UNIVERSITY OF MIAMI
MIAMI HERBERT
BUSINESS SCHOOL

Carina Cuculiza
Ph.D. Candidate

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Dr. Yuriy Gorodnichenko
Quantedge Presidential Professor of Economics
Department of Economics
University of California, Berkeley
Berkeley, CA 94720-3880

Dear Dr. Gorodnichenko:

I am writing to apply to the Behavioral Macroeconomics Research Boot Camp for Graduate Students. I am currently a Finance Ph.D. Candidate at the University of Miami and I expect to complete my degree by May 2021. I believe my research interests, training, and experience make me a strong candidate for the NBER workshop.

Through my graduate studies, I have developed an interest across several areas of empirical research in finance. My research focuses on studying how information is incorporated into asset prices. I also study households' financial decisions, which includes examining their stock market participation, asset allocation, and portfolio choices. Throughout my research, I incorporate aspects of behavioral finance, such as cultural and social factors, investor sentiment, and psychology.

My current research portfolio extends across three broad themes and consists of five papers, one of which is conditionally accepted at *Management Science*. In the first strand of research, I aim to understand the role of geography in the information acquisition efforts of institutional and retail investors. Further, I study if certain information acquisition strategies lead to superior performance and if they affect asset prices. In the second theme, I analyze how non-economic events, such as terrorist attacks and mass shootings, affect the sentiment of analysts and, subsequently, their forecasts. Lastly, I examine how cultural traits, such as ethnicity and religious norms, affect investors' preferences and whether their culturally-driven investment patterns can affect stock prices and the macroeconomy.

In addition to research, I have also had the opportunity to be involved in teaching, both as a teaching assistant and as an instructor. As a teaching assistant, I aided several professors in more than 10 different finance courses. I had an active role in the classes. I was responsible for grading exams, creating exam solutions and grading schemes, and making videos to guide students through class projects. I also supported students' learning by holding office hours and leading review sessions for undergraduate and master's-level courses in fundamentals of finance, portfolio theory, and investments. As an instructor, I taught a graduate behavioral finance course for the Master of Science in Finance – one of the department's premier classes. I received positive feedback and high

evaluations from students in the course. As a result of my teaching accomplishments, I was awarded the 2019 Miami Herbert Business School "Outstanding Ph.D. Student Teaching Award."

I also perform a wide range of service activities. I have assisted with the organization of high-visibility research events, like the Miami Behavioral Finance Conference and the 7th Annual Front Range Finance Seminar at the University of Colorado Denver Business School. I also helped to create and develop the Showcasing Women in Finance (SWF) Conference, which was co-sponsored by the Academic Female in Finance Committee (AFFECT) and the University of Miami. In addition, I have served as a tutor for the Finance Department, as a discussant and session chair at several conferences, and as a referee for scholarly journals.

I am confident that my education at the University of Miami has prepared me well for the Behavioral Macroeconomics Research Boot Camp for Graduate Students. Enclosed please find a copy of my CV and a statement describing my research, as well as my rationale for attending the bootcamp. A reference letter will be sent separately by Dr. Alok Kumar to Ms. Elisa Pepe (epepe@nber.org). Additional information is available on my website at www.carinacuculiza.com. I look forward to hearing from you soon. Thank you for your time and consideration,

Sincerely,

Carina Cuculiza

Carina Teresa Cuculiza Reyes

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Education

University of Miami — **Coral Gables, FL**
Ph.D. in Finance — 2015 – Present

University of Miami — **Coral Gables, FL**
Master of Science in Finance — 2014 – 2015

University of Miami — **Coral Gables, FL**
B.S.B.A., Majors in Finance and Marketing and Minor in Philosophy — 2010 – 2014

Research Interests

Household Finance, Empirical Asset Pricing, Behavioral Finance

Working Papers

Propensity to Accumulate Wealth, Portfolio Choice, and Asset Prices

– 2020 AFA Ph.D. Poster Session (scheduled), 10th Miami Behavioral Finance Ph.D. Poster Conference (scheduled), 2019 Florida Finance Conference

I examine how heterogeneous wealth accumulation motives affect household asset allocation decisions and asset returns in the United States. I find that households with a stronger propensity to accumulate wealth allocate more wealth to risky assets and are more likely to participate in the stock market. They also use financial markets to smooth their idiosyncratic income shocks, leading to lower income inequality, higher stock prices, and lower expected returns in areas where wealth accumulation motives are strong. Overall, these findings suggest that heterogeneity in the propensity to accumulate wealth can have social and economic implications.

