Perspectives on real estate and urban economics, with some implications for World Bank operations

Stephen Malpezzi

Department of Real Estate and Urban Land Economics, University of Wisconsin

smalpezzi@bus.wisc.edu

http://www.bus.wisc.edu/realestate

My background

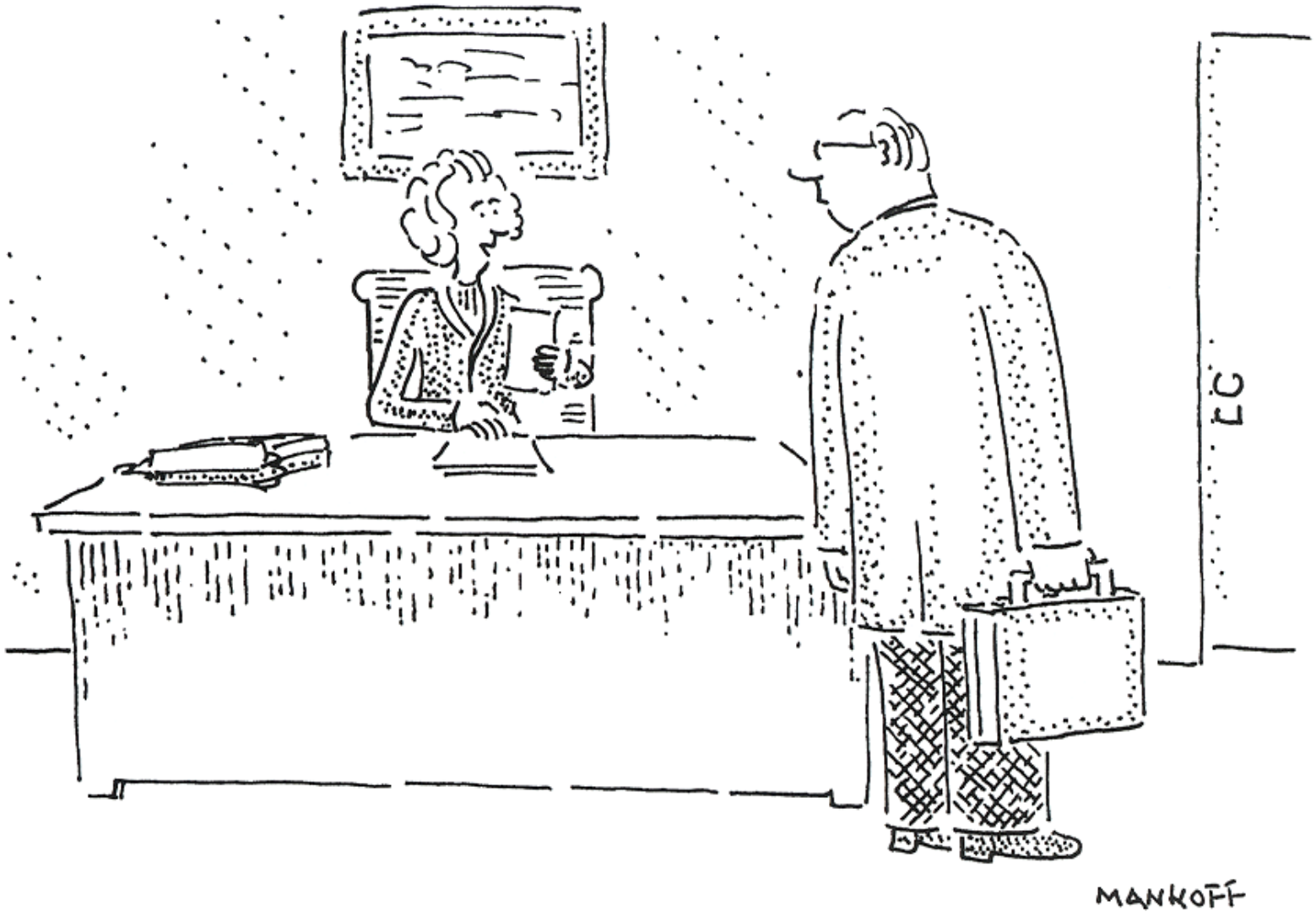
- Urban Institute, 1977-1981
- World Bank, 1981-1990
- University of Wisconsin, 1990-date
- I have the advantage of some insider knowledge – though much of it is dated.
- I can offer an outsider's perspective, and a little history.

My suggestions for today's discussion

- Review some big ideas of urban and real estate economics, and regional economics
  - How do these apply in the Bank context?
- Major urban policy papers – where did we come from, where are we now, where are we heading? What are the best lines of business?
- A few thoughts on Bank assets, investment in same, and their deployment
  - People
  - Research
- Anything else?

Our time is limited today

- Our discussion today is informal and more of a conversation than a lecture.
- What's all this, then?
- I've attached a large number of slides below. We will refer to some, as needed, in our conversation.
- Laura DeBruler is posting the PDF to the Bank intranet. Review at your leisure. Contact me for further discussion.
- Comments and criticisms are welcome.



"Sir, the following paradigm shifts occurred while you were out."

The New Yorker

The “big ideas” of urban economics

- Why cities exist
  - Trade, economies of scale, agglomeration
- Location within cities
- Key assets: housing and other real estate
  - The “real side,” and its finance
- Transportation
- Local governance
- Environmental problems
- The urban economy and the aggregate economy

Local economic development, regional economics

- New for me – I'm writing a book on local economic development.
- I've been studying topics often classified as "regional."
- Fit with Bank's interest in LED?

Some “big questions” of regional economics

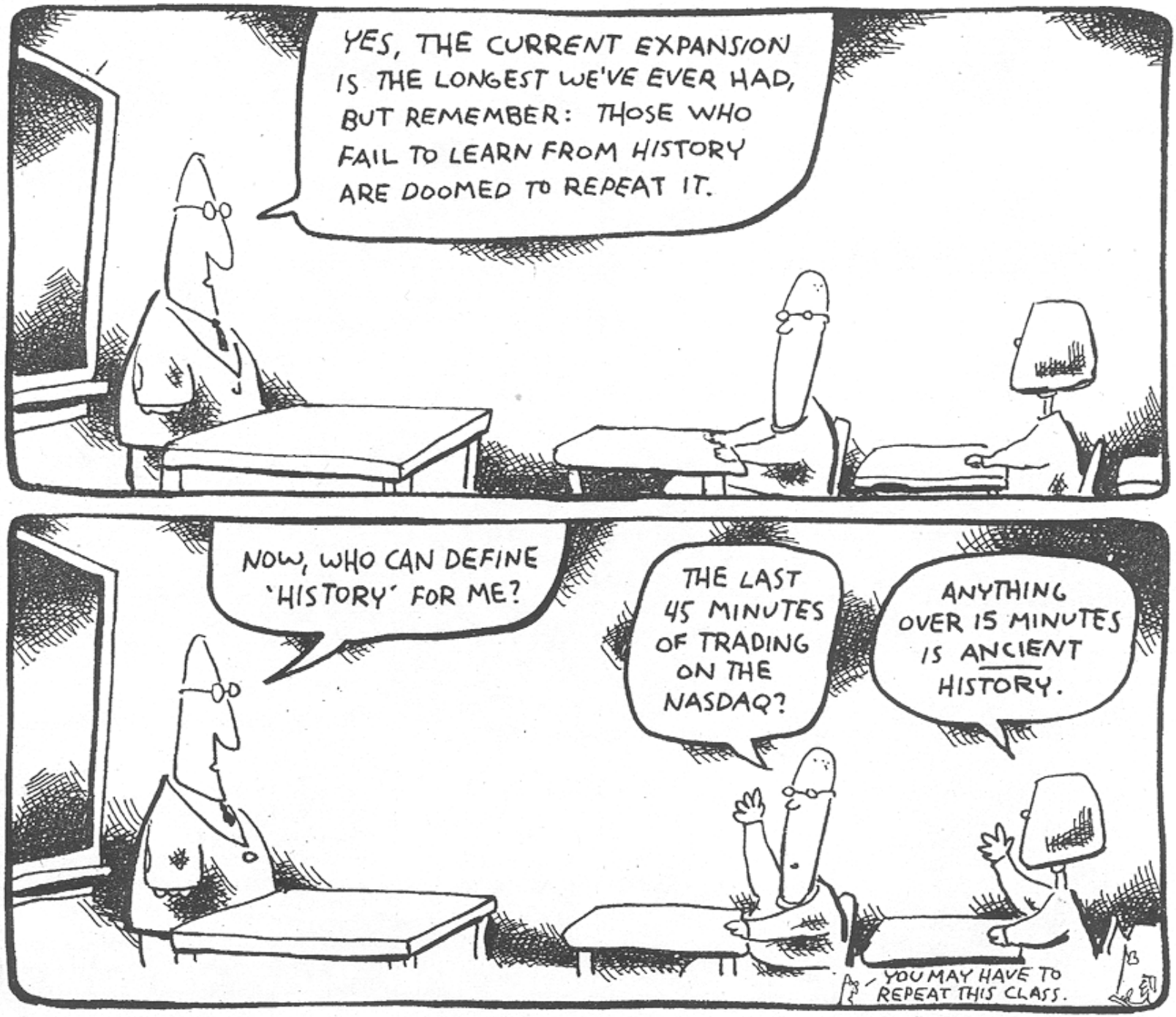
- Regions are defined by the extent of a labor and a real estate market.
- How do political jurisdictions match up (or not) with these markets? Does this explain (in part) the differences between Detroit and Toronto?
- U.S. evidence (Bartik) suggests that regional growth is progressive (i.e. improves income distribution) unless housing market inelasticity saps effect. Is this generalizable?
- U.S. evidence (Eberts and Stone) suggests variation in local economic development is driven more by enterprise growth (“births” and plant growth) than by variation in layoffs and plant closings. Is this generalizable?
- A number of studies tell us it’s not taxes that drive growth, but the tax-service package. Improving local government productivity seems key.

More regional thoughts

- Recent research by Davis, Haltiwanger and Schuh (for example) suggests previous work by Birch and others that claim small firms are the "engine of growth" are overstated. Many policies should be "size neutral."
- Clusters matter, but avoid trying to "pick winners."
- Don't make a fetish of "high tech." The correlation between "techness" of an MSA's economy and growth is about zero.
- Just because something's hard to measure doesn't mean it's not important. Culture matters.
- Don't romanticize informality.

There's no silver bullet.

- The preceding slides have a lot of points. We live in a complex world.
- Some folks like to take one point, and run with it.
- The principle of "sifting and winnowing" reminds us that these folks have something interesting to tell us. Just not quite as much as they think.
  - Richard Florida
  - Thomas Friedman
  - Hernando de Soto
  - C.K. Prahalad


YES, THE CURRENT EXPANSION IS THE LONGEST WE'VE EVER HAD, BUT REMEMBER: THOSE WHO FAIL TO LEARN FROM HISTORY ARE DOOMED TO REPEAT IT.
NOW, WHO CAN DEFINE 'HISTORY' FOR ME?
THE LAST 45 MINUTES OF TRADING ON THE NASDAQ?
ANYTHING OVER 15 MINUTES IS ANCIENT HISTORY.
YOU MAY HAVE TO REPEAT THIS CLASS.

“In the Bank, every important paper has to be re-written every three years.”

Bertrand Renaud

A note on citations, and credits

- Far too many people made important contributions to the following for me to list them all.
- I list a few representative and key people, to help you find references.
- See references in the policy papers. They are incomplete, as well. More complete references are available on request.

World Bank: Historical Urban Policy Documents

- *Urbanization*. Sector Working Paper, 1972.
- World Bank. *Housing: Sector Policy Paper*. 1975.
- George Beier, Michael Cohen, Anthony Churchill and Bertrand Renaud. The Task Ahead for the Cities of the Developing Countries. *World Development*, 4(5), 1976, pp. 363-409.
- World Bank. *Shelter*. 1980.
- World Bank, *Learning By Doing: World Bank Lending for Urban Development, 1972-1982*. 1983.

A few more classics

- MacNamara's Nairobi speech, 1972
- Friederich Kahnert, Employment and Labor
- City Study of Bogota and Cali
  - Carried out mostly in the 1970s, but Rakesh Mohan (1994) is the best review
- Bertrand Renaud, National Urbanization Strategies

Sector work

- Bertaud, Hannah, Malpezzi and Mayo, Malaysia: The Housing Sector – Getting the Incentives Right
- Renaud and others, Russia Housing Sector Report
- Others? Your nominees?

Four key publications

- 1991 Urban policy paper
- 1993 Housing policy paper
- 2000 Urban strategy
- 2006 Retrospective on urban lending

- *What's in the pipeline? What should be?*

1991 Urban policy paper

- *Urban Policy and Economic Development: An Agenda for the 1990s*
- Distills lessons of Bank lending and policy operations since 1970s; and research from City Study and beyond, e.g. KS Lee and others on infrastructure, industrial location; Renaud and Buckley on housing finance; Bahl, Linn, Dillinger on local governance; Malpezzi, Mayo, Hannah, Bertaud on housing.

1991 Urban policy paper

- Focus on productivity, agglomeration.
- Importance of infrastructure.
  - Lee et al.'s research on Nigeria very influential.
  - A little too much credence to early estimates of Aschauer. See Holtz-Eakin, and the "Aaron critique."
  - Research by Whittington et al. show that informal water supply systems are extremely costly, regressive.
- Improved regulatory framework for housing, labor markets
  - Malpezzi research suggests Agarwala's policy index as a proxy. Foreshadows later "regulatory indexes."

1991 Urban policy paper

- Research by Briscoe, Harpham et al. demonstrate high environmental costs born by urban poor, suggest effective interventions.
  - Beginning to get past red herrings, e.g. house connections "versus" standpipes, latrines "versus" flush systems. There are no universal technologies.
- Foreshadows deeper review of housing issues in companion Housing Policy Paper, 1993

1991 Urban policy paper

- Policy recommendations (ch. 3) mostly hold up well two decades later.
  - Infrastructure
  - Regulatory framework
  - Strengthen institutions, financial capacity of local governments
  - Labor supply and demand policies focused on the poor
  - Safety nets
- Maybe it's sometimes easier to draw up the recommendations than implement them?

1991 Urban policy paper

- To summarize:
  - Broaden view from housing to urban productivity, from bricks and mortar investments to removing constraints and "enabling."
  - Continue focus on urban poor and the urban environment.
  - Strengthen research
  - Operations should focus on policy reform, institutional development, infrastructure investments.
    - E.G. municipal development loans, housing finance development, sector lending.

1993 Housing policy paper

- *Housing: Enabling Markets to Work*
- Based on Housing Demand research project; Rent Control research project; Malaysia and Poland sector work and related research; numerous housing finance reviews and applied research by Buckley, Renaud et al.; and Housing Indicators research project spearheaded by Angel and Mayo.

1993 Housing policy paper

- Central theme: redirect Bank and governments away from direct provision and towards "enabling" the private market
  - Property rights
  - Inputs (labor, land, infrastructure, finance)
  - "Industrial organization" of the market
    - Free up entry and exit
  - Incentives
    - Rationalize taxes, subsidies, regulations, etc.
  - Institutions

1993 housing policy paper “Do’s and don’ts”

- Examples of “Do’s”
  - Regularize tenure, register owners
  - Enforce prudential regulation of mortgage lenders; but permit foreclosures
  - Target subsidies, transparently
  - Improve slum infrastructure
  - Submit regulation to cost-benefit tests
  - Allow access to land and other inputs by all qualified developers
  - Monitor housing market performance

1993 housing policy paper "Do's and don'ts"

- Examples of "Don'ts"
  - Large scale evictions, slum clearance
  - Hide subsidies in below-market interest rates
  - Spend housing market on relatively few deeply subsidized public housing units
  - Institute controls on private rents, prices
  - Adopt unaffordable standards for land use and building codes
  - Allow complicated approval systems, long delays in permitting decisions
  - Prop up "zombie" financial institutions

1993 Housing policy paper

- To summarize:
  - Housing is an asset, and an important one.
  - Governments should abandon housing production and focus on an "enabling" role.
    - Define and adjudicate property rights
    - Develop market based systems of mortgage finance
    - Rationalize subsidies
    - Provide appropriate infrastructure
    - Regulate appropriately
    - Consider the "industrial organization" of the housing market

2000 urban strategy paper

- *Cities in Transition: World Bank Urban and Local Government Strategy*
- Lots of continuity with 1991 and 1993 papers. Also had benefit of a review of infrastructure lending by Christine Kessides.
- Process oriented, more discussion of lines of business:
  - Formulate national urban strategies
  - City strategy exercises
  - Scale up upgrading, other low income services
  - Capacity building ("wholesaling")

2000 Urban strategy

- *Buzz, fuzz, or the real deal?*
  - Sustainable cities
  - Livability
  - Competitiveness
  - Good governance and management
  - Bankability
- These goals and objectives become more concrete in light of enabling policies, Bank instruments in Table 1.

2000 Urban strategy: examples of concrete actions

- Infrastructure
- Improving the regulatory framework
- Participation
- Efficient, targeted subsidies
- Division of responsibilities among levels of government
- Tax policies
- Sound local finance
- Financial development

A recent (2006) review

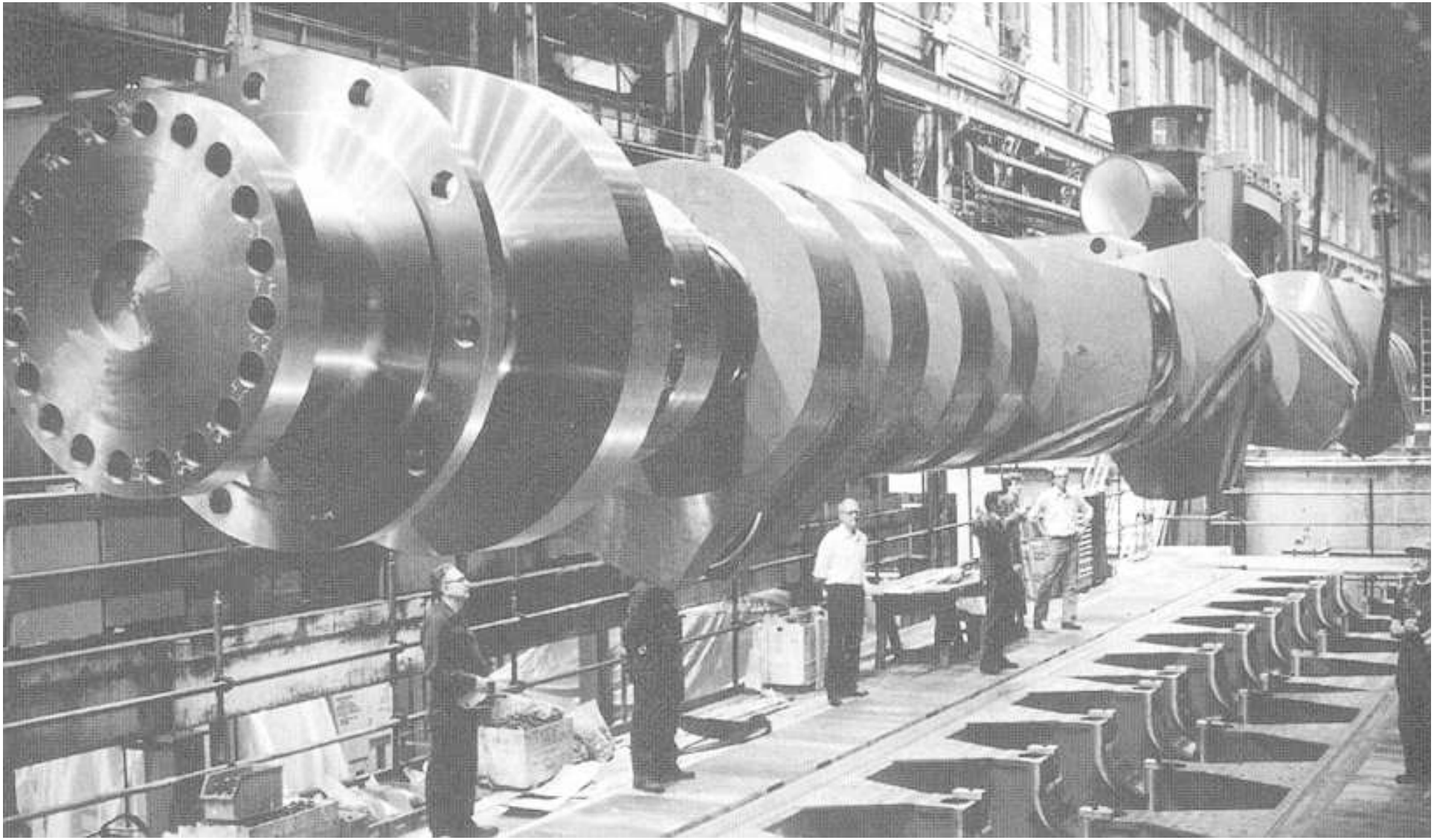
- Robert Buckley and Jerry Kalarickal (eds.), *Thirty Years of World Bank Shelter Lending*
- See also their recent paper in *World Bank Research Observer*
- A nice review, a bookend to the classics
- Focuses on shelter/housing, as title indicates

Buckley and Kalarickal 2006

- Rationalize housing subsidies
- Cautiously expand the reach of housing finance
- Reinvigorate and retarget Bank support for low income housing
- Be more responsive to borrowers
- Improve understanding of land markets and slums

Dissemination

- Most of the 1991 and 1993 papers were also foundation for academic articles, center sections of *The Economist*, etc.
- How are we doing?



Real Estate and Urban Development (WB Policy Paper 2010?)

- What would we add to the messages of the urban and housing policy papers today?
- Consider housing and other real estate markets in a more integrated fashion.
  - Not lending for commercial property, but regulation and finance in light of this integration.
- Even stronger focus on “macro links.”
  - Asia crisis highlights the costs of bad urban development and real estate policies, as foreshadowed in urban and housing policy papers.

Real Estate and Urban Development (WB Policy Paper 2010?)

- Real estate as an asset, as the bulk of every country's tangible capital
  - Use well and prosper. If real estate markets aren't functioning, they can drag down financial markets and the aggregate economy.
- Real estate as a (potentially) widely ***distributed*** asset.
- More on political economy of reforms.
- Take the Bank's recent interest in local economic development beyond a talking-shop "strategy process" to a deeper understanding of LED's determinants and their policy implications.

World Bank and Urban Development Today

- Still active in housing finance, municipal finance, "decentralization," some housing (upgrading).
- Move into local economic development.
  - A good idea, how will they be on execution?
  - Urban productivity, vs. urban "competitiveness."
- Problems with the Bank's current organizational structure (or lack thereof)?
- Has rhetoric on portfolio quality been matched by performance?
- Less "sector work." More emphasis on "city development strategies."
  - More bottom up, "ownership," but have we moved forward on the substance?
- Research is fairly moribund. Is the Bank showing more teeth-to-tail, or eating its seed corn?

Equity and Government Intervention

- How can we weigh transfers from government intervention?
  - **Pareto Criterion**: undertake an action if some people are helped and no one is harmed.
  - **Hicks-Kaldor Criterion**: undertake any action whose net cost benefit is positive.
  - **Revised Hicks-Kaldor Criterion**: undertake any Hicks-Kaldor actions and compensate the losers.
- Why is Revised H-K tough to do in practice?

Real estate development is never Pareto Optimal

- There are always losers, as well as winners, even from the best projects.

Product lines: tried and (often) true

- Old lines – sites and services, slum improvement, other infrastructure
- Housing finance lines
  - Origination and servicing
  - Secondary markets/institutions
- Local governance and finance – e.g. property taxes and their requisite system

Economic Analysis

- IRR is only one aspect.
- Focus on the competitiveness, i.e. the industrial organization, of the market.
- Incentives analysis
  - taxes, subsidies, regulation, direct provision, property rights
  - can we use the same methods to analyze programs and policies, and the state of the market, as we use to examine projects?
    - Example of such extended cost-benefit: Malaysia Sector Report

Good Projects and Policies ***Lower*** the IRR for Housing

- See PCRs for a confirmatory story: "this project was a dog, but land prices went through the roof and bailed out the IRR"
- If this is startling, reconsider the relationship between asset prices and rents
  - See the user cost literature, the 4 quadrant model of DiPasquale and Wheaton

Newer product lines

- Local economic development
  - How can a city attract and retain and grow businesses?
  - How can a city improve its employment and real wages?
- Fixing the housing market and the market for commercial real estate
  - Incentives, property rights, regulatory frameworks
  - For a prototypical firm, real estate is the number two cost center, after labor.
  - Housing costs are potentially an important component of nominal wages, and hence, “competitiveness.”
- Some important LED things are off the “WB Urban” table? E.g. schools, clinics?

