

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS**

| | | |
|---------------------------------------|---|-------------------------|
| _____ |) | |
| In re: Lawrence E. Jaffe Pension Plan |) | |
| Plaintiff, |) | |
| |) | |
| v. |) | Lead Case No. 02-C-5893 |
| |) | |
| Household International, Inc., et al. |) | |
| |) | |
| |) | |
| Defendant, |) | |
| _____ |) | |

DECLARATION OF MUKESH BAJAJ

April 15, 2010

I. INTRODUCTION

I am a financial economist and Senior Managing Director leading the securities practice at LECG, LLC. LECG is an international consulting firm specializing in economics and financial analysis. My curriculum vitae is attached as Exhibit 1 to this declaration. I have been retained by counsel for Household International Inc. (“Household” or the “Company”) to review and comment on the Plaintiffs’ Motion for Entry of Judgment dated March 22, 2010, supported by Mr. Bjorn Steinholt’s claim that the aggregate class recoverable damages in this case are estimated to be in the range of \$2.4 to \$3.2 billion.¹

II. SUMMARY

- Plaintiffs mischaracterize Mr. Steinholt’s estimates of potential aggregate *damages* as estimates of potential total *claims*.
- Mr. Steinholt’s aggregate damages estimates are speculative and unreliable.
- Mr. Steinholt’s aggregate damages estimates are speculative and flawed because they fail to recognize that class members’ presumed reliance on the integrity of the market price is subject to rebuttal on an individual basis.
- Mr. Steinholt’s aggregate damages analysis is speculative given the admitted lack of information about class members’ actual trading records.
- Mr. Steinholt’s aggregate damages estimates are flawed because they are not based on class members’ complete trading history or the daily inflation amounts for the entire relevant period as determined by the jury.

III. BACKGROUND

1. Plaintiffs have previously claimed that once the daily artificial inflation has been determined, calculating class members’ “damages is a mechanical function that is appropriately handled by the Claims Administrator”² based on a formula,³ that only requires certain limited information about class members’ own trading records. According to the Plaintiffs, a particular class member’s damages associated with the

¹ Second Supplemental Declaration of Bjorn I. Steinholt, March 22, 2010 attached at Exhibit 11 to Plaintiffs’ Motion for Entry of Judgment (“Second Supplemental Steinholt Declaration”), page 1.

² Plaintiffs’ Post-Verdict Submission dated May 28, 2009, page 15.

³ Lead Plaintiffs’ Supplemental Statement Regarding Damages Pursuant To the Court’s October 17, 2007 Order, October 24, 2007. (“Plaintiffs’ Supplemental Statement Regarding Damages”), page 1.

purchase of X shares during the Class Period that were sold before the end of the Class Period (“in-and-out shares”) is equal to X multiplied by (A-B), where A and B represent the artificial inflation per share that the jury determined was present in Household’s stock price at the date of purchase and sale, respectively.

2. As I discuss below, the Plaintiffs’ damage theory is critically incomplete and economically illogical. Contrary to Plaintiffs’ claims, even if every class member’s complete trading records were made available and considered, it would be impossible to calculate their damages without taking additional discovery to establish whether a class member traded Household stock relying on the integrity of the stock price, or based on its assessment that the stock price was different from the stock’s fundamental value and thus represented a profitable trading opportunity. Since most of the shares were held by a small number of large institutions, this inquiry is quite practical.
3. However, until additional discovery is completed, information about Plaintiffs’ actual trading records will not be available. Yet Plaintiffs request that the Court immediately enter a final judgment that would require Household to post a bond in the amount 50% of the “potential total claims”,⁴ which Lead Plaintiffs estimate to be “between \$2.4-\$3.2 billion,” according to the Second Supplemental Steinholt Declaration.⁵ However, Mr. Steinholt has not provided any total *claims* estimates.⁶ Instead he has provided two estimates of the Class’ aggregate recoverable *damages*, which he based upon pure speculation to overcome admitted lack of information. In fact, as I discuss below, the assumptions relied upon by Mr. Steinholt’s own models establish that it is impossible to estimate potential damages without additional discovery.

IV. OPINIONS

A. Plaintiffs mischaracterize Mr. Steinholt’s conclusions

4. Plaintiffs conflate the concept of “potential total claims” with “aggregate recoverable damages” by representing Mr. Steinholt’s conclusions as estimates of potential total

⁴ Plaintiffs’ Memorandum of Law, page 1.

⁵ Plaintiffs’ Memorandum of Law, page 6, 7.

⁶ Second Supplemental Steinholt Declaration, page 1.

claims.⁷ In contrast, as Mr. Steinholt emphasizes, his conclusions represent estimated aggregate damages, which Mr. Steinholt admits are “not estimates of the claims that will be submitted in this case as not all Class members necessarily submit claims.”⁸

B. Mr. Steinholt’s damages estimates are speculative and unreliable

5. Both of Mr. Steinholt’s hypothetical damages estimates (hereinafter referred to as “Institutional Holdings-based” and “Trading Model-based” estimates) are fundamentally flawed because they are based upon counter-factual and unrealistic assumptions made to overcome admitted lack of information about class members’ trading records.
6. Mr. Steinholt’s Trading Model-based damage estimates are pure speculation. Mr. Steinholt’s trading model unrealistically assumes, among other things, that:
 - a. the entire universe of traders can reasonably be classified into two (and only two) mutually exclusive types (active and passive traders) where the former hold 20% of the shares but contribute 80% of the trading volume;⁹
 - b. all traders that purportedly belong to a particular type can be treated as a single homogeneous entity, which entirely disregards obvious differences among different investors’ holdings, portfolio objectives, and reliance (or lack of reliance) on any of the alleged disclosure defects at issue in this case in making their trading decisions, among other factors; and
 - c. active traders are more likely to trade (i.e., have different “propensities to trade” in the trading model’s jargon) than passive traders to some unspecified and assumed degree.
7. Despite Mr. Steinholt’s repeated protestations of the “reasonableness” and “conservative nature”¹⁰ of his two-trader model, such models are inherently unreliable.

