1 The Information Content of News Announcements (Job Market Paper)

This paper investigates high frequency movements of the yield curve around macroeconomic announcements by combining event studies and a no-arbitrage affine term structure model in a new Keynesian model with partial (or imperfect) information. I show that the model fits bond yields and macroeconomic announcement surprises well. The model can generate the empirical response of bond yields to surprises and the standard deviations of the bond yields around the announcement days. The decomposition of long term nominal zero coupon bond yields shows that the high frequency variation in the long term bond yields is due to a combination of changes in the term premium and revisions to expected short rates. The model estimates imply that around macroeconomic announcement days, average expected short rates and term premia are highly variable with a strong negative correlation. I show that the model implied term premium estimates are strongly correlated with estimates of different reduced form models. The model implies that the behavior of the long term rates in the conundrum period can be explained by a lower term premium.

2 Real Term Structure and New Keynesian Models

Recently some authors have argued that a new Keynesian model with simple modifications can match the nominal term structure of interest rates. In this paper, we investigate how well these models do in matching the term structure of real rates using TIPS data. We find that standard new Keynesian models cannot also match real bonds without sacrificing the macroeconomic fit of the model. We investigate various potential extensions for resolving this problem, and find that incorporating quadratic labor adjustment costs, real wage rigidities and long run risks are not helpful, but that time preference shocks (or persistent demand shocks) might be a partial solution.

3 Do DSGE Models Forecast More Accurately Out-of-Sample than VAR Models? (with Refet S. Gürkaynak and Barbara Rossi)

Recently, it has been suggested that macroeconomic forecasts from estimated DSGE models tend to be more accurate out-of-sample than random walk forecasts or Bayesian VAR forecasts. Del Negro and Schorfheide (2013) in particular suggest that the DSGE model forecast should become the benchmark for forecasting horse-races. We compare the real-time forecasting accuracy of the Smets and Wouters DSGE model with that of several reduced-form time series models. We first demonstrate that none of the forecasting models is efficient. Second, we find that there is no single best forecasting method. For example, typically simple AR models are most accurate at short horizons and DSGE models are most accurate at long horizons when forecasting output growth, while for inflation forecasts the results are reversed. Moreover, the relative accuracy of all models tends to evolve over time. Third, we show that there is no support the common practice of using large-scale Bayesian VAR models as the forecast benchmark when evaluating DSGE models. Indeed, low-dimensional unrestricted AR and VAR forecasts may forecast more accurately.