Those pesky macroeconomists

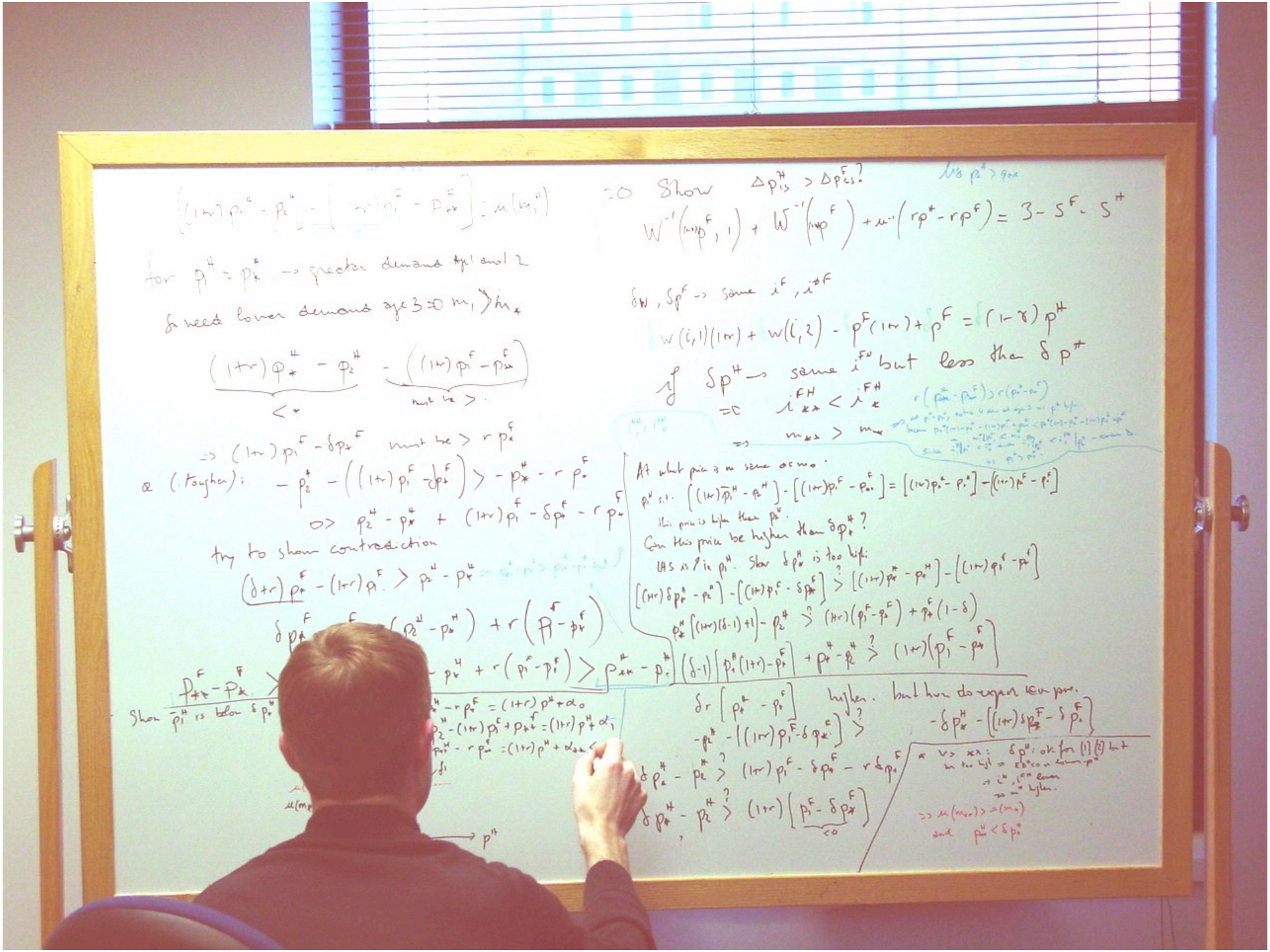
- After a career spent mostly mocking macro, now two of my most highly valued colleagues are macroeconomists who study housing.
- What's the state of macro in the Bank? Are Harrod-Domar, "financing gaps," RIMS, ICORs, etc. dead, as so richly deserved?
- How well do urban staff understand today's macro environment? Can we contribute?
  - "First, do no harm." Argentina housing finance, Thailand property bubble, U.S. subprime...
  - Urban and growth
  - Urban and the business cycle

Partners, opportunities, important elements of the environment

- Cities Alliance
- Michael Spence et al., Growth Commission
- UN system, Millennium Development Goals
- Bilaterals, other MDBs
- IMF, BIS, EU, OECD, etc.
- AREUEA, AsRES, African Real Estate Society, etc.
- Lincoln Institute of Land Policy, Brookings, Rockefeller, etc.
- MIPIM, ExpoReal, ULI, AFIRE, etc.
- The Economist, Wall Street Journal, etc.

Typology of Bank clients

- Some clients are interested in ideas, some in loans, some in both.
- Some clients have a sophisticated infrastructure for policy dialogue, some are more passive.
- Some clients are informed consumers who seek out ideas from multiple sources (ODI, academia, etc.), some “take it as it comes.”
- The best clients, and the best staff, reject “one size fits all” solutions.



Research guides us to better policies

- Empirical regularities in housing demand are determined largely by level of development.
- But supply responsiveness is determined partly by physical geography, but mainly by planning, regulatory policies, taxes, other incentives.
- Housing finance is as much about financial and economic development as it is about housing.
- Tenure security is a valuable right and can lead to substantial improvements in efficiency and equity.
- Urban form matters, and is determined largely by public policies over a very long run.

Bank-connected urban research

- Past research (City Study, Housing Demand, Industrial Location, Infrastructure Productivity, Rent Control…) -- How internalized?
- Current/recent research
  - Urban indicators
  - Land use (Bertaud, Angel and Sheppard, Cropper et al...)
  - What's the best current research? Sector work?

Bank-connected urban research

- Future research topics (among others…)
  - Urbanization and agglomeration in endogenous growth models
  - Housing supply elasticity: measurement and determinants
  - Housing demand in middle income countries
  - Real estate cycles, business cycles
  - The role of asset prices in setting macro policy
  - Risk management in cities – crime and security, “black swans” and thick-tailed distributions
  - Connections between housing and commercial real estate through transport and land markets

What's going on outside (examples)

- Subprime and spillovers to other financial markets (everbody and her brother)
- Integrating geography and economics – spatial models (e.g. Anselin, Pace, Thibodeau, Dubin)
- Dynamic housing models, asset markets and the economy (Ortalo-Magne, Davis, Piazza)
- Option-theoretic models of real estate decisions (Riddiough, Green)
- Econometrically defensible models of neighborhood effects (Durlauf, Brock)
- Measuring and modeling regulation (Malpezzi, Bertaud, Quigley, Rosenthal, Summers, Glaeser, Gyourko, Fischel)

What's going on outside (more examples)

- Brokerage and sales, time on market (Yavas, Ortalo-Magne)
- Urban form, agglomeration, externalities and amenities (Duranton, Henderson, Ortalo-Magne, Davis)
- Local economic development (Bartik, Eberts, Malpezzi)
- Measuring and modeling real estate prices and returns (many folks)
- Real estate and land in the national balance sheets (Case, Davis, Jorgenson)

Keep an eye on the following

- The National Academy of Sciences will shortly issue a review of HUD's Office of Policy Development and Research, and implications for HUD operations.

Contracting out?

- Without a critical mass of research capability in the Bank, there is no point of entry for outside research.
- Without in house expertise there is no ability to separate wheat from chaff, there is no one with the incentives to monitor outside work.
- External research throws off lots of useful information and new techniques to the Bank
- Research follows the money. Bank withdrawal from the field matters. Alternative sources of funding are not picking up the slack, for things that matter to Bank operations.
- Some traditional alternative sources (NSF, Fannie Mae) have cut back.
- On the plus side, there's more work on selected topics, especially international comparisons of housing and other real estate prices, at BIS, OECD, EU, etc. But not so much focused on Bank clients. Mostly macro, aggregate studies.

Things to remember about research

- Just as there's a size distribution of cities, there's a size distribution of research projects.
- For big questions – questions that require big projects – five quick and dirty studies may not equal one good study.
- Researchers value quality over timeliness.
- Researchers are driven by curiosity, peer recognition, less by money or managers, than "typical" staff.

Why good researchers are annoying

- Good researchers are not afraid to appear foolish, or make (occasional) mistakes.
- Good researcher pays attention to "customers" but realizes customers don't always know what they want, and that customers are often too conservative.
  - Sometimes this works better than other times. Researchers can get caught up in “fads” and cascades, just like normal people.
- Finally, good researchers are always secretly terrified that someone might actually do what they suggest.

Some issues faced by the Bank

- The *paradox of lending*: loans are not important, ideas and policies are; but without loans, no one listens to the ideas.
  - Corollary: no loan will make a government do what it really doesn't want to. Countries must "own" the policy changes.
- The *paradox of projects*: sometimes what's good for the project is bad for the sector, the market, or the economy as a whole.
- Even the best projects and policy reforms help some people and hurt others.
- Official lenders face the same adverse incentives as all bankers: pressure to lend.

What are some of the problems urban faces at the Bank?

- Urban development is inherently a complicated undertaking.
  - Analytically complex
  - Many actors to deal with
    - National level
    - Sub-national and city officials
    - Private sector, others
- Senior staff dispersed, retired, resigned.
  - Apply cost-benefit, not cost minimization, model to staffing.
- How have we done at bringing new staff along?
  - Compare to situation, recent discussions at HUD

What are some of the problems urban faces at the Bank?

- Bank's weakened position in the high-end labor market.
  - Personnel system is broken (has been for a while).
    - Money matters, but is probably not the biggest issue.
    - Personnel needs to benchmark against best practice.
  - Outside perceptions: is the Bank where the intellectual/ policy action is?
  - Scheduling and timing problems.
- Support from senior management – how's that going?
- Connections to outside world have diminished.
  - Zero Bank staff at AREUEA meetings this year.
  - Asian Real Estate Society? ENHR? ERES? Other research/ academic/professional associations?

Bank's advantages

- Still visible, still valued by many clients.
  - Examples of successes in external relations, e.g. Cities Alliance?
- General staff quality remains high. (There are some real needs on specifics).
- Many urban issues are on the cutting edge – see Growth Commission, or any recent issue of the FT or the Wall Street Journal.
- New management presents new opportunities.
- Can we "rebuild the brand?"

Staffing

- Who are the top senior people, by position, and by expertise, inside and outside of the Bank?
- How do we attract and develop the next generation of urban development leaders?
  - How do we retain, and/or cycle them?
- How do we train? How do we educate?
  - High level skills
  - Nuts and bolts
- Networks

Staff development

- Choosing the right people, with the right training and education.
- Good research generates large externalities in staff development.
- Leveraging staff.
- Appropriate training and education.
- Providing a rewarding career path.
- Recognizing external, as well as internal, accomplishments.

Urban staff prerequisites

- Basic micro and macro
- Working knowledge of data analysis and presentation
- Negotiation skills
- Imagination – how to deal with new problems and opportunities, how to bridge the world of ideas and the world of practice
- Judgment and maturity, understand the importance of approximation, robustness – what's important, as opposed to simply "statistically significant."
- Good modeling and spreadsheet skills
- Know how Bank lending products work
- Basic understanding of urban and regional economics, and finance
- Know the people, and the reliable sources, in urban development
- Understand how planners, mayors, city officials think (and why)
- Familiarity with a range of relevant institutions and practices around the world

Urban Staff Education: Selected Topics

- Agglomeration
- Economics of Location
- Intervention (Tax, Subsidy, Regulation) Analysis
- Valuation: Market, Income and Cost Approaches
- Market Analysis
- Price Measurement
- Consumer's Surplus
- Urban Infrastructure and Productivity
- Risk analysis and management
- Options
- Property Rights
- Brokerage
- Industrial Organization of RE
- Mortgage Design
- Secondary Markets
- Computer Applications (Advanced Spreadsheet, GIS)
- Housing Policy
- Survey Design/Data Analysis
- Nonresidential Real Estate
- Regional Analysis
- Development Process
- Land Use, Other Regulation
- Models of Local Government (Tiebout, median voter; expenditure analysis)
- Local Government Finance (development funds, property taxation)

Big idea I: why cities exist

- Trade, economies of scale, agglomeration
- See Edwin S. Mills, "A Thematic History of Urban Economic Analysis," *Brookings-Wharton Papers on Urban Affairs*, 2000; section on *Formation, Size, and Spatial Distributions of Urban Areas*, beginning on p. 8.

Why do cities exist?
An economist's basic list

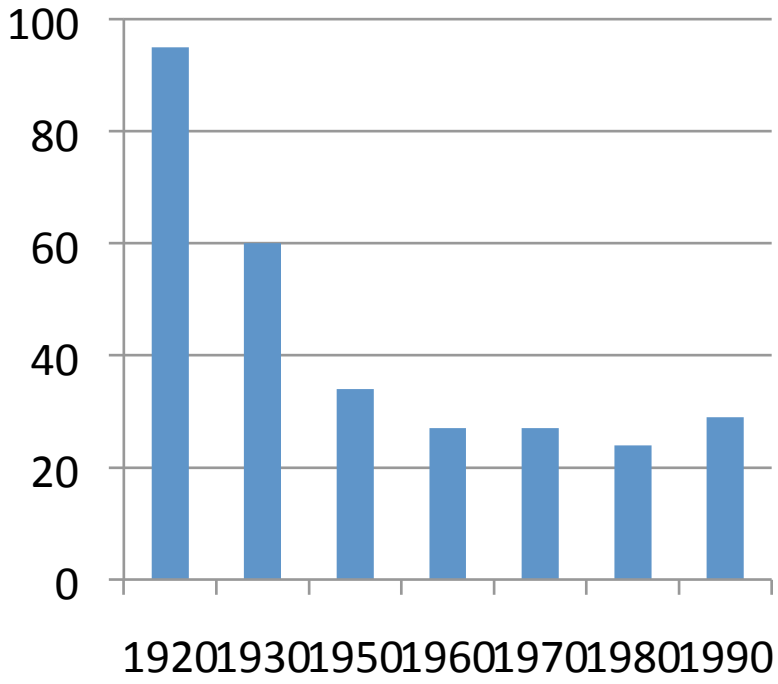
- **Comparative Advantage** (from differences in productivity) causes trade. Trade requires contact. Cities lower transactions costs.
- I**nternal Scale Economies** (the "usual" kind) mean goods and services are produced in factories and offices. Factories and offices are located in cities.
- **Agglomeration Economies** (economies of scale from location *per se*). Economies of scale due to *externalities* (spillovers).

Why do cities exist?
Digging deeper into the *sources* of comparative advantage and scale economies

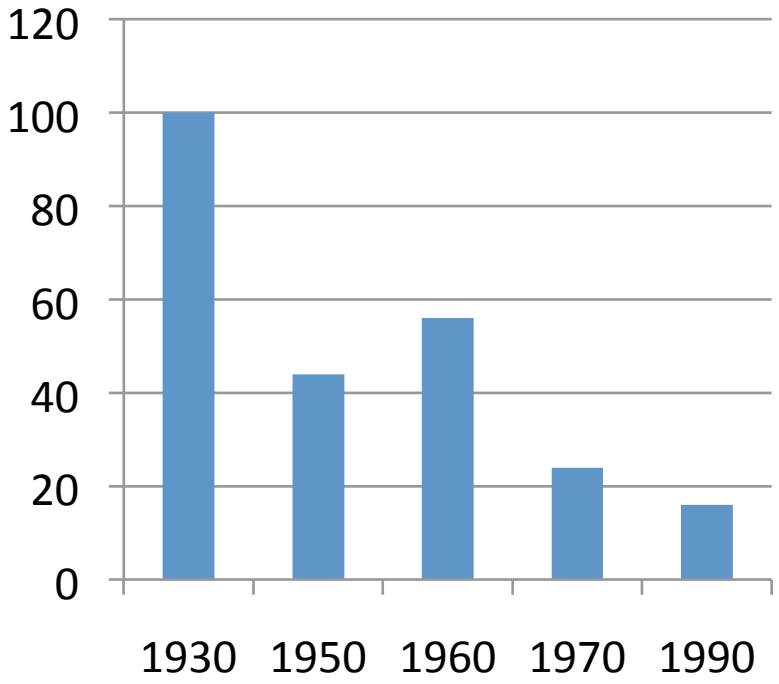
- **Transaction costs**. Simple economic models often assume these away, but in reality they are ubiquitous.
- **Information**. Information is an important source of comparative advantage; there are often large economies of scale in its production; and there are many knowledge spillovers.
- **Creativity and entrepreneurship.** Partly based on information, on opportunities, and on openness to new ways of doing things.
- **Variety and specialization.** Why do I go to Chicago, not Wausau, for my weekends? What did Adam Smith notice about pins? What are the benefits of labor pooling and other sharing of inputs?

Transport Costs

Avg. Ocean Freight & Port Charges per Ton



Air Transport Costs Per Passenger Mile



Source: IMF (1997)

Chicago's international trade (exports)

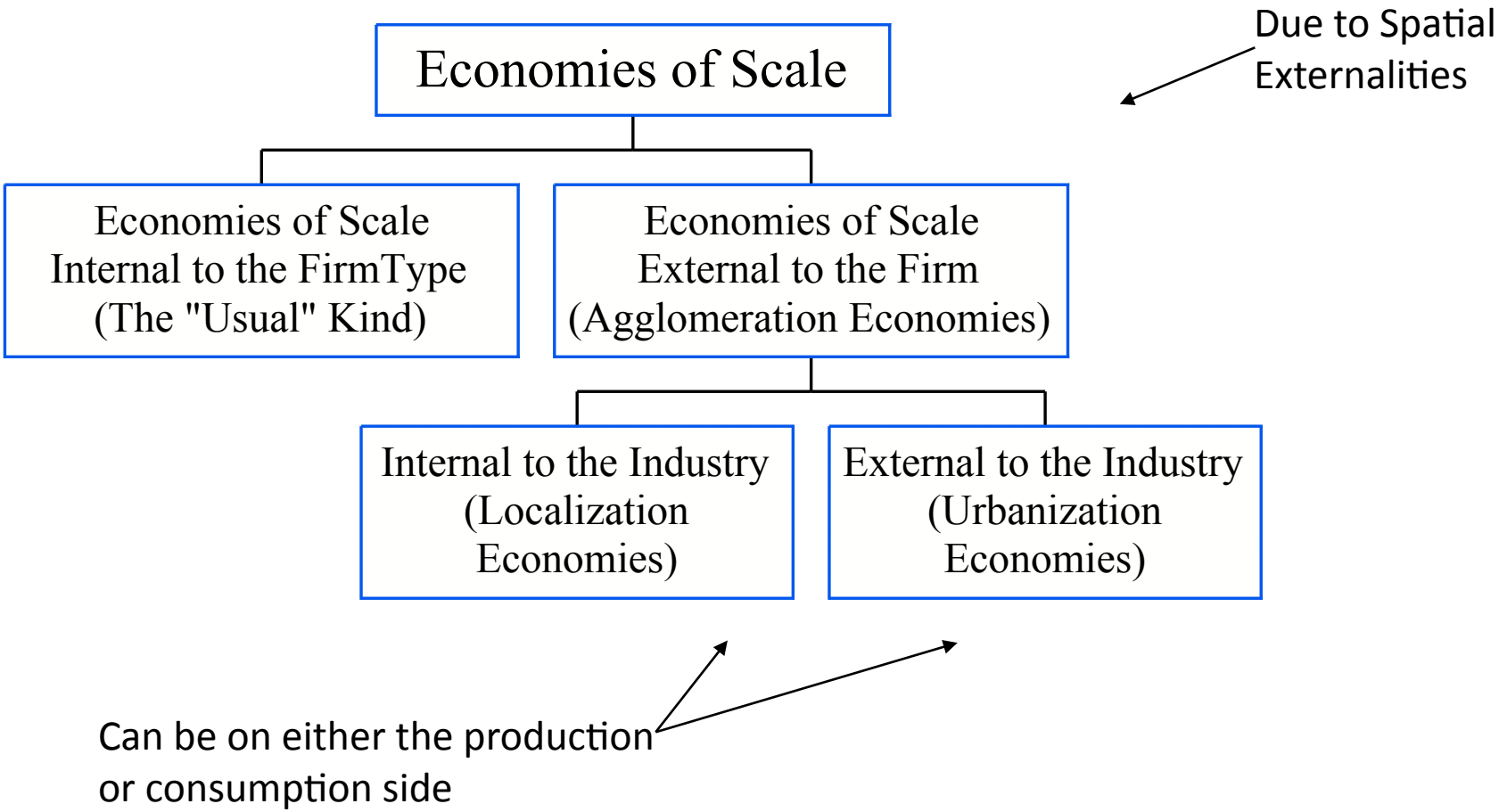
- Canada: $6 billion
- Japan: $2 billion
- Mexico: $2 billion
- Germany: $1 billion

Source: Geoffrey Hewings and coauthors

Chicago's domestic trade (exports)

- Midwest: $65-80 billion
  - (Wisconsin, Michigan, Ohio, Indiana)
- Missouri: $11 billion
- Texas: $15 billion
- California: $16 billion

Source: Geoffrey Hewings and coauthors


Economies of Scale
Due to Spatial Externalities
Economies of Scale Internal to the FirmType (The "Usual" Kind)
Economies of Scale External to the Firm (Agglomeration Economies)
Internal to the Industry (Localization Economies)
External to the Industry (Urbanization Economies)
Can be on either the production or consumption side

Urbanization economies: cities punching above their weight?

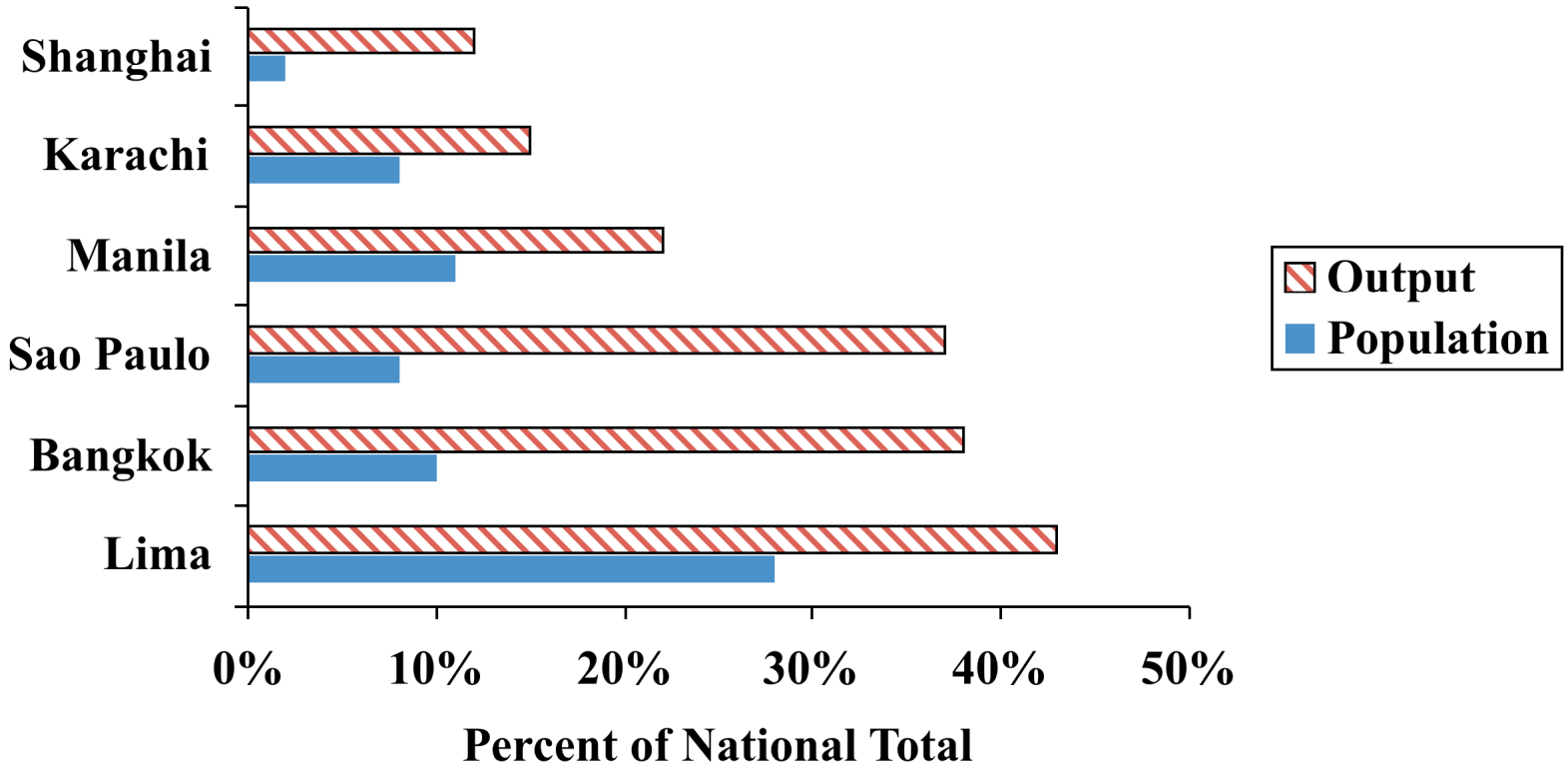


Figure 1 Source: WB data, originally collated by Fritz Kahnert
(old – need to update, probably weaker results today

City education externalities

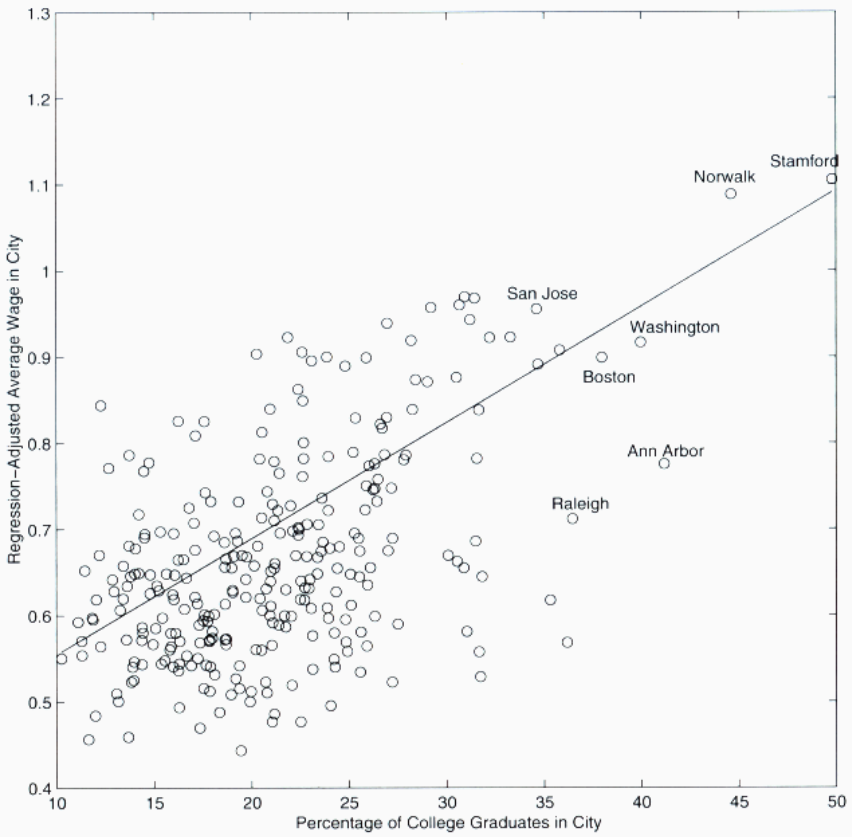
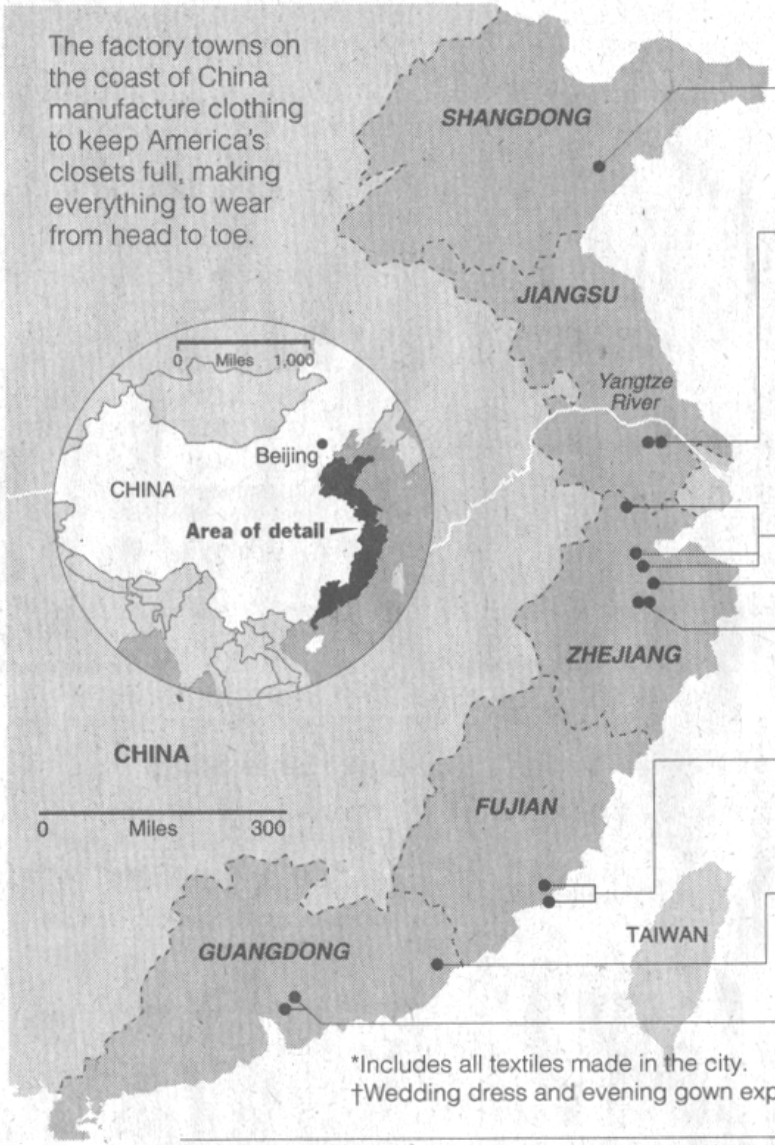


Figure 5. Correlation between regression-adjusted average wage and percentage of college graduates in 282 cities, in 1990. Regression-adjusted average wage is obtained by conditioning on individual education, gender, race, Hispanic origin, U.S. citizenship and work experience. Weighted OLS fit superimposed.

