Maya Bidanda

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March 26, 2021

Cover Letter

Dear Review Panel,

I am a third year Finance PhD student at MIT Sloan. Please find attached my application for the NBER Entrepreneurship Research Boot Camp for Graduate Students. My recommendation letter writer is Professor Antoinette Schoar. My complete contact information is in the header as well as here:

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MIT Email: mbidanda@mit.edu

Let me know if you need any additional information. Thank you for your consideration.

Best,
Maya Bidanda

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101 Spring Street Apt 2, Cambridge, MA 02141 (412) 977-7111 maya.bidanda@gmail.com

EDUCATION

Massachusetts Institute of Technology Cambridge, MA
Ph.D., Financial Economics September 2018-Present
Graduate courses: Microeconomics Core Sequence, Macroeconomics Core Sequence, Econometrics Core Sequence, Asset Pricing, Advanced Asset Pricing, Corporate Finance, Advanced Corporate Finance, Trade Economics (Audit), Labor Economics (Audit), Guided Study with Professor Christopher Palmer on Housing Markets, Theoretical and Empirical Perspectives in Entrepreneurship: Finance (Harvard)
Honors: The Presidential Fellowship (September 2018 – June 2019)

Smith College Northampton, MA
B.A., Double Major: Economics and Music Graduated May 2012
Honors: Dean's List; First Group Scholar
The Larry C. Selgelid Memorial Prize for the greatest contribution to the Department of Economics

EXPERIENCE

Massachusetts Institute of Technology Cambridge, MA
Research Assistant to Professor Emil Verner June 2020 – December 2020

- Created a dataset of industry composition by country and year drawing on data from: STAN (structural analysis database), ILO (International Labor Organization), UNIDO, and more.

Research Assistant to Professor Jonathan Parker June 2019 – August 2019

- Implemented and applied to new settings a stochastic optimization method for life-cycle models developed by Victor Duarte and Julia Fonseca. The method can handle large state and action spaces, shocks, and is grid-free.
- Provided assistance on "Reported Effects vs. Revealed-Preference Estimates: Evidence from the Propensity to Spend Tax Rebates," with N. Souleles, American Economic Review Insights, forthcoming.

Federal Reserve Bank of New York New York, NY
Senior Research Analyst June 2016 – September 2018

- Provided research assistance for economists in the Financial Intermediation Research function working mainly with Dr. Anna Kovner, Dr. Paul Goldsmith-Pinkham, and Dr. Sean Hundtofte covering the fields of Consumer Finance, Corporate Finance, Behavioral Finance, Venture Capital, Banking, Mergers and Acquisitions, and Econometrics.
- Co-authored with Dr. Sean Hundtofte, Dr. Rajashri Chakrabarti, and Dr. Maxim L. Pinkovskiy, a blog post entitled "Do Expansions in Health Insurance Affect Student Loan Outcomes?"
- Main datasets used include Venture Xpert Data, Equifax Consumer Credit Panel (CCP), Zillow median house price data, data from The Home Mortgage Disclosure Act (HMDA), Health & Retirement Study (HRS), Census, Y-9C and Call Report Data.

J.P. Morgan Chase & Co. New York, NY
Portfolio Specialist Analyst August 2014 – February 2016

- Created presentations on topics such as commodities in inflationary periods and the optimal mix of active and passive vehicles.
- Participated in and heard from fund managers and outside experts in conversations for investments for $250+ billion of assets under management regarding market views, portfolio positioning, and appropriate implementation.

J.P. Morgan Chase & Co. Finance Analyst Development Program 2012 – 2014
Asset Management Investments Finance Analyst August 2013 – August 2014

- Reinvented management reporting on revenues of investment products and researched factors impacting the weekly revenues and flows for senior management.

Corporate Treasury Analyst August 2012-August 2013

- Compiled and analyzed the JPM Internal Stress Test and produced Key Liquidity Trends Reports to update senior management on the bank's liquidity position on a daily basis.

LEADERSHIP

Smith College Quantitative Master Tutor — Northampton, MA
Intermediate Microeconomics Tutor — 2010-2012

Smith College Orchestra — Northampton, MA
President — 2011-2012
Vice President — 2010-2011

SKILLS

Stata, R, Python, Julia, SAS, MATLAB, Bloomberg, Mathematica, FactSet, DataStream

NBER Entrepreneurship Research Boot Camp 2021

Maya Bidanda

March 26, 2021

I am a third year Finance PhD student at MIT Sloan. My current research interests are entrepreneurship, household finance, and wealth inequality. Through my coursework and background research for my current projects, I have a strong foundational knowledge of the canonical entrepreneurship literature. I hope to attend the NBER Entrepreneurship Research Boot Camp to gain more exposure to the forefront of the field, learn from a wider variety of economists, and connect with fellow students of entrepreneurship.