⁷ Memorandum of Law in Support of Plaintiffs’ Motion for Entry of Judgment, March 22, 2010 (“Plaintiffs’ Memorandum of Law”), page 1; Second Supplemental Steinholt Declaration, page 1.

⁸ Second Supplemental Steinholt Declaration, page 1, footnote 1.

⁹ Second Supplemental Steinholt Declaration, page 8-9.

¹⁰ Second Supplemental Steinholt Declaration, page 6, 7.

8. In fact, research published by Plaintiffs' expert at the trial in this case, Daniel Fischel, has demonstrated that "trading" model-based damage estimates such as those proposed by Mr. Steinholt vastly overstate actual claims by as much as 752%.¹¹
9. Mr. Steinholt's Institutional Holdings-based damage estimates are similarly speculative, unreliable and fundamentally flawed. As Mr. Steinholt recognizes, his calculations are based on institutions' quarterly holdings of Household stock, not their actual trading records which can only be obtained after Phase II is complete. By definition, the data Mr. Steinholt has relied upon do not reflect intra-quarter "round-trip" trades, which might very well have resulted in large gains that offset damages for particular institutions. Hence, contrary to his claims, Mr. Steinholt's methods and assumptions are not necessarily "conservative." Instead, absent the institutions' actual daily trading data, his conclusions are simply pure speculation.

C. Both of Mr. Steinholt's estimates fail to consider class members' reliance

10. Both of Mr. Steinholt's damage estimates are speculative and flawed because they fail to recognize that class members' reliance on the integrity of the market price is a rebuttable presumption on an individual basis. The academic literature in finance has long-recognized that even if a stock trades in an efficient market, individual traders may trade for different reasons and rely on the integrity of the market price to different degrees. A particular class member's individual reliance cannot be evaluated or resolved based on the information Mr. Steinholt used.
11. As I have noted, Mr. Steinholt's trading model assumes that shareholders who own only 20% of the outstanding shares contribute to 80% of the trading volume.¹² According to an academic study, such active trading is likely undertaken by profit-motivated traders who trade only when they believe the stock to be mispriced.¹³ My

¹¹ Fischel, Daniel R., David J. Ross and Michael A. Keable, 2006, "The Use of Trading Models to Estimate Aggregate Damages in Securities Fraud Litigation: An Update, Briefly...", Perspectives on Legislation, Regulation, and Litigation, Vol. 10, No. 3 (National Legal Center for the Public Interest, 2006) (hereinafter, "Fischel et al."), page 18.

¹² Second Supplemental Steinholt Declaration, page 8-9.

¹³ Harris, Larry, 2003, *Trading and Exchanges: Market Microstructure for Practitioners*, Oxford University Press, Chapter 8.

limited examination of certain institutional traders' publicly-available descriptions of their own trading strategies confirms that many of them traded to profit from stocks that they perceived as being temporarily over- or under-valued. For instance, MacKay Shields, an institutional investor that held over 5 million Household shares as of June 30, 2001¹⁴ notes that: "[b]y investing in 'value-creating' businesses that are undervalued (i.e., those companies whose share price is trading below that of the intrinsic value of the business), we believe we can deliver superior long-term performance."¹⁵

12. Such institutional traders (who may belong to the unidentified group of active traders that Mr. Steinholt assumes contribute most of Household's trading volume in his two-trader model) very well may not have relied on integrity of Household's market prices.
13. Further, the data reporting quarterly institutional ownership of Household stock that Mr. Steinholt himself has relied upon ("Institutional Holdings Data") reveals significant differences in the holding patterns of different institutional investors.¹⁶ Several institutions added significantly to their Household shares holdings after curative disclosures had been made according to Professor Fischel.¹⁷ Others sold following such purported corrective disclosures. Common sense (and economic principles) indicates that it is incorrect to assume that all these institutions relied on the integrity of the market price to the same degree.

¹⁴ Second Supplemental Steinholt Declaration, Exhibit A.

¹⁵ <http://www.mackayshields.com/investing/international-equity.html>

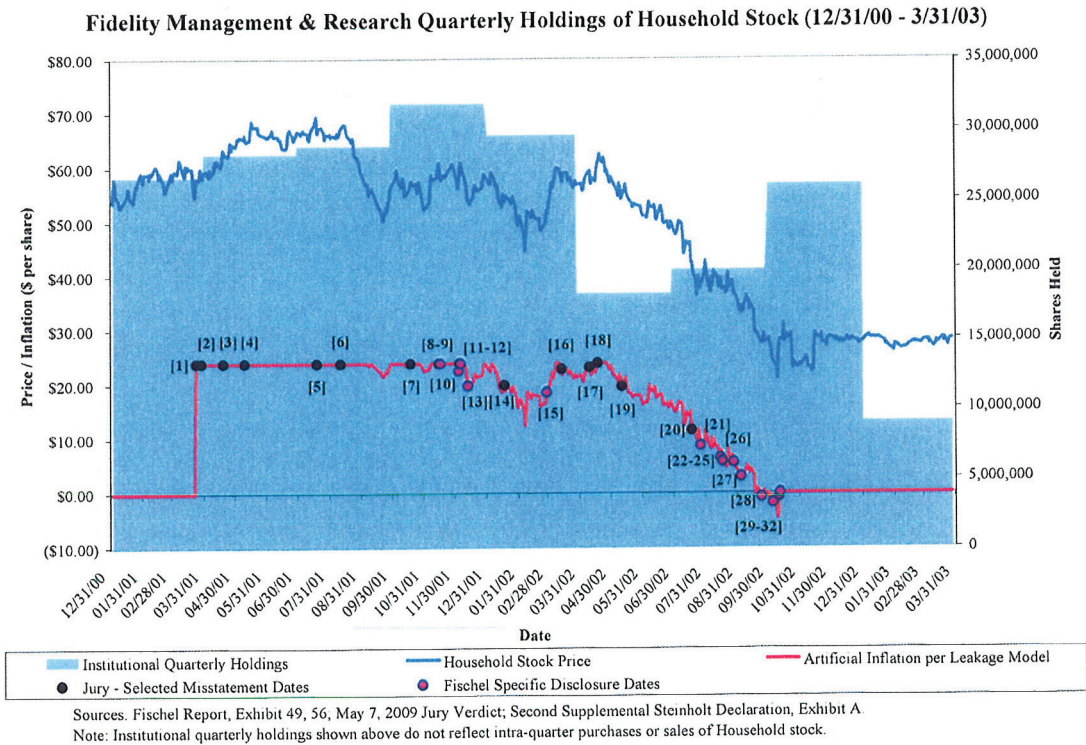
¹⁶ Second Supplemental Steinholt Declaration, Exhibit A

