168. VWAP, the average price weighted by total volume, equals the dollar value of all trading periods divided by the total trading volume for the current day. The formula is as follows:

$$P_{vwap} = \frac{\sum_j P_j * Q_j}{\sum_j Q_j}$$

P_{vwap}= Volume Weighted Average Price

P_j= price of trade j

Q_j= quantity of trade j

j= each individual trade that takes place over the defined period of time, excluding cross trades and basket cross trades

169. Calculation starts when trading opens and ends when trading closes. This is a common way to summarize the price of a stock on a given day. The theory is that if the price of a buy trade is lower than the VWAP, it is a good trade (and the opposite is true if the price is higher than the VWAP), but consistently achieving this is unrealistic.

170. As a result, another trading anomaly stemming from the IA Business's purported SSC strategy was how frequently the IA Business reported purchases or sales of equity at extremely favorable prices. A comparison of trading records for IA Business accounts against the market-derived VWAP for the respective stocks over the Analyzed Time Period indicates that approximately 83 percent of the buy transactions by share volume were executed below the VWAP while 72 percent of the sell transactions by share volume were executed above the VWAP.

171. Given that the IA Business was consistently outperforming VWAP, two observations can be made. First, assuming the purported trades had actually been placed, the ability to

consistently obtain significant positive variance to VWAP on both the buy side and sell side of the trades would be indicia of potential front-running by the IA Business.

172. Alternatively, if the IA Business was not front-running (which it was not), the statistics of the purported IA Business trades showing that they were consistently outperforming VWAP by a wide margin are further evidence of the fictitious nature of the trades. A comparison of the purchase and sale of the same stock actually traded by the Proprietary Trading Business on the same day makes this clear.[183] The VWAP on those trades was consistently at or near VWAP, a finding consistent with actual implementation of algorithmic trading.

(iv) Thousands of purported transactions, affecting over 3,700 accounts, were reported by the IA Business as having settled on weekends or holidays when the exchanges are closed

173. During the Analyzed Time Period, 7,736 trades were reported as having settled on weekend days in 3,743 IA Business accounts. (*See* **Exhibit 15** – "Split-Strike Conversion IA Business Weekend Trade Detail, Analyzed Time Period".) Given that the markets were closed on each of the 27 dates identified as weekend days on the customer statements, these settlements were not possible. On Saturday, January 8, 2000 alone, 3,732 of the approximately 4,215 IA Business accounts showed an aggregate of 7,464 trade settlements. These trades could not have settled on a Saturday, further evidencing that the trades in the IA Business could not have occurred.

174. During the Analyzed Time Period, IA Business customer statements show 37 trades settled on recognized market holidays. (*See* **Exhibit 16** – "Split-Strike Conversion IA Business Holiday Trade Detail, Analyzed Time Period".) Specifically, seven trades settled on September 4, 2000 and September 1, 2008, both of which fell on Labor Day in their respective years. One trade settled on February 17, 2003, Washington's Birthday. Two trades settled on May 31, 2004, Memorial Day. 27 trades settled on June 11, 2004, the

[183] For the Analyzed Time Period, approximately 51% of buy transactions executed out of the Proprietary Trading Business were below the VWAP versus 83% in the IA Business; and, approximately 48% of sell transactions executed out of the Proprietary Trading Business were above the VWAP versus 72% for the IA Business.

Presidential funeral of Ronald Reagan, when the market was closed, once again evidencing that the trades in the IA Business could not have occurred.[184]

(v) **The rate of return on the purported IA Business investments in the SSC strategy reflected an abnormally high level of consistently positive yearly returns when compared with relevant market indices**

175. As described *supra*, the SSC strategy that was purportedly implemented by the IA Business was a collar strategy that was intended to limit, but not eliminate, the portfolio's volatility. If executed properly, the portfolio would trade with the same or very similar volatility as the S&P 100 index when the market value of the equity portfolio fell between the exercise prices of the options.

176. To further test whether or not the IA Business investments were in fact made, the volatility of the purported IA Business's annual investment returns for the SSC strategy was calculated from January 1996 through December 2008.[185] As shown in Figure 27, the average annual rate of return for the IA Business accounts varies over the 13-year period from a low of approximately 10% to a high of approximately 20%.[186]

177. Figure 27 also shows a comparison of the purported average annual rate of return of the IA Business accounts with the annual returns on two major market indices: the S&P 100 Index and the Dow Jones Industrial Average. As indicated in the chart, the annual rate of return for the S&P 100 Index vacillates between a high of 31% to a low of -37%. Similarly, the annual rate of return for the Dow Jones Industrial Average (DOW) swings from a high of approximately 25% to a low of approximately -34%.

[184] *New York Stock Exchange Special Closings*, New York Stock Exchange (PUBLIC0590800); *see also* U.S. Markets to Close for Regan Funeral, NBC NEWS (June 7, 2004), https://www.nbcnews.com/id/wbna5157726 (last visited Sept. 19, 2024) (PUBLIC0701711).
[185] This period was utilized for analysis purposes since complete BLMIS electronic transaction information was available.
[186] Annual returns are calculated based on weighted averages over all SSC accounts.

Figure 27

IA Business Weighted Average Annual Rate of Return vs. Annual Rate of Return on Major Indices

178. Unlike the major market indices, which show significant volatility in returns over the 13-year period, the average annual rate of return on the IA Business accounts is always positive over the period and within a much tighter band relative to comparable market indices. Over the chosen period, the range of fluctuation for the average rate of return for the IA Business is narrow, with the difference between the high and low of approximately ten percentage points (10%-20%). This is compared to the range for the S&P 100 (nearly 70 percentage points) and the Dow Jones Industrial Average (approximately 59 percentage points). In fact, the unreasonable compression of the IA Business fluctuation in the average rate of return is due to the fact that, unlike the market indices, the IA Business accounts do not show a negative

annual rate of return in any year during the period. Because the IA Business SSC strategy was supposedly engineered around the S&P 100, the returns the strategy would have necessarily generated should have been highly, positively correlated to the relevant indices discussed above. This clearly was not the case.

179. The lack of volatility in the annual rates of return for the purported IA Business investments, and the fact that the rates of returns never exhibited a negative period, lend further support that the trades in the IA Business did not occur.

d. Non-convertible arbitrage strategy and non-SSC strategy customer accounts - evidence shows that these transactions were fictitious

180. As described above, a small number of IA Business customer accounts did not follow either the purported convertible arbitrage strategy or the SSC strategy. Instead, securities (typically equities) were purportedly purchased, held for a certain duration, and then purportedly sold for a profit (the "Buy and Hold Accounts"). These customer accounts were typically held by BLMIS employees, Madoff's relatives, and certain long-time customers of the IA Business.

181. These accounts also reflected similar trading discrepancies that were identified for those accounts following the purported convertible arbitrage and SSC strategies. That is, these accounts also showed trading volumes of securities that exceeded the daily market trading volume, purported purchases and sales of securities at prices that were beyond the daily market highs or lows, backdated trades, and trades on weekends and holidays. Such trading discrepancies are further evidence that these purported transactions also could not have occurred.[187]

(i) Transactions in the Buy and Hold Accounts Contained Significant Market Anomalies

182. The transactions in the Buy and Hold Accounts also reflected market impossibilities, including:

[187] Furthermore, and similar to the accounts purportedly following a convertible arbitrage or SSC strategy, the accounts with a Buy and Hold strategy also reflected fake trades and predetermined rates of return. *See* DiPascali Criminal Trial testimony, December 4, 2013 Trial Transcript at 4731:11 - 4735:25.

- Transactions that exceeded the entire daily market volume;
- Transactions that were executed at prices outside the daily trading price range; and
- Transactions that were executed on days when the markets were closed.

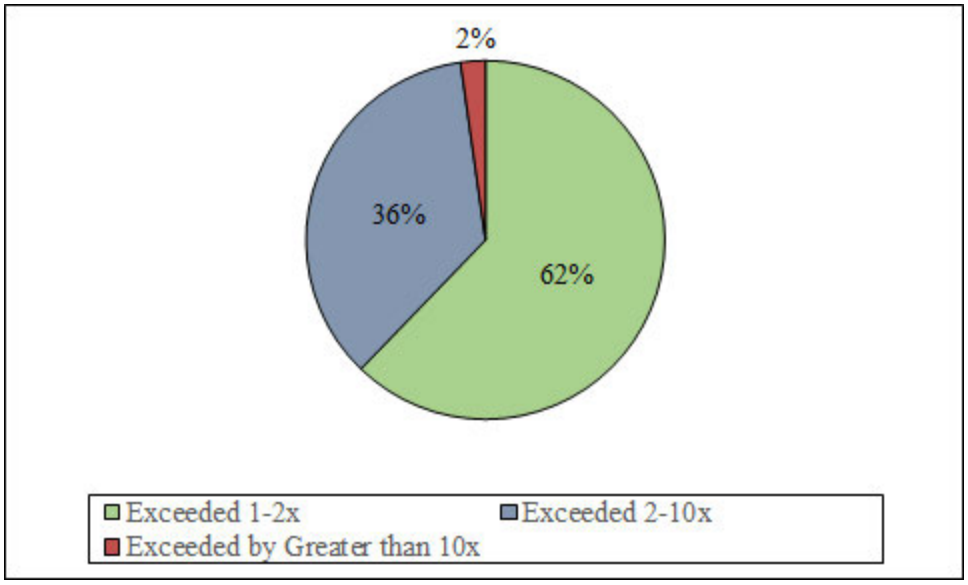
183. Such transactional results could not happen with actual trading in the real securities market.

(ii) Transactions in the Buy and Hold Accounts exceeded the entire reported market volume for certain days

184. As previously described, I concluded that purported IA Business trading through the convertible arbitrage and SSC strategies resulted in trades that exceeded the total market volume of trading in those securities. To test if the transactions in the Buy and Hold Accounts could have been legitimate, the daily volume for the equity transactions as indicated on the customer ledgers was compared to the historical market volume for those securities on the specific days the trades purportedly occurred.

185. From October 1979 to November 2008, the purported trading in 45 unique transactions in the Buy and Hold Accounts exceeded the daily market volume and did so by an average of over 2.5 times the entire reported daily volume for all market trades in those securities. (*See* Figure 28.)

Figure 28
BREAKDOWN OF PURPORTED SECURITIES EXCEEDING DAILY VOLUME FROM OCTOBER 1979 TO NOVEMBER 2008



186. In fact, in one example, on March 19, 1985, the Buy and Hold Accounts purportedly traded 116,430 shares of Leucadia National Corp, which represented nearly 15 times the actual daily volume for the security on March 19, 1985.[188]

187. Accordingly, the transactions in the Buy and Hold Accounts could not have been legitimate as, in several instances, they exceeded the reported volume of the entire market on securities that the IA Business purportedly executed for these accounts. (*See* **Exhibit 17** – "IA Business Equity Volume Analysis in the Buy and Hold Accounts".)

(iii) Prices of Transactions in the Buy and Hold Accounts did not represent actual market prices

188. The transaction prices for the purported executed trades as recorded on the IA Business customer ledgers were tested against the historical market prices to determine if the transactions in the Buy and Hold Accounts fell within the actual daily market trading range. As the IA Business often purportedly executed transactions for the same security for different accounts, each unique transaction price was tested against the historical market trading range for that day.

189. From October 1979 to November 2008, 836 unique transactions were outside the actual daily market trading price range. (*See* **Exhibit 18** – "IA Business Equity Price Analysis in the Buy and Hold Accounts" for a list of all out of range transactions.)

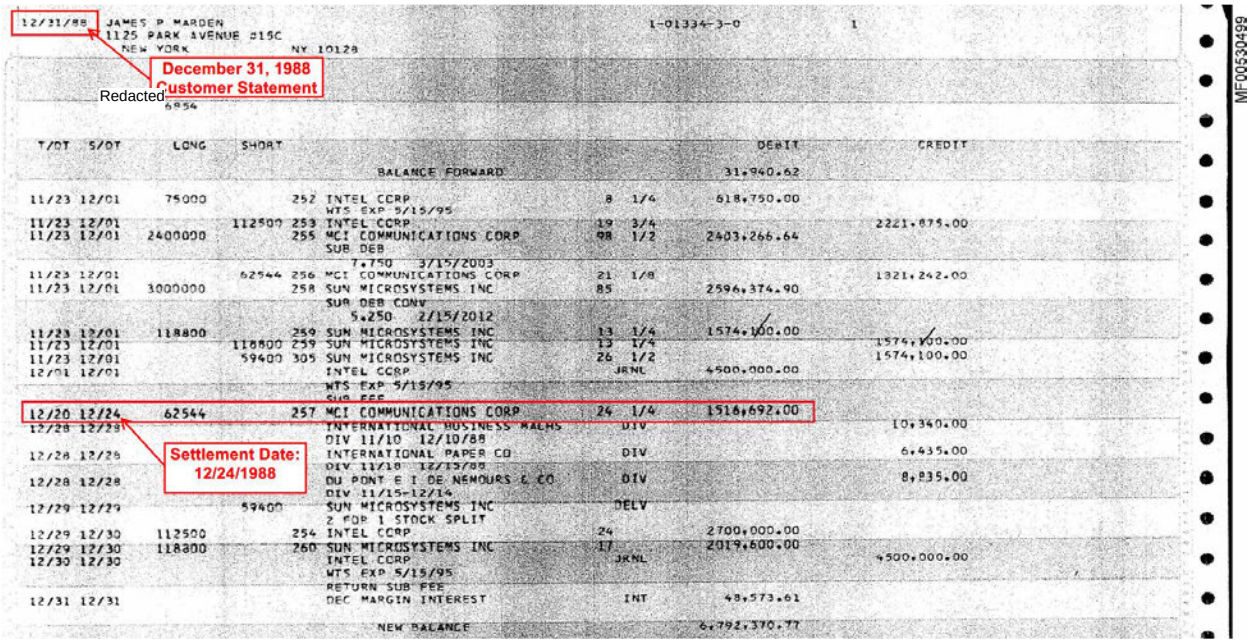
(iv) Transactions in the Buy and Hold Accounts were reported to have settled on weekends or holidays when the exchanges are closed, which is impossible if the trading was real.

190. From October 1979 to November 2008, 51 unique transactions in the Buy and Hold Accounts were reported as having been traded or settled on weekend days. (*See* **Exhibit 19** – "IA Business Weekend Trades in the Buy and Hold Accounts" for a list of all weekend transactions.) Given that the markets were closed on those days, these transactions were not possible. For example, on Tuesday, December 20, 1988, account 1-01334-3-0 purportedly traded stock in MCI Communications Corp.[189] This transaction purportedly settled four days

[188] MF00371882. Historical market trading prices based on the Center for Research in Security Prices (CRSP) data.
[189] MF00530499.

later on Saturday, December 24, 1988.[190] This trade could not have settled on a Saturday, further evidencing that the trades in the IA Business could not have occurred. (*See* Figure 29.)

Figure 29
CUSTOMER LEDGER FOR ACCOUNT 1-01334-3-0



191. During the same time period, customer statements for the Buy and Hold Accounts show that certain trades were purportedly settled on recognized market holidays. For example, 13 trades purportedly settled on April 27, 1994, a day when the market was closed in observance of President Nixon's funeral. (*See* **Exhibit 20** – "IA Business Holiday Trades in the Buy and Hold Accounts".)

e. There are no records from the DTC evidencing any legitimate trades occurring from the IA Business

192. Transfers of securities between licensed brokers are conducted by the DTC through automated book-entry changes to the broker's accounts.[191] Instead of trading paper stock

[190] *Id*.
[191] The Depository Trust & Clearing Corporation ("DTCC") was formed in 1999 by combining the DTC and the NSCC. The DTCC, through its subsidiaries, provides clearance and settlement for almost all equity, bond,

certificates, as was the case in the early years of the trading markets, brokers make trades on a computer and the DTC keeps an electronic record of these transactions. A broker's account at the DTC shows the number of each security owned by that broker and a history of trades.[192]

193. The NSCC, originally created in 1976, provides clearance and settlement services of equity, bond, exchange traded funds and unit investment trust transactions.[193] The NSCC acts as an intermediary between an exchange market (such as the New York Stock Exchange) and the DTC. The NSCC takes all the trade information from an exchange and acts as a central counterparty guaranteeing the trade. A summary of the net securities positions and net money to be settled as a result of that day's transactions is transmitted to the broker.[194]

194. Founded in 1973 and operating under the jurisdiction of the SEC and the Commodity Futures Trading Commission ("CFTC"), the OCC is the largest equity derivatives clearing organization. The OCC clears U.S. listed options and futures on numerous underlying financial assets including common stocks, currencies and stock indices.

195. The OCC clears transactions for put and call options on common stocks and other equity issues, stock indices, foreign currencies, interest rate composites and single-stock futures.

196. As a registered Derivatives Clearing Organization under the CFTC's jurisdiction, the OCC offers clearing and settlement services for transactions in futures and options on futures.

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government securities, mortgage-backed securities, money market instruments and OTC derivative transactions in the U.S. market. Therefore, for any of these types of trades to occur in the U.S., each individual security transaction must be routed through the DTCC before it can be finalized. *About DTCC: History*, The Depository Trust & Clearing Corporation, 17 (Aug. 17, 2011), http://www.dtcc.com/about/history/ (last visited Oct. 24, 2012) (PUBLIC0590825), updated, https://www.dtcc.com/annuals/history/ (last visited Sept. 19, 2024); *Responding to Wall Street's Paperwork Crisis*, The Depository Trust & Clearing Corporation, http://www.dtcc.com/about/history/ (last visited Nov. 20, 2011) (PUBLIC0590825), updated, https://www.dtcc.com/annuals/museum/1970s/ (last visited Sept. 19, 2024); *An Introduction to DTCC Services and Capabilities*, The Depository Trust & Clearing Corporation, 2 (Aug. 16, 2011), http://www.dtcc.com/downloads/about/Introduction_to_DTCC.pdf (last visited Oct. 24, 2012) (PUBLIC0590802); *An Overview*, The Depository Trust & Clearing Corporation, http://www.dtcc.com/downloads/about/Introduction_to_DTCC (last visited Nov. 20, 2011), updated, https://www.dtcc.com/about (last visited Sept. 19, 2024).

[192] *Following a Trade,* The Depository Trust & Clearing Corporation, http://www.dtcc.com/downloads/about/Following%20a%20Trade.pdf (last visited Oct. 24, 2012) (PUBLIC0590816); *A Broker-to-Broker Trade* (PUBLIC0590816 at 818-819).

[193] *See About DTCC, National Securities Clearing Corporation (NSCC)*, (PUBLIC0590824).

[194] *Following a Trade,* (PUBLIC0590816 at 818-819).

Additionally, the OCC provides central counterparty clearing and settlement services for securities lending transactions.[195]

(i) Fake DTC Screen Reports created by the IA Business

197. Over 160 documents purportedly containing screen print-outs representing DTC inquiry look-ups were found in BLMIS's records.[196] The documents contain typed-in text that appears to replicate certain DTC system screens. The metadata contained within these documents show that the documents were created after the supposed date of the screen look-up inquiry as depicted in the text within the documents.

198. For example, MESTAAM00000013 contained the following text which was typed into the document (*see* Figure 30):

Figure 30

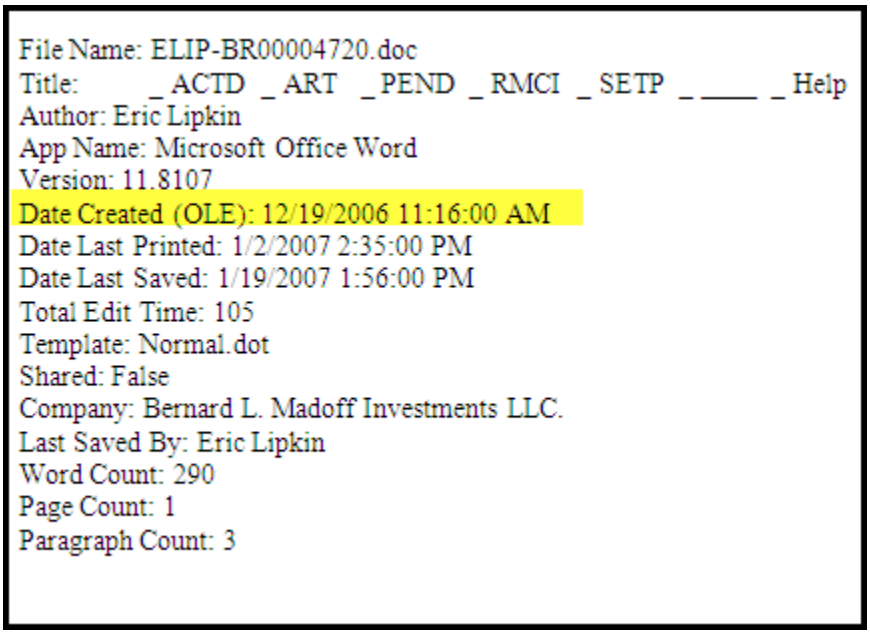
```
        _ ACTD  _ ART   _ PEND  _ RMCI  _ SETP  _ ____  _ Help

 KMXR/POS /POS0          THE DEPOSITORY TRUST COMPANY          Date: 11/30/2006
 00000646-03           Security Position Inquiry:Other POS     Time: 16:13:35
 ================================================================================
Part: 0646 MADOFF LLC CUSIP: 00206R102 AT & T INC      <    Date: 11 / 30 / 2006
 Last Actv Date: 11/30/2006  Status: FAST WT SDFS
 CUSIP Chills:
OTHER POSITION                                TOTALS  Amount of TOTAL which is:
 _ Pledged--->                                     0   IPO:                   N/A
 _ Segregation----------------->:          8,545,639
 _ Investment ID--------------->:                  0
 _ Reorganization MA/NA-------->:                  0
   Call With Interest---------->:                  0
   Call With OUT Interest------>:                  0
   Withdrawal By Transfer------>:                  0
                                  -----------------
 TOTAL OTHER Position---------->:          8,545,639
 TOTAL RESERVED Pos(PDA + PTA)->:                  0
 TOTAL FREE  Position---------->:              4,378
                                  -----------------
 TOTAL PARTICIPANT Position---->:          8,550,017
 ================================================================================ PAGE 2
 1/13:FREE Position 3/15:MISC Holdings 4/16:Prev-Day 5/17:Next-Day 12/24:Details
```

MESTAAM00000013

[195] *See What is the OCC?*, The Options Clearing Corporation, http://www.theocc.com/about/corporate-information/what-is-occ.jsp (last visited Nov. 20, 2011) (PUBLIC0590826), updated https://www.theocc.com/company-information/what-is-occ (last visited Sept. 19, 2024).
[196] *See* MESTAAM00000008-MESTAAM00000169.

199. A forensic examination of the metadata embedded in this document shows the following (*see* Figure 31):[197]

Figure 31


File Name: ELIP-BR00004720.doc
Title: _ ACTD _ ART _ PEND _ RMCI _ SETP _ ____ _ Help
Author: Eric Lipkin
App Name: Microsoft Office Word
Version: 11.8107
Date Created (OLE): 12/19/2006 11:16:00 AM
Date Last Printed: 1/2/2007 2:35:00 PM
Date Last Saved: 1/19/2007 1:56:00 PM
Total Edit Time: 105
Template: Normal.dot
Shared: False
Company: Bernard L. Madoff Investments LLC.
Last Saved By: Eric Lipkin
Word Count: 290
Page Count: 1
Paragraph Count: 3

200. While the text in Figure 30 indicates that the information was obtained from the DTC on November 30, 2006 at 16:13:35 hrs, the metadata shows that this document was actually created on December 19, 2006 at 11:16:00 AM, twenty days after the date which appears in the text of the document.

201. More importantly, the fake DTC screen print shows that BLMIS was holding 8,550,017 shares of AT&T common stock as of November 30, 2006. Yet according to DTC reports, BLMIS only held 4,378 shares of AT&T on November 30, 2006.

202. The two documents in Figure 32 and Figure 33, respectively, contain information pertaining to two different US Treasury bills yet show the exact same date and time stamp when they were supposedly retrieved from the DTC system.

[197] Metadata was examined utilizing the Pinpoint Laboratories Metaview program.

Figure 32

```
        _ ACTD  _ ART   _ PEND  _ RMCI  _ SETP  _ ____  _ Help

 KMXR/POS /POS0          THE DEPOSITORY TRUST COMPANY          Date: 01/05/2007
 00000646-03           Security Position Inquiry:Other POS     Time: 16:37:27
 ================================================================================
Part: 0646 MADOFF LLC CUSIP: 912795YX3 00.000BILL070315BE#  Date: 01 / 04 / 2007
 Last Actv Date: 12/29/2006  Status: SDFS
 CUSIP Chills: DEP,    COD,    W/T,
OTHER POSITION                                  TOTALS  Amount of TOTAL which is:
 _ Pledged--->                                       0   IPO:                  N/A
 _ Segregation----------------->:          891,400,000
 _ Investment ID--------------->:                    0
 _ Reorganization MA/NA-------->:                    0
   Call With Interest---------->:                    0
   Call With OUT Interest------>:                    0
   Withdrawal By Transfer------>:                    0
                                    -----------------
 TOTAL OTHER Position---------->:          891,400,000
 TOTAL RESERVED Pos(PDA + PTA)->:                    0
 TOTAL FREE  Position---------->:                    0
                                    -----------------
 TOTAL PARTICIPANT Position---->:          891,400,000
 ================================================================================ PAGE 2
 1/13:FREE Position 3/15:MISC Holdings 4/16:Prev-Day 5/17:Next-Day 12/24:Details
```

MESTAAM00000054

Figure 33

```
        _ ACTD  _ ART   _ PEND  _ RMCI  _ SETP  _ ____  _ Help

 KMXR/POS /POS0          THE DEPOSITORY TRUST COMPANY          Date: 01/05/2007
 00000646-03           Security Position Inquiry:Other POS     Time: 16:37:27
 ================================================================================
Part: 0646 MADOFF LLC CUSIP: 912795YY1 00.000BILL070322BE#  Date: 01 / 04 / 2007
 Last Actv Date: 12/29/2006  Status: SDFS
 CUSIP Chills: DEP,    COD,    W/T,
OTHER POSITION                                  TOTALS  Amount of TOTAL which is:
 _ Pledged--->                                       0   IPO:                  N/A
 _ Segregation----------------->:          891,400,000
 _ Investment ID--------------->:                    0
 _ Reorganization MA/NA-------->:                    0
   Call With Interest---------->:                    0
   Call With OUT Interest------>:                    0
   Withdrawal By Transfer------>:                    0
                                    -----------------
 TOTAL OTHER Position---------->:          891,400,000
 TOTAL RESERVED Pos(PDA + PTA)->:                    0
 TOTAL FREE  Position---------->:                    0
                                    -----------------
 TOTAL PARTICIPANT Position---->:          891,400,000
 ================================================================================ PAGE 2
 1/13:FREE Position 3/15:MISC Holdings 4/16:Prev-Day 5/17:Next-Day 12/24:Details
```

MESTAAM00000060

203. The fictitious nature of these documents is clearly evident since it is impossible to print these DTC screen inquiry reports for account 0646-Madoff from the DTC at the exact same minute and second as depicted on both documents. In fact, embedded metadata for these two documents show that they were created on January 5, 2007 at 11:48 a.m., more than four hours before the date depicted in the documents. Creation of these fictitious DTC screens serves no legitimate business purpose; these screens serve to document purported trading activity that did not actually occur.

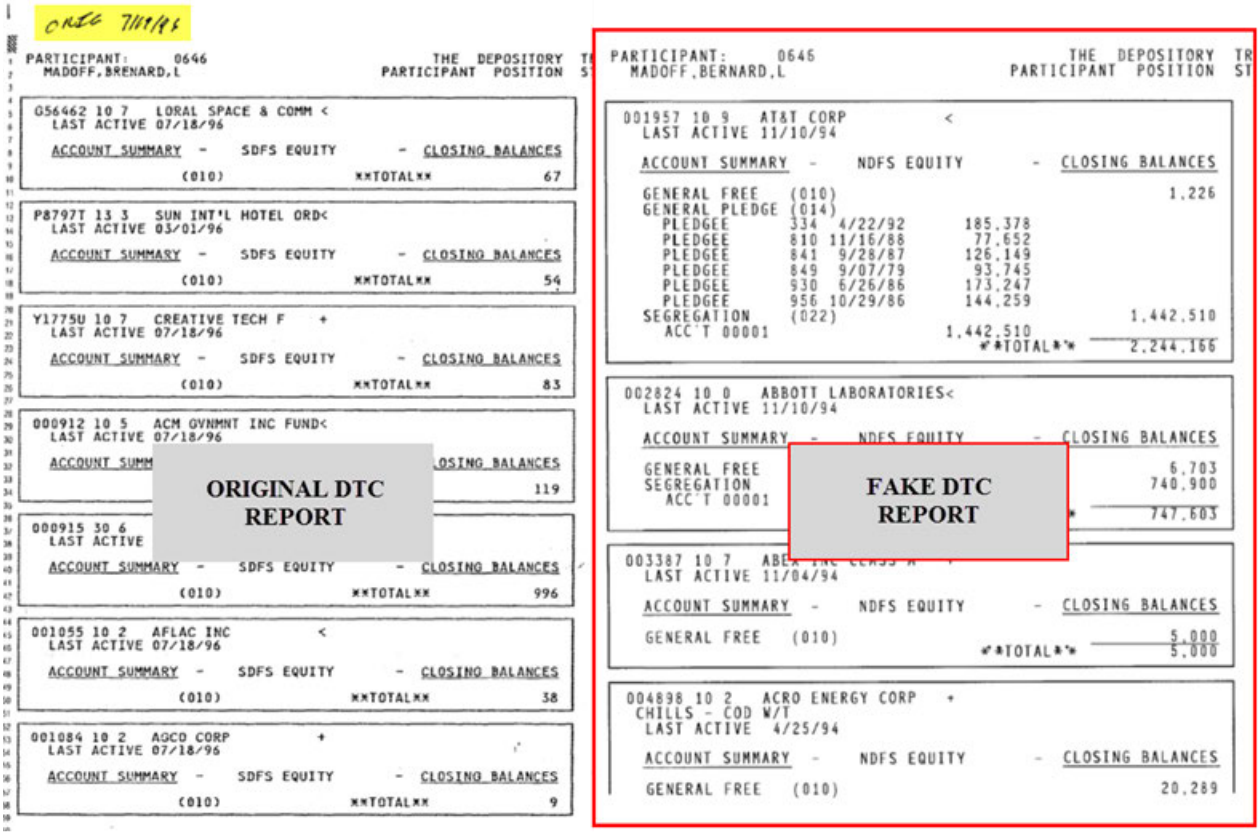
204. In addition to the fake DTC documents described above, additional investigation revealed that the IA Business custom-developed software was created to print a replica of a report called the Participant Position Statement from the DTC. Three components of computer programs were located on the AS/400 system in the IA Business and were utilized in combination to create the fake DTC participant position reports:

- A data file named DTCABAL containing fictitious security positions;
- A RPG II program named DTC021 that formatted the data from DTCABAL, adding headers and formatting to the data to replicate a real DTC report; and
- A form definition file named DTCS that instructs the FormsPrint software (published by Integrated Custom Software, Inc.) to apply additional formatting to the report to further approximate a real DTC report.

205. As part of the investigation, a copy of an actual DTC report from the Proprietary Trading Business as of July 18, 1996 was found that was apparently utilized by BLMIS as the source for designing imitation DTC reports.[198] The fake DTC report was re-created using the DTCABAL file, the DTC021 RPG II program, and the FormsPrint software located on a system backup tape from BLMIS. (*See* **Exhibit 21** for examples of screen shots of the data files.) The original and fake reports appear below in Figure 34:

[198] This document contains numerous handwritten notes where the writer commented on the difficulty of changing the point size of the text without rendering the size of the entire page too big; thus showing the steps undertaken to try to create an exact replica of the official DTC report. *See* MADTSS00329120-MADTSS00329124; MADTSS00329114-MADTSS00329127.

Figure 34[199]



206. There is no legitimate business reason to generate a fake DTC report because a legitimate trading or investment advisory business would be directly connected to the DTC to process trades and would have the ability to generate original, participant position statement reports directly from the DTC. This further supports the opinion that trading did not occur in the IA Business.

(ii) There is no evidence that IA Business customer equity trades were executed through the Proprietary Trading Business

207. BLMIS maintained an account with the DTC (the "0646" account) for which trades would be cleared and/or custodied.[200] However, based on my investigation and analysis of available

[199] MADTSS00329114–MADTSS00329127.
[200] BLMIS had a DTC account from at least 1977. *See* The Depository Trust Participant Agreement, June 1977 (SNOW0000658-SNOW0000733); e-mail from BLMIS to a customer stating, "We clear through DTC." (Feb. 13, 2007) (IBLSAA0000350).

DTC documentation during the time period of October 2002 through October 2008, only securities positions for the Proprietary Trading Business (including US-based securities out of MSIL, *see infra*), as recorded on the Proprietary Trading Business trading records, were held at the DTC.[201] Accordingly, there is no evidence that the security holdings purportedly held on behalf of the IA Business's customers were held at the DTC for the time period examined.

208. For the years 2002-2008, the following analysis was performed:

- Identified all unique securities positions purportedly held by the IA Business on October 31st of each year ("Step 1");[202]
- Identified unique securities held by the Proprietary Trading Business that corresponded to those identified in Step 1 on October 31st of each year ("Step 2"); and
- Identified BLMIS's DTC position records for the securities in Step 2.

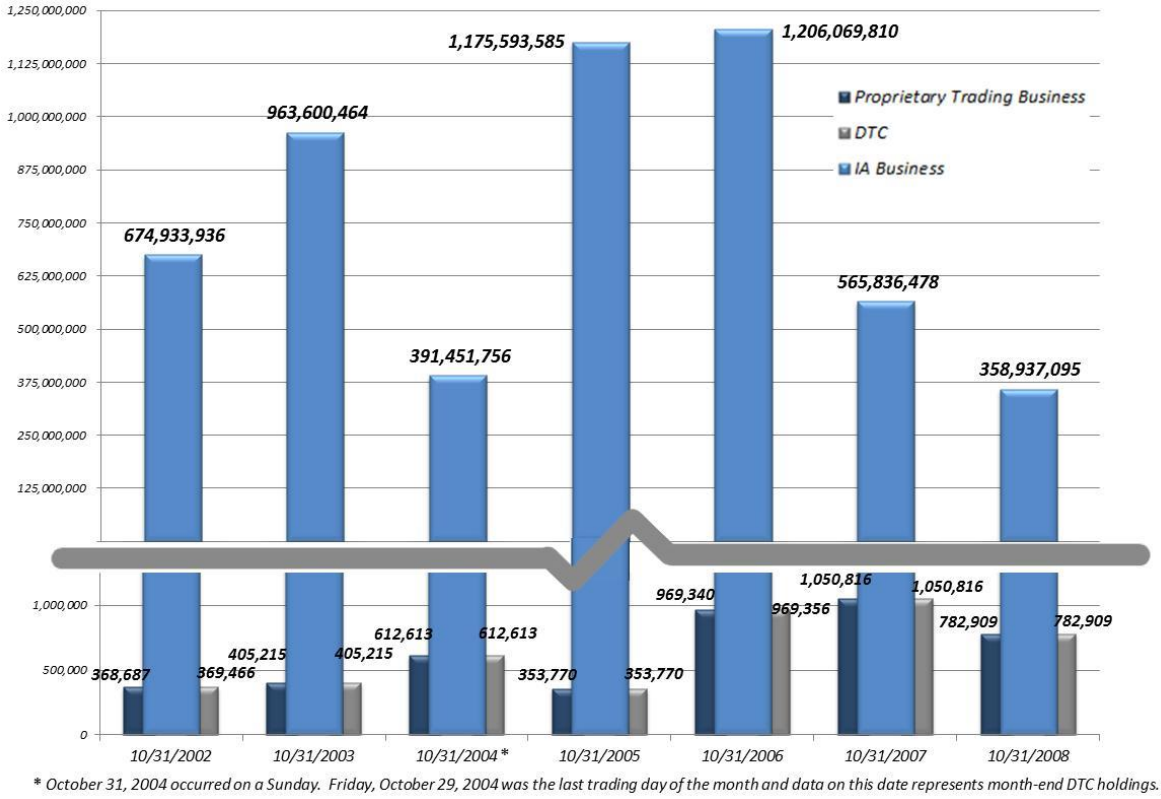
209. For the seven-year period analyzed, all of the securities identified in Step 2, which were held on behalf of the Proprietary Trading Business as reported in the Proprietary Trading Business trading records, were reconciled to BLMIS's DTC positions.

210. The securities purportedly held on behalf of the IA Business customers, as recorded in the IA Business trading records, were not shown on DTC records and were not held at the DTC. Therefore, they could not have been legitimately executed as reported by BLMIS to its IA Business customers.

211. Figure 35 below compares the purported IA Business securities positions with the Proprietary Trading Business securities positions in common as of October 31st from 2002-2008. As shown in Figure 35, the extreme volume of purported equity positions from the IA Business on each October 31st dwarfs the numbers of the actual positions from the Proprietary Trading Business that were reconciled with the DTC.

[201] Records for the DTC were only available from January 2002.
[202] October 31st was the fiscal year-end for BLMIS and corresponds to when the IA Business purported that its SSC strategy positions were still in the market.

Figure 35
Total Equity Shares Held by BLMIS



* October 31, 2004 occurred on a Sunday. Friday, October 29, 2004 was the last trading day of the month and data on this date represents month-end DTC holdings.

(iii) There is no evidence that IA Business customer equity trades were executed through MSIL

212. A security, such as a common stock, can only be bought or sold on an exchange by a broker-dealer that is a member of that exchange.[203] Since MSIL was not a member broker-dealer on US exchanges, it used the Proprietary Trading Business to execute US-based equity transactions. MSIL's US equities executed by the Proprietary Trading Business were custodied by the DTC under the same account used by BLMIS: the 0646 account.

[203] *NASDAQ Stock Market Rules*, NASDAQ, http://nasdaq.cchwallstreet.com/ (last visited July 18, 2012), updated https://listingcenter.nasdaq.com/rulebook/nasdaq/rules (last visited Sept. 19, 2024); *NYSE Equities Membership*, NYX, http://usequities.nyx.com/membership/nyse-and-nyse-mkt-equities (last visited July 18, 2012) (PUBLIC0663043), updated https://www.nyse.com/markets/nyse/membership (last visited Sept. 19, 2024); *Trade Execution: What Every Investor Should Know*, SEC, http://www.sec.gov/investor/pubs/tradexec.htm (last visited on July 18, 2012) (PUBLIC0669622), updated http://www.sec.gov/investor/pubs/tradexec.htm (last visited Sept. 19, 2024); Michael Simmons, *Securities Operations: A Guide to Trade and Position Management*, 14-15, 151-152 (2002) (PUBLIC0590828).

213. For the years 2002-2008, the following analysis was performed:

- Identified all US equities traded by MSIL; and
- Reconciled the positions in these equities to those executed and held by the Proprietary Trading Business.

214. The majority of US equities that were traded on behalf of MSIL were reconciled to those US equities executed directly by the Proprietary Trading Business. Given that the Proprietary Trading Business's equity holdings were reconciled to official DTC records, it stands that MSIL's US equity holdings, a subset of the overall Proprietary Trading Business equity holdings, were accounted for in the DTC positions.

215. For those remaining US equities that were traded on behalf of MSIL by a broker other than the Proprietary Trading Business, an analysis was performed to see if any MSIL trade in a US equity was traded on the same day as a purported trade from the IA Business. I also assessed whether the volume of shares purported to be traded from the IA Business and the price at which the trades were purportedly executed were possible based on the MSIL trade data. There were no instances where a US equity purportedly traded from the IA Business matched the day, volume and/or price of the US equities traded on behalf of MSIL.

216. Accordingly, since the IA Business purportedly traded US equities with respect to its SSC strategy, there is no evidence that the security holdings purportedly held on behalf of the IA Business's customers were executed through MSIL or held at DTC on behalf of MSIL for the time period examined. Therefore, the IA Business's purported equity securities could not have been legitimately executed as reported by BLMIS to its IA Business customers.

(iv) **Reconciliation of Proprietary Trading Business options trades to OCC**

217. BLMIS maintained an account with the OCC for clearing equity option trades. Based on the investigation and analysis of the OCC documentation available for October 2002 through October 2008, only option trades executed for the Proprietary Trading Business (as well as those for MSIL) as reported on the Proprietary Trading Business trading records, were cleared through OCC. Accordingly, there is no evidence that any options purportedly executed on behalf of the IA Business's customers ever cleared through the OCC for the time period examined.

218. The following analysis was performed with respect to options transactions. For the years 2002-2008:

- Identified options traded by the Proprietary Trading Business as of October 31st of each year; and [204]
- Identified OCC clearing records for the Proprietary Trading Business option positions.

219. For the seven-year period analyzed, nearly all of the options that were traded on behalf of the Proprietary Trading Business customers as reported in the Proprietary Trading Business trading records, were reconciled to the OCC thus confirming that the Proprietary Trading Business option transactions in fact occurred and were cleared.[205]

220. The options purportedly traded on behalf of IA Business customers, as recorded in the IA Business trading records, were not shown on OCC records and were not cleared through the OCC. Therefore they could not have been legitimately executed as reported by BLMIS to its IA Business customers.