Source: Moretti (2004)

Made in China, Shipped Worldwide

The factory towns on the coast of China manufacture clothing to keep America's closets full, making everything to wear from head to toe.



Factory orders, 2003	PRODUCTION	TOTAL SALES	U.S. EXPORTS
MEN'S WEAR *Zhucheng*	100 MILLION PIECES	$600 MILLION	$100 MILLION
CASUAL WEAR *Haiyu, Changshu*	160 MILLION PIECES	$260 MILLION	$ 58 MILLION
DOWN-FILLED PRODUCTS *Xintang, Hangzhou, Xiaoshan*	26 MILLION PIECES	$470 MILLION	$290 MILLION
TIES *Shengzhou*	300 MILLION PIECES	$1.21 BILLION	$384 MILLION
SOCKS *Datang, Zhuji*	9 billion PAIRS	$1.57 BILLION	$240 MILLION
UNDERWEAR *Jinjiang, Shenhu*	969 million PIECES	$360 MILLION	$290 MILLION
WEDDING DRESSES, EVENING GOWNS *Chaozhou*	510 million PIECES	$950 MILLION*	$640 MILLION†
JEANS *Xintang, Zengcheng*	225 million PIECES	$1.04 BILLION	$480 MILLION

*Includes all textiles made in the city.
†Wedding dress and evening gown exports only.

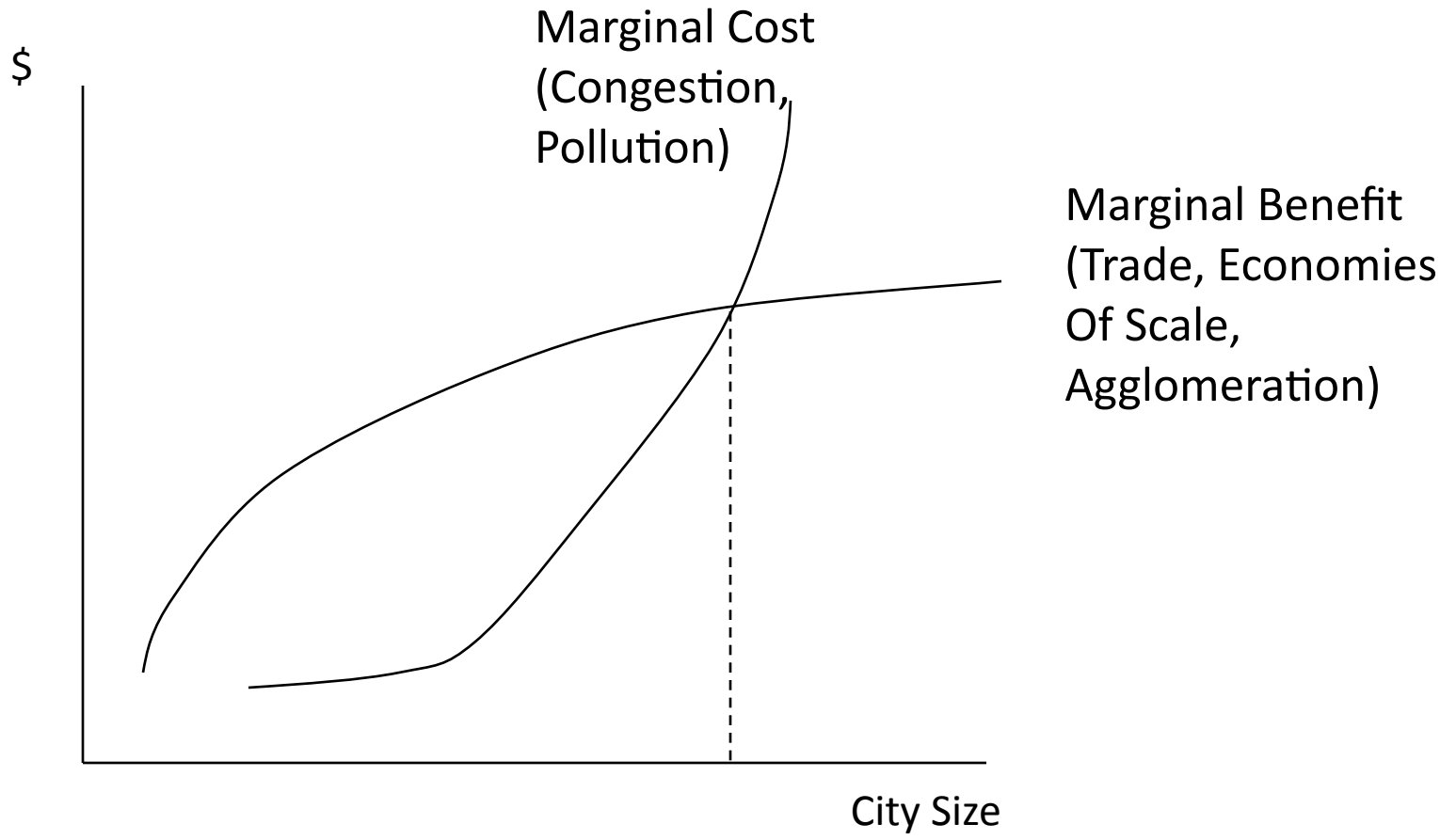
Sources: China National Textile Council; Shenhu Underwear Association; Datang Town Government

The New York Times

Bottom line

- Within most of the ranges we observe, “each doubling of the size of an urban area increases total factor productivity by 5 to 10 percent” (Mills, page 9).
- However, at some point the costs of commuting, pollution, etc. outweigh the benefits of further growth.

Is There an "Optimal City?"



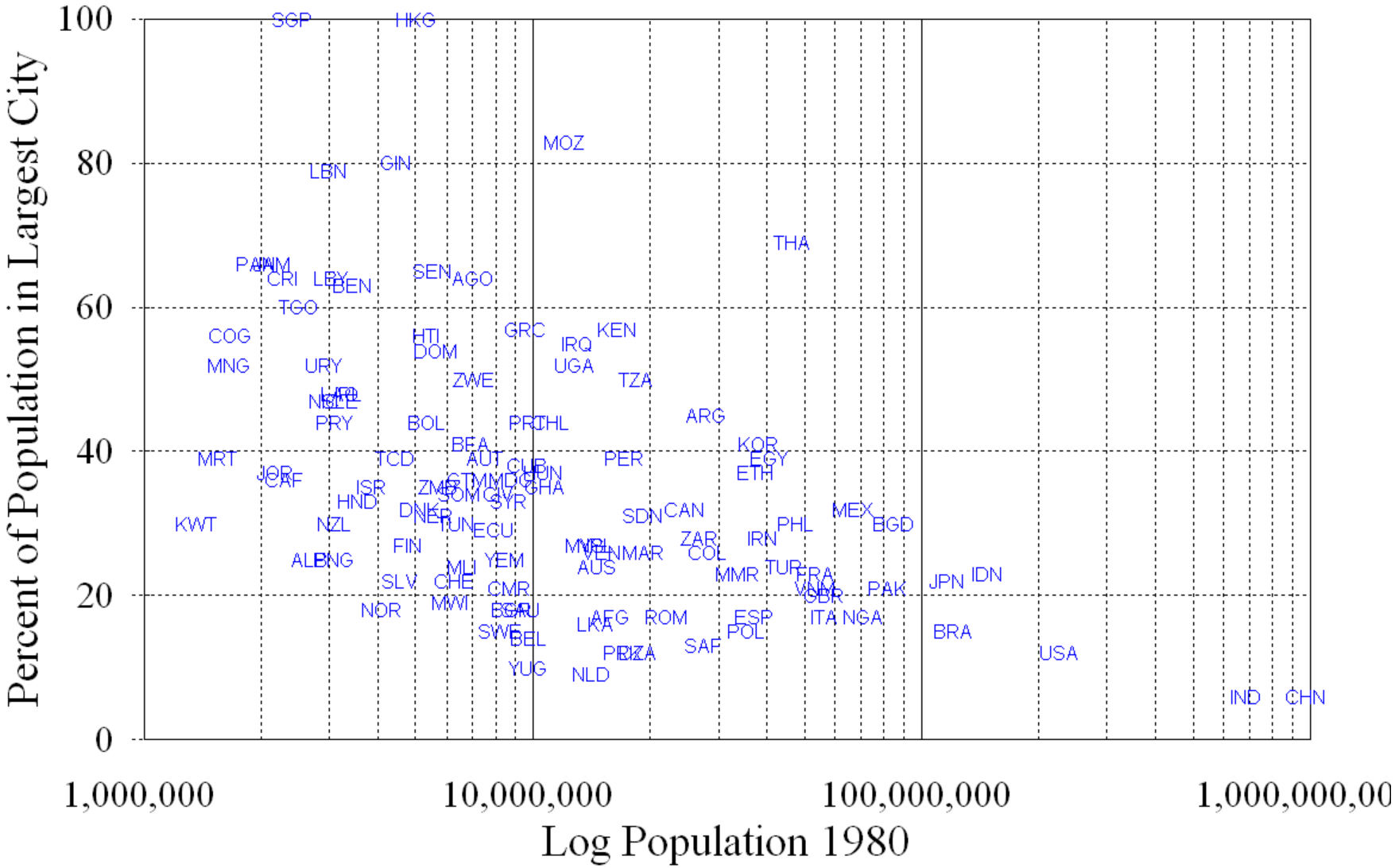
Is there an "optimal city?"

- What are the marginal costs and marginal benefits of further population growth for a given city?
- At a given time (structure of production, infrastructure, technology, economic links to other locations) we can think of any one city as having *some* optimum size (though it's hard to compute).
- But the specific optimum for any one city does not generalize to other cities. That is why we have *systems of cities* of widely different sizes.

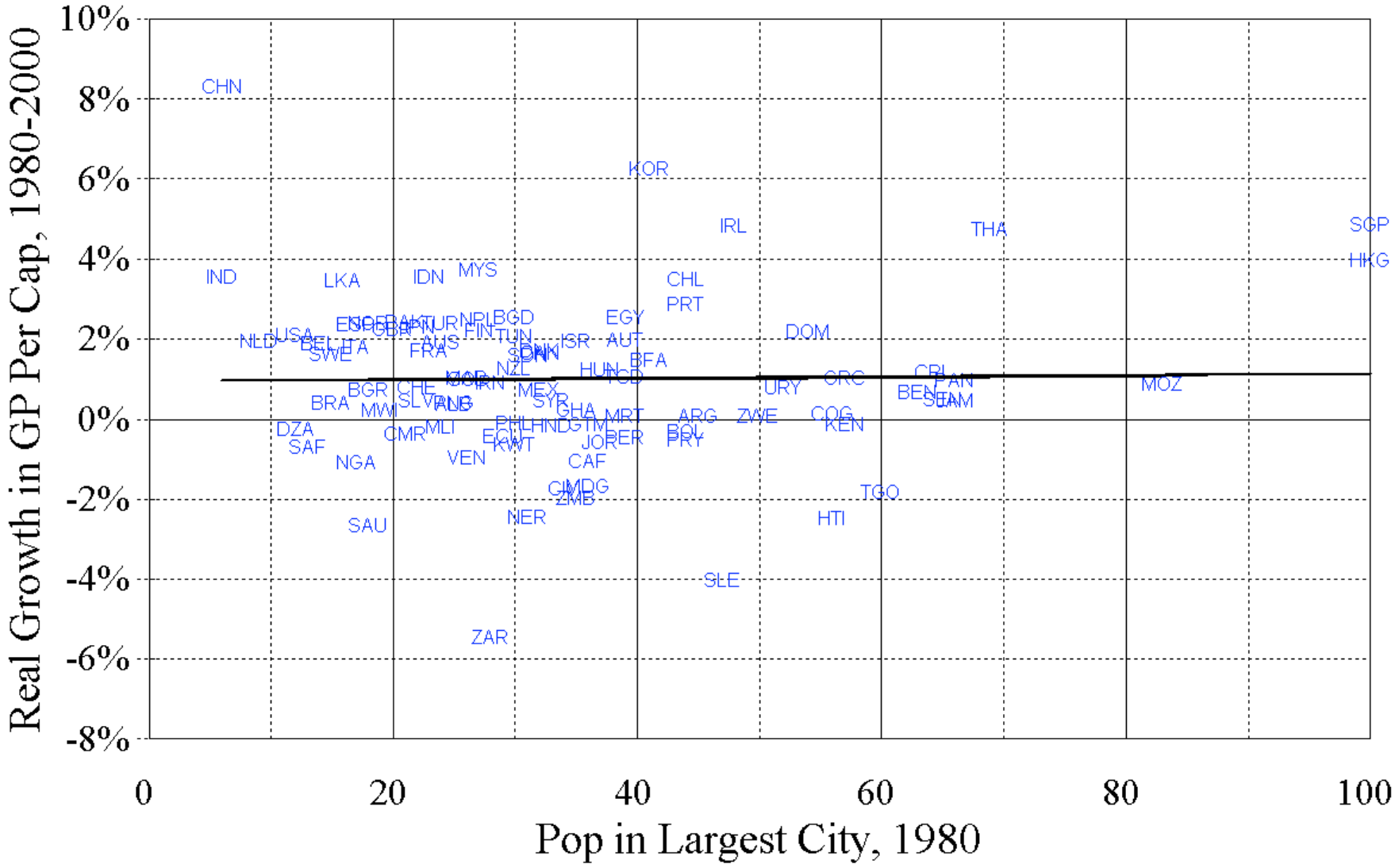
Is there an “optimal system?”

- The most sophisticated research has its roots in Vern Henderson’s book in 197x.
- Lots of heat recently (any light?) from re-discovery of Zipf’s law.
- Are findings sufficiently robust for recommendations regarding the size distribution of cities in any given country? I don’t think so.

Primacy and Size of Country



Growth and Primacy



Are there policy implications of agglomeration?

- Agglomeration is an external benefit. Does this mean cities will be "too small?"
- Congestion and pollution are external costs. Does this mean cities will be "too large?"
- Do clusters "just happen," or can we encourage them?
- Should the public sector subsidize incubators (e.g. research parks?)
- What are the effects of education, infrastructure, fiscal and spending decisions on cities and their productivity?

Implications of "Why Cities Exist" for city managers and local officials

- Property rights, rule of law
- Provide the right "public goods" (e.g. infrastructure, fire and police services, etc.)
- Beware attempts to micromanage the size of cities. We don't know enough to do this well.

Big Idea II: Location within Cities

- See Mills, "Thematic History," section on *Spatial Structure of Urban Areas* on pp. 16 ff.

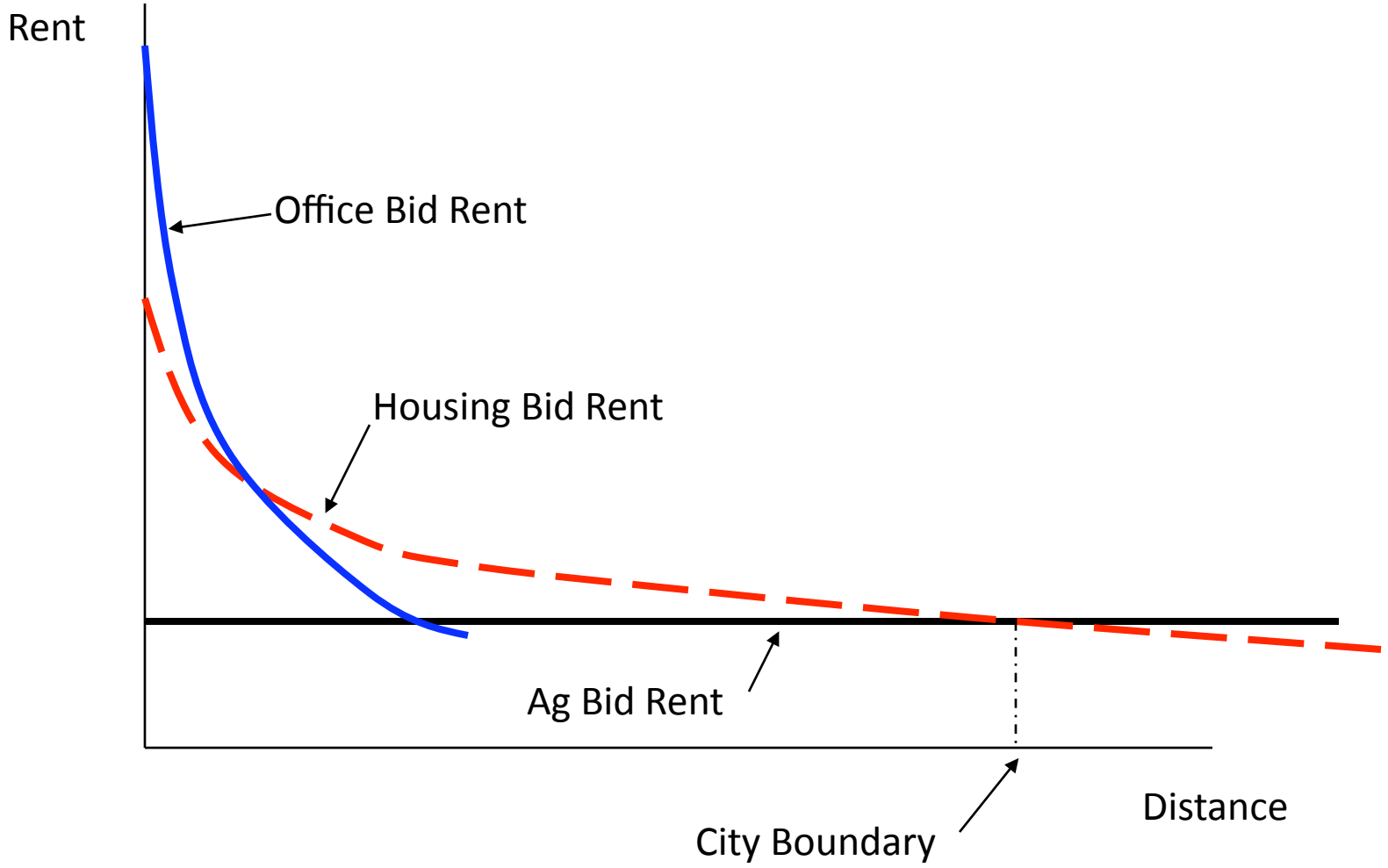
Why study urban form and location?

- Implications for infrastructure provision, especially transport
- Effects on housing and real estate markets; and on labor markets
- In many countries “sprawl” is a contentious issue, and public policy is particularly ill-informed
- Many emerging markets have apparent problems

Basic determinants of land and real estate prices

- In general, land prices - the price of any input - are determined by *productivity*.
- What, in turn, determines productivity?
  - Fertility, or the "inherent productivity" of the land (Ricardo)
  - Location (von Thunen, Alonso, Muth and Mills)
  - Public Interventions: Taxation, Infrastructure, Regulation

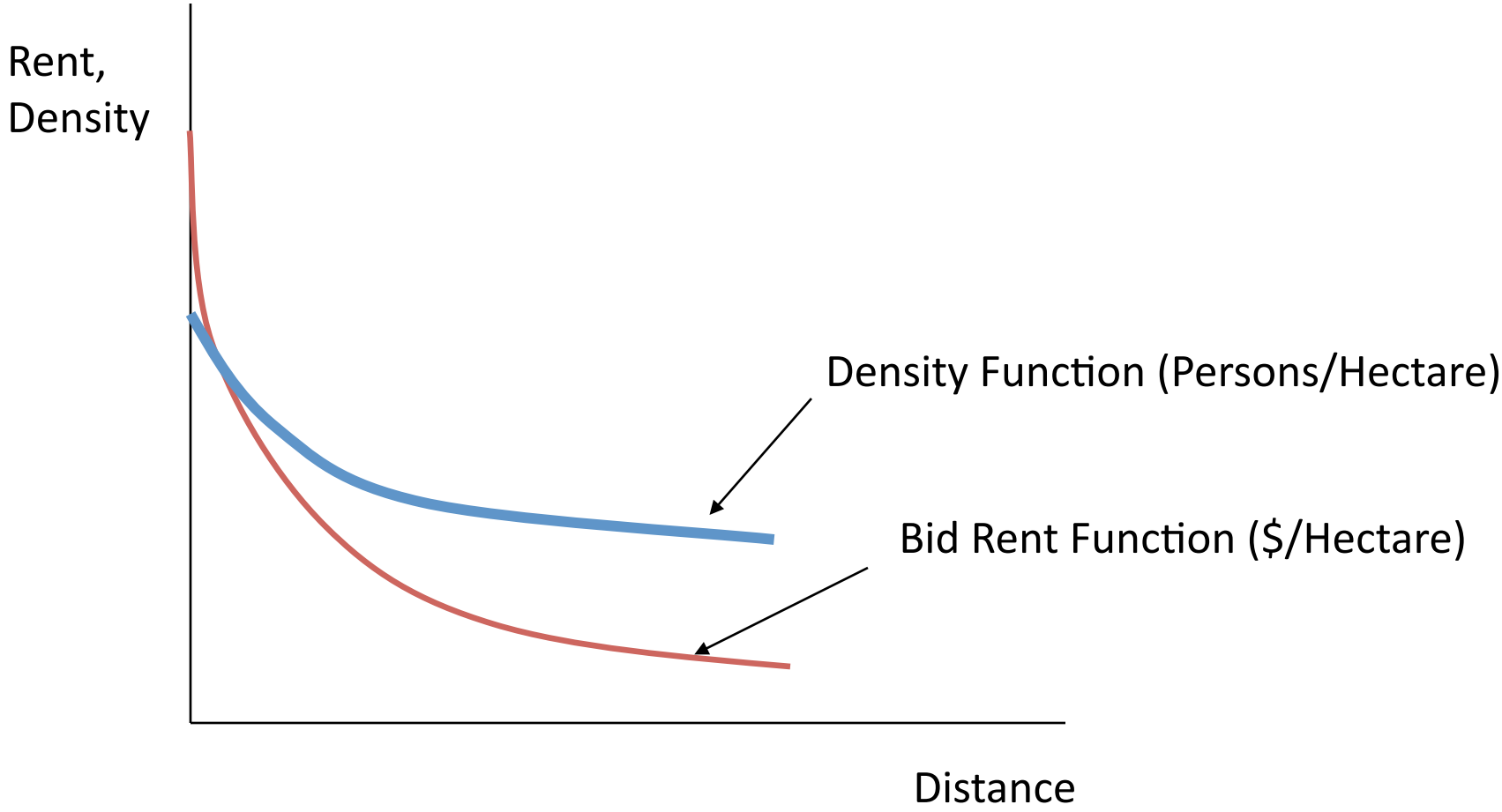
The “standard urban model” of Alonso, Muth and Mills



Implications of the “price gradient”

- Where land is more expensive – near the center – developers economize by using more capital (structure) and less land per unit of real estate output.
- Thus a density gradient appears, that more-or-less mirrors the land price gradient. (Though it’s usually a little flatter).