¹⁷ According to Professor Fischel, disclosure of the alleged fraud began to affect Household's stock price at least as early as November 15, 2001. See e.g., Report of Daniel R. Fischel, August 15, 2007, page 20.

14. Consider Figure 1 below.¹⁸ It indicates that Fidelity Management and Research (“Fidelity”) acquired over 6 million shares in the third quarter of 2002, well after numerous alleged disclosures. Such trading patterns by Fidelity and other institutions, suggest that these institutions may not have relied on the integrity of Household’s stock price in making their purchase decisions and may instead have bought the stock on the premise that its was over-sold (or under-valued) following the negative publicity and headline risk associated with subprime lending in general that was prevalent at the time (as I have testified).

¹⁸ In the figure, the blue shaded region represents Fidelity’s quarterly holding of Household shares (from the end of the fourth quarter of 2000 through the end of fourth quarter of 2002). Thus, if Fidelity acquires Household shares in a given quarter (net of its sales that quarter) then its holding increases, i.e., the blue shaded region’s height rises at the end of that quarter. Conversely, if Fidelity sells Household shares in a given quarter (net of its purchases that quarter) then its holding decreases, i.e., the blue shaded region’s height declines at the end of that quarter. The height of the blue shaded region (or the number of Household shares the institution held at each quarter end) is measured along the right vertical axis. Household’s daily stock price and the artificial inflation determined by the jury (shown as a blue and red line, respectively) are measured (in dollars per share) along the left vertical axis. Key statement and alleged disclosure dates are marked in the figures below by 32 black and purple dots, respectively. A table attached as Appendix A summarizes these dates.

Figure 1



15. Mr. Steinholt’s declaration fails to acknowledge that the important issue of reliance must be examined before any damage estimate can be determined. Absent such a determination, any attempts to determine the class’ aggregate potential claims based on mechanical computations that rest on a series of unrealistic assumptions are entirely speculative.

D. Mr. Steinholt’s damages estimates are not based on class members’ complete trading history or the jury-determined daily inflation amounts for the entire Class Period

16. Mr. Steinholt’s damage analysis is speculative given the admitted lack of information about class members’ actual trading records. However, even if each class member’s complete trading records were available, under the Plaintiffs’ proposed damage formula which he has adopted, Mr. Steinholt’s analysis will result in speculative and unreliable conclusions because it assumes that class members’ damages should not be based on that class member’s entire trading history or the daily inflation that the jury has found for the entire Class Period.

17. Instead, Mr. Steinholt's formula assumes that each class member's damages should ignore purchases over certain sub-periods (within the Class Period) and sales over other sub-periods. Such a selective analysis is biased because it includes pre-March 23, 2001 purchases for one purpose (to identify round trip transactions) but not for another (to properly account for the class member's offset benefit derived from selling shares purchase pre-March 23, 2001 at zero inflation and subsequently sold at positive inflation, i.e., "netting") thus dramatically overestimating the amount of damages.
18. To highlight the bias in Mr. Steinholt's proposed damage formula, consider the Fidelity example discussed above. As the Institutional Holdings Data shows, Fidelity net sold 11,355,502 Household shares in the first quarter of 2002. According to Mr. Steinholt's formula all such shares sold should be included in estimating Fidelity's damages because they occurred after November 15, 2001. However, according to the Institutional Holdings Data, Fidelity had at most 3,004,357 shares available for sale as of the first quarter of 2002 which it had acquired since March 23, 2001.¹⁹ Hence, at least 8,351,145 of the 11,355,502 Household shares that Fidelity net sold in the first quarter of 2002 were acquired at zero inflation before March 23, 2001. According to Mr. Steinholt the average inflation in the first quarter of 2002 was \$18.88 per share.²⁰ Hence, Fidelity gained \$157,669,618 (which is calculated as \$18.88 x 8,351,145) by selling shares bought before March 23, 2001, i.e. at uninflated prices according to the Jury Verdict. However, according to Mr. Steinholt's incomplete damage formula, such gain would be improperly ignored. Such an incomplete analysis is illogical from an economics perspective.

V. CONCLUSION

19. Numerous significant steps must be completed in any logical economic analysis that attempts to determine the actual damages starting with a jury verdict of the daily per

¹⁹ According to the Institutional Holdings Data, Fidelity net bought 5,270,831 shares in the first three quarters of 2001 and net sold 2,266,474 shares in the fourth quarter of 2001 (i.e. 5,270,831 - 2,266,474 = 3,004,357).