221. For example, on October 31, 2005, records from the Proprietary Trading Business and the OCC indicate that 20 options described as "S&P 100 INDEX NOVEMBER 590 CALL" were purchased and held by BLMIS. The aggregate number of "S&P 100 INDEX NOVEMBER 590 CALL" options as reported on the IA Business customer statements for the same date total 658,342. Therefore, options purportedly traded and held for the IA Business could not have been executed through the Proprietary Trading Business nor were they cleared through the OCC account associated with BLMIS.

[204] October 31st was the fiscal year-end for BLMIS and was the date for which OCC records were available for the 2002-2008 time period.
[205] Approximately 3% of the options were not matched between the Proprietary Trading Business and the OCC records. However, in no cases were any of the unmatched options those that were purportedly traded by the IA Business during this time period.

(v) There is no evidence that purported IA Business customer US Treasuries were ever executed

a. IA Business US Treasuries were not held at DTC

222. Similar to the above analysis, which reflects DTC positions of the Proprietary Trading Business equity holdings, my investigation also analyzed the available Treasury bills held by the DTC on behalf of the Proprietary Trading Business. Given the holdings reported for the Proprietary Trading Business Treasury bills at the DTC and other custodians, there is no evidence that the Treasury bill holdings purportedly held on behalf of the IA Business's customers were held at the DTC or any other custodian for the time period examined.[206]

223. For the years 2002-2007, the following analysis was performed:

- Identified the unique Treasury bills held by the Proprietary Trading Business on December 31st of each year;
- Compared those Treasury bill holdings to those Treasury bill positions held at BLMIS's DTC account; and
- Compared the total Treasury bill holdings in the Proprietary Trading Business to those purportedly in the IA Business.[207]

224. Those Proprietary Trading Business Treasury bills that were reported to have been custodied at the DTC were reconciled to BLMIS DTC position reports thus confirming that the Proprietary Trading Business Treasury bill positions in fact existed. Further, all of the Treasury bill CUSIPs (*i.e.*, unique security identifier) held at the DTC matched those reported as being purchased and held by the Proprietary Trading Business.[208] In contrast, none of the Treasury bill CUSIPs held at the DTC matched those purportedly held on behalf of the IA Business customers.

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[206] In addition to the DTC, US Treasuries were also custodied at other institutions including the Canadian Imperial Bank of Commerce, JPMC and BONY. Although position statements were not received from those custodians, the vast majority of the Proprietary Trading Business's US Treasuries were custodied at the DTC. For example, at year-end 2002, 100% of Proprietary Trading Business Treasury bills were custodied at the DTC and at year-end 2003, 92% of US Treasury bills were held at the DTC.

[207] Data was used as of year-end as this was the time period during which the IA Business purported to have closed out of its SSC strategy positions and held its funds in US Treasury bills or cash.

[208] CUSIP is an acronym for Committee on Uniform Security Identification Procedures.

225. Furthermore, the total notional amount of Treasury bills held by the Proprietary Trading Business as of the relevant year-ends was *de minimis* compared to those purportedly held on behalf of the IA Business customers. Table 5 provides a year-end positions comparison from 2002 to 2007. By year-end 2007, the US Treasury positions in the Proprietary Trading Business represented approximately 0.1% of the value of the US Treasuries purportedly held on behalf of the IA Business customers. As a result, it is not possible that the purported IA Business US Treasury positions actually existed.

Table 5
Comparison of Year-End US Treasury Positions:
Proprietary Trading Business vs. IA Business

Year-End	Proprietary Trading Business	IA Business	Proprietary Trading Business positions as a percent of IA Business positions
2002	$84,000,000	$30,975,765,000	0.27%
2003	$70,000,000	$33,643,020,000	0.21%
2004	$70,000,000	$37,935,258,000	0.18%
2005	$75,000,000	$40,913,910,000	0.18%
2006	$70,000,000	$48,342,420,000	0.14%
2007	$80,000,000	$56,990,055,000	0.14%

b. US Treasuries purchased using money from the 703 Account were not purchased for the IA Business Customers.

226. To earn interest on the cash it held since it was not using the cash to purchase actual securities for IA Business customers, the IA Business purchased certain US Treasury Bills ("Treasuries") using funds from the JPMC 703 bank account. Those Treasuries were held in various brokerage accounts and/or the JPMC custody account #G 13414 (collectively, the "Brokerage Accounts").[209] I performed various analyses (as described below) to determine

[209] The eight brokerage accounts include: Bank of New York #234239, Bear Stearns #037-72698, Fidelity Investment #X08-289043, Lehman Brothers #831-04398, Lehman Brothers #831-04435, Lehman Brothers #831-76152, Morgan Stanley #663-010719, and M&T Securities #AZD 474039.

whether the Treasuries held in the Brokerage Accounts were purchased for the IA Business customers. Based on these analyses, I conclude that the IA Business did not purchase any of those Treasuries for IA Business customers.[210]

227. In connection with these analyses, I analyzed the following data from 1998-2008:

- Actual Treasury bills held in the JPMC custody account;
- Actual Treasury bills held in six of the eight brokerage accounts;[211] and
- Purported Treasury bills reported on the IA Business customer accounts.

i. The aggregate volume of purported IA Business Treasuries as reported on the customer statements far exceeds the volume of Treasuries in the Brokerage Accounts and the Proprietary Trading Business.

228. I reviewed the aggregate volume of Treasuries reported on the IA Business customer statements as of each monthly statement date and compared it to the total volume of Treasuries held in the Brokerage Accounts and Proprietary Trading Business as of the same time period. Based on this analysis, I determined that the aggregate volume of Treasuries purportedly reflected across all customer accounts far exceeds the volume of Treasuries in the Brokerage Accounts and the Proprietary Trading Business.

229. Specifically, Figure 36 compares the volume of the purported IA Business Treasuries at the end of the year from 1998 through 2007 with the actual volume of Treasuries held in the Brokerage Accounts and in the Proprietary Trading Business.[212] As shown in the chart, the total volume of Treasuries purportedly held in the IA Business at year-end from 1998-2007 eclipses the volume of Treasuries held in the Brokerage Accounts and the Proprietary Trading Business. This conclusion alone indicates that the Treasuries in the Brokerage Accounts could not be held on behalf of the IA Business customers. (*See* **Exhibit 22** – "Purported IA Business Treasuries versus Actual Treasuries Held by BLMIS".)

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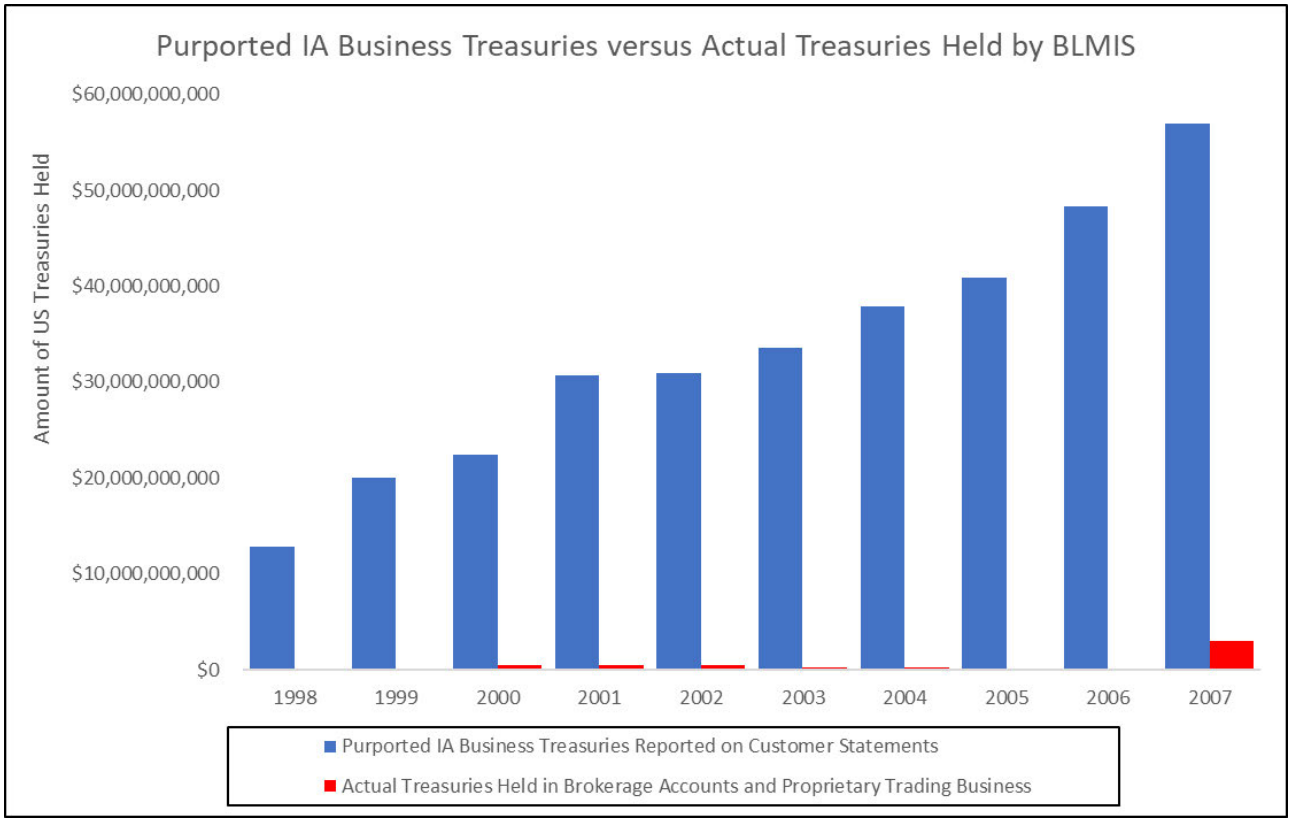
[210] *See also* Criminal Trial, December 4, 2013 Trial Transcript at 4803.23-4804.12; December 5, 2013 at 4931.4-4932.12.
[211] The Lehman Brothers #831-76152 account and the Bank of New York #234239 account did not hold Treasury bills.
[212] As this data is presented as of year-end, there was no IA Business volume as of year-end 2008.

Figure 36



ii. Treasuries held in the Brokerage Accounts do not match[213] the Treasuries reported on the IA Business customer account statements.

230. I performed an analysis to determine whether the Treasuries identified on the IA Business customer statements had the same maturity date (a proxy for CUSIP number) as the Treasuries held in the Brokerage Accounts. In doing so, for the time period of 1998-2008, I performed the following analysis:

- Identified every purported position involving Treasuries on the IA Business customer statements;

[213] As used in this report, "matching" refers to a Treasury bill on any IA Business customer statement and a Treasury bill held by any one of the Brokerage Accounts that have the same maturity date, same purchase date, and same sale date, and the volume of the purchases and sales of these Treasuries in the Brokerage Accounts is equal to, or greater than, the volume of purchases and sales of the Treasuries reported on the IA Business customer statements.

- Identified every actual position involving Treasuries held in the Brokerage Accounts; and
- Compared the trade date, volume, price, security description, and maturity date for all positions in both of the above populations.

231. Based on my comparison of the maturity dates of the Treasuries that were held by the Brokerage Accounts and those purportedly held by the IA Business, I determined that 71 percent of the Treasuries reported on the IA Business customer statements do not have the same maturity date as any of the Treasuries held in the Brokerage Accounts.[214] That is, approximately 71 percent of the Treasuries on the IA Business customer statements were never purchased by the IA Business. (*See* **Exhibit 23** – "Maturity Dates of Purported Treasuries Reported on the IA Business Customer Statements".)

232. I then performed a further analysis of the remaining 29 percent of the Treasuries (totaling 4,660 unique transactions) reported on the IA Business customer statements that had the same maturity dates as those held on the Brokerage Accounts. If the Treasuries reported on the IA Business customer statements were, in fact, purchased by the Brokerage Accounts, they would not only have the same maturity dates but: 1) the purchase and sale dates of the Treasuries on the IA Business customer statements would be identical to the purchase and sale dates of the Treasuries held in the Brokerage Accounts; and 2) the volume of the Treasuries held in the Brokerage Accounts would be equal to, or greater than, the purported volume reported on the IA Business customer statements.

233. For this analysis, I performed the following:

- For the Treasuries with the same maturity dates (totaling 4,660 unique transactions), I identified the purchase and sale date for every purported Treasury transaction reported on the IA Business customer statements and on the Brokerage Accounts, and
- Compared the purchase and sale dates for each of the 4,660 unique transactions.

[214] The IA Business customer statements did not provide a CUSIP or ISIN for each purported Treasury position listed on the statements. Therefore, I relied on the maturity date for each Treasury security as a proxy for the Treasury's CUSIP/ISIN.

234. Of these transactions, I determined that there were only 20 unique instances, out of approximately 4,660 unique transactions, in which the IA Business customer accounts purportedly purchased and sold a Treasury on the same dates as the Brokerage Accounts.

235. I then performed an analysis of these 20 Treasuries to determine how the purported volume of the Treasuries reported on the IA Business customer statements compared to the actual volume of the Treasuries held in the Brokerage Accounts. Again, if the Treasuries reported on the IA Business customer statements were, in fact, purchased by the Brokerage Accounts, the volume of Treasuries held in the Brokerage Accounts would have been equal to, or greater than, the purported volume reported on the IA Business customer statements.

236. For this analysis, I performed the following:

- Identified the volume of purported Treasuries positions on the IA Business customer statements for the 20 Treasuries that had the same purchase and sale date as Treasuries in the Brokerage Accounts;
- Identified the volume of the 20 Treasuries held in the Brokerage Accounts; and
- Compared the volume of the 20 Treasuries purportedly held by the IA Business with those held in the Brokerage Accounts.

237. In each of these 20 instances, the purported volume of the Treasuries purchased and sold in the aggregate by the IA Business was higher than the actual volume purchased and sold in the aggregate by the Brokerage Accounts. Therefore, these Treasuries held by the Brokerage Accounts were not the same Treasuries that appeared on the IA Business customer statements.

238. Based on these analyses, I conclude that there is no evidence that the IA Business purchased any of the Treasuries held by the Brokerage Accounts for its customers. When compared to the Treasuries held in the Brokerage Accounts, the Treasuries reported on the IA Business customer statements did not have: (i) the same maturity date, (ii) the same purchase and sale date as a Treasury position in the Brokerage Account, and (iii) a volume less than, or equal to, the volume in the Brokerage Accounts. I conclude that there are zero instances of a purported IA Business Treasury position that actually matched a Brokerage Account Treasury position. Therefore, the IA Business Treasuries could not have been purchased by the Brokerage Accounts on behalf of the IA Business customers.

f. There is no evidence that IA Business customer trades had legitimate counterparties, further confirming that the trades on the customer statements were fictitious

239. A counterparty to a securities trade is an individual or an entity who takes the opposite side of a transaction (*e.g.*, the buyer or the seller). Every trade requires some individual or entity to take the opposite side of the transaction.

240. Because the IA Business did not trade securities for its customers, it had no actual counterparties to the transactions it reported on the customer statements. Instead, the IA Business used fictitious counterparties to make it appear as though trades were actually executed between two parties when, in reality, there were no trades in the first instance, and no real counterparties.

241. The IA Business generated and utilized a fake counterparty from at least the 1970s through December 2008. Evidence of this process is found in the following:

- The IA Business utilized a single counterparty (varying in name depending upon the period of time) for every single purported trade from the 1970s through the 2000s;
- Internal AS/400 code shows that the predetermined counterparty was assigned to every single purported trade; and
- No evidence of any counterparty ever remitting cash payments for the trades that were purportedly executed.

(i) The IA Business utilized a single counterparty from the 1970s through the 2000s

242. The IA Business used a single counterparty for every single trade from November 1978 through December 2008.[215] The name of this sole "counterparty" changed depending on the period of time: National Bank of North America ("NBNA") from 1978-1983; National Westminster Bank from 1983-1987; and "Clearing Banks" from 1987-2008. These names

[215] *See* for example House #17 Stock Record Summary for 12/29/78, MF01121977 and House #17 Daily Stock Record Activity for 12/03/08, MADTSS01196154. *See also Criminal Trial*, December 5, 2013 Trial Transcript at 4973:14-4974:19.

were assigned to several internal IA Business "counterparty accounts," which remained throughout the existence of the IA Business.[216] Based on a review of IA Business accounts, the IA Business created at least 16 internal "counterparty accounts" associated with the counterparty that did not relate to any actual third parties.[217] I analyzed every IA Business Stock Record Summary (an internal IA Business report reflecting the net purported security positions for customer accounts), by security, from 1978 through 1992. Based on the documents that I reviewed, I concluded that NBNA (or its successor names, National Westminster Bank, and subsequently "Clearing Banks") was always the purported counterparty to the IA Business positions.[218] Further, after 1992, internal IA Business AS/400 code shows that "Clearing Banks" was actually assigned as the counterparty to every trade. In fact, the system would only accept "Clearing Banks" and the associated accounts as the "counterparty."[219]

243. In the real securities market, with the volume purportedly achieved by the IA Business, investment firms would not trade solely with one single counterparty given the risks associated with only having one trading partner (e.g., being held accountable for all trades if the counterparty went bankrupt). In reality, and at a minimum, several counterparties who are willing to take the risk of the opposing side of the trade would be required. The fact that only a single counterparty is identified during each respective time period in the IA Business is a reflection of the fact that no counterparty truly existed and the trades were never executed.

244. Moreover, a review of the cash activity of the IA Business bank accounts also confirms that no cash payments were ever made for the trades that were purportedly executed with the counterparty.

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[216] For example, accounts 2-90000-1, 3-00000-1 are among these accounts. *See* for example Madoff Investment Securities House 17 Manual, August 1995 at MADTSS00336530.
[217] MADTBB02940153 House #17 Account Cash Balances as/of 12/05/2000.
[218] For a select group of foreign accounts the counterparty was referred to as "Bankbox."
[219] *See also* Criminal Trial, December 5, 2013 Trial Transcript at 4973.1-5001.5. Moreover, there are instances when IA Business trade setups were altered to hide the fictitious counterparties. *See* for example MADTSS00320507, MADTBB02391494, MADTSS00341896, MADTSS00320546; *see* also Criminal Trial, December 5, 2013 Trial Transcript at 4996.23-4998.16.

g. Approximately $4.3 billion of dividends reported on IA Business customer statements were fictitious and were never received by BLMIS

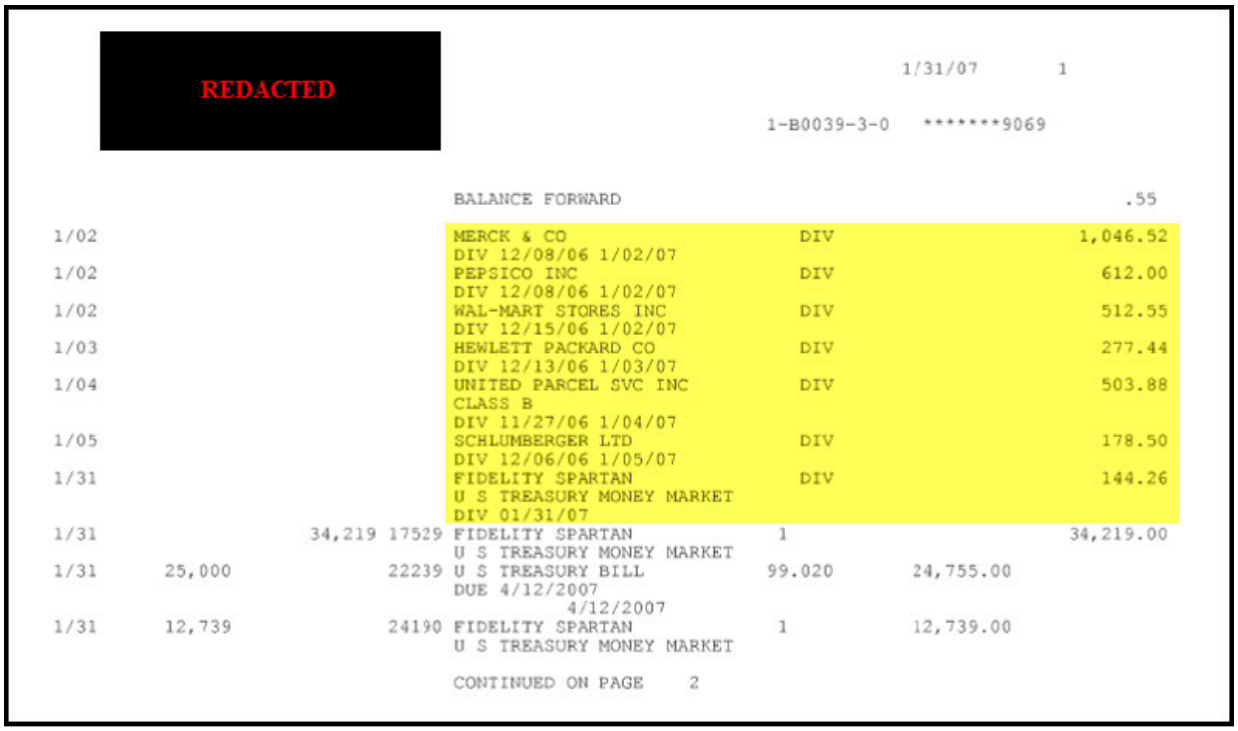
245. For shares held in brokerage accounts, the default choice for receiving dividend payments is for the distributing company (*i.e.*, the company actually declaring and paying the dividend) to credit the brokerage firm (in this case, BLMIS) for the entirety of the dividends to be delivered to the brokerage firm's customers. On payment dates, the brokerage firm will credit the applicable apportioned dividend amount to accounts of customers who are shareholders of record of the companies that have declared and paid the dividends.[220]

246. Although BLMIS was regularly recording dividend payments on the IA Business customer statements, the evidence is that such dividend payments were never received by BLMIS.

247. To test whether the IA Business actually received the dividend payments which were being reflected in the IA Business customer account statements, account number 1-B0039-3-0 was randomly selected in order to identify securities for which dividends were paid. Figure 37 below shows the January 31, 2007 customer account statement for that account and identifies the dividend payments that were purportedly received during that month:

[220] *See* discussion *infra* on SEC Transfer Agents; *Holding Your Securities – Get the Facts*, U.S. SEC, http://www.sec.gov/investor/pubs/holdsec.htm (last visited Nov. 20, 2011) (PUBLIC0669197), updated http://www.sec.gov/investor/pubs/holdsec.htm (last visited Sept. 19, 2024); *see also Transfer Agent*, United Technologies, http://utc.com/Investor+Relations/Transfer+Agent (last visited Nov. 20, 2011) (PUBLIC0590835).

Figure 37



REDACTED

1/31/07 1

1-B0039-3-0 *******9069

				BALANCE FORWARD			.55
1/02				MERCK & CO DIV 12/08/06 1/02/07	DIV		1,046.52
1/02				PEPSICO INC DIV 12/08/06 1/02/07	DIV		612.00
1/02				WAL-MART STORES INC DIV 12/15/06 1/02/07	DIV		512.55
1/03				HEWLETT PACKARD CO DIV 12/13/06 1/03/07	DIV		277.44
1/04				UNITED PARCEL SVC INC CLASS B DIV 11/27/06 1/04/07	DIV		503.88
1/05				SCHLUMBERGER LTD DIV 12/06/06 1/05/07	DIV		178.50
1/31				FIDELITY SPARTAN U S TREASURY MONEY MARKET DIV 01/31/07	DIV		144.26
1/31		34,219	17529	FIDELITY SPARTAN U S TREASURY MONEY MARKET	1		34,219.00
1/31	25,000		22239	U S TREASURY BILL DUE 4/12/2007 4/12/2007	99.020	24,755.00	
1/31	12,739		24190	FIDELITY SPARTAN U S TREASURY MONEY MARKET	1	12,739.00	

CONTINUED ON PAGE 2

MDPTPP00131984

248. Based on this customer statement, all dividends purportedly received by all the IA Business customers for these same securities for all of January 2007 were then aggregated and analyzed. These amounts are summarized below in Table 6:

Table 6[221]

Payment Date	Company	Dividends
January 2, 2007	Merck & Co	$ 6,404,388
January 2, 2007	Pepsico Inc	3,876,222
January 2, 2007	Walmart Stores Inc	3,255,099
January 3, 2007	Hewlett Packard Co	3,166,718
January 4, 2007	United Parcel Services Inc	3,155,807
January 5, 2007	Schlumberger Ltd	1,152,440
January 31, 2007	Fidelity Spartan	467,950
Total		**$ 21,478,624**

249. As previously discussed, these purported dividend payments, if actually received by BLMIS, would have been delivered to BLMIS by the distributing companies' respective transfer agents. At the time of the January 2007 dividend payments, the transfer agents for the above selected companies were those as shown in Table 7:[222]

Table 7

Company	Transfer Agent
Merck & Co	Wells Fargo Bank
Pepsico Inc	The Bank of New York
Walmart Stores Inc	Computershare Trust Company
Hewlett Packard Co	Computershare Trust Company
United Parcel Services Inc	Mellon Investor Services
Schlumberger Ltd	Computershare Trust Company
Fidelity Spartan	Fidelity Brokerage Company

[221] The IA Business continued to reference the Fidelity Spartan US Treasury Money Market Fund as such even though its name changed to the Fidelity US Treasury Money Market Fund effective August 15, 2005. *See Prospectus*, Fidelity Spartan US Treasury Money Market Fund, U.S. Government Money Market Fund, & Money Market Fund (June 29, 2005).

[222] Transfer agents were identified by reviewing 2006 and 2007 year-end annual reports, corporate filings, and company information. In all cases, the transfer agents identified by these reports were the same in both years, confirming the transfer agents identified in Table 7. *See* Merck & Co: PUBLIC0702608-713, PUBLIC0702714-796; Pepsico: PUBLIC0701713-798, PUBLIC0701799-888; Walmart: PUBLIC0701889-944, PUBLIC0701945-2012; Hewlett Packard: PUBLIC0702013-086, PUBLIC0702087-151; United Parcel Services: PUBLIC0702152-262, PUBLIC0702263-377; Schlumberger: PUBLIC0702378-493, PUBLIC0702494-605; Fidelity: PUBLIC0702606, PUBLIC0702607.

250. An analysis was then conducted of all the IA Business bank account statements for the months of December 2006 and January 2007 to determine whether or not there were additions to the IA Business bank accounts (*i.e.*, the 703 Account and 509 Account) in the amounts reflecting the purported total dividend payments to the IA Business customers.[223] No transactions from the above transfer agents or transactions for the amounts indicated for the purpose of dividend payments were identified. Without these distributions directly from the corporations, these dividend payments to BLMIS (and its customers) could not have actually occurred.

251. Additional analyses were performed on dividends purportedly received by all IA Business customers between the years 1998 through 2008.[224] During this time period, there were over 8,300 dividend transactions (on an aggregate basis for approximately 6,500 customer accounts) totaling approximately $4.3 billion of dividend payments reflected on customer account statements.[225] A breakdown by year of these dividend payments is shown below in Table 8:

[223] A search for additions in the amounts listed as well as amounts approximating these amounts was conducted to ensure that all possibilities were considered. No such matches or approximate matches were found. In fact, no transactions from any of the transfer agents representing any amount of dividend payments were found.
[224] The IA Business bank account statements were available from December 1998 through December 2008.
[225] Electronic data, which included dividend payments from customer statements, was available from December 1995 through December 2008. The total purported dividend distributions for this longer period totaled $4,594,442,711.77. While BLMIS bank statements prior to 1998 are no longer available from the banks and were not found in the BLMIS records, nevertheless, there was no evidence that any prior dividend payments were ever received by BLMIS on behalf of its IA Business customers.

Table 8

Year		Dividends
1998	$	137,316,449
1999		134,029,662
2000		139,026,901
2001		181,808,199
2002		228,056,457
2003		388,056,582
2004		701,081,346
2005		482,627,455
2006		839,021,313
2007		615,471,114
2008		493,162,860
Total	**$**	**4,339,658,338**

252. The dividend transactions reported on the IA Business customer account statements were compared to the transactions in the 703 Account. Of the more than 8,300 dividend transactions identified, not one purported dividend payment matched to a cash addition on the BLMIS bank statements.

253. The foregoing analysis regarding dividend payments further shows that trading in the IA Business did not occur.

h. The IA Business was "Schtupping" certain customer returns

254. Documents and computer programs uncovered in the course of the investigation revealed that the IA Business was further falsifying customers' purported investment returns with fictitious trades implemented through a special basket trading program. The name of the special basket trading program was called "B.SCHUPT." The word "schtup" is a Yiddish word meaning to "push," connoting the act of giving an extra effort in order to meet expectations.[226] While the special basket trading file was named B.SCHUPT, other BLMIS

[226] *Schtup Definition*, Yiddish Dictionary Online, http://www.yiddishdictionaryonline.com (last visited Nov. 20, 2011) (PUBLIC0590837), updated https://www.dictionary.com/browse/schtup (last visited Sept. 19, 2024).

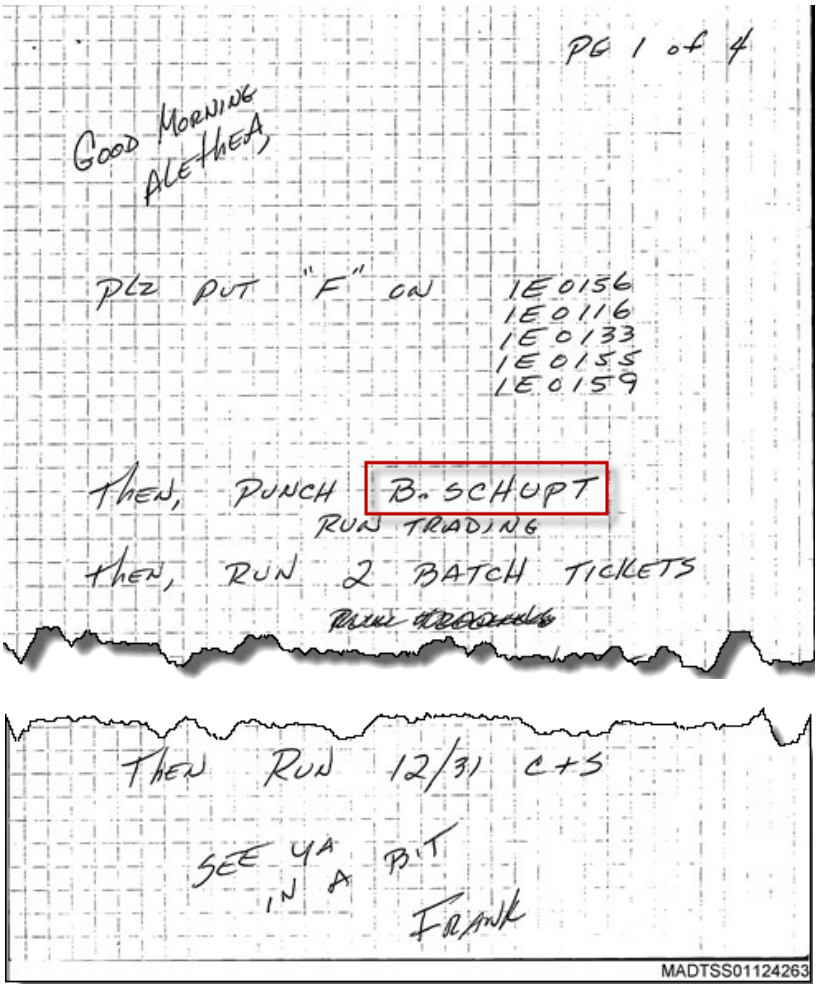
documents show that this was simply a spelling error on the part of the IA Business employee(s) who transcribed the name (*see*, *e.g.*, "SCHTUP FORMU1.xls").[227]

255. The investigation revealed that the use of the B.SCHUPT program was to allow for the "truing up" of customer accounts whose fictitious trades throughout the year had not yielded the rates of return that had been targeted by the IA Business. In fact, certain IA Business customer accounts were analyzed and it was determined that these accounts achieved over a 250% return in less than a 30-day period as a result of additional fictitious option trades implemented through the B.SCHUPT program.

256. For example, in December 2003, a four-page packet of instructions (two pages of which were handwritten instructions signed by DiPascali, *see* Figure 38) contained explicit instructions and details surrounding a B.SCHUPT special trading basket that was to be run for that period.[228] The instructions included 29 accounts that were to receive the benefits of the special option trades.

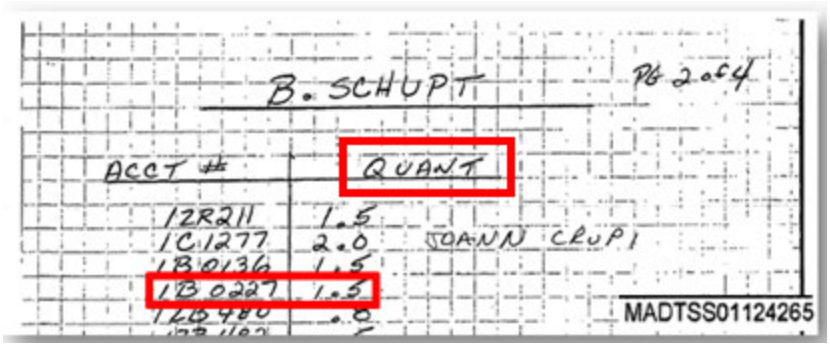
[227] *See*, *e.g.*, "SCHTUP FORMU.xls" at FDIP-BR00000338; "SCHTUP FORMU1.xls" at FDIP-BR00000339; "SCHTUPT 062100.xls" (ELIP_02_BR_00002254).
[228] MADTSS01124263-MADTSS01124268.

Figure 38



257. To investigate the effect of the B.SCHUPT option trades, one test account, account 1-B0227, was initially selected for detailed analysis. Based on the handwritten notes in Figure 39, this account was to receive 1.5 units of the special basket trade.

Figure 39



258. The options associated with the B.SCHUPT file are shown below in Figure 40:

Figure 40

DATE: 1/01/04 BASKET TRADE LIST FOR FILE B.SCHUPT PAGE: 1

DISTRIBUTION: FRANK

UPDATE/ DELETE	B/S	SYMBOL	QTY	PRICE	T/D	S/D	BMC	COMM
	B	OEBAJ	10	1 80 1	11/28/03	12/01/03	481	Y
	B	OEBAK	20	1 10 1	12/17/03	12/18/03	481	Y

TOTAL BASKET VALUE = 4,030.00

MADTSS01124272

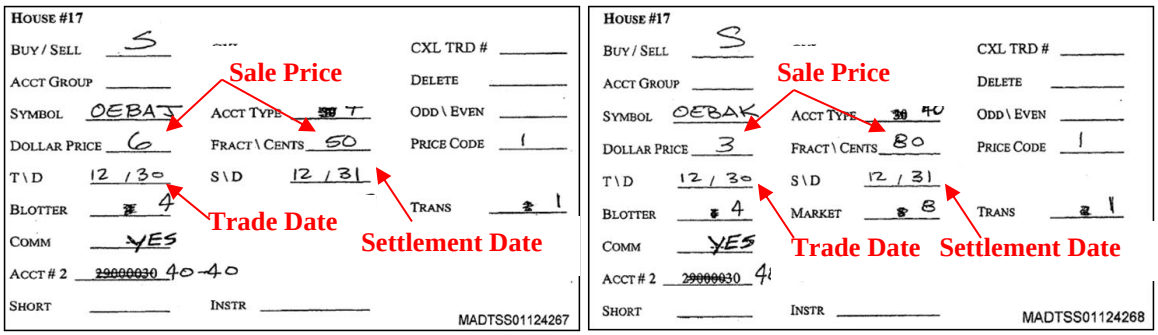
259. Using the information above in Figure 39 and Figure 40 for account 1-B0227, and the "Quant" value of 1.5, the account would reflect the purchase of 15 contracts (1.5 times the QTY figure in the option table above) of the S&P Index OEBAJ option and 30 contracts (1.5 times the QTY) of S&P Index OEBAK option. These amounts agreed to the customer statements from the IA Business and show a purported total investment of $6,045 in these options (*see* Table 9):

Table 9[229]

Account_No	Purchase Date	Symbol	Price	Value
1-B0227-4-0	12/1/2003	OEBAJ	$1.80	$2,715.00
1-B0227-4-0	12/18/2003	OEBAK	$1.10	$3,330.00

260. The final two pages of the instructions detail the subsequent step in the transaction, which is the sale of these options. Figure 41 details the sale dates and sale prices of the options to be traded for account 1-B0227. The OEBAJ options purportedly bought on December 1, 2003 for $1.80 per option were purportedly sold on December 31, 2003 for $6.50, realizing a return of 261% in 30 days. The OEBAK options purportedly bought on December 18, 2003 for $1.10 were purportedly sold on December 31, 2003 for $3.80, realizing a return of 245% in 13 days.

Figure 41



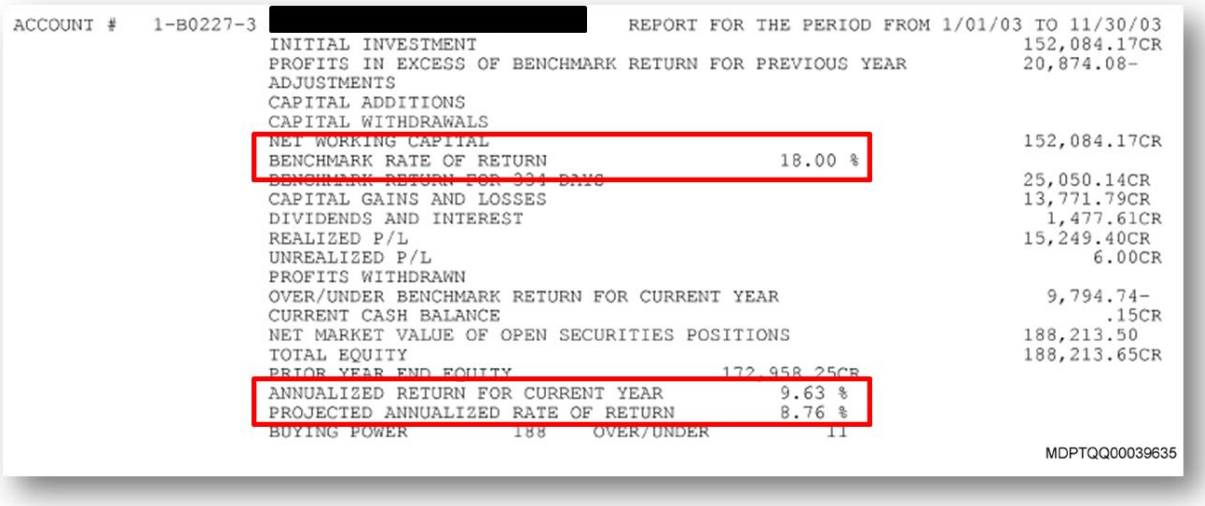
261. For account 1-B0227 discussed above, these purported option sales yielded $21,105 of sales proceeds on December 31, 2003, with a purchase price of $6,045. This is a total return of 250% over the period of the investment.

262. In total, the B.SCHUPT program in December 2003 highlighted 29 accounts needing additional investment returns with an initial purported investment of $2,099,227 in the two options. The resulting $5,229,836 from the purported sale of the options yielded a 149% return over an average of 21.5 days held.

[229] As discussed *supra*, the IA Business customer statements reflected the settlement dates as opposed to trade dates; as a result the "purchase date" in this table is, in fact, the settlement date.

263. In November 2003, the Portfolio Management Report ("PMR") for account 1-B0227 shows a 9.63% annualized return for the Current Year which is dramatically lower than the 18% "Benchmark" rate of return shown on the PMR.[230] (*See* Figure 42.)

