NBER Behavioral Macroeconomics Research Boot Camp for Graduate Students

Johnny Tang

Cover Letter

Dear Professor Yuriy Gorodnichenko,

My name is Johnny Tang and I am a second-year economics PhD student at Harvard. I am interested in behavioral macroeconomics and finance and I am applying to attend the NBER Behavioral Macroeconomics Research Boot Camp in 2020. Please find attached my curriculum vita and application essay. My recommendation letter writer is Professor Andrei Shleifer.

I look forward to hearing from you. Please do not hesitate to contact me if you require any additional information.

Sincerely,

Johnny Tang

Contact Information:

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Mailing Address:

15 Mellen Street

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02138 USA

Recommendation letter writer:

Professor Andrei Shleifer

shleifer@fas.harvard.edu

JOHNNY TANG

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EDUCATION

Harvard University — Cambridge, MA
Ph.D. in Economics — 2018 - Present
A.B. in Applied Mathematics, highest honors — 2014 - 2018

GRADUATE COURSEWORK

First-year: microeconomics, macroeconomics, and econometrics
Second-year: asset pricing, corporate finance, entrepreneurship, psychology and economics, time series, econometrics and machine learning

RESEARCH AND TEACHING EXPERIENCE

Research Assistant for Andrei Shleifer — *2016 - 2018*
Research Assistant for Gabriel Chodorow-Reich — *2015 - 2016*
Teaching Fellow for Gita Gopinath (Econ 1544) — *Spring 2017*

HONORS AND AWARDS

Harvard Business School Private Capital Project Research Grant — *2019*
Harvard Economics Department Travel Research Grant — *2019*
John T. Dunlop Prize in Business and Government — *2018*
Thomas T. Hoopes Prize for Outstanding Senior Thesis — *2018*
Derek Bok Distinction in Teaching Award — *2017*
Howe Thesis Research Fund — *2017*
David Rockefeller Grant — *2015*
Canadian National Math League - 1st Place National Winner — *2012, 2013*
USA Junior Math Olympiad — *2012*

ACTIVITIES

Social Chair, Graduate Economics Association — *2019-Present*
Executive, Graduate Canadian Club — *2018-Present*
Tutor in Economics, Quincy House (non-resident) — *2018-Present*

PROFESSIONAL EMPLOYMENT

Uber — San Francisco, CA
Data Scientist — *Summer 2018*

Morgan Stanley — New York, NY
Interest Rate Options Trader — *Summer 2017*

Fidelity Investments — Boston, MA
Investment Researcher — *Summer 2016*

SecuTrans Inc. — Toronto, ON
PHP/MySQL Database Programmer — *2012 - 2014*

SKILLS AND INTERESTS

Technical: R, Stata, Python, PHP, SQL (Hive, Vertica)
Languages: English (native), Mandarin Chinese (native)
Interests: Baseball, traveling, looking for good food

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Application Essay

My name is Johnny Tang and I am a second-year economics PhD student at Harvard. I am interested in research at the intersection of behavioral macroeconomics and finance. I hope to attend the NBER Behavioral Macroeconomics Research Boot Camp for Graduate Students in 2020 to learn more about the current active research in behavioral macroeconomics and connect with current researchers and fellow students interested in the field.

I became interested in studying behavioral macroeconomics through working as an undergraduate research assistant for Professors Pedro Bordalo, Nicola Gennaioli, Yueran Ma, and Andrei Shleifer on a project on understanding macroeconomic expectations and reactions to news. I collected data on professional economists' forecasts of various macroeconomic and financial variables and applied methods developed in Coibion and Gorodnichenko (2015) to study properties of reactions of expectations to news. This research experience was what drew me to economics research and to apply to graduate school and I have remained interested in understanding expectations and reactions to news in macroeconomic and financial settings since.

