# **Alex Hubbard**

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#### Education

- Ph.D. (expected June 2016) Economics, University of Washington Committee: Philip Brock (Chair), Yu-Chin Chen, Oksana Leukhina, R.Tyrrell Rockafellar (GSR)
- M.A. Economics, University of Washington (June 2013)
- B.A. Economics, University of California, Los Angeles (June 2011) Minor in Computer Programming

#### **Fields of Interest**

Macroeconomics, Business Cycles, Bank Capital Regulations, Risk, Financial Frictions, Housing, Time Series Econometrics.

#### **Honors and Awards**

- James K. Hall Fellowship, University of Washington (2011)
- Teaching Scholarship, University of Washington (2012-2015)

## **Professional Experience**

Zillow – Economic Analyst (Seattle, WA 2014-2015)

- Created new and existing home sales forecast models and authored monthly website post.
- Other Projects: effects of home shopping search data on regional and national home sales forecasts; inequality in housing wealth in the U.S.; effects of judicial foreclosure laws on credit supply and mortgage rates; regional heterogeneity of quantitative easing on refinance rates.

#### **Teaching Experience**

Instructor – University of Washington (Seattle, WA)

- Intermediate Microeconomics
  - 2015: Fall
- Introduction to Macroeconomics
  - 2015: Spring
  - 2014: Winter, Fall Spring

Teaching Assistant- University of Washington (Seattle, WA)

- Introduction to Macroeconomics
  - 2013: Winter, Spring, Fall
- Introduction to Microeconomics
  - 2012: Spring, Fall

## **Programming**

Matlab, Dynare, R, Stata, SQL, LaTex, Excel, Tableau.

## Job Market Paper

"Credit Supply and Asset Market Volatility Under Value-at-Risk-Based Capital Requirements."

Abstract: Following the 2008 financial crisis, concerns arose about the possible procyclical effects of risk-sensitive capital requirements that rely on Value-at-Risk (VaR) for determining the market risk capital charge. To analyze this issue, I modify the monopolistically competitive banking sector developed by Gerali et al. (2010) to include a tractable method for banks to adjust their trading book position while also accounting for changes in VaR-based capital requirements and marked-to-market balance sheets in a fully dynamic general equilibrium model. The model is calibrated to U.S. data and estimated with Bayesian techniques to pin down the dynamics. The results suggest that VaR-based capital requirements creates a link between financial asset markets and credit markets when financial institutions manage a portfolio of trading securities. This type of regulation can create spillover effects from financial asset price and volatility shocks into credit markets as banks adjust their balance sheets to comply with capital standards.

## **Works in Progress**

"The Revelation of Tail Risk: Conditional Value-at-Risk-Based Capital Requirements Under Non-Normality."

Abstract: Serious weaknesses in the worldwide banking system and financial regulatory regime were revealed as result of the global financial crisis of 2008. The Basel Committee on Banking Supervision met to address these concerns and have suggested switching the measurement for market risk capital requirements from Value-at-Risk (VaR) to Conditional Value-at-Risk (CVaR) as a microprudential policy to reduce risk taking. Because financial returns are not normally distributed, CVaR also has some potential macroprudential benefits as well. CVaR may reduce the procyclical effects of risk-sensitive capital requirements on credit supply in response to volatility shocks. However, it can also amplify effects on credit supply in response to tail risk shocks unless we abandon the Efficient Markets Hypothesis in favor of the Fractal Markets Hypothesis and model risk from a stressed markets perspective.

"The Importance of Liquid Asset Markets Under Value-at-Risk-Based Capital Requirements."

Abstract: When repo markets froze during the 2008 financial crisis as a result of uncertainty around the collateral value backing many mortgage-backed securities, it became difficult for banks to roll over short term debt and maintain the heightened leverage that was built in the run up to the crisis. Financial institutions became stuck with what became high-risk assets on their balance sheets and were forced to deleverage. Using a model developed in a previous paper, I modeled households as passive investors so banks were able to adjust their trading book at will. If banks are unable to do this, bank balance sheet positions can create a positive spread between the interbank and policy rates that would amplify an initial volatility shock. The results show that asset market liquidity is an important factor in minimizing macroeconomic fluctuations emanating from financial shocks and provide some rationale for the Federal Reserve

taking on the ``buyer of last resort" role in the asset-backed securities market during the 2008 financial crisis.

"Effects of Technology and Credit Shocks on the Age Profile of Housing."

Abstract: An overlapping generations model is used to analyze the effects of technology and credit shocks on the accumulation of housing over the life cycle when borrowers are financially constrained.

### References

Philip Brock Associate Professor Department of Economics University of Washington 206-543-5955 plbrock@uw.edu

Oksana Leukhina Assistant Professor Department of Economics University of Washington 206-543-9928 oml@uw.edu Yu-chin Chen Associate Professor Gary Waterman Distinguished Scholar Department of Economics University of Washington 206-543-6197 yuchin@uw.edu

> Svenja Gudell Chief Economist Zillow svenjag@zillow.com