CAPABILITY RATIOS PREDICT NOTHING

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WHAT WE* WANT TO MEASURE

In a hypothetical dispute between two states, how likely is each side to win?

* “We” being empirical IR scholars.

THE ARGUMENT

Use **(out-of-sample) predictive power** as the criterion for measures of expected dispute outcomes.

How it's done now

Ratios of CINC scores.

- Not designed for dyads
- Unweighted
- Inflexible over time
- Nil predictive power

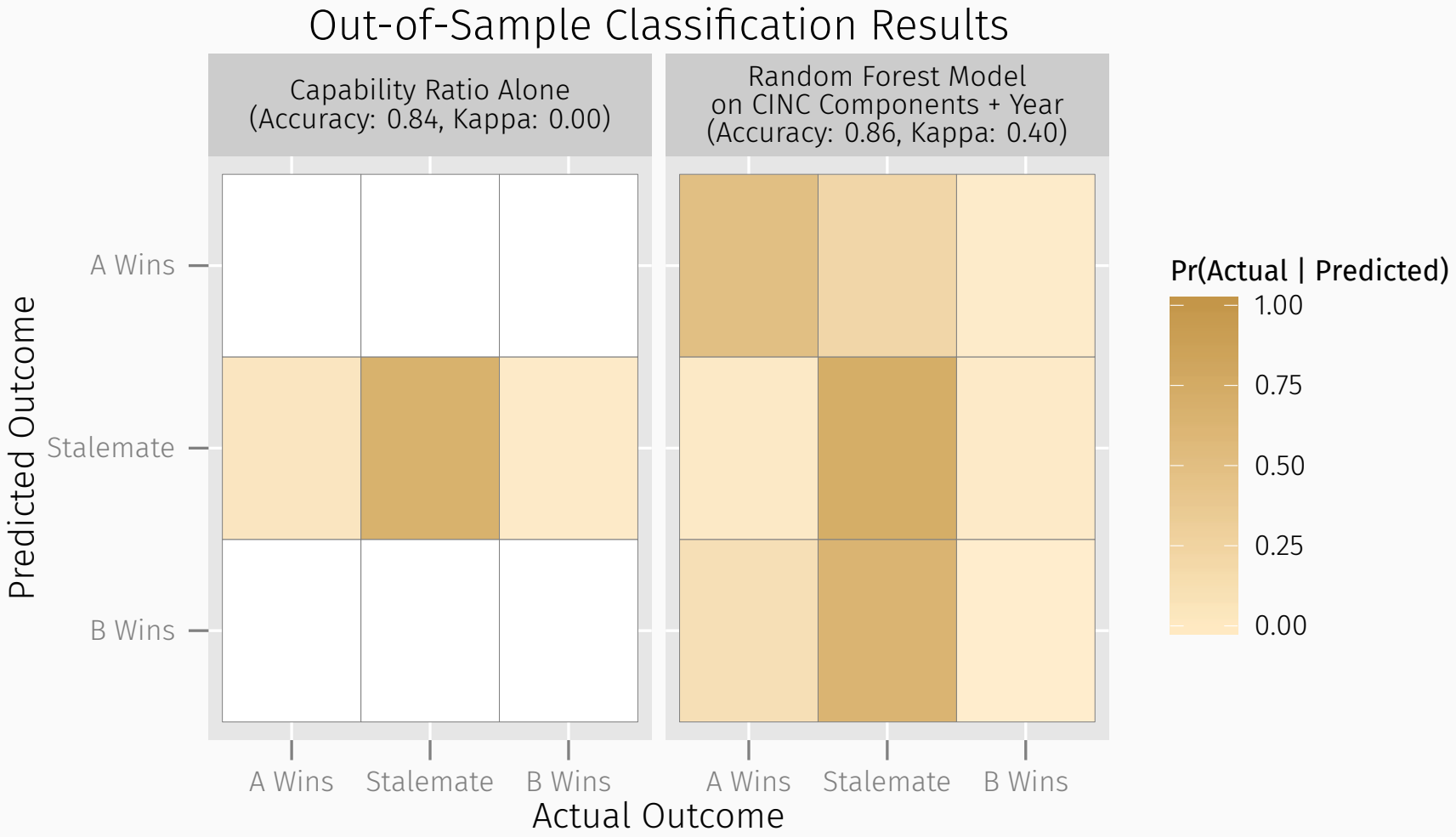
HOW TO DO IT BETTER

1. Split data into training (80%) and **test** (20%) samples.
2. With training data:
   - 2.1 Run lots of models
   - 2.2 Cross-validate them
   - 2.3 Pick one with lowest CV error
3. With **test** data: Unbiased estimate of chosen model's prediction error.