²⁰ Second Supplemental Steinholt Declaration, Exhibit B, page 4.

share inflation present in a stock price throughout the Class Period. Such steps include:

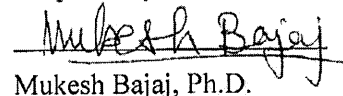
- Step 1)** Determine the number of Household shares that a claimant bought or sold on each day of the Class Period.
- Step 2)** Determine whether a claimant made trading decisions relying on the integrity of the market price or not.
- Step 3)** As to any claimant that relied on the integrity of the market price, match purchases and sales in a consistent manner based on that claimant's complete trading records.
- Step 4)** For all pairs of matched trades for each claimant who relied on the integrity of the market price, calculate total net damages for that claimant (sum of inflation at time of purchase minus inflation at time of sale for all pairs).
- Step 5)** As a matter of economic logic, only once each of these determinations has been made as to each claimant can a calculation be made of the total aggregate claims amount.

20. Plaintiffs' and Mr. Steinholt's proposed methods do not follow these steps and are therefore incomplete and critically flawed from an economic perspective. Mr. Steinholt's calculations represent estimated aggregate damages, not claims. As Fischel et al. note, such model-based damage estimates are speculative and far exceed actual aggregate claims.

21. In short, Mr. Steinholt's damage calculations are not "conservative" and "reasonable" as he claims. They are simply wrong. More importantly, Mr. Steinholt's calculations are irrelevant for assessing the class' aggregate potential claims, despite the Plaintiffs' attempts to conflate the concepts of damages and claims.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Respectfully submitted,



Mukesh Bajaj, Ph.D.

APPENDIX A
Fischel Specific Disclosure Dates and Jury-Selected Misstatement Dates as Shown in Figure 1

| | Date | Type | Description |
|------|----------|----------------------------------|--|
| [1] | 03/23/01 | Misstatement Date | Gilmer says "Unethical lending practices... are abhorrent." |
| [2] | 03/28/01 | Misstatement Date | 2000 10-K filed |
| [3] | 04/18/01 | Misstatement Date | Press release entitled "Household International Reports First Quarter Results; 11th Consecutive Record Quarter" |
| [4] | 05/09/01 | Misstatement Date | 10-Q for quarter ending 3/31/01 |
| [5] | 07/18/01 | Misstatement Date | Press release entitled "Household International Reports Second Quarter Results; 12th Consecutive Record Quarter" |
| [6] | 08/10/01 | Misstatement Date | 10-Q for quarter ending 6/30/01 |
| [7] | 10/17/01 | Misstatement Date | Press release entitled "Household Reports Highest Quarterly Net Income in Its 123-Year History" |
| [8] | 11/14/01 | Misstatement Date | 10-Q for quarter ending 9/30/01 |
| [9] | 11/15/01 | Fischel Specific Disclosure Date | CDC Lawsuit |
| [10] | 12/03/01 | Fischel Specific Disclosure Date | Barron's article questioning Household's accounting practices. |
| [11] | 12/04/01 | Misstatement Date | Goldman Sachs presentation |
| [12] | 12/05/01 | Fischel Specific Disclosure Date | Aldinger rebuts claims in Barron's article at Goldman conference. |
| [13] | 12/12/01 | Fischel Specific Disclosure Date | Legg Mason analyst repeats prior concerns about HI's reaging policies in a report on 12/11/2001. |
| [14] | 01/16/02 | Misstatement Date | Press release entitled "Household Reports Record Quarterly and Full Year Net Income" |
| [15] | 02/27/02 | Fischel Specific Disclosure Date | Household implements new "Best Practice Initiatives" |
| [16] | 03/13/02 | Misstatement Date | 2001 10-K filed. |
| [17] | 04/09/02 | Misstatement Date | Financial relations conference, break-out of reaging details |
| [18] | 04/17/02 | Misstatement Date | Press release entitled "Household Reports Record First Quarter Net Income" |
| [19] | 05/10/02 | Misstatement Date | 10-Q for quarter ending 3/31/02 |
| [20] | 07/17/02 | Misstatement Date | Press release entitled "Household Reports Record Second Quarter Results on Strong Receivables Growth" |
| [21] | 07/26/02 | Fischel Specific Disclosure Date | Bellingham Herald article |
| [22] | 08/14/02 | Fischel Specific Disclosure Date | Restatement |
| [23] | 08/14/02 | Misstatement Date | Press release entitled "Household International Certifies Accuracy of SEC filings in 2002" |
| [24] | 08/14/02 | Misstatement Date | 10-Q for quarter ending 6/30/2002 |
| [25] | 08/16/02 | Fischel Specific Disclosure Date | Forbes "Home Wrecker" article |
| [26] | 08/27/02 | Fischel Specific Disclosure Date | The Bellingham Herald calls WA Report a "blistering assessment" and KBW analysts say stock is in 'an uninvestable situation' |
| [27] | 09/03/02 | Fischel Specific Disclosure Date | Bernstein Research analyst says sales reform will reduce growth |
| [28] | 09/23/02 | Fischel Specific Disclosure Date | CIBC analysts lower target price from \$57 to \$36 |
| [29] | 10/04/02 | Fischel Specific Disclosure Date | WSJ reports imminent \$350-\$500 million settlement with state attorneys general |
| [30] | 10/10/02 | Fischel Specific Disclosure Date | AG settlement leaked |
| [31] | 10/11/02 | Fischel Specific Disclosure Date | AG Settlement formally announced |

Sources: Fischel Report; Jury Verdict.

