**Empirical Studies on CIR Model with Federal Fund Rates**

Chencheng Gu, Beixi Lei, Yaxian Li, Kexin Li, Junkai Yang

Financial Econometrics 2 Final Group Project

Spring 2018

Abstract:

To use the continuous-time model to study the Federal Funds Rate, the Transition Density and Maximum Likelihood Estimator were used to specify the estimated parameters and stability of p-value as well as confidence intervals. After fitting the CIR model, backtesting is conducted to test the performance of model. Finally, empirical studies on daily/weekly/monthly Federal Fund Rates data is used to investigate the relationship across different lengths of time sector.

**Introduction**

**Data description**

**Preliminary analysis**

**Transition density**

**Simulation analysis**

**Empirical studies analysis**

**Conclusion**