# DEVIN M. SHANTHIKUMAR

Paul Merage School of Business
University of California, Irvine
SB 428
Irvine, CA 92697

E-mail: dshanthi@uci.edu
Phone: 949.824.9653

## ACADEMIC POSITIONS

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| July 2018-present | University of California, Irvine, Paul Merage School of Business,<br>Associate Professor, Accounting<br>Accounting Area Coordinator, Head of Accounting Area, August 2018-present |
| July 2011-June 2018 | University of California, Irvine, Paul Merage School of Business,<br>Assistant Professor, Accounting |
| July 2005-June 2010 | Harvard Business School, Assistant Professor, Accounting and Management<br>Hellman Faculty Fellow, July 2006 – June 2010 |

## POST-GRADUATE EDUCATION

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|---|---|
| July 2004-June 2005 | Harvard Business School, Post-Doctoral Fellow, Accounting and Control |
| February-May 2005 | Harvard Business School, The General Managers Program, 7-week intensive residential executive education program, 40 credit-hour equivalent |
| July-August 2006 | Harvard Business School, Colloquium on Participant Centered Learning,<br>10-day full time program designed for faculty, 6 credit-hour equivalent |

## EDUCATION

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| 2000-2004 | Ph.D. in Business Administration, emphasis in Finance,<br>Stanford University, Graduate School of Business |
| 1997-2000 | B.S. in Electrical Engineering and Computer Science, Summa Cum Laude,<br>University of California at Berkeley |

## RESEARCH INTERESTS

Financial Accounting and Behavioral Finance; Investor Heterogeneity,
Investor Cognitive Limitations, Role of Security Analysts, Effects of Investor Limitations on Firms, Money Managers and Analysts; Product Development Innovation

## TEACHING

Cost and Managerial Accounting courses for four programs: full-time MBA, fully-employed MBA, Executive MBA, undergraduate, University of California at Irvine, 2011-current

Financial Reporting and Control for MBAs, Harvard Business School, 2005-2009
- Core Accounting Course for MBAs, Financial & Managerial Accounting, over 65 Cases taught

## PUBLISHED RESEARCH

Private Firm Investment and Public Peer Misvaluation (with Brad Badertscher and Siew Hong Teoh), *The Accounting Review*, forthcoming 2019.

Local Bias in Google Search and the Market Response Around Earnings Announcements (with Sabrina Chi), *The Accounting Review*, 2017, 92:4, 115-143.

Do Security Analysts Speak in Two Tongues (with Ulrike Malmendier), *Review of Financial Studies,* 2014, 27:5, 1287-1322.

The Stock Selection and Performance of Buy-Side Analysts (with Boris Groysberg, Paul Healy and George Serafeim), *Management Science*, 2013, 59:5, 1062-1075.

Consecutive Earnings Surprises: Small and Large Trader Reactions, *The Accounting Review*, 2012, 87:5, 1709-1736.

Are Small Investors Naïve About Incentives? (with Ulrike Malmendier), *Journal of Financial Economics*, 2007, 85:2, 457-489.

## WORKING PAPERS

Product Development Innovation: Insights from Trademarks (with Lucile Faurel, Qin Li, and Siew Hong Teoh)

Broker Trading Volume: A Conflict of Interest? (with Tiana Lehmer and Ben Lourie)

Do Retail Investors Use SEC Filings? Evidence from EDGAR Search (with Sabrina Chi)

The Informedness of Retail Investors: Evidence from Trading around Fraud vs. Non-Fraud Restatements (with Yifan Li)

## WORK IN PROGRESS

Correlated Investor Attention: The Effect of IPO Waves on Already Public Companies (with Aimee Shih)

The Value of New Product Development (with Lucile Faurel, Qin Li, and Siew Hong Teoh)

## PUBLISHED TEACHING MATERIALS

Compass Box Whisky Company (with Romana Autrey), Harvard Business School Case, 108-032 (2007).
Listed in Harvard Business School's "Most Popular" case list
Teaching Note, 5-111-140.
Topics: Inventory Accounting, Changing Business Model, Link Between Operations and Accounting, Courses: Financial Accounting, Managerial Accounting

Leasing Computers at Persistent Learning, Harvard Business School Case, 108-014 (2007).
Teaching Note, 5-109-054.
Topics: Lease Accounting, Courses: Financial Accounting