Exhibit 1

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EDUCATION

PhD Business Administration (Finance), UNIVERSITY OF CALIFORNIA AT BERKELEY, 1988
MBA, UNIVERSITY OF TEXAS AT AUSTIN, 1987
Bachelor of Technology, INDIAN INSTITUTE OF TECHNOLOGY, Delhi, India, 1981

PRESENT POSITIONS

LECG, Emeryville, California
Senior Managing Director, Leader of LECG's Global Securities Practice, April 2007 to Present
Member, Executive Management Committee, April 2007 to Present
Managing Director, Finance and Damages Practice, April 1999–March 2007
Member, Management Advisory Committee, December 2003–March 2007
Member, Board of Directors, December 2001–August 2003
Director, January 1999–April 1999
Affiliate, September 1998–December 1998
Principal, January 1998–September 1998
Senior Economist, June 1997–December 1997

HAAS SCHOOL OF BUSINESS, UNIVERSITY OF CALIFORNIA AT BERKELEY
Visiting Lecturer

PROFESSIONAL EXPERIENCE

BVS, INC., Dallas, Texas, 1995–1997
Senior Associate
UNIVERSITY OF SOUTHERN CALIFORNIA, Los Angeles, California, 1988–1995
Assistant Professor of Finance and Business Economics
UNIVERSITY OF CALIFORNIA AT BERKELEY, 1983–1988
Instructor
Graduate Student Instructor

Exhibit 1

ACADEMIC HONORS AND AWARDS

Award from Faculty Research and Innovation Fund, University of Southern California, 1990.
Graduate Fellowship, University of California at Berkeley, 1988.
Earl F.Cheit Award for Outstanding Teaching, Graduate School of Business, University of California at Berkeley, 1986–1987.
Outstanding Graduate Student Instructor Award, University of California at Berkeley, 1986–1987.
Outstanding Graduate Student Instructor Award, University of California at Berkeley, 1985–1986.
Award for Best Technical Paper published in *Indian Chemical Engineer*, 1983.
Sword Scholar (Dean's List), University of Texas at Austin.
National Science Talent Scholar, National Council of Educational Research and Training, India.

PROFESSIONAL ACTIVITIES

Member, American Finance Association.
Member, Western Finance Association.
Member, Financial Management Association.
Member, European Finance Association.

PUBLICATIONS

1. "The NUA Benefit and Optimal Investment in Company Stock in 401(K) Accounts," with Sumon Mazumdar, Vikram Nanda and Rahul Surana, 2009, in A. H. Chen Ed., *Research in Finance*, Volume 25, 203–227.
2. "Competition in IPO Underwriting: Time Series Evidence," with Andrew H. Chen and Sumon C. Mazumdar, 2008, in A. H. Chen Ed., *Research in Finance*, Volume 24, 1–25.
3. "A Matrix-Based Lattice Model to Value Employee Stock Options," with Sumon Mazumdar, Rahul Surana and Sanjay Unni, 2006, *Journal of Derivatives* 14, 9–26.
4. "Mean Reversion in Earnings and the Use of E/P Multiples in Corporate Valuation," with David Denis and Atulya Sarin, 2004, *Journal of Applied Finance* 14, 4–10.
5. "Securities Class Action Settlements: An Empirical Analysis," with Sumon Mazumdar and Atulya Sarin, 2003, *Santa Clara Law Review* 43, 1001–1033.
6. "Ownership Structure, Agency Costs and Dividend Policy," with Anand M. Vijh and Randolph W. Westerfield, 2002, in A. H. Chen Ed., *Research in Finance*, Volume 19, 1–28.
7. "The Cost of Raising Preferred Equity Capital," with Sumon Mazumdar and Atulya Sarin, 2002, *Journal of Financial Research* 25, 577–592.
8. "Firm Value and Marketability Discounts," with David J. Denis, Stephen P. Ferris and Atulya Sarin, 2001, *Journal of Corporation Law* 27, 89–115.
9. "Transfer Pricing and Foreign Exchange Risk," with Brian Becker and Jonathan Neuberger, *Transfer Pricing Report*, July 1999.
10. "Dividend Omissions and Forecasts of Future Earnings: Some Positive Evidence on Information Content of Dividends," 1999, in A. H. Chen Ed., *Research in Finance*, Volume 17, 13–39.

Exhibit 1

11. "The Relationship Between Ownership, Financing Decisions and Firm Performance: A Signaling Model," with Sudipto Dasgupta and Yuk-She Chan, 1998, *International Economic Review* 39, 723–744.
12. "Valuation for Smaller Capitalization Companies," with Scott D. Hakala, 1998, in *Financial Valuation: Business and Business Interests – 1998 update*, Warren, Gorham & Lamant.
13. "Trading Behavior and the Unbiasedness of the Market Reaction to Dividend Announcements," with Anand M. Vijh, 1995, *Journal of Finance* 50. (Abstract reprinted in *Financial Management Collection*, 1996.)
14. "Beyond Mere Compliance," with Anita S. Agarwal, *Mortgage Banking*, April 1993, 57–61.
15. "Dividend Clienteles and the Information Content of Dividend Changes," with Anand M. Vijh, 1990, *Journal of Financial Economics* 26, 193–219.
16. "The Efficient and Inefficient Media for Political Campaign Advertising," with Roland T. Rust and George T. Haley, 1984, *Journal of Advertising* 13, 45–49.
17. "Modeling of Non-Ideal Residence Time Distribution in a Continuous Flow Stirred Tank Reactor at Zero RPM," with D. Prasanna Rao, 1983, *Indian Chemical Engineer*, 24–27.
18. "Alternate Criteria for the Comparison of Regression Models," with Roland T. Rust, presented in *Proceedings of the Southwestern Marketing Association*, Spring 1983.