1 Current Research: Entrepreneur's networks

I am currently working on obtaining data from Denmark to construct a data set on entrepreneur's ex-coworker networks and past jobs. I hope to answer three main questions using the data. First, I plan to show the self-selection of entrepreneur's networks and the skills they choose to gain from on-the-job training. Second, I will investigate whether entrepreneurs participate in the workforce before entering self-employment to build capital or to build skills. Lastly, I intend to document a measure of outside opportunities for entrepreneurs. In addition, I want to understand whether immigrants and women entrepreneurs have different networks and past work experiences which may lead to different entrepreneurial outcomes and beliefs in outside options.

In the labor literature, Harmon and Caldwell (2019) study how a worker's outside options influences their current wage and propensity to switch jobs using Danish data. They use the worker's network of ex-coworkers as a proxy for outside opportunities because it is the worker's source of information on outside opportunities. They find that if a worker's ex-coworkers have a high mean wage then the worker will either negotiate a higher wage or choose to move to a higher paying job. Relating their framework to entrepreneurship highlights the endogenous self-selection of workforce jobs that entrepreneurs choose prior to self-employment. Their past jobs are likely selected to maximize benefit for entrepreneurial work. Therefore, I will use this setting to better understand this self-selection of workforce jobs by entrepreneurs. What networks of coworkers and on-the-job training do entrepreneurs choose? Do they choose their path for the purpose of building capital or building skills?

Lazear (2004) shows that entrepreneurs perform many tasks and therefore need to acquire (or be endowed with) a large set of skills to start a business. He finds this to be true in MBA curriculum choices and on-the-job training patterns. I hope to document a similar finding on choices in past jobs of entrepreneurs using detailed employer-employee matched data from Denmark. I want to both understand the network of ex-coworkers the entrepreneur has as well as the types of jobs they chose previous to leaving the workforce.

Evans and Jovanovic (1989) document peak age for entry into entrepreneurship is around age 40, potentially because people need to save money before starting a business, though this could also be attributed to gaining necessary skills for starting a business. I plan to test which theory is supported in the data by

observing the job history of entrepreneurs. I will look at the range of tasks in entrepreneur past jobs as well as the wage jumps in their career prior to starting their business.

I also hope to contribute to the literature on outside options for entrepreneurs. Canonical entrepreneurship literature compares outside wages (wages a person would receive if they entered the workforce) to the expected return of entrepreneurship to understand why people start businesses (Hamilton, 2000; Moskowitz and Vissing-Jørgensen, 2002). The classic models find that outside wages are mostly higher than the returns to entrepreneurship, yet people still choose to become entrepreneurs. There has been substantial subsequent research that proposed different ways of measuring returns to entrepreneurship. A strand of this literature relates to the optionality of entrepreneurs to re-enter the workforce (Catherine, 2018; Manso, 2016). If the entrepreneurs were building skills to prime themselves for entrepreneurship rather than to climb the corporate ladder, then their backgrounds would look different. As a result, they would potentially face different outside options. Therefore, while not exogenous, I hope to quantify the outside options of entrepreneurs versus workers who stay in the work force. Using the entrepreneur's network of ex-coworkers as a proxy for outside opportunities, I can approximate the wage they would face if they remained in or returned to the work force.

I could also relate this research design to the different rates of immigrant and women entrepreneurs. If certain groups face barriers to jobs that best prime them for entrepreneurship (seen in the data as having a smaller network or many different jobs for short periods of times), this could either suggest an inability to create the network or build the skills to become an entrepreneur. Alternatively, facing barriers in the workforce may cause some workers to become entrepreneurs to avoid having to join the workforce.

2 Existing Research: Entrepreneurs and Wealth Inequality

For an asset pricing class project, I considered the reduced-form relationship between wealth inequality and private equity returns. Existing literature presents the idea that volatile stock market returns (public equity) account for fluctuations in wealth inequality over the past century (Gomez, 2017). Risk-tolerant investors hold riskier assets which enables them to accumulate more wealth, and as a result, disproportionately be in the top of the wealth distribution. When the market return is high, investors at the top of the wealth distribution benefit more, thus wealth inequality increases. Consequently, because a larger share of wealth is owned by risk-tolerant households, aggregate demand for risk increases so the risk premia is lowered which pushes up prices. Two stylized facts support this mechanism. First, when stock market returns are high, wealth inequality increases. Second, higher wealth inequality predicts lower future excess stock returns. The driver of this relationship is the top wealth percentiles' higher equity share of net worth which is mainly due to a higher share of business equity.

