

Testing

Prediction tests

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Introduction to choice models



Out of sample validation

Cross-validation

Motivation

- ▶ Purpose of the model: prediction.
- ▶ Is the model able to predict?

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Estimation 80%	Validation 20%
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Methodology

Split the sample

- ▶ Decide the size of the validation set (e.g. 20%)
- ▶ Draw randomly an estimation set and a validation set.
- ▶ Repeat R times.

Evaluate

- ▶ For each pair of estimation/validation set...
- ▶ Estimate the parameters of the model with the estimation set.
- ▶ Calculate a measure of fit of the estimated model on the validation set.
- ▶ Typically, the likelihood.
- ▶ Calculate the average measure of fit.
- ▶ Select the model with the highest average fit on the validation sets.