

Big forecast errors

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Forecasting

- Not just a number
 - Interpretation/explanation
 - Why a model-based, systematic forecasting is useful/needed
- Not just a model outcome
 - Include extra-information
 - Experience, intuition

Forecast errors - types

- Biased forecasts
- Large forecast errors (standard error of forecasts is large)
- Large occasional errors (“big events”)
 - Financial crisis

- At what horizon?
 - At longer horizons is the confidence interval more relevant than the point estimate?

Forecasting

- Easy in normal times – the difficulty is the turning points!
- Forward looking, but data used for model construction is backward looking (retrospective bias)
 - How to properly include variations which have not been important in the past? (financial accelerator? New financial products? More integrated markets?)
- Ability to predict changes relative to "normal" depend on model qualities/theory (dynamics, long-run properties etc)
- Society is changing - errors are inevitable
- Forecasts are an anchor for expectations – fundamental endogeneity problem

Model evaluation

- Prediction errors: exogenous variables
 - Foreign
 - Policy (perhaps responses to the forecasts?)
- Endogenous mechanisms
 - Dynamics
 - Structural changes (long-run)
- Model properties
 - Systematic errors
 - Parameter stability
- Model/theory changes

Forecasting in real time

- Changes – temporary or permanent (structural)
 - Learning/signal extraction problem
 - In hindsight easy
- Errors cannot be avoided
 - Should be taken seriously in use of model forecasts
 - Not an argument against the usefulness of forecasts – decisions have to be taken under uncertainty