Sergey Isaenko

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Citizenship: Canadian

Employment history

Associate Professor of Finance, John Molson School of Business, Concordia University, June 2011-Present

Visiting Associate Professor of Finance, American University of Sharjah, UAE. Spring 2014 Assistant Professor of Finance, John Molson School of Business, Concordia University, June 2003-May 2011

Research assistant, Kurchatov Institute of Atomic Energy, 1993, April-1994, August

Academic background

Ph.D. Finance and Statistics, The Wharton School, University of Pennsylvania, May 2003. Ph.D. Physics, University of Pennsylvania, July 1998 Diploma, Physics, Moscow Engineering and Physics Institute, April 1993

Research

Research Interests: Asset pricing and portfolio selection, algorithmic trading, machine learning, and neural networks

Publications

In financial economics:

- 1. Short-Term Reversal and the Frequency of Time-Series, *The Quarterly Review of Economics and Finance, forthcoming.*
- 2. Transaction Costs, Frequent Trading, and Stock Prices, *Journal of Financial Markets*, forthcoming.
- 3. Slow-Moving Capital and Stock Returns. 2020. Quantitative Finance, 20, 969-984
- 4. Mean-Reverting Strategy in the Presence of Proportional Transaction Costs and Delays in Capital Allocations. 2018. *Quantitative Finance*, 18, 2051-2065
- 5. Equilibrium Theory of Stock Market Crashes. *Journal of Economic Dynamics and Control*, 2015, 60, 73-94

- 6. Stock Market Crises, Background Risk and Liquidity Premium (with Rui Zhong). *Quantitative Finance*, 2015, 15, 79-90.
- 7. Portfolio Choice under Transitory Price Impact. 2_{nd} place prize for the "Best Paper in the Asset Allocation Symposium" category at European Finance Association meeting, Zurich, Switzerland, *Journal of Economic Dynamics and Control*. 2010, 34, 2375-2389
- 8. Optimal Dynamic Trading Strategies with Risk Limits (with Domenico Cuoco and Hua He), (2002 FAME Research Prize for the best new research paper in the fields of asset management and financial engineering, Geneva, Switzerland). *Operations Research*, 2008, 56, 358-368.
- 9. The Term Structure of Interest rate in an Economy where Investors have Heterogeneous Recursive Preferences. *The Quarterly Review of Economics and Finance*, 2008, 48, 457-481.
- 10. On the Super-Replicating Approach when Trading a Derivative is limited. *Quantitative Finance*, 2008, Vol. 8, No. 3, 285–297.
- 11. Dynamic Equilibrium with Overpriced Put Options. Selected to top 10% of the papers at FMA conference 2006 in Utah. *Economic Notes*, 2007, 36, 1-26.

In physics:

- 12. Van der Waals interactions in cholesteric liquid crystals. (With A.B.Harris). *Phys. Rev. E*, 61, 2000, 2777-2791
- 13. Quantum theory of chiral interactions in cholesteric liquid crystals. (With A. B. Harris, and T. C. Lubensky). *Phys. Rev. E* 60, 1999, 578-591
- 14. Diamagnetic susceptibility of a weakly inhomogeneous degenerate electron gas: corrections to the Landau value. (With Y. Lozovik and A. Oparin). *Physics Letters A, Volume 192, issues 5-6, 1994, 397-400*
- 15. Studies of grazing incidence reflection of nuclear γ–radiation from ⁵⁷Fe film. (With A.I. Chumakov, S.I. Shinkarev). *Physics Letters A, Volume 186, issue 4, 1994, 274-278*

Working Papers

- 1. Diversification in Illiquid Market. September 2006. Permanent working paper.
- 2. Contagion in Illiquid Market. August 2007. Permanent working paper.
- 3. Pricing Contingent Claims in General Equilibrium with Arbitrage Opportunities, February 2003. Permanent working paper.

Work in Progress

Stock comovement and frequent trading Equilibrium option pricing in illiquid markets Equilibrium Returns in the Presence of Systematic Illiquidity. Pair Trading with Fixed and Proportional Transaction Costs.

Funding

2008-2011 Nouveau chercheur Grant from FQRSC for 39,150 CD. Principal Investigator.

2008-2011 Standard SSHRC Grant for 58,000 CD. Principal Investigator.

2007-2010 Research Grant for 50,000 CD. Co-investigator with Stylianos Perrakis. Institute de Finance Mathematique de Montreal.