Bid rent and density mirror each other in the market city

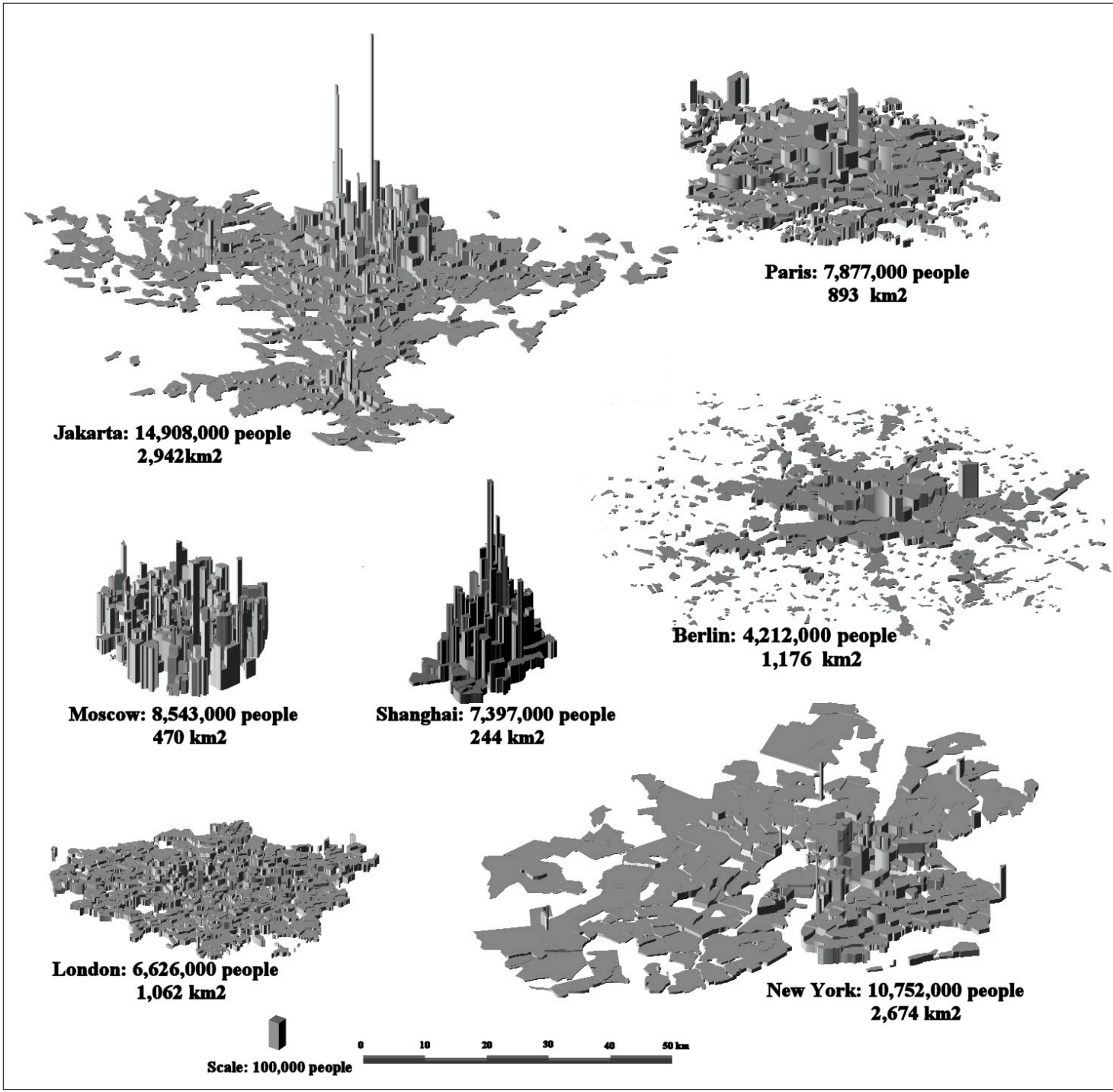


Population Density in 48 World Cities

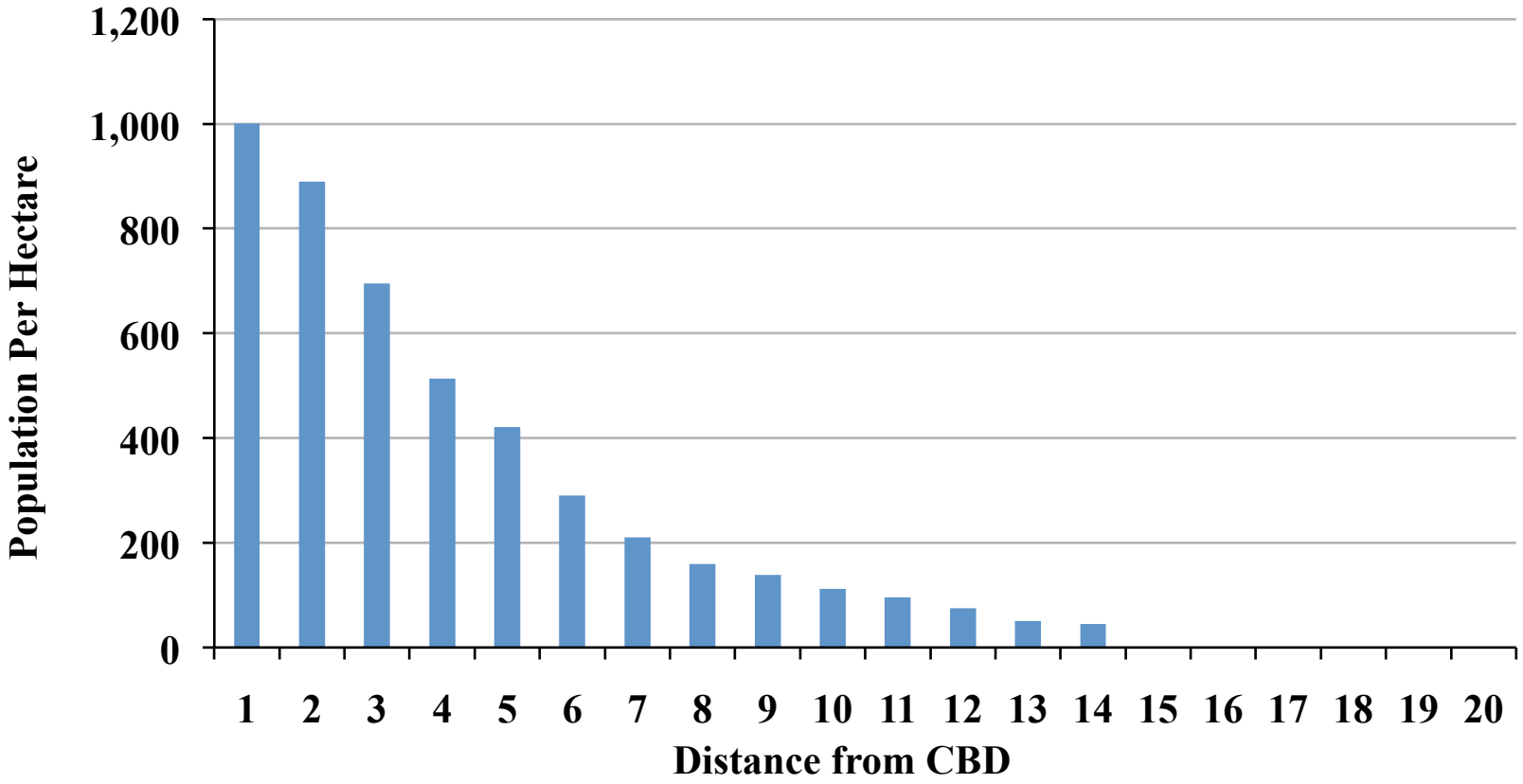
- Key findings of Bertaud and Malpezzi: market based cities, even strongly planned (like Paris) are broadly consistent with the standard Alonso-Muth-Mills urban model. Some cities with pathological regulatory systems (Moscow, Capetown, Seoul) are inverted. Functionally, market based cities are more "compact" despite their larger "footprint."
- Shanghai, and other Chinese cities, are more like prototypical market-based cities; they are ***not*** like Moscow or Capetown.
- Indian cities are … ***something in between?***

From Alain Bertaud:

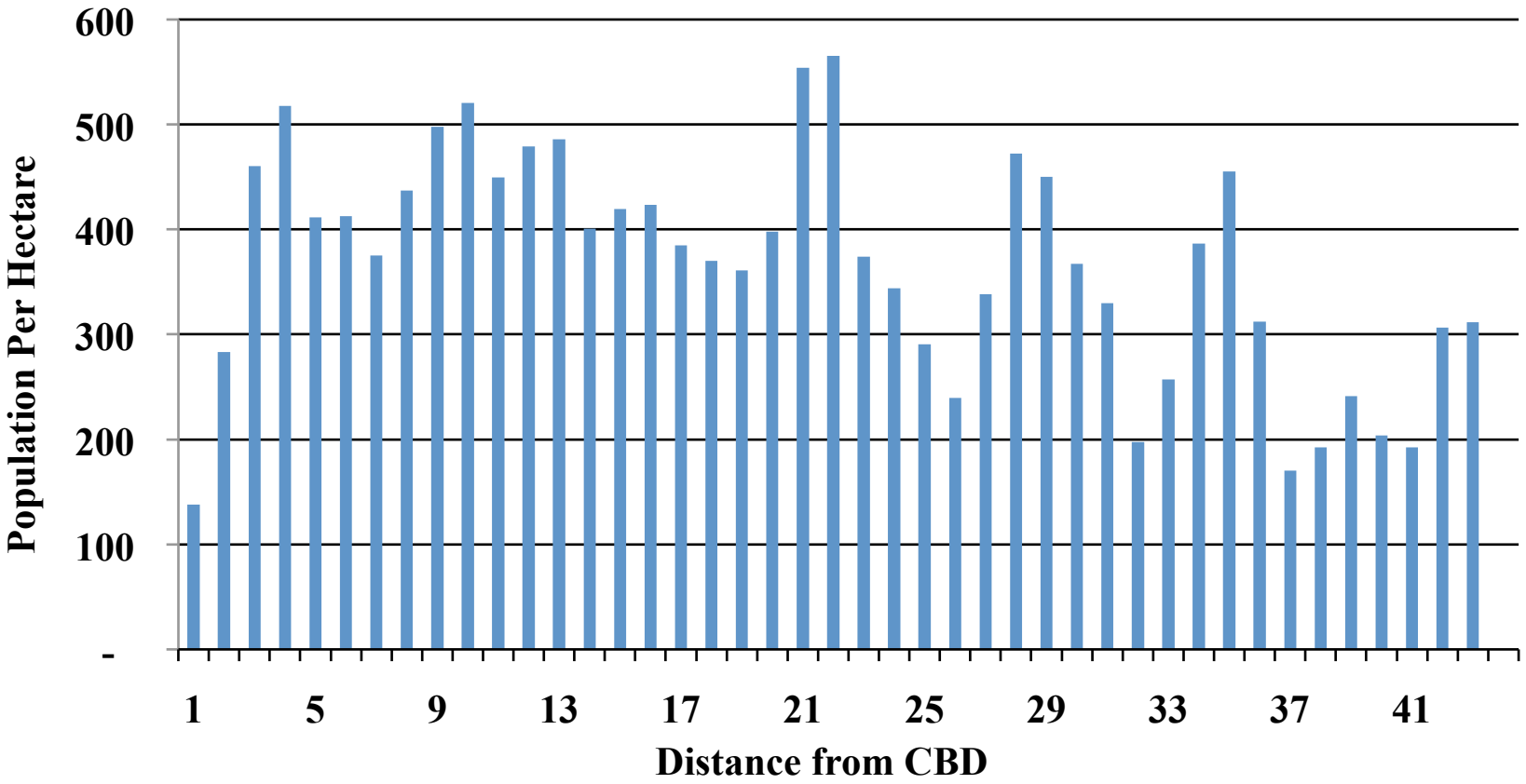
Three dimensional views of population distributions in 7 cities represented at the same scale



Shanghai's Population Density



Mumbai's Population Density



Bertaud and Breuckner study of FSI

- Supply reduction caused by low FSI leads to:
  - Higher rents per square foot
  - Lower consumption of floor space (slums)
  - Excessive spatial expansion of city and longer trips
- Consumers are worse off because of these effects.
  - In Bangalore, they find that we compute that consumer loss from FSI restrictions is equivalent to 3-6% of household consumption.

Stringent FSI regulations weaken the CBD by limiting the density of business activities

- Agglomeration research has shown that high business densities are critical in generating synergies among firms.
- Low FSI harms the city's economic vitality.

B&B: What must be done to increase Mumbai's real estate supply?

Relax FSI restrictions

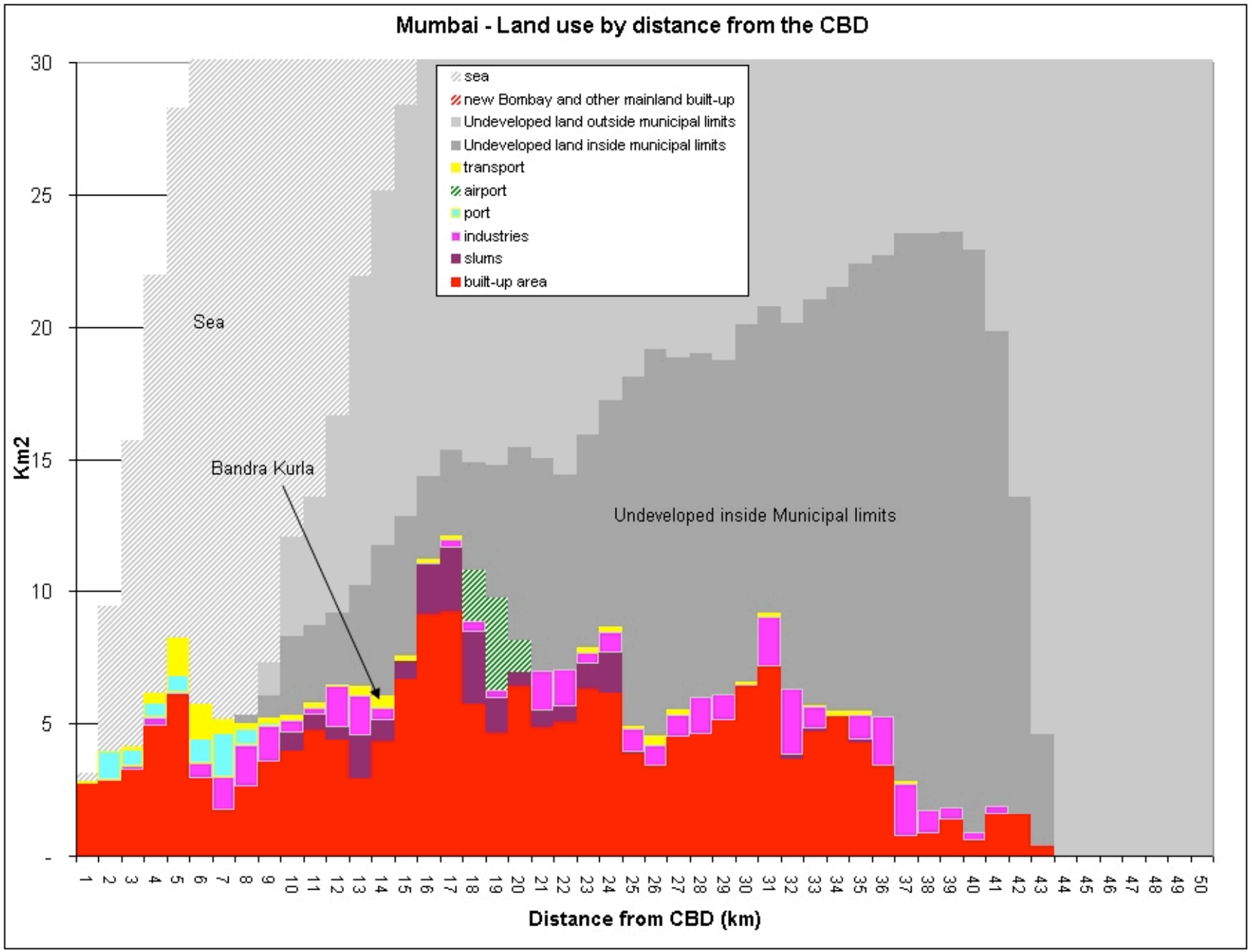
- Do not use uniform FSI but differentiate between transport nodes and less accessible areas.

- Improve infrastructure
  - Cover costs with impact fees and user charges
  - Higher FSI unlocks the economic potential of the land, and the city can capture some of the gain via property taxes as well as one-time impact fees.

.

Increasing land supply

- Gradually eliminating rent control will speed redevelopment of old buildings, and reduce fiscal burden on new ones.
  - Why gradual?
- Develop mill land and other frozen land.



Alain Bertaud


ARABIAN SEA
Santacruz
Ghatkopar
Bandra
Kurla
Sion
Chembur
Dadar
Mankhurd
MUMBAI
Mumbai Central
Byculla
Sewri
Churchgate
C.S.T.
Nariman Point
Colaba
MUMBAI Trans Harbour Sea-Link
Nhava Sheva
J.N.P.T.
Airoli
NAVI MUMBAI
Vashi
Proposed Ring Rail Route of Navi Mumbai
Kharghar
CBD Belapur
Khandeshwar
PANVEL
Proposed Inter state bus depot
Panvel Terminus
Airport
Proposed 2nd Mumbai International
NH-48
MARATHON SEZ
nexzone
Towards Goa (NH-17)
Old Mumbai-Pune Highway (NH-4)
Mumbai-Pune Expressway

Using the standard urban model for policy cost-benefit

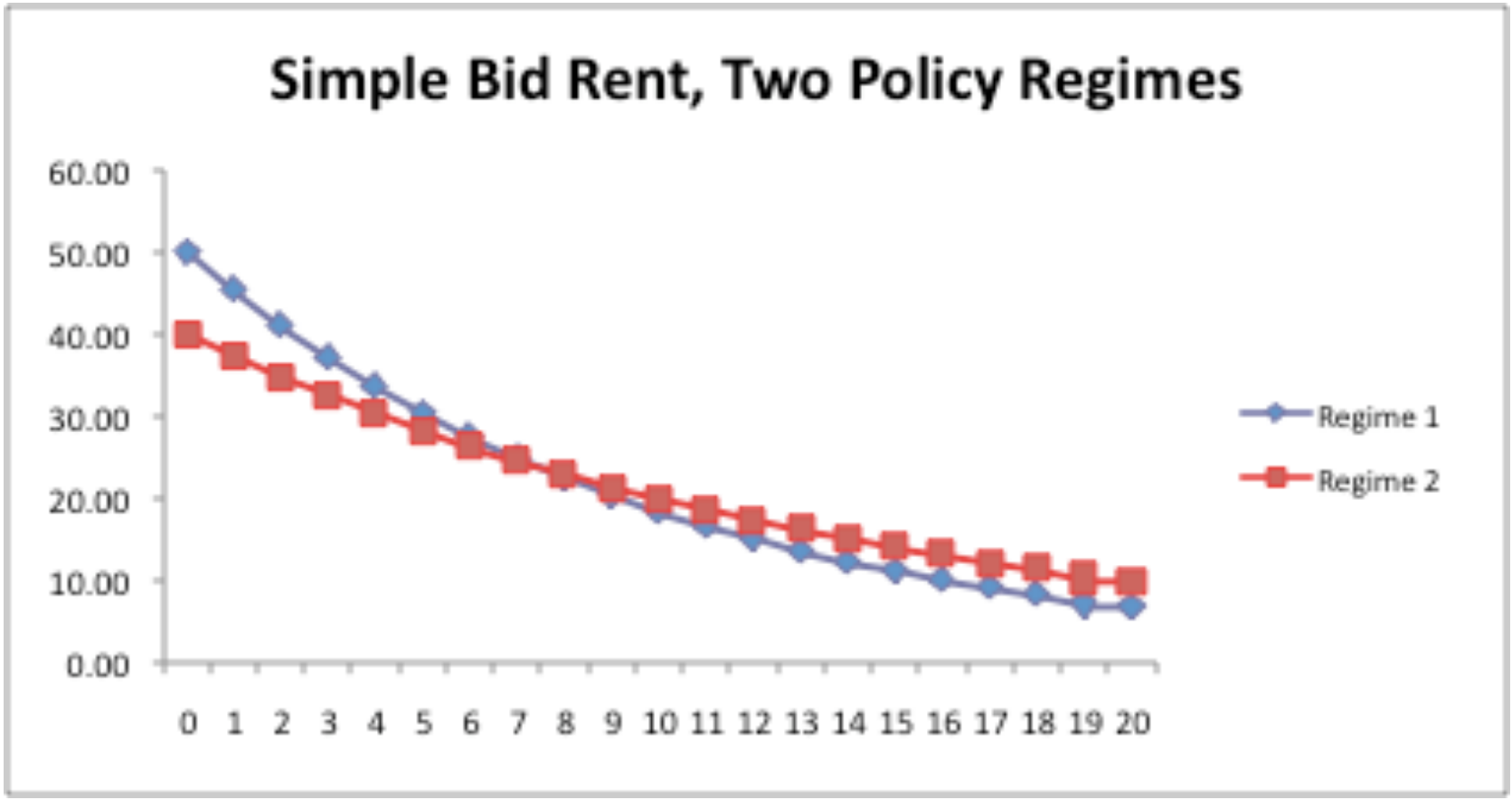
- How to evaluate (say):
  - The Worli-Bandra bridge project
  - Relaxing FSI or rent control
  - Recycling mill or port land
- Since many benefits are capitalized into land value, the starting point is to think about how they change:
  - Land price at the center of the city
  - The slope of the city's bid rent function
- Then integrate the change in price of land over land area at each location
- Compare aggregate increase in land value to project cost
- Consider distribution of project costs and benefits

Calculating the Change in a Circular City's Land Value Under Two Policy Regimes

(Assuming a simple negative exponential bid rent for city's land)

	Regime One	Regime Two
Revenue	100	90
Production Cost	50	50
Ln P0	3.91	3.69
Transport Cost	0.1	0.07

Distance From Center	Area of Annulus	Bid Rent per acre at given u	Total value of land at u	Bid Rent per acre at given u	Total value of land at u	Change in Bid Rent	Change in land value at u
0	1.00	50.00	50.00	40.00	40.00	-10.00	-10.00
1	3.14	45.24	142.13	37.30	117.17	-7.95	-24.96
2	9.42	40.94	385.82	34.77	327.74	-6.16	-58.08
3	15.71	37.04	581.84	32.42	509.30	-4.62	-72.53
4	21.99	33.52	737.05	30.23	664.82	-3.28	-72.23
5	28.27	30.33	857.46	28.19	796.98	-2.14	-60.48
6	34.56	27.44	948.28	26.28	908.24	-1.16	-40.04
7	40.84	24.83	1014.04	24.51	1000.80	-0.32	-13.24
8	47.12	22.47	1058.71	22.85	1076.70	0.38	18.00
9	53.41	20.33	1085.68	21.30	1137.77	0.98	52.08
10	59.69	18.39	1097.94	19.86	1185.65	1.47	87.71
11	65.97	16.64	1098.03	18.52	1221.86	1.88	123.83
12	72.26	15.06	1088.16	17.27	1247.76	2.21	159.59
13	78.54	13.63	1070.23	16.10	1264.57	2.47	194.34
14	84.82	12.33	1045.85	15.01	1273.40	2.68	227.55
15	91.11	11.16	1016.43	14.00	1275.26	2.84	258.83
16	97.39	10.09	983.13	13.05	1271.05	2.96	287.92
17	103.67	9.13	946.96	12.17	1261.57	3.03	314.61
18	109.96	8.26	908.78	11.35	1247.57	3.08	338.80
19	116.24	7.48	869.28	10.58	1229.70	3.10	360.42
20	122.52	6.77	829.08	9.86	1208.54	3.10	379.46
			17814.89		20266.46		2451.57


Simple Bid Rent, Two Policy Regimes
60.00
50.00
40.00
30.00
20.00
10.00
0.00
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Regime 1
Regime 2

Extensions of spatial cost-benefit

- In real world cities, the simple negative exponential doesn't work very well.
- For a more sophisticated, yet tractable model, see Liu, Feng. Interrupted Development: The Effects of Blighted Neighborhoods and Topographic Barriers on Cities. George Washington University Department of Economics, August 2006.

Determinants of urban form, population density

- Rent/price gradients
- Demographics
- Growing affluence
- Transportation changes
- Government service differentials
- Racial discrimination and segregation

Manufacturing decentralization

- Once again, more workers moving out. Follow labor force.
- Single story plants using assembly line production require more land than old multi story plants.
- Airports: require a lot of land on fringes; many firms transport by air freight.
- Cars: with demise of hub and spoke streetcar system, firms now locate where they are most reachable by car: highway exits.

More determinants of urban form

- Tax policy
- Land use regulation
- Location of “bads” (e.g. crime) and “goods” (e.g. the best schools)
- Building codes, plattage and plottage
- Economic structure
- The degree of monocentricity of employment
- Opportunity cost of land in rural uses

Special Challenges in Transition Economies

- In most countries, including the U.S., the importance of redevelopment and maintenance of existing real estate is underappreciated.
- In transition economies, redevelopment (e.g. of many industrial sites) will be as important as greenfield development.
- It is necessary to set regulations (zoning, land use regulations, subdivision regulations, height restrictions, floor area ratios) to facilitate this redevelopment.

Special Challenges in Transition Economies

- Property taxes should be based on highest and best use, rather than current use, to provide proper incentives for redevelopment.
- Often financial institutions are reluctant to lend for redevelopment. They must learn to underwrite such loans.
- Rent reforms, and remaining vestiges of administrative pricing, must take account of location.

Implications of "Location within Cities" for local officials

- "One-size fits all" approaches to building regulation won't work. (Case study: Bangalore)
- Infrastructure provision, especially transport, is critical (next topic).
- Expect the prototypical city's developed area to increase faster than its population; expect some degree of decentralization.

Big Idea III: Transportation

- Mills, "Thematic History of Urban Analysis," section on *Transportation*, pp. 26 ff.

Which of the following is the future of urban transit?

