Iryna VERYZHENKO LEBOEUF

Contact Information

CNAM
40 rue de Jeûneurs
75003, Paris, France
iryna.veryzhenko@lecnam.net

Academic Positions

Associate Professor, Conservatoire National des Arts et Métiers de Paris, since December 2020

Assistant Professor, Conservatoire National des Arts et Métiers de Paris, September 2013 - November 2020

Assistant Professor, École Supérieure de Sciences Commerciales d'Angers (business school), September 2012 -September 2013

Research and teaching associate (ATER), Ecole Nationale Supérieure d'Arts et Métiers, September 2011 - September 2012

Research and teaching assistant (Allocataire Moniteur), Université Lille 1 - Sciences et Technologies, October 2008 - September 2011

Scientific Responsibility and Administration

Supervision of 2 Ph.D thesis: Nohade Nasralah Kassis and Abdeslam Ariri

Since 2022, Head of the Master program (M2) Gestion de patrimoine CNAM Conservatoire National des Arts et Métiers de Paris

Since 2022, A responsible of the AMF certification "Finance Durable" at CNAM

Since 2018, Member of the research group Dynamic Systems Analysis for Economic Theory and Society (DYNAMETS), Paris Dauphine

Since 2018, Member of the strategic group AMF certificate (Le groupe de travail 3 AMF, "Contenu et Utilisation de la base") chaired by Jzabel Couppey-Soubeyran and Xavier de La Maisonneuve

Since 2017, A responsible of the AMF certification at CNAM

Since 2014, Head of the Master program (M2) Finance de marché CNAM Conservatoire National des Arts et Métiers de Paris

2013-2021, Member of the executive committee of the Laboratory of Excellence for Financial Regulation (LabEx-ReFi: CNAM, ENA, ESCP Europe, University Paris 1 Panthéon-Sorbonne)

2015-2018, Director of LabEx ReFi Policy Papers

2015-2018, Board member of the research laboratory LIRSA CNAM

Since 2008, Master's Thesis supervision: CNAM, IAE de Paris 1, ENSAM ParisTech, ESSCA (at least 10 MS thesis annually)

Education

HDR (Research director), Université Paris Dauphine, PSL, December 14, 2020

- Thesis Topic: Effect of technology on financial market quality, organisation and regulation
- Advisor:
  - Fabrice Riva (Paris Dauphine)
- Area of Study: Computational Finance

Ph.D., IAE - Sorbonne Graduate Business School
Université Paris 1 - Panthéon Sorbonne, September 18, 2012
(pre-defended on June 11, 2012)

- Thesis Topic: A reexamination of modern finance issues using Artificial Market Frameworks
- Advisors:
  - Professor Olivier Brandouy (IAE de Paris 1)
  - Professor Philippe Mathieu (LIFL de Lille 1)
- Area of Study: Computational Finance

M.S., Taras Shevchenko National University of Kiev, Applied Mathematics and Computer Sciences, June 2008

- Thesis Topic: Stock return forecasting using Multifactor Dynamic Model
- Advisor: Professor Fedir G. Garashchenko
- Area of Study: Applied mathematics

Research

Research topics:

- Market microstructure
- High frequency trading
- Financial market regulation
- Portfolio optimisation and assets allocation
- Agent-based modeling of financial markets
- Artificial Open Market(ATOM) Software JAVA Development

Ph.D thesis supervision:

- Nohade Nasrlah Kassis, since November 2021
- Abdeslam Arriri, since November 2022

Selected Papers:

I. Veryzhenko, A. Jonath, E. Harb (2022), *Non-Value-Added Tax to Improve Market Fairness and Quality*, Financial Innovation, 8 (18), pp 2-30

S. Ligot, R. Gillet, I. Veryzhenko (2021), *Intraday Volatility Smile: Effects of Fragmentation and High Frequency Trading on Price Efficiency*, Journal of International Financial Markets, Institutions & Money, 75, pp. 1-19. 2021 Eurofidai Best Paper Award

I. Veryzhenko (2021), *"Who gains and who loses on stock markets? Risk preferences and timing matter"*, Intelligent Systems in Accounting, Finance and Management, 22 (2), pp. 143-155

N. Oriol and I. Veryzhenko (2019), *"Market structure or traders' behavior? An assessment of flash crash phenomena and their regulation based on a multi-agent simulation"*, Quantitative Finance, 19 (7), 1075-1092

L. Arena, N. Oriol, I. Veryzhenko (2018), *"Too Fast, Too Furious? Trading algorithmique et instabilité des marchés financiers"*, Systèmes d'Information et Management, vol.23, n2.