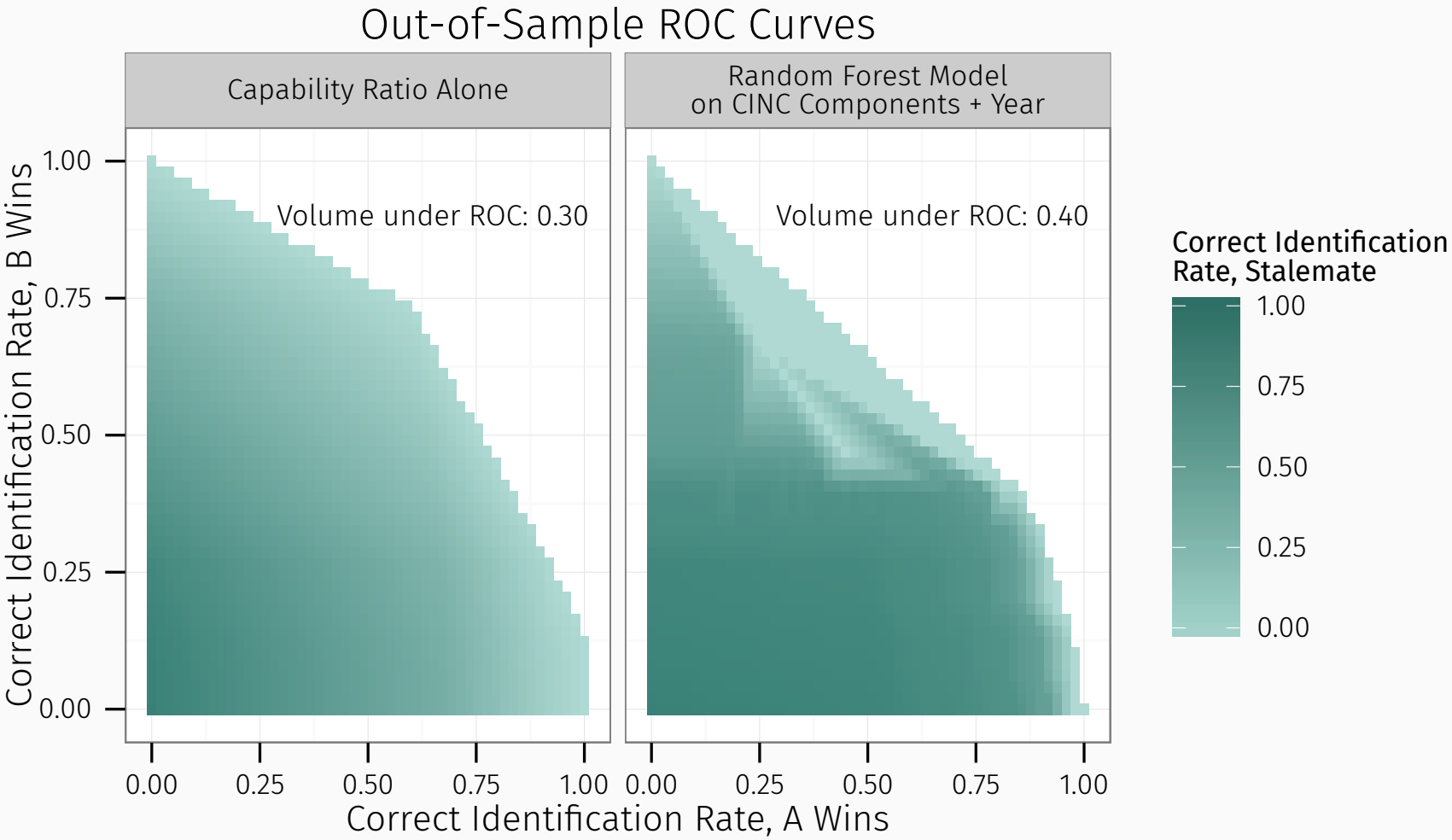
OUR DATA

- Sample: MIDs (N = 1,732)
- Response: Dispute outcome
  - Side A wins
  - Stalemate
  - Side B wins
- Predictors:
  - Six CINC components
  - Year of dispute

RESULTS: PREDICTED OUTCOMES



RESULTS: ROC CURVES



SUMMARY

How to measure expected dispute outcomes?

- Criterion: predictive power
- Train, validate, test
- CINC ratios utterly fail
- We provide a better measure

what's next

- Replicate studies of dispute outbreak
- Wars instead of MIDs
- Apply to other proxy variables

Thanks!

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