Terrorist Attacks, Analyst Sentiment, and Earnings Forecasts, with Constantinos Antoniou, Alok Kumar, and Anastasios Maligkris

– *Conditionally Accepted at Management Science*
– Manchester Business School, Cyprus University of Technology, University of Miami, and Warwick Business School

We examine whether exogenous and extremely negative events such as terrorist attacks and mass shootings influence the sentiment and forecasts of sell-side equity analysts. We find that analysts who are local to these attacks issue forecasts that are relatively more pessimistic than the consensus forecast. This effect is stronger when the analyst is closer to the event and located in a low-crime region. Impacted analysts are also relatively more pessimistic around the one- and two-year anniversaries of the attacks. Collectively, these findings indicate that exposure to extreme negative events affects the behavior of information intermediaries and the information dissemination process in financial markets.

Hispanic Culture, Stock Preferences, and Asset Prices, with Jawad Addoum, Alok Kumar, and Stuart Webb

– 2020 American Economic Association Meeting (scheduled), 14th Annual Whitebox Advisors Graduate Student Conference at Yale University, 2018 SWFA Annual Meeting, 2018 MFA Annual Meeting, 2018 AFA Ph.D. Poster Session, 2017 Behavioural Finance Working Group Conference, 2017 Boulder Summer Conference on Consumer Financial Decision Making

We examine the effects of Hispanic culture on portfolio choice and asset returns in the United States. Using the minimum distance from the Canadian border as an instrument for an area's Hispanic concentration, we show that Hispanic investors are more likely to invest in local, lottery-type, and high-momentum stocks than the average U.S. investor. Their trades in these stocks are correlated and generate return comovement that cannot be explained by fundamentals. Additionally, Hispanics' return chasing behavior leads to pronounced momentum returns among firms headquartered in high-Hispanic areas. Overall, these findings suggest that evolving demographics are important for capital markets.

Night Lights, Contrast Effects, and Asset Prices

– 2018 SWFA Annual Meeting

Using night lights as a proxy for economic activity, I examine how the contrast effect influences the portfolio decisions of retail investors and asset returns in the United States. I find that investors overweight and herd in firms headquartered in areas that experience contrasting economic growth relative to the surrounding areas. The systematic demand for firms headquartered in these areas affects asset prices. Specifically, it leads to the formation of investor clienteles, which induce excess comovement in returns that cannot be explained by fundamentals. A trading strategy that exploits investors' overreaction and correlated trading leads to an abnormal return of 8.28% per year.

Catching up with the Locals: Geography and Information Acquisition Strategies of Institutional Investors, with Sima Jannati, Sarah Khalaf, and Alok Kumar

– 9th Miami Behavioral Finance Ph.D. Poster Session

We examine how the distribution of information affects the dynamic information gathering activities and preferences of institutional investors. We utilize a geography-based setting to proxy for the information advantage of local investors and investigate if nonlocal investors use indirect information gathering methods to level the playing field. We find that nonlocal investors use firms with more transparent information environments as lighthouses to learn about more opaque firms. Our results show that this is one way investors attempt to overcome geographic information frictions.

Work in Progress

Shine Bright: Economic Environment, Analyst Optimism, and Earnings Forecasts

Intra-household Dynamics and CEO Corporate Risk-taking, with Constantinos Antoniou, Alok Kumar, and Lizhengbo Yang

Seeing is Believing: Travel, Familiarity, and International Equity Investments, with Constantinos Antoniou, Alok Kumar, and Lizhengbo Yang

Climate Sensitivity and Predictable Returns, with Alok Kumar, Wei Xin, and Chendi Zhang

Teaching Experience

University of Miami

Instructor
FIN 686: Financial Decision Making — Rating: 4.9/5.0
Master of Science in Finance Course

Teaching Assistant for Alok Kumar
Ph.D. Courses
FIN 709: Behavioral Finance Seminar — 2018
FIN 699: Directed Readings and Study — 2018

Graduate Courses
FIN 686: Psychology of Financial Markets and Financial Decision Making — 2018 – 2019
FIN 641: Valuation and Financial Decision Making — 2018
FIN 650: Financial Investment — 2017 – 2018
FIN 602: Fundamentals of Finance — 2017 – 2018
BUS 630: Fundamentals of Economics, Accounting, and Finance — 2016 – 2018

Undergraduate Courses
FIN 456: Behavioral Finance — 2016, 2018

Teaching Assistant for George Korniotis
Graduate Course
FIN 650: Financial Investment — 2016

Teaching Assistant for Jawad Addoum
Graduate Course
FIN 642: The Financial Environment — 2016