Figure 42



ACCOUNT # 1-B0227-3 [redacted] REPORT FOR THE PERIOD FROM 1/01/03 TO 11/30/03

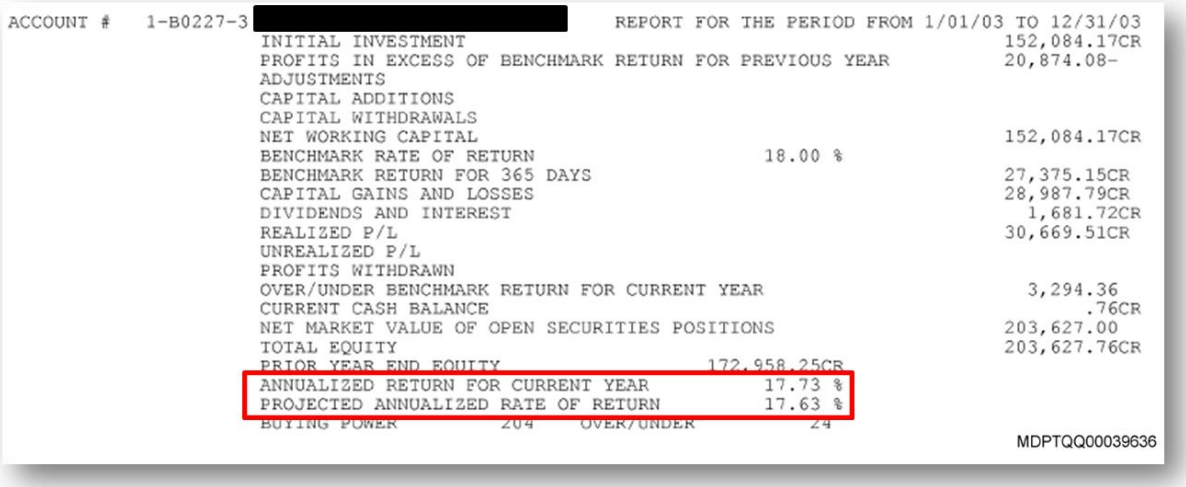
INITIAL INVESTMENT		152,084.17CR
PROFITS IN EXCESS OF BENCHMARK RETURN FOR PREVIOUS YEAR		20,874.08-
ADJUSTMENTS		
CAPITAL ADDITIONS		
CAPITAL WITHDRAWALS		
NET WORKING CAPITAL		152,084.17CR
BENCHMARK RATE OF RETURN	18.00 %	
BENCHMARK RETURN FOR 334 DAYS		25,050.14CR
CAPITAL GAINS AND LOSSES		13,771.79CR
DIVIDENDS AND INTEREST		1,477.61CR
REALIZED P/L		15,249.40CR
UNREALIZED P/L		6.00CR
PROFITS WITHDRAWN		
OVER/UNDER BENCHMARK RETURN FOR CURRENT YEAR		9,794.74-
CURRENT CASH BALANCE		.15CR
NET MARKET VALUE OF OPEN SECURITIES POSITIONS		188,213.50
TOTAL EQUITY		188,213.65CR
PRIOR YEAR END EQUITY	172,958.25CR	
ANNUALIZED RETURN FOR CURRENT YEAR	9.63 %	
PROJECTED ANNUALIZED RATE OF RETURN	8.76 %	
BUYING POWER 188 OVER/UNDER	11	

MDPTQQ00039635

264. Examining the December 2003 PMR for account 1-B0227 just one month later, the annualized return for the current year went from just 9.63% to 17.73%, an increase of over 84%. (*See* Figure 43.)

[230] *See* **Exhibit 24** for an example of a PMR. A PMR is a year-to-date IA Business report providing summary level information by customer account.

Figure 43



ACCOUNT # 1-B0227-3 [redacted] REPORT FOR THE PERIOD FROM 1/01/03 TO 12/31/03

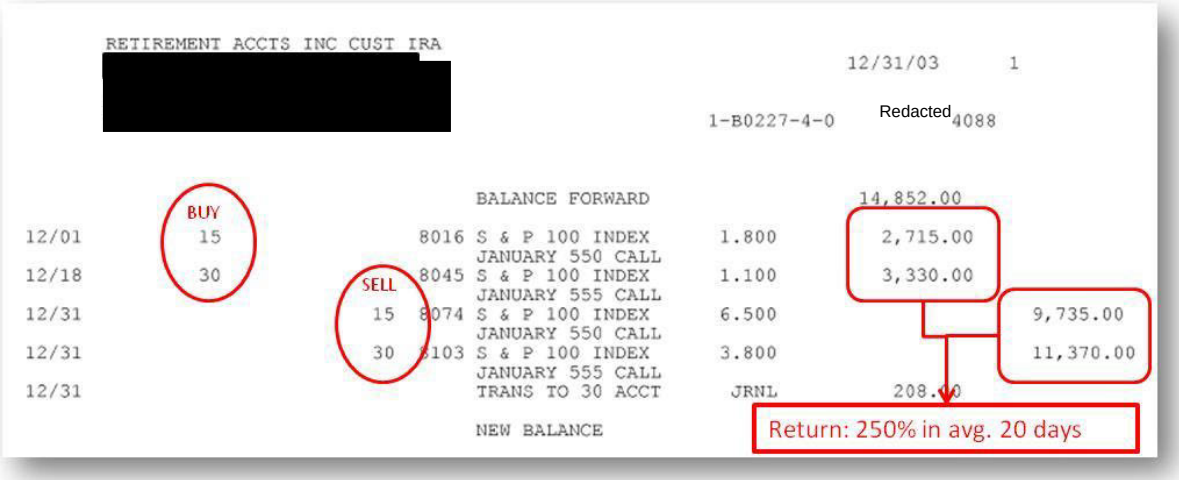
INITIAL INVESTMENT		152,084.17CR
PROFITS IN EXCESS OF BENCHMARK RETURN FOR PREVIOUS YEAR		20,874.08-
ADJUSTMENTS		
CAPITAL ADDITIONS		
CAPITAL WITHDRAWALS		
NET WORKING CAPITAL		152,084.17CR
BENCHMARK RATE OF RETURN	18.00 %	
BENCHMARK RETURN FOR 365 DAYS		27,375.15CR
CAPITAL GAINS AND LOSSES		28,987.79CR
DIVIDENDS AND INTEREST		1,681.72CR
REALIZED P/L		30,669.51CR
UNREALIZED P/L		
PROFITS WITHDRAWN		
OVER/UNDER BENCHMARK RETURN FOR CURRENT YEAR		3,294.36
CURRENT CASH BALANCE		.76CR
NET MARKET VALUE OF OPEN SECURITIES POSITIONS		203,627.00
TOTAL EQUITY		203,627.76CR
PRIOR YEAR END EQUITY	172,958.25CR	
ANNUALIZED RETURN FOR CURRENT YEAR	17.73 %	
PROJECTED ANNUALIZED RATE OF RETURN	17.63 %	

BUYING POWER 204 OVER/UNDER 24

MDPTQQ00039636

265. This enormous change in the annualized return for account 1-B0227 is a direct result of the fictitious trades implemented through the B.SCHUPT basket trading program. The fictitious option trades were recorded on the customer statement for this account as shown below in Figure 44:

Figure 44



RETIREMENT ACCTS INC CUST IRA [redacted]

12/31/03 1

1-B0227-4-0 Redacted 4088

			BALANCE FORWARD			14,852.00
12/01	BUY 15	8016	S & P 100 INDEX JANUARY 550 CALL	1.800	2,715.00	
12/18	30	8045	S & P 100 INDEX JANUARY 555 CALL	1.100	3,330.00	
12/31	SELL 15	8074	S & P 100 INDEX JANUARY 550 CALL	6.500		9,735.00
12/31	30	8103	S & P 100 INDEX JANUARY 555 CALL	3.800		11,370.00
12/31			TRANS TO 30 ACCT	JRNL	208.00	
			NEW BALANCE			

Return: 250% in avg. 20 days

266. The 29 accounts on the December 2003 special B.SCHUPT basket trading list were closely analyzed to determine if the same or similar effect was present. The average annualized return for the Current Year as recorded on their respective November 2003 PMRs was 9%. After the program was run for the month of December 2003, the average annualized return for the Current Year on the December PMRs for the respective accounts was 21%. Accordingly, the running of the B.SCHUPT program increased purported annualized investment returns for the 29 accounts by an average of 141% from November 2003 to December 2003. This process was nothing more than a total fabrication of further fictitious trades in an attempt to "push" the investment returns close to the 18% Benchmark Rate of Return as originally recorded on the PMRs for these accounts.

267. Additional examples of the account listings and instructions were also located for the years 2002, 2004, 2005, 2006, and 2007.[231] Similar to the instructions discussed above, the additional listings also identified specific units of each fictitious trade to make for specific accounts. Account numbers and account holders varied by year.

268. In those years, the fictitious trades allocated pursuant to the instructions yielded a range of returns to each account over December of each year between 140% in 2002 and 268% in 2004. Similar to the discussion above (in 2003) regarding the changes in the PMRs subsequent to the fictitious trades being allocated, the PMRs for those accounts in 2002, 2004, 2005, 2006, and 2007 showed similar patterns.

i. The IA Business computer system was used to facilitate the fictitious trading activity and to print trading documentation and customer statements

269. The Proprietary Trading Business and the IA Business computer systems' capabilities were vastly different. The Proprietary Trading Business systems contained many of the components typically found in a broker-dealer environment where actual trades were being executed. The IA Business did not have these systems.

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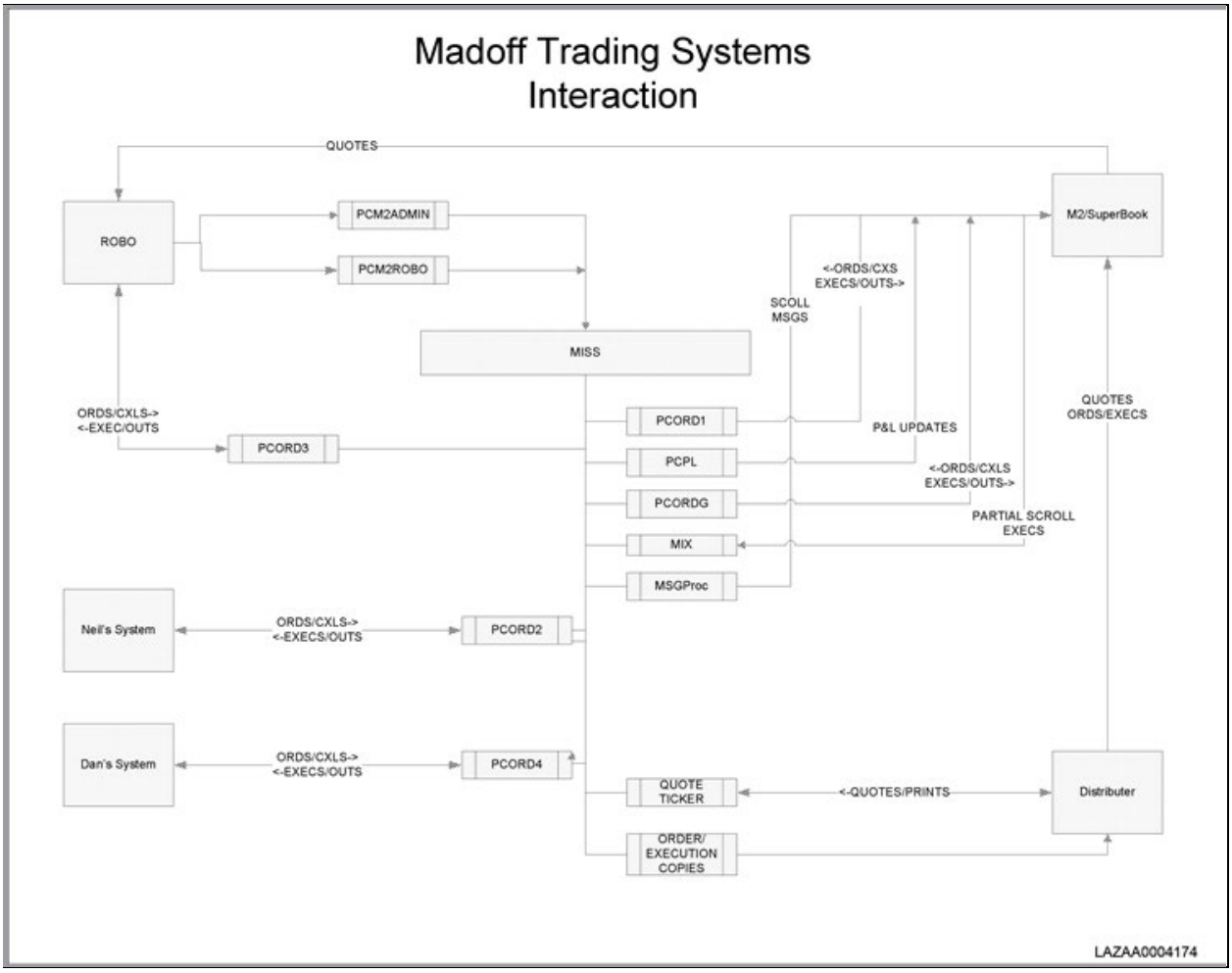
[231] *See* MADTSS01124251; MADTSS01124115; MADTSS01124117; MADTSS01124091-MADTSS01124093; MADTSS01124095; MADTSS01124089; MADTSS01120262. While a "schupt" file was not located for all years other than those listed above, there were, however, other documents located that appeared to contain similar information and to be following the same pattern. *See, e.g.*, MADTSS01124131; *see also* **Exhibit 25** for documents pertaining to the schupt lists.

270. Figure 45 is a more detailed diagram of the trading systems in place at the Proprietary Trading Business in December 2008:[232]

Figure 45



271. Not surprisingly, none of these trading systems necessary for the execution of securities was found in the IA Business computer environment. In fact, as described below, the IA

[232] The figure was prepared by Lazard Ltd. ("Lazard") (LAZAA0004174). Lazard was the financial advisor to the Trustee who handled the liquidation sale of the Proprietary Trading Business's assets after Madoff's arrest in December 2008.

Business relied on an AS/400 computer along with a local area network of personal computers to generate the documentation necessary to support the fictitious trading activities.

272. The software utilized by the Proprietary Trading Business was a combination of commercially available, off-the-shelf software and interface systems (*e.g.*, Bloomberg, Thomson One, DTC, OCC) as well as custom-programmed software (*e.g.*, MISS, M2). In contrast, the software utilized by the IA Business was primarily custom-built in-house software, supported only partially by commercially available, off-the-shelf software not designed for trade execution.

273. While information in programs restored from IA Business backup tapes revealed certain limited electronic communications and interfaces for the AS/400 system, it was determined that the IA Business's custom RPG software did not communicate with any of the standard platforms typically found in a trading and/or investment environment. Investment-related data received by the IA Business custom RPG software was received from the Proprietary Trading Business through either an FTP or via a manual process by which an operator inserted a tape into the IA Business AS/400 that contained data from the Proprietary Trading Business custom software. While the Proprietary Trading Business utilized extensive systems to execute trades (*e.g.*, MISS, M2/Superbook) and receive market data (*e.g.*, Bloomberg, Muller), there was no evidence to show that the IA Business communicated with any of the connections available to the Proprietary Trading Business systems (*e.g.*, NASDAQ, DTC, Bloomberg, Thomson, OATS). As a result, the IA Business would have needed to place the purported trades through either the Proprietary Trading Business or an outside broker-dealer; evidence of that occurring was not found.

j. The underlying computer code generated and utilized by the IA Business was developed and modified over the years

274. During the investigation, a model 520 AS/400 and a Magstar 3570 tape subsystem were procured and used to restore a working version of the IA Business AS/400 system to allow for analysis. (*See* **Exhibit 26** for restored menu screen shots.) Numerous libraries (*i.e.*,

repositories of data or code) were restored which contained both code and data files.[233] The majority of the restored code used to run and operate the AS/400 was written in RPG II language, which was identified from a number of factors including the following:

- The source from the restored backup tape was identified by the AS/400 system as "RPG36" code. Attribute flags (*i.e.*, an identifying piece of data related to a particular source) identified that the code was created in the System/36 notation version of RPG II and, therefore, intended to run on an IBM System/36 platform.
- In order to work properly, the AS/400 had to be placed in System/36 emulation mode.[234]
- Also, the majority of the code was located in the IBM default location for creating RPG II code, which is a sub-library named QS36SRC within the TGIF library on the AS/400.

275. Based on my review of the code, it appears that the majority of the code was developed in the late 1970s through the early-to-mid 1980s. It also appears that this code was initially used in the Proprietary Trading Business and later was converted for use in the IA Business. Programmer documentation contained within the programs themselves show that there were hundreds, if not thousands, of modifications to the programs, many of which occurred in the early 1990s at a time when the amount of BLMIS customers increased dramatically. (*See* discussion *supra* regarding A&B and the transition of its customers directly to BLMIS.) Thus, my investigation has found that the originating code that was used in the IA Business existed for decades.

[233] During the computer investigation, it became apparent that certain code and data files no longer existed on the tapes containing the backup of the IA Business system from December 2008. Restoration of prior backup tapes confirmed this fact.

[234] If the program was started without being placed in System/36 emulation mode, the system consistently produced an error. For example, one such error indicated, "Command menu in library *LIBL not found." However, when placed into System/36 emulation mode, the error disappeared.

(i) Underlying computer code in the IA Business produced a random order generator to support fictitious trades on customer statements

276. The IA Business custom-written software included code that enabled the assignment of prices and volumes for securities transactions to individual customer accounts. The code allowed the IA Business to back into data that, in a legitimate business, would be generated through an order or time slicing trading system.

277. In practice, it is a portfolio manager's decision to determine what stocks to buy and how many shares will be purchased. Once determined, a trader's role is to determine how best to purchase those stocks, balancing transaction costs and associated market risks. This role is often exclusively automated by computers programmed with basic (or sometimes very sophisticated) trading algorithms.

278. Most common amongst these approaches is to either "volume-weight" or "time-weight" the execution of a large block of shares. These approaches strike a balance between risk and cost. A volume-weighted approach attempts to purchase shares at the same pace as the market is trading so that the buyer is never too large or too small a participant. A time-weighted approach seeks to spread the desired transaction evenly over a fixed and predetermined period of time.[235]

279. A detailed analysis of the code that was utilized shows that the IA Business did not have a legitimate trading system using algorithms to execute trades. Instead, it had a self-created program that simply mimicked and backfilled the output that normally would be the result of trades actually being executed by a system using trading algorithms.

280. A review of input and output files for the random order generator, as well as customer statements, indicates that a Java custom written application program utilized an input file containing trade dates, settlement dates, security descriptions, pricing, and other information, such as customer account numbers. It also contained the price that was to be allocated to each transaction.

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[235] *CFA Glossary,* CFA Institute, http://www.cfainstitute.org/about/investor/cfaglossary/Pages/index.aspx (last visited Nov. 1, 2012) (PUBLIC0669530), updated https://www.cfainstitute.org/programs/cfa/curriculum/glossary#sort=%40glossaryz32xterm%20ascending (last visited Sept. 19, 2024).

281. The program utilized information from the input file and generated a random set of orders for the specific security, randomly varying both the number of shares and the price for each order. The random number of shares was generated using a random function that was artificially limited by a configurable high and low value (*i.e.*, 500 shares as a minimum and 10,000 as a maximum). The number of shares was also artificially limited by the total number of shares identified in the input file (*i.e.*, if the input file totaled one million shares across all transactions in the input file, then the output of the program did not exceed one million shares across all orders in the output file). The random price for each order was also artificially limited by configurable parameters which limited the range in the generated prices (*i.e.*, a five cents boundary would limit the randomly generated price to within five cents of the price identified in the input file).

282. Figure 46 shows the input, processing and results of the random order generator program. The first input file identifies the total number of shares, 1,039,261, of Abbott Laboratories, as well as the average price $48.41 assigned to that transaction on all applicable customer statements in the IA Business.[236]

[236] *See* MESTAAF00009202-MESTAAF00009203.

Figure 46[237]

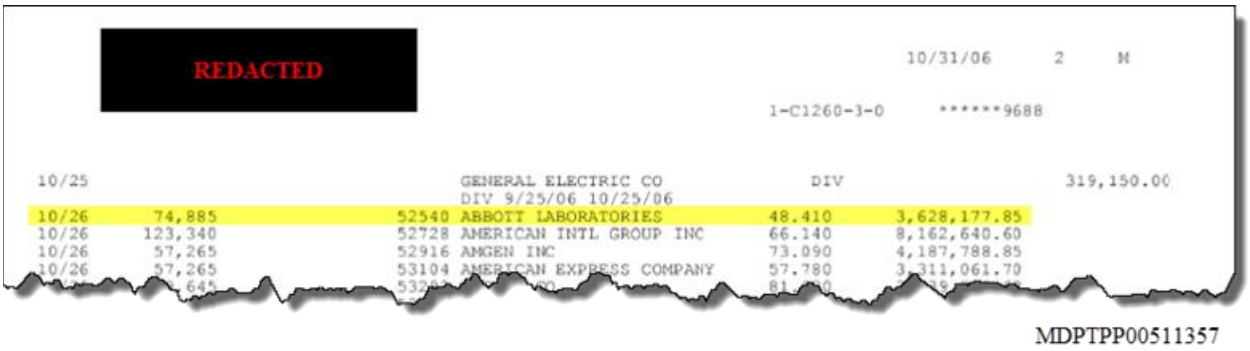
Abbott Laboratories Input for MADOFFRandomSimulationUtility for 10/26/2006											
#T/D	S/D	Account Number	Trans #	B/S Side	Quantity	Cusip	Security Description	Price	Principal Amount	Commission	Net Amount
23-Oct	26-Oct	1-C1260-3	52540	S	74885	2824100	ABBOTT LABORATORIES	48.41	3625182.85	2995	3628177.85
23-Oct	26-Oct	1-FN012-3	52554	S	217991	2824100	ABBOTT LABORATORIES	48.41	10552944.31	8719	10561663.31
23-Oct	26-Oct	1-FN043-3	52558	S	51	2824100	ABBOTT LABORATORIES	48.41	2468.91	2	2470.91
23-Oct	26-Oct	1-FN044-3	52559	S	493	2824100	ABBOTT LABORATORIES	48.41	23866.13	19	23885.13
23-Oct	26-Oct	1-FN045-3	52560	S	213282	2824100	ABBOTT LABORATORIES	48.41	10324981.62	8531	10333512.62
23-Oct	26-Oct	1-FN061-3	52562	S	190434	2824100	ABBOTT LABORATORIES	48.41	9218909.94	7617	9226526.94
23-Oct	26-Oct	1-FN086-3	52564	S	48943	2824100	ABBOTT LABORATORIES	48.41	2369330.63	1957	2371287.63
23-Oct	26-Oct	1-FN095-3	52568	S	85102	2824100	ABBOTT LABORATORIES	48.41	4119787.82	3404	4123191.82
23-Oct	26-Oct	1-FR010-3	52572	S	18853	2824100	ABBOTT LABORATORIES	48.41	912673.73	754	913427.73
23-Oct	26-Oct	1-FR062-3	52577	S				48.41	15636.43	12	15648.43
23-Oct	26-Oct	1-FR074-3	52581	S				48.41	72421.36	59	72480.36
23-Oct	26-Oct	1-FR080-3	52582	S				48.41	1785844.9	1475	1787319.9
23-Oct	26-Oct	1-FR083-3	52583	S				48.41	1186722.74	980	1187702.74
23-Oct	26-Oct	1-FR093-3	52587	S	11764	2824100	ABBOTT LABORATORIES	48.41	569495.24	470	569965.24
23-Oct	26-Oct	1-FR096-3	52589	S	20213	2824100	ABBOTT LABORATORIES	48.41	978511.33	808	979319.33
23-Oct	26-Oct	1-G0092-3	52606	S	11696	2824100	ABBOTT LABORATORIES	48.41	566203.36	467	566670.36
23-Oct	26-Oct	1-G0371-3	52611	S	510	2824100	ABBOTT LABORATORIES	48.41	24689.1	20	24709.1
23-Oct	26-Oct	1-M0232-3	52650	S	8058	2824100	ABBOTT LABORATORIES	48.41	390087.78	322	390409.78
23-Oct	26-Oct	1-N0016-3	52651	S	3264	2824100	ABBOTT LABORATORIES	48.41	158010.24	130	158140.24
23-Oct	26-Oct	1-P0045-3	52654	S	2329	2824100	ABBOTT LABORATORIES	48.41	112746.89	93	112839.89
23-Oct	26-Oct	1-S0382-3	52670	S	2261	2824100	ABBOTT LABORATORIES	48.41	109455.01	90	109545.01
23-Oct	26-Oct	1-T0027-3	52674	S	60027	2824100	ABBOTT LABORATORIES	48.41	2905907.07	2401	2908308.07
23-Oct	26-Oct	1-W0043-3	52676	S	2210	2824100	ABBOTT LABORATORIES	48.41	106986.1	88	107074.1
23-Oct	26-Oct	1-ZB434-3	52691	S	3672	2824100	ABBOTT LABORATORIES	48.41	177761.52	146	177907.52

Total Shares	1,039,261
Price Assigned	$ 48.41

283. One of the accounts to which the purported Abbott Laboratories transactions was allocated was account number 1-C1260-3. The following excerpt from the customer statement for this account demonstrates the Abbott Laboratories pricing. (*See* Figure 47.)

[237] *See* MESTAAF00009202-MESTAAF00009285.

Figure 47



MDPTPP00511357

284. Also found during the investigation was an output file generated by the Java random order generation program that utilized the input files including the Abbott Laboratories shares and pricing.[238] The excerpts from the full output file (shown in **Exhibit 27**) show that the random order generation utilized the total number of shares from the input file, as well as the price from the input file, as the basis for generating the randomly priced and sized orders (*i.e.*, number of shares).

285. To confirm the processing performed by the Java random order generator code, the Java program code found in the records was compiled and executed using the input file found during the investigation.[239] Although the order size (*i.e.*, quantity of shares) and price differ at the individual transaction level, the total number of shares across all orders, as well as the average price across all orders, is equal to the input values for Abbott Laboratories. (*See* **Exhibit 27**.)

286. As confirmed by internal BLMIS emails, this process was used to generate support for the fictitious backdated trades. For example, an email on May 24, 2008 from BLMIS internal computer programmers detailed the requirements for the program as they "needed to generate about 600,000 random orders based on a set of criteria for the past 16 months."[240]

287. A legitimate business conducting an investment advisory, market making or proprietary trading business would have no need for a random order generation program for backfilling

[238] *See* MESTAAF00000037-MESTAAF00000041.
[239] *See* Java program code (MDPTGG00000002).
[240] KFON-BR00030551 (emphasis added).

trade data. All of the orders in a legitimate business would have a record generated from an external party that registered the trade (*e.g.*, DTC) at the time the trade was properly executed, even for trades executed by a computer-based trading algorithm. The fact that BLMIS built a random order generation program to backfill support for purported trades after the period during which they were purportedly executed further illustrates that the securities listed on IA Business customer statements were fictitious.

k. Various statements and reports that the IA Business prepared were false

(i) Customer statements contained fictitious trades that were backdated

288. The IA Business customer statements contained trades that were backdated. Specifically, some customer statements reported trades that were purportedly executed in a prior month's period, sometimes stretching back years, but in actuality were never recorded on that previous month's statement ("prior month backdated trades"). For example, a March 1998 statement for account 1-A0035-3 showed transactions that purportedly occurred in March 1998, as well as trades going back to April 1997. If these trades had actually occurred and settled on the stated dates during the prior months or even years, they would have appeared on their respective monthly statement (*i.e.*, a transaction in April 1997 would have appeared on the April 1997 customer statement). Many of these trades, however, did not appear on these previous month's statements.

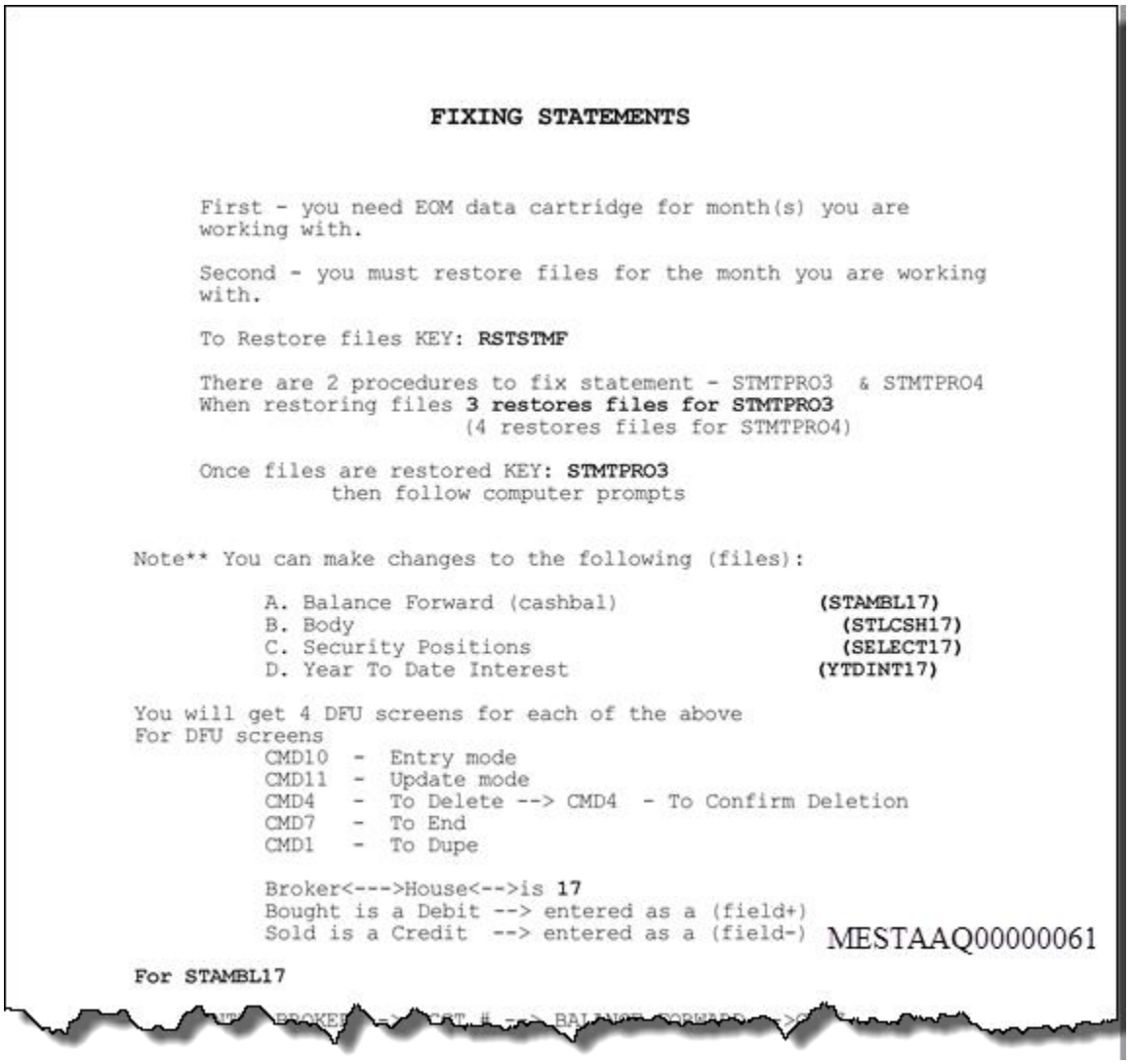
289. Customer statements were analyzed for instances of such backdating by comparing the IA Business customer statement date to the security transaction trade date. In the aggregate, the customer statements show a total of 14,749 prior month backdated trades which took place between December 1995 and November 30, 2008 across 893 accounts.[241] (*See* **Exhibit 28** – "IA Business Backdated Trade Detail, December 1995 to November 30, 2008".) The number of backdated trades per account ranged from 1 to 3,669. Furthermore, 50 of the 893 accounts contained more than 30 backdated trades.

[241] There are also instances prior to December 1995 where trades were backdated on customer statements. *See, e.g.*, MF00027730.

290. The ability of BLMIS to backdate trades in the IA Business was facilitated by the use of the custom software written by IA Business programmers in a module called STMTPro.[242] STMTPro allowed an IA Business user to restore a previous month's customer statement to the AS/400. For example, the data tape containing the SETCSH17 data file for the desired month would be inserted into the AS/400. STMTPro would then restore that version of the SETCSH17 to a temporary location on the AS/400. STMTPro allowed the operator to change any item on a pre-existing customer statement (*e.g.*, a purchase or sale of a security, the payment of a dividend) through a data entry screen (*see* Figure 48 below for STMTPro directions). It also allowed the operator to print a revised customer statement. If these prior month backdated trades were an actual "error" in the customer statements, a corrected customer statement should have been issued as is standard in the industry. This did not occur in the IA Business. Instead, the IA Business backdated trades on one month's statement and did not produce or reissue to customers revised statements for the prior months that indicated that these were restated statements.

[242] STMTPro is the specific procedure that was executed on the AS/400. The IA Business's Programming Development Manager Member List shows various modules such as STMTPRO03-Correct EOM Statements–User 1 and STMTMPRO08-Correct Prior STMTS From ASOF Trades (+Months) (MDPTSS00001484). As detailed *supra*, STMTPro was not software identified in the Proprietary Trading Business.

Figure 48



FIXING STATEMENTS

First - you need EOM data cartridge for month(s) you are working with.

Second - you must restore files for the month you are working with.

To Restore files KEY: **RSTSTMF**

There are 2 procedures to fix statement - STMTPRO3 & STMTPRO4
When restoring files **3 restores files for STMTPRO3**
(4 restores files for STMTPRO4)

Once files are restored KEY: **STMTPRO3**
then follow computer prompts

Note** You can make changes to the following (files):

A. Balance Forward (cashbal) **(STAMBL17)**
B. Body **(STLCSH17)**
C. Security Positions **(SELECT17)**
D. Year To Date Interest **(YTDINT17)**

You will get 4 DFU screens for each of the above
For DFU screens
CMD10 - Entry mode
CMD11 - Update mode
CMD4 - To Delete --> CMD4 - To Confirm Deletion
CMD7 - To End
CMD1 - To Dupe

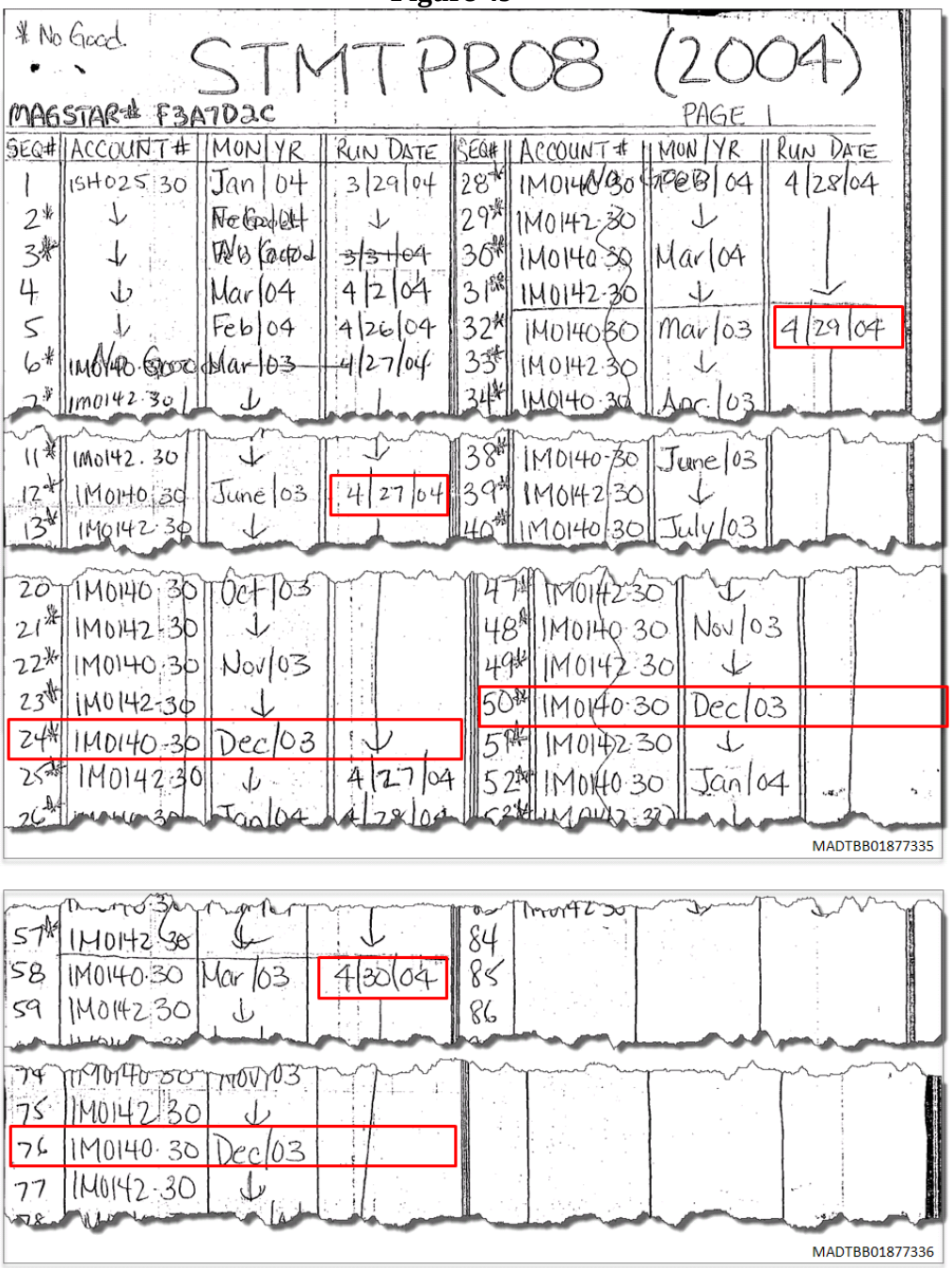
Broker<--->House<-->is **17**
Bought is a Debit --> entered as a (field+)
Sold is a Credit --> entered as a (field-)

MESTAAQ00000061

For STAMBL17

291. An example of how the IA Business used STMTPro to backdate and manipulate transactions on customer statements is discussed below. First, Figure 49 shows an example of a log file that was maintained by the IA Business, which tracked the various iterations of backdated changes for a particular group of customer accounts. Focusing attention on one particular account numbered 1-M0140-3-0, the log file records the dates for numerous iterations of changes being made to that account.

Figure 49



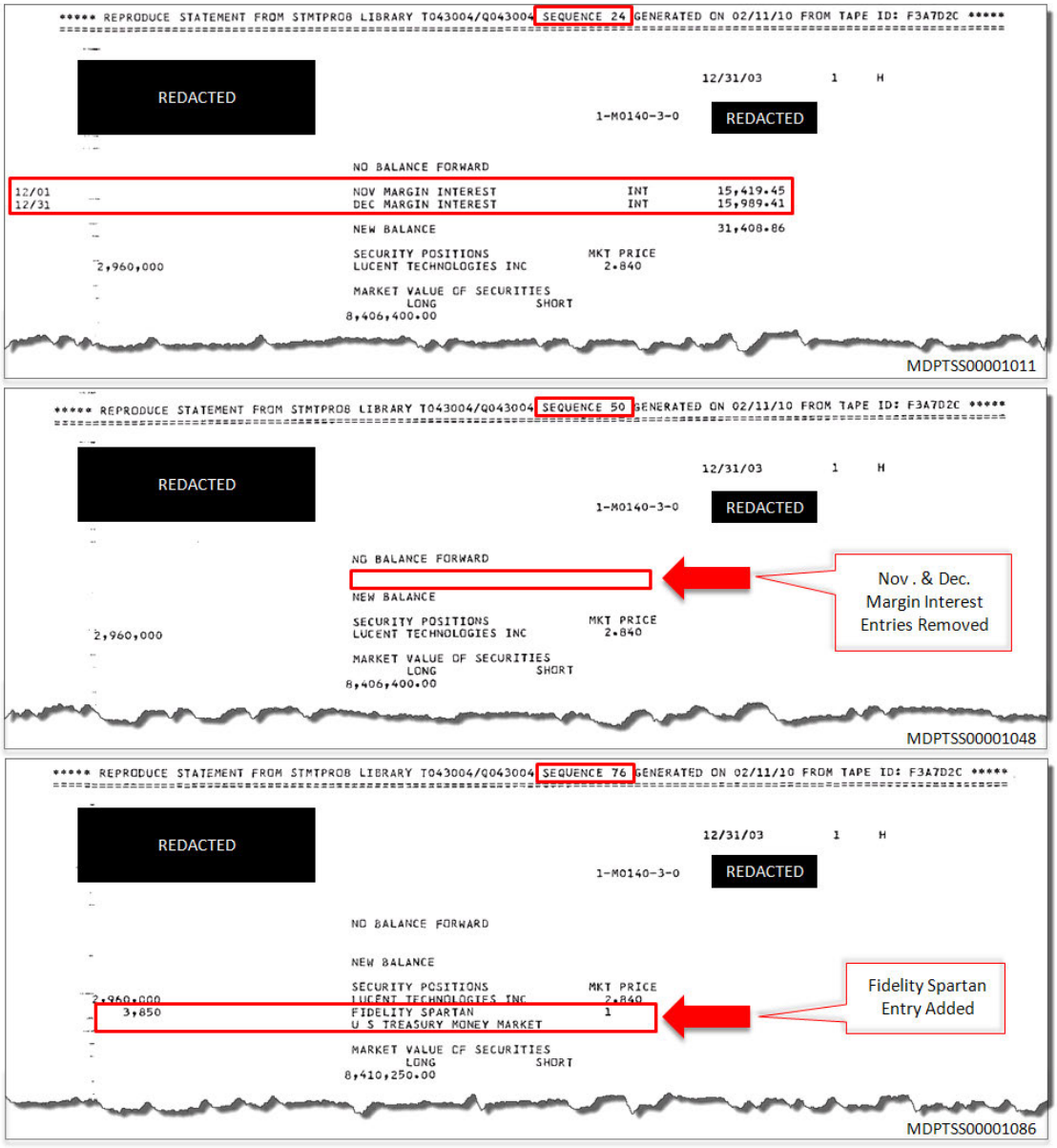
292. For illustrative purposes, the analysis focused on three sets of changes to show what was happening. Sequences 24, 50 and 76 were selected from Figure 49. As the log file indicates, Sequence 24 was run on April 27, 2004. Sequence 50 was run on April 29, 2004 and

Sequence 76 was run on April 30, 2004. As the log file shows, Sequence 24, 50 and 76 all relate to December 2003 as the month that is being changed.

