



Svetlana Petrova

*Department of Accounting and Finance
Peter T. Paul College of Business and Economics,
University of New Hampshire
10 Garrison Avenue, Room 370C
Durham, NH 03824-3593
Phone: (603) 862-3352;
Email: svetlana.petrova@unh.edu*

AREAS OF SPECIALIZATION

Cybersecurity in Finance, FinTech, Investments, Labor & Education, and Behavioral Finance

EDUCATION

Ph.D. in Business Administration (Finance), University of Florida, 2020

Dissertation: Essays in FinTech: Cybersecurity Breaches, Corporate Responses, and Investment Behavior

Committee: Andy Naranjo (Chair), M. Nimalendran, Tao Li, Hsing K. Cheng

Ph.D. in Economics, Middle Tennessee State University, 2016

Dissertation: Chief Investment Officers' Pedigree, and the US Public Pension Funds Performance

Committee: Joachim Zietz (Chair), E. Anthon Eff, Kevin Zhao

M.B.A. in Strategic Management, Moscow International Higher Business School, 2013

M.S. in Finance, Finance University under the Government of the Russian Federation, 2007

B.B.A. in Finance, Finance University under the Government of the Russian Federation, 2005

PUBLICATIONS

Working Capital Management: Concepts and Strategies (edited by H Kent Baker, Greg Filbeck, and Tom Barkley, ISBN-10: 9811259658; author of Chapter 19 - Information Technology and Working Capital Management)

CURRENT RESEARCH

Cybersecurity Breaches: Firm Disclosures and Stock Market Responses (with Andy Naranjo, under submission)

Trading Ahead of the Disclosure: Cybersecurity Breaches (with Andy Naranjo, under submission)

WORK IN PROGRESS

Cybersecurity Breaches, High Frequency Trading, and Digital Price Manipulation

Cybersecurity Breaches and Accounting Disclosures (with Jonathan Nash and Md Safayat Hossain)
Are U.S. Public Pension Funds CIOs Overpaid? Understanding the Role of the CIOs Pedigree in the Pension Funds' Performance
Do Firms Prefer Overqualified Employees? The Impact of Financial Crises on Returns to Education
Contagion and Cybersecurity Firms Market Reaction to Data Breaches (with Andy Naranjo)

ACADEMIC EXPERIENCE

Assistant Professor of Finance, University of New Hampshire, 2020 - present
- Financial Policy (Undergraduate), Big Data in Finance (Undergraduate&MSF)

Instructor, Teaching Assistant to Andy Naranjo, University of Florida, 2016 - 2020
- Graduate International Finance Courses: Local and Online MBA, MSF, MIB, and other Graduate Business Programs
- Debt and Money Markets

Instructor, Middle Tennessee State University, 2014 - 2016
- Personal Financial Planning, Business Economics, and Principles of Economics (Macroeconomics)

Professional and Executive Teaching

- Business Analytics using R (seminar series), University of Florida, 2018
 - Analytics and Forecasting using R (seminar), Tennessee Department of Treasury, 2016
 - International Financial Reporting Standards (DipIFR), Internal Audit and Risk Management (Certified Internal Auditor), Executive Education, HOCK Training, 2009 - 2013
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SERVICE

- ACFI Department Secretary (Fall 2020, Fall 2022)
 - UNH Center for Business Analytics Oversight Board (Spring 2021 - current)
 - UNH Center for Business Analytics Director Hiring Committee Member (Spring 2021)
 - UNH Center for Business Analytics Faculty Associate (Fall 2022 - current)
 - Student-Designed Majors Committee Representative from Peter T. Paul College of Business and Economics (Spring 2023 - current)
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INDUSTRY AND GOVERNMENT EXPERIENCE

Investments Research Economist (Internship), TCRS, Tennessee Department of Treasury, 2015-2016
- Assisted the fixed income (more than \$13.5 billion under management) and equity (more than \$25 billion under management) portfolio management groups by providing daily forecasts and developing automated AI based forecasting and reporting tools using Bloomberg, Python and R.

Director, Strategic Development, DelProf, Mouzenids Group, 2009-2012
- Developed and implemented business development strategies, including international and cross-industry expansion. Directly managed a group of more than 30 employees.

Research Assistant/Associate, Ernst&Young, YNS Audit, Delprof, 2005-2008
- Actively participated in international and forensic audit and consulting projects, based on IFRS, US GAAP, and SEC Regulations compliance. Part of the transactions support team.