Teaching Assistant for Ricardo Rodriguez
Undergraduate Course
FIN 308: Intermediate Financial Management for Entrepreneurs — 2016

Teaching Assistant for Karen Donno
Undergraduate Course
MGT 100: Management 100 — 2013

Additional Teaching Experience
Executive Education
SMART and Essentials Programs: Banco Santander — 2019

Professional Service

Session Chair
Midwest Finance Association Annual Meeting — 2018
Financial Management Association Annual Meeting — 2016

Referee
Review of Financial Economics, Journal of Corporate Finance 2018 – Present

Organizing Assistant
7th Annual Front Range Finance Seminar at the UC Denver Business School 2019
Miami Behavioral Finance Conference 2017 – Present

Student Organizer
Showcasing Women in Finance Conference 2017

Tutor
University of Miami, Finance Department 2014 – Present

Research Assistant
University of Miami, Finance Department 2013

Relevant Course Work

University of Miami

Courses in Finance
FIN 705: Financial Economics I
FIN 706: Theory of Corporate Finance
FIN 707: Empirical Methods in Finance
FIN 708: Financial Economics II
FIN 709: Behavioral Finance
FIN 699: Directed Readings and Study

Courses in Economics
ECO 600: Econometrics
ECO 601: Graduate Macroeconomic Theory
ECO 602: Advanced Microeconomic Theory
ECO 604: Topics in Applied Macroeconomics
ECO 621: Advanced Macroeconomic Analysis
ECO 633: Advanced Microeconomic Analysis
ECO 645: Regulations Economics

Additional Courses
MGT 656: Organizational Behavior
MKT 689: Information Processing for Consumer Behavior
POL 681: Comparative Political Economy of Post-Industrial Democracies

Invited Keynote Addresses

Keynote Speaker **2015**
Lincoln International Academy High School Graduation Managua, Nicaragua

Honors and Awards

University of Miami

Ph.D. Awards
Miami Herbert Business School "Outstanding Ph.D. Student Teaching Award" 2019

Yale Summer School in Behavioral Finance Grant	2017
Miami Herbert Business School Fellowship	2015 – Present

Graduate Awards

Master of Science in Finance Leadership Award	2015
Master of Science in Finance Award for Academic Merit	2015

Undergraduate Awards

UM Athletic Dept. named the "Carina Cuculiza Academic Excellence Award"	2014 – Present
ACC Top 6 in Service Award	2014
Iron Arrow Honor Society	2013 – Present
Student Athlete of the Game Honor	2013
Women's Golf Coaches Association Division I All-American Team	2013
Arthur Ashe Jr. Sports Scholar Award	2012
Provost's Honor Roll	2012
President's Award for Educational Excellence	2012
Dickinson Scholarship	2010 – 2014
University of Miami Athletic Golf Scholarship	2010 – 2014

Professional Experience

Nejapa Golf & Country Club — **Managua, Nicaragua**
Golf Program Coordinator — Summers 2010 – 2015

Last updated: December 8, 2019

RESEARCH STATEMENT
Carina Cuculiza

I am interested in the Behavioral Macroeconomics Research Boot Camp for several reasons. First, it is a great opportunity to learn from world-class researchers and deepen my understanding of the field. Second, it provides a unique setting where I can expand my network of colleagues by connecting with junior researchers, with whom I can co-author in the future. Furthermore, the NBER workshop will help me to continue developing and improving skills that will allow me to grow as a researcher.

I strongly believe the Behavioral Macroeconomics Research Boot Camp is highly relevant for my research portfolio, which extends across three broad themes. In the first strand of research, I aim to understand the role of geography in financial markets. Existing studies show that geography can induce heterogeneity in information availability across firms and market participants (Coval and Moskowitz, 2001; Garcia and Norli, 2012). While the local bias literature provides ample evidence for the channels through which local investors acquire information, very few studies analyze the information gathering activities of nonlocal investors. In **"Catching Up With The Locals: Geography and Information Acquisition Strategies of Institutional Investors,"** coauthors and I find that nonlocal institutions use firms with more transparent environments as "lighthouses" to learn about other geographically close, but more opaque firms. This strategy allows nonlocal investors to diminish local investors' informational advantage; however, they are unable to completely level the playing field and catch up with local investors.