Digital Link (A), 110-093, and (B), 110-094, (2010).
Topics: Investor Attention, Security Analysts, Going Private, Courses: Electives in Accounting and Finance

## CONFERENCES AND INVITED PRESENTATIONS

2018-2019 American Accounting Association Annual Meeting (Aug)
2017-2018 American Accounting Association Annual Meeting, Presenter and Discussant (Aug)
Washington University in St. Louis (Oct)
Southern California Accounting Research Forum (March)
University of California at Irvine (May)
Santa Clara University (May)
2016-2017 American Accounting Association Annual Meeting, Discussant (Aug)
2016 Temple Conference on Convergence of Financial and Managerial Accounting (Aug)
Center for Corporate Reporting and Governance Annual Conference (Sep)
Chapman University (Oct)
University of Texas at Dallas (Nov)
Southern Methodist University (Nov)
Yale University (Dec)
2015-2016 University of Washington (Oct)
AAA Financial Accounting and Reporting Section (FARS) Annual Meeting (Jan)
University of California at Irvine (April)
UCLA/USC/UCI Joint Conference (April)
University of Toronto (April)
2014-2015 University of Oregon (Oct)
Chapman University (Oct)
American Finance Association (AFA) Annual Meeting (Jan)
AAA Management Accounting Section (MAS) Annual Meeting (Jan)
AAA Financial Accounting and Reporting Section (FARS) Annual Meeting (Jan)
UCLA/USC/UCI Joint Conference (March)
University of California at Irvine (May)
2013-2014 University of California at Irvine (Apr)
Southern California Accounting Research Forum (Apr)
Western Finance Association Annual Meeting, Discussant (June)
2012-2013 AAA Financial Accounting and Reporting Section (FARS) Meeting, Discussant (Jan)
University of California at Irvine (Apr)
American Accounting Association Western Regional Annual Meeting, Presenter and Discussant (Apr)
2010-2011 American Accounting Association Annual Meeting, Discussant (Aug)
AAA Financial Accounting and Reporting Section (FARS) Meeting, Discussant (Jan)
2009-2010 American Accounting Association Annual Meeting, Presenter and Discussant (Aug)
University of California at Berkeley (Sep)
University of California at Davis (Oct)
University of California at Irvine (Dec)
University of Texas at Dallas (Dec)
Utah Winter Accounting Conference (Feb)
2008-2009 American Accounting Association Annual Meeting, Presenter and Discussant (Aug)
Center for Corporate Reporting and Governance Annual Conference (Sep), Winner of Best Paper Prize for "After a Restatement: Long-Run Market and Investor Response"
University of Southern California (Oct)
University of Utah (Nov)
AAA Financial Accounting and Reporting Section (FARS) Meeting, Discussant (Jan)
University of South Florida (Mar)
University of Michigan (Apr)
Boston Accounting Network of Developing Scholars (May)
European Financial Management Association, Presenter and Discussant (June)

<u>2007-2008</u> American Accounting Association Annual Meeting, Discussant (Aug)
State Street Global Advisors (Aug)
Cass Business School (Jan)
London Business School (Jan)
Manchester Business School (Jan)
The University of Massachusetts at Amherst (Mar)
New York University (Apr)
The University of California at Berkeley (May)
Early Career Women in Finance Mini-Conference (June)
Western Finance Association Annual Meeting, Discussant (June)

<u>2006-2007</u> AAA Financial Accounting and Reporting Section (FARS) Meeting, Discussant (Jan)
The Seventh Maryland Finance Symposium, Behavioral Finance (Mar)
University of Minnesota (Apr)
European Accounting Association Annual Meeting, Presenter and Discussant (Apr)
Harvard Business School (May)
Purdue University (June)
Early Career Women in Finance Mini-Conference (June)

<u>2005-2006</u> American Accounting Association Annual Meeting (Aug)
American Finance Association Annual Meeting, Discussant (Jan)
AAA Financial Accounting and Reporting Section (FARS) Meeting (Jan)
FMA Europe Annual Meeting, Presenter and Discussant (June)
Behavioral Decision Research in Management Conference (June)

<u>2004-2005</u> Financial Management Association Annual Meeting, Presenter and Discussant (Oct)
JFE/Dice Conference on Agency Problems and Conflicts of Interest in Financial Intermediaries (Dec)
Massachusetts Institute of Technology (Apr)
Harvard Business School Information, Markets and Organizations (IMO) Conference (June)
Early Career Women in Finance Mini-Conference (June)

