# Diana Joy Xiuyao Yang

Personal Data

Address 3120 Social Science Plaza A Irvine, California, 92697 USA

Citizenship: CANADA

Cell: 949-558-6248 E-mail: xiuyaoy@uci.edu

Contact Information

URL: https://sites.google.com/uci.edu/dianajoyyang

## **RESEARCH INTERESTS**

Fields: Empirical Asset Pricing, Monetary Economics, Financial Economics, Investment

Methods: Bayesian Analysis, Text Analysis, Machine Learning

#### **EDUCATION**

### University of California, Irvine

Doctor of Philosophy (Ph.D.) in Economics

Irvine, USA

June 2022 (expected)

Hamilton, Canada

### **McMaster University**

Ph.D. track in Economics. (Pass Micro and Macro comprehensive exams with Distinction)

2017

Ryerson University Toronto, Canada

Master of Arts (M.A.) in International Economics and Finance

2007

University of York York, UK

Master of Science (M.Sc.) in Economics and Finance (with Distinction)

2004

Shandong University

Jinan, China

Bachelor of Arts (BA) in International Finance (Dean's List)

2002

## **REFERENCES**

Gary Richardson	Ivan Jeliazkov	Matthew Harding	Maxim Ivanov (teaching)
Professor	Associate Professor	Professor	Associate Professor
<b>UCI</b> Economics	<b>UCI Economics</b>	UCI Economics	McMaster University
(949) 824-5089	(949) 824-1581	(949) 824-1511	(905)-525-9140 ext24532
garyr@uci.edu	ivan@uci.edu	harding1@uci.edu	mivanov@mcmaster.ca

#### WORKING PAPERS

<sup>&</sup>quot;Cross-Sector Comovements and Policy Impact in the COVID-19 Stock Market: A Dynamic Factor Approach". (Job Market Paper, under review)

"Adaptive Learning and Cryptocurrency's Price Volatility".

#### **WORKS IN PROGRESS**

"The Power Of Narratives – Study Cryptocurrency's Price Volatility".

"On the Influence of Comments During the Notice and Comment Period: The Case of Bank Capital Regulations," with Stephen Matteo Miller

"Is A Picture Worth Of Thousand Words? A Study of Airbnb Prices," with Remi Daviet

# **PUBLICATION** (peer-reviewed)

Yang, Xiuyao, (2002), "The challenges of globalization for the financial system," *Journal of Shandong Economics and Management*, Vol. 29, Issue Q1, 64-69

Yang, Xiuyao, (2000), "How interest rates generally adapt to market principles," *Shandong Economics*, Vol. 160, 2, 17-21

Yang, Xiuyao, (2000) "The Challenges that China faces after joining the WTO in international trade of farm products," *Journal of Shandong Economics and Management*, Vol. 24, Issue Q4,58-62

#### RESEARCH EXPERIENCE

#### **Research Lead and Expert Consultant**

World Bank Group Present

Machine Learning Project

Impact Evaluation for Innovations Grants in Europe

#### **Research Assistant**

Department of Economics, University of California, Irvine, USA,

2021

Unsupervised Machine Learning Project in Big Data Project <a href="http://deepdatalab.org/">http://deepdatalab.org/</a>

Wrote Code in the Deep Data Lab and conducted literature reviews. Hands-on experience with big data, more than 37 million entries for each year for more than 10 years.

Department of Economics, McMaster University, Hamilton, Canada,

2015 - 2017

Department of Economics, Ryerson University, Toronto, Canada,

2005 - 2006, 2014 - 2015

# PRESENTATIONS IN CONFERENCES AND SEMINARS

2021	Western Economic Association International, Virtual 96th Annual Conference (also Co-Chair)
2021	Southern California Machine Learning and Natural Language Processing Symposium, University of California, San Diego
2021	The Nineteenth Annual European Economics and Finance Society Conference, Department of Economics, City, University of London (also Panel Chair)
2021	Econometric Research in Finance (ERFIN) Workshop, SGH Warsaw School of Economics
2021	Associated Graduate Students Symposium, Three Minute Thesis, UC Irvine, Irvine
2020	Thirteenth Global Studies Conference, Concordia University, Montréal, Canada
2019	Money, Banking, and Asset Market Conference, School of Business, University of Wisconsin–Madison, Wisconsin.

