

February 10th, 2020
KAP 414
2:00 P.M. – 3:00 P.M.

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**“Formulate the Control Problem of
U.S. Monetary Policy”**

Abstract: Monetary policy operates in an uncertain environment with long and variable lags. Different macroeconomists and policy advisers can reasonably have different views about what would be the most appropriate monetary policy strategy at any moment in time and differ on their views on the appropriate policy setting, which motivates this research to seek a new stochastic control framework finding the optimal monetary policy strategy.

Before setting a new stochastic control framework for the monetary policy, it is necessary to understand what has happened in the past in details, what problems policymakers are facing currently and what the empirical analysis can tell us. This research answered the following questions: What was the monetary policy executed in 2008? Was it effective? Is it possible that the Fed could lose control over the federal funds target? Where did the Quantitative Easing stimulus money go? Did it really stimulate the economy? Why were banks not lending? For example, this research found the link between Federal Reserve balance sheet and commercial banks' balance sheet, which provides the evidence that the QE effectively kept the interest rate low, however, it did not go to the real economy. After a decade expanding in U.S. economy and long term low interest rates, the monetary policymaker does not have enough cards to fight against a recession and is proposing new monetary policy instruments for the future recession.

This research has not concluded what the right new stochastic control framework should be, but provides data, evidence and analysis for developing a new stochastic control framework.