<u>2003-2004</u> Stanford University (Oct)
Harvard Business School (Jan, Feb)
Northwestern (Jan)
University of Illinois at Urbana-Champaign (Jan)
University of Texas at Austin (Feb)
University of California at Irvine (Mar)
Western Finance Association Annual Meeting (June)

<u>2002-2003</u> Stanford University (Nov)
London Business School's Third Annual Trans-Atlantic Doctoral Conference in Business Research (June)

## OTHER PROFESSIONAL ACTIVITIES

Ad Hoc Referee

<u>Financial Times 50 Journals</u>
The Accounting Review
Contemporary Accounting Research
Journal of Accounting and Economics
Journal of Accounting Research
Journal of Finance
Journal of Financial Economics
Journal of Marketing Research
Management Science
Review of Accounting Studies
Review of Financial Studies

Other Academic Journals
Accounting Horizons
European Management Journal
Financial Management
Journal of Banking and Finance
Journal of Business and Finance
Journal of Financial Intermediation
Journal of Law and Economics
North American Journal of Economics and Finance
Review of Financial Economics

Conference Committee Member
American Accounting Association Annual Meeting, 2017
In charge of all submissions and sessions related to "Capital Market Intermediaries (Including Analysts)"
American Accounting Association Annual Meeting, 2009
American Finance Association Annual Meeting, 2009

Coordinator, 2014-2015, UC Irvine Workshop Series

Coordinator, 2006-2007, 2007-2008, 2008-2009 HBS Accounting and Management Unit Brown Bag Lunch Series (with Romana Autrey)

Member American Accounting Association, American Finance Association

University Service, University of California Irvine:
Executive Committee, Member (2018-present)
Committee on Courses, Member (2018-present)
Assessment Committee, Member (2014-2018)
Undergraduate Program Committee, Member (2017-2018)
Masters Program Committee, Member (2010-2017)
Merage New Building Committee, Member (2015)
Masters of Professional Accountancy Committee, Member (2014-2015)

## HONORS AND AWARDS

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| 2016 | Best Paper Prize, Center for Corporate Reporting and Governance Annual Conference, for "Do Retail Investors Understand Restatements? Evidence from Trading around Fraud vs. Non-Fraud Restatements" |
| 2016 | Excellence in Reviewing Award, Financial Accounting and Reporting Section of the American Accounting Association |
| 2006 – 2010 | Hellman Faculty Fellowship, Harvard Business School Faculty Award |
| 2008 | Best Paper Prize, Center for Corporate Reporting and Governance Annual Conference, for "After a Restatement: Long-Run Market and Investor Response" |
| 2003-2004 | Jaedicke Merit Award for outstanding academic performance, Stanford GSB |
| 2001-2002 | Jaedicke Merit Award for outstanding academic performance, Stanford GSB |
| 2000-2004 | Stanford GSB fellowships |
| 1998-2000 | Barry M. Goldwater Scholarship, 1 of 304 scholarship winners nationwide; Intel Women in Science and Engineering Scholarship; Altera Scholarship; Edward Frank Kraft Scholarship Prize; National Merit Scholarship; U.C. Regents Scholarship |

## ABSTRACTS (PUBLISHED AND WORKING PAPERS)

**Private Firm Investment and Public Peer Misvaluation** (with Brad Badertscher, and Siew Hong Teoh), *The Accounting Review*, forthcoming 2019.

We study how public firm misvaluation affects private peer firm investments. An *economic competition hypothesis* predicts a negative relation because misvaluation-induced new investment by public firms crowds out investment by private peers that share common input or output markets. An alternative *shared sentiment hypothesis* predicts a positive relation because private firm stakeholders share in the sentiment associated with misvaluation in public markets. Misvaluation is proxied using both the price-to-fundamental ratio and an exogenous instrument obtained from mutual fund flows. The evidence is consistent with the shared sentiment hypothesis, and robust to alternative treatments for growth opportunities. Private firms finance misvaluation-induced investment primarily internally or externally with debt, not equity. Finally, misvaluation-induced investment increases future return on investment for private firms in contrast with public firms. Overall, these findings suggest that overvaluation in public markets increases private firm investments and has beneficial effects on private firm investments by relaxing financing constraints.