The technology of travel

Technology	Date Introduced	Door-to-Door Speed (mph)	Travel Time Per Mile (minutes)
Walking	A long time ago.	3	20
Horse-drawn streetcar	1835	5	12
Cable car	1875	8	7.5
Electric streetcar	1890	10	6
Rail rapid transit	1910	15	4
Motor bus	1915	20	3
Automobile	1920	30	2

Tackling congestion: policy alternatives

- Encourage transit use
- Gasoline tax
- Parking tax
- Congestion zones and permits
- Peak-period taxation using an electronic vehicle identification system (VIS)

London's Congestion Charge

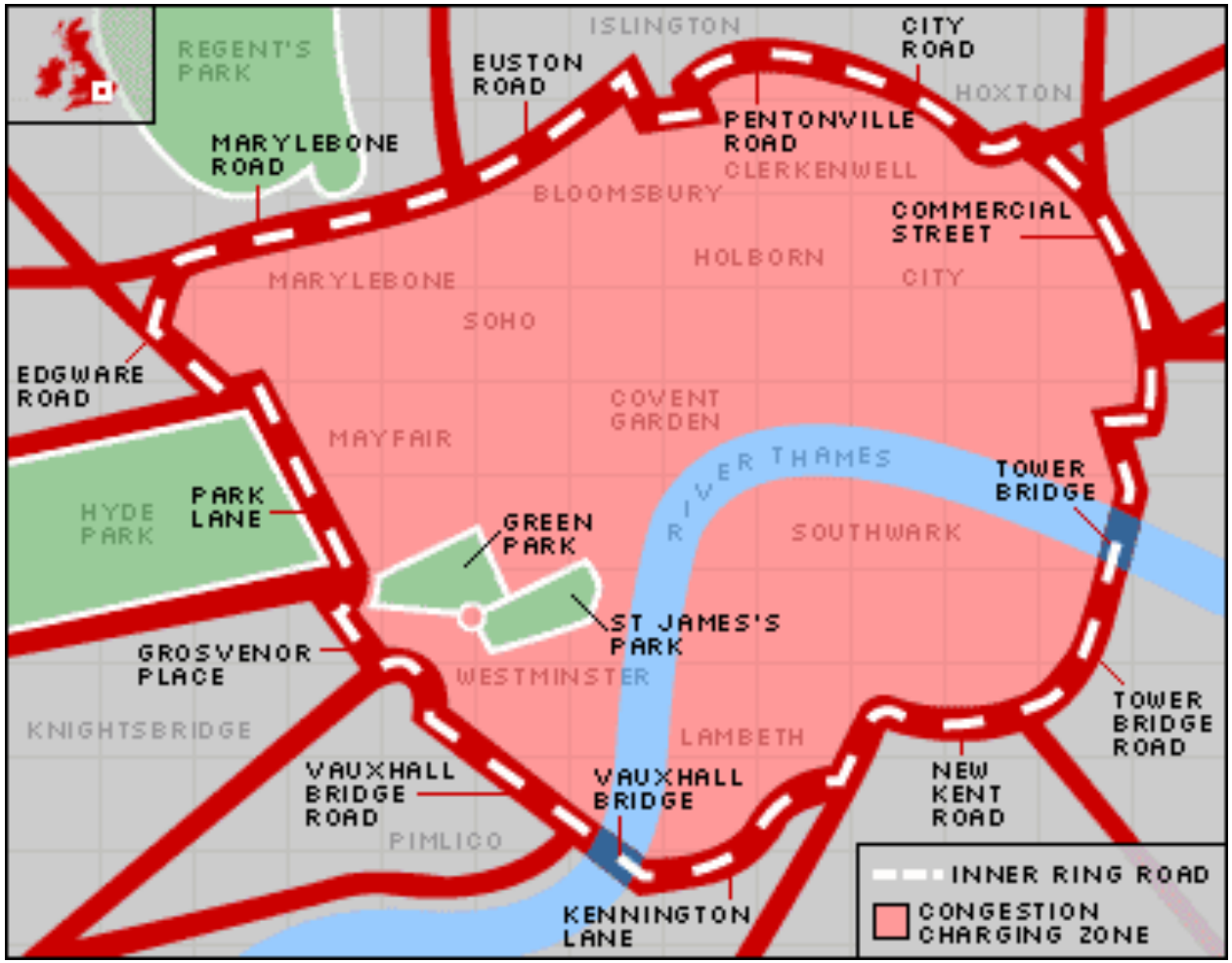


FIGURE 20–2 Costs of Alternative Transit Systems

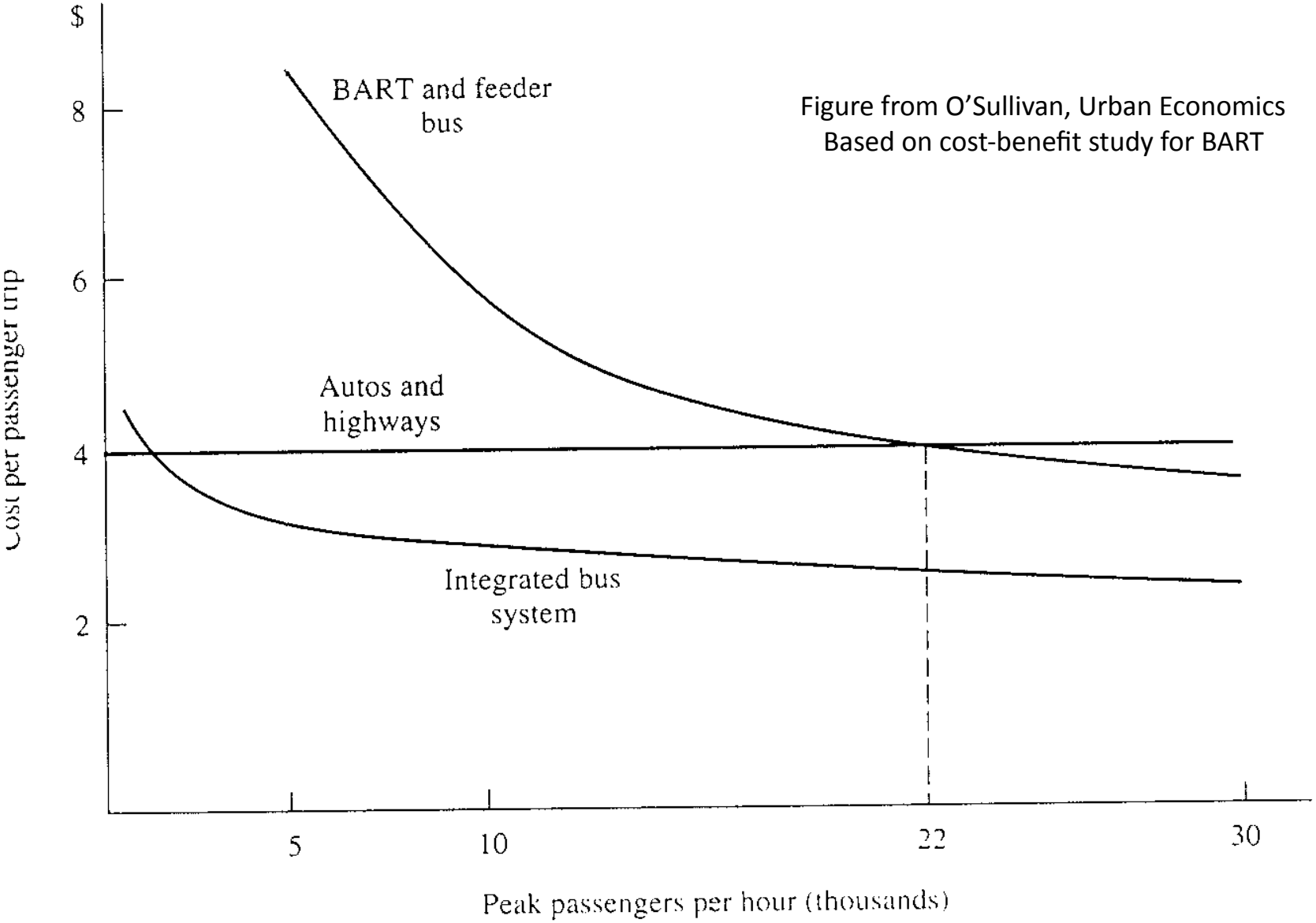
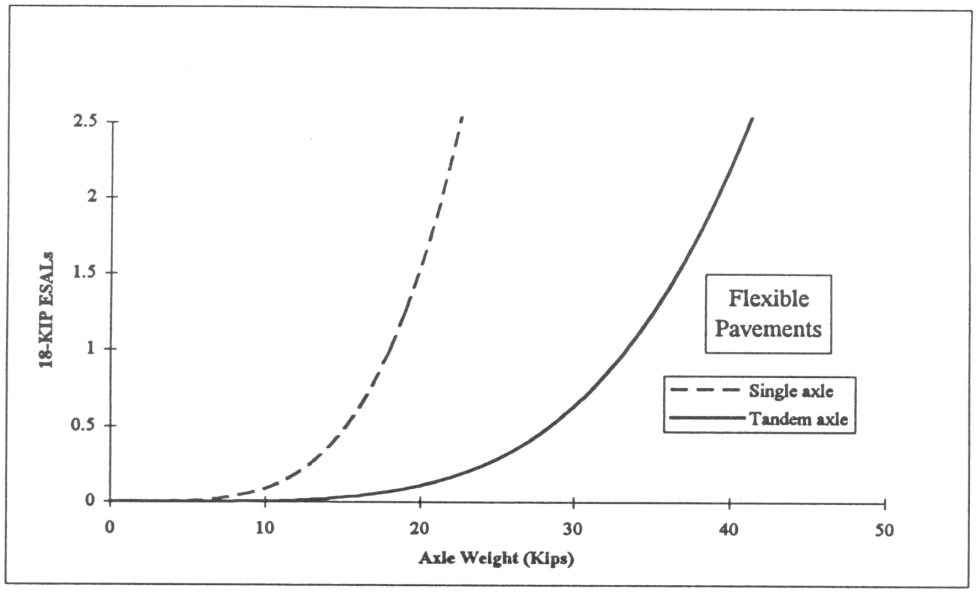


Figure from O'Sullivan, Urban Economics
Based on cost-benefit study for BART

The average cost of auto traffic is independent of auto volume, but the average costs of an integrated bus system and BART decrease as volume increases. The bus system is more efficient than BART for all volumes studied and more efficient than an auto-based system for volumes exceeding 1,100 passengers per hour.

Should transit be subsidized?

- Positive externalities of transit use can justify some subsidy, *if* the externalities are realized, i.e. *if* significant numbers use the system. (China and U.S. are very different).
- Transit subsidies can be viewed as a redistributive mechanism, though an inefficient one.
- With exception of a few existing lines in NYC and Chicago (*maybe* Boston, D.C?), *rail* is a no-brainer in the U.S.
  - Low ridership => few positive externalities
  - Except for some routes in Chicago, New York, you can move more people for less money with buses.
  - Shanghai's new system? Combination of light and heavy rail?



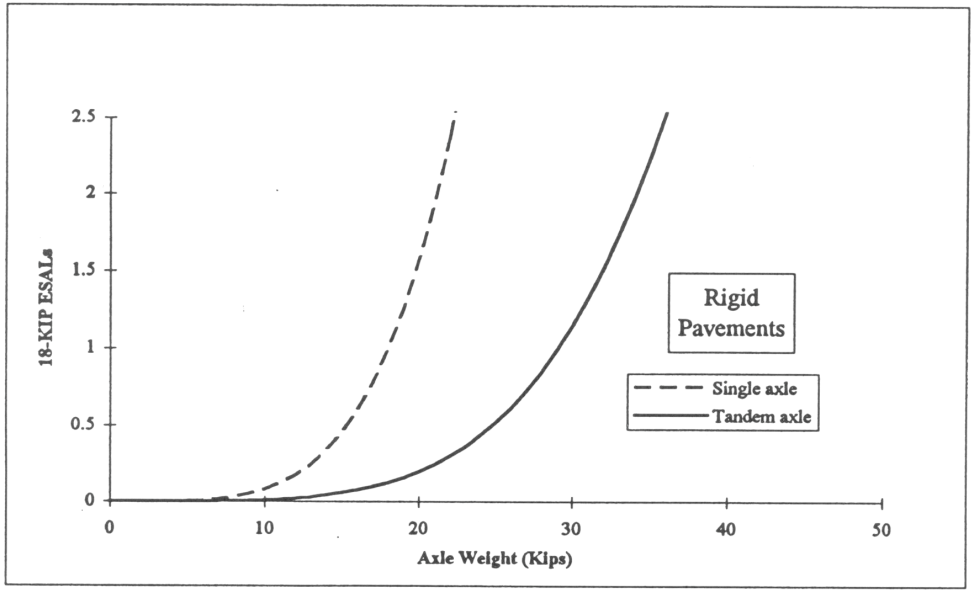
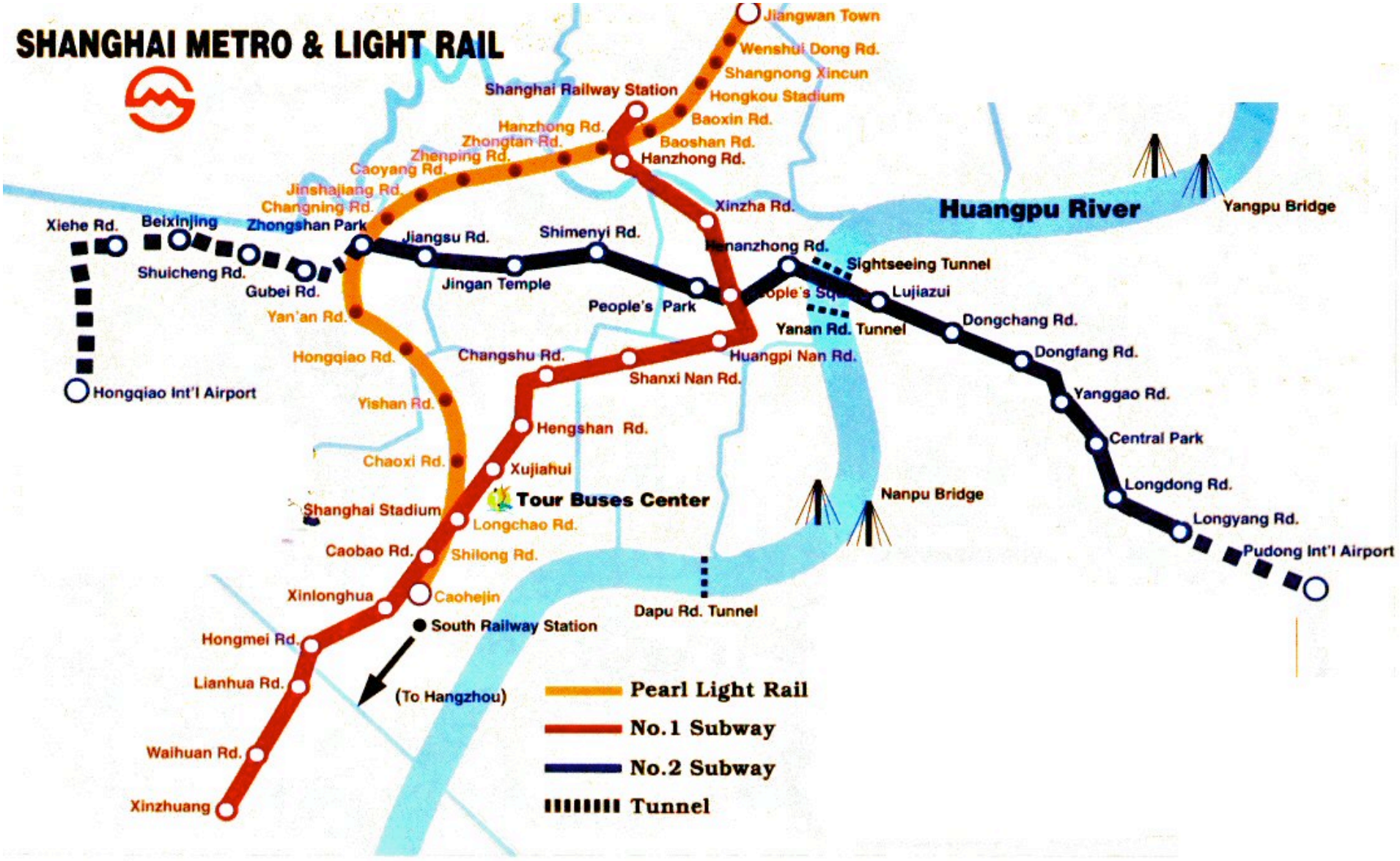
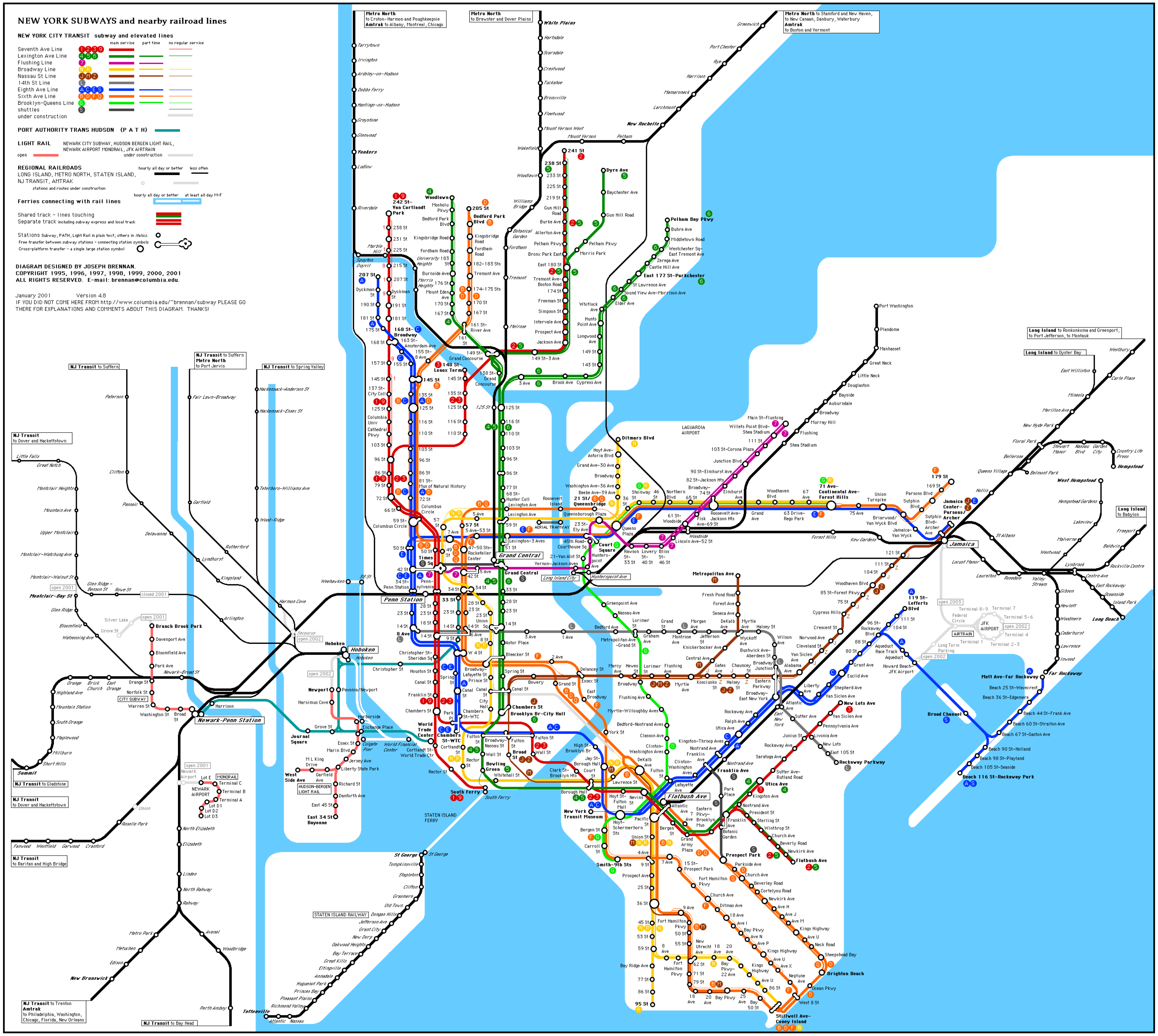


Exhibit 1 Axle load effects on pavements: top, flexible pavements (structural number 5, terminal serviceability = 2.5); bottom, rigid pavements (slab thickness = 10, terminal serviceability =2.5) (AASHTO 1986).

Source:
(to be added)


SHANGHAI METRO & LIGHT RAIL
Jiangwan Town
Wenshui Dong Rd.
Shangnong Xincun
Hongkou Stadium
Shanghai Railway Station
Baoxin Rd.
Hanzhong Rd.
Zhongtan Rd.
Baoshan Rd.
Zhenping Rd.
Hanzhong Rd.
Caoyang Rd.
Jinshajiang Rd.
Changning Rd.
Xinzha Rd.
Huangpu River
Yangpu Bridge
Xiehe Rd.
Beixinjing
Zhongshan Park
Jiangsu Rd.
Shimenyi Rd.
Nanjing Rd.
Sightseeing Tunnel
Shuicheng Rd.
Gubei Rd.
Jingan Temple
People's Park
Lujiazui
Yan'an Rd.
Yanan Rd. Tunnel
Dongchang Rd.
Hongqiao Rd.
Changshu Rd.
Huangpi Nan Rd.
Dongfang Rd.
Shanxi Nan Rd.
Hongqiao Int'l Airport
Yishan Rd.
Yanggao Rd.
Hengshan Rd.
Central Park
Chaoxi Rd.
Xujiahui
Longdong Rd.
Tour Buses Center
Nanpu Bridge
Shanghai Stadium
Longchao Rd.
Longyang Rd.
Caobao Rd.
Shilong Rd.
Pudong Int'l Airport
Xinlonghua
Caohejin
Dapu Rd. Tunnel
South Railway Station
Hongmei Rd.
Lianhua Rd.
(To Hangzhou)
Pearl Light Rail
No.1 Subway
No.2 Subway
Tunnel
Waihuan Rd.
Xinzhuang


NEW YORK SUBWAYS and nearby railroad lines
NEW YORK CITY TRANSIT subway and elevated lines
main service
part time
no regular service
Seventh Ave Line
Lexington Ave Line
Flushing Line
Broadway Line
Nassau St Line
14th St Line
Eighth Ave Line
Sixth Ave Line
Brooklyn-Queens Line
shuttles
under construction
PORT AUTHORITY TRANS HUDSON (P A T H)
LIGHT RAIL
NEWARK CITY SUBWAY, HUDSON BERGEN LIGHT RAIL, NEWARK AIRPORT MONORAIL, JFK AIRTRAIN
open
under construction
REGIONAL RAILROADS
LONG ISLAND, METRO NORTH, STATEN ISLAND, NJ TRANSIT, AMTRAK
hourly all day or better
less often
stations and routes under construction
Ferries connecting with rail lines
hourly all day or better
at least all day M-F
Shared track - lines touching
Separate track including subway express and local track
Stations Subway, PATH, Light Rail in plain text; others in italics.
Free transfer between subway stations - connecting station symbols
Cross-platform transfer - a single large station symbol
DIAGRAM DESIGNED BY JOSEPH BRENNAN.
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ALL RIGHTS RESERVED. E-mail: brennan@columbia.edu.
January 2001 Version 4.8
IF YOU DID NOT COME HERE FROM http://www.columbia.edu/~brennan/subway PLEASE GO THERE FOR EXPLANATIONS AND COMMENTS ABOUT THIS DIAGRAM. THANKS!
Metro North to Croton-Harmon and Poughkeepsie
Amtrak to Albany, Montreal, Chicago
Metro North to Brewster and Dover Plains
Metro North to Stamford and New Haven, to New Canaan, Danbury, Waterbury
Amtrak to Boston and Vermont
NJ Transit to Suffern
Metro North to Port Jervis
NJ Transit to Spring Valley
NJ Transit to Dover and Hackettstown
NJ Transit to Gladstone
NJ Transit to Raritan and High Bridge
NJ Transit to Trenton
Amtrak to Philadelphia, Washington, Chicago, Florida, New Orleans
NJ Transit to Bay Head
Long Island to Ronkonkoma and Greenport, to Port Jefferson, to Montauk
Long Island to Oyster Bay
Long Island to Babylon
Penn Station
Grand Central
Hoboken
Newark-Penn Station
Jamaica
Flatbush Ave
LAGUARDIA AIRPORT
JFK AIRPORT
NEWARK AIRPORT
STATEN ISLAND RAILWAY
STATEN ISLAND FERRY
Stillwell Ave-Coney Island

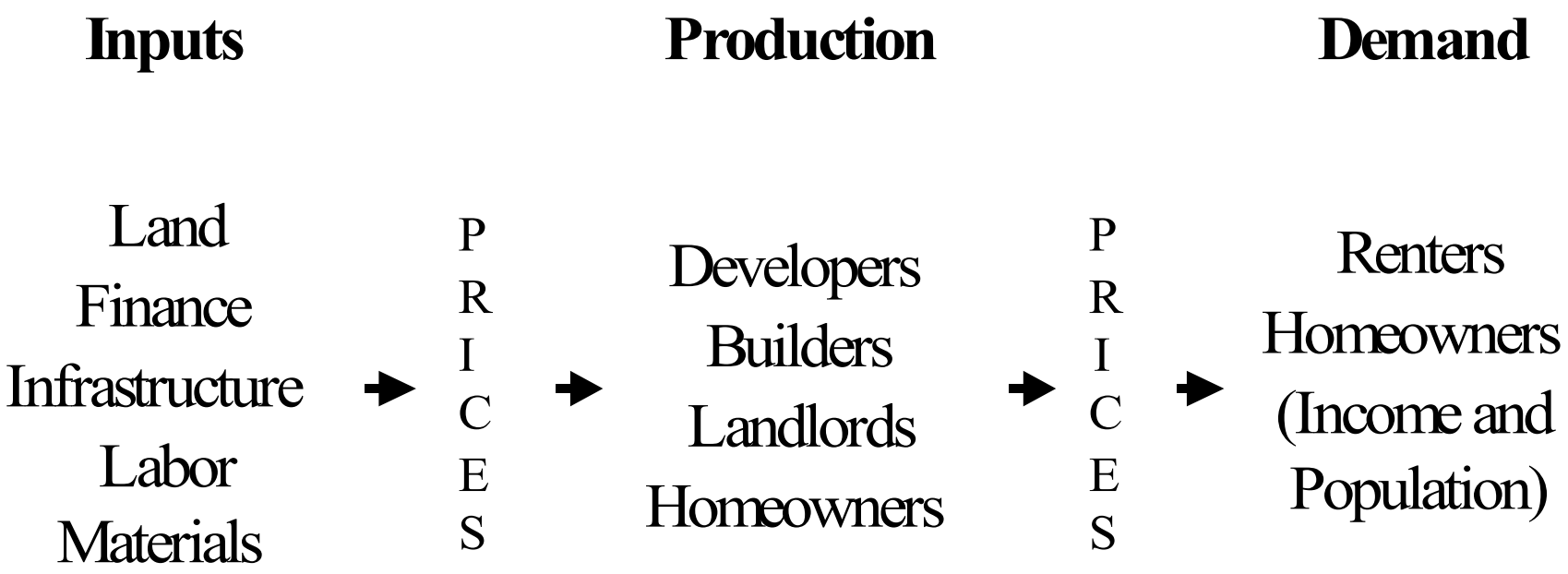
Implications of "Transportation" for local officials

- Insist on careful cost-benefit analysis of transport investments.
- Consider the system's flexibility and expandability as well as meeting current forecasts of need.
- Traffic management improvements often have very high returns.

Big Idea IV: Housing and Other Real Estate

- Mills, "Thematic History of Urban Analysis," section on *Housing*, pp. 21 ff.
- Malpezzi, "Housing in Developing and Transition Economies" (Chinese translation; English version available).
- Consider the "real side" (the real estate itself) and its finance.
- Consider also the regulatory environment for land use and urban development.