293. Figure 50 shows the results of the backdating activity on the underlying data used to produce monthly statements for IA Business customers.[243] Sequence 24 shows that there is margin interest being reported for both November and December 2003 in the respective amounts of $15,419.45 and $15,989.41 for a total of $31,408.86. Sequence 50 shows that the November and December entries for margin interest have now been removed from the statement as if they never existed. Looking at the third portion of Figure 50, Sequence 76 shows that an entry for Fidelity Spartan US Treasury Money Market for 3,850 shares was added to the account.

[243] Figure 50 was created using documents generated by running the IA Business STMTPro computer program using data retrieved from backup tapes that were collected by the Trustee's counsel. The Trustee's consultants conducted the restoration process in this regard and the resulting output documents were created from that process. Hence the header listed on the top of each document in Figure 50 indicates the actual run date being February 11, 2010.

Figure 50



294. There were numerous examples of these types of backdating changes that were routinely made to customer accounts at the IA Business over the years. The manner in which these changes were made months after the date of the original customer statement (in this example December 2003 was the original date of the customer statement and yet changes were being

made four months later in April 2004) shows how the IA Business was manipulating customer statements and recording the fictitious trades.

(ii) Backdated trades during convertible arbitrage time period and for the Buy and Hold Accounts

295. In addition to the backdated trades in the period between December 1995 and November 30, 2008, I also analyzed the ledgers of the 2-90000 and 3-00000 accounts (the largest of the counterparty accounts) from November 1978 through December 1985 for backdated trades.[244] These two accounts included a wide range of purported trades across all accounts during the relevant time period. These accounts acted as the purported "counterparty" to the IA Business customer transactions. As such, any backdated trade on an IA Business customer account would also be reflected as a backdated trade on these "counterparty" accounts.

296. In total, 252 unique trades in the 2-90000 account and 335 unique trades in the 3-00000 account were identified as such. Backdating of trades over a several-month period is not only improper, it is clearly an indicator of a fraudulent transaction. (*See* **Exhibit 29** – "IA Business Backdated Trades on the 2-90000 and 3-00000 Counterparty Accounts, November 1978 to December 1995".)

297. In addition to the trade dates, the settlement duration of the trades in the 2-90000 and 3-0000 account were also analyzed for the period between November 1978 and December 1985. During that time period, trades settled in what was known as T+5 where the trade would be settled on the sixth trading day after the trade was initiated. Contrary to this policy, I found an example where trades in the 3-00000 account purported to settle prior to the trade date. For example, 967 shares of Rockwell International Corp. purported to trade on August 29, but apparently settled on August 6, nearly three weeks prior to the trade date.[245] In the real world, trades simply cannot settle before they are traded.

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[244] Based on a review of the Relativity Database, November 1978 was the earliest known ledger for the 2-90000 account, May 1980 was the earliest known ledger for the 3-00000 account and December 1985 was the latest known instance for both accounts. *See*, MF00698407, MF00583940, MF0058072, MF00587845.

[245] Shares short of Rockwell International Corp. purported to trade on August 29 but settled on August 6. MF00587094.

298. The IA Business customer ledgers also contained transactions in the Buy and Hold Accounts that were backdated. In the aggregate, the customer ledgers show a total of 437 prior month backdated trades which took place between October 1979 and November 2008. (*See* **Exhibit 30** – "IA Business Backdated Trades in the Buy and Hold Accounts".)

(iii) The financial and regulatory statements produced by BLMIS were false and misrepresented the firm's true financial state of affairs[246]

a. Registration statement Form ADV filed with the SEC was false and was not timely

299. BLMIS was registered with the SEC as a broker-dealer as of January 19, 1960 and it was not until more than 46 years later, beginning in 2006, that it was registered as an investment adviser. Based on a review of regulatory requirements, and as further addressed below, BLMIS should have registered with the SEC as an investment adviser beginning in 1979 when the Uniform Application for Investment Adviser Registration ("Form ADV") was required for investment advisers.[247]

300. Investment advisers must register with the SEC by filing Form ADV[248] unless they are exempt from registration.[249] Investment advisers with 15 or more clients must register with the SEC.[250] Despite having more than 15 client accounts, BLMIS did not register as an Investment Adviser until August 2006. Between 1979 and 2006, BLMIS had more than 15 client accounts and by not filing Form ADV as required, misrepresented its total number of clients. (*See* Figure 25 *supra* for the number of accounts from 1978 to 2008.)

301. Between 2006 and 2008, Madoff misrepresented the number of clients in his IA Business on the Form ADV. For example, in or about January 2008, BLMIS filed with the SEC an Amended Form ADV. On the application, BLMIS reported 23 client accounts and assets under management of approximately $17.1 billion.[251] In actuality, as of December 31, 2007,

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[246] BLMIS Controllers, Irwin Lipkin and Cotellessa-Pitz, both pled guilty to falsifying the BLMIS books and records. In particular, Irwin Lipkin pled to falsifying BLMIS books and records from at least the mid-1970s. *See* Irwin Lipkin Plea Agreement; Irwin Lipkin Information at 8, 18; Enrica Cotellessa-Pitz Plea Allocution at 30-31.
[247] Investment Advisers Act Rule §§ 203-1 & 203(b) (1940).
[248] Investment Advisers Act § 203(b)(3) (1940).
[249] The Securities Exchange Act of 1934, 15 U.S.C. § 80b-3 (2010); 44 FR §21008 (Apr. 9, 1979).
[250] *Id*.
[251] PUBLIC0003840.

BLMIS had approximately 4,900 active customer accounts[252] and purported assets under management of approximately $74 billion.[253] Historical records show that there were more than 8,000 customer accounts at BLMIS over the life of the business.[254]

b. FOCUS reports and the Annual Audited Reports were false and misrepresented the true state of BLMIS

302. As a registered broker-dealer operating through 2008, BLMIS was required to file FOCUS reports with the SEC.[255] FOCUS reports are financial and operational reports that set forth, among other information, assets, liabilities, revenues, and expenses of the company.

303. In addition, BLMIS was required to file Annual Audited Reports.[256] These Annual Audited Reports contain information about income, cash flows, changes in stockholders', partners', or sole proprietors' equity, and statement of financial condition.

304. The BLMIS FOCUS and Annual Audited Reports reveal inconsistencies in BLMIS's purported business activities as well as material misstatements in its financial statements. Both the FOCUS reports and Annual Audited Reports require a broker-dealer to list the amount of cash on hand, as well as all of its other assets and liabilities. The reports BLMIS filed, however, often did not reflect the assets and liabilities BLMIS should have reported and, therefore, contained numerous misstatements as discussed in the following paragraphs.

305. BLMIS inaccurately reported the amount of cash it held on its FOCUS reports. For example, based on an analysis of the IA Business bank account statements, on an almost nightly basis, BLMIS swept funds from the 703 Account into overnight deposits. According to the FOCUS report instructions, the funds in the 703 Account and the overnight deposits are considered "cash" and should have been included in the "cash" line on the FOCUS reports and Annual Audited Reports.[257] These amounts were excluded from the reported cash

[252] SQL Query-All Customer Accounts as of December 31, 2007.
[253] SQL Query-All Customer Accounts as of December 31, 2007.
[254] SQL Query-All Customer Accounts for all Years.
[255] SEC Rule 17a-5, 17 C.F.R. 240.17a5.
[256] SEC Rule 17a-5(d), 17 C.F.R. 240.17a5(d).
[257] All "cash" items except for "cash in banks subject to withdrawal restrictions" shall be included on the "cash" line of the report. *Form X-17A-5 Part IIA General Instructions*, Securities and Exchange Commission, http://www.sec.gov/about/forms/formx-17a-5_2a.pdf (last visited Oct. 24, 2012) (PUBLIC0590841), updated http://www.sec.gov/about/forms/formx-17a-5_2a.pdf (last visited Sept. 19, 2024).

balances, and in fact, cash in the 703 Account and the overnight deposits often exceeded the "cash" actually reported by BLMIS in the FOCUS reports and Annual Audited Reports.

306. For example, the December 2006 FOCUS report listed $4,882,332 as the amount of cash on hand.[258] As of December 31, 2006, the ending balance of the 703 Account was $394,700 and the amount in overnight deposits was approximately $295,000,000, totaling $295,394,700 of cash on hand.

307. BLMIS's underreporting of its cash position was not isolated to the December 2006 FOCUS report. In all but two instances during the reporting periods examined from September 30, 2006 through September 30, 2008, BLMIS underreported its cash position and thus, provided false and inaccurate statements to the SEC.[259]

[258] PUBLIC0002664.
[259] The March 2008 and June 2008 filings reported more cash than was reflected in the 703 Account.

308. Table 10 below shows a comparison of "cash and cash equivalents"[260] reported on FOCUS reports and cash in the 703 Account (*see* column 'c' vs. column 'd'). Accordingly cash reported on the FOCUS reports was significantly understated.

Table 10[261]

Date	703 Account Overnight Investment[262]	703 Account Ending Balance[263]	Total Cash from 703 Account	Cash and cash equivalents on FOCUS Report[264]
	(a)	(b)	(c) [(a) + (b)]	(d)
09/06	$140,000,000	$800,207	$140,800,207	$4,293,419
12/06	295,000,000	394,700	295,394,700	4,882,332
03/07	160,000,000	2,000,000	162,000,000	3,716,017
06/07	145,000,000	292,099	145,292,099	5,175,146
09/07	120,000,000	376,500	120,376,500	5,460,095
12/07	235,000,000	742,309	235,742,309	164,382,040
03/08	220,000,000	135,534	220,135,534	222,737,426
06/08	170,000,000	1,712,804	171,712,804	257,374,499
09/08	480,000,000	418,000	480,418,000	187,651,497

309. The FOCUS reports also did not properly reflect BLMIS's liabilities. For example, an entity filing a FOCUS report must report "Bank loans payable." As explained in greater detail in this report, during the IA Business liquidity crisis in late 2005, BLMIS obtained a $95

[260] The FASB defines cash equivalents as short-term investments of high liquidity which are readily convertible into certain amounts of cash and subject to an insignificant risk of changes in value. Cash and Cash Equivalents, FASB ASC 305-10-20.
[261] *See* FOCUS reports for 2006, 2007, and 2008 (Q1 to Q3 only) at PUBLIC0002663, PUBLIC0002779, and PUBLIC0002916, respectively.
[262] Amounts obtained from the JPMC 703 respective monthly bank statement.
[263] Amounts obtained from the JPMC 703 respective monthly bank statement ending balances.
[264] Amounts taken from "Line 1 – Cash" for each respective FOCUS report.

million loan in November 2005 and an additional $50 million loan in January 2006 from JPMC, collateralized, in part, by bonds from a customer.[265] The loans were repaid in June 2006; yet, the FOCUS report for the period ending December 2005 ("December 2005 FOCUS Report") reported that BLMIS had no bank loan obligations outstanding.[266]

310. Prior to September 2006, BLMIS recorded *de minimis* commission revenue on the FOCUS report "Commissions" revenue line.[267] BLMIS also did not report any commission revenue on its Annual Audited Reports prior to October 2006. If the IA Business was actually executing trades, customer commissions should have been reflected in the "Commissions" line item. The fact that no commission revenue was reported further shows that no trading in the IA Business occurred.

311. As mentioned above, BLMIS registered with the SEC as an investment adviser in August 2006. The FOCUS and Annual Audited Reports filed by BLMIS after that time included amounts listed for "Commissions." Comparing the revenue reported in the Annual Audited Reports and FOCUS reports for the fiscal years immediately before and after BLMIS registered as an investment adviser demonstrates the significance of the "newly" reported commission revenue. For the fiscal year ended 2005, BLMIS reported no commission revenue in its FOCUS report. By contrast, for the fiscal year ended 2007, BLMIS reported $103,174,848 of commission revenue in its 2007 Audited Financial Statement which represented approximately 60% of total reported BLMIS revenues for the year.[268] However, since no trading activity occurred in the IA Business, no commission revenue was generated and the FOCUS reports thereby contained false information.

312. In addition, the FOCUS reports and Annual Audited Reports did not reflect other activity typical of a broker conducting trades for investment adviser customers. BLMIS's FOCUS reports and Annual Audited Reports largely did not include: (i) customer receivables, such as

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[265] Liquidity is: "(1) The ability of a bank or business to meet its current obligations; or (2) The quality that makes an asset quickly and readily convertible into cash without significant loss." *Banking and Finance Terminology* 229 (4th ed. 1999). The inability of a business to meet its current obligations or convert its assets into cash without significant loss is referred to as a liquidity crisis. *Id*.
[266] *See* PUBLIC0002547.
[267] From Q1 1983 through Q3 1987, BLMIS reported $5,404 in commissions; no other commissions were reported prior to Q3 2006.
[268] MADTEE00726797 at -843.

margin accounts; (ii) customer payables, such as positive cash balances held by BLMIS on behalf of customers; or (iii) a computation for reserve requirements for customer activity as required by the SEC under Rule 15c3-3, all of which should be reported by a broker-dealer with managed investment accounts.

313. For example, the December 2005 FOCUS Report[269] had no amounts recorded under the captions "Receivables from customers" and "Payables to customers." In addition, the credit and debit balance amounts in customer security accounts that form the basis for the computation for the Rule 15c3-3 reserve requirement were left blank.

314. The failure to report financial information demonstrating customer activity was not isolated to the December 2005 FOCUS Report. Except for a select few, the FOCUS reports and Annual Audited Reports did not include customer receivables or customer payables, nor did they include customer account balances in their computations for 15c3-3 reserve requirements.

315. As noted *infra*, Friehling and F&H were not independent with respect to the BLMIS audit. Additionally, the investigation and analysis show that the FOCUS reports and Annual Audited Financial Statements contained material misstatements, inaccuracies and excluded required information.

c. F&H was not an independent auditor as required by the AICPA and other regulatory bodies

316. The AICPA, the New York State Education Department Office of the Professions and the SEC standards require that auditors maintain client independence.[270] For example, the AICPA requires that "an auditor must be free from any obligation to or interest in the client, its management, or its owners."[271]

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[269] *See* PUBLIC0002547.
[270] Auditing §220.03 (AICPA 2012); New York State Accountancy Regulations Title 8; §29.10a-5; 17 C.F.R. §240.17a-5(f)(3).
[271] Code of Professional Conduct, ET § 101 (Am. Inst. of Certified Pub. Accountants 1988); Auditing Standards §220.03 (AICPA 2012); 8 NYCRR §29.10a(5); 17 C.F.R. §240.17a-5(f)(3).

317. Under SEC regulations, independence is impaired when an accountant has "[b]rokerage or similar accounts maintained with a broker-dealer that is an audit client, if…[t]he value of assets in the accounts exceeds [$500,000]."[272]

318. According to the New York State Society of Certified Public Accounts, independence will be considered to be impaired if the public accountant, or a partner in the firm: (i) has a direct or material indirect financial relationship with any officer, director, employee or principal stockholder of the enterprise, or (ii) if the licensee or a member of his or her or the partner's immediate family, is or has been involved in any situation creating a conflict of interest, during the period covered by the examination or at the time of issuance of a report.[273]

319. F&H was not independent with respects to the rules, regulations and requirements of the AICPA, the State of New York and the SEC. In particular, Friehling and/or his wife had investment accounts at BLMIS from the early 1980s. Between the years 1983 and 2008, the Friehling accounts had an average purported equity balance of at least $6.2 million. Friehling's former partner, Horowitz, also had investment accounts with BLMIS.[274]

i. F&H Audit Template Opinions Found at BLMIS

320. During a search of electronic files, numerous Microsoft® Word documents were found relating to the audits purportedly being performed by F&H. Several versions of standard AICPA template audit opinions were found on Eric Lipkin's IA Business computer. These files contained metadata indicating that Eric Lipkin created the documents.[275]

321. It appears that BLMIS was using different versions of template audit opinions depending on where it was directing the letter to be sent because several versions containing long form versus short form audit opinions were discovered at BLMIS. Further, as is evidenced below in Figure 51, instructions were included to assure that certain audit opinion letters were not used as updated versions were created.

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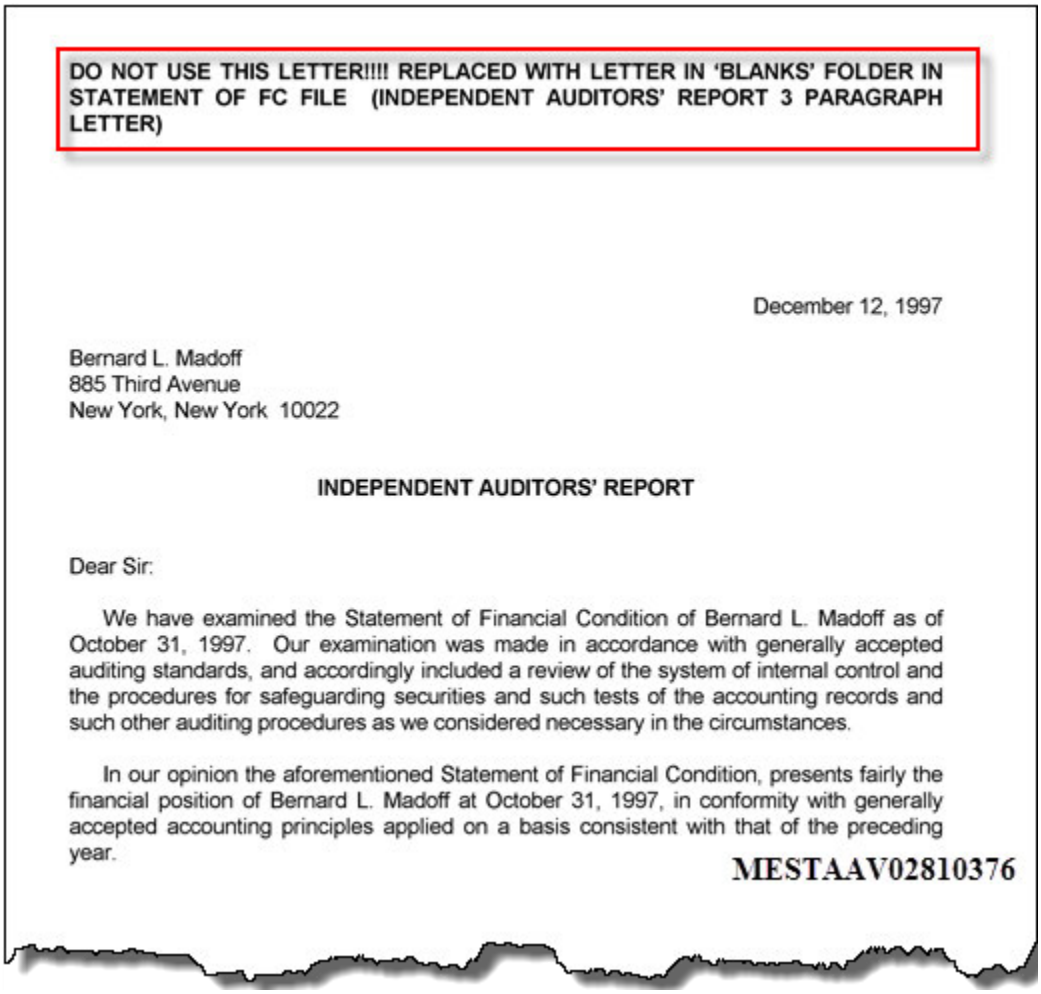
[272] 17 C.F.R. § 210.2-01(b)(c); SIPA (15 U.S.C.78fff-3).
[273] New York State Education Department Office of the Professions Rules of the Board of Regents, 8 NYCRR § 29.10a(5); Commodity and Securities Exchanges Rule, 17 C.F.R. §§210.2-01(b)(c). Further, according to the AICPA, an auditor "must be free from any obligation to or interest in the client, its management, or its owners." Auditing Standards §220.03 (AICPA 2012).
[274] Similarly, per review of "All Accounts Listing" in the SQL database, the Horowitz accounts with BLMIS had an average purported equity balance of $5.5 million from 1983-2008.
[275] MESTAAV02851627.

Figure 51



DO NOT USE THIS LETTER!!!! REPLACED WITH LETTER IN 'BLANKS' FOLDER IN STATEMENT OF FC FILE (INDEPENDENT AUDITORS' REPORT 3 PARAGRAPH LETTER)

December 12, 1997

Bernard L. Madoff
885 Third Avenue
New York, New York 10022

INDEPENDENT AUDITORS' REPORT

Dear Sir:

We have examined the Statement of Financial Condition of Bernard L. Madoff as of October 31, 1997. Our examination was made in accordance with generally accepted auditing standards, and accordingly included a review of the system of internal control and the procedures for safeguarding securities and such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion the aforementioned Statement of Financial Condition, presents fairly the financial position of Bernard L. Madoff at October 31, 1997, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

MESTAAV02810376

322. Also, cases of F&H stationery and envelopes were found at BLMIS. Cases of F&H unused stationery were also found in the warehouse where BLMIS stored documents. In my experience, it is highly unusual to find this amount of auditor stationery at the client's premises.

B. THE IA BUSINESS WAS A PONZI SCHEME

1. Indicia of a Ponzi Scheme

a. Definition of Ponzi Scheme

323. According to the Association of Certified Fraud Examiners, a Ponzi scheme is "an illegal business practice in which new investors' money is used to make payments to earlier investors."[276] The scheme is so named due to the widespread publicity of a fraud perpetrated by Charles Ponzi from 1919 to 1920 in Boston, Massachusetts.[277] Black's Law Dictionary defines a Ponzi scheme as "a fraudulent investment scheme in which money contributed by later investors generates artificially high dividends or returns for the original investors, whose example attracts even larger investments. Money from the new investors is used directly to repay or pay interest to earlier investors, usually without any operation or revenue-producing activity other than the continual raising of new funds."[278]

324. A Ponzi scheme begins as an investment opportunity.[279] The fraudster solicits investors with promises of returns within a specified time period (*e.g.*, a return of 50% in 6 months). Before the return becomes due, the fraudster will have solicited investments from other individuals

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[276] Association of Certified Fraud Examiners, *Fraud Examiners Manual* §1.1731 (2009) (PUBLIC0590889).
[277] Dr. Joseph T. Wells, CPA, *Encyclopedia of Fraud* 602 (3d ed. 2007).
[278] *Black's Law Dictionary* (8th ed. 2005). This definition concurs with that of the SEC, which defines a Ponzi scheme as:

> [A]n investment fraud that involves the payment of purported returns to existing investors from funds contributed by new investors. Ponzi scheme organizers often solicit new investors by promising to invest funds in opportunities claimed to generate high returns with little or no risk. In many Ponzi schemes, the fraudsters focus on attracting new money to make promised payments to earlier-stage investors and to use for personal expenses, instead of engaging in any legitimate investment activity.

Frequently Asked Questions, U.S. SEC, http://www.sec.gov/answers/ponzi.htm#PonziWhatIs (last visited Nov. 20, 2011) (PUBLIC0668089), updated http://www.sec.gov/answers/ponzi.htm#PonziWhatIs (last visited Sept. 19, 2024). Moreover, this definition is also consistent with opinions issued by the Second Circuit. "A 'Ponzi' or 'Pyramid' scheme is a fraudulent investment scheme in which money contributed by later investors is used to pay artificially high dividends to the original investors, creating an illusion of profitability, thus attracting new investors." *Bear, Stearns Sec. Corp. v. Gredd (In re Manhattan Inv. Fund Ltd.)*, 397 B.R. 1, 8 (S.D.N.Y. 2007), *aff'd* 328 Fed. Appx. 709 (2d Cir. 2009).
[279] Alex Altman, *A Brief History of Ponzi Schemes*, Time, http://www.time.com/time/business/article/0,8599,1866680,00.html (last visited Aug. 11, 2011) (PUBLIC0590887), updated https://time.com/archive/6905014/a-brief-history-of-ponzi-schemes-2/ (last visited Sept. 19, 2024).

and will have used those to pay the previously promised return (hereinafter referred to as "IA Business Customer Money"). In strict accounting terms, money is paid out as a return, described as income, but is actually a distribution of capital. Instead of returning profits, the fraudster spends cash reserves.[280] At times, when an early investor demands redemption of the investment, proceeds from new investors are used to repay and "cash-out" the earlier investor.

325. The appearance of a successful investment often draws more investors into the scheme. In fact, many of the original investors will reinvest their proceeds and principal back with the fraudster. This infusion of cash aids the fraudster in continually paying out the next round of investors.[281] Instead of actually investing the money the fraudster collects, the funds not used to pay other investors are usually used for personal enrichment.

326. The Ponzi scheme is dependent on a continuous flow of funds for its existence. Without cash coming in, the scheme is no longer able to pay investors and collapse is inevitable.[282] Early investors who exit the scheme in time often escape with their principal and a substantial "phantom gain," so called because the gain is just a portion of other investors' principal. It is the later investors, and those who have not withdrawn from the scheme, who suffer the fallout upon collapse.[283]

2. There was no legitimate trading or investment activity and, therefore, no profits from the IA Business

327. As noted herein, a Ponzi scheme: (i) purports to be a legitimate business; (ii) is dependent on a continuous flow of funds for its existence; and (iii) generates artificially high dividends for investors. The only source of cash available for the IA Business to pay off investors was generated through a steady network of closely guarded relationships that helped to feed cash into the IA Business. The IA Business had no profits from trading, received limited monies from the Proprietary Trading Business and had no evidence of any outside financial support

[280] Wells at 603.
[281] *Id*. at 601.
[282] Steven L. Skalak, Thomas W. Golden, Mona M. Clayton & Jessica S. Pill, *A Guide to Forensic Accounting Investigation* 496 (2d ed. 2011).
[283] *Id*.

sufficient to fund payoffs to investors. The only source of cash available for the IA Business to pay purported investment profits as well as redemption requests to its investors was from IA Business Customer Money.

a. No trading occurred in the IA Business and redemptions were made using IA Business Customer money

328. In order for the IA Business to have realized the investment returns as reported on its customer statements and to continue to make cash disbursements to customers from these earnings, the purported trades would have to have been actually executed in the market. They were not. In comparison to the Proprietary Trading Business, which had nearly 80 connections to handle order flow, execution capabilities through its proprietary MISS system, connections to the exchanges and real time market data and information providers, the IA Business had limited connectivity to the world outside of the Proprietary Trading Business. The IA Business's computer systems consisted largely of the AS/400 and hardware and software necessary only to perpetrate the fictitious trading activities and produce customer statements and related fictitious trading documentation.

329. As detailed above, the investigation and analysis of the IA Business showed that beginning at least in the 1970s, the IA Business's purported trades could not have been executed. The analyses show, among other things:

- Trading volumes that exceeded the daily U.S. trading volume for securities;
- Trading prices that were either above or below the reported daily market trading price range;
- Dividends that were not recorded to customers;
- Trades executed on holidays and weekends; and
- Purchases of securities at market lows and sales of securities at market highs at an unattainably consistent rate.

330. Further, had the securities reported on the IA Business customer statements actually been executed, a custody record would be available from the DTC and/or the OCC. Analyses conducted during this investigation, however, show that only those securities traded through

the Proprietary Trading Business were custodied at, or cleared through, BLMIS's DTC and OCC accounts. As the DTC is also the clearing and custody agent for OTC trading, the IA Business trades could not have been executed in the OTC market.

331. The trading of derivatives, such as options, in the OTC market is largely conducted under agreements published by ISDA. ISDA agreements set forth the standard terms by which the counterparties would be bound in a derivative transaction. While ISDA agreements were in effect for the Proprietary Trading Business, they were executed for derivative trades outside the scope of the IA Business's strategy and were issued and signed by the Proprietary Trading Business employees. No ISDA agreements were located for any of the purported IA Business option trades.

332. The investigation showed that not only were the IA Business trades not executed through the Proprietary Trading Business, but they could not have been executed by MSIL on European exchanges. In many instances, trades purportedly executed by the IA Business were not traded at all on the largest European exchanges. In other instances, the purported trades were executed at volumes on those European exchanges that were dwarfed by the volumes reflected on the IA Business customer statements confirming that they were not legitimate trades.

333. The investigation and analyses show that, without actual trades being executed through the IA Business, payment of customer redemptions could only have been fulfilled using IA Business Customer Money.

b. No legitimate income-producing business activities were identified

334. The IA Business had no legitimate income-producing activities. It did not execute trades and was dependent on an increasing supply of investor funds in order to continually meet investor redemptions. Further evidence shows that Madoff was not charging an investment advisory fee, which is normal in the industry. Despite claims of charging a few cents per share commission on each trade, any such commission income was illusory as no trading actually took place. Accordingly, there is no evidence of any legitimate business or any legitimate

source that would potentially provide a revenue stream for the IA Business sufficient to cover distributions to its customers.

c. Dividends that were purported to have been distributed to the IA Business customers were paid with IA Business Customer Money

335. Dividends that were to be paid to the purported owners of securities on record were not paid to the IA Business customers from actual corporate dividend distributions. Instead, they were paid with IA Business Customer Money. No records exist showing actual transfers of corporate dividend distributions to the IA Business bank accounts nor is there evidence of communication between the IA Business and the transfer agents or corporations that would have disbursed the dividends. From 1995 to 2008, nearly $4.6 billion in purported dividends were paid out to the IA Business customers using IA Business Customer Money.

d. Apart from the liquidity crisis and December 2008, no financial support vis-à-vis any profits from the Proprietary Trading Business was evidenced

336. The investigation and analysis of cash flows and cash transfers between the Proprietary Trading Business and the IA Business show that aside from the IA Business liquidity crisis (described *infra*) and transfers during the waning days of BLMIS in December 2008, the Proprietary Trading Business did not provide financial support to the IA Business. Furthermore, other than during the IA Business liquidity crisis, the investigation shows that the IA Business received no financial support from third parties (*e.g.*, loans). Therefore, any distributions to the IA Business customers could only have come from IA Business Customer Money.

337. In fact, monies were being diverted not from the Proprietary Trading Business to the IA Business, but from the IA Business to the Proprietary Trading Business. During the investigation it was discovered that a significant percentage of the Proprietary Trading Business revenue, which was accounted for in the FOCUS reports, was derived from IA Business Customer Money being transferred to the Proprietary Trading Business via: (i) the

IA Business directly, (ii) the IA Business through a third-party brokerage account, or (iii) the IA Business through MSIL. (*See* Table 11.)

Table 11[284]

	Total BLMIS Revenue as reported in FOCUS Reports	IA Business Customer Money Included in "A"	Total BLMIS Revenue as reported in FOCUS Reports Excluding IA Business Customer Money	"B" as a percentage of "A"
	(A)	(B)	(C) [(A)-(B)]	(D) [(B)/(A)]
2000	$ 209,788,597.00	$ 75,582,928.71	$ 134,205,668.29	36.0%
2001	169,110,236.00	72,403,594.92	96,706,641.08	42.8%
2002	106,009,938.00	60,483,440.69	45,526,497.31	57.1%
2003	128,868,567.00	97,366,815.48	31,501,751.52	75.6%
2004	138,684,401.00	88,966,001.61	49,718,399.39	64.1%
2005	113,506,829.00	69,307,036.65	44,199,792.35	61.1%
2006	163,150,034.00	73,217,621.96	89,932,412.04	44.9%
2007	167,439,512.00	121,243,287.50	46,196,224.50	72.4%
2008	91,112,071.00	56,372,251.50	34,739,819.50	61.9%
Total	**$ 1,287,670,185.00**	**$ 714,942,979.02**	**$ 572,727,205.98**	**55.5%**

Note: 2008 figures are through Q3 2008.

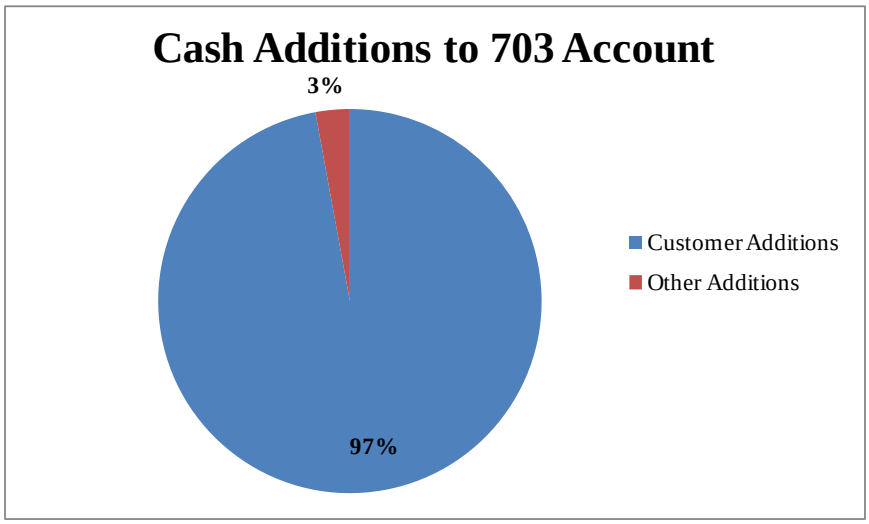
e. The 703 Account dealt almost entirely with customer deposits and redemptions

338. The main account used by the IA Business, the 703 Account, consisted almost entirely of deposits from customers (which were commingled) and inflows and outflows from interest-bearing accounts, which were themselves funded from customer money.[285] (*See* Figure

[284] *See* BLMIS FOCUS reports from 2000-2008 (PUBLIC0001967–PUBLIC0003129).
[285] Funds from the 703 Account were placed in ancillary accounts that earned additional funds on short-term instruments.

52.)[286] There were no additions to the 703 Account as a result of trading from the execution of the purported IA Business strategies.

Figure 52[287]



339. Since there is no income-producing activity, Ponzi schemes are at risk of liquidity shortages when incoming cash flows diminish and outgoing redemptions increase. At the end of 2005, the balance of the 703 Account became so dangerously low that the IA Business faced a severe liquidity crisis, which nearly forced the Ponzi scheme to unravel. From approximately October 2005 through April 2006, the IA Business investor redemption requests far exceeded investor deposits. BLMIS survived, in part, by holding bonds from a long-time customer of Madoff, and by transferring cash from the Proprietary Trading Business bank account (the 621 Account) to meet redemptions.

[286] *See* **Exhibit 31** for an example of a bank statement for the 703 Account. Further, customer redemptions were paid through two other accounts: the JPMC 509 Account, which was a controlled disbursement account funded by the 703 Account, and the Bankers Trust 599 Account, which was a checking account entirely funded by the 703 Account during the period for which bank records are available. *See* **Exhibits 32 and 33**, respectively, for examples of bank statements for the JPMC 509 Account and the Bankers Trust 599 Account.
[287] This is based on account activity from December 1998 to December 2008. "Other" transactions include, but are not limited to, overnight sweep additions and incoming wires or checks.

340. On November 14, 2005, BLMIS requested a $95 million loan[288] from JPMC, collateralized by Federal Home Loan Bank Bonds in the principal amount of $100 million due April 8, 2009.[289] According to JPMC records, the $100 million Federal Home Loan Bank Bond was received from the customer on November 4, 2005.[290] However, BLMIS paid the customer approximately 30% interest on the bond by quarterly deposits into various accounts at JPMC held by the customer.[291] JPMC credited $95 million to the 703 Account on November 14, 2005.[292]

341. On January 18, 2006, BLMIS requested an additional $50 million loan from JPMC.[293] Collateral for this loan included two more Federal Home Loan Bank Bonds from the customer; one bond had a principal value of $9 million and the other had a principal value of $45 million, together totaling $54 million.[294] On January 23, 2006, JPMC credited the 703 Account with $50 million.[295]

342. On June 1, 2006, BLMIS notified JPMC that it was repaying both loans, for a total amount of approximately $145 million in principal, from the 703 Account.[296]

343. Separately, the IA Business bank account was reduced so dramatically during the liquidity crisis that BLMIS used the Proprietary Trading Business bank account (the 621 Account) to meet four separate investor redemption requests totaling approximately $262 million.[297]

344. By June 2006, after the liquidity crisis had subsided, BLMIS transferred $261.8 million of investor money from the IA Business bank accounts to the Proprietary Trading Business bank account. The transfer effectively reimbursed the Proprietary Trading Business bank account for the investor redemptions paid from those accounts.

345. The liquidity crisis is but another indicator that the IA Business was a Ponzi scheme.

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[288] BLMIS request for loan to JPMC on November 14, 2005 (JPMSBT0002332 at JPMSBT0002336).
[289] *Id.*; JPMC Positions Statement as of December 31, 2005 (SECSBM0000041).
[290] November 4, 2005, BLMIS letter to JPMC, regarding $100,000,000 P/A Federal Home Loan Bank due 4/08/09 (JPMSBT0002335).
[291] Bond account document (MADTSS01163051).
[292] JPMC Statement of Account ending November 30, 2005 (JPMSAB0002491 at JPMSAB002511).
[293] BLMIS request for loan to JPMC on November 14, 2005 (JPMSBT0002332 at JPMSBT0002338; JPMSBT0002341).
[294] *Id.*
[295] JPMC Statement of Account ending January 31, 2006 (JPMSAB0002865 at JPMSAB0002909).
[296] JPMSBT0002332 at JPMSBT0002342.
[297] 621 Account statements (SECSBJ0008118; SECSBJ0008135; SECSBJ0008137); Customer Statements (MDPTPP05530971; MDPTPP00020510; MDPTPP02979426).

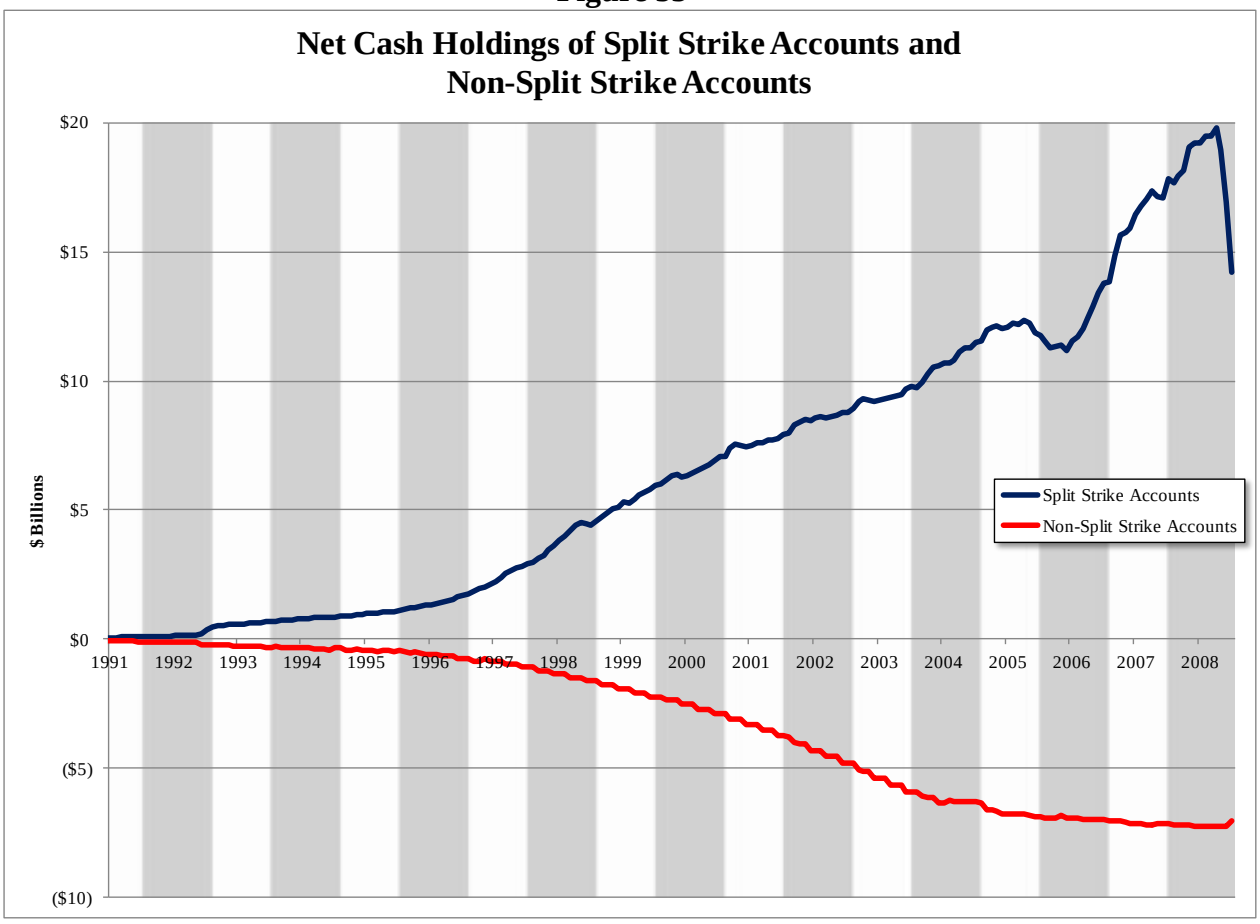
f. The IA Business was dependent on increasing cash inflows and promised consistent returns to customers

346. In order to continue its Ponzi scheme, the IA Business was dependent on a constant and ever-increasing inflow of cash in order to satisfy customer redemptions. Beginning in the early 1990s, a very large network of feeder funds sustained a much smaller group of the IA Business customers who were withdrawing large sums of cash from customer accounts.

