MAX MILLER
Finance Department
University of Pennsylvania
Wharton School of Business
Philadelphia, PA 19104 USA
Website: max-miller.finance

Education

PRESENT UNIVERSITY OF PENNSYLVANIA, WHARTON SCHOOL OF BUSINESS
PhD in Finance, May 2022 (Expected)

2013 EMORY UNIVERSITY, GOIZUETA SCHOOL OF BUSINESS
Bachelor of Business Administration, Finance Concentration – Finance, May 2013

Fields of Interest

- Asset Pricing
- Household Finance
- Political Economy

Working Papers

1. **Democratization, Inequality, and Risk Premia**
   Presented at: Econometric Society - European Winter Meeting, Econometric Society World Congress (Scheduled), European Finance Association (Poster Session; Scheduled)

   Periods of democratization exhibit economically large spikes in risk premia. Using a panel data set covering 57 countries over 200 years, I show that during periods of democratization, the equity premium and corporate credit spreads are significantly elevated, despite little to no effect on aggregate consumption and dividends. Further, I use a quasi-natural experiment coming from a shift in Catholic church attitudes toward democracy and show that this change was associated with a large increase in average excess returns for majority Catholic and autocratic countries. Finally, I show that these results can be rationalized through a standard political economy model in which the wealthiest segments of society are negatively impacted by the consolidation of democracy. These results are key to understanding how political institutions and the distribution of wealth and political power influence asset returns.

2. **Social Security and Trends in Inequality** (*with Sylvain Catherine and Natasha Sarin*)
   Presented at: Chicago Annual Household Finance Conference*, EconTwitter Conference*, NBER Summer Institute (CRIW)*, Red Rock Finance Conference (Scheduled), Northern Finance Association (Scheduled), CEPR European Conference on Household Finance (Scheduled)
   Press: Marginal Revolution, Pro-Market, The Economist
   *Denotes presentation by co-author

   Recent influential work finds large increases in inequality in the U.S., based on measures of wealth concentration that notably exclude the value of social insurance programs. This paper revisits this conclusion by incorporating Social Security retirement benefits into measures of wealth inequality. Wealth inequality has not increased in the last three decades when Social Security is accounted for. When discounted at the risk-free rate, real Social Security wealth increased substantially from $5.5 trillion in 1989 to just over $42.3 trillion in 2016. When we adjust for systematic risk coming from the covariance of Social Security returns with the market portfolio, this increase remains sizable, growing from over $4.6 trillion in 1989 to $34.2 trillion in 2016. Consequently, by 2016, Social Security wealth represented 58% of the wealth of the bottom 90% of the wealth distribution. Redistribution through programs like Social Security increases the progressivity of the economy, and it is important that our estimates of wealth concentration reflect this.

3. **Relaxing Household Liquidity Constraints through Social Security** (*with Sylvain Catherine and Natasha Sarin*)
   Revise and Resubmit: Journal of Public Economics
   Press: MarketWatch, MarketWatch, MarketWatch

   More than a quarter of working-age households in the United States do not have sufficient savings to cover their expenditures after a month of unemployment. We explore proposals to alleviate financial distress arising from the COVID-19 pandemic. We show that giving workers early access to just 1% of their future Social Security benefits allows most households to maintain their current consumption for at least two months. Unlike other approaches (like early access to retirement accounts, stimulus relief checks, and expanded unemployment insurance), access to Social Security serves the needs of workers made vulnerable by the crisis, but does not increase the overall liabilities of the federal government or have distortionary effects on the labor market.

4. **Sovereign default and the decline in interest rates** (*with James Paron and Jessica Wachter*)
   Presented at: NBER SI (Capital Markets)

   Yields on sovereign debt have declined dramatically across the developed world over the last half-century. Standard explanations of this decline include a change in discount rates due to an aging population or increased demand for assets from abroad. We show that these explanations encounters difficulties when confronted with the full range of evidence across asset classes. We propose that this decline was due to a decline in inflation expectations/default risk on sovereign debt. We argue that this explanation has a better chance of capturing an important feature of the decline in interest rates: namely that it has spanned centuries. We incorporate this explanation into an otherwise standard model of asset prices, augmented with inventory storage. An effective lower bound implies the existence of such a storage technology; otherwise there are arbitrage opportunities within the model. Including storage in a production-based model allows us to match the reduction in investment and GDP growth observed over the last three decades.

Works in Progress

1. **The Insider Value of Political Information** (Work in Progress; *with Marco Grotteria*)
   Jacobs Levy Center Grant (2019)

Research Papers: Non-Refereed

1. **Mutual Funds: Skill and Performance** (Special Issue on Manager Fund Selection, 2020; *with Jonathan Berk and Jules van Binsbergen*) *Journal of Portfolio Management*

2. **International Portfolio Investment Holdings of Long-term Securities in the Enhanced Financial Accounts** (2016; *with Elizabeth Holmquist and Youngsuk Yook*) *FEDS Note*

Teaching Experience

Teaching Assistant:

2020	PhD Asset Pricing (Prof. Nikolai Roussanov)
2019	PhD Asset Pricing (Prof. Nikolai Roussanov), Investment Management (Prof. Robert Stambaugh), Investment Management (Prof. Donald Keim), Financial Technology (Prof. Shimon Kogan)
2018	Investment Management (Prof. Don Keim), Policy Decisions by Central Banks (Prof. Zvi Eckstein)

Conference Presentations

2019	Econometric Society – European Winter Meeting,
2020	NBER Summer Institute (Capital Markets), Inter-Finance PhD Seminar, Econometric Society – World Congress (Scheduled)

Service

Reviewer for the *Review of Finance.*

Coding and Software Skills

Proficient	Python, R, Stata, Matlab, LaTex, LyX, Microsoft Excel
Basic	SAS, SQL

Honors and Awards

2019	Rodney White Center Grant, Jacobs Levy Grant

Previous Employment/Research Experience

2015-2017	Research Assistant, Federal Reserve Board of Governors, Flow of Funds
2014-2015	Research Assistant to Professor Francis X. Diebold
2013-2014	Operations Analyst, YP

Other Education

2015-2016	Non-Degree Student, George Washington University
2014-2015	Post-Baccalaureate Certificate in Mathematical Economics, University of Pennsylvania

Interests

Sports	Basketball, Flag Football, and Tennis
Basketball	Tuck Inter-MBA Tournament Champion (2018, 2019 - Runner-Up), Harvard Inter-MBA Tournament (2019 - Runner-Up), UPenn Inter-Graduate School Champions (2018, 2019), Graduate Division Intramural Champion (2018, 2019 - Runner-Up)
Football	Graduate Division Intramural Champion (2015)
Fantasy	Fantasy Football League Champion (2006, 2014, 2019) – League Champion Trophy named "The Maxwell Jacobson Miller Achievement Award for Fantasy Football Excellence"
Music	Guitar, Ukulele, and Piano