Geography is also likely to impact individuals' financial choices through psychological mechanisms. That is, geography may delineate information environments and encourage comparisons across communities or habitats. In **"Night Lights, Contrast Effects, and Portfolio Choice,"** I examine how the contrast effect influences financial decisions. Specifically, I study whether individuals decide to invest in firms headquartered in locales that are experiencing higher or lower economic growth than the surrounding areas. For example, if a firm is located in a community that is experiencing slower economic growth than its surrounding areas, then investors might forego investing. Conversely, the firm may be an attractive investment opportunity if its community is economically outperforming its surrounding areas. As a proxy for economic activity, I use the amount of light that an area emits into outer space, since it has several advantages over traditional measures of economic activity. I find that retail investors tend to overweight and herd in firms that are located in areas that "contrast" with their surrounding communities. This systematic demand for stocks impacts local stock prices and expected returns.

In the second theme, I analyze the impact of sentiment on analysts' behavior. Under the traditional finance framework, sell-side analysts should be well-informed about firm fundamentals and should use cash flow and discount rate news in their financial assessments. However, there is growing empirical evidence which suggests that analysts are not fully rational. In **"Terrorist Attacks, Analyst Sentiment, and Earnings Forecasts,"** coauthors and I extend the analyst bias literature and examine whether exogenous and extremely negative events, such as terrorist attacks and mass shootings, affect analysts' sentiment and influence their forecasts. We find that analysts who are located near terrorist attacks and mass shootings issue more pessimistic forecasts than the consensus in the 30 days following the attack. This effect is stronger when the event is more salient, such as when an analyst is closer to an attack or when she is located in a low-crime state. The results also suggest that these attacks affect analyst accuracy, as they become more accurate following an attack. Collectively, the findings indicate that exposure to extreme negative events affects analyst forecasts and the information dissemination process in financial markets.

I also examine the role of culture on financial decisions and asset markets. Recent evidence suggests that demographic patterns can affect aggregate stock returns. For instance, studies show that the underlying age structure and cohort sizes of the U.S. population can impact the demand of various goods and lead to

predictable patterns in financial markets.[1] However, this literature has not examined if broad cultural and racial changes have similar implications.

In **"Hispanic Culture, Stock Preferences, and Asset Prices,"** coauthors and I examine if Hispanic investors' preferences affect returns in local asset markets. We focus on the Hispanic population, since it is the largest and fastest growing subgroup within the U.S. Given this demographic shift, it is possible that Hispanics' financial choices could generate sizable effects in asset markets. We find that Hispanics have unique investment preferences, as they tend to overweight local, lottery, and high-momentum stocks more strongly than their non-Hispanic peers in the U.S. We also show that Hispanic investors' preferences affect asset prices and returns. Our evidence suggests that investors in high-Hispanic areas tend to herd in local, lottery, and high-momentum stocks, generating excess comovement in returns that cannot be explained by fundamentals. Additionally, Hispanics' return chasing behavior leads to pronounced momentum returns among firms headquartered in high-Hispanic areas.

Similarly, in **"Propensity to Accumulate Wealth, Portfolio Choice and Asset Prices,"** I examine how heterogenous wealth accumulation motives affect portfolio choices and, in turn, how these decisions impact aggregate financial market outcomes. Importantly, the propensity to accumulate economic resources can vary across different cultures. For instance, Protestants could be more accepting towards wealth accumulation than Catholics (Weber, 1930; Mayer and Sharp, 1962; Cavalcanti, Parente, and Zhao, 2007). I find that, on average, investors with a strong propensity to accumulate wealth allocate a higher weight to the risky asset. These heterogenous preferences towards wealth accumulation have aggregate macroeconomic implications. Households with strong wealth accumulation motives are better able to use financial markets to smooth their idiosyncratic income shocks, resulting in lower income inequality. Further, geographic heterogeneity in the propensity to accumulate wealth affects local asset prices, as stock prices are higher and average returns are lower in areas where wealth accumulation motives are strong.

Attending the Behavioral Macroeconomics Research Boot Camp will allow me to further understand the mechanisms through which financial markets incorporate information into asset prices, which would be beneficial for my future research. For instance, in **"Shine Bright: Economic Environment, Analyst Optimism, and Earnings Forecasts,"** I analyze how the portfolio of firms an analyst follows impacts how she gathers information and, in turn, whether this "portfolio-based research," as opposed to the more commonly studied "stock-level research," affects her accuracy. Additionally, in **"Climate Sensitivity and Predictable Returns,"** coauthors and I examine whether firms are differentially affected by extreme temperatures and if the market recognizes firms' exposure to this risk.