My current research interests revolve around understanding asset pricing implications of different types of news and the structure of belief formation by corporate managers. On understanding asset pricing and its relationship to reactions to news, I am currently working on a project with a PhD colleague on heterogeneity in stock price reactions to different kinds of news. We document significant heterogeneity in stock price reactions to different kinds of news and explore the properties of the news events that predict the stock price reactions. As a next step in the project, we are developing a model motivated by current psychology and economics research in salience and representativeness that can account for the empirical findings of our analysis. Simultaneously, we are also collecting expectations and forecast data on stock prices around these news events and we are interested in understanding how expectations change in response to these news. In particular, do expectations changes correspond to price movements? And do expectations over- or under-react by more than observed price changes? The answers to these questions help shape our understandings of how expectations translate into asset pricing and in turn how asset prices could shape expectations.

A second line of research I have been interested in pursuing is the structure of beliefs of corporate managers. Corporate managers have significant influence on the operations and decisions made within firms, and yet their beliefs and expectations upon which their decisions are based on are not well understood. In this project, I construct measures of managerial beliefs

from firm managerial guidances. The measures capture both the first and second moments of the managerial beliefs, and as such allow for a more complete picture of how managerial beliefs evolve in response to firm- and macro-level news. I document a set of findings on the informativeness of managerial beliefs on future firm outcomes and the evolution of managerial beliefs over time.

My ongoing and future research interests lead me to continue to study topics at the intersection of behavioral macroeconomics and finance. Topically, I am particularly interested in how financial market participants respond to and process soft information. Specifically, many retail and unsophisticated financial market participants rely on qualitative and descriptive information to make financial decisions. As such, I am interested in studying how different qualitative information can shape market participants' beliefs and change their market behaviors. Methodologically, I am interested in using surveys and laboratory techniques from the experimental economics literature to measure beliefs and other variables of macroeconomic interest and link those variables to real macroeconomic and financial outcomes.

Thank you for your time and consideration for my application to the program. I look forward to hearing from you.

Sincerely,

Johnny Tang

Gmail by Google

Elisa Pepe <epepe@nber.org>

joint letter for NBER Behavioral Boot Camp

Shleifer, Andrei <shleifer@fas.harvard.edu> Wed, Dec 4, 2019 at 7:00 AM
To: Elisa Pepe <epepe@nber.org>
Cc: Yuriy Gorodnichenko <ygorodni@econ.berkeley.edu>

Dear Elisa and Yuriy,

This is a brief joint letter for 6 Harvard Ph.D. students whom I work closely with applying for the Behavioral Macro bootcamp. They are all part of a group I am advising in this space, and they work together, come to same informal group meetings, and are generally part of a small community. They are also all amazingly good.

I would divide them into the "older" thesis writing category, and the "younger" starting out category, although even people in the younger category are actively doing research.

Older category includes Francesca Bastianello, Paul Fontanier, and Peter Maxted. All three are very talented and technically strong, all have completed first rate papers. I think all three are on the market next year, and all were in the very final few for the Sloan pre-doc last year (Francesca got it). (I think they may also all be getting letters from same people who are recommending them for pre-docs.) So I think at this point you are familiar with all of them.

Let me write two sentences about each of the other three -- all of whom I have known for some time because all three were Harvard undergraduates.

Spencer Kwon is a G2, and a very rare person I have seen as a Ph.D. student who has the intellectual ambition and potential to do transformative work. If there is a limit on how talented he is, I have not detected it. I can tell many stories, but this is not the place. Mike and Andrew can provide first hand testimony from the Sloan-Nomis camp.

Johnny Tang is a G2. He is specializing in finance, was at Nick Barberis camp last summer (Nick loved him), has fantastic empirical skills and is doing incredibly well in the program. He is working on a very exciting project with Spencer. He also happens to be just a great person, totally beloved by everyone in his class (it is a Canadian effect, I suppose).

Suproteem Sankar is a G1. He comes with a Computer Science background, went to Sloan Nomis like Spencer before starting grad school, seems to have placed out of most of G1 classes even though he did not major in economics as an undergraduate, and is figuring out what he wants to do. I recently saw his resume (he is applying for the Soros fellowship for first generation americans) and was quite stunned by his accomplishments, which he had not told me about. He is extremely bright and is looking for what he wants to do. I would love to draw him into this field -- his potential is enormous.

I hope this is helpful.

Warm regards,

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