Statement of Research

Karl David Boulware December 26, 2013

My research focus is monetary economics, in particular the transmission of monetary policy to non-bank credit activity. The following statement is a summary of my dissertation titled, "*Three Essays on the Transmission of Monetary Policy to Non-bank Credit Activity*," one publication, and one working paper. I conclude with my plans for future research.

Essay 1: "How Does Monetary Policy Affect Shadow Banking Activity? Evidence From Security Repurchase Agreements" (w. J. Ma and R. Reed) – <u>JOB MARKET PAPER</u>

Abstract: We investigate the relationship between instruments of monetary policy and gross financing activity by the primary government securities dealers of the Federal Reserve System. Specifically, we estimate the dynamic effect of money market conditions on repo activity using a recursively identified vector autoregression model at the weekly frequency. We measure shocks to the money market using the effective federal funds rate and open market operations. A positive shock to the federal funds rate significantly affects the level of credit activity. In particular, repo arrangements longer than a day display persistent declines. By comparison, overnight financing increases after a delay. This implies that contractionary monetary policy shocks lead to maturity substitution in the repo market. Our findings show that credit activity in the repo market is more sensitive to monetary policy than previously reported in the literature. Thus, our results indicate that monetary policy can contribute to systemic risk in the shadow banking system. (JEL: E44, E52, G23)

This paper is currently under submission for publication. The working paper can be found at the following link: http://karldavidboulware.org/boulware_etal_2013c.pdf. It will be presented at the *Midwest Finance Association Annual Meetings* in March 2014 and has been presented at:

2013: Federal Reserve Bank of Chicago (December), University of Alabama (November), Midwest Econometrics Group Annual Meeting (October), Midwest Macroeconomics Conference (May), AAGSA/SREB Research Symposium (April), American Economic Association Annual Meeting (ASSA) (January)

2012: Missouri Economics Conference (October), Federal Reserve Bank of San Francisco (July), CSMGEP Mentoring Program at the University of New Mexico (July), Federal Reserve Bank of Atlanta (June), University of Alabama (May)

2011: Southern Economic Association Annual Meeting (November)

Essay 2: "Monetary Policy and the Non-bank Financial Sector: A Look at Commercial Paper" (w. R. Reed)

Abstract: Prior to the recent financial crisis, asset-backed commercial paper played a key role in funding private sector assets. In addition, from 2001 to 2007 over 80% of asset-backed commercial paper outstanding was placed by dealers. In the following paper, we explore the relationship between instruments of monetary policy and activity in the commercial paper market. Using a recursively identified vector autoregression model we estimate the dynamic effect of money market conditions on weekly commercial paper activity. Shocks to the money market are measured using the effective federal funds rate and open market operations. We find a positive shock to the federal funds rate is associated with an increase in credit activity primarily in financial and asset backed commercial paper. However, the increase in paper activity is also accompanied by a temporary reduction in the fraction of paper placed by dealers. In contrast, an increase in repurchase agreements conducted by the Open Market Trading Desk is associated with a temporary increase in financial and asset backed paper activity and a permanent decrease in the fraction of paper placed by dealers. Thus, our results support a transmission channel for monetary policy to commercial paper activity operating through the total volume of repurchase agreements. (JEL: E44, E52, G23)

This paper has been presented at:

2013: Missouri Economics Conference (March)

2011: Southern Economic Association Annual Meeting (November), CSMGEP Mentoring Program at Florida State University (July)

2010: Academy of Business Research Spring Meeting (March)

Essay 3: "Monetary Policy and the Non-bank Financial Sector: A Look at Issuers of Asset Backed Securities" (w. R. Reed)

Abstract: We estimate the impact of monetary policy on shadow banking activity using futures market prices for Federal funds. Our identification focuses on regressing high frequency changes in the target funds rate on the simple capital structure of asset-backed security issuers. We find expected target rate changes forecast declines in bond issuance and an increase in commercial paper issuance. In contrast, only the timing of surprise target rate changes impacts the capital structure. These results suggest that intermediaries engaged in securitization offset expected increases in short-term rates though maturity substitution. Furthermore, the response to expected changes is amplified by uncertainty regarding the timing of monetary policy actions. Consequently, our findings indicate that monetary policy contributes to rollover risk the shadow banking system. (JEL: E44, E52, G23)

This paper has been presented at:

2013: Federal Reserve Bank of San Francisco (August)

Publication 1: "Time Inconsistency and the Long-Run Effects of Inflation" (w. E. Ume and R. Reed). Published in Economics Letters, 120(2): 267 – 270.

Abstract: Recent work by Laibson (1997) identifies that individuals' time discount factors evolve over time. This leads to a time-inconsistency problem in which individuals' savings are distorted. The objective of this paper is to study the long-run effects of inflation in the presence of a time-inconsistency problem. Because of the inability to commit to savings, the cost of inflation is likely to be more severe than previously acknowledged.

Working Paper: "Human Capital Investment under Quasi-Geometric Discounting" (w. E. Ume and R. Reed)

Abstract: Recent work by Laibson (1997) identifies that individuals are excessively impatient in the short-run, but wish to become more patient over time. It is often argued that such a time-inconsistency problem distorts individuals' savings decisions. The objective of this paper is to study human capital accumulation in the presence of a time-inconsistency problem. In doing so, we explain that many policies put into place to take advantage of the inter-personal benefits from human capital accumulation may also be important for resolving `intra-personal' planning problems. Our results also shed light on the role of compulsory education. (JEL: E44, E52, G23)

This paper is currently under submission for publication. The working paper can be found at the following link: http://karldavidboulware.org/boulware_etal_2013_humancapital.pdf

My plans for future research include following up my job market paper by looking at the relationship between monetary policy and dealer risk taking. In particular, I would estimate this relationship using a regime-switching model so that I can account for structural change over a longer sample which includes the most recent financial crisis. Furthermore, I would like to extend Essays 1 and 2 by characterizing the monetary transmission mechanism at the weekly frequency using a factor-augmented vector autoregression model.