347. During the timeframe reflected in Figure 53, the SSC accounts (blue line) consisted of nearly 4,500 accounts; the non-SSC accounts (red line) consisted of only 300 accounts.[298] As the non-SSC accounts began to withdraw greater amounts of money from at least 1992, the IA Business attracted increasingly greater amounts of cash through its investors, many of which were feeder funds.

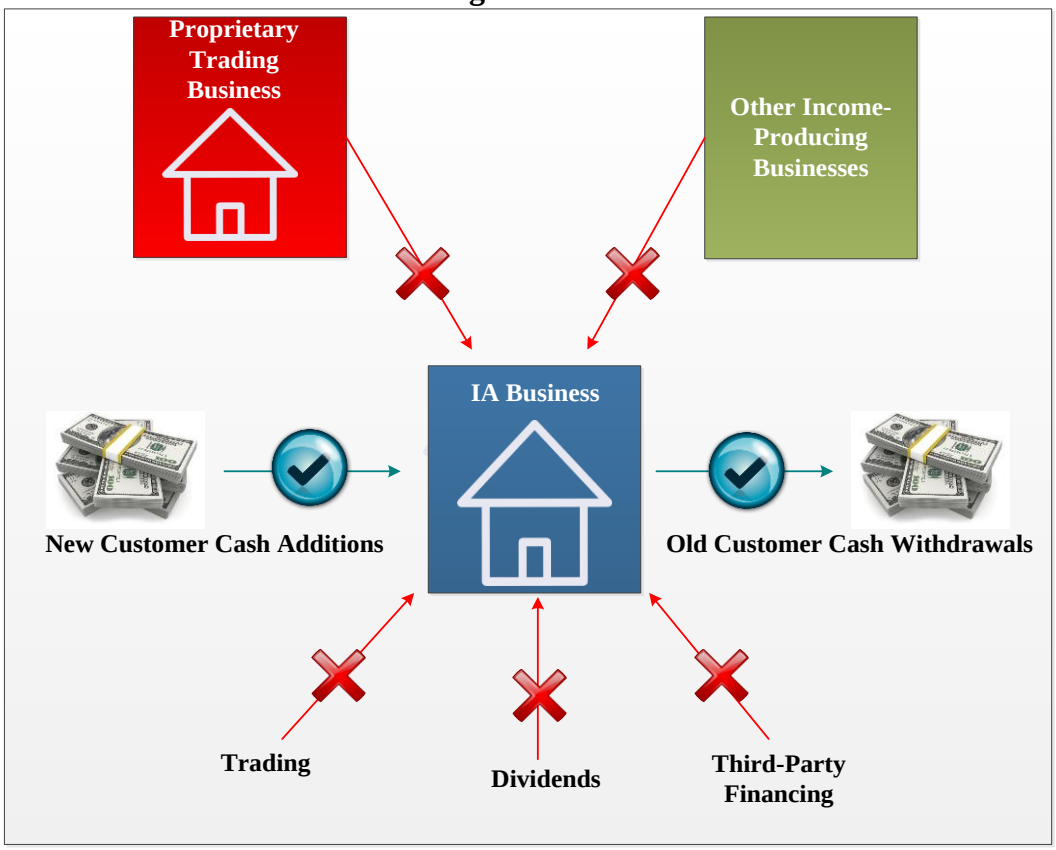
[298] Figure 53 assumes a zero dollar starting basis beginning in 1991.

Figure 53



348. Given there were no profits from actual trading, investment or other legitimate business activity, the IA Business had to use IA Business Customer Money to pay back other investors thereby meeting the classic definition of a Ponzi scheme. (*See* Figure 54.)

Figure 54



C. THE PROPRIETARY TRADING BUSINESS WAS ENGAGED IN PERVASIVE FRAUDULENT ACTIVITY

1. The Proprietary Trading Business Was Not a Going Concern

349. According to the AICPA, an entity is a going concern if it has the ability to continue to function for a "reasonable period of time."[299] The entity will be deemed to no longer be a going concern after considering several factors including, but not limited to, recurring operating losses, working capital deficiencies, and negative cash flows. Despite its audited financial statements and its public filings that gave the appearance of being a profitable firm,

[299] *AU Section 341: The Auditor's Consideration of an Entity's Ability to Consider as a Going Concern,* AICPA, http://www.aicpa.org/research/standards/auditattest/downloadabledocuments/au-00341.pdf (last visited July 10, 2012) (PUBLIC0670159), updated https://us.aicpa.org/content/dam/aicpa/research/standards/auditattest/downloadabledocuments/au-00341.pdf (last visited Sept. 19, 2024).

the Proprietary Trading Business relied on fraudulent infusions of cash originating from the IA Business. Without these cash infusions, the Proprietary Trading Business would have failed to produce any profit from at least 2002 forward and would have ceased to have been a going concern at that time.

a. Lack of profitability in the Proprietary Trading Business

(i) The BLMIS financial statements were false and misleading

350. As detailed herein, BLMIS's FOCUS reports and Annual Audited Reports were false and misrepresented the firm's true state of financial affairs. For example, BLMIS failed to report in its FOCUS reports and Annual Audited Reports hundreds of millions of dollars held in the 703 Account. Further, BLMIS failed to report certain liabilities (*e.g.*, bank loans and customer payables) and certain assets (*e.g.*, customer receivables for margin accounts) and omitted commissions from purported trades from the IA Business.

351. Conversely, as will be explained below, cash from the IA Business was transferred from the 703 Account to the 621 Account for investment transactions that never occurred, but were fraudulently represented on the FOCUS reports and Annual Audited Reports under such items as "Gains or losses on firm securities trading accounts" or "Commissions." The Chief Compliance Officer and the Controllers of BLMIS have pled guilty to falsifying these reports.[300]

(ii) Cash infusions of IA Business Customer Money from the IA Business

352. As previously detailed, the Proprietary Trading Business was improperly subsidized and propped up by numerous cash infusions of IA Business Customer Money from the IA Business. Over the ten-year period for which bank statements and corresponding data were available, over 185 separate cash infusions were made to the Proprietary Trading Business from the IA Business (directly or indirectly), totaling approximately $800 million. (*See*

[300] *See* Peter Madoff Plea Agreement, *United States v. Peter Madoff*, S7 10-CR-228 (LTS) (S.D.N.Y. June 29, 2012); Enrica Cotellessa-Pitz Cooperation Agreement, *United States v. Enrica Cotellessa-Pitz*, S5 10-CR-228 (LTS) (S.D.N.Y. Dec. 15, 2011); Irwin Lipkin Plea Agreement, *United States v. Irwin Lipkin*, S9 10-CR-228 (LTS) (S.D.N.Y. Nov. 8, 2012).

Exhibit 34 –"Cash Infusions of IA Business Customer Money from the IA Business to the Proprietary Trading Business, July 1999 to November 30, 2008".)[301] Initially, cash was transferred via check or wire from the IA Business to the Proprietary Trading Business directly from the 703 Account or from an IA Business-funded brokerage account; later cash infusions were effectuated through a more complex scheme that purported to reflect securities transactions.

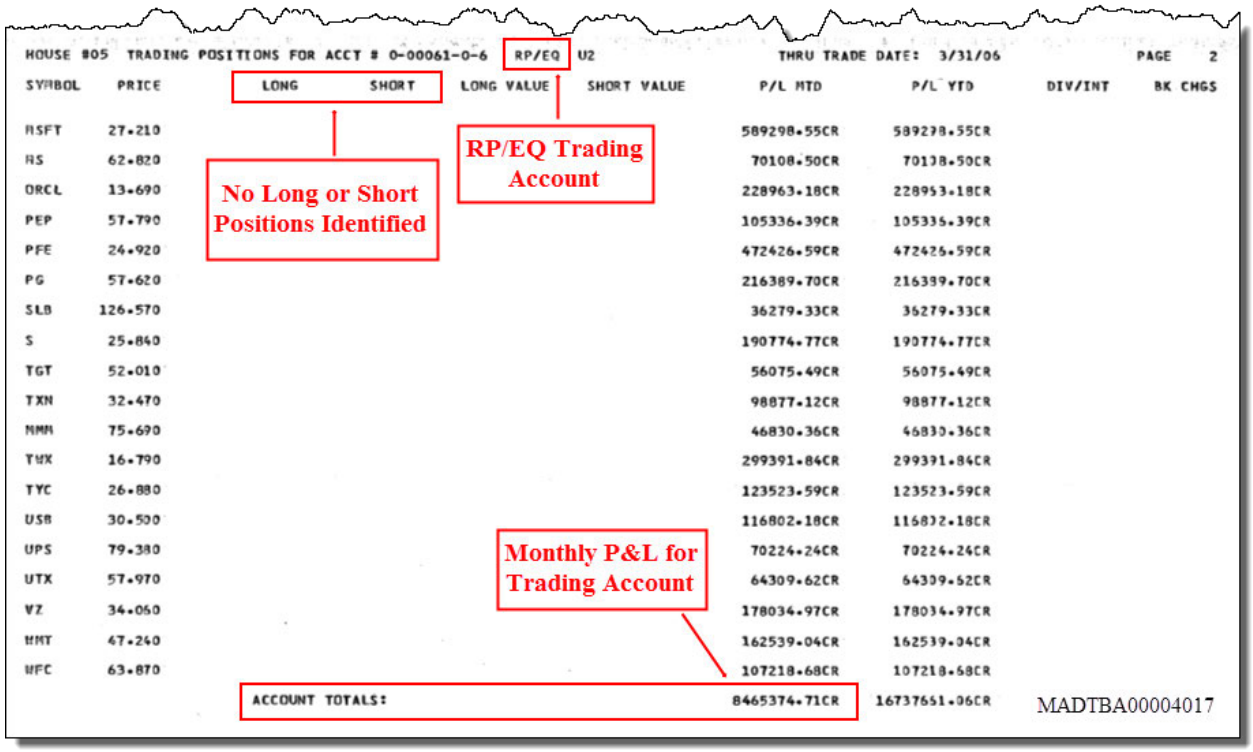
a. The cash infusions from the IA Business were recorded as fictitious trades in three main Proprietary Trading Business trading accounts

353. The Proprietary Trading Business assigned trading accounts to its traders. Through these accounts, the trades and associated profit and loss positions on these transactions would be recorded, aggregated and then reflected on the firm's financial statements. In connection with the cash infusions, fictitious securities transactions were recorded on three Proprietary Trading Business trading accounts: the "RP/EQ," "Firm Spreads" and "US Govt (Treasuries)" accounts.[302] Figure 55 provides an example of a Trading Position Report and the purported trade positions recorded in the RP/EQ trade account:

[301] *See* Cotellessa-Pitz Plea Allocution.

[302] The Proprietary Trading Business Account 6106 was named "RP/EQ" from 2004 through 2006. Prior to May 31, 2005, the RP/EQ account was associated with Trader 4, and after May 31, 2005, the RP/EQ account was associated with Trader U2. Account 6650 was named "Firm Spreads" from 1999 through 2008. Prior to May 31, 2005, the Firm Spreads account was associated with Trader 9, and after May 31, 2005, the Firm Spreads account was associated with Trader F1. Account 5884 was named the "UST" account from 1999 through 2000, the "US Govt" account from 2001 through 2004, and the "Treasuries" account from 2005 through 2008. Prior to May 31, 2005, account 5884 was associated with Trader 2, and after May 31, 2005, the account was associated with Trader F2. *See* MADTBA00287661; MADTBA00287371; MADTBA00287662; MADTBA00287372; MADTBA00287678; MADTBA00287383.

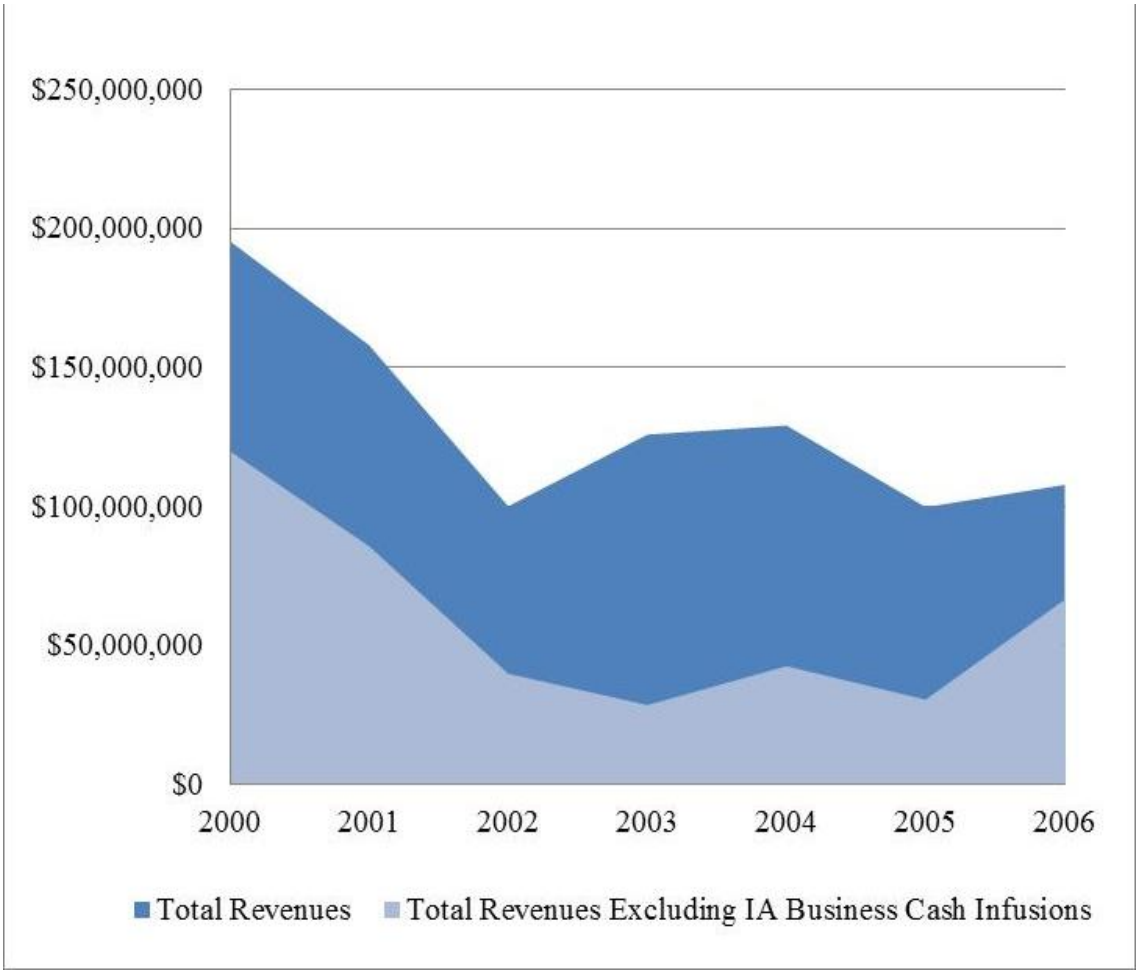
Figure 55



354. Despite the lengthy list of entries on the Proprietary Trading Business Trading Position Report as shown in Figure 55, none of these purported transactions actually occurred; they were fabricated and were derived from cash infusions from the IA Business. The monthly profits that are indicated for this account (*i.e.*, $8,465,374.71) were, however, aggregated into the overall profit and financial reporting for the Proprietary Trading Business as described *infra*. Figure 56 highlights the reported Proprietary Trading Business revenues that were purportedly generated from all trading accounts as compared to the Proprietary Trading Business revenues if the cash infusions from the IA Business were removed from these trading accounts. A comparison of the data indicates the fact that overall Proprietary Trading Business trade account revenue was substantially less without the IA Business cash infusions.[303]

[303] From mid-2006 through 2008, approximately $228 million of the fictitious revenues were recorded directly to the BLMIS General Ledger as "Commission Income" and were not recorded in one of the trading accounts. Since this

Figure 56
Total Trading Account Revenue vs.
Trading Account Revenue Excluding IA Business Cash Infusions



b. Cash infusions from the IA Business to the Proprietary Trading Business occurred as early as the 1970s

355. As detailed above, I analyzed how the cash infusions from the IA Business were recorded as fictitious trades on the records of the Proprietary Trading Business, thereby generating false financial records. As will be detailed below, these cash infusions began at least as early as 1977.

chart only shows the change in revenues due to the exclusion of the cash infusions in the Proprietary Trading Business trade accounts, the cash infusions from mid-2006 through 2008 are not reflected in this figure.

356. Irwin Lipkin, former Controller of BLMIS, admitted in his plea allocution to making false entries in the books and records of BLMIS beginning at least as early as the mid-1970s.[304] On an approximate monthly basis, Lipkin changed BLMIS's Profit & Loss ("P&L") numbers, memorializing certain of the alterations made in the books and records.

357. Cotellessa-Pitz succeeded Irwin Lipkin as Controller[305] and in her plea allocution, admitted that for month-end purposes Madoff determined the amount of profit to be reported by the Proprietary Trading Business.

358. Cotellessa-Pitz specifically testified at the criminal trial that if Madoff wanted the Proprietary Trading Business to appear more profitable, Clearance Payment or "CP Adjustments" were recorded in the firm's books and records.[306] CP Adjustments referred to the movement of money from the IA Business to the Proprietary Trading Business, when in fact no legitimate business purpose or reason for the transfer of money existed.[307]

359. FOCUS Reports, which were filed by BLMIS and submitted to the SEC, had embedded CP Adjustments (*i.e.*, cash infusions from the IA Business to the Proprietary Trading Business). An example of how these CP Adjustments flowed through the books and records of BLMIS to the FOCUS reports is described below in which a CP Adjustment was recorded to adjust the P&L from $299,312.66 to $1,111,861.92 (a nearly $812,550 increase) in September 1990.

360. As seen below in Figure 57 and Figure 58, the original P&L of $299,312.66 for September 1990 for the Proprietary Trading Business was comprised of income from equities of $710,167.44, a loss from options of $629,562.50 and income from bonds of $218,707.72.[308]

[304] United States of America v. Irwin Lipkin, S9 10 Cr. 228, *Information*, at ¶¶15-16.
[305] United States of America v. Irwin Lipkin, S9 10 Cr. 228, *Information*, at ¶11.
[306] Criminal Trial, November 19, 2013 Trial Transcript at 3730:8 to 3733:19.
[307] *Id*.
[308] MADTBB02316501.

Figure 57

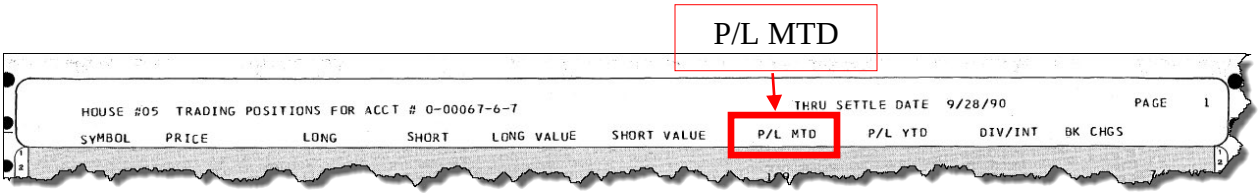
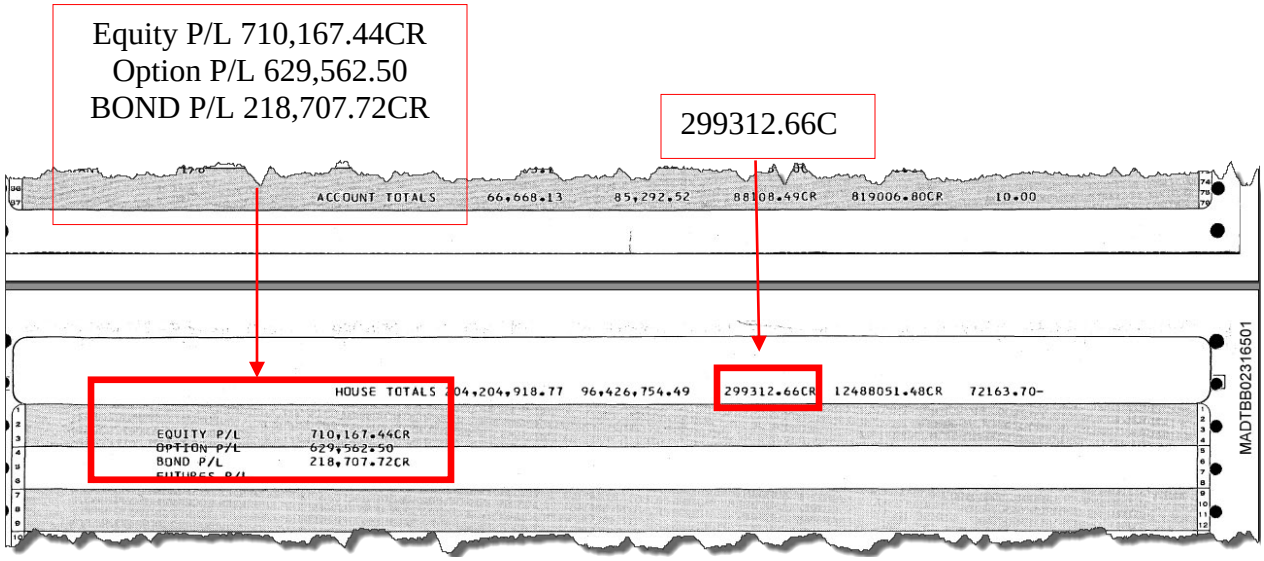


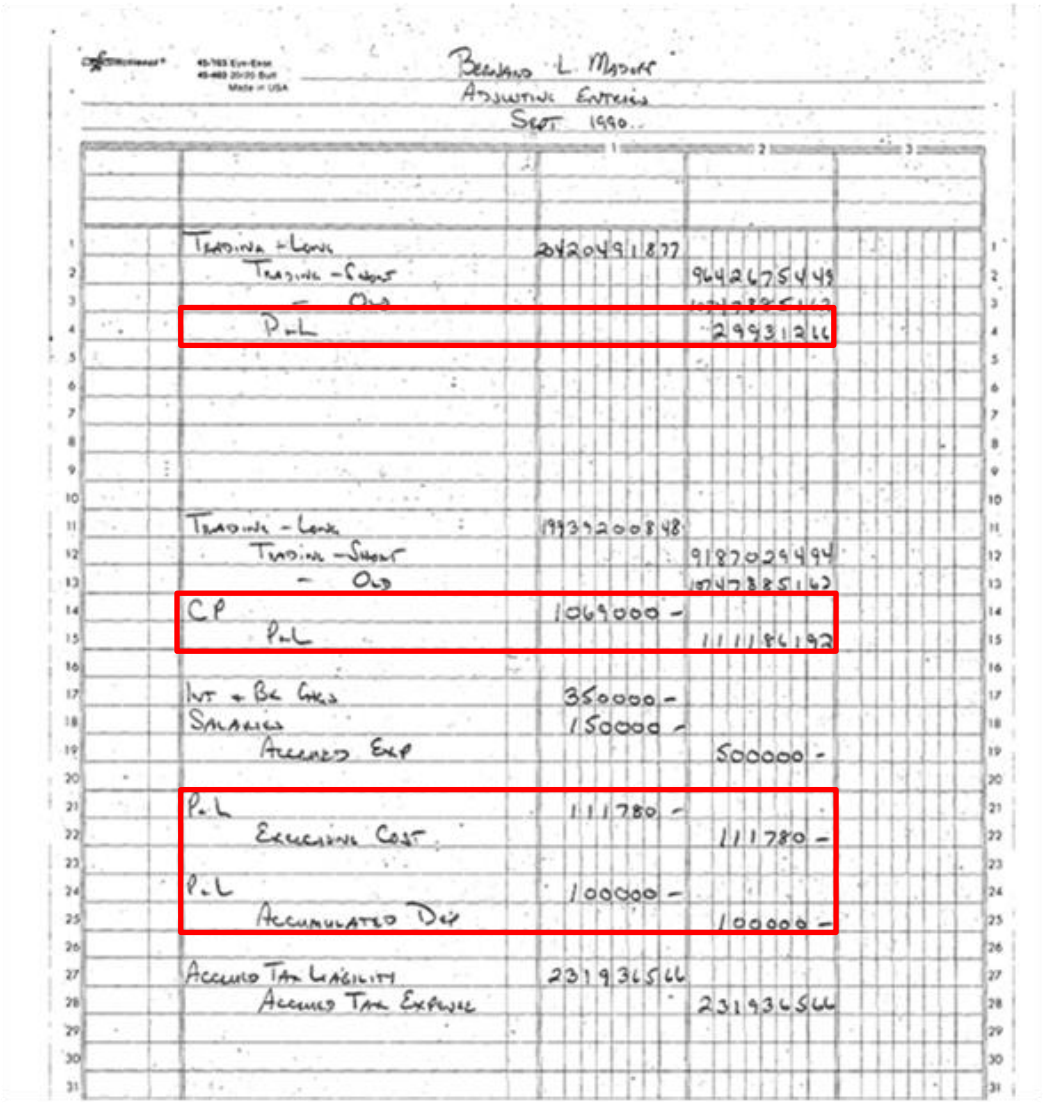
Figure 58



361. A CP Adjustment was then recorded to adjust the P&L to $1,111,861.92, which had the effect of making the Proprietary Trading Business appear more profitable. Further internal adjustments for "exercising costs" and "accumulated depreciation" were then recorded to arrive at an adjusted P&L of $900,081.92.[309] (*See* Figure 59.)

[309] MADTBB02316412.

Figure 59



$1,111,861.92 - $111,780 - $1,000,000 = $900,081.92

362. This adjusted P&L figure was recorded on an internal monthly P&L statement for the Proprietary Business for September 1990.[310] (*See* Figure 60.)

Figure 60

$900,671.31

BERNARD L MADOFF
PROFIT & LOSS STATEMENT FOR 9/28/90

	THIS MONTH	YEAR TO DATE	THIS QUARTER
INCOME			
		35,547.34-	15,242.17-
TRADING PROFIT/LOSS	900,677.31-	23,999,052.27-	8,428,562.15-
		753,429.20-	266,890.98-
TOTAL INCOME	977,253.01-	24,788,028.81-	8,710,695.30-
EXPENSES			
MISCELLANEOUS EXPENSE	165.98	1,503.08	483.96
SALARIES	145,918.03	3,815,163.63	980,734.48

363. When the September P&L figure of $900,677.31 was aggregated with the other months in the quarter (*i.e.*, P&L for July and August 1990), the total reconciled to the amount recorded on the FOCUS Report for the period ending September 30, 1990.[311] (*See* Figures 61 and 62.)

Figure 61

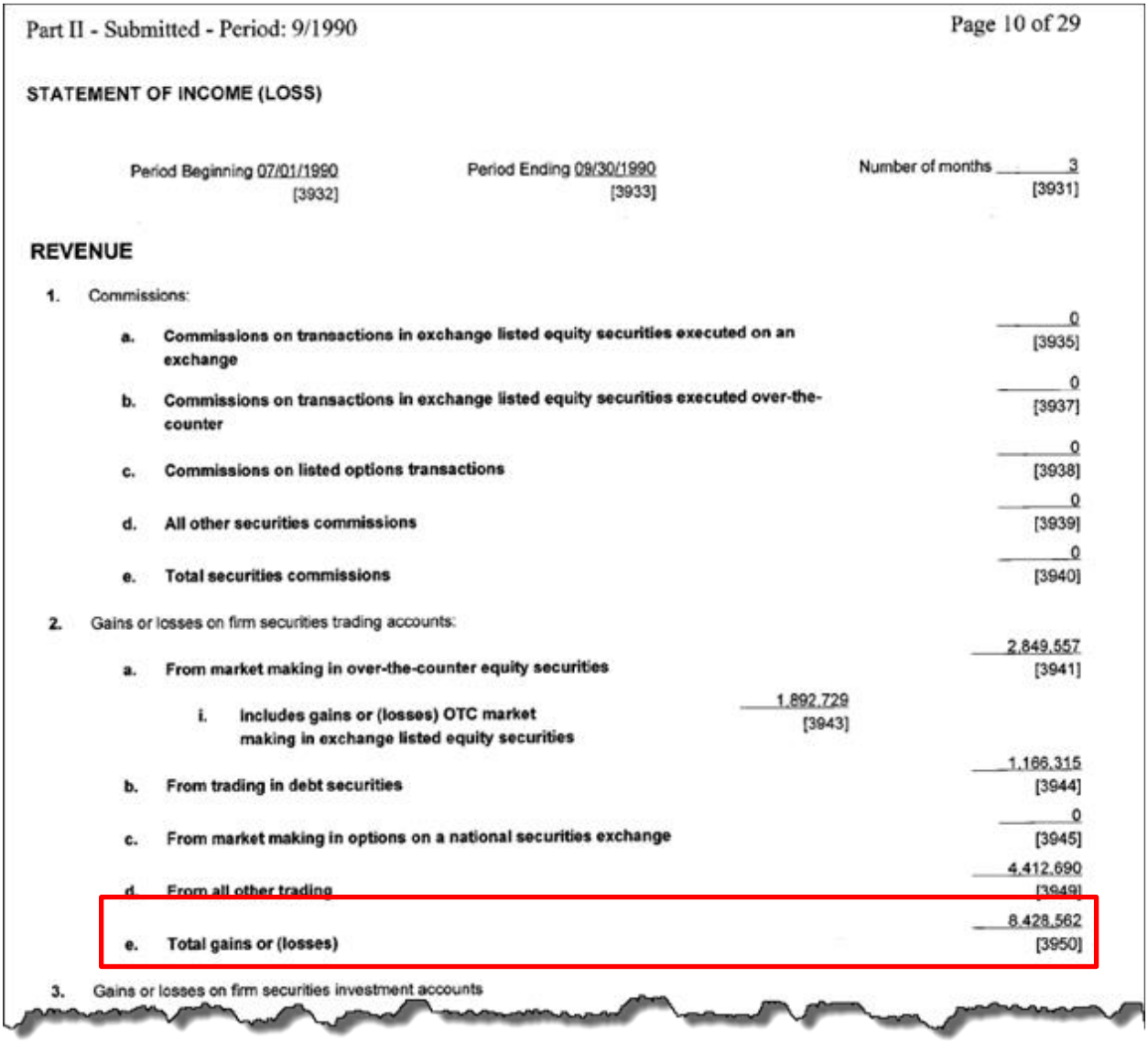
$3,936 + $3,592 + **$901** = $8,429

Schedule A | Madoff, Bernard L. 2625
885 Third Avenue
New York, NY 10022
FOR MONTH ENDS 1990
IN THOUSANDS - $000's OMITTED)

	ITEM	JULY	AUG	SEPT	OCT	NOV	DEC
[1710]	1. Subordinated Loan Agreements-Cash	0	0	0			
[1730]	2. Secured Demand Notes-Face Amount	0	0	0			
[3520]	3. Total Subordinations Allowable Net Capital	0	0	0			
[3501]	4. Ownership Equity/Partnership Capital-Start of Month	58,250	58,934	59,280			
	5. Unconsolidated Income/Expense for the Month:						
[3950]	a. Trading and Investment Account Profit (or Loss)	3,936	3,592	901			
[4212]	b. Other Gross Income (Loss)	101	104	77			
[4201]	c. Expenses	3,353	3,350	1,175			
[4221]	d. Federal Income Taxes	0	0	0			
[4250]	6. Net Profit or (Loss) for the Month	684	346	(197)			
	7. Other (Exclude Non-Conforming Capital)						
[4264]	a. Additions to Capital	0	0	0			
[4274]	b. (Deductions) from Capital	0	0	0			
[3500]	8. Ownership Equity/Partnership Capital-End of Month	58,934	59,280	59,083			
[3525]	9. Other (Deductions) or Allowable Credits	0	0	0			
[3530]	10. Total Capital and Allowable Subordinations	58,934	59,280	59,083			
	11. Added Charges-Customer and Non-Customer						
[3550]	a. Securities Accounts	0	0	0			

[310] Amounts are immaterially different ($900,081.92 - $900,677.31 = -$595.39). MADTBB02312249.
[311] *See* MADTBB02316328. Of note, amounts are recorded in "Thousands - $000's." *See* PUBLIC0000875.

Figure 62



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STATEMENT OF INCOME (LOSS)

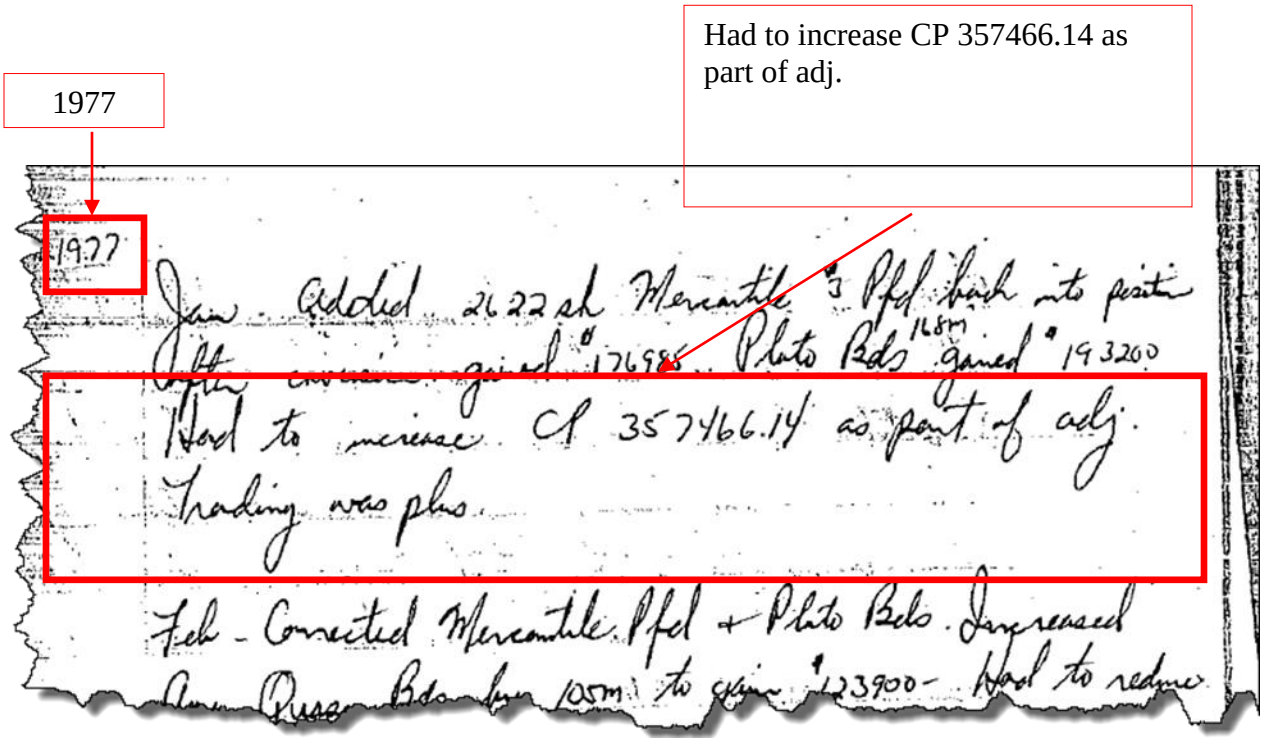
Period Beginning 07/01/1990 [3932] Period Ending 09/30/1990 [3933] Number of months 3 [3931]

REVENUE

1.	Commissions:		
	a. Commissions on transactions in exchange listed equity securities executed on an exchange		0 [3935]
	b. Commissions on transactions in exchange listed equity securities executed over-the-counter		0 [3937]
	c. Commissions on listed options transactions		0 [3938]
	d. All other securities commissions		0 [3939]
	e. Total securities commissions		0 [3940]
2.	Gains or losses on firm securities trading accounts:		
	a. From market making in over-the-counter equity securities		2,849,557 [3941]
	i. includes gains or (losses) OTC market making in exchange listed equity securities	1,892,729 [3943]	
	b. From trading in debt securities		1,166,315 [3944]
	c. From market making in options on a national securities exchange		0 [3945]
	d. From all other trading		4,412,690 [3949]
	e. Total gains or (losses)		8,428,562 [3950]
3.	Gains or losses on firm securities investment accounts		

364. There is evidence that the IA Business propped up the Proprietary Trading Business as early as the 1970s. References to CP Adjustments were identified in Lipkin's notes as early as 1977.[312] (*See* for example Figure 63 below from Lipkin's handwritten notes in 1977.)

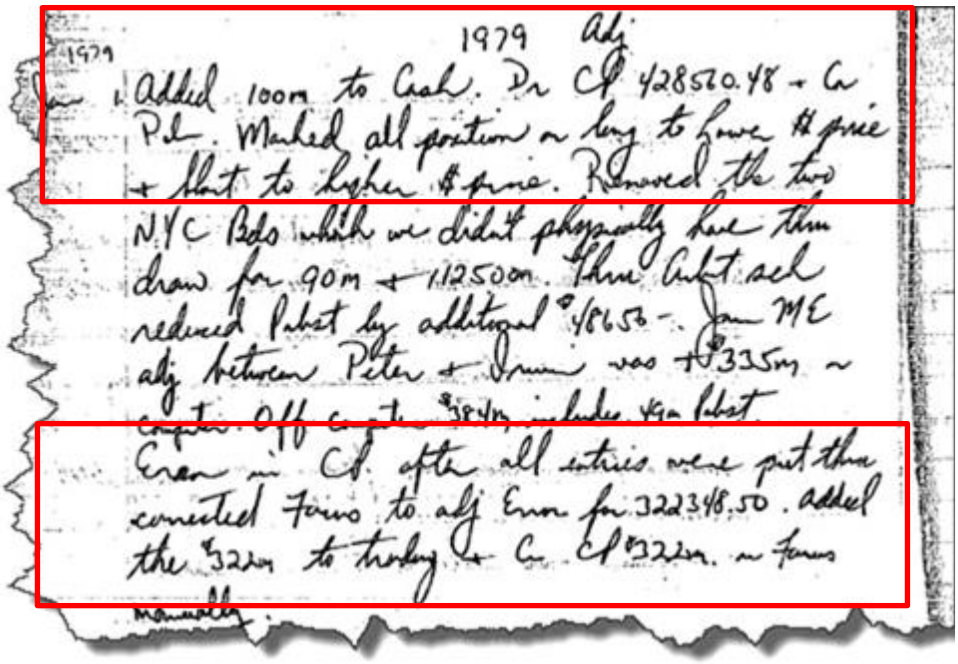
Figure 63



365. Notes from January 1979 reflect further P&L manipulations (*i.e.*, CP Adjustments).[313] (*See* Figure 64.)

[312] MADTEE00557263 – MADTEE00557300 at MADTEE00557267.
[313] MADTEE00557263 – MADTEE00557300 at MADTEE00557273.

Figure 64



366. Specifically, the note states "Added 100M to Cash," "Dr CP 428560.48 & Cr P&L."[314]

367. The CP Adjustments were fraudulent entries on the books designed to make it appear that BLMIS was making money in order to continue to operate the Ponzi.

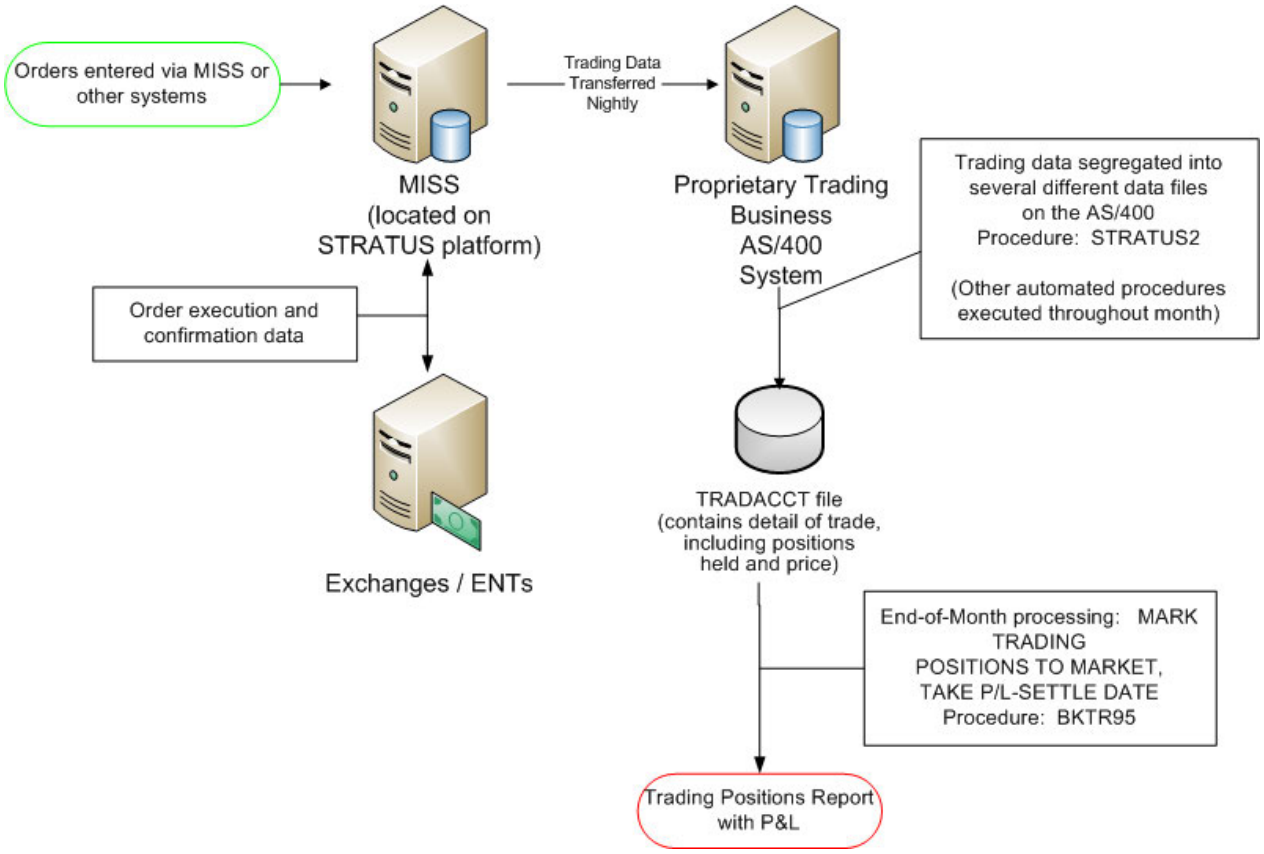
c. The fictitious trades in the Proprietary Trading Business trading systems were entered manually as adjustments

368. As will be described *infra*, my investigation into the underlying Proprietary Trading Business trading and reporting systems confirms that the fictitious trades assigned to the three trade accounts described above were entered into the Proprietary Trading Business AS/400 computer through manual override entries. These fictitious trades and their associated fictitious profits were ultimately captured in the Proprietary Trading Business's financials.