The high concentration of entrepreneurs in the top wealth percentiles suggests that private equity returns are potentially a better measure for the relationship of asset prices and wealth inequality. My paper documents the relationship of private equity returns to the top percentiles' wealth growth. I find that private and public equity returns have similar relationships to wealth inequality, however the R-squareds in the private equity analysis are higher which suggests that private equity returns are a better measure. In addition, my new analysis better fits the continuous time OLG model Gomez (2017) used to quantify the relationship of asset price volatility to the right tail of wealth. The model predicts a much thicker right tail given the asset price volatility from the past century. The magnitude discrepancy could be resolved by using private equity returns because they have been less volatile over time (Kartashova, 2014).

References

Catherine, Sylvain (2018). "Keeping Options Open: What Motivates Entrepreneurs?" In: *SSRN Electronic Journal*. ISSN: 1556-5068. DOI: 10.2139/ssrn.3274879.

Evans, David S. and Boyan Jovanovic (1989). "An Estimated Model of Entrepreneurial Choice under Liquidity Constraints". In: *Journal of Political Economy* 97.4, pp. 808–827. ISSN: 0022-3808. DOI: 10.1086/261629.

Gomez, Matthieu (2017). "Asset Prices and Wealth Inequality". In: *Unpublished: Princeton*.

Hamilton, B. H. (2000). "Does entrepreneurship pay? An empirical analysis of the returns to self-employment". In: *Journal of Political Economy* 108.3, pp. 604–631. ISSN: 00223808. DOI: 10.1086/262131.

Harmon, Nikolaj and Sydnee Caldwell (2019). "Outside Options, Bargaining, and Wages: Evidence from Coworker Networks". In: *Working Paper* 1122374.1122374. URL: http://economics.mit.edu/grad/sydneec/research.

Kartashova, Katya (2014). "Private equity premium puzzle revisited". In: *American Economic Review* 104.10, pp. 3297–3334. ISSN: 00028282. DOI: 10.1257/aer.104.10.3297.

Lazear, Edward P. (2004). "Balanced skills and entrepreneurship". In: *American Economic Review* 94.2, pp. 208–211. ISSN: 00028282. DOI: 10.1257/0002828041301425.

Manso, Gustavo (2016). "Experimentation and the Returns to Entrepreneurship". In: *Review of Financial Studies* 29.9, pp. 2319–2340. ISSN: 14657368. DOI: 10.1093/rfs/hhw019.

Moskowitz, Tobias J. and Annette Vissing-Jørgensen (2002). "The returns to entrepreneurial investment: A private equity premium puzzle?" In: *American Economic Review* 92.4, pp. 745–778. ISSN: 00028282. DOI: 10.1257/00028280260344452.

MIT MANAGEMENT SLOAN SCHOOL

Antoinette Schoar
Michael M. Koerner '49 Professor of Entrepreneurial Finance
Professor of Finance

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Letter of Recommendation for Maya Bidanda

March 2021

Dear Madam/Sir,

I am writing a letter of recommendation for Maya Bidanda as she applies for the NBER Entrepreneurship boot camp, 2021. I have known Maya for almost three years, when she started as a PhD student in the MIT finance program. I have also been talking to her about her research interests in entrepreneurship for the last few months. She started out with an interest in macro finance and household finance but has become very interested in entrepreneurship; especially in the intersection of finance, entrepreneurship and labor economics. She is also auditing Josh Lerner's PhD class at HBS on the topic of entrepreneurial finance.

Maya's third year paper for the PhD program at Sloan looked at the regional impact of new technologies on local labor market trends, following some of the recent work by Acemoglu or Author. Through this work she became very interested in understanding the difference in how startups and larger firms adopt technologies. More recently she has been working on the question of how entrepreneurs select their business networks and the role of network selection in entrepreneurial success. To pursue these questions, she is currently applying to get access to detailed micro data at the Danish census bureau.

In sum, Maya is a creative student with an entrepreneurial mind set who has a strong interest in interdisciplinary research. She is transitioning into research on entrepreneurship and would benefit tremendously from the boot camp. In addition, she is also a pleasant and constructive person who brings a lot of positive energy and enthusiasm to her work. I would encourage you to consider her application seriously.

I hope these comments are helpful in your deliberations. Please feel free to contact me if you need further information.

Sincerely,



Antoinette Schoar

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