Discussion: "Building cities" Henderson, Regan, and Venables Asher, Nagpal, and Novosad

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#### Building the city: sunk capital and sequencing Henderson, Regan, and Venables

- Nice job using new data on built structure to test predictions of spatial model
- Focus on formal/informal building decision an important one for developing world
- Highlights potential inefficiencies from too little formal building (extensive/intensive margins)
  - From informal to formal conversion costs
  - From wrong expectations of future demand/ price growth.
    - Too little: fail to accomodate growth
    - Too much: get stuck with uneeded durable buildings

## Things that are obviously true

- Factors affecting formal building are crucial for a city's long run trajectory
  - Growth (pop, emp, income)
  - City structure
  - Potentially: type of residents
  - If agglomeration economies: productivity
- Policy decisions:
  - Conversion costs quite clear keep low, buy out interested parties
  - Infrastructure decisions might be harder

# Infrastructure building decisions

- They seem difficult big public investments based on expectations
  - Infrastructure decisions depend on building
  - Building depends on infrastructure
  - Both depend on expectations of future price growth/ future demand for the city
  - Ultimate ability of city to handle density will depend on presence of subway, how roads are built (tooooo narrow in Jerusalem, Cairo, old cities in general)
- Just how important is the subway decision? Tel Aviv example
  - TA proper: 1/2 mil; TA metro: 3.6 mil, 45% of Israeli pop
  - Income in TA proper 16% higher than rest of nation
  - Start-up *metro*
  - TA growth means national (international?) growth
  - But no subway, no building, low density, high housing prices, plenty of complaints

# How are expectations formed? (somewhat ridiculous q)

- Vernon's paper takes expectations as exogenous to show what happens to structure under different expectations
- But how these expectations are formed, how they adjust is fascinating
  - Generally trust private market to assess fundamentals (Type of industry, skills, entrep., institutions, natural advantages)
  - Still an important policy role:
    - Public signals of infrastructure support to private builders?
    - Getting out of they way of private builders by reducing regulation
- Speed of adjustment to shock likely depends on regulation (arduous permitting)
  - Can affect speed of growth of city
  - Can affect propagation of shock to surrounding rural areas

# The Urban Geography of Growth in India

Asher, Nagpal, and Novosad

- This paper provides the motion that can help us study adjustment
  - Changes in city structure and formal/informal allocation, as above
  - How the city grows
  - How the rural area around it grows (or doesn't)
- Plausibly exogenous shocks to a city's industrial labor demand to help us study growth effects
  - Workhorse to identify cause and effect
  - Should think creatively variety of outcomes and mechanisms we can learn about
- First should provide some in-context evidence on "plausible exogeneity"

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#### Instrument exogeneity

Asher, Nagpal, and Novosad

- Inst. commonly used in U.S. data, previously used in India
- (Didn't get detail on instrument construction; raising possible issues)
- Frequency of shocks: 5 vs. 10 year intervals
  - Can regress city growth (emp, wages) on contemporary share of new firms (0 yrs, 1-5 yrs old)
  - If firms don't enter currently growing places, they likely can't predict at your intervals
- Employment Bartik: industries particularly concentrated in one or two places, making the shock less exogenous? Is the type of industry located in a city correlated with other factors that predict growth, like skills?
  - Evidence: do all the quickly growing industries, nationally, tend to be high skill? (pick up skilled cities)
- Trade Bartik: India case: trade opened all at once across industries. When using elsewhere, want to be sure that trade liberalization wasn't done for certain cities.

### Outcomes we might care about

- Novosad et al. stress urban to rural growth path (good)
- But I would start with how and how much the city grows
  - Interesting in its own right, could also affect the rural impact (migration, education incentives)
  - How do effects vary with regulation? Does rural-urban migration slow in high reg. cities?
  - How do effects vary with different types of infrastructure investments? Public transport that facilitates density? Roads that facilitate moment around center and to the edge?
- Effects on city shape (density, formal vs. informal, segregation)
  - How does a positive shock influence the transition of land use from informal to formal sector? How long does it take?
  - Variation across cities/ areas in cities in conversion costs to estimate conversion cost delay in response to shocks?

## Outcomes we might care about

- Endogenize regulation and infrastructure investments in response to shocks.
  - Depend on political features?
  - Depend on population characteristics, like ethnic diversity?

# Collecting good data can pay off

- TONS of stuff to learn once we have good data and source of variation
- MANY developing places experiencing quick growth under differing political and economic circumstances – can use this variation to learn about what works