Recurring Macroeconomics Ph.D. Workshop, UC Irvine

# CONFERENCE AWARDED WITH TRAVEL FUNDING\_

2019	Alternative Money University, CATO institute, Washington, D.C
2019	Women in Economics Mentoring Conference in Stanford University, Stanford, California
2018	Money, Banking, and Asset Market Conference, University of Wisconsin–Madison, Madison, Wisconsin
2017	Summer School of the Institute for Studies on Economics and Employment (I.S.E.O.), Brescia, Italy  Selected and funded to attend summer school by three Laureates of the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel

# **TEACHING EXPERIENCE**

#### Lecturer

Department of Economics, **Shandong University of Finance and Economics**, Jinan, China 2005
Introduction to Financial Market
Introduction to Microeconomics

# **Teaching Assistant**

Department of Economics, **University of California, Irvine**, USA, Intermediate Economic III (5 quarters/semesters) Money and Banking Introduction to Financial Investment
Intermediate Economics I
Basic Economics II (3 quarters/semesters)

Basic Economics I Corporate Finance

# **Teaching Assistant**

Department of Economics, McMaster University, Hamilton, Canada,

2015 - 2017

Introduction to Probability and Statistics

Intermediate Microeconomics

Econometrics
Game theory

#### **Teaching Assistant**

Department of Economics, Ryerson University, Toronto, Canada,

2006 - 2007, 2014 - 2015

**Econometrics** 

**International Economics** 

Mathematics For Economics (graduate)

Microeconomics

# **Teaching Assistant**

Department of Economics, University of York, York, UK

2005

Mathematics II
Microeconomics I

#### FELLOWSHIP, SCHOLASHIP AND AWARDS

21
21
20
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Division Teaching Excellence and Innovation Award, University of California, Irvine, 2020

Graduate Research Paper Presentation Awards, University of California, Irvine, 2018 – 2021

Economics Summer Research Fellowship, University of California, Irvine, 2018 – 2021

Merit Fellowship in Economics, University of California, Irvine, 2017 – present

Fellowship for Alternative Money University, Washington D.C,

2019

Fellowship for the summer school of I.S.E.O., Lectured by Three Economics Nobel Laureates Italy,	2017
Selected and funded to attend summer school lectured by three Laureates of the Sveriges Riksba	ınk
Prize in Economic Sciences in Memory of Alfred Nobel	

Graduate Fellowships Awards, McMaster University, Canada,	2015 – 2017
Graduate Students Scholarship, McMaster University, Canada,	2015 – 2017
Graduate Research Grant, Ryerson University, Canada,	2014 – 2015
Graduate Student Fellowship, Ryerson University, Canada,	2006 – 2007
Outstanding Teaching Assistant Award, Ryerson University, Canada,	2015
Graduate Research Fellowship, Ryerson University, Canada,	2006 – 2007
Merit Graduate Student Fellowship, University of York, York, UK,	2004 – 2005
Four consecutive years of the First Prize Scholarship, Shandong University, China,	1998 – 2002
People's Bank of China Best Student Awards, China,	1998 – 2002
Student Leadership Awards, Shandong University, China	1998 – 2002

#### **INDUSTRY EXPERIENCE**

Finance Manager	2012 - 2015
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Toronto-Dominion (TD) Securities, Treasury, Strategic Initiatives, Toronto, Canada

#### Liquidity Risk Manager 2010 - 2012

Toronto-Dominion (TD) Securities, Capital Markets, Treasury, Toronto, Canada

#### Senior Trading Risk Analyst 2007 – 2010

Toronto-Dominion (TD) Securities, Capital Markets, Treasury, Toronto, Canada

## PROFESSIONAL ASSOCIATIONS

American Finance Association (AFA); American Economic Association (AEA); Financial Management Association (FMA); Canadian Economics Association (CEA); Central Bank Research Association (CEBRA); The Econometric Society (ES);

Chartered Financial Analyst (CFA) candidate: passed level I exam and also qualified the 4,000 hours of professional work experience on the capital markets.