**Local Bias in Google Search and the Market Response Around Earnings Announcements** (with Sabrina Chi), *The Accounting Review*, 2017, 92:4, 115-143.

We examine the impact of distance on Internet search, and the effect of the "local bias" in search on the stock market response around earnings announcements. We find significant local bias in search behavior. Motivated by theories explaining local bias, *local information advantage* and *familiarity bias*, we predict and find that firms with higher local bias in search experience higher bid-ask spreads, lower trading volumes, and lower earnings response coefficients at the time of earnings announcements, consistent with non-local investors relying more than locals on public information announcements. Consistent with local information advantage, we find that in the week prior to the announcement, firms with higher local bias have higher bid-ask spreads, higher trading volumes, and returns that are more predictive of the coming earnings surprise. Consistent with familiarity bias, firms with higher local bias in search experience stronger post-earnings-announcement drift. We use unique predictions, propensity score matching, and two-stage least squares to identify the effects of local bias separately from the effects of overall visibility. Overall, we show there is significant local bias in search, and that this local bias has a significant impact on the market response around earnings announcements.

**Do Security Analysts Speak in Two Tongues** (with Ulrike Malmendier), *Review of Financial Studies,* 2014, 27:5, 1287-1322.

Why do security analysts issue overly positive recommendations? We propose a novel approach to distinguish strategic motives (e.g., generating small-investor purchases and pleasing management) from nonstrategic motives (genuine overoptimism). We argue that nonstrategic distorters tend to issue both positive recommendations and optimistic forecasts, while strategic distorters "speak in two tongues," issuing overly positive recommendations but less optimistic forecasts. We show that the incidence of strategic distortion is large and systematically related to proxies for incentive misalignment. Our "two-tongues metric" reveals strategic distortion beyond those indicators and provides a new tool for detecting incentives to distort that are hard to identify otherwise.

**The Stock Selection and Performance of Buy-Side Analysts** (with Boris Groysberg, Paul Healy and George Serafeim), *Management Science*, 2013, 59:5, 1062-1075.

Prior research on equity analysts focuses almost exclusively on those employed by sell-side investment banks and brokerage houses. Yet investment firms undertake their own buy-side research, and their analysts face different stock selection and recommendation incentives than their sell-side peers. We examine the selection and performance of stocks recommended by analysts at a large investment firm relative to those of sell-side analysts from mid-1997 to 2004. We find that the buy-side firm's analysts issue less optimistic recommendations for stocks with larger market capitalizations and lower return volatility than their sell-side peers, consistent with their facing fewer conflicts of interest and having a preference for liquid stocks. Tests with no controls for these effects indicate that annualized buy-side strong buy/buy recommendations underperform those for sell-side peers by 5.9% using market-adjusted returns and by 3.8% using four-factor model abnormal returns. However, these findings are driven by differences in the stocks recommended and their market capitalization. After controlling for these selection effects, we find no difference in the performance of the buy- and sell-side analysts' strong buy/buy recommendations.

**Consecutive Earnings Surprises: Small and Large Trader Reactions**, *The Accounting Review*, 2012, 87:5, 1709-1736.

Prior research demonstrates that investors respond differently to earnings surprises that are part of a string of consecutive earnings increases or surprises than to those that are not. To shed light on who values these patterns, I compare trading responses of small and large traders to earnings surprises that occur during a series of positive or negative surprises. I find that the relative intensity of small traders' trading response (and, to a lesser extent, that of medium traders) to earnings surprises generally increases as a series progresses. Small traders respond more negatively to the second (third) negative surprise in a series than to the first (second), and more positively for the first three surprises in a positive series. Moreover, I find that announcement-period returns are related to the trading of small and medium traders. These results suggest that less sophisticated smaller traders, responding to earnings series, contribute to previously documented pricing patterns.

**Are Small Investors Naïve About Incentives?** (with Ulrike Malmendier), *Journal of Financial Economics*, 2007, 85:2, 457-489.

Security analysts tend to bias stock recommendations upward, particularly if they are affiliated with the underwriter. We analyze how investors account for such distortions. Using the NYSE Trades and Quotations database, we find that large traders adjust their trading response downward. While they exert buy pressure following strong buy recommendations, they display no reaction to buy recommendations and selling pressure following hold recommendations. This ‘‘discounting’’ is even more pronounced when the analyst is affiliated with the underwriter. Small traders, instead, follow recommendations literally. They exert positive pressure following both buy and strong buy recommendations and zero pressure following hold recommendations. We discuss possible explanations for the differences in trading response, including information costs and investor naiveté.

