HOUSING MARKET AND MIGRATION REVISITED

A multilevel gravity model for Dutch municipalities

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The problem

- 50–70% of all research questions in spatial economics evolve around policy evaluation
  - focus on **consistency**
- Huge demand (e.g., by firms & government) for research dealing with prediction
  - focus on model **performance**
- But, more than 90% of all statistical analyses is basic applied econometrics using linear models and fixed effects

Research problem

- Aggregate homeownership has negative impact on labour market performance, because of increased moving costs (Oswald, 1996, 1999)
- This paper applies a gravity model on the impact of housing market structure (e.g., homeownership and social renting) on within-country migration flows
- Aim: to be able to predict all changes in incoming and outcoming migration flows of, e.g., Amsterdam, when aggregate homeownership in Amsterdam increases by 10%

Gravity model data structure
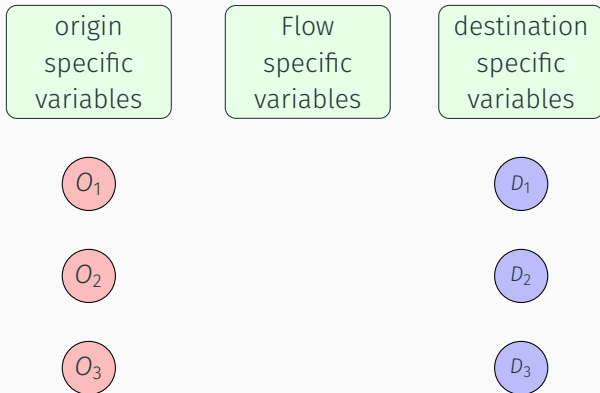
Figure 1: Variables that can affect flows F_{ij} between origins O_i and destinations D_j

Multilevel modeling

- Used in many disciplines, except economics (two-stage fixed effects regression)
- Simultenous modeling at various levels (e.g., cities, regions, flows, individuals)
- Many definitions:
  - mixed effects
  - varying intercepts/parameter
  - shrinkage
  - partial pooling

Data

Results

Thank you!