PROFESSIONAL AND PEDAGOGICAL DEVELOPMENT	
Preparing for a Faculty Career (PFFC), UCI	2021
Completed course on public speaking, "Activate to Captivate", UCI	
Remote Teaching workshop designed to transition to online teaching, UCI	
Division Teaching Excellence and Innovation Training, UCI	
SERVICE	
Service	
Lead organizer, UCI Macroeconomics seminars	2018 – 2019
Funding Raiser, The Juvenile Diabetes Research Foundation	2007 – 2014
Funding Raiser, for local kids in Cape Town, South Africa, International Volunteer Program	2017
Medical campaign team in Cusco, Peru, International Volunteer Program	2014
Funding Raiser, for local kids and schools in Cusco, Peru, International Volunteer Program	
Teaching Service	
Yoga and Meditation Teaching (Free) During COVID-19, University Town Center Community	y, Irvine, 2020
Primary school in local village, Cape Town, South Africa, International Volunteer Program,	2017
Community College, Cusco, Peru, International Volunteer Program,	
SKILLS	

# Computer

Programming Languages: MATLAB, Python, R, STATA

# Languages

English (fluent); Mandarin (native); Cantonese (basic)

# Miscellaneous

Registered Yoga Teacher (American Yoga Alliance)

2014 - 2021

Teacher Training Mindfulness-Based Stress Reduction Meditation (University of California, Irvine,

Compassion Cultivation Mindful Teacher Training (University of California, San Diego, Center for Mindful)
2017

#### **ABSTRACTS**

"Cross-Sector Comovements and Policy Impact in the COVID-19 Stock Market: A Dynamic Factor Approach," (Job Market Paper, under review)

Abstract: U.S. equity returns comoved remarkably during the COVID-19 pandemic. This study constructs a dynamic factor model to illuminate the sources and implications of these comovements. Estimation of the model using a Markov Chain Monte Carlo method reveals that the comovements had a weak daily oscillation pattern. Within that pattern, monetary policy significantly impacted the equity returns of several key sectors. In addition, cross-sector equity returns were shaped by news of monetary policies, fiscal stimulus, and unemployment. News about conventional and unconventional monetary policy shocked each sector in opposite directions. Interest-rate policy surprises had a stronger positive impact on equity returns than other unconventional monetary policy shocks. News about fiscal stimulus had the most substantial impact and triggered all sectors to rebound from the bear market at the end of March 2020. Applying Natural Language Processing sentiment analysis, this study also sheds light on the positive correlation between comovements and news sentiment.

**Keywords:** Comovements, Monetary Policy, Dynamic Latent Factor Model, Markov Chain Monte Carlo, Bayesian Inference, Machine Learning

"Adaptive Learning and Cryptocurrency's Price Volatility".

**Abstract:** This paper studies a question in monetary theory: Why is cryptocurrency extremely volatile? To investigate this question, I use a New Monetary model with an adaptive learning assumption. Specifically, using the baseline framework of Choi and Rocheteau (2021), this paper relaxes their perfect foresight assumption by replacing it with an adaptive learning assumption. I find that, under the adaptive learning assumption, the stability of steady state can be altered. With a high learning gain parameter in the adaptive learning algorithm, a period of doubling bifurcation can occur, which in turn can lead to chaotic regimes or explosive paths. These price dynamics from the model help explain the phenomena of the extreme price volatility in cryptocurrency.

Keywords: Cryptocurrency, Money Search, Expectations, Adaptive Learning, E-Stability

"On the Influence of Comments During the Notice and Comment Period: The Case of Bank Capital Regulations," with Stephen Matteo Miller.

**Abstract**: This project uses machine learning to examine the extent to which bank lobbyists and other interests may have influenced the federal informal rulemaking process for several bank capital rulemakings that could have encouraged bank holdings of highly rated, collateralized debt obligation (CDO) tranches leading up to the 2007-2009 financial crisis. The rulemakings include a 1997 proposed rule called for assigning ratings to securitized products and was merged with a 2000 proposal that called for using Basel II risk-weights to form the 2001 Recourse Rule, which applied to commercial banks. Similarly, pressure from European supervisors resulted in the 2004 SEC Net Capital rule calling for investment banks to comply with Basel II, including the same risk-weights that commercial banks had to comply with. Lastly, a 2003 proposed

rule called for eliminating assets held in Asset Backed Commercial Paper programs from commercial bank holding company risk-based capital requirements.

Keywords: Financial Crises, Informal Rulemaking, Machine Learning, Regulatory Capital, Securitization