WORKING PAPERS

1. "ESO Expensing Under the Revised FAS 123: A Practitioner's Guide," with Sumon Mazumdar, Sanjay Unni, and Anand Vijh, September 2005.
2. "Investment in Company Stock in 401(k) Accounts," with Sumon Mazumdar, May 2005.
3. "The New Accounting Rules for ESO Expensing: Not Quite As Easy As 123," with Sumon Mazumdar and Sanjay Unni, March 2005.
4. "Competition in IPO Underwriting: Time Series Evidence," with Andrew H. Chen, Sumon Mazumdar and Atulya Sarin, March 2003.
5. "Auditor Compensation and Audit Failure: An Empirical Analysis," February 2003.
6. "The Offer Yield of Preferred Stock," with Sumon Mazumdar and Atulya Sarin, March 2002.
7. "Signaling, Agency Costs and Ownership Structure: Theory and Empirical Implications," with Sudipto Dasgupta and Yuk-She Chan, mimeo, Hong Kong University of Science and Technology, 1997.
8. "Is it Appropriate to Use a Higher Discount Rate to Value Small Firms?" with Martin Hanan, Rick Knoll, and Mark Mitchell.
9. "Turnover in Equity Ownership, Risk and Return."

Exhibit 1

TESTIMONY ON RECORD

1. *In Re Altria Group, Inc. v. United States of America, Defendant. Case No. 1:06-cv-09430-RJH* in the United States District Court, Southern District of New York. Testified in deposition and at trial regarding economic issues affecting tax treatment of certain leveraged lease transactions. Deposition in December 2007. Trial in June-July 2009.
2. *Madison Tyler Holdings, LLC, et al., Claimants, v. Financial Asset Trading & Technology of California, LLC, et al., Respondents; Financial Asset Trading & Technology of California, et al., Cross-Claimants, v. Madison Tyler Holdings, LLC, et al., Cross-Respondents; and related arbitration Madison Tyler Holdings, a Delaware Limited Liability Company, et al., Counter-Claimants and Respondents v. Rajashree Karwa, an individual, Counter-Respondent and Claimant.* Arbitration Before JAMS, JAMS Ref. No. 1220038462. Testified in deposition on economic analysis of source of value creation in algorithmic trading strategies. June 2009.
3. *Lawrence E. Jaffe Pension Plan, On Behalf of Itself and All Others Similarly Situated, v. Household International, Inc., et al., Case No. 02-C-5893* in the United States District Court, Northern District of Illinois, Eastern Division. Testified in deposition and at trial on loss causation and damages in a securities class action alleging securities fraud arising from purported accounting irregularities and predatory lending practices to subprime borrowers. Deposition in March 2008. Trial in May 2009.
4. *Guerrero Family Trust, Carmen De Leon Guerrero, Jose T. Tenorio Trust, Estate of Santiago C. Tenorio, Juan T. Guerrero, Jesus T. Guerrero, and AJT Trust, v. Kinki Nippon Tourist Co. LTD, Saipan Hotel Corporation, Pacific Development Inc., Pedro J.L. Igitol, in his official capacity of Secretary of Saipan Hotel Corporation, Morgan Stanley Japan Limited, Marianas Holdings, LLC, and K.K. ING Karuizawa Training Institute. Civil Action No. 04-0574D* in the Superior Court of the Commonwealth of the Northern Mariana Islands. Testified in deposition on damages arising from alleged abuse of fiduciary duty and dilution of minority shareholders' stock holding. July 2008.
5. *In the Matter of David A. Finnerty, et al., Administrative Proceeding, File No. 3-11893*, Before the Securities and Exchange Commission. Testified in trial regarding the trading patterns of certain NYSE specialists in connection with alleged violations of priority rules and securities laws. February and March 2008.
6. *In Re NYSE Specialists Securities Litigation, Master File No. 03 Civ. 8264 (RWS)* in the United States District Court, Southern District of New York. Testified in deposition on class certification issues relating to alleged trading-rule violations by New York Stock Exchange specialist firms. November 2007.
7. *Theo Bullmore and Phillip S. Stenger, as Joint Official Liquidators of Beacon Hill Master Ltd. (In Official Liquidation), Plaintiffs, v. Ernst & Young Cayman Islands, Ernst & Young LLP, Beacon Hill, Asset Management, LLC, John D. Barry, Thomas Daniels, John Irwin, Mark Miszkiewicz, and ATC Fund Services (Cayman) Limited f/k/a ATC Fund Administrators (Cayman) Limited, Defendants, Index No.: 104314/05* in the Supreme Court of the State of New York, County of New York. Testified in deposition on the causation and alleged damages experienced by the Beacon Hill Master Fund caused by an alleged improper audit by Ernst & Young Cayman Islands. September 2007.
8. *Sterling Savings Association and Sterling Financial Corporation v. United States of America, Defendant. Case No. 95-829C* in the United States Court of Federal Claims. Testified in deposition and at trial on damages due to alleged breach of contract as a result of Financial Institutions Reform and Recovery Act of 1989. Depositions in June 2002 and May 2004. Trial in July 2007.
9. *Adelphia Communications Corp., Plaintiff v. Deloitte & Touche LLP, (Defendant) v. John Rigas, Timothy Rigas, Michael Rigas and James Rigas (Additional Defendants)* in the Court of Common Pleas, Philadelphia County. Testified in deposition on loss causation and damages issues related to alleged improper conduct by auditor. May 2007.