AWARDS/HONORS

AFFECT 2023 Workshop Grant
NBEA 2020 Best Paper Award
Gamma Sigma Honors Society
AFA Student Grant (2019)
University of Florida Full Doctoral Fellowship (2016-2020)
ARES Doctoral Student Grant (2015)
Graduate Teaching Certificate Program Fellowship (2015)
SESUG Student Research Grant (2015)
Middle Tennessee State University Full Doctoral Fellowship (2013-2016)
The Finance University Honors Scholarship (2002-2007)
Graduated Summa Cum Laude, Yuryev-Polsky High School No.3 (2001)

FEATURED IN MEDIA

Trading Ahead of the Disclosure: Cybersecurity Breaches - Institutional Investor, 01/04/2021

LANGUAGES

Fluent in English and Russian

PAPER/CONFERENCE PRESENTATIONS AND PARTICIPATION

- *Committee*, Bretton Woods Accounting and Finance Ski Conference, 2023, Bretton Woods, NH
- **Presenter**, Are U.S. Public Pension Funds CIOs Overpaid? Understanding the Role of the CIOs Pedigree in the Pension Funds' Performance, AFFECT Workshop, 2023, New Orleans, LA
- **Presenter**, Trading Ahead of the Disclosure: Cybersecurity Breaches, Entrepreneurship, Finance, and Innovation Symposium, 2022, Hanoi, Vietnam
- **Presenter**, Trading Ahead of the Disclosure: Cybersecurity Breaches, Southern Finance Association Annual Meeting, 2022, Key West, FL
- Discussant/*Committee/Reviewer*, Southern Finance Association Annual Meeting, 2022, Key West, FL
- **Presenter**, Do Firms Prefer Overqualified Employees? The Impact of Financial Crises on Returns to Education, Northeast Business and Economics Association, 2022, Portsmouth, NH
- Discussant/*Committee/Reviewer*, Financial Management Association Annual Meeting, 2022, Atlanta, GA
- **Presenter**, Trading Ahead of the Disclosure: Cybersecurity Breaches, Financial Management Association Annual Meeting, 2022, Atlanta, GA
- **Executive Committee Member**, FinTech track, Eastern Finance Association Annual Meeting, 2022, Washington, D.C
- Discussant/*Committee/Reviewer*, Financial Management Association Annual Meeting, 2021, Denver, CO
- **Presenter**, Cybersecurity Breaches: Firm Disclosures and Stock Market Responses, Northeast Business and Economics Association, 2020, Portsmouth, NH
- **Presenter**, Trading Ahead of the Disclosure: Cybersecurity Breaches, 8th Annual OptionMetrics Research Conference, 2019, New York City, Northeast Business and Economics Association 2020
- **Presenter**, Cybersecurity Breaches: Firm Disclosures and Stock Market Responses, Southern

- Finance Association Annual Meeting, 2019, Orlando, FL
- **Presenter**, Cybersecurity Breaches: Firm Disclosures and Stock Market Responses, Financial Management Association Annual Meeting, 2019, New Orleans, LA
- **Committee/Reviewer/Session Organizer**, Financial Management Association Annual Meeting, 2019, New Orleans, LA
- **Presenter**, Cybersecurity Breaches: Firm Disclosures and Stock Market Responses, Eastern Finance Association Annual Meeting, 2019, Miami, FL
- Discussant/**Committee/Reviewer**, Eastern Finance Association Annual Meeting, 2019, Miami, FL
- Discussant, American Finance Association Annual Meeting, 2019, Atlanta, GA
- **Presenter**, Cybersecurity Breaches: Firm Disclosures and Stock Market Responses, Florida Finance Conference, 2019, Tampa, FL
- Discussant, Financial Management Association Annual Meeting, 2018, San Diego, CA
- Discussant, Financial Management Association Annual Meeting, 2017, Boston, MA
- **Committee/Reviewer**, Eastern Finance Association Annual Meeting, 2017, Jacksonville, FL
- **Presenter**, Are U.S. public pension funds CIOs overpaid? Understanding the Role of the CIOs Pedigree in the Pension Funds' Performance, Eastern Finance Association Annual Meeting, 2017, Jacksonville, FL
- Discussant, Eastern Finance Association Annual Meeting, 2017, Jacksonville, FL
- Discussant/Chair, Financial Management Association Annual Meeting, 2016, Las Vegas, NV
- **Presenter**, Whom Are You Working For? Regulation, 340b Drug Program, and the Healthcare Firm Performance, Midwest Economics Association, 2016, Evanston, IL
- Discussant, Midwest Economics Association, 2016, Evanston, IL
- **Presenter**, Are U.S. public pension funds CIOs overpaid? Understanding the Role of the CIOs in the Pension Funds' Performance, Midwest Finance Association Annual Meeting, 2016, Atlanta, GA
- Discussant/Session Chair, Midwest Finance Association Annual Meeting, 2016, Atlanta, GA
- **Presenter**, S.O.S.: Hiring and Compensation in the Shadow of an Economic Crisis, Southern Economic Association Annual Meeting, 2015, New Orleans, LA
- Discussant/Session Chair, Southern Economic Association Annual Meeting, 2015, New Orleans, LA
- **Presenter**, Foreclosure Fears: Is Foreclosures Impact On House Prices Objective?, SAS Analytics, 2015, Las Vegas, NV
- **Presenter**, Dynamic Reporting Systems in Quantitative Portfolio Management and Financial using SAS and R, Financial Management Association Annual Meeting, 2015, Orlando, FL
- **Presenter**, Analysis of the Impact of Federal Funds Rate Change on US Treasuries Returns using SAS, South Eastern SAS Users Group Annual Meeting, 2015, Savannah, GA
- **Presenter**, What Makes Firms Survive an Economic Crisis? Some Evidence from REITs, Midwest Finance Association Annual Meeting, 2015, Chicago, IL
- Discussant, Midwest Finance Association Annual Meeting, 2015, Chicago, IL