The NBER workshop's focus on behavioral finance will also help me to significantly improve other working papers, as they have a strong behavioral component. For example, I plan to extend my research on the role of culture in finance in **"Cultural Distance and Corporate Risk Taking."** Specifically, coauthors and I investigate whether transmissions of cultural norms between couples impact corporate outcomes. In particular, we focus on S&P 500 CEOs and find that a CEO's personal uncertainty avoidance is influenced by their spouse's personal uncertainty avoidance. Lastly, in **"Seeing is Believing: Travel, Familiarity, and International Equity Investments,"** coauthors and I analyze how familiarity of foreign countries affects international equity investment decisions and find that tourism increases familiarity with that country, which then leads to greater equity investments.

Overall, I strongly believe that the Behavioral Macroeconomics Research Boot Camp provides a great opportunity for me to continue developing the necessary skills to become a strong and impactful researcher.

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[1] Please see Bakshi and Chen (1994), Poterba (2001), Abel (2003), Goyal (2004), DellaVigna and Pollet (2007), among others.

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December 9, 2019

To Whom It May Concern

It is my pleasure to strongly recommend my PhD student Ms. Carina Cuculiza for the NBER Behavioral Macroeconomics Research Boot Camp. Simply put, Carina is one of the most creative and hard-working PhD student I have come across in my 15-year academic career. She is clearly the best PhD student I have ever worked with. All her papers have an interesting "twist". While she is pursuing her PhD in Finance, her papers have a broader focus and would appeal to researchers working in the area of macro-behavioral-finance. For example, one of her recent papers examines how heterogeneity in the propensity to accumulate wealth affects risk-taking behavior, aggregate stock prices, and even broad economic outcomes such as income inequality. She examines the possibility that belief in the afterlife affects the propensity to consume and wealth accumulation decisions.

I have worked with Carina on several papers and she is an independent researcher. She is able to conduct research without much guidance and always comes up with interesting ideas. In fact, during her second summer in the PhD program, she recognized the importance of using satellite data to measure regional economic activity in the US and relate it to regional asset prices. It was a creative use of the satellite data and she has continued to use this data creatively in her subsequent research. In another interesting paper titled "Hispanic Culture, Stock Preferences, and Asset Prices", she examine how the growth of Hispanics in the US affect financial markets through their distinct cultural preferences. This paper has been solicited by the American Economic Association (AEA) Committee on the Status of Minority Groups in the Economics Profession (CSMGEP). This paper will be presented in the "Household Finance and Race" session at the ASSA meetings in 2020.

In her more recent research, she focuses on the role of climate risk on financial markets. Quantifying climate risk for individual firms in the US has been difficult. She has developed a novel measure of firm-level climate risk and examines whether a firm's exposure to climate change affect stock prices.

Throughout her doctoral studies at Miami Business School, Carina has constantly displayed the traits necessary to become an impactful researcher. She is very creative but rigorous in her thought process. Moreover, she has developed strong technical skills that allow her to bring her original ideas to fruition and generate solid academic research. Of course, this is only possible thanks to her incredibly positive attitude and willingness to put in the long hours and hard work necessary to overcome the obstacles that naturally arise during the research process.

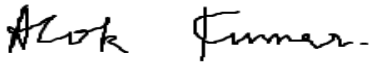
Carina is not at a top school but she could have easily been there. I have often interacted with PhD students at top Finance and Economics programs and Carina would have been certainly in the top decile of that selective group. We were lucky that she decided to stay at the University of Miami following her undergraduate and graduate degrees in Finance. She had not thought about a PhD until very late and a day before moving to New York City to take up a lucrative job at Gabelli Asset Management, she decided to pursue a Finance PhD. If she had formally applied to other PhD programs, she would have certainly been admitted to top Finance PhD programs.

Carina was part of the golf team at the University of Miami and she had received full scholarship to pursue her undergraduate degree. The work ethic and discipline she acquired during years of golf training serves her well. She is one of the most hard-working students I have seen and I am confident that this hard work coupled with a creative mind will serve her very well in the future career.

Carina has already participated in Yale Summer School in Behavioral Finance organized by Professor Nick Barberis. The Behavioral Macroeconomics program will further help her in pursuing research topics at the intersection of finance, macro-economics, and psychology. Even if her PhD dissertation is not in behavioral macro-economics, I am confident that she will pursue a related research agenda after completing her PhD. Given her portfolio of research papers, she is likely to be a star in the Finance job market (she already has a paper forthcoming in the *Management Science*). Her experience at the Behavioral Macroeconomics Boot Camp will help her refine her research portfolio further and make her a stronger candidate in the job market.

Please contact me by phone (305-284-1882) or email (akumar@miami.edu) if you need additional information about Jay.

Sincerely,



Alok Kumar