2007 Seed money for 7,800 CD for one year. Co-investigator with Stylianos Perrakis.

2004-2007 Research Grant for 60,000 CD. Principal Investigator. Institute de Finance Mathematique de Montreal

2004 FRDP research grant from Concordia University

2003 FRDP research grant from Concordia University

Awards

 2_{nd} place prize for the "Best Paper in the Asset Allocation Symposium" category. EFA 2006 conference in Zurich, Switzerland

2002 FAME research prize (Geneva, Switzerland) for the best new research paper in the fields of asset management and financial engineering (with Domenico Cuoco and Hua He)

First Class Scholarship, Moscow Engineering and Physics Institute, 1987-1993

Presentations

Transaction Costs, Frequent Trading, and Stock Prices, EFMA conference, Lyon 2022

Transaction Costs, Frequent Trading, and Stock Prices, 37th International Conference of the French Finance Association, 2021

Discussant of "Do managers cater to share buyback and dividend demand?" by Mohamed Amine Rharbi, Nicolas Aubert, Aix Marseille, Sami Ben Larbi, 37th International Conference of the French Finance Association, 2021

Short-Term Reversal and the Frequency of Time-Series. 2019. McMaster University "Can Vanishing Transaction Costs Have Non--Vanishing Effect on Equilibrium Prices? The Affirmative Answer", New Zealand finance meeting, 2018

Discussant of "How Do US Option Traders "Smirk" on China: Evidence from FXI Options" by Jianhui Li, Sebastian Gehricke, and Jin E. Zhang. New Zealand finance meeting, 2018

"Frequent Trading and Stock Returns", 24th Annual Meeting of the German Finance Association, October 2017, Ulm.

Discussant of "Asset Pricing with Heterogeneous Agents and Long-Run Risk" by Ole Wilms, Karl Schmedders, and Walter Pohl

"Slow Capital Movement and Stock Price Reversal." FMA 2016, Las Vegas. Ranked in Top

10% of accepted papers

Discussant of "Cash Flow and Risk Premium Dynamics in an Equilibrium Asset Pricing Model with Recursive Preferences" by Taeyoung Doh and Shu Wu

"Slow Capital Movement and Asset Pricing Puzzles." Auckland Finance Meeting, December 2015

Discussant of "Asset Pricing in a Pure Exchange Economy with Heterogeneous Investors" by Xinfeng Ruan and Jin E. Zhang

"Slow Capital Movement and Asset Pricing Puzzles". NFA, Ottawa, 2014

Discussant of "Mutual fund intermediation, equity issues, and the real economy" by Bill Zu. NFA, Ottawa, 2014

"Equilibrium Theory of Stock Market Crashes". AIDEA, Lecce, Italy, 2013.

"Equilibrium Theory of Stock Market Crashes". Days of Mathematical Finance, Montreal, 2012.

"Illiquidity and Equilibrium Stock Returns". Presented at 2011 FMA conference at Colorado.

"Stock Market Crises, Background Risk and Liquidity Premium", Days of Mathematical Finance, Montreal, 2011.

"Dynamic Equilibrium in an Economy with an Illiquid Stock Market", presented at Adam Smith Asset pricing Conference, University of Oxford, England. March 2011.

"Portfolio Choice under Transitory Price Impact", presented at the annual conference of Southern Finance Association. November 2009.

"Portfolio Choice under Background Risk", by Valentin Brown, discussed at the annual conference of Southern Finance Association, November 2009.

"Diversification in Illiquid Market", presented at the Bank of Canada - Rotman School of Management Workshop on Advances in Portfolio Management. July 2007

Presentation of "Diversification in Illiquid Market" at Simon Fraser University. April 2007.

Presentation of "Portfolio Choice under Convex Transaction Costs" at EFA 2006 conference in Zurich, Switzerland. August 2006

Discussant of "Uncertainty, Asset Valuations, and Five Credit Risk Puzzles" by Alexander David, University of Calgary. Risk Management Conference at Mount Tremblant, Quebec, Canada. March 2006.

Presentation of "Portfolio Choice under Convex Transaction Costs" at SUNY at Buffalo. February 2006

Presentation of "On the Super-Replicating Approach when Trading a Derivative is limited" at

NFA 2005 conference in Vancouver. October 2005

Discussant of "The Law of One Futures Price" by Avi Bick at NFA 2005 conference in Vancouver. October 2005

Presentation of "Dynamic Equilibrium with Overpriced Put Options" at European FMA 2005 conference in Siena. June 2005

Discussant of "Intermediation and Value Creation in an Incomplete Market: Implications for Securitization" by Vishal Gaur, NYU Sridhar Seshadri, NYU, Marti G Subrahmanyam, NYU at European FMA conference 2005 in Siena. June 2005

Chair of the session "Theoretical Aspects of Option Pricing" at European FMA conference 2005 in Siena. June 2005

Presenation of "Optimal Dynamic Trading Strategies with Risk Limits" at AFA 2002 conference in Atlanta Georgia. January 2002.