**Product Development Innovation: Insights from Trademarks** (with Lucile Faurel, Qin Li, and Siew Hong Teoh)

In several large surveys of CEOs, trademarks rank as equally or more important than patents for firm innovation, growth and performance, and the OECD's definition of innovation includes trademarks. The innovation literature, however, almost exclusively studies patents. We build a novel dataset of 123,545 trademark registrations by S&P 1500 firms from 1993 to 2011 to study the value of trademarks and how firms motivate trademark innovation. We find that firms registering more trademarks earn future increases in sales and profitability. One new trademark increases next-year sales by $1.85 million for a median firm in a low-patent (non-high-tech) industry. Trademark creation increases with the fraction of CEO compensation in the form of stock options, the convexity of CEO incentives, and the value of unvested options the CEO holds. Using a revised accounting rule, SFAS 123(R), as an exogenous shock to option compensation, we find that reductions in stock option compensation cause reductions in trademark creation. Thus, trademarks have value and CEO risk-taking incentives are important motivators of new product development innovation.

**Do Retail Investors Use SEC Filings? Evidence from EDGAR Search** (with Sabrina Chi)

We address whether retail investors directly use SEC filings when making trading decisions. We find that retail investor trading, both buying and selling, is significantly related to EDGAR search for 10-K and 10-Q filings, more so than to Google search. This is true for a wide range of firms and firm-days. The results of lead-lag and two-stage-least square analyses are consistent with search leading to trade. In addition, the results of several tests are consistent with retail investors using the information in the filings they obtain. The direction of retail investors' trading is consistent with the direction of earnings changes reported in the downloaded filings. The trading-search relation is strongest for the most easily readable 10-K and 10-Q filings. Finally, we find that retail investor trading-predicted returns are higher on days with heavier EDGAR search, consistent with retail investors making more profitable, or at least less loss making, trades when doing more research on EDGAR. Overall, our results provide strong evidence that retail investors directly use EDGAR filings data in making their trading decisions.

**Brokerage Trading Volume: A Conflict of Interest?** (with Tiana Lehmer and Ben Lourie)

Theory suggests that brokerage trading commissions can drive analysts to issue more optimistic research to generate higher trading volume for their firms. Using a unique new dataset of brokerage trading volume, we examine whether brokerage trading volume creates a conflict of interest for analysts towards more optimistic research. We find that analyst optimism, shown in recommendations, annual earnings forecasts, and target prices, is associated with higher brokerage volume, even after controlling for forecast and analyst quality. When analysts switch brokerage firms, they bring trading volume with them – influencing trading volume in covered stocks at the new brokerage house. Furthermore, analysts appear to strategically update their optimism. Analysts become more (less) optimistic if their optimistic research in the prior year was more (less) successful at generating trading volume for their brokerage house. Finally, brokerage houses appear to reward and penalize analysts for the volume they generate: Analysts are more likely to move to lower status brokerage houses if they produce less volume. Overall, our results are consistent with brokerage trading volume providing analysts with significant incentives toward research optimism, and with analysts responding to this incentive.

**The Informedness of Retail Investors: Evidence from Trading around Fraud vs. Non-Fraud Restatements** (with Yifan Li)

Recent evidence has suggested increased informedness of individual investors in the Internet age. We use the setting of restatements to examine the overall informedness of individual investors, and the roles that SEC filings and press coverage play in that informedness. We specifically focus on whether retail investors differentiate between fraud-related and non-fraud restatements. Retail investors display significantly higher trading volumes during restatement-announcement windows, however retail investors increase both their buying and selling, and do not sell any more as a percentage of trade for either type of restatement. This suggests that retail investors fail to differentiate between fraud- and non-fraud-related restatements on average. Conditioning on press coverage, we find that retail investors sell more strongly for fraud-related restatements when restatements receive more press coverage, particularly when press coverage includes fraud-related keywords. Restatement-related SEC filings generally do not directly lead to more retail investor selling for fraud-related restatements, regardless of filing type and inclusion of fraud-related keywords, however SEC filings are associated with press coverage, suggesting they may indirectly assist retail investors in identifying fraud-related restatements.