I. Veryzhenko, L. Arena, E. Harb, and N. Oriol (2017), *"Time to slow down for high-frequency trading? Lessons from artificial markets"*, Intelligent Systems in Accounting, Finance and Management, vol. 24, pp. 73-79

I. Veryzhenko, E. Harb, W. Louhichi, N. Oriol (2017), *"The impact of the French financial transaction tax on HFT activities and market quality"*, Economic Modelling, vol. 67, pp. 307-315

O. Brandouy, P. Mathieu, I. Veryzhenko (2013), *"On the Design of Agent-Based Artificial Stock Markets"*, Communications in Computer and Information Science, vol. 271, pp.350-364

O. Brandouy, P. Mathieu, I. Veryzhenko (2013), *"Algorithmic determination of the maximum possible earnings for investment strategies"*. Decision Support Systems, vol. 54, p. 816-825

O. Brandouy, A. Corelli, I. Veryzhenko, R. Waldeck (2012),*"Why Zero Intelligence Traders are not smart enough for Quantitative Finance"*, Journal of Economic Interaction and Coordination. 10/2012; 7(2):223-248

O.Bradouy, P.Mathieu, I.Veryzhenko (2012), *"Risk Aversion Impact on Investment Strategy Performance: A Multi Agent-Based Analysis"*, Managing Market Complexity. The approach of Artificial Economics, Springer, pp. 91-103.

O.Bradouy, P.Mathieu, I.Veryzhenko (2012), *"Optimal Portfolio Diversification? A multi-agent Ecological Competition Analysis"*, Highlights on Practical Applications of Agents and Multi-Agent Systems, Springer, pp. 323-332.

I. Veryzhenko, P. Mathieu, O. Brandouy (2011), *"Key points for realistic agent-based financial market simulations"*, 3rd International Conference on Agents and Artificial Intelligence, Roma, Italy. Referred Proceedings (ISBN : 978-989-8425-41-6), Vol.2, pp.74-84. – "Student Best paper Award" of the Conference.

I. Veryzhenko, P. Mathieu, O. Brandouy (2010), *"Agent's minimal intelligence calibration for realistic market dynamics"*, in LiCalzi, Milone and Pellizari eds., Referred Progress in Artificial Economics, Lecture Notes in Economic and Mathematical Systems (645), Springer, 3-14.

O.Brandouy, P. Mathieu, I. Veryzhenko (2009), *"Gauging Agent-Based Trading of a Single Financial Asset. Definition of an Absolute Distance to the Best Behaviour"*. Artificial Economics Conference, Valladolid, Lecture Notes in Economics and Mathematical Systems, Springer 2009.

Books:

R. Estran, E. Harb, I. Veryzhenko (2021), *Gestion de portefeuille, 2nde edition*, ed. DUNOD, ISBN: 978-2-10-075946-0,

G. Benzaken, P. Dupuy, E. Normand, I. Veryzhenko (2021), *Russir l'examen AMF 6e dition*, PEARSON,

R. Estran, E. Harb, I. Veryzhenko (2017), *Gestion de portefeuille*, ed. DUNOD, ISBN: 978-2-10-075946-0

Harb E.G., Veryzhenko I., Masset A., Murat P. (2014). *Finance ed.* DUNOD, ISBN: 2100710036, 2014

Policy papers:

N. Oriol and I. Veryzhenko (2018), *"Finance digitale et rgulation des abus de marchs : Focus sur le cas du spoofing"*, Policy Papers, 12/2018, Labex Refi

I. Veryzhenko and S. Thomas (2016), *Liquidity measures of bond market*, rapport pour l'Observatoire de la Liquidité, l'AFG et l'AMF.

