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Curriculum Vitae
Fall 2020

AMY HANDLAN

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Citizenship: USA

Major Fields of Concentration

Monetary Economics, Public Finance, Financial Economics

Education

Degree	*Field*	*Institution*	*Year*
PhD	Economics	University of Minnesota (expected)	2021
MA	Economics	University of Minnesota	2018
BS	Economics *summa cum laude* Mathematics Minor	George Mason University	2015

Dissertation

Title: "Text Shocks and Monetary Surprises"
Dissertation Advisor: Professor Christopher Phelan
Expected Completion: Summer 2021

References

Professor Christopher Phelan	(612) 626-2533 cphelan@umn.edu	Department of Economics University of Minnesota 4-101 Hanson Hall
Professor V. V. Chari	(612) 626-7151 chari002@umn.edu	1925 Fourth Street South Minneapolis, MN 55455
Professor Loukas Karabarbounis	(612) 625-3524 loukas@umn.edu	
Dr. Simran Sahi	(612) 625-6353 ssahi@umn.edu	

Honors and Awards

Summer 2020	AEA Summer Economics Fellow, Federal Reserve Bank of Illinois, Chicago, Illinois
2019-2020	Doctoral Dissertation Fellowship, University of Minnesota, Minneapolis, Minnesota
2018-2019	Distinguished Instructor, Department of Economics, University of Minnesota, Minneapolis, Minnesota
2018	Career Readiness Graduate Instructor Teaching Fellowship, University of Minnesota, Minneapolis, Minnesota
2017	Princeton Initiative: Macro, Money, and Finance, Princeton University, Princeton, New Jersey
2016-2017	Herbert Mohring Fellowship, University of Minnesota, Minneapolis, Minnesota
2016-2017	Distinguished Teaching Assistant, Department of Economics, University of Minnesota, Minneapolis, Minnesota
2015-2016	Bert and Susan Hill Gross Fellowship, University of Minnesota, Minneapolis, Minnesota
2015	NSF Graduate Research Fellowship Program Honorable Mention
2015	Howard R. Bloch Memorial Award for highest GPA in the economics program, George Mason University, Fairfax, Virginia
2015	OSCAR Student Excellence Award, George Mason University, Fairfax, Virginia
2015	Economics Departmental Honors, George Mason University, Fairfax, Virginia
2015	Phi Beta Kappa Honor Society, George Mason University, Fairfax, Virginia
2015	Omicron Delta Epsilon Economics Honor Society, George Mason University, Fairfax
2015	Honors College Mentorship Award, George Mason University, Fairfax, Virginia
2014	Undergraduate Research Scholars Program Grant, George Mason University, Fairfax

Teaching Experience

2017-2019	*Large Lecture Instructor,* Department of Economics, University of Minnesota, Minneapolis, Minnesota. Instructor for large lecture of *Intermediate Microeconomics* Prepared all instructional material and supervised teaching assistants and graders..
2016-2017	*Teaching Assistant,* Department of Economics, University of Minnesota, Minneapolis, Minnesota. Led recitations and graded for *Intermediate Microeconomics.*
2015	*Learning Assistant,* Math Department, George Mason University, Fairfax, Virginia. Led review sessions for *Multivariable Calculus.*
2014-2015	*Substitute Teacher,* Fairfax County Public Schools, Fairfax, Virginia

Research Experience

2018-2020	*Research Analyst/Visiting Scholar*, Research Department, Federal Reserve Bank of Minneapolis, Minneapolis, Minnesota

Working Paper

"Text Shocks and Monetary Surprises: Text Analysis and Machine Learning," job market paper
"FedSpeak Matters: FOMC Statements and Monetary Policy Expectation"

Media Coverage

"A Good Handle on a Messy Process," Smera Tiwari, Heller Hurwicz Economics Institute, March 31, 2020.
https://cla.umn.edu/heller-hurwicz/news-events/story/good-handle-messy-process

Presentations

"FOMC Statements and Monetary Policy Expectations," presented at the Midwest Macroeconomics Meetings, Athens, Georgia, 2019.
"Analyzing Federal Reserve Reputation and Incentives Through the Efficacy of 'Forward Guidance,'" presented at the Midwest Economic Association Meeting, Evanston, Illinois, 2018.
"Political Regimes and Financial Crises: Does Macroeconomic Instability Differ Over Government Structures?," presented at the Eastern Economic Association Meeting, New York, New York, 2015.

Computer Skills

Python, Matlab, Stata, SAS

Languages

English (native)

Abstract

"Text Shocks and Monetary Surprises: Text Analysis and Machine Learning," job market paper

This paper studies how the information in Federal Reserve communication affects expectations and other economic variables over and above the effects of setting the federal funds rate. To do this, I adapt neural network methods from the computer science literature to study Federal Open Market Committee (FOMC) post-meeting statements. In particular, I analyze the relationship between FOMC statements and high-frequency changes in fed funds futures (FFF) prices around the release of an FOMC statement. I find that actual FOMC statements explain four times more variation in FFF prices than only announcing changes to the target federal funds rate. Furthermore, using a neural network trained on actual FOMC announcements, I predict how FFF prices would have changed if the FOMC released a differently worded statement, specifically, the alternative statements from FOMC meeting materials from 2005-2014. On average, I find that releasing a hawkish statement, one that focuses on keeping inflation low, compared to releasing a dovish statement, one emphasizing lower unemployment and higher output growth, has a minimal effect on FFR expectations. However, deviations from this average are sizable. Finally, the monetary policy shock literature tries to identify exogenous changes in monetary policy to study its effects the economy. I create a new monetary policy shock series by projecting FFF prices onto FOMC statements using the neural network. In particular, if the neural network predicts a particular FOMC statement should have a large effect on FFF prices, this statement is said to be a large policy shock. I then estimate the effect of these "text shocks" on economic and financial variables with an external instrument vector autoregression (VAR) approach. I find that real interest rates have a two times larger correlation with my calculated text shocks than pure FFF price changes. Likewise, I find that monetary policy announcements measured through my text shocks have a four times larger impact on output growth than monetary policy measured using FFF price changes alone.

"FedSpeak Matters: FOMC Statements and Monetary Policy Expectation"

The Federal Open Market Committee (FOMC) claims that their post-meeting statements shift market expectations of future monetary policy. In this paper, I provide evidence supporting this claim. I apply a methodology from computational text analysis to produce a pairwise-statement similarity measure that compares wording between two FOMC statements. This similarity measure documents that FOMC statements have become more similar over time. With an event-study approach, I find that a decrease in the similarity of sequential FOMC statements is correlated with an increase the variation of federal funds rate expectations, calculated from high-frequency fed funds futures prices. This relationship persists even after controlling for changes in the target federal funds rate and Federal Reserve Chair. Standard monetary regressions omit any measure of policy statement texts and are thus biased. Adding the sequential statement similarity measure to a regression of federal funds rate expectations on the target rate accounts for 1.5 times the variation in market expectations. This paper suggests that more detailed text analysis on FOMC statements will improve modeling of monetary policy expectations.