[314] *See also* MADTEE00557263 – MADTEE00557300 at MADTEE00557273, MADTEE00557285, MADTEE00557289, MADTEE00557294, and MADTEE00490104.

369. Generally for the Proprietary Trading Business, trades followed the path detailed in Figure 65:

Figure 65



370. Actual purchases and sales of securities by the Proprietary Trading Business traders were entered into the MISS execution system that was housed on the STRATUS trading platform.[315] The data from these trades was then transferred (and stored) on a nightly basis to the Proprietary Trading Business AS/400 computer system and segregated into various files.

371. One of the AS/400 files created from the trade data was the TRADACCT file, which reflected the profit and loss positions for Proprietary Trading Business trades. The TRADACCT file was regularly updated through the automated processes in the Proprietary

[315] "MISS is the central order management system for most trading activities . . . MISS then sends the orders to the designated destination." LAZAA0004330.

Trading Business AS/400 to account for additional trades, as well as corporate actions such as dividends and conversions.

372. My investigation has concluded there were also two methods of making manual adjustments directly to the TRADACCT file residing on the AS/400. The first method allowed manual adjustments for an account and CUSIP that already existed in the trade data; the second method allowed for the manual input of completely new trade data.

373. Based on the AS/400 code, the first method allowed for adjustments to existing securities in the database for corporate actions such as conversions, dividends and other adjustments. This trade updating process is explained in the BLMIS trading manual as shown in Figure 66.

Figure 66

5. UPDATE TRADING

Use this only if you are given Trading Updates from Danny, Jeff or Enrice. These C/S sheets will have IBM ONLY written on the top. The trading updates are coded as:

C - CONVERSION (MUST HAVE BOX NUMBER)
V - DIVIDEND
A – ADJUSTMENTS

If the house number is **31** or **32** they will indicate this on the sheet, otherwise use **HSE05.**

ENTERING TRADING UPDATES

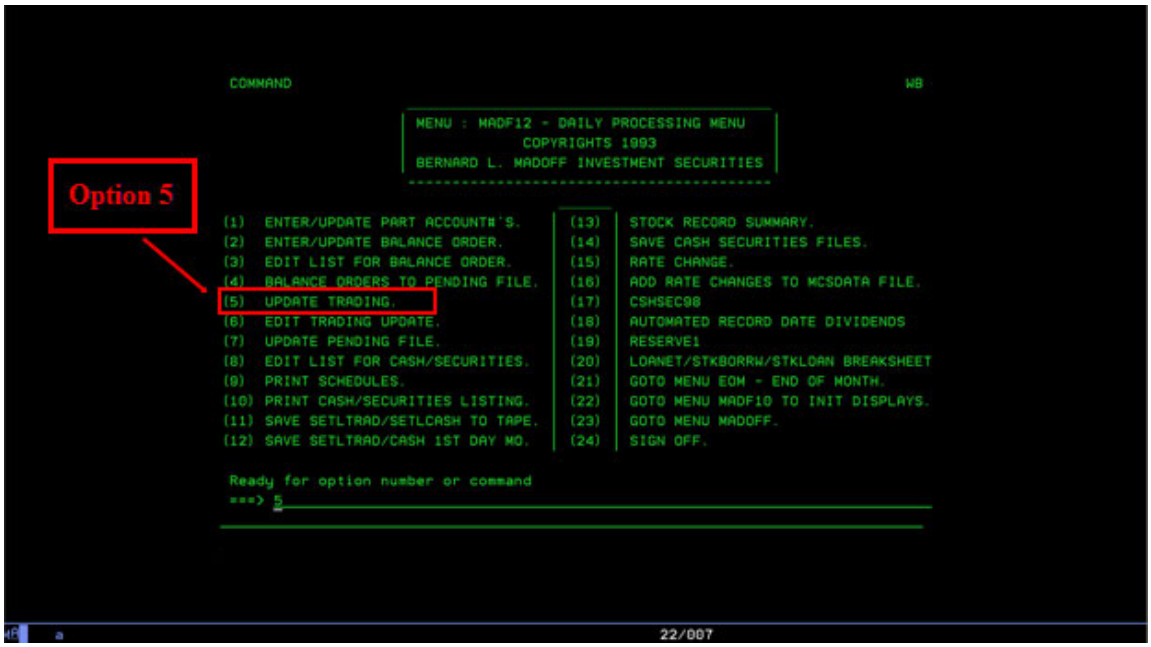
CODE ---------
HSE ---------
ACCT# ---------
CUSIP ---------
SHARES ---------
MONEY ---------
BOX ---------

RECEIVE SHARES AND MONIES DEBIT (+)
DELIVER SHARES AND MONIES CREDIT (-)

MESTAAP04460367

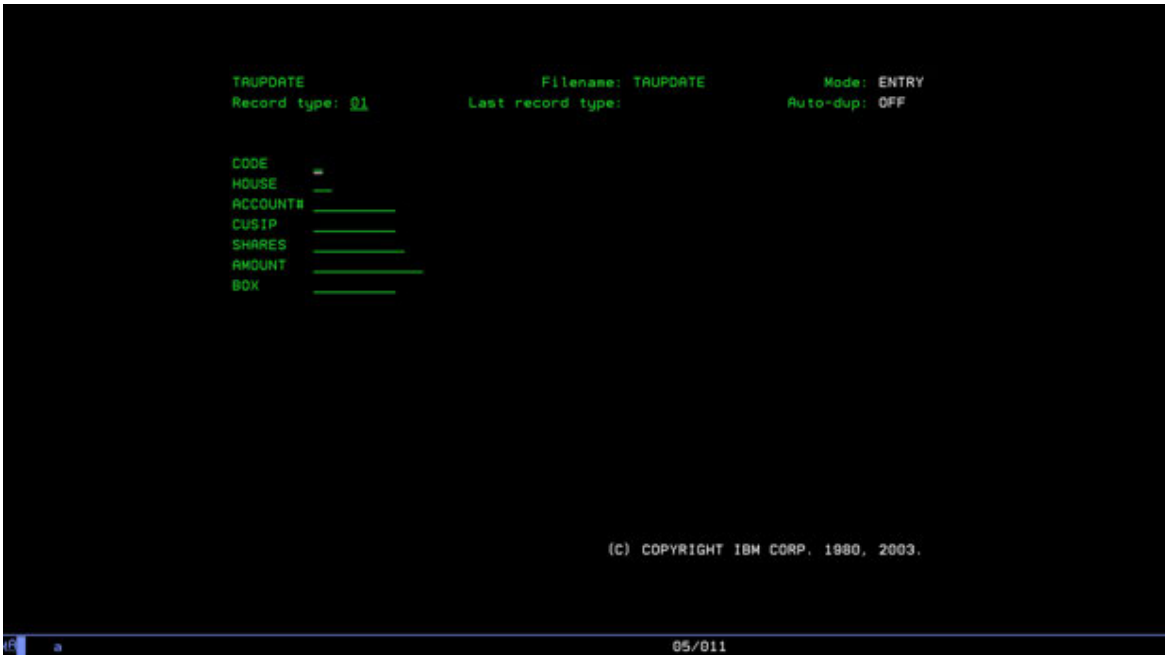
374. These types of manual adjustments were applied through entries in the Proprietary Trading Business AS/400 using Option #5 “Update Trading” of the Daily Processing Menu. (*See* Figure 67.)

Figure 67



375. Option 5 produces the following screen in which the manual data, such as account number, CUSIP, number of shares, and dollar amount could be entered. (*See* Figure 68.)

Figure 68



376. The data saved on this screen is stored in a file called TAUPDATE, which subsequently updates the TRADACCT file containing the Proprietary Trading Business profit and loss positions.

377. The second method of making manual adjustments for a security (*i.e.*, CUSIP) that did not already exist in the AS/400 was documented in the BLMIS computer manual as shown in Figure 69:

Figure 69

6. **EDIT TRADING UPDATES**
This will check your trading updates. If any errors go to **(MENU MAINT2 #7)** update **TRADACCT.** You will need to add **(HSE05/TRADESACCT/CUSIPS#)**

PASSWORD: GIZMO
CD: TA
T/DATE: SYSTEM DATE
S/DATE: SYSTEM DATE

T/D DATE AND S/DATE ARE THE ONLY FILED TO BE ENTERED BEFORE ADDING T HE PRICE

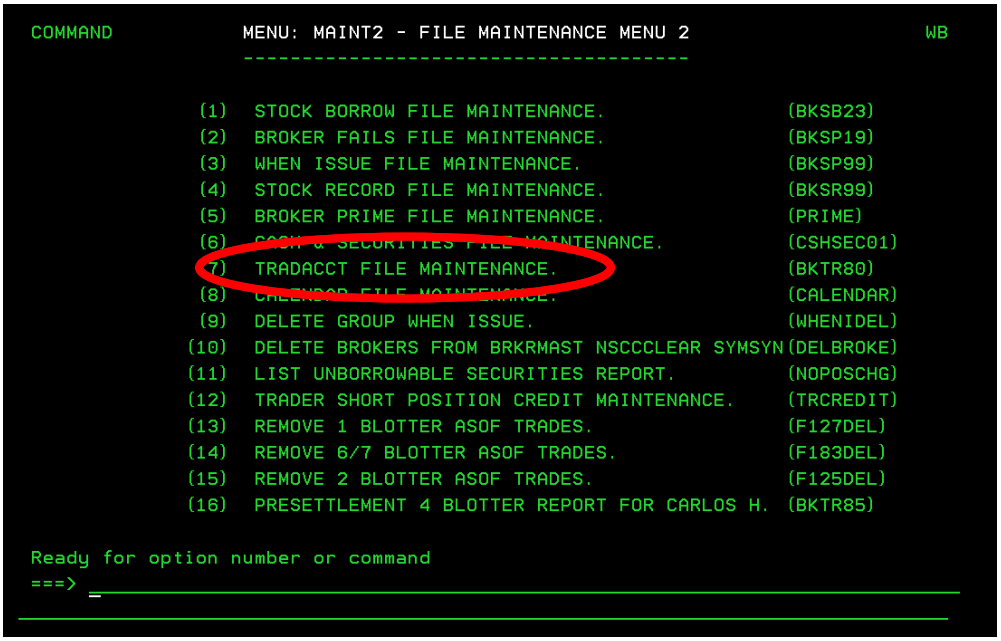
MESTAAP04460367-
MESTAAP04460368

Always enter 1 in the **F/CD FIELD**. Run #6 edit list again

7. UPDA[illegible] G FILE (G[illegible]HSEC02)

378. These instructions indicated to the user that, if any of the manual updates failed, MENU MAINT2 #7 should be used to modify the TRADACCT as shown in Figure 70:

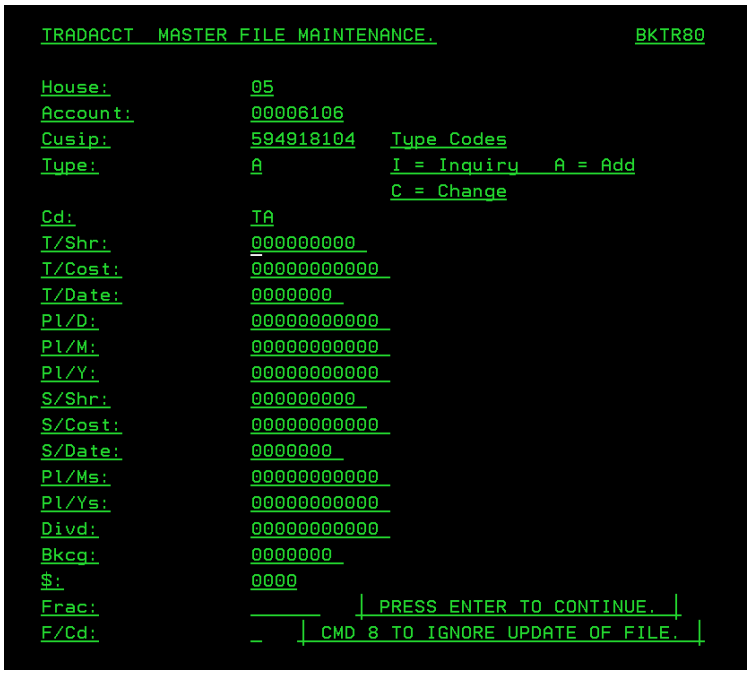
Figure 70



379. Once Option #7 is selected, the user is asked to enter a password.[316] Upon entering the password, the user would see the screen shown in Figure 71 and could view or edit any field in the TRADACCT file, including the ability to enter entirely new trading records.

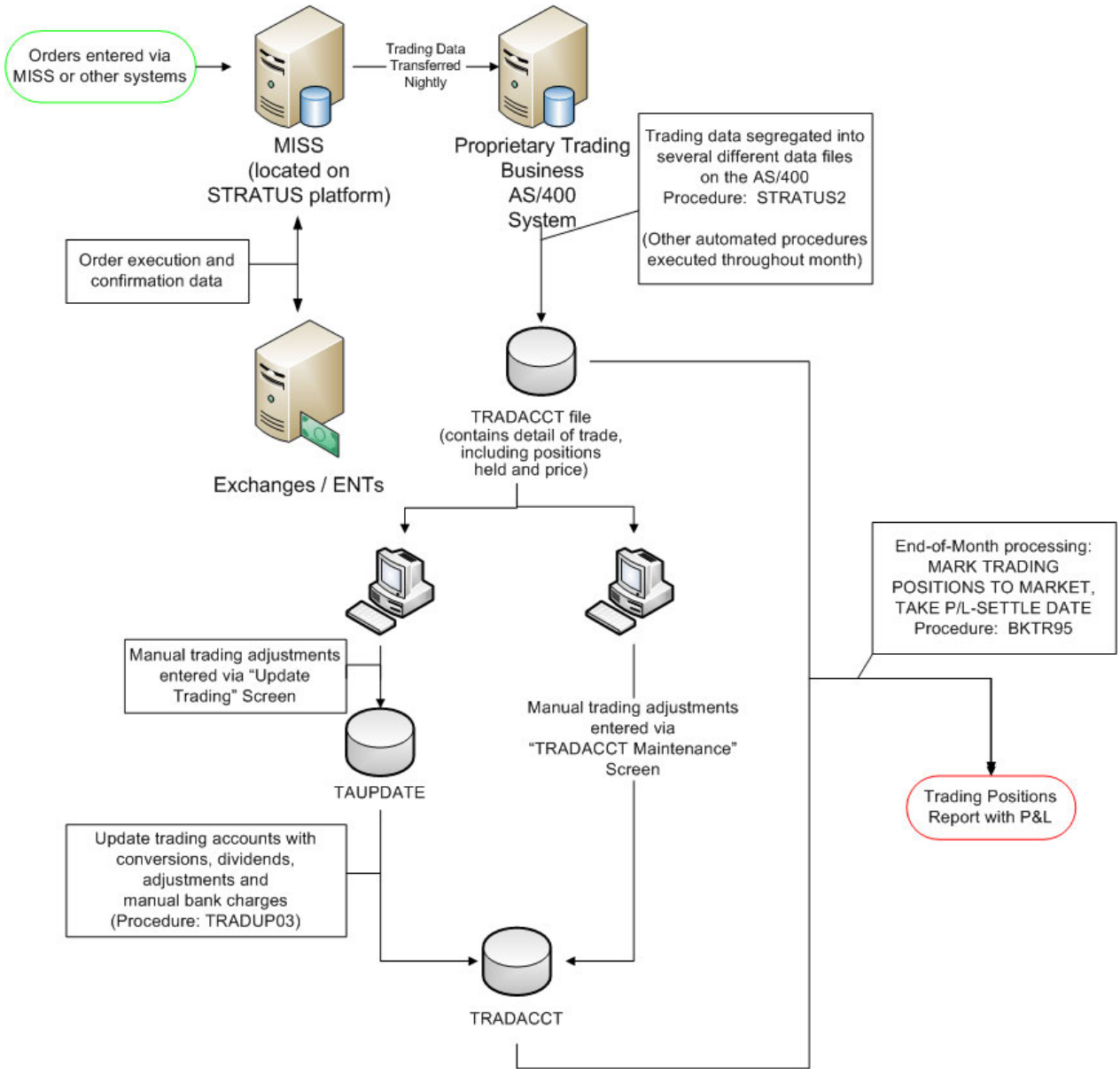
[316] Based on the "Daily Work" instructions, *see* Figure 69 *supra*, and data contained on the AS/400, my investigation concluded that the password assigned to this function was GIZMO.

Figure 71



380. All changes and entries made via this data entry screen were applied to the TRADACCT file once they were saved, which would update and adjust the Proprietary Trading Business profit and loss positions. A summary of this process flow is shown in Figure 72:

Figure 72



381. It is through this manual override mechanism that the fictitious trades (stemming from the massive cash infusions from the IA Business) were entered into the Proprietary Trading Business trading system under the three trade accounts described above.

382. For example, manual adjustments to the RP/EQ account (account number 6106) were identified in April 2004.[317] Figure 73 details seven fictitious options that were to be added manually to the 6106 account:

Figure 73

IBM Only $ Only! Conversion
RECEIVE 00006106 DATE 4/22/04

TRN NO.	SHARES	CUSIP	MONIES	ACCOUNT
		783790DKB	29630.—	
		783790DMB	97294.—	
		783790ELB	126924.—	
		783790PJB	59260.—	
		783790PKB	127040.—	
		783790PLF	52694.—	
		783790QKB	126924.—	

MADWAA00808334

383. A confirmation report that the adjustments were made was printed from the AS/400, which shows the same options and amounts as detailed in the handwritten report (*see* Figure 74):

Figure 74

HQUSE #05 EDIT TRADING ACCOUNT UPDATES FOR 4/22/04 PAGE 1

HSE/ACCT/CUSIP	SHARES	AMOUNT	BOX	RECORD NUMBER
A 0500006106783790DKB		29,630.00		1
A 0500006106783790DMB		97,294.00		2
A 0500006106783790ELB		126,924.00		3
A 0500006106783790PJB		59,260.00		4
A 0500006106783790PKB		127,040.00		5
A 0500006106783790PLF		52,694.00		6
A 0500006106783790QKB		126,924.00		7
ADJ		619,766.00		
BANK				
CONV				
DIVD				

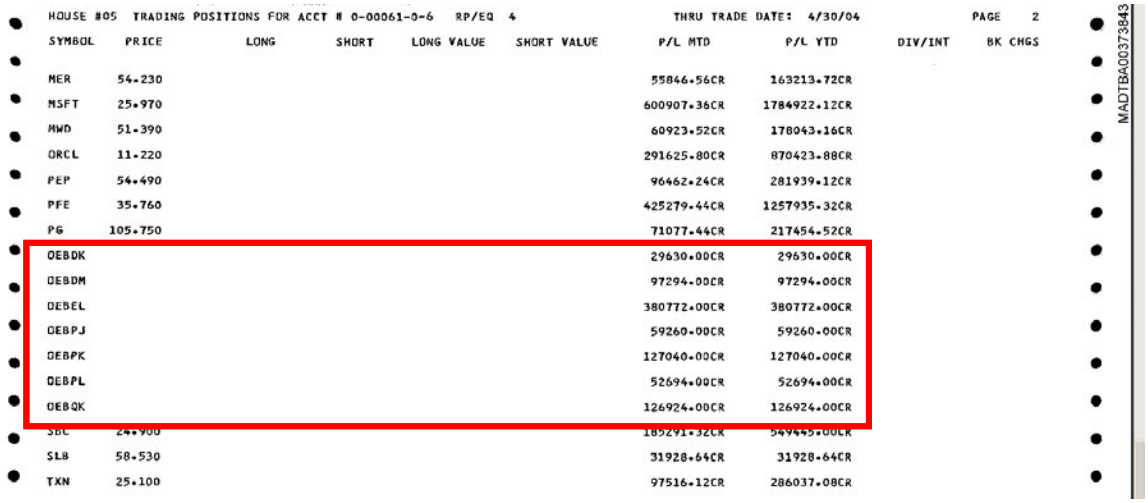
MADWAA00808332

384. Once saved to the TRADACCT file, a Proprietary Trading Business Trading Position Report was printed from the AS/400 showing the seven fictitious trades in the RP/EQ trade account.

[317] Cash infusions using the RP/EQ account were identified starting in January 2004. This April 2004 cash infusion is used for illustrative purposes.

(*See* Figure 75, which also reflects other fictitious trades in the RP/EQ trade account that are not detailed in this example.) As will be described in greater detail *infra*, the profits from these (and hundreds of other) fictitious trades were aggregated into the overall profits for the Proprietary Trading Business.

Figure 75[318]



HOUSE #05 TRADING POSITIONS FOR ACCT # 0-00061-0-6 RP/EQ 4 THRU TRADE DATE: 4/30/04 PAGE 2

SYMBOL	PRICE	LONG	SHORT	LONG VALUE	SHORT VALUE	P/L MTD	P/L YTD	DIV/INT	BK CHGS
MER	54.230					55846.56CR	163213.72CR		
MSFT	25.970					600907.36CR	1784922.12CR		
MWD	51.390					60923.52CR	178043.16CR		
ORCL	11.220					291625.80CR	870423.88CR		
PEP	54.490					96462.24CR	281939.12CR		
PFE	35.760					425279.44CR	1257935.32CR		
PG	105.750					71077.44CR	217454.52CR		
OEBDK						29630.00CR	29630.00CR		
OEBDM						97294.00CR	97294.00CR		
OEBEL						380772.00CR	380772.00CR		
OEBPJ						59260.00CR	59260.00CR		
OEBPK						127040.00CR	127040.00CR		
OEBPL						52694.00CR	52694.00CR		
OEBQK						126924.00CR	126924.00CR		
SBC	24.900					185291.32CR	549445.00CR		
SLB	58.530					31928.64CR	31928.64CR		
TXN	25.100					97516.12CR	286037.08CR		

MADTBA00373843

(iii) **Cash transfers from the IA Business brokerage accounts**

385. The initial method of moving cash from the IA Business to the Proprietary Trading Business was through the direct transfer of funds from the 703 Account and/or through the use of various brokerage accounts that were funded by IA Business customer money. For instance, a Morgan Stanley account under the name of Bernard L. Madoff ("MS Account") received its funding from transfers from the 703 Account; funds from this account were then used to infuse money into the Proprietary Trading Business's 621 Account.

386. As an example, on December 22, 2004, $4,304,000.00 was moved from the MS Account to the 621 Account (*see* Figure 76, which shows the outgoing payment from the MS Account and Figure 77, which shows the incoming receipt in the 621 Account of these funds):

[318] MADTBA00373843. The other line entries in this document also reflect fictitious transactions in the RP/EQ trade account.

Figure 76

STATEMENT OF YOUR ACCOUNT
FOR MONTH ENDING DECEMBER 31, 2004

PAGE 2 OF 7

BERNARD L MADOFF

Account Number
663 010719 005

DAILY ACTIVITY DETAILS

Date	Activity	Quantity	Description	Price	Amount	Cash Balance	
			CLOSING BALANCE AS OF 11/30				.00
10/29	Dividend		LIQUID ASSET FUND			+13,068.96	.00
	Direct Purchase	13068.960	LIQUID ASSET FUND		1.00	-13,068.96	.00
			REINVESTMENT				.00
11/30	Dividend		LIQUID ASSET FUND			+16,391.04	.00
	Direct Purchase	16391.040	LIQUID ASSET FUND		1.00	-16,391.04	.00
			REINVESTMENT				.00
12/09	Sold	100000000	US TSY BILL 00000 04DE09		100.00	+100,000,000.00	+100,000,000.00
			U.S. TREASURY REDEMPTION				+100,000,000.00
	Bought	100000000	US TSY BILL 00000 05FB03		99.6889	-99,688,905.00	+311,095.00
			DISCOUNT YIELD 2				+311,095.00
12/10	Bought	311095	LIQUID ASSET FUND		1.00	-311,095.00	.00
12/16	Sold	75000000	US TSY BILL 00000 04DE16		100.00	+75,000,000.00	+75,000,000.00
			U.S. TREASURY REDEMPTION				+75,000,000.00
	Bought	75000000	US TSY BILL 00000 05FB10		99.6936	-74,770,205.00	+229,795.00
			DISCOUNT YIELD 1.9700				+229,795.00
12/17	Bought	229795	LIQUID ASSET FUND		1.00	-229,795.00	.00
12/22	Withdrawal		WIRED FUNDS SENT			-4,304,000.00	-4,304,000.00
			BENE: BERNARD MADOFF INV SEC				-4,304,000.00
			ACCT: 8661126621				-4,304,000.00
	Sold	4304000	LIQUID ASSET FUND		1.00	+4,304,000.00	.00
12/31	Dividend		LIQUID ASSET FUND			+16,798.68	.00
	Direct Purchase	16798.680	LIQUID ASSET FUND		1.00	-16,798.68	.00
			REINVESTMENT				.00
			CLOSING BALANCE AS OF 12/31				+.00

Morgan Stanley Fund Summary

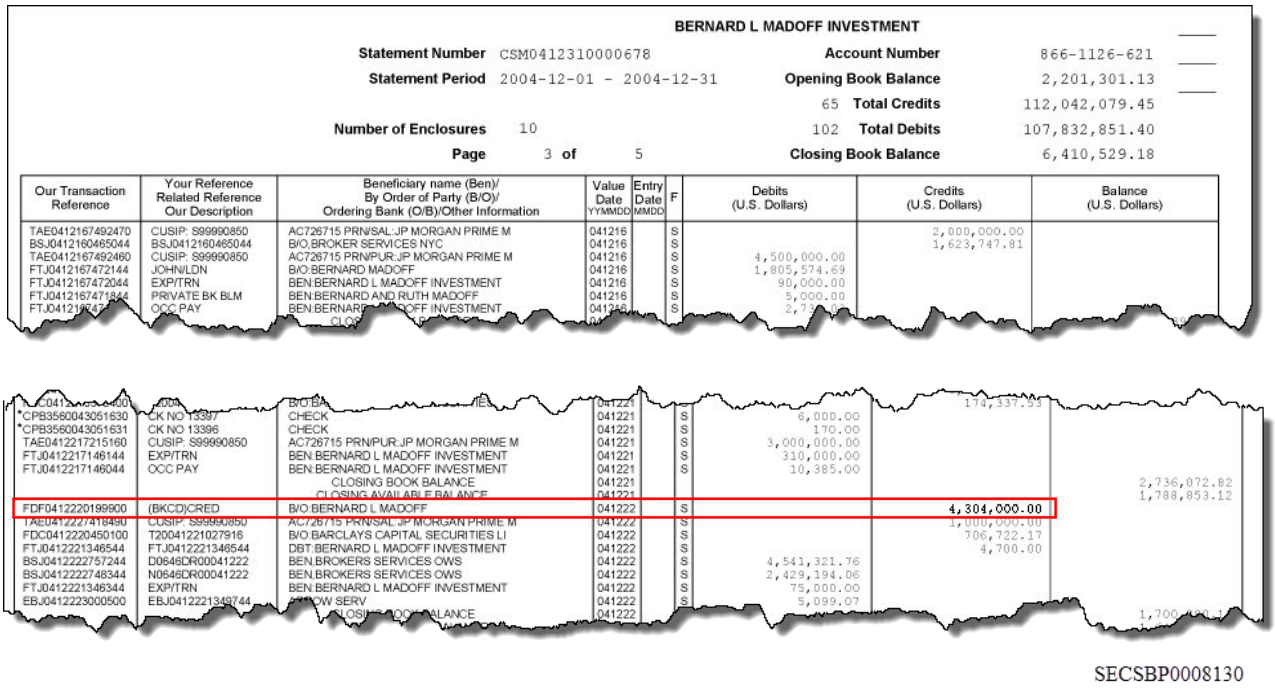
	YTD Dividends	YTD Cap Gains	YTD Taxes	Features
LIQUID ASSET FUND	100,245.39	0.00	0.00	Reinvest Dividends

Investments and services are offered through Morgan Stanley DW Inc., member SIPC.

MS 0000281

MSYSAB0000281

Figure 77



BERNARD L MADOFF INVESTMENT

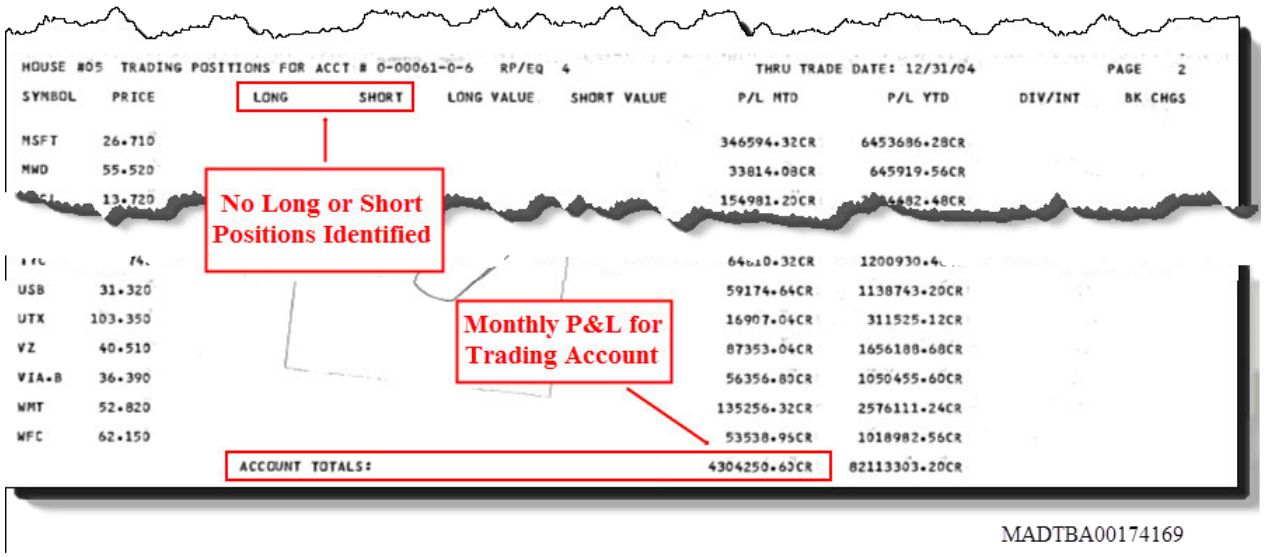
Statement Number CSM0412310000678 — Account Number 866-1126-621
Statement Period 2004-12-01 - 2004-12-31 — Opening Book Balance 2,201,301.13
65 Total Credits 112,042,079.45
Number of Enclosures 10 — 102 Total Debits 107,832,851.40
Page 3 of 5 — Closing Book Balance 6,410,529.18

Our Transaction Reference	Your Reference Related Reference Our Description	Beneficiary name (Ben)/ By Order of Party (B/O)/ Ordering Bank (O/B)/Other Information	Value Date YYMMDD	Entry Date MMDD	F	Debits (U.S. Dollars)	Credits (U.S. Dollars)	Balance (U.S. Dollars)
TAE0412167492470	CUSIP: S99990850	AC726715 PRN/SAL:JP MORGAN PRIME M	041216		S		2,000,000.00	
BSJ0412160465044	BSJ0412160465044	B/O:BROKER SERVICES NYC	041216		S		1,623,747.81	
TAE0412167492460	CUSIP: S99990850	AC726715 PRN/PUR:JP MORGAN PRIME M	041216		S	4,500,000.00		
FTJ0412167472144	JOHN/LDN	B/O:BERNARD MADOFF	041216		S	1,805,574.69		
FTJ0412167472044	EXP/TRN	BEN:BERNARD L MADOFF INVESTMENT	041216		S	90,000.00		
FTJ0412167471844	PRIVATE BK BLM	BEN:BERNARD AND RUTH MADOFF	041216		S	5,000.00		
FTJ0412167471	OCC PAY	BEN:BERNARD MADOFF INVESTMENT	041216		S	2,73		
		CLO						
		B/O:BA	041221				174,337.93	
*CPB3560043051630	CK NO 13397	CHECK	041221		S	6,000.00		
*CPB3560043051631	CK NO 13396	CHECK	041221		S	170.00		
TAE0412217215160	CUSIP: S99990850	AC726715 PRN/PUR:JP MORGAN PRIME M	041221		S	3,000,000.00		
FTJ0412217146144	EXP/TRN	BEN:BERNARD L MADOFF INVESTMENT	041221		S	310,000.00		
FTJ0412217146044	OCC PAY	BEN:BERNARD L MADOFF INVESTMENT	041221		S	10,385.00		
		CLOSING BOOK BALANCE	041221					2,736,072.82
		CLOSING AVAILABLE BALANCE	041221					1,788,853.12
FDF0412220199900	(BKCD)CRED	B/O:BERNARD L MADOFF	041222		S		4,304,000.00	
TAE0412227418490	CUSIP: S99990850	AC726715 PRN/SAL:JP MORGAN PRIME M	041222		S		1,000,000.00	
FDC0412220450100	T2004122102791 6	B/O:BARCLAYS CAPITAL SECURITIES LI	041222		S		706,722.17	
FTJ0412221346544	FTJ0412221346544	DBT:BERNARD L MADOFF INVESTMENT	041222		S		4,700.00	
BSJ0412222757244	D0646DR00041222	BEN:BROKERS SERVICES OWS	041222		S	4,541,321.76		
BSJ0412222748344	N0646DR00041222	BEN:BROKERS SERVICES OWS	041222		S	2,429,194.06		
FTJ0412221346344	EXP/TRN	BEN:BERNARD L MADOFF INVESTMENT	041222		S	75,000.00		
EBJ0412223000500	EBJ0412221349744	OW SERV	041222		S	5,099.07		
		CLOSI LANCE	041222					1,700

SECSBP0008130

387. As a result of the movement of money and the fictitious entry, the Proprietary Trading Business Trading Position Report for the month ending December 31, 2004 for the RP/EQ trade account reflects the full amount transferred from the MS Account to the 621 Account (and a *de minimis* amount of $250.60), totaling $4,304,250.60. (*See* Figure 78.)

Figure 78



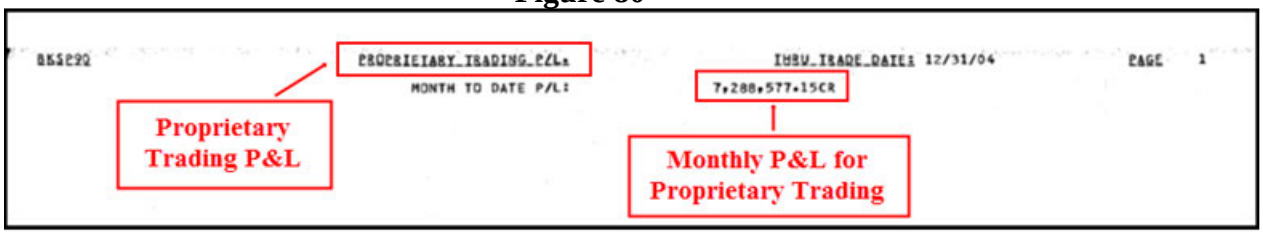
388. The Trading Position Report purports that the end-of-month profits ($4,304,250.60) were the result of various security positions indicated on the report. This is false. Neither long nor short shares positions are indicated on the report, as would be standard, because these transactions did not occur. These purported transactions, evidenced by data pulled directly from the Proprietary Trading Business trading computer system backups, indicate that these securities were never purchased or sold, but were simply manual "adjustments" to the trade account. (*See* Figure 79 for a sample output of these RP/EQ "trades" from the Proprietary Trading Business trading system for December 2004; the adjustments are indicated by an "A" in the BuySell column rather than a "B" for buy or "S" for sale.)

Figure 79
Sample of Purported Trades from Proprietary Trading Business Trading System for RP/EQ Trade Account[319]

Cusip	Symbol	Shares	Account Number	Trader	Trade Date	Amount	Price	BySell
25816109	AXP	0	6106	4	12/22/2004	-39449.76	NULL	A
254687106	DIS	0	6106	4	12/22/2004	-64810.32	NULL	A
428236103	HPQ	0	6106	4	12/22/2004	-95806.56	NULL	A
589331107	MRK	0	6106	4	12/22/2004	-70446	NULL	A
594918104	MSFT	0	6106	4	12/22/2004	-346594.32	NULL	A
26874107	AIG	0	6106	4	12/22/2004	-81717.36	NULL	A
110122108	BMY	0	6106	4	12/22/2004	-61992.48	NULL	A
263534109	DD	0	6106	4	12/22/2004	-30996.24	NULL	A
38141G104	GS	0	6106	4	12/22/2004	-14089.2	NULL	A
585055106	MDT	0	6106	4	12/22/2004	-39449.76	NULL	A
24702R101	DELL	0	6106	4	12/22/2004	-78899.52	NULL	A
437076102	HD	0	6106	4	12/22/2004	-70446	NULL	A
88579Y101	MMM	0	6106	4	12/22/2004	-25360.56	NULL	A
931142103	WMT	0	6106	4	12/22/2004	-135256.32	NULL	A
949746101	WFC	0	6106	4	12/22/2004	-53538.96	NULL	A
713448108	PEP	0	6106	4	12/22/2004	-53538.96	NULL	A
902973304	USB	0	6106	4	12/22/2004	-59174.64	NULL	A
913017109	UTX	0	6106	4	12/22/2004	-16907.04	NULL	A

389. The fictitious profits from the RP/EQ trading account were then aggregated and rolled into the total P&L for December 2004 for all of the Proprietary Trading Business's proprietary trading profits (*i.e.*, $7,288,577.15). (*See* Figure 80.)

Figure 80

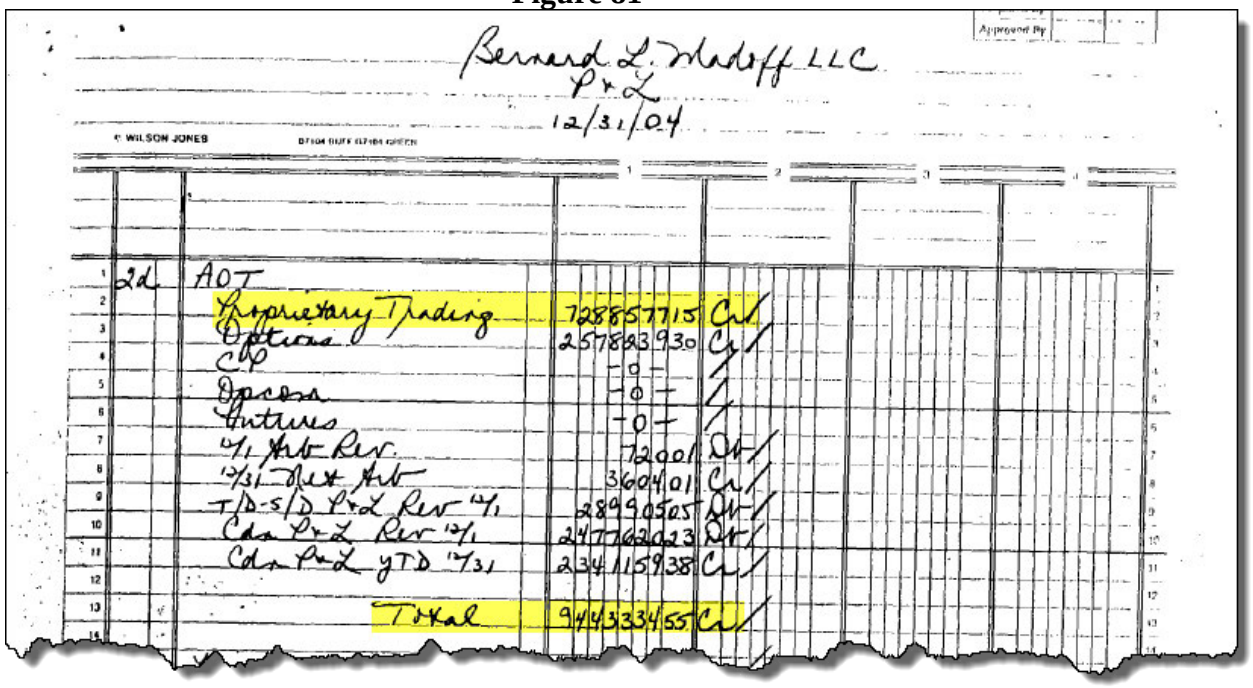


MADTBA00174188

[319] Trade data from the Proprietary Trading Business was retrieved from backup tapes of the Proprietary Trading Business AS/400 computer system.