Ongoing research:

D. Allam, I.Veryzhenko (2020),*"Trading Venues and Pump & Dump Events"*

I. Veryzhenko, H. Garcia, M.M. Sidi Youssef (2020), *"Supervised based algorithms for spoofing detection"*.

S. Ligot, E. Harb, I. Veryzhenko (2019), *"The High Frequency Trading and Circuit Breakers in an Electronic Market"*

Teaching Experience

Finance Durable & Sociale, CNAM de Paris (in French), since 2022.
Audience: Master students

Portfolio& Investments, Stock-Trak project, ESSEC Business School, (in French), since 2018.
Audience: Master students

Financial Markets, IAE - Sorbonne Graduate Business School, (in French), since 2015 .
Audience: Master students

Market microstructure CNAM de Paris (in French), since 2013.
Audience: Undergraduate students (L3)

Bonds CNAM de Paris and ESSCA, since 2013
Audience: Master students

Portfolio management CNAM de Paris and ESSCA, (in English and French), since 2013
Audience: Master students

Corporate Finance and Introduction to Financial Stock Markets, Ecole Nationale Supérieure d'Arts et Métiers , 2011-2012 (in English).
Audience: Master students (Master International)

Using R for Data Analysis and Graphics, IAE - Sorbonne Graduate Business School, 2012 (in English).
Audience: PhD students (HEC/IAE/ParisTech)

Corporate Finance, Université des Sciences et Technologies de Lille, 2008-2011 (in english). Audience: Bachelor in Business Administration English-speaking program (BBA),

Financial Accounting, Université des Sciences et Technologies de Lille, 2008-2011 (in English)
Audience: BBA

Corporate Finance and Introduction to Financial Stock Markets, Ecole Nationale Supérieure d'Arts et Métiers, 2011-2012 (in French).
Audience: Undergraduate students

Financial Data Modeling and Analysis with R/Rmetrics, Ecole Nationale Supérieure d'Arts et Métiers, (in French), since 2011
Audience: Master students (Master Recherche SDMR)

Professional Experience

2006-2008 SimCorp, Kiev, Ukranie / Copenhagen, Denmark

- Position: System Development Consultant
- Team: Financial Adjustments Accounting Development
- Duties and Achievements:
  - Computational development of investment management software
  - Development of financial statements (IFRS/GAAP)
  - Financial ratios analysis
  - Product support

2005-2006 Leasing Solution Company Kiev, Ukraine

- Position: Software developer
- Duties and Achievements:
  - Development of the information return forecasting system
  - Computer program for Profit/Loss evaluation has been developed
  - Database programming

2004-2005 Registers Company Kiev, Ukraine

- Position: Software developer
- Duties and Achievements:
  - Financial accounting software development
  - System support

Workshops Attended

07/2009, 07/2010 R/Rmetrics Summer School and User/Developer Meeting on Computational Finance and Financial Engineering. Meielisalp, Lake Thune Switzerland

02/2008 Financial Settlement seminar and certification. Kiev, Ukraine

10/2007 Financial Accounting and General Ledger seminar and certification. Kiev, Ukraine

11/2006 SimCorp Academy International Finance. Kiev, Ukraine

Technical Skills

Matlab experience: linear algebra, nonlinear numerical methods, polynomials, statistics, visualization

R/Rmetrics : volatility modeling and forecasting, stylized facts analysis

Programming: JAVA, SQL, APL

Selected References

Olivier BRANDOUY
Professor of Finance
GREThA - UMR CNRS 5113
Universit Montesquieu - Bordeaux IV
avenue Lon Duguit 33608 Pessac cedex - FRANCE
Tel.: +33 (0)5 56 84 25 75
E-mail: olivier.brandouy@u-bordeaux.fr

Philippe MATHIEU
Professor of Computer Science at Lille 1
SMAC team leader
LIFL UMR 8022 CNRS
Cité scientifique - Bâtiment M3, 59655 Villeneuve d'Ascq Cédex
Tel: +33 (0)3 20 43 42 90
E-mail: philippe.mathieu@lifl.fr

Alexis COLLOMB
Professor of Finance
Head of Department of Finance
CNAM *Tel.:* +33 (0) 1 58 80 83 62
E-mail: alexis.collomb@lecnam.net

Personal Development

07/2005, 07/2006 leadership workshop "Young Leader" school, Chenstohova, Poland

07/2007-07/2008 Member of Toastmasters International Organization

02/2008 Certificate of Competent Communicator, Toastmasters International

Languages

English(fluent, TOEIC 880), French(fluent, C2), Polish(fluent), Russian(fluent), Ukrainian(native), Chinese (basic)