# Contents

**Acknowledgements**  

1 Introduction  

2 Forecasting U.S. Inflation Using Phillips Curve Model  
   2.1 Introduction  
   2.2 Forecasting models and methodology  
      2.2.1 Forecasting models  
      2.2.2 Extracting information from Large Data Sets  
   2.3 Empirical study  
      2.3.1 Data  
      2.3.2 Design of Empirical Study  
      2.3.3 Empirical Results  
   2.4 Conclusion  
   2.5 Extra Tables  

3 Weighted Maximum Likelihood Estimation with Optimal Forecasting Accuracy: Forecasting During the Global Recession  
   3.1 Introduction  
   3.2 Basic Concepts  
   3.3 WMLE for Autoregressive Models  
      3.3.1 The WMLE  
      3.3.2 Special Classes of Weights  
      3.3.3 Estimation of Optimal Weights by Cross-Validation  
   3.4 Theoretical Foundations for the Weighted MLE  
   3.5 Simulation Experiment  
      3.5.1 Experiment 1: Time-Invariant AR(1) model