

Macro-level Drivers

Group 1

Introduction

- Temporal rather than spatial variation is most important
- These factors cover both urban and rural land markets, since they operate mainly at regional level and above
- Inter-regional competition is important

Main classes of macro-drivers

- Economic factors
 - Regional growth
 - Financial: interest rates, inflation
 - Commodity prices
 - Employment
- Cultural shifts
- Institutional factors
- Physical environment and environmental change
- Demography and migration

What do we need to model?

- Macro-scale factors often removed and modelled as exogenous
- Are macro-scale factors exogenous by definition? No: e.g. consider modelling interactions between East and West Germany
- Take land market as a starting point to decide what should be treated as exogenous
- In real estate economics there are two main research themes: micro (why prices vary between locations) and macro (e.g. interest rates – varying over time).

How to include macro factors into micro model

- Demography: if you have immigration, you will need to generate individuals as they immigrate – generating them from statistical distributions is possible. Feedback from micro to macro might be possible, but is more difficult (scenarios can be used instead – regional-level outcomes could be used to check their plausibility)
- May also need to create and model businesses as agents
- There are cellular automata models that couple macro-scale drivers to micro-scale allocation - CLUE for example

Feedback and path-dependence

- This is something you don't get from non-agent-based models
- Who immigrates can depend on previous feedback to the regional level e.g. if prices rise, the immigrants will have to be richer
- Distinguish heterogeneity within markets, heterogeneity between (regional) markets, and true macro-level factors – so three levels rather than two
- For interest rates and credit availability, are feedback loops at regional level likely to be less important? Perhaps not, since even if the macro-level factors are beyond the feedback scale, rates and availability vary between regions.

Urban and rural

- Is credit less important in the rural markets?
- Agricultural land – prices affected both by the “shadow price” (depending on its value in terms of agricultural production), and alternative possible uses

Cultural shifts

- Is it a separate factor? “Lawn people” – why do Americans (and Brits) have lawns, more generally want their own piece of outside land.
- Transport networks differ greatly between Europe and the US. Is this cultural?
- General question: which came first, the culture or the institutional and infrastructural context – in the USA, the auto and oil companies ripped out the tramways etc.
- In Brazil, aspiration for a car is culturally central – once you have the money, you buy a car
- What the neighbours do is very important in determining behaviour – so cultural change is partly endogenous

Cultural shifts (contd.)

- Preference change in the agents
- Trust between agents – how is this determined?
Communities have their own cultures in this regard
- Choice to rent or buy – partly cultural, but also depends on costs. Controlling for economic factors, would there still be significances
- There are many scales of markets
- There are many scales of cultures

Businesses and Speculation

- Need to model businesses
- Speculators moving into rising markets – reinforcing the trend, and perhaps pushing the housing market in the direction of renting rather than buying
- How do we define a speculator? Flexibility of capital – enters the market if the rate of increase is higher than in any other market