Model risk in term structure modeling

Phillip Harms, University of Freiburg

Many widely-used term structure models are so easily rejected by data that one could speak of a certainty rather than a risk of model misspecification. Typical problems are that tomorrow's market quotes may lie outside of the support of today's model, and that it may be possible to estimate some model parameters with sufficient precision to rule out that they are constant over time. Not surprisingly, both problems can be solved by allowing some model parameters to change stochastically over time, thereby accounting for parameter uncertainty. The key observation is that this can be done without sacrificing tractability. This I will demonstrate in the context of affine interest rate models.