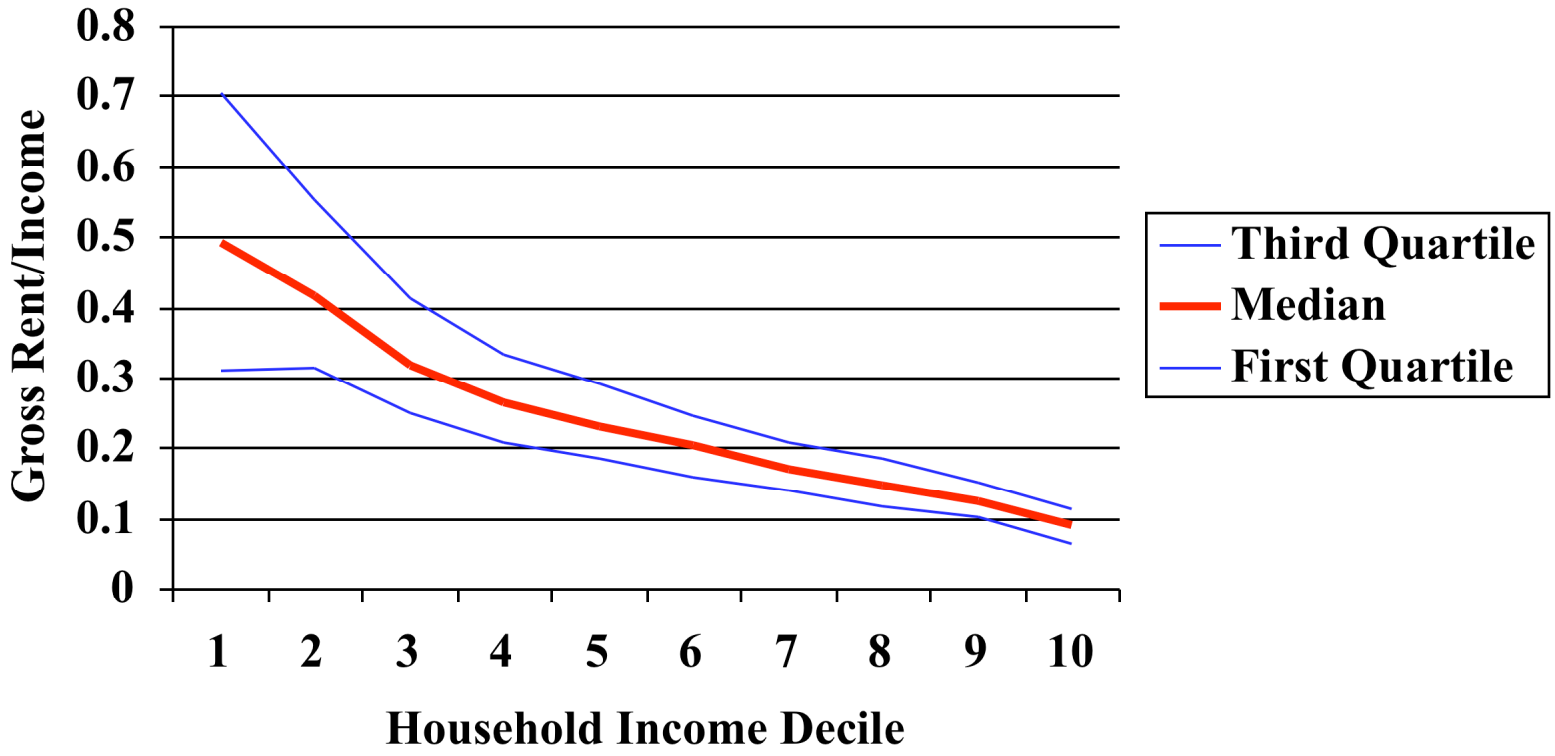
How Housing Markets Work



Stylized facts about housing market behavior from international research

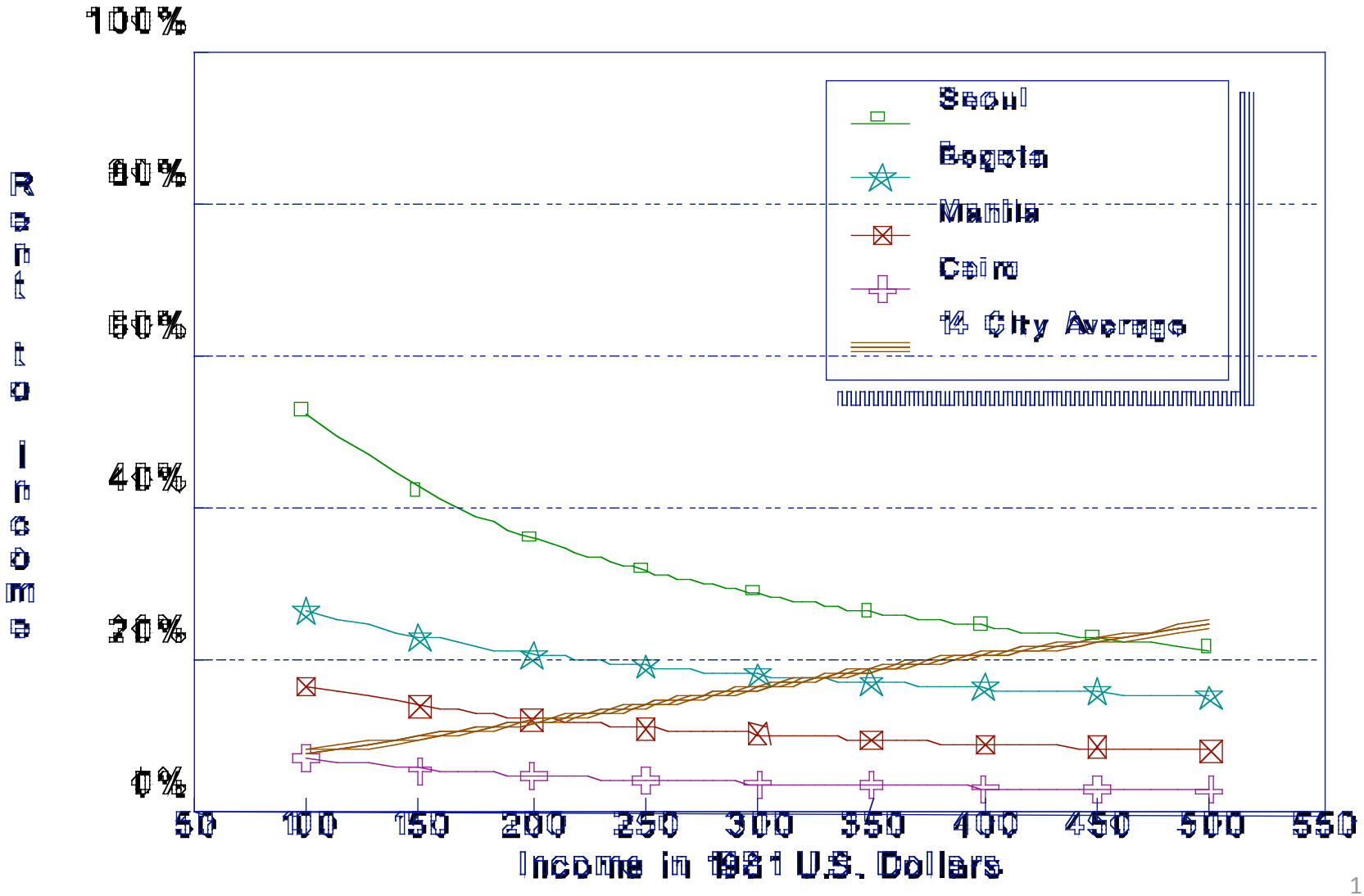
- *Demand* patterns are regular and predictable, across countries.
- However, housing *supply responsiveness* varies considerably from place to place.
  - Depends partly on natural constraint.
  - Depends more on regulatory regime.

Housing Expenditure: Rent-to-Income Ratios, By Income Decile (Renters)



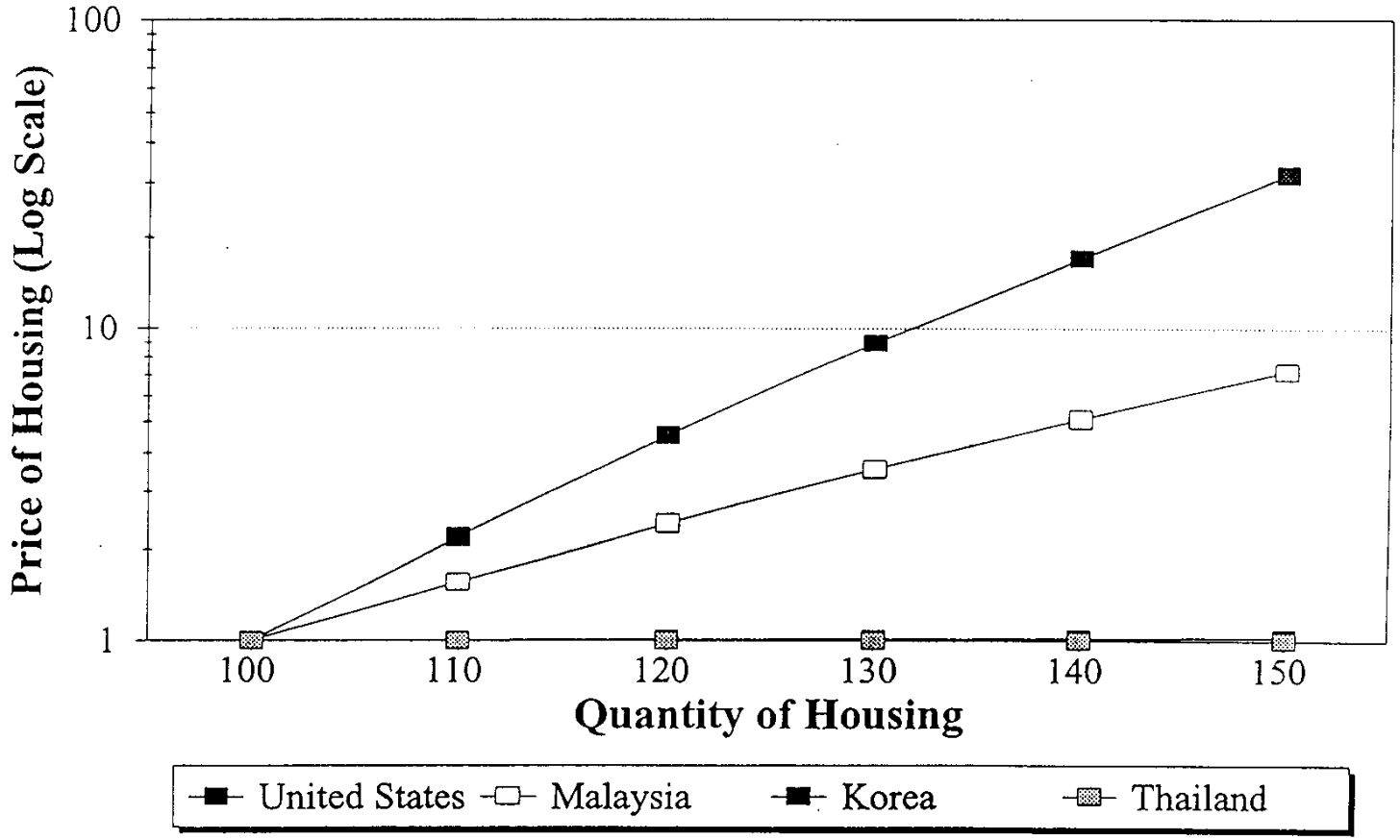
Source: 1993 AHS

Housing Demand in Developing Countries



Source: Malpezzi & Mayo

Estimated Supply Curves
Four Countries



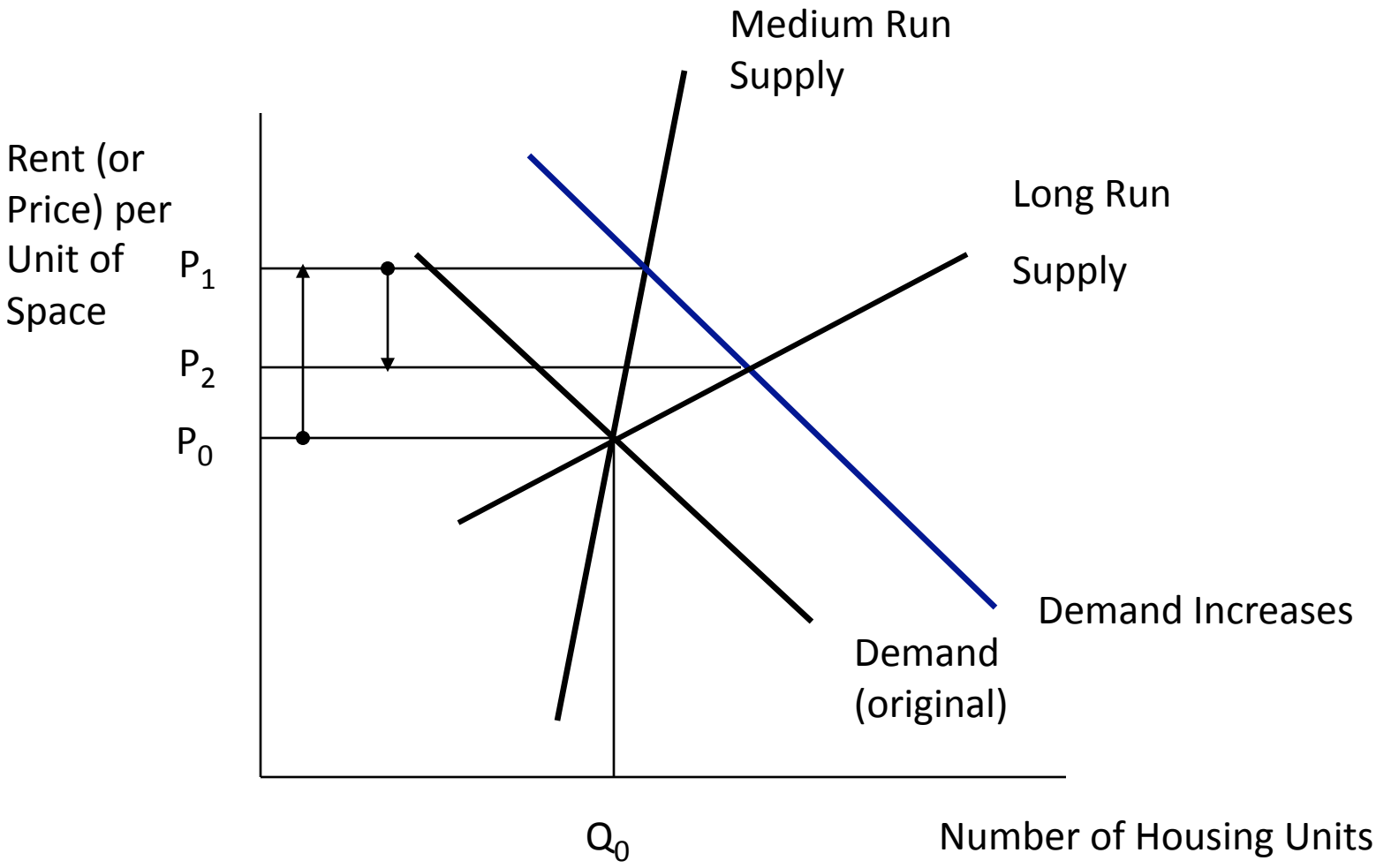
What determines supply responsiveness?

- Technology
- Government intervention
  - Property rights/legal framework
  - Taxes
  - Subsidies
  - Regulations
  - Infrastructure supply
- Natural constraint/geography

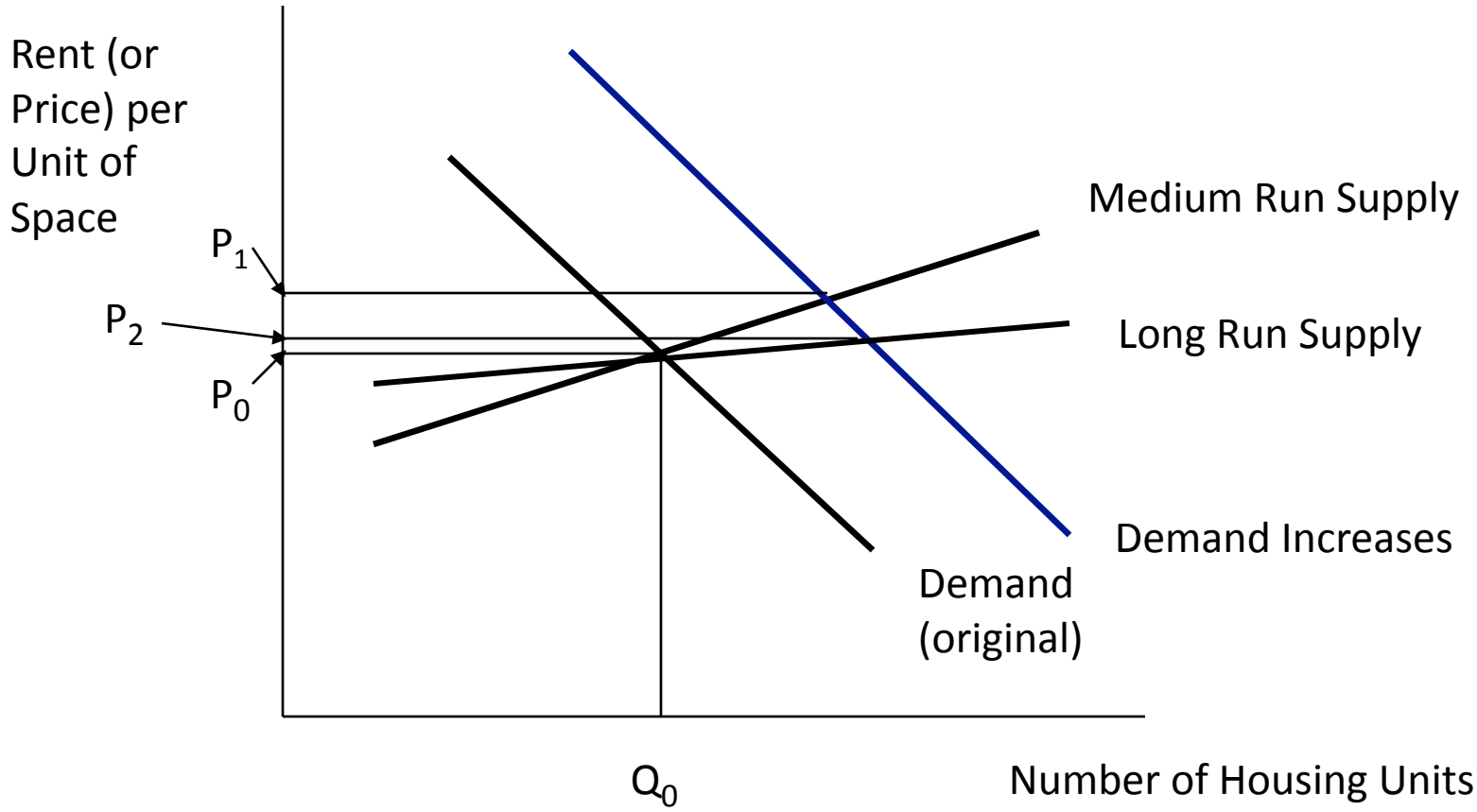
Stylized facts about housing and related policies

- Many countries have been moving from supply-side approaches to demand-side (vouchers, housing allowances).
- Move to separate housing finance and housing subsidies.
- Demand side approaches work best with elastic supply; and elastic supply is generally "progressive." We understand more and more about how to "elasticize" the supply curve; have policies kept pace?

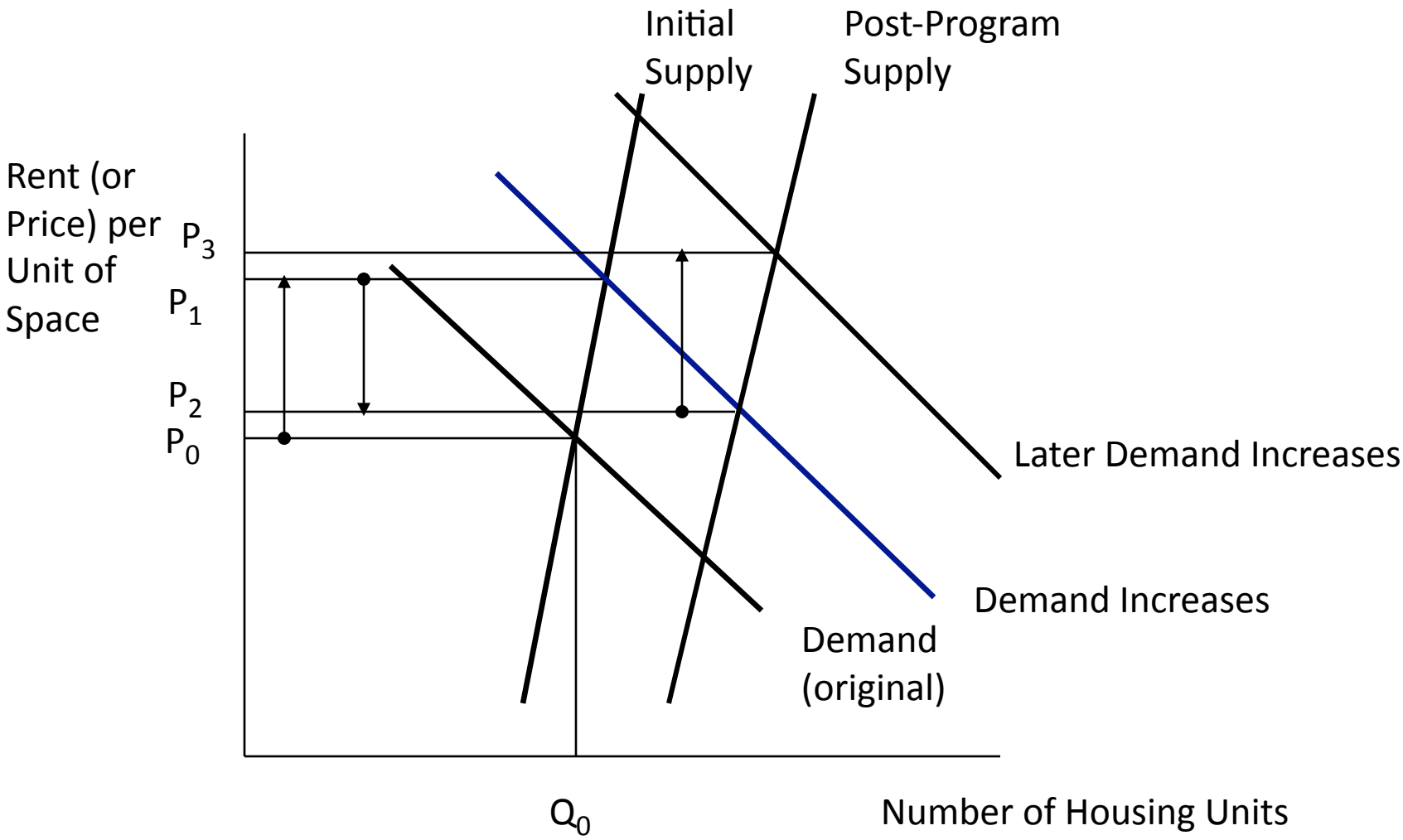
Demand Shocks with Inelastic Supply: Boom and Bust



Demand Shocks with Elastic Supply: Lower Price Shocks, Less Volatility



Demand Shocks with Inelastic Supply, Followed by a "Million Houses Program"



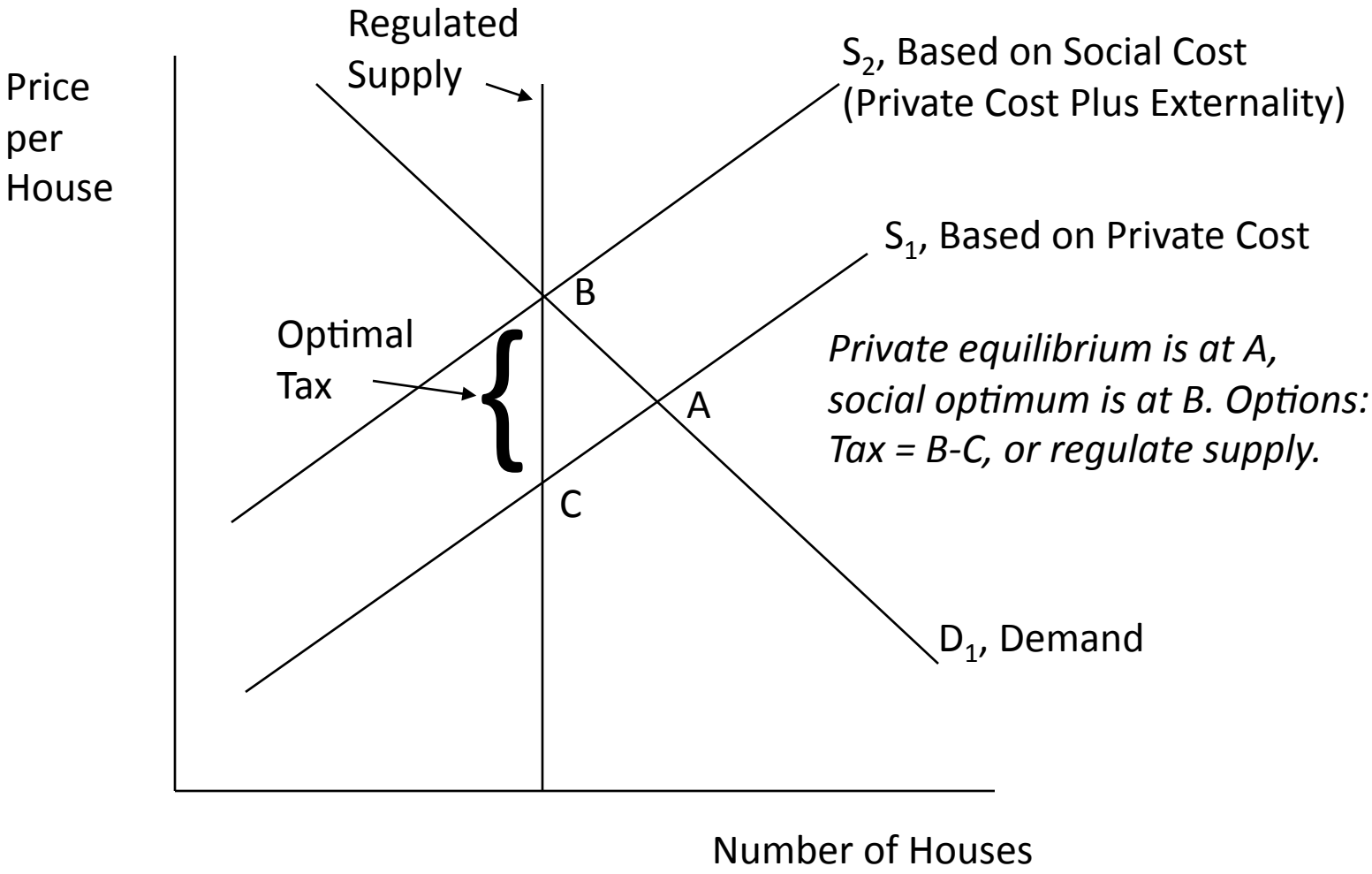
Government Interventions in Real Estate Markets

- Definition and enforcement of property rights
- Direct public provision
- Taxation
- Subsidy
- Regulation

Why we intervene

- Housing does generate externalities and other *market failures*.
  - "Regulation per se is neither good nor bad. Compare costs and benefits of specific regulations under specific market conditions."
- Market failures place great responsibility on planners and regulators:
  - Deep understanding of the market is required.
  - Deep understanding of the nature of the market failures, and the effectiveness of alternative public interventions.
  - Misunderstanding, or the wrong interventions, can lead to *government failure*.