Presentation of "The Term Structure of Interest rate in an Economy where Investors have Heterogeneous Recursive Preferences" at Bank of Canada workshop on fixed income markets. November 2004

Presentation at Finance Seminar, The Molson Business School, February 2003, January 2005, February 2006.

Presentation at Rodney White Micro Finance Seminar, The Wharton School, November 2002. Presentation at APS annual conference. Los Angeles, March 1998.

Teaching

John Molson School of Business, Concordia University. Theory of Finance (Investments I). Undergraduate program. April 2008-Present.

John Molson School of Business, Concordia University. Derivatives. Undergraduate program. January 2015-Present.

John Molson School of Business, Concordia University. Investment Theory. Graduate program. Fall 2010, Winter 2015

School of Business Administration, AUS, UAE. Derivatives. Undergraduate program. Spring 2014

School of Business Administration, AUS, UAE. Investments. Undergraduate program. Spring 2014

John Molson School of Business, Concordia University. Analysis of Markets. Undergraduate program. September 2003-April 2007.

John Molson School of Business, Concordia University. Managerial Economics. Graduate program. September 2004-December 2004.

The Wharton School, University of Pennsylvania. Teaching assistant for Professor Domenico Cuoco, Speculative Markets, MBA Program

The Wharton School, University of Pennsylvania. Teaching assistant for Professors R. Stine, M. Low, A. Wyner, Statistical Techniques for Managers, MBA program

The Wharton School, University of Pennsylvania. Teaching assistant for Professor Jonothan Straud, Introductory Business Statistics, Undergraduate program

The Wharton School, University of Pennsylvania. Lecturer of the course "Calculus for

Managers". Wharton Evening School

Service

DTC 2011-present

DPC 2016-present

Program Appraisal Committee Fall 2017

Department seminar committee. September 2008-2015 (Invited most of the seminar speakers during academic year 2008-2009)

Faculty research committee. September 2008-2017

Hiring Committee (Tenure Track and Visiting), 2006-2015

Coordinator for courses on Derivatives (FINA 412), 2019-present

Coordinator for Theory of Finance (FINA 385), 2008-2019

Coordinator for Analysis of Markets (COMM 220), 2003-2007.

Part-Time Hiring Committee, January, 2005-2007

Department M.Sc./Ph.D. Committee, 2004-2005.

Library liaison, 2004-2005.

Member of the University Advisory Search Committee for the CA and CMA Directorships. 2005.

Master thesis supervisor of Ruochen You (2020)

Master thesis supervisor of Phan, Thi Hai Yen (2020)

Master thesis supervisor of Chang Xiao (2016)

Master thesis committee of Yingting Dong PhD thesis committee of Rui Zhong

PhD thesis committee of Ali Boloor Foroosh

Master thesis committee of Tiezhu Gao

PhD thesis committee of Ioan Mihai Oancea

Supervision of graduate student Rui Zhong on his work on the project "Liquidity Crashes, Background Risk and Liquidity Premium". 2010.

Supervision of graduate student Yuriria Cortes on her work on the project "Portfolio Choice and Liquidity Premium under Liquidity Crashes" (unfinished). 2008.

Supervision of a post-doctoral researcher on his work under the project "The Term Structure of Interest rate in a Production Economy" (unfinished). 2004.

Referee for Management Science, Mathematical Finance, Journal of Economic Dynamics and Control, Journal of Banking and Finance, Quantitative Finance, the Review of Economic Dynamics, International Review of Economics and Finance, The Journal of Risk and Insurance, Physica A, Inverse Problems in Science & Engineering, Applied Sciences

Program Committee member of International Parallel and Distributed Processing Symposium 2008.

Program Committee member for NFA, 2016, 2018, 2019, 2020

Program Committee member for DGF, 2017, 2018

Review of the textbook "Investment Analysis and Portfolio Management". 2008

Computer languages

Fortran, R, Python

Languages

English (fluent), Russian (native), French (beginning)

Hobby

Landscape photography. See my photos at http://500px.com/seregaisa