Exhibit 1

10. *David S. and Malia A. Litman v. United States of America* Case No. 05-956T; *Robert B. and Michelle S. Diener v. United States of America*, Case No. 05-971T; *Hotels.com Inc. and Subsidiaries (f/k/a Hotel Reservations Network, Inc.) v. United States of America*, Case No. 06-285T. Judge Christine O.C. Miller in the United States Court of Federal Claims. Testified in deposition and at trial on valuation of 9.9 million shares of stock issued to certain former officers of Hotels.com for tax purposes. Deposition in July 2006. Trial in May 2007
11. *Jane Z. Astleford, Donor, Petitioner v. Commissioner of the Internal Revenue, Respondent*, Docket No 4342-06 in the U.S. Tax Court. Testified at trial on value of certain interests in a limited partnership. March 2007.
12. *United States of America v. Sanjay Kumar and Stephen Richards, 04-CR-0846 (ILG)*, in the United States District Court, Eastern District of New York. Testified at trial on loss causation and damages issues in criminal securities fraud matter in which defendants pleaded guilty to improper revenue recognition related accounting irregularities. October 2006.
13. *The Procter and Gamble Company and Subsidiaries & Procter and Gamble FSC (Barbados) vs. The United States of America* in United States District Court for the Southern District of Ohio, Western Division, Case number 1:05cv355. Testified in deposition on fair market value of certain technologies donated by Procter and Gamble to various entities in connection with a tax dispute. September 2006.
14. *United States of America v. Richard Volpe*, indictment S1 05 Cr. 390 (SHS), in the United States District Court, Southern District of New York. Testified at trial on liability issues in criminal securities fraud matter alleging illegal trading by certain New York Stock Exchange specialists. August 2006.
15. *United States of America v. Robert Scavone*, indictment S1 05 Cr. 390 (SHS), in the United States District Court, Southern District of New York. Testified at trial on liability issues in criminal securities fraud matter alleging illegal trading by certain New York Stock Exchange specialists. July 2006.
16. *United States of America v. Michael Hayward and Michael Stern*, indictment S1 05 Cr. 390 (SHS), in the United States District Court, Southern District of New York. Testified at trial on liability issues in criminal securities fraud matter alleging illegal trading by certain New York Stock Exchange specialists. July 2006.
17. *Commonwealth Holdings, Inc., Profit Sharing Plan & Trust, James T. Waddill, IV et. al., v. Salomon Smith Barney, Inc. and John Henry Spatz* in a hearing before NASD. Testified on loss causation and damages aspects of Plaintiffs' claims arising from alleged securities fraud. September 2005.
18. *Messrs. Robert, Charles and John Switzer et. al. v. Deutsche Bank et. al.* in a hearing before NASD. Testified on liability and damages aspects of Plaintiffs' damage claims arising from alleged unsuitable investments in certain leveraged debt obligations. June 2005.
19. *IDT Corp. v Telfonica S.A. et al*, Case No. 01 CV 471 in the United States District Court for New Jersey. Testified in deposition on liability and loss causation aspects in a claim of alleged securities fraud. April 2005.
20. *Sherewin I. Ray e. al v. Citigroup Global Markets, Inc. f/k/a Salomon Smith Barney, Inc., CITIGROUP, INC. and John Henry Spatz*, Case No. 03C3157 in the United States District Court for the Northern District of Illinois, Eastern Division. Testified in deposition on liability and loss causation in a claim of alleged securities fraud. March 2005.
21. *American National Bank and Trust Company of Chicago, as Trustee f/b/o Emerald Investments LP, and Emerald Investments LP, an Illinois Partnership v. Allmerica Financial Life Insurance and Annuity Company*. Testified in deposition on certain liability aspects in a breach of contracts claim involving certain mutual fund trading strategies. January 2005.

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22. *In Re. WorldCom, Inc. ERISA Litigation, Master File No. 02 Civ. 4816 (DLC)* in the United States District Court, Southern District of New York. Testified in deposition on liability aspects of Plaintiffs' damage claims in an ERISA class action. January 2005.
23. *Xilinx Inc. and Subsidiaries v. Commissioner of Internal Revenue Service, Docket Nos. 004142-01 and 00702-03*. Testified in US Tax Court on whether grant date value, or certain spread upon exercise, of employee stock options should be considered part of cost sharing pool in a cost sharing arrangement between Xilinx, Inc. and its Irish affiliate. Trial in July 2004. Submitted affidavit in connection with motion to dismiss in June 2002.
24. *Maxtor Corporation v. Koninklijke Philips Electronics N.V., Philips Semiconductors B.V., Philips Semiconductor International B.V., Philips Electronics North America Corporation, Philips Semiconductors, Inc., Philips Semiconductor Manufacturing, Inc., Philips France, Philips Japan, LTD., and Does 1 through 25. Case No. CV 808650* in the Superior Court of the State of California, County of Santa Clara. Testified in deposition on damages analysis in connection with alleged design failure of a chip used in manufacturing computer hard drives. March 2004.
25. *Mid-Continent Federal Savings Bank v. United States of America, Defendant. Case No. 95-472C* in the United States Court of Federal Claims. Testified in deposition and at trial in Court of Federal Claims on damages due to alleged breach of contract as a result of Financial Institutions Reform and Recovery Act of 1989. Deposition in April 2002. Trial in July 2003.
26. *Robert F. Flood v. Bessemer Trust Company, N.A.; Robert G. Vanneman; and Does 1-25 and Stephen Gorosh v. same defendants*. Testified in deposition on alleged damages due to failure to diversify. November 2002.
27. *Christine P. Rales, Plaintiff v. Steven M. Rales, Defendant. Civil Action No. 02DR166-D* in the Superior Court of District of Columbia. Testified in deposition on the fair market value of a block of 19.67 million shares of common stock of Danaher Corporation held by Stephen M. Rales. February 2002.
28. *American National Bank and Trust Company of Chicago, as Trustee f/b/o Emerald Investments LP, and Emerald Investments LP, an Illinois Partnership v. AXA Client Solutions, LLC; The Equitable Life Assurance Society of the United States; and AXA Financial, Inc. Case No. 00 C 6786*. Testified in deposition on damages due to alleged breach of contract involving certain mutual fund trading strategies. May 2002.
29. *Statewide Savings Bank, S.L.A., Plaintiff, v. United States of America, Defendant. Case No. 95-779C* in the United States Court of Federal Claims. Testified in deposition on damages due to alleged breach of contract as a result of Financial Institutions Reform and Recovery Act of 1989. February 2002.
30. *Charles T. McCord and Mary S. McCord, Donors, Petitioners v. Commissioner of Internal Revenue, Respondent, Docket No 7048-00* in the US Tax Court. Testified at trial on value of several interests in a limited partnership. May 2001.
31. *Estate of Elma Middleton Dailey, Deceased, K. Robert Dailey, II, Executor, Petitioner, v. Commissioner of Internal Revenue, Respondent, Docket Nos 6251-00 and 6262-00* in the US Tax Court. Testified at trial on value of several interests in a limited partnership. May 2001.
32. *John G. Balletto v. Xoom.com, Inc, Case No. 306798* in the Superior Court of California, San Francisco County. Testified in deposition and at trial relating to damages due to alleged breach of contract. January 2001. Deposition in January 2001. Trial in March 2001