390. The total December 2004 P&L for the Proprietary Trading Business proprietary trading was then aggregated to produce a P&L figure for all other Proprietary Trading Business trading for December 2004 (*i.e.*, $9,443,334.55). (*See* Figure 81.)

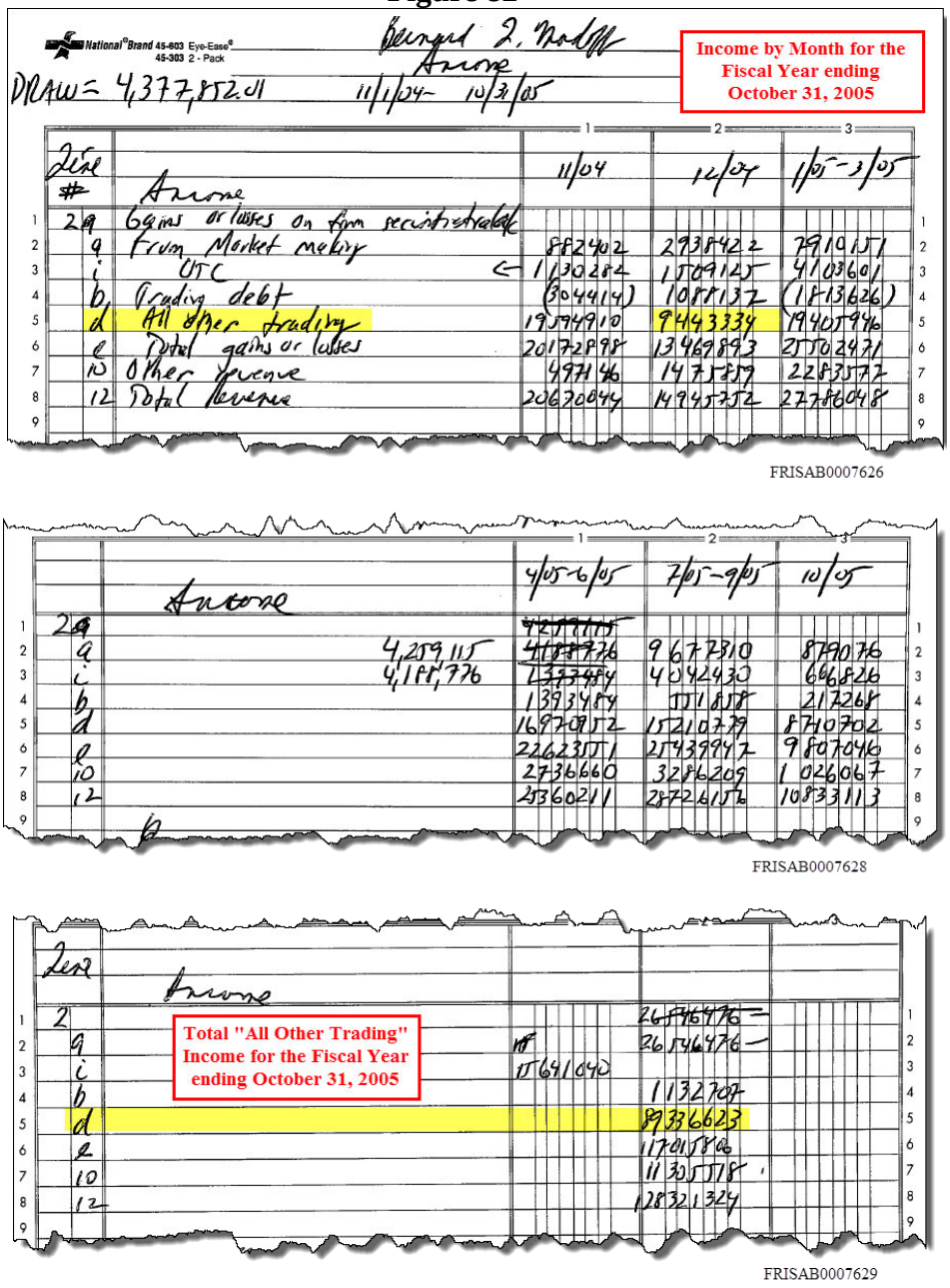
Figure 81



MADTEE00744948

391. Work papers from BLMIS's auditors, F&H, show that the total profits from all other trading ("AOT") (*i.e.*, $9,443,334.55) were incorporated into BLMIS's financials and were aggregated into a final BLMIS income figure for the fiscal year ending October 31, 2005. (*See* Figure 82.)

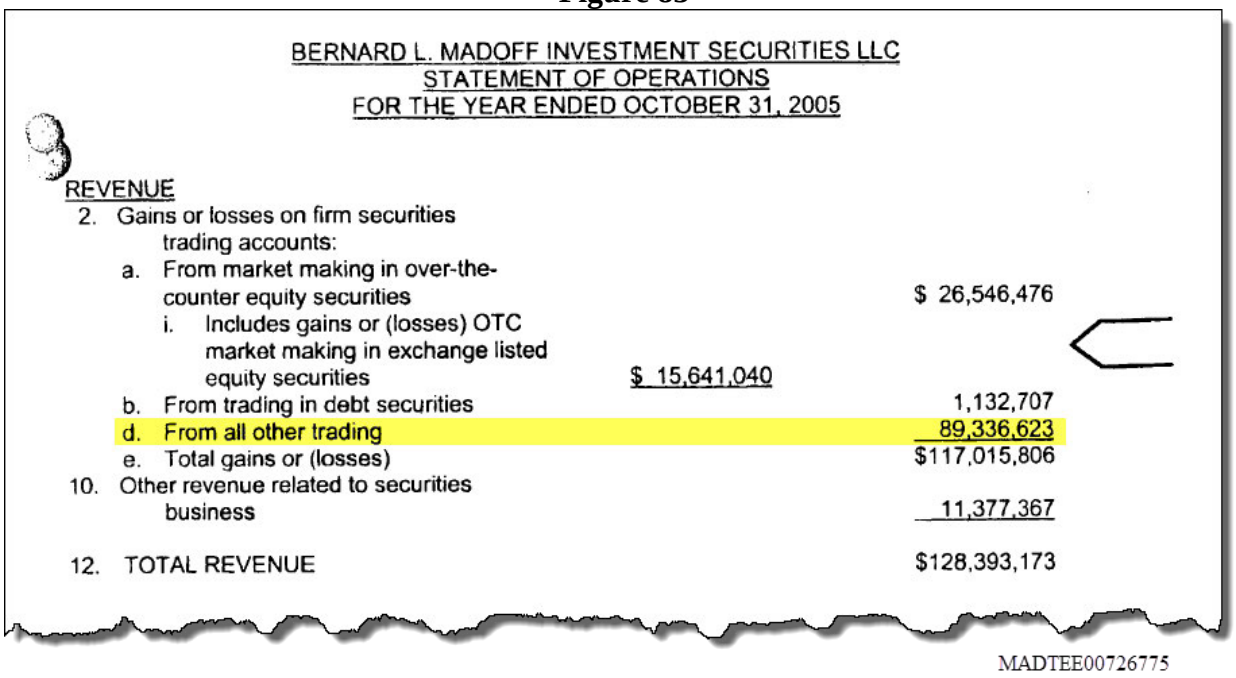
Figure 82



392. Ultimately, the annual profits from all other trading (AOT), inclusive of the cash infusion from the MS Account, were reflected on BLMIS's audited financial statement for the year ending October 31, 2005. (*See* Figure 83).[320]

[320] As shown, BLMIS's fiscal year-end was October 31st. My investigation has also concluded that adding all of the revenue "From All Other Trading" on BLMIS FOCUS reports from November 2004 through October 2005 sums to

Figure 83



BERNARD L. MADOFF INVESTMENT SECURITIES LLC
STATEMENT OF OPERATIONS
FOR THE YEAR ENDED OCTOBER 31, 2005

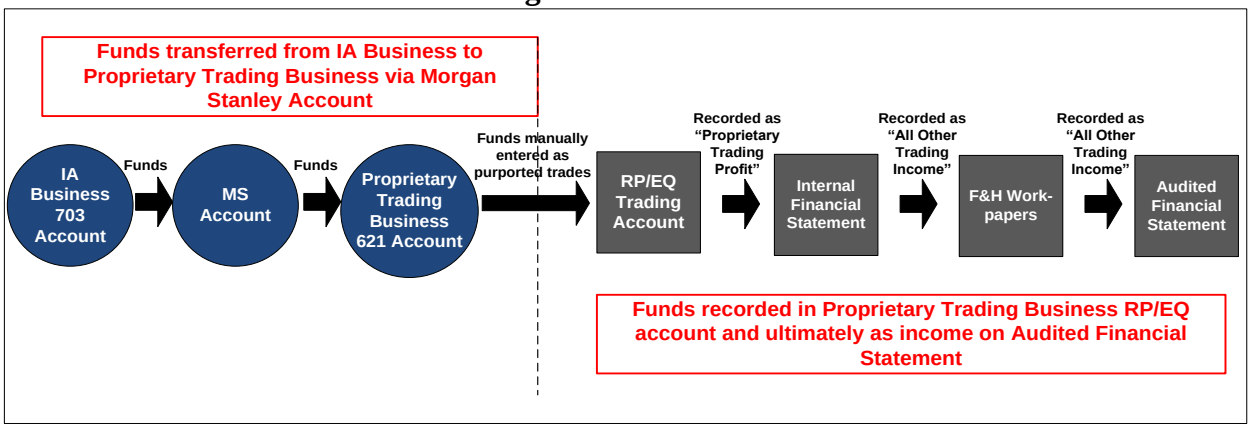
REVENUE		
2. Gains or losses on firm securities trading accounts:		
a. From market making in over-the-counter equity securities		$ 26,546,476
i. Includes gains or (losses) OTC market making in exchange listed equity securities	$ 15,641,040	
b. From trading in debt securities		1,132,707
d. From all other trading		89,336,623
e. Total gains or (losses)		$117,015,806
10. Other revenue related to securities business		11,377,367
12. TOTAL REVENUE		$128,393,173

MADTEE00726775

393. Figure 84 summarizes the movement of cash from the IA Business to the Proprietary Trading Business to BLMIS's financial statements:

the exact total for this line item on the BLMIS 2005 financials: $89,336,623. Thus, the cash infusions from the IA Business were reflected both in BLMIS's financials and in its FOCUS reports. Further, although my report only details one cash infusion fraudulently recorded as revenue in the RP/EQ account during this time period, during fiscal year 2005 (*i.e.*, November 2004 through October 2005), cash infusions overall from the RP/EQ account totaled over $73 million.

Figure 84[321]



(iv) Cash transfers from MSIL

394. The Proprietary Trading Business not only received cash infusions directly from the IA Business as described above, but beginning in 2005, cash was also transferred to the Proprietary Trading Business through cash infusions via MSIL. These cash infusions were accomplished through the use of an IA Business investment advisory account under MSIL's name. In total, from June 2005 through November 2008, approximately $310 million was transferred from the IA Business to the Proprietary Trading Business by way of MSIL.

395. For example, on April 25, 2007, MSIL's IA Business customer statement indicated that a $13,350,000 US Treasury bill was purportedly purchased for $13,146,813 on behalf of MSIL. (*See* Figure 85.) As previously discussed, my investigation has proven that none of the securities (*i.e.*, equities or US Treasuries) purportedly traded by the IA Business were actually executed.

[321] Cash infusions recorded as revenue using the Firm Spreads and US Govt (Treasuries) accounts were recorded following similar processes. In total, from 1999 through 2008, cash infusions recorded as revenue via the Firm Spreads and US Govt (Treasuries) accounts totaled nearly $312 million and $3.6 million, respectively. Similarly this same process occurred when cash infusions came directly from the 703 Account.

Figure 85

MADOFF SECURITIES INTL LTD
12 BERKELEY STREET
LONDON ENGLAND W1X 5AD

MSIL Customer Statement

4/30/07 1 A

1-FN023-3-0

NO BALANCE FORWARD

4/13		55,000,000	98414	U S TREASURY BILL DUE 6/21/2007 6/21/2007	99.065		54,485,750.00
4/13				CHECK WIRE		CW 54,485,750.00	
4/25	13,350,000		91216	U S TREASURY BILL DUE 8/16/2007 8/16/2007	98.478	13,146,813.00	
4/25						CA	13,146,813.00

NEW BALANCE

SECURITY POSITIONS		MKT PRICE
13,350,000	U S TREASURY BILL DUE 8/16/2007 8/16/2007	98.563

MARKET VALUE OF SECURITIES
LONG SHORT
13,158,160.50

MDPTPP02985705

396. Instead of sending the funds directly to the IA Business, on April 25, 2007, the Proprietary Trading Business 621 Account bank statement showed an incoming deposit of $13,146,813 from MSIL's Barclays bank account for the purported purchase of the US Treasury bill. (*See* Figure 86 for the incoming deposit to the 621 Account from MSIL's Barclays account.)

Figure 86

Statement Number CSM0704300000467
Statement Period 2007-04-02 - 2007-04-30
Number of Enclosures 5
Page 4 of 5

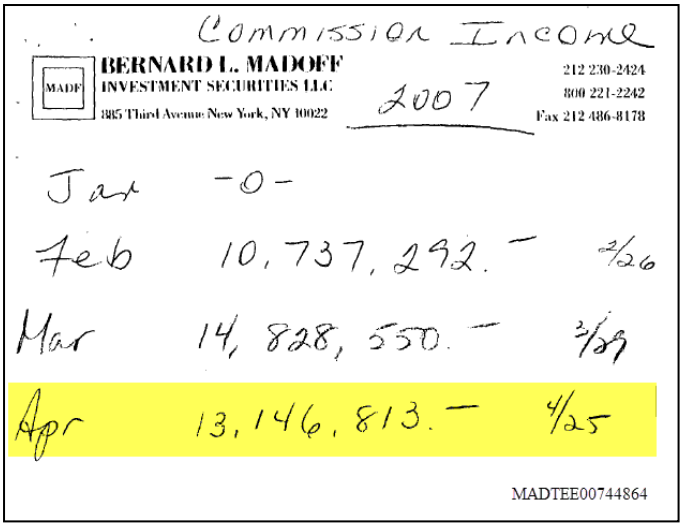
Account Number 866-1126-621
Opening Book Balance 2,185,634.19
70 Total Credits 229,327,527.43
96 Total Debits 230,073,561.59
Closing Book Balance 1,439,600.03

Our Transaction Reference	Your Reference Related Reference Our Description	Beneficiary name (Ben)/ By Order of Party (B/O)/ Ordering Bank (O/B)/Other Information	Value Date YYMMDD	Entry Date MMDD	F	Debits (U.S. Dollars)	Credits (U.S. Dollars)	Balance (U.S. Dollars)
		CLOSING BOOK BALANCE	070420					1,831,036.34
		CLOSING AVAILABLE BALANCE	070420					1,831,036.34
CPE1130041278169	ITEM COUNT 00011	DEPOSIT TO ACCOUNT	070423				171,922.32	
CPE1130041277888	ITEM COUNT 00013	DEPOSIT TO ACCOUNT	070423				10,100.03	
BLM0704230001300	LOAN 2000021408	C/L LOAN PROCEEDS A/C 0294565105	070423		S		6,000,000.00	
FDC0704233089600	NES(TL) (7/08)	B/O:DB TRUST AMERICAS	070423		S		29,134.63	
*CPB1130041278651	CK NO 13557	CHECK	070423		S	5,000.00		
FTJ0704224658944	JOHNLOIN	B/O:BERNARD MADOFF	070423		S	4,433,646.82		
[illegible]	[illegible]	BEN:BROKERS SERVICES	[illegible]		S	4,256,481.7[illegible]		
FTJ0704246291244	MUTH PERS	BEN:BERNARD L MADOFF	070424		S	50,000.00		
FTJ0704246649144	DNDN	B/O:BERNARD L MADOFF	070424		S	5,800.00		
		CLOSING BOOK BALANCE	070424					1,086,326.40
		CLOSING AVAILABLE BALANCE	070424					1,006,868.59
CPE1150041345383	ITEM COUNT 00001	DEPOSIT TO ACCOUNT	070425		N		760.61	
FDC0704252645700	T20070425306291	B/O:BARCLAYS BANK PLC FID BARCLAYS	070425		S		13,146,813.00	
[illegible]	[illegible]	B/O:BARCLAYS BANK PLC FID BARCLAYS	070425		S		9,237,391.07	
FTJ0704257986644	FTJ0704257986644	DBT:BERNARD L MADOFF INVESTMENT	070425		S		469,539.00	
F2507042539200[illegible]	NONREF	O/B:ABIC/CRESUS33	070425		S		5,420.83	
*CPB1150041319413	CK NO 13558	CHECK	070425		S	5,000.00		
BSJ0704250858244	D0848DR00070425	BEN:BROKERS SERVICES ORISKANY	070425		S	15,600,096.21		
BLM0704250001100	LOAN 2000021408	C/L PRIN PAYMENT A/C 0294585105	070425		S	2,000,000.00		
FTJ07[illegible]	[illegible]	BEN:BER[illegible]	070425		S	[illegible]		

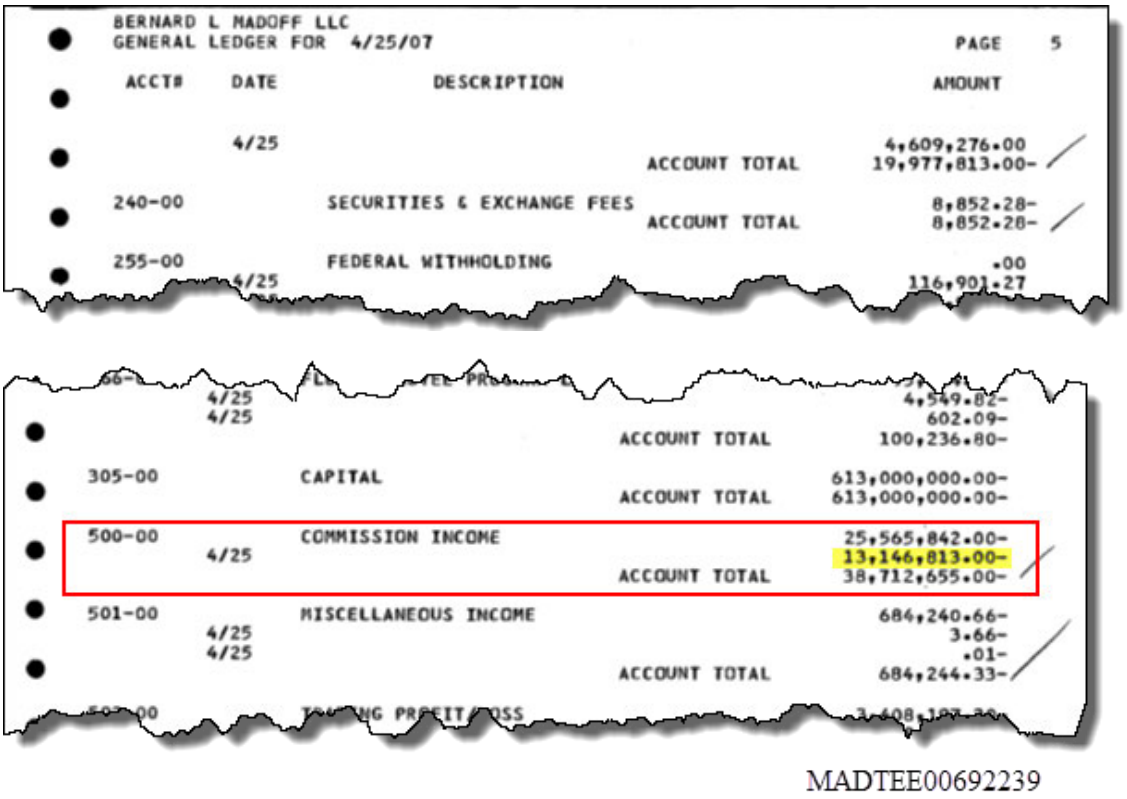
SECSBJ0008226

397. These funds sent from MSIL to the Proprietary Trading Business were then reflected on handwritten notes created by Cotellessa-Pitz and subsequently on the general ledger for BLMIS as "Commission Income." (*See* Figure 87.)[322]

Figure 87



[322] The IA Business purportedly charged a four-cent commission on transactions. *See* MADWAA00693305-MADWAA00693306. If this were applied to the current example, commissions would equal $525,873 ($0.04 x $13,146,813 purchase price on the US Treasury bill). In the instant case, however, commissions were being reported in an amount equal to the entire purchase price (*i.e.*, $13,146,813), further supporting the fact that these funds sent to the Proprietary Trading Business were not "Commission Income," but rather cash infusions.

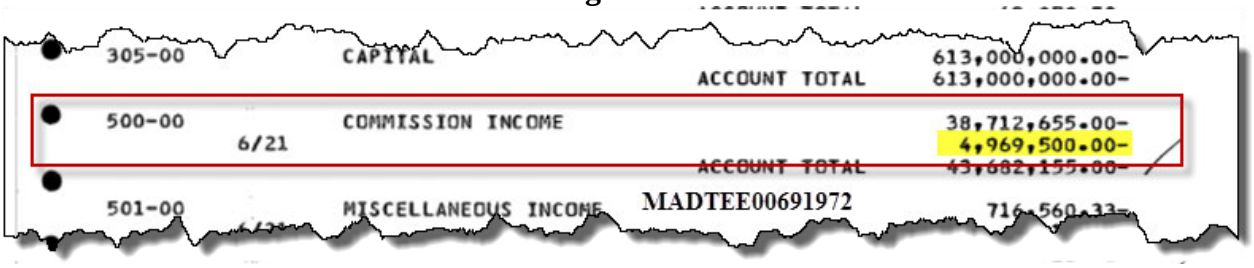

BERNARD L MADOFF LLC
GENERAL LEDGER FOR 4/25/07 PAGE 5

ACCT#	DATE	DESCRIPTION	AMOUNT
	4/25	ACCOUNT TOTAL	4,609,276.00 19,977,813.00-
240-00		SECURITIES & EXCHANGE FEES	8,852.28-
		ACCOUNT TOTAL	8,852.28-
255-00		FEDERAL WITHHOLDING	.00
	4/25		116,901.27
	4/25		4,549.85-
	4/25		602.09-
		ACCOUNT TOTAL	100,236.80-
305-00		CAPITAL	613,000,000.00-
		ACCOUNT TOTAL	613,000,000.00-
500-00		COMMISSION INCOME	25,565,842.00-
	4/25		13,146,813.00-
		ACCOUNT TOTAL	38,712,655.00-
501-00		MISCELLANEOUS INCOME	684,240.66-
	4/25		3.66-
	4/25		.01-
		ACCOUNT TOTAL	684,244.33-

MADTEE00692239

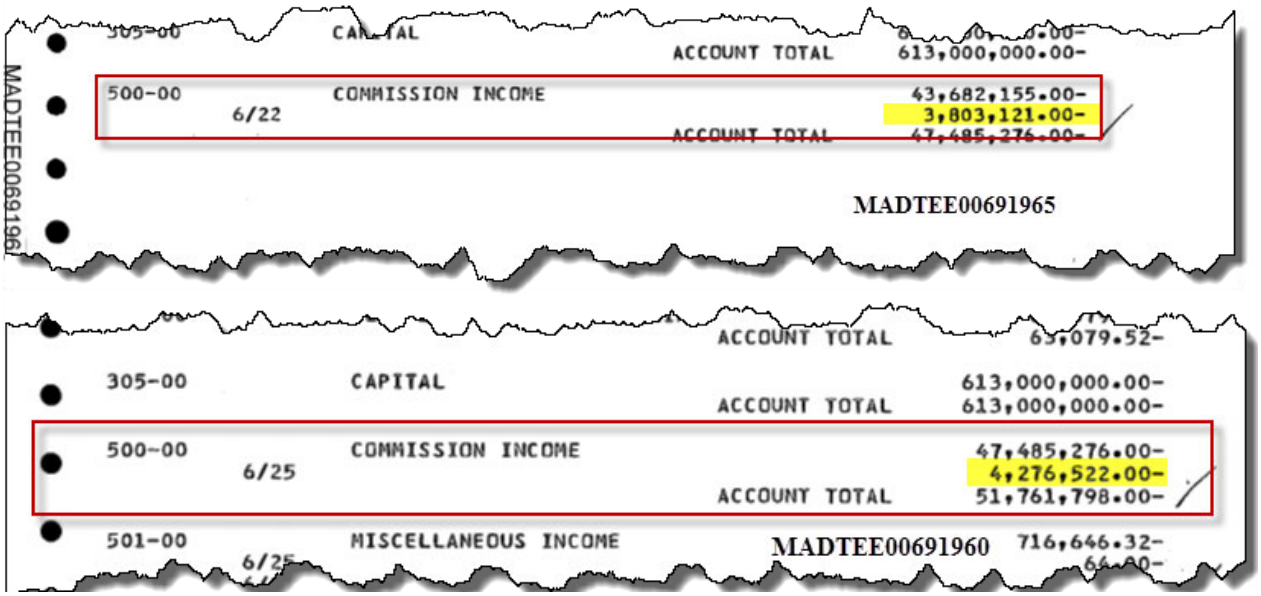
398. Ultimately these entries for "Commission Income" for April 2007 were aggregated with other Proprietary Trading Business "Commission Income" for the second quarter of 2007. (*See* Figure 88 for the other "Commission Income" for Q2 2007.)

Figure 88



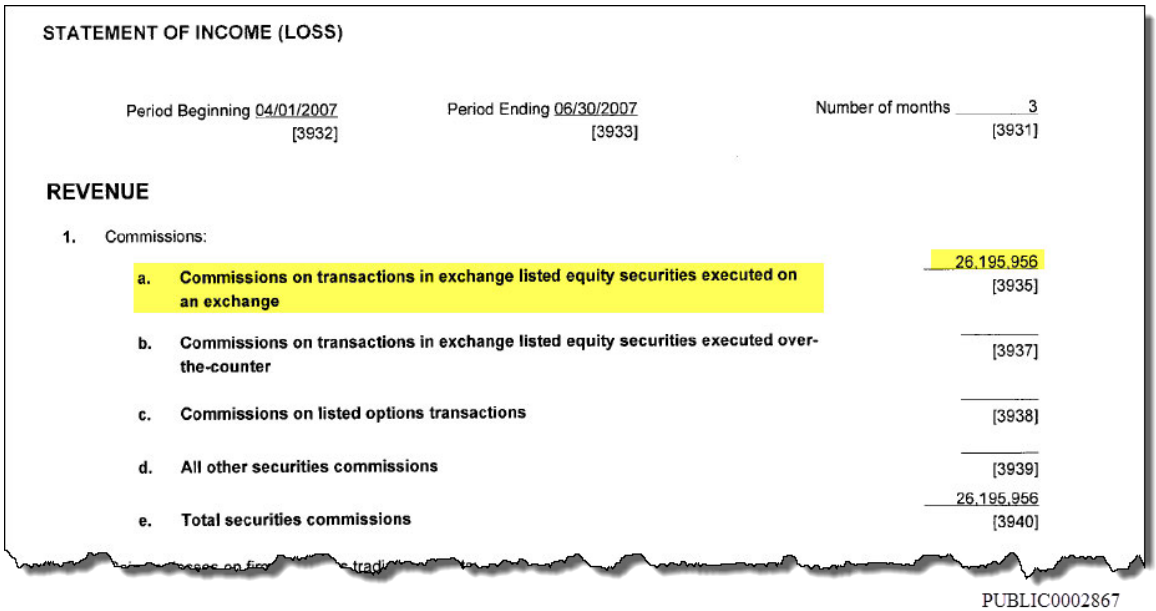
305-00		CAPITAL	613,000,000.00-
		ACCOUNT TOTAL	613,000,000.00-
500-00		COMMISSION INCOME	38,712,655.00-
	6/21		4,969,500.00-
		ACCOUNT TOTAL	43,682,155.00-
501-00		MISCELLANEOUS INCOME	716,560.33-

MADTEE00691972



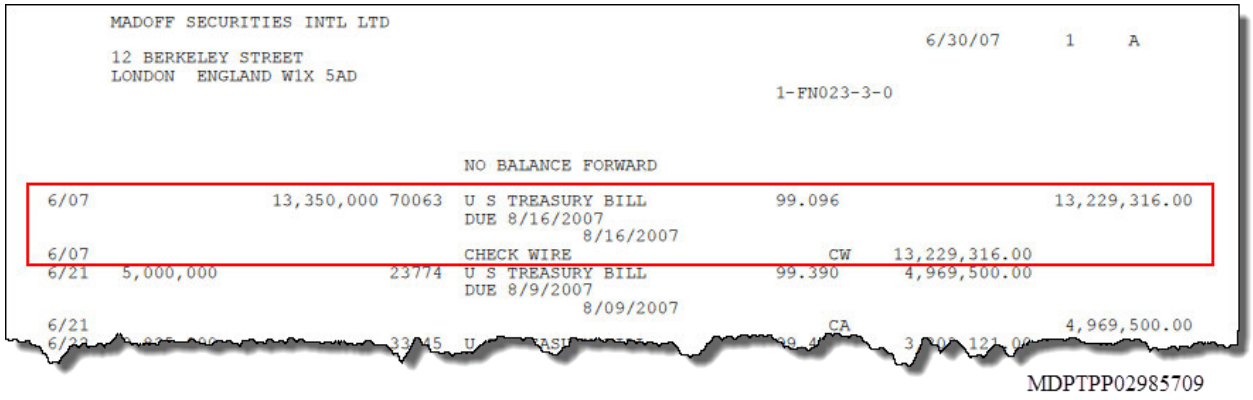
399. These "Commission Income" entries were reported on the FOCUS reports for the second quarter of 2007. (*See* Figure 89.)

Figure 89



400. Two months later, on June 7, 2007, the IA Business purportedly closed out this position on behalf of MSIL. That is, the IA Business purportedly sold the US Treasury bill for $13,229,316. (*See* Figure 90.)

Figure 90



MADOFF SECURITIES INTL LTD
12 BERKELEY STREET
LONDON ENGLAND W1X 5AD

6/30/07 1 A

1-FN023-3-0

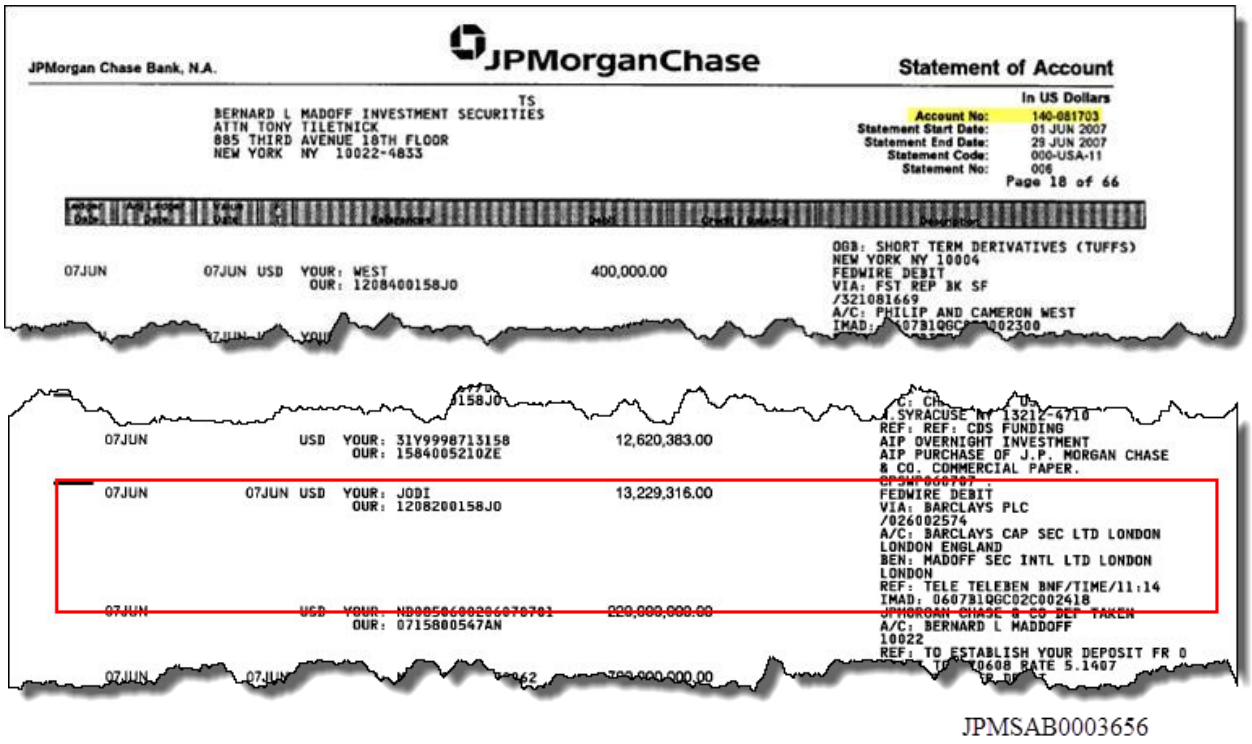
NO BALANCE FORWARD

6/07		13,350,000 70063	U S TREASURY BILL DUE 8/16/2007 8/16/2007	99.096		13,229,316.00
6/07			CHECK WIRE	CW	13,229,316.00	
6/21	5,000,000	23774	U S TREASURY BILL DUE 8/9/2007 8/09/2007	99.390	4,969,500.00	
6/21				CA		4,969,500.00

MDPTPP02985709

401. Although there are no corresponding transfers of cash from the Proprietary Trading Business to the IA Business, on June 7, 2007, the IA Business's 703 Account wire transferred $13,229,316 to MSIL's bank account, a result of the purported distribution from the sale of the US Treasury bill. (*See* Figure 91.)

Figure 91



JPMorgan Chase Bank, N.A.

JPMorganChase

Statement of Account

In US Dollars

TS
BERNARD L MADOFF INVESTMENT SECURITIES
ATTN TONY TILETNICK
885 THIRD AVENUE 18TH FLOOR
NEW YORK NY 10022-4833

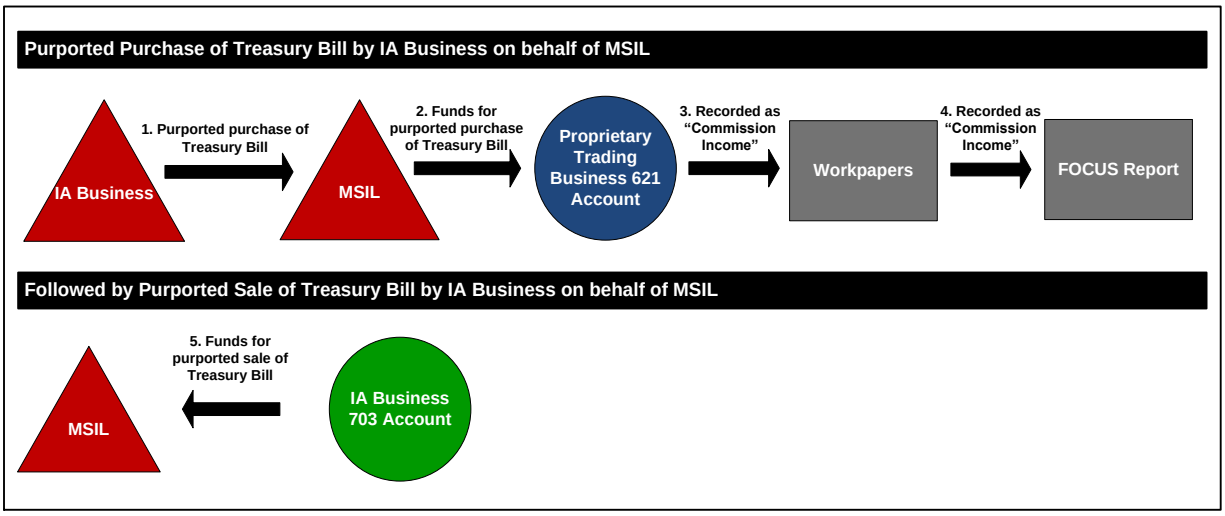
Account No: 140-081703
Statement Start Date: 01 JUN 2007
Statement End Date: 29 JUN 2007
Statement Code: 000-USA-11
Statement No: 006
Page 18 of 66

07JUN	07JUN USD	YOUR: WEST OUR: 1208400158JO	400,000.00	OOB: SHORT TERM DERIVATIVES (TUFFS) NEW YORK NY 10004 FEDWIRE DEBIT VIA: FST REP BK SF /321081669 A/C: PHILIP AND CAMERON WEST IMAD: [illegible]	
07JUN	07JUN USD	YOUR: 31Y9998713158 OUR: 1584005210ZE	12,620,383.00	C: CH [illegible] A SYRACUSE NY 13212-4710 REF: REF: CDS FUNDING AIP OVERNIGHT INVESTMENT AIP PURCHASE OF J.P. MORGAN CHASE & CO. COMMERCIAL PAPER.	
07JUN	07JUN USD	YOUR: JODI OUR: 1208200158JO	13,229,316.00	FEDWIRE DEBIT VIA: BARCLAYS PLC /026002574 A/C: BARCLAYS CAP SEC LTD LONDON LONDON ENGLAND BEN: MADOFF SEC INTL LTD LONDON LONDON REF: TELE TELEBEN BNF/TIME/11:14 IMAD: 0607B1QGC02C002418	
07JUN	USD	YOUR: [illegible] OUR: 0715800547AN	220,000,000.00	[illegible] A/C: BERNARD L MADDOFF 10022 REF: TO ESTABLISH YOUR DEPOSIT FR 0 [illegible] 0608 RATE 5.1407	
07JUN	07JUN	[illegible]	700,000,000.00		

JPMSAB0003656

402. Through the fictitious purchase and sale of US Treasuries for MSIL, like this example, the Proprietary Trading Business received hundreds of millions of dollars in cash infusions from the IA Business. In reality, they were nothing more than a one-way movement of cash using IA Business customer money. (*See* Figure 92 for a summary of this process.)

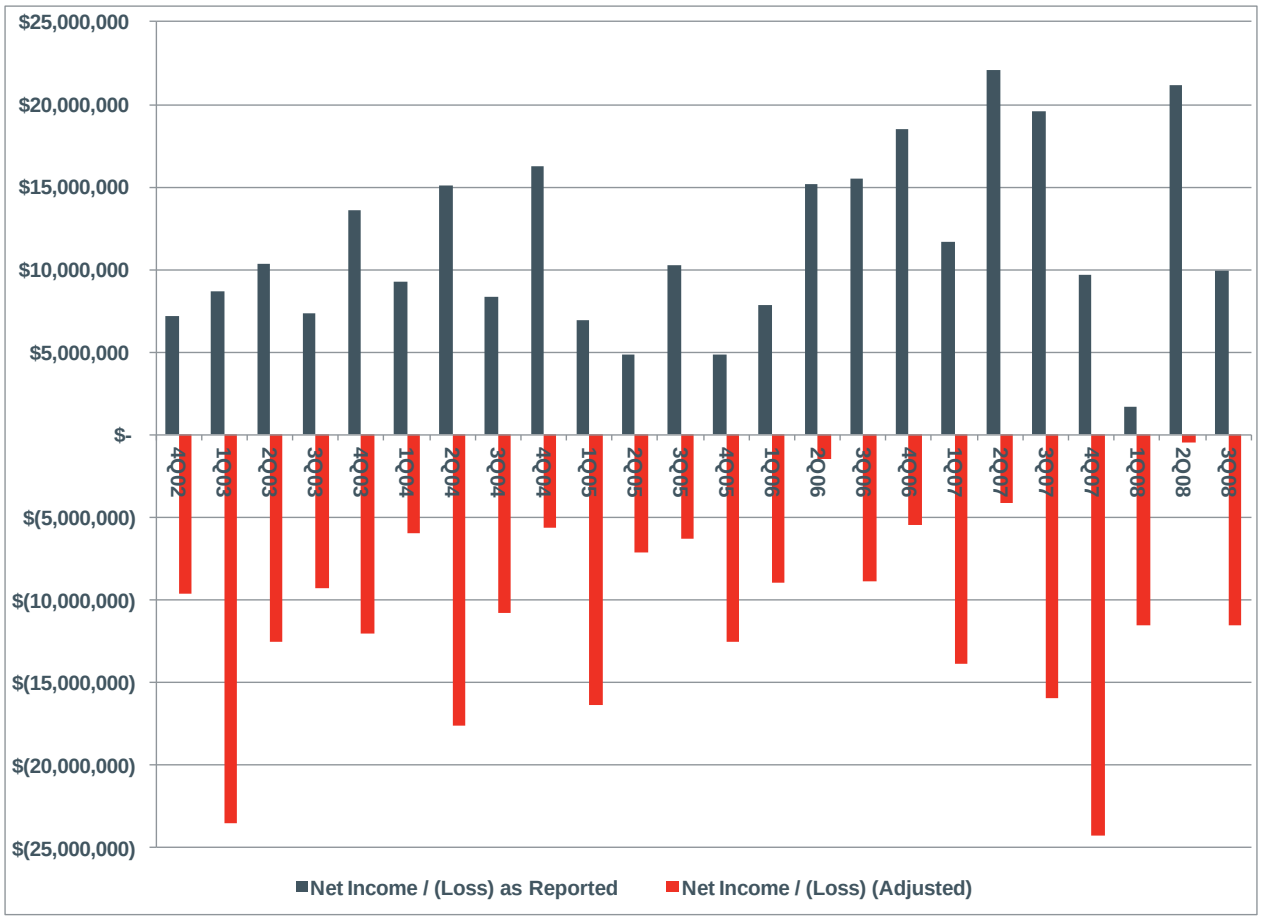
Figure 92



(v) **On its own, the Proprietary Trading Business could not sustain profits beginning in 2002**

403. The cash infusions from the IA Business, as described *supra*, allowed the Proprietary Trading Business to stay afloat and appear to generate profits. The reality is that the Proprietary Trading Business was not profitable. Beginning in mid-2002, the Proprietary Trading Business generated significant losses. As Figure 93 shows, the adjusted Proprietary Trading Business net income (loss), which removes the effects of the IA Business cash infusions, was in a significant loss position after the fourth quarter of 2002 through BLMIS's SIPA liquidation proceeding in December 2008.