TECHNOLOGY SKILLS

Python • Stata • R • Q • SAS • SQL • Perl • Matlab/Octave • WxMaxima • Maple • WRDS • FactSet • SNL • Bloomberg • Edgar • FACTIVA • LaTeX • Canvas • D2L • iClicker • Tophat

SELECTED ABSTRACTS

Cybersecurity Breaches: Firm Disclosures and Stock Market Responses
(with Andy Naranjo, under submission)

This paper examines firm disclosure behavior and stock market responses to cybersecurity breaches. Although cybersecurity breaches occur frequently and are costly, no unified requirement regarding firm breach information disclosures exists. A combination of this legal and regulatory lacuna as well as uncertainty when a firm discovers a breach, create firm incentives to choose when to report and what information to report to decrease potentially negative breach consequences. We provide a basic, game theoretic model of a firm's decision to disclose a breach, and we show that firms choose what, when, and how to disclose to diminish the negative effects from a breach. Consistent with the conjectures from our model, we provide comprehensive evidence showing that firms choose how to disclose cyberbreach information to decrease firm risks and costs. We also find that more severe breaches are likely to get detailed disclosures, and firms that tend to be more transparent are likely to remain transparent in disclosing security breaches. Examining the stock market's reaction to cybersecurity breaches, we find that the market reacts more negatively to breaches with a larger number of records and to intentional breaches. In cases where the breach size is undisclosed, we find that the market reacts more negatively to breaches where customer data were revealed. We also find that firms with positive stock price momentum before the breach disclosure experience larger negative breach abnormal returns. Our results suggest the need for several regulatory changes to fill the current law lacuna and reduce firm opportunities to manipulate breach disclosures.

Trading Ahead of the Disclosure: Cybersecurity Breaches (with Andy Naranjo, under submission)

Using firm-level options trading activity from OptionMetrics, we investigate informed trading activity in equity options prior to a firm's cybersecurity breach disclosures. For the breached companies, we document pervasive directional options activity, consistent with strategies that yield abnormal returns to investors with private information. This informed trading activity is manifested in positive abnormal trading volumes, excess implied volatility, and higher bid-ask spreads prior to cybersecurity breach announcements. Interestingly, the higher abnormal option trading volumes are significantly related to the firm's negative buy and hold abnormal equity returns after the official breach disclosure. These effects are stronger for deep-out-of-the-money (DOTM) put options, which typically have the highest abnormal announcement returns. Consistent with informed trading activity, we further document an average rise in percentage bid-ask spreads prior to the breach announcements and also provide evidence that there is unusual trading activity in informed volatility strategies. We show that the more informed trading is significantly associated with higher liquidity and with breached firms that have lower quality internal controls. Finally, to better understand the potential sources of the informed trading activity, we examine Securities and Exchange Commission (SEC) insider trading reports ahead of the data breach disclosures. We find that the trading activity of these insiders often runs counter to our documented unusual option trading activity, providing evidence that these designated insiders avoid trading on the internal breach information.

Contagion and Cybersecurity Firms Market Reaction to Data Breaches (with Andy Naranjo, submitted to conference presentations)

This paper examines stock market technology sector responses to cybersecurity breaches. Using a sequence of event studies we show empirically that technology sector stocks respond negatively to data breach announcements in the short run, but experience a significant growth months after. We find more negative initial and more positive long-term stock market reactions to breaches with a larger number of records compromised and breaches with the sensitive information being exposed. We do not observe a similar market reaction on sectors other than technology and to breaches where no incident details are disclosed. Our study documents a cybersecurity incidents spill over effect on the technology firms and demonstrates the behavioral bias in stock trading following data breach announcements.