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33. *Edison International (1585456), Mission First Financial (1431482), Edison Capital (1417993), Edison Funding Company (1417994), Renewable Energy Capital Company (0715920), Mission Funding Epsilon (1426267) v. California Franchise Tax Board*. Testified before the State Board of Equalization on whether Mission First Financial and its parent company SCEcorp formed a unitary business for tax purposes during 1988 to 1990. December 2000.
34. *Framatome Connectors USA Holdings, Inc. and Subsidiaries, et al. v. Commissioner of Internal Revenue Service, Docket No. 5030-98, 9160-99, 118 T.C. 32 (2002), aff'd, 108 Fed. Appx. 683, (2004)*. Testified in trial on whether Burndy Japan was a controlled foreign corporation of the petitioner for the years 1988, 1989 and 1992 under section 957(a) (2) of the Internal Revenue Code. October 2000.
35. *Barry G. Hittner, Receiver of American Universal Insurance Company v. Sequa Corporation, et al M.D.L. No. 972, C.A. No. 1:92-512*. Testified in deposition on the value of a \$50 million note backed by certain real estate. June 2000.
36. *Estate of Richie C. Heck, Deceased, Gary Heck, Special Administrator, Plaintiff, v. Commissioner of Internal Revenue Service, Defendant. Docket No. 11619-99* in the U.S. Tax Court. Testified at trial on the valuation of a minority interest in F. Korbel & Bros., Inc. June 2000.
37. *American Heritage Bancorp, Plaintiff, v. United States of America, Defendant. Federal Deposit Insurance Corporation, as successor to the rights of Home Federal Savings Bank, Plaintiff Intervenor v. United States of America, Defendant. Case No. 90-3982C*. Testified in deposition on damages due to alleged breach of contract as a result of Financial Institutions Reform and Recovery Act of 1989. May 2000.
38. *Estate of Robert H. Lurie, deceased, Ann Lurie, Executor, v. Commissioner of Internal Revenue, Docket No. 22639-94* in the U.S. Tax Court. Testified at trial on whether certain trusts accumulated assets from investments without transfers for inadequate consideration by the deceased. February 1999.
39. *Joseph K. Mitchell, et al., v. Central Investment Corporation, Case No. A9700035*, Special Proceedings in the Court of Common Pleas, Hamilton County, Ohio. Testified in deposition regarding fair cash value of a minority position in stock of a Pepsi-Cola bottling company in connection with a freeze-out merger. March 1998.
40. *Walter L. Gross, Jr. & Barbara H. Gross v. Commissioner and Calvin C. Linnemann & Patricia G. Linnemann v. Commissioner, T.C. Memo 1999-254, 78 T.C.M. (CCH) 201 (1999), aff'd 272 F.3d 333 (6th Cir. 2001), reh'g en banc denied (6th Cir., Mar 21, 2002), cert. denied 537 U.S. 827 (2002)*. Testified at trial regarding the fair market value of a minority interest in a Pepsi-Cola bottling company for gift tax purposes. November 1997.
41. *R. J. R. Nabisco Inc. and Subsidiaries v. Commissioner, Docket No. 3796-95* in the U.S. Tax Court. Testified at trial regarding the nature and useful economic life of cigarette package design for federal income taxation purposes. February 1997.
42. *Clinton, Inc. & Subsidiaries, Petitioner v. Commissioner of Internal Revenue, Respondent, Docket No. 9885-95* in the U.S. Tax Court. Testified in deposition regarding reasonable executive compensation pursuant to Internal Revenue Code Section 162 (a) (1). August 1996.
43. *Fullers Jewelry, Inc., Plaintiff v. Dallas Central Appraisal District, Defendant, Case No. 94-09169-B*, District Court, Dallas County, Texas, 44th Judicial District. Testified in deposition regarding the value of merchandise inventory of a retail jewelry chain for purposes of ad valorem taxation. July 1996.

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44. *American Marazzi, Inc., Plaintiff v. Dallas Central Appraisal District, Defendant, Cause number 95-07028-B*, District Court, Dallas County, Texas, 44th Judicial District. Testified in deposition regarding the value of merchandise inventory of a manufacturer and distributor of ceramic tiles for purposes of ad valorem taxation. June 1996.
45. *Terence Dean, et al. v. Dean Security, Inc. et al.* Testified in binding arbitration regarding damages due to breach of contract for the sale of a security company. March 1996.
46. *Advertiser's Dynamic Services, Co., Inc., Plaintiff v. United States of America, Defendant, Case No. 3-94-CV-2079-G*, District Court, North Dallas, Texas. Testified at trial regarding the nature of contracts between a publisher and salespersons for payroll tax purposes. February 1996.

Date: April 2010