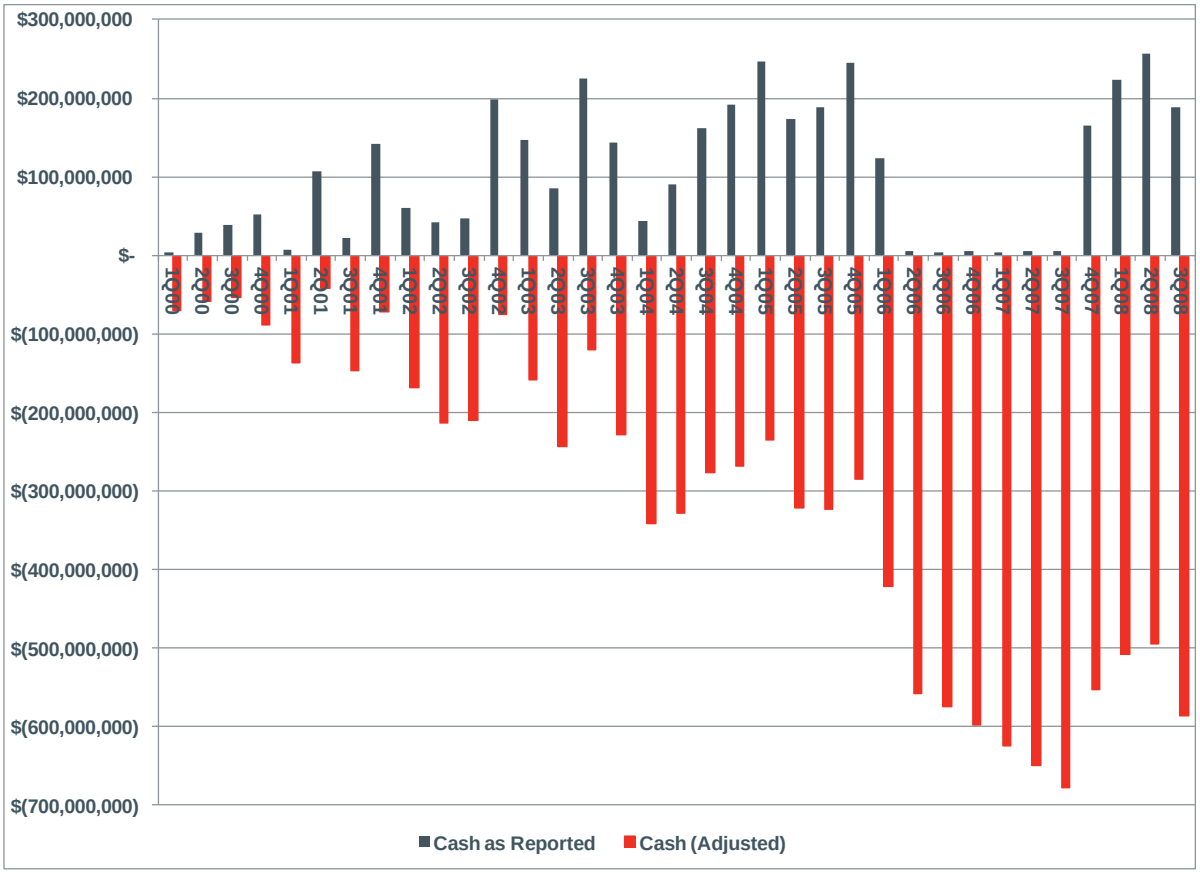
Figure 93
Comparison of Reported Net Income (Loss) and Adjusted Net Income (Loss) for Proprietary Trading Business



a. The Proprietary Trading Business no longer had positive cash beginning in 2000

404. In order for a company to continue as a going concern, it must have cash available to cover its expenses. My investigation shows that if the cash infusions from the IA Business are removed from the cash as reported on the FOCUS reports, the Proprietary Trading Business would have been in a negative cash position beginning in 2000. (*See* Figure 94 where adjusted cash removes the cumulative impact of the IA Business cash infusions.)

Figure 94
Comparison of Reported Cash and Adjusted Cash for the Proprietary Trading Business



b. The Proprietary Trading Business was in a negative net capital position beginning in 2004

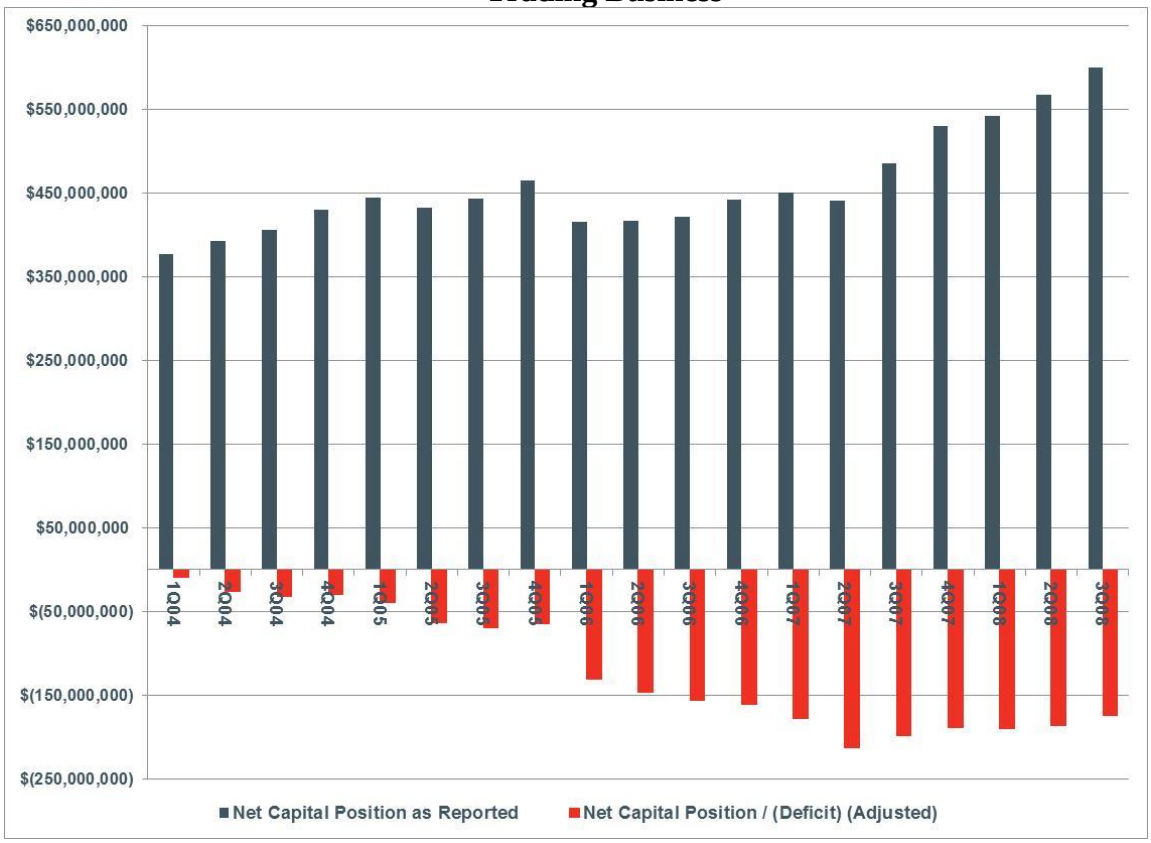
405. All SEC registered broker-dealers must comply with the SEC's Net Capital Rule (Rule 15c3-1).[323] This rule is intended to ensure that broker-dealers maintain sufficient liquid assets in order to: i) satisfy liabilities and ii) provide a liquid cushion in order to offset potential

[323] *Net Capital Requirements for Brokers or Dealers*, FINRA, http://www.finra.org/web/groups/industry/@ip/@reg/@rules/documents/interpretationsfor/p037763.pdf (last visited July 13, 2012) (PUBLIC0670407), updated, https://www.finra.org/sites/default/files/InterpretationsFOR/p037763.pdf (last visited Sept. 19, 2024).

market, credit and other risks.[324] The SEC requires that all broker-dealers disclose their net capital position in the FOCUS reports.

406. The Proprietary Trading Business purportedly complied with this requirement and provided its net capital calculations on a regular basis. These calculations, however, incorporated the cash infusions from the IA Business. As a result, although the Proprietary Trading Business appeared to be adequately capitalized, the removal of the cash infusions reflects a significantly different position. After adjusting for the IA Business cash infusions, the Proprietary Trading Business was in a negative net capital position, at a minimum, beginning in 2004. (*See* Figure 95.)

Figure 95
Comparison of Reported Net Capital and Adjusted Net Capital for the Proprietary Trading Business



[324] *Key SEC Financial Responsibility Rules*, SEC, http://www.sec.gov/about/offices/oia/oia_market/key_rules.pdf (last visited July 13, 2012) (PUBLIC0668064), updated http://www.sec.gov/about/offices/oia/oia_market/key_rules.pdf (last visited Sept. 19, 2024).

c. BLMIS improperly compensated non-BLMIS employees

407. Further, BLMIS was improperly compensating individuals for supposedly providing "services" to BLMIS, but, in fact, they were not. For example, Peter Madoff pled guilty to providing salaries and benefits to his own wife, Marion Madoff, who did not work for the firm. From 1996-2008, Marion Madoff earned over $1.5 million for performing no duties related to the business at BLMIS. Similarly, Irwin Lipkin pled guilty to providing a salary from BLMIS to his wife beginning in or about 1978 even though she did not perform any services to BLMIS.[325] Such instances provide further evidence of the pervasive fraud at BLMIS.

VII. OPINION NO. 2: BLMIS WAS INSOLVENT FROM AT LEAST DECEMBER 11, 2002[326]

408. The term "insolvent" means:

> (A) with reference to an entity other than a partnership and a municipality, financial condition such that the sum of such entity's debts is greater than all of such entity's property, at a fair valuation, exclusive of:
>
> > (i) property transferred, concealed, or removed with intent to hinder, delay, or defraud such entity's creditors; and
> > (ii) property that may be exempted from property of the estate under section 522 of title 11 of the U.S. Code.[327]

409. In conducting my investigation, the solvency of BLMIS was evaluated as of each December 11th from 2002 through 2008. Three tests are typically used when evaluating the solvency of a company in bankruptcy.[328] These tests include:

- Balance Sheet;[329]

---

[325] Peter Madoff Information at 7, 22-23; Craig Kugel Information at 3-5; Irwin Lipkin Information at 12.
[326] December 11, 2002 was a date selected by the Trustee's counsel for the six-year period prior to the BLMIS SIPA liquidation proceeding. As will be described *infra*, there is strong evidence to suggest that BLMIS was insolvent going back decades before December 2002.
[327] 11 U.S.C. § 101(32) (2011).
[328] 11 U.S.C. § 548. These tests are applied in the analyses of fraudulent conveyances.
[329] 11 U.S.C. § 548 (a)(1)(B)(ii)(I).

- Capital Adequacy;[330] and
- Ability to Pay Debts.[331]

410. In order to be deemed insolvent, the company at issue need only fail one of these three tests. In the present case, BLMIS failed all three tests as described *infra*.

A. Balance Sheet Test

411. The Balance Sheet Test is generally defined as the comparison of the Fair Market Value ("FMV") of a company's assets to the stated amount (or expected value where appropriate) of its liabilities. There are three approaches commonly used to estimate the FMV of assets:

- Adjusted Balance Sheet Approach: the assets of the subject company are adjusted from their reported values to their FMV; liabilities at their stated value are then subtracted to indicate solvency (assets greater than liabilities) or insolvency (assets less than liabilities);
- Income Approach: indicates the FMV of the equity of a business based on the value of the cash flows that the business is expected to generate in the future; and
- Market Approach: indicates the FMV of a target company based on a comparison of the company to comparable firms in similar lines of business.

412. As discussed more fully below, based on the results of the expanded scope of my investigation, I conclude that a solvency analysis of BLMIS necessitates a Balance Sheet Test based on liquidation value. As such, I have only applied the Balance Sheet Test using the Adjusted Balance Sheet approach because the Income Approach and Market Approach would assume a going concern. To assess solvency under a liquidation premise, the assets and liabilities of both the IA Business and the Proprietary Trading Business were considered.

1. Underlying Methodology Standard and Premise

413. In general, when evaluating the solvency of an enterprise under the Balance Sheet Test, the following predicate assumptions are made: (i) the standard of value assumed is FMV and (ii)

[330] 11 U.S.C. § 548(a)(1)(B)(ii)(II).
[331] 11 U.S.C. § 548(a)(1)(B)(ii)(III).

the premise of value assumed is a going concern (or liquidation value if the bankruptcy of the company is imminent). Both play a key role in determining value for any business.

414. The standard of value is the type of value that is being used (*e.g.*, FMV, Fair Value, Intrinsic Value, etc.). The premise of value reflects the set of circumstances surrounding the business valuation. For example, a business that is being offered for sale, and will continue to operate under new ownership, will demand a price that is much different than that of a business that will be shut down and its assets sold at auction - the latter attracting a much lower price than the former.

415. FMV as used herein is defined as the price at which property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of relevant facts.[332] In the case of assessing the FMV of any business, a willing buyer is assumed to be a hypothetical one rather than any one specific buyer. Further, the hypothetical buyer is one that is assumed to have conducted due diligence before entering into any purchase contract. Going concern assumes that the entity will continue as an operating business in its present state into the future.[333]

416. In my Expert Report dated November 22, 2011, in *Irving H. Picard, Trustee for the Liquidation of Bernard L. Madoff Investment Securities LLC v. Saul B. Katz, et al.* (the "Katz Report"), I was asked to assess the solvency of BLMIS for the purpose of demonstrating the depth of BLMIS's insolvency given the massive customer liabilities that existed. In the Katz Report, I predicated my valuation analysis of the Proprietary Trading Business on the assumption that it would be a going concern. Accordingly, using a going concern premise, I estimated the FMV at approximately $450 million. However, my Katz Report noted that "since the valuation conclusion in this report is based on the premise of value that House 5 is

[332] Treas. Reg. § 20.2031-1(b); Rev. Rul. 59-60, 1959-1 C.B. 41; *see also Statement on Standards for Valuation Services No. 1, Appendix B International Glossary of Business Valuation Terms*, AICPA 44 (2007).
[333] Jay E. Fishman, Shannon P. Pratt, & William J. Morrison, *Standards of Value, Theory and Applications* 28-29 (2007); *see also Statement on Standards for Valuation Services No. 1, Appendix B International Glossary of Business Valuation Terms*, AICPA 45 (2007).

a going concern, any evidence to the contrary would have a significant negative impact on the valuation."[334]

417. Since the filing of the Katz Report, I was asked to perform an additional investigation specifically on the profitability and operations of the Proprietary Trading Business, as described *supra*. As my investigation revealed, fraud permeated BLMIS - both the IA Business and the Proprietary Trading Business - to such an extent that the business could no longer be valued on a going concern basis. Not only did the Proprietary Trading Business receive fraudulent cash infusions from the IA Business, but by the early 2000s, it was wholly dependent on these funds in order to make it appear that it was a sustainable and profitable enterprise. In other words, these cash infusions came to be the dominant source of cash funding for the Proprietary Trading Business. The cash infusions, falsely identified as "revenues," revealed the pervasive nature of the fraud in the Proprietary Trading Business. Because the company's books and records could not be relied upon by a hypothetical buyer due to the extensive fraud, and because an adjustment of the false revenues would reveal ongoing significant net losses (*see* discussion *supra),* the Proprietary Trading Business could not continue as a going concern.

418. Further, the allocutions and/or guilty pleas of the BLMIS Controllers, Irwin Lipkin and Cotellessa-Pitz, and the Chief Compliance Officer, Peter Madoff, corroborate the fact that fraud permeated BLMIS to the extent that the company's books and records could not be relied upon by a hypothetical buyer.[335] Since the Katz Report, Irwin Lipkin, Cotellessa-Pitz and Peter Madoff have pled guilty to manipulating and falsifying the BLMIS financial records and statements as well as regulatory filings, which further confirms my findings as to the pervasive nature of the fraud in the Proprietary Trading Business. For example, in her allocution, Cotellessa-Pitz admitted that:

> I caused inaccurate ledgers and other books and records to be kept by BLMIS, including inaccurate general ledgers and stock records. I then transferred the

[334] Moreover, the valuation analyses "were generally made in the light most favorable to the determination of a finding of solvency" and were done in order to give the greatest benefit in favor of estimating a value that would support a finding of solvency for BLMIS given its enormous level of customer liabilities. Katz Report at 111.
[335] Irwin Lipkin Plea Agreement, *United States v. Irwin Lipkin*, S9 10-CR-228 (LTS) (S.D.N.Y. November 8, 2012); Enrica Cotellessa-Pitz Plea Allocution, *United States v. Enrica Cotellessa-Pitz*, S5-10-CR-228 (LTS), at 31 (S.D.N.Y. Dec. 19, 2011); Peter Madoff Plea Agreement, *United States v. Peter Madoff*, S7 10-CR-228 (LTS) (S.D.N.Y. June 29, 2012).

> same inaccurate record entries into FOCUS Reports and annual financial statements that I knew would be sent to the SEC. . . . I made false and inaccurate entries in the books and records of BLMIS relating to transfers of funds from BLMIS's Investment Advisory business. . . . I booked these transfers improperly to the accounts of BLMIS's Market Making and Proprietary Trading businesses.[336]

419. In addition, assuming the fraud at BLMIS was discovered by a willing buyer, it is reasonable to assume that there would not be a willing buyer thereafter. Nor would there likely be a willing seller since Madoff would not have risked opening the books and records to a prospective purchaser and risk the exposure of the fraud.

420. I have therefore concluded that BLMIS would not continue as a going concern. As such, a Balance Sheet Test under a liquidation premise (sometimes commonly referred to as "liquidation value"), where the business's assets are sold off as pieces of the business rather than as an intact operating business, is the only remaining premise of value which could be estimated under the circumstances.

2. Application of Balance Sheet Test

a. Analyzing the Assets of BLMIS

421. As discussed *supra*, the IA Business was a Ponzi scheme and a fraudulent business. Because it would be inappropriate to consider the IA Business as a going concern for purposes of a solvency analysis, the only relevant IA Business assets to consider are the cash held by the IA Business and the receivable from the Proprietary Trading Business for the cash infusions from the IA Business (since it had no other assets), as detailed *supra*.[337]

---

[336] Cotellessa-Pitz Plea Allocution at 31. In addition, Cotellessa-Pitz stated, "I booked the transfers of funds at times into specific securities or trading positions and accounts that were part of the firm's Market Making and Proprietary Trading businesses. I knew that the transfers bore no relation to these securities or positions, and that the funds did not result from trading in these securities through the firm's Market Making and Proprietary Trading businesses and, therefore, that my entries were false." *Id.*

[337] As will be discussed, the cash infusions received by the Proprietary Trading Business are being treated for purposes of the solvency analysis as a loan payable from the Proprietary Trading Business to the IA Business and therefore a loan receivable to the IA Business from the Proprietary Trading Business.

422. The total positive cash balances in the IA Business-related accounts were approximately $1.5 billion as of December 11, 2002.[338] The receivable from the Proprietary Trading Business was $273.7 million as of December 2002.

423. In assessing the value of the Proprietary Trading Business under a liquidation premise, I first analyzed the value of its net assets assuming an orderly liquidation. That is, I analyzed the price at which the net assets of the business "will be sold with normal exposure to their appropriate secondary markets."[339] In so doing, I reviewed BLMIS's historical financial statements to identify those assets that might be saleable in a liquidation sale.

424. In the case of the Proprietary Trading Business, this would include the trading positions that the business owned net of its obligations to cover its short positions. I assumed, for purposes of this analysis, that the security positions held on the balance sheet reflected market prices.[340] The liquidation would also include cash and the sale of any fixed assets (*e.g.*, namely furniture, equipment, and leasehold improvements, to the extent they are not permanent leasehold improvements) plus additional other assets.[341] The BLMIS financial statements include a category for "Other Assets."[342] For purposes of this analysis, I included those Other Assets assuming that they would represent saleable assets in a liquidation sale.

---

[338] It has been assumed for purposes of the solvency analysis, that certain brokerage/other accounts were business accounts attributable to the IA Business rather than personal accounts of Madoff and/or his wife Ruth. Account opening documentation that would indicate whether the account was a business or personal account was not available. However, to view the facts in the light most favorable to the determination of solvency, I have included the value of those accounts in the analysis. The cash reported in Tables 12 and 13 herein do not include funds transferred to overnight sweep accounts. These amounts, if added to the overall cash position, would not change my overall conclusion regarding the insolvency of BLMIS.

[339] Jay E. Fishman, Shannon P. Pratt, & William J. Morrison, *Standards of Value, Theory and Applications* 28-29 (2007).

[340] To test this assumption, I determined that the net trading position in October 2008 was approximately $315 million (calculated as securities and investments readily and not readily marketable minus securities sold, but not yet purchased). As of June 2009, these positions were sold in the market as part of the liquidation of the net trading positions of the Proprietary Trading Business for approximately $300 million. I therefore concluded that the market values presented in the financial statements were reasonable approximations of their fair market value.

[341] I have assumed for purposes of this analysis that the cash amounts reflected in the year-end FOCUS reports were attributable entirely to the Proprietary Trading Business. Cash balances for 2008 are based on Q3 2008 FOCUS report balances. *See* PUBLIC0002916–3129.

[342] The BLMIS historical financial statements do not provide a detailed description of the Other Assets in all years. In some years, such as 2002, Other Assets include dividends, interest receivables, loans and advances. *See generally* MADTEE00726657-MADTEE00726675; MADTEE00726676-MADTEE00726697; MADTEE00726698-MADTEE00726731; MADTEE00726766-MADTEE00726796; MADTEE00726797-MADTEE00726823; MADTEE00045784-MADTEE00045803; MADTEE00726865-MADTEE00726884.

b. Analyzing the Liabilities of BLMIS

425. In order to determine customer liabilities of the IA Business as of December 2002, a calculation was performed to ascertain which customers had contributed more cash to the IA Business than they withdrew. These amounts for all of these customers were aggregated on a given day to derive the total customer liability as of that date. As of October 31, 2002 and December 31, 2002 the net customer liability was $11.9 billion and $12.0 billion, respectively.[343]

426. The principal balance of a customer was determined by FTI by crediting the amount of cash deposited from the inception of the customer account and subtracting the amount of cash withdrawn from a customer account through the date of determination.[344] In addition to accounting for the cash-in and cash-out transactions, the direct transfer and withdrawal of real securities that were either deposited or withdrawn by customers from their accounts were calculated. By focusing on cash (or securities) deposited or withdrawn from a customer's account, the method excluded the following:

- Any purported earnings/gains from trading activity reflected in the account holders' account statements;
- Any interest earned on cash balances from customer deposits in IA Business's 703 Account; and
- Any book transfers of IA Business customer money between customer accounts (*i.e.*, transfers to an account for which the transferor account did not have sufficient principal at the time of the transfer).

427. In order to assess the accuracy of FTI's calculation of a customer's principal balance as described above, a review of the full customer liabilities was undertaken for purposes of inclusion in a solvency analysis. Access was provided to numerous databases including those derived from customer statements and other information which isolated the cash

[343] Net Loser Amounts by Account - 09302011.xlsx (MOTTAA00000922). The net equity methodology was upheld by the United States Court of Appeals for the Second Circuit. *In re Bernard L. Madoff Inv. Sec. LLC*, 654 F.3d 229 (2d Cir. 2011).

[344] *In re Bernard L. Madoff Inv. Sec. LLC*, 654 F.3d 229 (2d Cir. 2011). In certain circumstances, customers deposited securities into their accounts. For purposes of calculating the customer liability, the customer's account was credited with a principal deposit at the time that the securities were liquidated.

transactions that allowed for the calculation of customer liabilities described above. Additional testing for completeness and accuracy of the information was conducted by comparing the databases to source documents, as well as the replication of queries that were used to extract relevant information from the databases.[345] Finally, a recalculation of customer liabilities was completed. As a result of testing the majority of the data tables provided, it was determined that the customer liability balances were materially accurate and reliable for use in the solvency analysis.

428. With respect to the Proprietary Trading Business, BLMIS's liabilities would include line items such as Account Payables and Accrued Expenses plus any other liabilities (*i.e.*, on-balance sheet or off-balance sheet) such as loans and/or borrowings that would need to be extinguished. In the present case, however, the Proprietary Trading Business failed to account for the massive liability it owed to the IA Business for the hundreds of millions of dollars it received from the IA Business. Since I have assumed, for purposes of this analysis only, that the net trading positions are assets of the Proprietary Trading Business and not assets of the IA Business (an assumption that is extremely conservative given the facts of this fraud), it is necessary to account for hundreds of millions of dollars taken from the IA business by the Proprietary Trading Business as a liability that would be offset against the value of its assets. In other words, it is a reasonable assumption that the hundreds of millions of dollars taken by the Proprietary Trading Business allowed it to accumulate the trading positions and other assets over the years since, without the fraudulent movement of money, the Proprietary Trading Business had significant net losses for many years prior to its final demise in late 2008. [346]

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[345] The customer statements were retrieved from Microfilm and electronic (StorQM) records retained by BLMIS. These records were compiled electronically by the Trustee's consultants. Bank records were obtained directly from the banks or retrieved from BLMIS files for the period December 1998 to December 2008 and compiled electronically as well. These electronic databases were tested and validated at the 98% confidence level with a variation of only 2%. The data was determined to be accurate and reliable in all material respects.

[346] There is a dearth of evidence regarding the value of any trading algorithms in the Proprietary Trading Business. As described *infra*, Surge Trading Inc. purchased the assets of the Proprietary Trading Business at an auction based on a five-year earn out. Under the Asset Purchase Agreement, 50% of the purchase price was for "the purchase of the algorithms and the arbitrage models[.]" Acquisition for the Purchase of Certain Assets of Bernard L. Madoff Investment Securities LLC by Surge Trading Inc. Closing Volume, *In re Bernard L. Madoff*, No. 08-01789, Schedule 4.2 (S.D.N.Y. Apr. 23, 2010) (Dkt. No. 139). Since only $1,389,423.16 was paid for the Proprietary Trading Business, as described below, 50% of this purchase price would render a *de minimis* value, if any, to the

429. Accordingly, the total assets and liabilities for BLMIS as of December 2002 are shown in Table 12:

Table 12[347]

	IA Business	Proprietary Trading	Intercompany Eliminations	BLMIS
		($ millions)		
ASSETS				
Cash	$1,500.00	$198.10		$1,698.10
Receivables	273.70		($273.70)	0.00
Net Trading Positions		107.00		107.00
Fixed Assets		10.50		10.50
Other Assets		2.10		2.10
Total	$1,773.70	$317.70	($273.70)	$1,817.70
LIABILITIES				
Customer liabilities	$11,907.28			$11,907.28
Payables		$273.70	($273.70)	0.00
Total	$11,907.28	$273.70	($273.70)	$11,907.28

3. BLMIS fails the Balance Sheet Test

430. The solvency of BLMIS, based on the Balance Sheet Test, as of December 11, 2002 was computed as follows:

	($billions)
Total BLMIS Assets	$1.82
Total BLMIS Liabilities	($11.91)
INSOLVENT	($10.09)

algorithms. There is, therefore, no basis to ascribe any value to these algorithms that would be sufficient to render the Proprietary Trading Business as having a positive liquidation value.

[347] The Intercompany Elimination in 2002 is a cumulative figure beginning in 1999. As noted above, the cash reflected in the table does not include funds transferred to overnight sweep accounts. These amounts, if added to the overall cash position, would not change my overall conclusion regarding the insolvency of BLMIS.

431. The resulting negative $10.1 billion demonstrates that BLMIS was deeply insolvent as of December 11, 2002.[348] Further, as a result of the growing IA Business customer liability from approximately $12 billion in December 2002 to approximately $19.7 billion on December 11, 2008, it is my opinion that BLMIS was insolvent at all times after December 11, 2002 as well. (*See* Table 13.)

Table 13[349]

	2002	2003	2004	2005	2006	2007	2008
				($billions)			
Total BLMIS Assets	$1.82	$1.21	$1.09	$0.98	$0.19	$0.43	$0.53
Total BLMIS Liabilities	($11.91)	($12.89)	($14.92)	($15.49)	($17.84)	($21.99)	($19.70)
INSOLVENT	($10.09)	($11.68)	($13.83)	($14.50)	($17.64)	($21.57)	($19.16)

432. Further, there is reasonable evidence to believe that BLMIS was insolvent going back to at least 1983.[350] An analysis of the IA Business customer liabilities back to 1983 reveals: i) the massive customer liabilities that were not reported on the BLMIS FOCUS reports (and financial statements) for decades, and ii) the recording of these liabilities could have rendered BLMIS insolvent dating back to this earlier time period (*i.e.*, the liabilities would have eliminated the shareholders equity on the FOCUS and financial reports). (*See* Table 14.)

[348] Even assuming *arguendo* that the personal bank accounts of Bernard and Ruth Madoff that indicated transfers to and from the 703 Account were properly added back to the assets of BLMIS for purposes of a solvency analysis, the significantly deep level of insolvency for BLMIS would not be affected in an amount anywhere closely sufficient to render BLMIS solvent.

[349] Additional support for this table can be found in **Exhibit 35** – "Annual Solvency Calculations for BLMIS from 2002 through 2008". As noted above, the cash reflected in the table does not include funds transferred to overnight sweep accounts. These amounts, if added to the overall cash position, would not change my overall conclusion regarding the insolvency of BLMIS.

[350] Customer liabilities were calculated beginning in 1983.

Table 14[351]

Year	Reported BLMIS Shareholders Equity	Non-Reported IA Business Customer Liabilities as of December 31	Net BLMIS Shareholders Equity
		($ millions)	
	(a)	(b)	(c) [(a)-(b)]
1983	$18	$280	($262)
1984	$21	$298	($277)
1985	$26	$319	($293)
1986	$35	$352	($316)
1987	$42	$370	($328)
1988	$49	$433	($385)
1989	$56	$560	($504)
1990	$62	$689	($627)
1991	$73	$823	($749)
1992	$87	$1,527	($1,440)
1993	$103	$1,729	($1,627)
1994	$122	$2,119	($1,997)
1995	$152	$2,638	($2,486)
1996	$177	$3,362	($3,184)
1997	$205	$4,573	($4,368)
1998	$235	$6,560	($6,325)
1999	$285	$8,469	($8,184)
2000	$326	$9,592	($9,266)
2001	$413	$10,785	($10,372)
2002	$440	$12,020	($11,580)
2003	$480	$13,089	($12,609)
2004	$529	$15,163	($14,634)
2005	$556	$15,486	($14,930)
2006	$613	$18,327	($17,714)
2007	$676	$22,673	($21,997)

433. BLMIS was ultimately liquidated under an order signed by U.S. Bankruptcy Judge Burton Lifland. A bidding process was ordered for the Proprietary Trading Business and an auction

[351] Shareholders equity based on BLMIS FOCUS reports from 1983-2007 (PUBLIC0000001–PUBLIC0002915); customer liabilities based on Net Loser Amounts by Account - 09302011.xlsx (MOTTAA00000922).

took place on April 27, 2009. Surge Trading Inc. (hereinafter "Surge") bought the trading business for $1 million cash payable at closing and $24.5 million in deferred purchase price payments payable through December 2013. By August 2011, however, Surge decided to voluntarily wind-down the business as attempts to raise additional capital had failed. The Trustee has publicly reported that he received only $1,389,423.16 from the sale.[352]

434. Accordingly, my conclusion that the liquidation value of BLMIS was significantly negative under the Balance Sheet Test is reasonable when compared to the nominal value derived by the Trustee from the sale to Surge in the bankruptcy process. The bankruptcy process affords the sale of assets to a prospective buyer without the burden of attaching the liabilities to any such sale and reducing the proceeds, as the liabilities are the subject of relief in the bankruptcy arena. This is contrasted with a hypothetical sale under the FMV standard using a liquidation premise of value as was utilized in my analysis.

B. Capital Adequacy Test

435. Capital Adequacy requires that a company's capital be sufficient to afford managers a reasonable chance of executing a reasonable business strategy in expected market conditions. Judgment of capital adequacy should consider: (i) capital already obtained; (ii) capital to which the company has reasonable access; and (iii) the company's flexibility to meet unexpected developments. In general, a company's capital requirements are driven by characteristics of its industry, its business strategy, the reasonably foreseeable actions of competitors, customers and suppliers, and contemporary external economic and capital market conditions.

436. In the case of BLMIS, by any measure, the firm did not have sufficient capital. First, as detailed in my analysis of the Balance Sheet Test, BLMIS's tremendous liabilities far outweighed its assets, thereby eliminating any shareholders equity. Second, any ability for BLMIS to access the capital markets for additional funding would have been severely limited

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[352] *See Trading Firm, Built on Madoff Platform, Closes Doors,* WSJ, http://online.wsj.com/article/SB10001424052970203388804576617230200603402.html (last visited Sept. 20, 2012) (PUBLIC0671124), updated http://online.wsj.com/article/SB10001424052970203388804576617230200603402.html (last visited Sept. 19, 2024).

due to the extensive fraud throughout the entity. However, even if BLMIS were able to secure third-party funding (*e.g.*, a loan), the likelihood of receiving enough funding to cover its liabilities and provide sufficient resources and capital for any future volatility in its business is unrealistic.

437. As such, BLMIS did not have sufficient capital from December 11, 2002 and all points thereafter, thereby failing the Capital Adequacy Test.

C. Ability to Pay Debts Test

438. In its plainest meaning, the ability to pay debts is the ability to avoid default. Put another way, default is the inability to pay one's debts. The simplest measure of ability to pay is the probability of default. It is, for example, the probability of default that a credit rating is intended to reflect.

439. Similar to the analysis of BLMIS's capital adequacy, at no point in time from December 11, 2002 onward did BLMIS have the ability to pay back its debts when due. In fact, by December 11, 2002, BLMIS had a $12 billion customer liability, which it was unable to pay; this liability only deepened between December 2002 and December 2008. Thus, based on the depth of its insolvency, BLMIS was unable to pay its debts and, therefore, failed the Ability to Pay Debts Test.

VIII. OPINION NO. 3: MSIL WAS USED TO FACILITATE THE TRANSFER OF FUNDS OUT OF THE IA BUSINESS

A. MSIL was part of the process of moving cash from the IA Business to the Proprietary Trading Business

440. As discussed *supra*, approximately $800 million of cash was transferred from the IA Business to the Proprietary Trading Business from 1999 through 2008. (*See* Table 15.)

Table 15

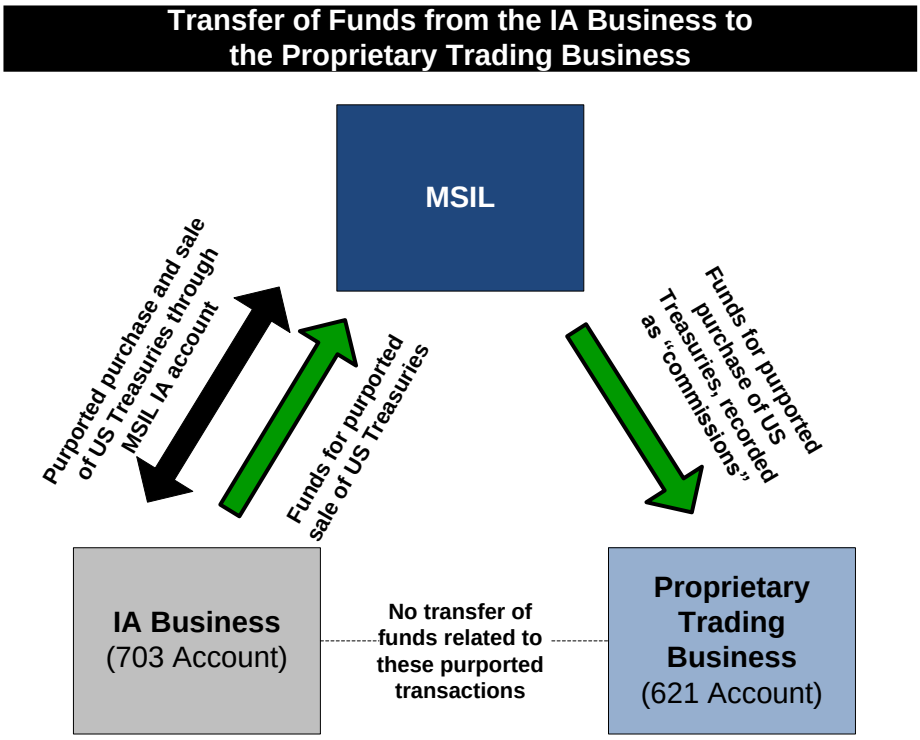
Year	IA Business Derived Cash Infusions
1999	$65,152,029
2000	75,582,929
2001	72,403,595
2002	60,483,441
2003	97,366,816
2004	88,966,002
2005	69,307,037
2006	73,217,622
2007	121,243,288
2008	75,459,701
Total	$799,182,460

441. Of this amount, approximately $310 million was transferred by way of MSIL. As such, MSIL was used to facilitate the transfer of funds in BLMIS.

442. As detailed in the example below, the following steps occurred in the transfers of funds from the IA Business to the Proprietary Trading Business:

- MSIL requested the purported purchase of US Treasuries through its IA account;
- MSIL wire transferred funds to the Proprietary Trading Business 621 Account for the purported purchase of the US Treasuries; the amount was approximately equal to the full value of the US Treasuries although the funds were recorded as "commissions" on the BLMIS financials;
- US Treasuries were purportedly posted to the MSIL IA account;
- After a short duration (*e.g.*, 2-3 months), MSIL requested the purported sale of the US Treasuries; and
- Without receiving any transfers from the Proprietary Trading Business, the IA Business 703 Account wire transferred funds to MSIL for distribution from the purported sale of the US Treasuries. (*See* Figure 96.)

Figure 96



443. Through these transactions, MSIL was used to perpetrate and perpetuate the fraud in BLMIS.

B. MSIL's capital base was dependent on capital infusions from the IA Business

444. Similar to the Proprietary Trading Business, MSIL also received financial support from the IA Business. During the period for which data were available, MSIL received nearly $205 million in capital through the use of cash, loans or the issuance of MSIL equity, all paid for through the use of funds from the IA Business. (*See* Table 16.)[353]

[353] The cash, loans and equity were transferred from the 703 Account or through 703 Account-funded brokerage accounts, such as the IA Business's Fidelity account X08-289403 (approximately $46 million in US Treasuries were delivered to MSIL) or the IA Business's Lehman Brothers account 831-04398 (approximately $347,108 were transferred to MSIL). *See* FMRSAA0001557-FMRSAA0001559.

Table 16

Year	IA Business Infusions
2000	$45,856,480
2001	26,195,040
2002	3,947,108
2003	9,337,400
2004	2,700,000
2005	5,600,000
2006	6,453,423
2007	104,279,222
2008	400,000
Total	**$204,768,672**

IX. BASES FOR THE OPINIONS IN MY REPORT

445. I base my opinions above on my formal education and over 40 years of practical experience as a CPA and an expert in forensic accounting, fraud examinations, computer forensics, accounting, taxation, business valuations, bankruptcy accounting and investment advisory services. Additionally, my opinions and the bases for them are founded on my knowledge of Generally Accepted Accounting Principles, industry accepted accounting practices, fraud examination theory, forensic accounting theory, commercial damage theory, business valuation theory, the Internal Revenue Code and related taxing authority pronouncements and rulings, investment theory and knowledge, investment advisory knowledge and economic forecasting methodology.

Bruce G. Dubinsky, MST, CPA, CFE, CVA, CFF, MAFF
October 23, 2024

APPENDICES