Optimal Taxation and Regulation in the Presence of an Externality



Cross MSA Study of House Prices and Regulation

- S. Malpezzi, Housing Prices, Externalities and Regulation in U.S. Metro Areas, *Journal of Housing Research*, 1996; summarized in Green & Malpezzi pp. 146-156.
- Objective: Cost-Benefit Analysis
  - Are planners biased towards *benefits?*
  - Are economists biased towards *costs?*
- Costs: Higher housing prices? and...?
- Benefits: Fewer "externalities?" and...?

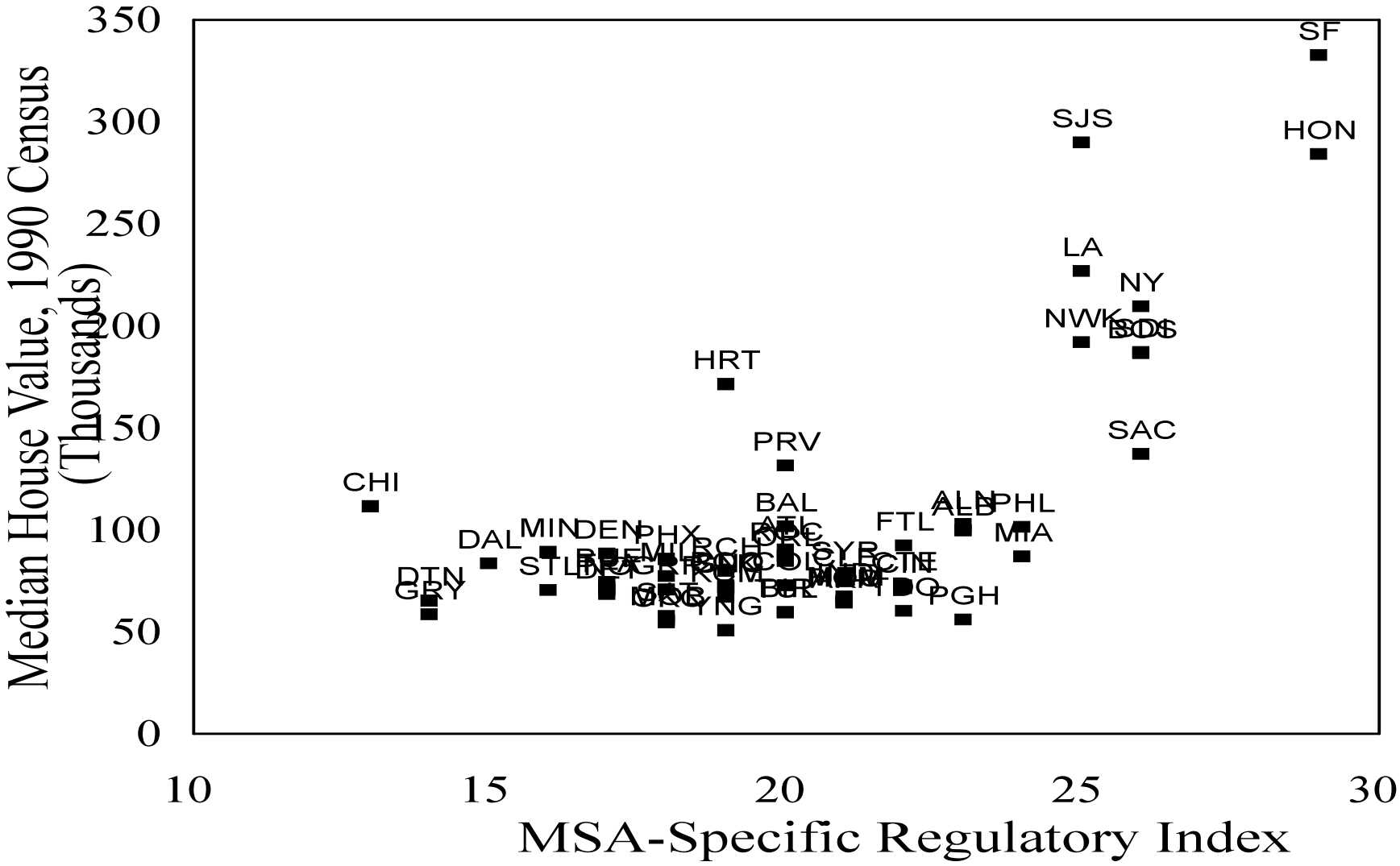
Possible Sources of Costs and Benefits

- Prices (Rents and House Values)
- Homeownership
- Congestion
- Segregation
- Environmental/Neighborhood
- Fiscal

Measuring Regulation by MSA

- Index based on answers to the following:
  - Recent changes in approval time for single family housing development
  - Time required for rezoning and permitting for a small residential subdivision
  - Ditto, for a large subdivision
  - Single family zoning, compared to demand
  - Multifamily zoning, compared to demand
  - Percent of zoning changes approved
  - Index of adequate infrastructure (roads and sewers)
- Index values range from 7 (permissive) to 35 (most stringent)
- Other indexes constructed for state regulations, rent control.

House Prices & Regulation



Source: Malpezzi, J. Hsg Research, 1996

Method: simple cross-MSA model

- Price = f("The Usual Suspects," Regulation)
  - Prices: rents, and house values
  - The "usual suspects" include demand drivers like population growth, income. On the supply side we include some measures of natural constraint (geography).
- Benefits = f(X, Prices, Regulation)
  - Benefits: homeownership, reduced segregation, increased neighborhood satisfaction, reduction in commute times.
  - X: Other determinants of benefits
- See paper for full regression results.
- Other studies have endogenized regulation; examined regulation within MSAs as well as across; and examined effects on returns and volatility as well as price levels.

Simulation results

- Define an arbitrary “lightly regulated” city and a “heavily regulated city”
  - We use moving from the first quartile of regulatory indices to the third quartile.
  - Infinitely many other changes can be simulated

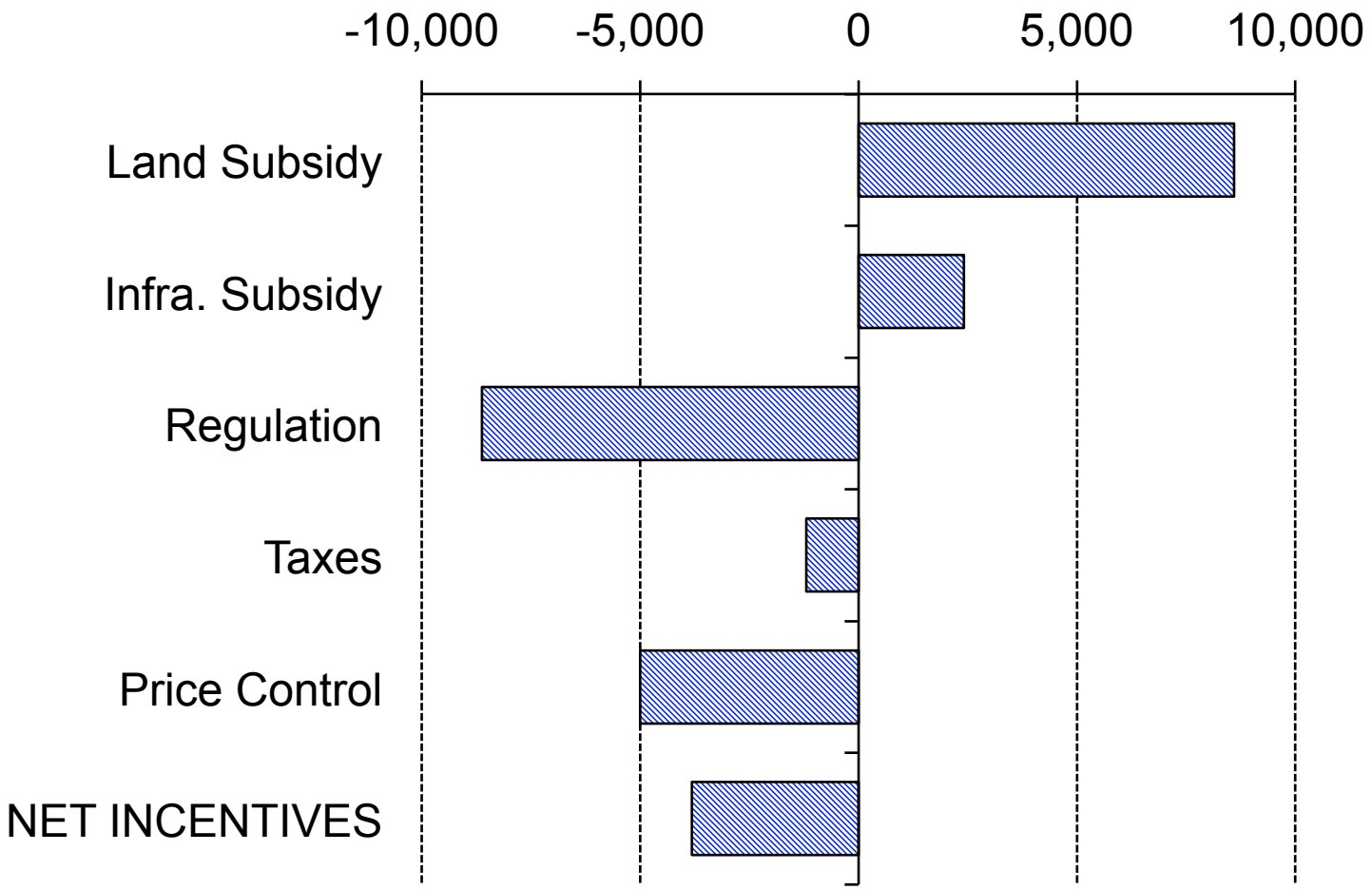
Simulation results (cont'd.)

- For this *specific* simulation we find:
  - Rents go up by 17%
  - Values go up by 51%
  - Homeownership rates go down 9 points
  - Average commutes go down 3 minutes per day
  - No significant effect on segregation or neighborhood

Getting the Incentives Right

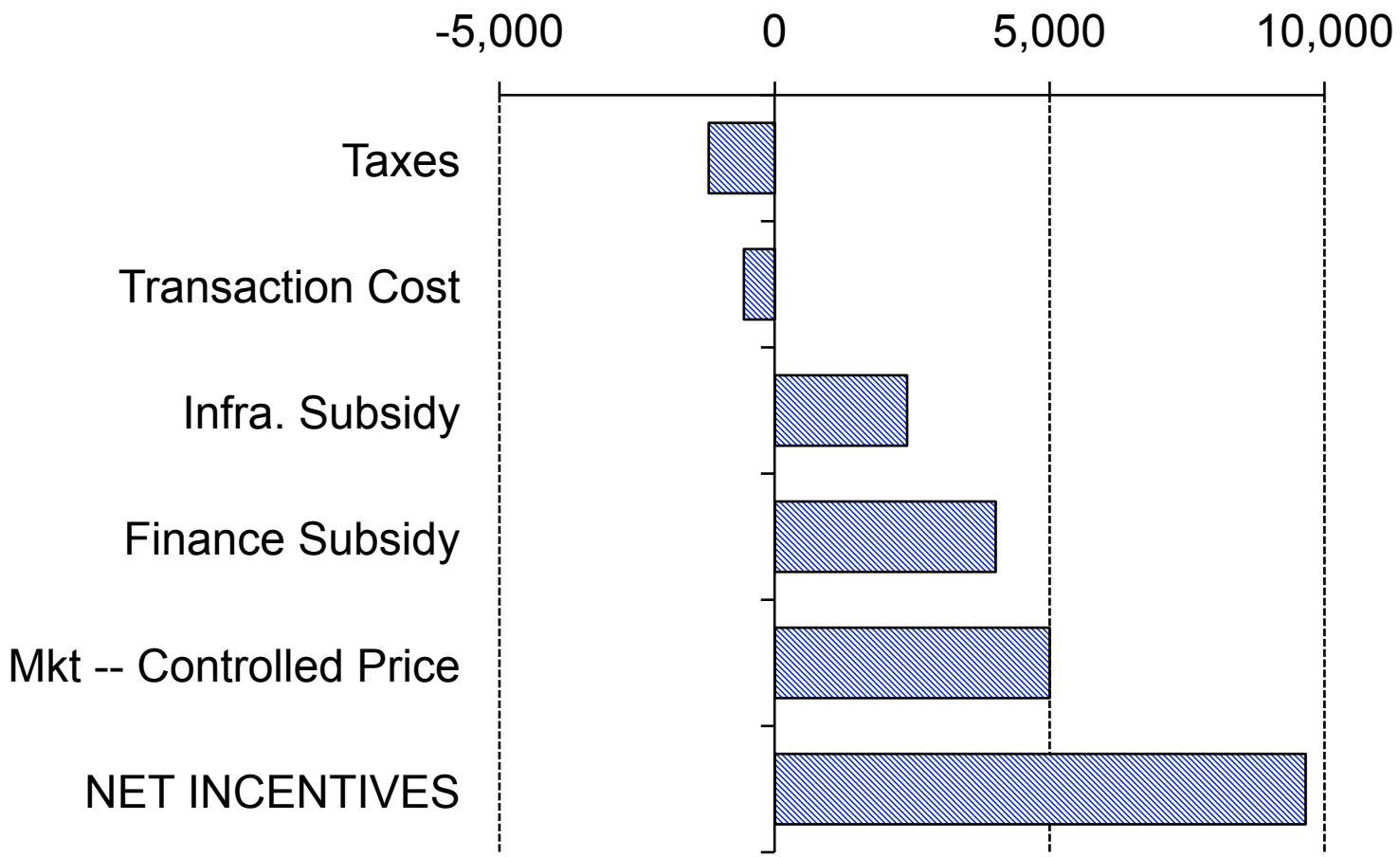
- Key study of Malaysian Housing Market (Hannah, Bertaud, Malpezzi and Mayo)
  - Research question: why weren't Malaysian developers producing middle income housing, even with substantial subsidies?

Summary of Developer Incentives



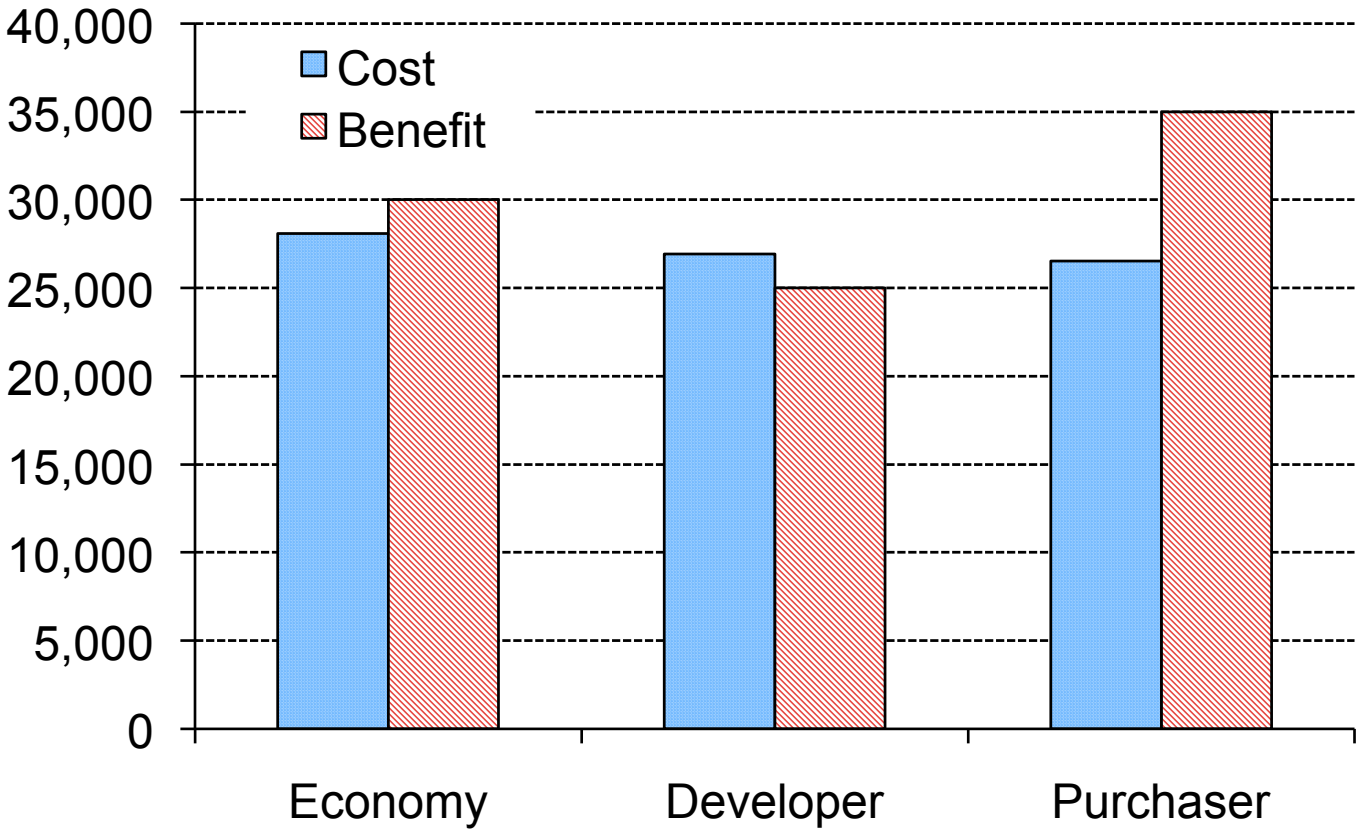
SLCHP Unit, Selangor, Current Stds (from Malpezzi and Mayo 1997)

Summary of Consumer Incentives



SLCHP Unit, Selangor, Current Stds (from Malpezzi and Mayo 1997)

Summary of Malaysia Incentives, Test Case



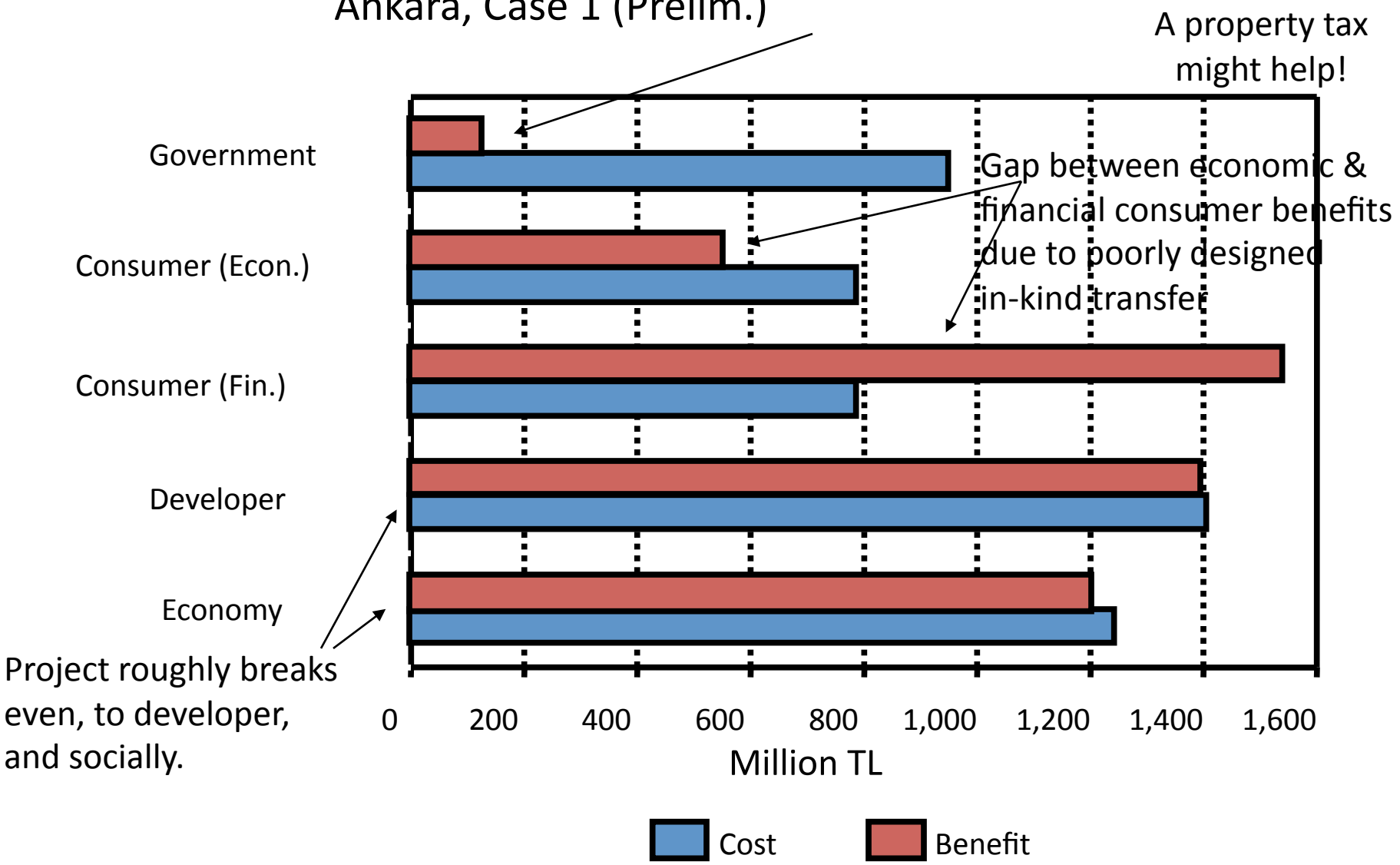
SLCHP Unit, Selangor, Current Stds (from Malpezzi and Mayo 1997)

“Malaysia Model” Applied to Turkey

- Similar structure, but inputs “quick and dirty”
- Better breakdown of incentives to ***government***.
- Better treatment of consumer’s cost-benefit
  - financial (valued at market prices)
  - economic (consumer’s surplus)
- Next step would be to improve regulatory c-b, using Bertaud model

Summary Cost-Benefit

Ankara, Case 1 (Prelim.)



Lessons of Experience Related to Regulation

- Examine international experience, model codes, but adapt carefully to local conditions.
- Planners and other public agents must study the market and specifics about externalities and other market failures.
  - Monitor indicators of housing performance, especially prices; including the distribution of prices within markets.
  - "The devil is in the details" of effective and appropriate regulation.
- Regulatory audits, regulatory triage can help.

Lessons of Experience Related to Regulation

- Outright prohibitions ("corner solutions") like greenbelts are often less effective than *carefully designed* development charges, "impact fees."
- System needs process as well as rules.
  - Develop a transparent and effective process for granting variances, introduce flexibility.
  - Legislation and written codes should emphasize principles and intervention design, rather than setting parameters "in stone."

Regulatory Do's

- The prerequisites are well-functioning land registration, solid property rights, fair adjudication.
- Plan trunk infrastructure carefully. Charge developers appropriately.
- Permit density, but allow for a mix of densities and income levels.
- Allow for exceptions and changes to rules, with well-known, transparent processes.
- Want affordable housing? Permit appropriate densification, "floor area ratio."

Regulatory Don’ts

- Don’t put unnecessary roadblocks to infill and redevelopment.
- Don’t prohibit large lots. Don’t prohibit small lots. Set regulations/impact fees to “internalize the externalities” of various standards, and let the market decide.
- Skip command-and-control solutions, like greenbelts. Using pricing solutions, like impact fees.
- Avoid blanket metro-wide rules (e.g. all new units must have full curb and gutter, sewer hookups, sidewalks, no right of way less than 30 feet, etc.).
- Avoid taxing land based on current use. Keep the playing field level.
- Avoid rent controls, on residential or commercial property.

