The FUTURE….

11.953
Day 24
C. Zegras

The Future of the City….

= *f* (demand for density)?

- Will we embark on an evolutionary or revolutionary path?

- What role of ICTs on
  - Transportation

  and

  - Inter-Metropolitan and Intra-Metropolitan Spatial economies?

The Future: What do we know?

- Increasing incomes…likely
  - Demand for luxury goods, space
  - high value of time

- Technological advances…likely
  - Physical movement: Speed, comfort & productivity
  - Virtual movement…

Demand for Cities
Urban Rent Premium = Productivity Premium + Amenity Premium

- Productivity comes from…
  - Lower transport costs, labor pool efficiences, informational "spillovers," something "in the air"
- Amenities come from "consumption" of…
  - Social contacts
  - Non-tradeable goods
  - Scale economies in entertainment
  - Aesthetics..
- The future depends on….

Evidence?

- Some apparent support for demand for urban amenity
  - Positive correlation b/w "amenity" (1980) and population growth (1980-90)
- Demand for urban amenity apparently rising
  - Housing price elasticities > wage elasticities
- Some apparent evidence of income "returning" to the CBD

City "Typologies"?

1. "Resurgent" dense cities
   - High human, architectural and consumption capital
2. Old, "left behind" dense cities
   - Lower human capital, etc.
3. "Edge" Cities
   - Private transport dependent
   - Will they proliferate outside the US?

Will cities survive? (what is a city?)

- Cities will survive based on their ability to provide amenity
  - Local (difficult to trade) goods and services
  - Aesthetics
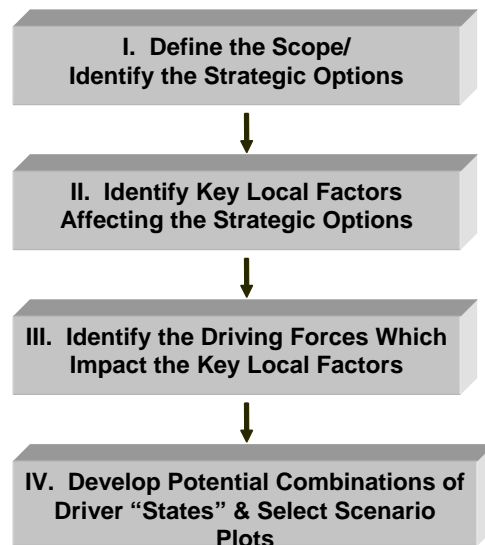 - Public Services (Tiebout…)
  - Speed (TRANSPORT)

What can planners and policy-makers do?

- Amenity (consumption)

- Attract human capital…

- Price transportation appropriately…

Scenario Planning – A Primer

- What?
  - **Scenarios – "An imagined sequence of future events"**
- Why?
  - **To prepare us for uncertain futures, examining multiple sequences/stories because...**
- How?
  - **Develop structured, in-depth stories of plausible futures**

The "Houston Platform" (Steps 1-4)

I. Define the Scope/ Identify the Strategic Options

↓

II. Identify Key Local Factors Affecting the Strategic Options

↓

III. Identify the Driving Forces Which Impact the Key Local Factors

↓

IV. Develop Potential Combinations of Driver "States" & Select Scenario Plots

The "Houston Platform":
Step II: Key Local Factors

- Both important to the decision to be made *and* uncertain
- In Houston case:
  - Health of the local economy
  - Shifts in environmental attitudes/policies
  - Demographics
  - Federal/state investments/control
  - Local politics

The "Houston Platform":
Step III: Driving Forces

- Impact the Key Local Factors
  - *macro*-issues, which are most likely external to the area being considered.
  - Again, should be both *uncertain* & *important* to decision

- In Houston case
  - State of the economy - global and regional economic integration, trade, capital flows, competition, wages;
  - Finance - availability of infrastructure funding, user fees and charging mechanisms, private sector participation;
  - Future Technology - ITS, telecoms, vehicle technologies, fuel supply technologies, advances in other modes (rail, shipping);
  - Environment - local air pollutants, climate change, endangered species, water pollution, "sprawl"

The "Houston Platform"
Step IV: Potential Combinations of Driver "States"

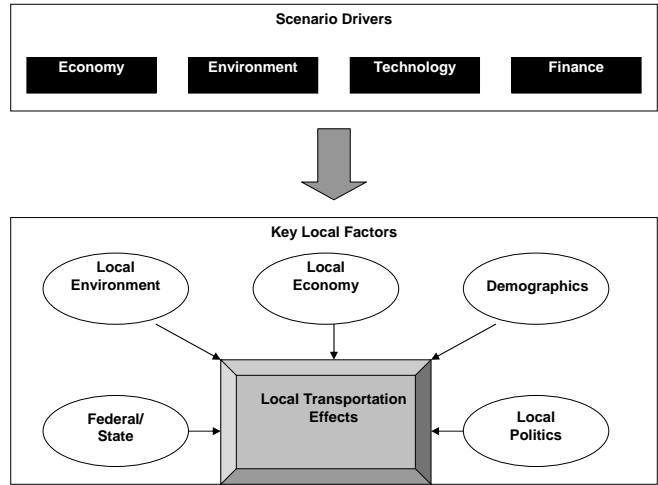- Matrix of the **"states"** (i.e., good/bad) provides potential driver combinations

Scenario	Drivers			
	Economy	*Finance*	*Environment*	*Technology*
United States of N. America	Rapid Growth	Ease of Finance	Environmental Indifference	Little Innovation
Balkanization	Stagnant	Lack of Finance	Environmental Indifference	Little Innovation
Earth Day 2020	Rapid Growth	Lack of Finance	Environmental Concern	Innovation

The Houston Platform – Step V

- Flesh Out the Scenario Stories
  - Give "full reality" to the scenarios, to leave a clear impression
  - Remain faithful to the scenario logic
  - Build plausible cause-effect relationships
    - Key to internal consistency and organizational learning
  - Estimate the driver effects (macro story lines) on the key local decision factors

The Houston Platform:

Drivers Key→Local Factors→Transport Effects

Scenario Drivers

Economy	Environment	Technology	Finance

Key Local Factors

Local Environment

Local Economy

Demographics

Local Transportation Effects

Federal/State

Local Politics

What About Bai Ma?

I. Define the Scope/Identify the Strategic Options

II. Identify Key Local Factors Affecting the Strategic Options

III. Identify the Driving Forces Which Impact the Key Local Factors

IV. Develop Potential Combinations of Driver "States" & Select Scenario Plots