Implications of "Housing and Real Estate" for local officials

- Develop property rights
  - e.g. improve registration procedures, formalize informal settlements, rules related to condominium ownership, foreclosure, etc.
- Develop a competitive mortgage finance system
  - Proper regulatory framework
  - Lend at positive real rates
  - Enforce property rights, including foreclosure
- Rationalize subsidies
  - Make subsidies transparent and on-budget, rather than through the financial system or rent control
  - Target subsidies to low-income and others at risk

Implications of "Housing and Real Estate" for local officials

- Provide appropriate infrastructure
  - Let the land market signal where to invest
  - Improve infrastructure with upgrading projects
  - Use appropriate technology
- Regulate appropriately
  - Apply cost-benefit analysis to regulations
  - Keep codes appropriate and relevant to low and moderate income households
- Organize market
  - Eliminate rules that unnecessarily favor monopolies (public or private)
  - Encourage development of professional organizations

Special Problems of Transition Economies

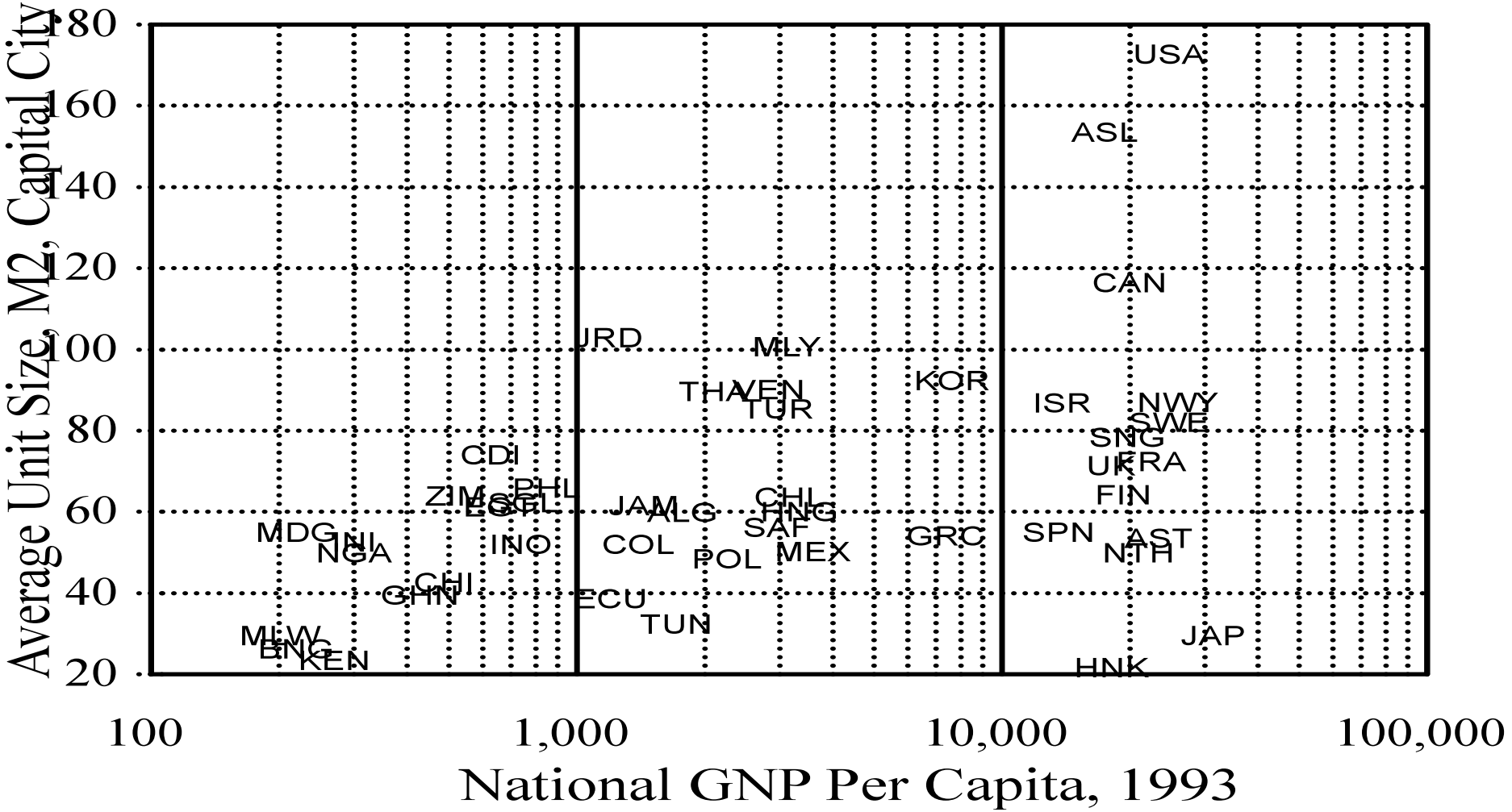
- Data, especially market comparables, are problematic
  - See LSMS as possible source of data
  - Little data history, hinders some analyses
- Market prices are often far from equilibrium
- Relevant research is available on rich countries, and on poor countries. "Omitted middle" is a problem.
  - Which results translate, which don't?
- See Renaud *et al*. 1993 on Russia's move to market.
- The Georgist Fallacy: See the Tideman *et al*. letter, Malpezzi's critique, Kaganova.

International Housing Indicators

- Housing data from Stephen Malpezzi and Stephen K. Mayo, "Housing and Urban Development Indicators: A Good Idea whose Time Has Returned," *Real Estate Economics*, 25(1), Spring 1997, pp. 1-11.
- Economic data from World Bank, *World Development Report*, and new companion volume *World Development Indicators*.
- See also Shlomo Angel, *Housing Policy Matters*, Cambridge, 2001.

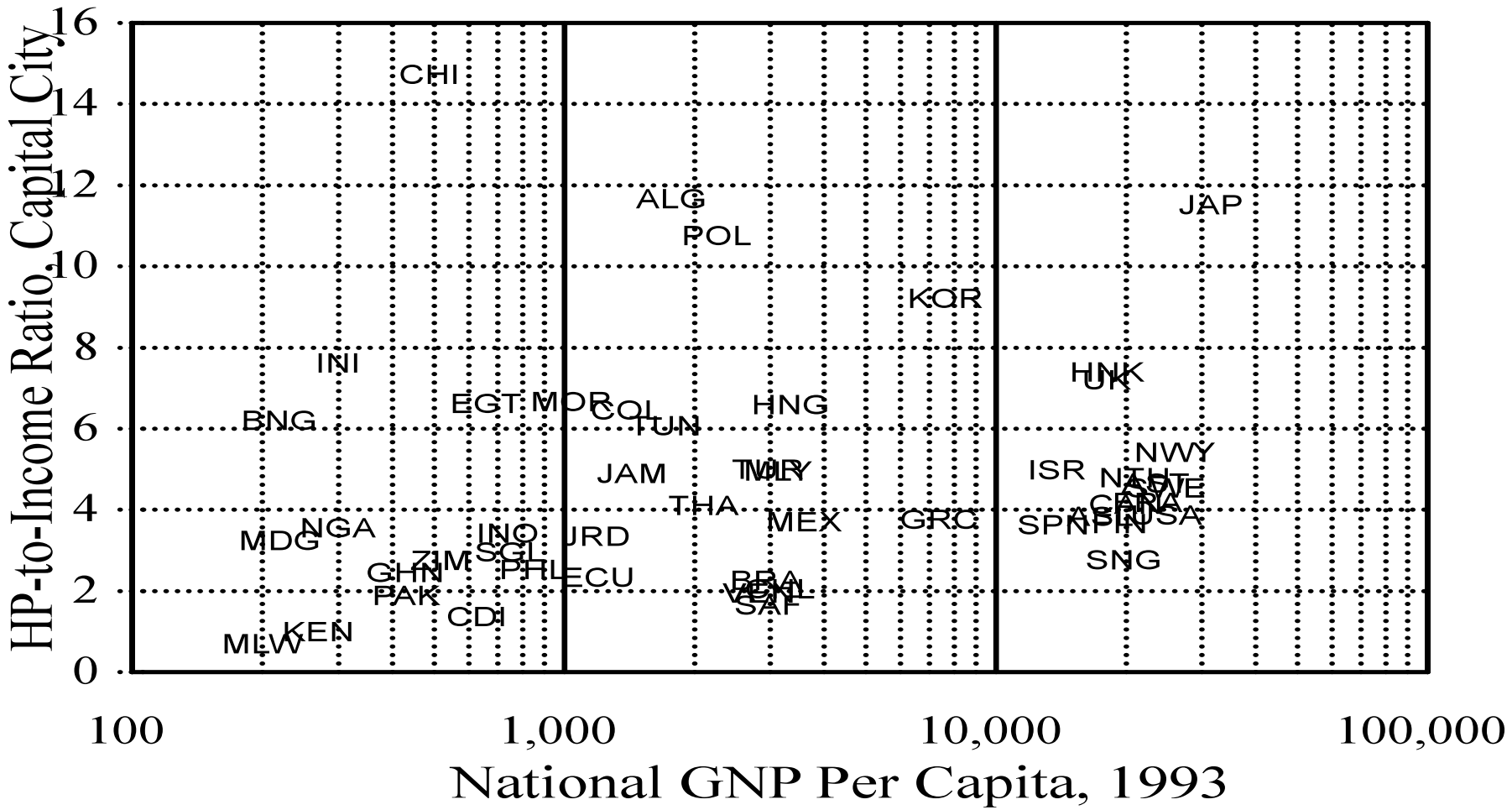
Housing Unit Size and GNP

1993 Housing Indicators Data

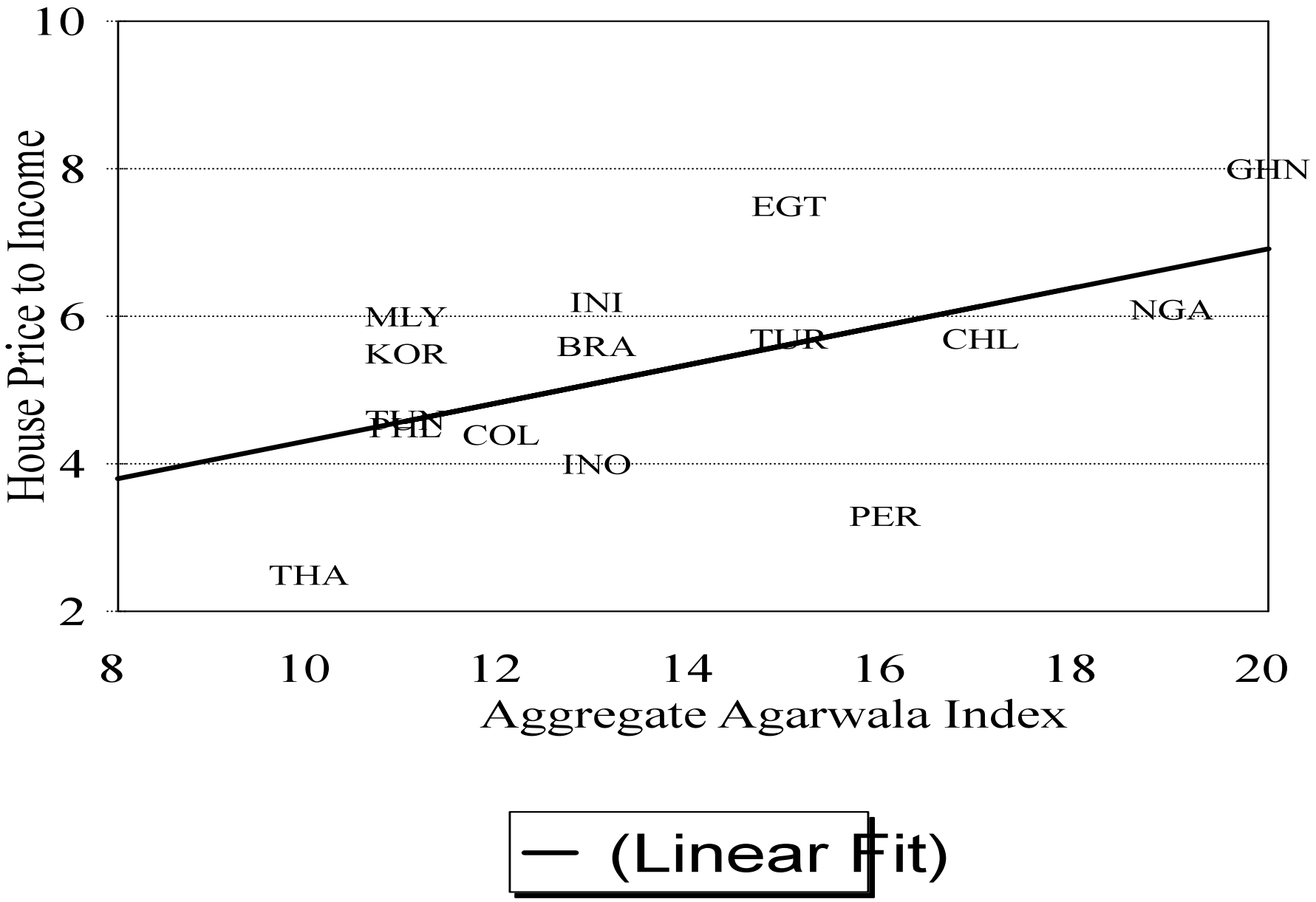


House Price-to-Income and GN

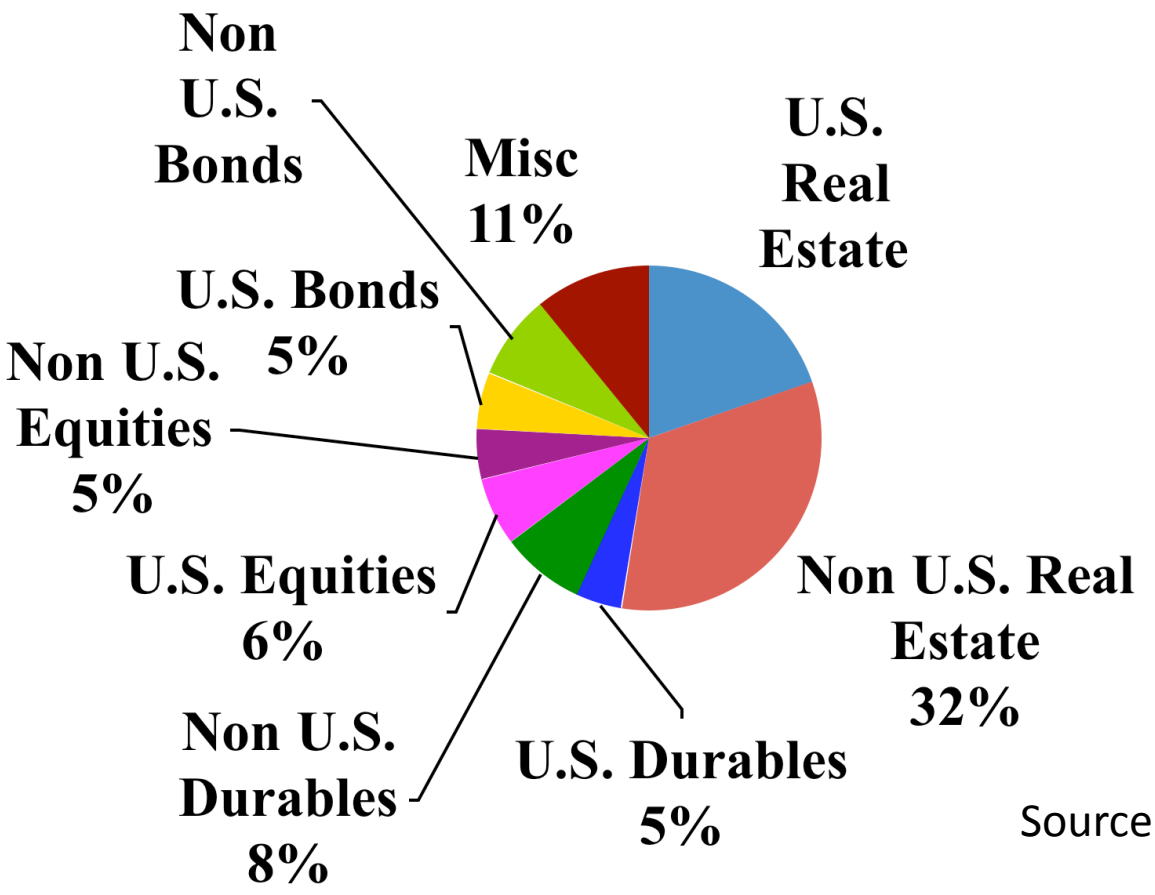
1993 Housing Indicators Data



Housing Prices and Economic P

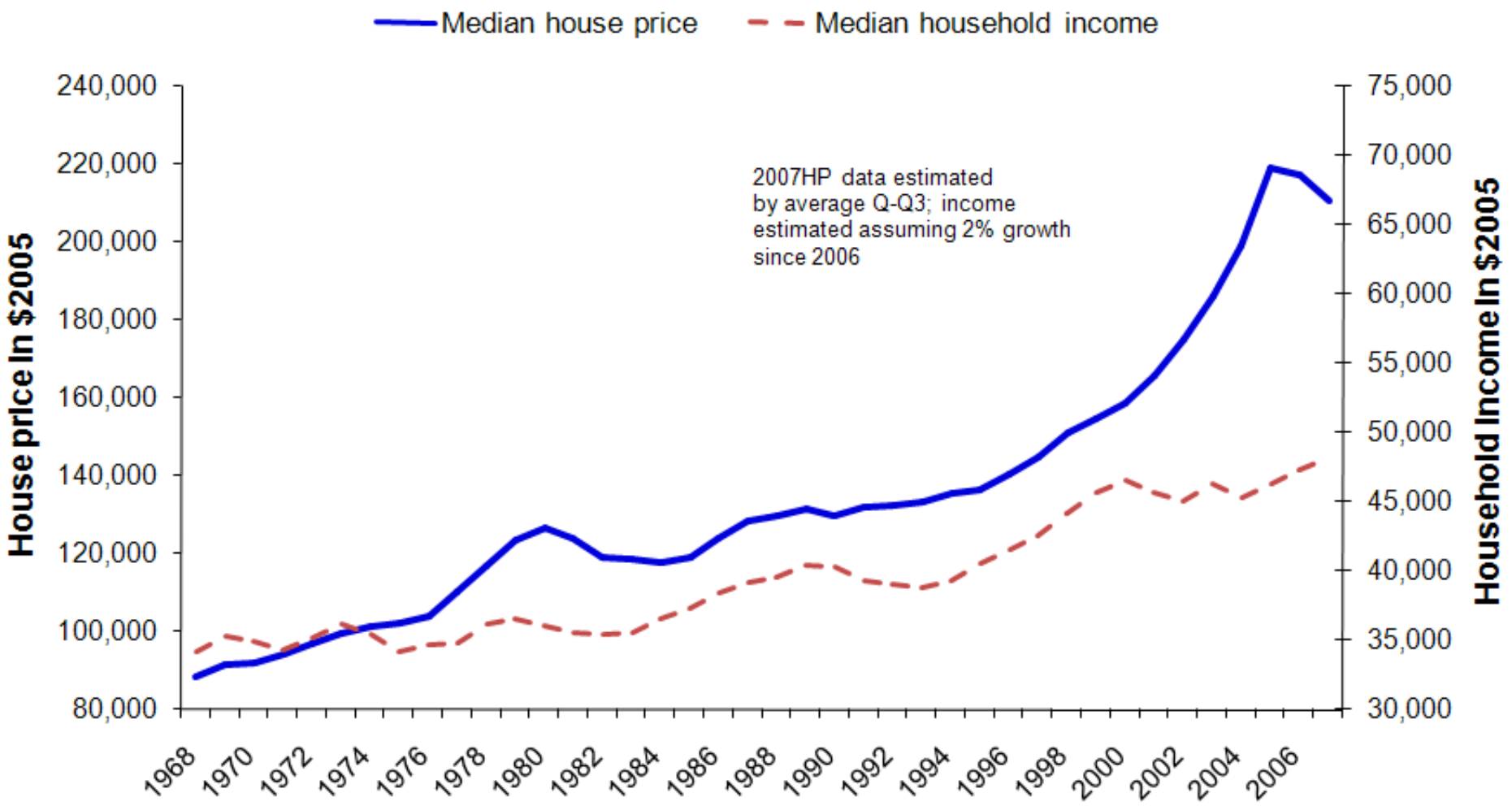


Total World Wealth, 1980

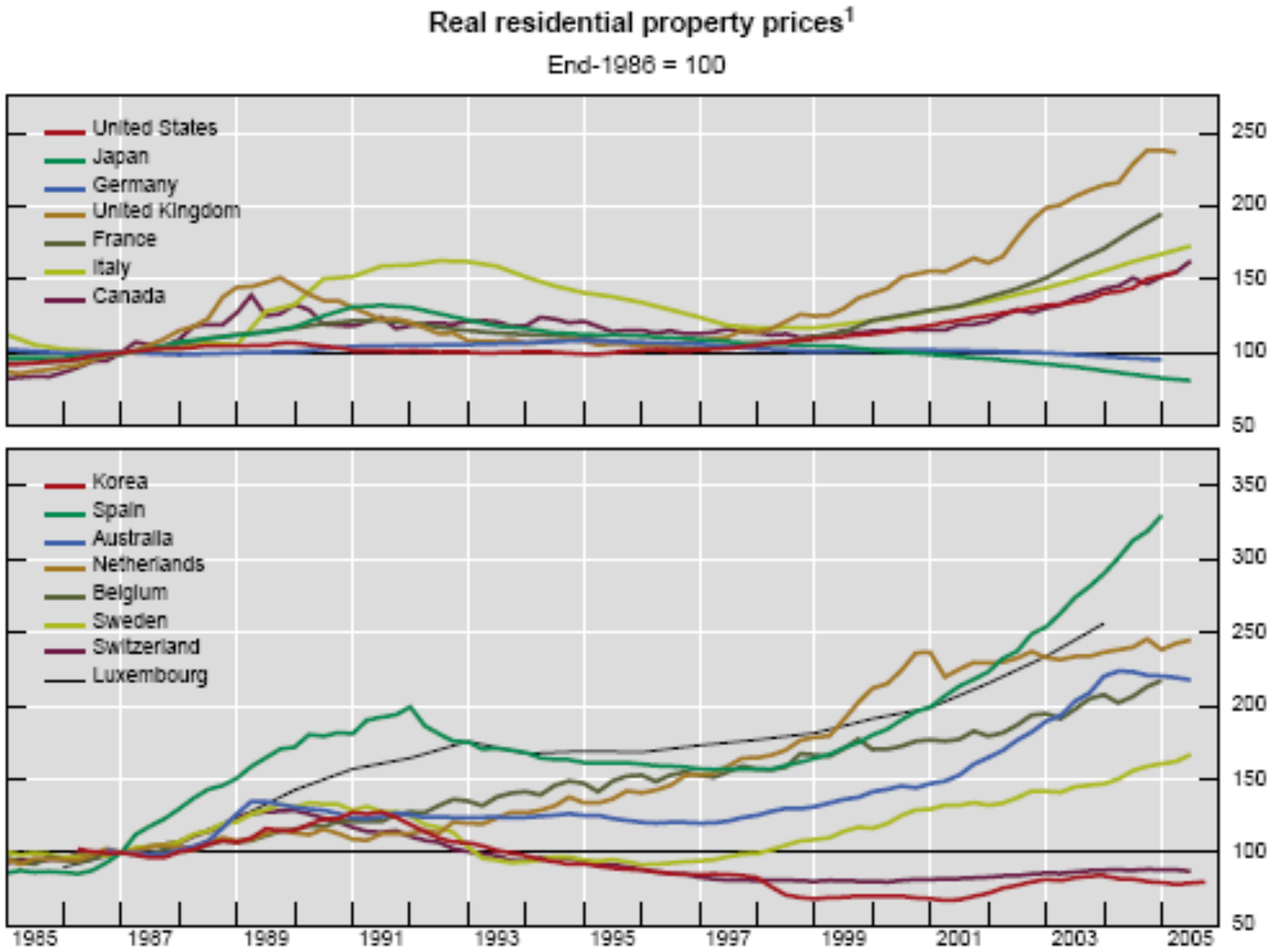


Source: Ibbotson Associates

U.S. Median House Price (NAR Existing Sales) and Median Household Income



See Box 1-2 of Ling and Archer, p. 12



[1] Nominal property (for Japan, land) prices less the personal consumption deflator (for Korea, consumer price inflation).

Source: BIS, CGFS WP #26, 2006

Wouldn’t you like to own this?

Or would you rather own this?

Implications of "Housing and Real Estate" for local officials

- Set up an appropriate system for the taxation of income from capital, including housing and other real estate.
  - Tax income on an equitable basis, from whatever source derived; but permit the deduction of the costs of producing that income.
- What's good for the economy is good for real estate.
  - Follow a general path that puts incentives in place for development.
- Remember the importance of macroeconomic stability for estate
  - Keep inflation under control, diversify and grow the economy

Big Idea V: Local governance

- Mills, "Thematic History of Urban Analysis," section on *Local Governments*, pp. 29 ff.
- Malpezzi, "What Should State and Local Governments Do?"
- Kettl Commission on State and Local Partnerships, http://www.lafollette.wisc.edu/reform/Default.htm

Different "models" of central/local government responsibility

- American/Indian "model:" states have some residual sovereignty, and that of cities is derived from the state. Federal in character.
- French "model:" all power derives from a central government. Unitary in character.
- Confederation: at the other extreme, states or provinces are sovereign, and they have very loose links (e.g. for defense). See the U.S. 1783-1789.
- Interesting question: how would we describe China's "model?"

How much local public goods should we "buy?"

- In general, compare costs and benefits.
- But it's hard to determine the demand for local public goods, and hence benefits; we each have an incentive to understate our demand, and "free ride" on others.
  - One model: the median voter.
  - Another model: Tiebout model.
  - Lindhal taxes.

How do different levels of government pay for their activities?

- Local taxes (income, sales, property...)
- User charges
- Intergovernmental transfers
- Borrowing (unless subsidized, borrowing only changes the timing of payments). Should we treat capital versus recurrent expenditure differently?
- How should they pay? Which systems of taxation are most efficient and equitable?

How can we decide what level of government should provide a service?

- Once we've decided we need a service, what level of government (state, county, municipal, special district) should provide it?
- Consider:
  - Diversity in demand/local control
  - Economies of scale/costs
  - Spillovers/externalities
  - Integration of related services

Diversity in demand/local control

- For some goods, different communities have different demands, or otherwise place a very high value on local decisions and control.
- Examples:
  - Schools
  - Land use regulation
- Diversity in demand/local control $\Rightarrow$ shifting responsibility to a lower level.

Economies of scale/costs

- For some goods, costs fall as we increase the scale of the activity.
- Examples:
  - Roads, transportation networks
- Economies of scale $\Rightarrow$ shifting responsibility to a higher level (state or regional entity).

Spillovers/externalities

- Some activities impose costs, or confer benefits, on neighbors.
- Examples:
  - Land use
  - Education
- Spillovers $\Rightarrow$ shifting responsibility to a higher level.

Integration of related services

- Many activities combine several individual services/activities; each may have their own "optimal level."
- Examples:
  - Criminal justice (local police, county jails, state prisons).
- Existence of such integrated activities $\Rightarrow$ we must solve a coordination problem.

Providing services versus financing services

- In principle, who makes the decisions about the level of public services, and their composition, can be separated from who finances them.
- Examples:
  - In the U.S., education has significant local control but significant state finance.
  - Mandates are unpopular with LGs because they work in the other direction.
- Is such separation a "good thing" or a "bad thing?"

Arguments ***for*** separating service provision from finance

- Suppose schools are better run with local control and "ownership," but tax bases/ability to pay varies tremendously by location.

Arguments ***against*** separating service provision from finance

- When money "falls from the sky," we may spend it less carefully than if we earned it.

Privatization Of Urban Services

- When does the private market "fail?" The most important reasons:
  - When you can't exclude someone (example: defense)
  - When some costs and benefits are "external" (examples?)
  - When the good or service is a "natural monopoly" (decreasing cost over the entire relevant range) (examples?)
  - When some government action causes them to fail.
- Which goods and services are like this? Which are "large" failures? Which can the government improve on?

Privatization, Cont'd

- If a market failure exists, and the nature and magnitude are well understood, what can government do about it?
  - Nothing
  - Tax, subsidize, or regulate private production/consumption
  - Provide the good or service directly
  - Contract out
- How to choose? Which is the least cost solution? Why? What happens if you simply replace a public monopoly with a private one?

Implications of "Local Governance" for local officials

- Much U.S. literature – based on our institutions and the "Tiebout model" – may be of limited relevance for developing countries?

Big Idea VI: Urban Environmental Issues

- See Oates' comment on Mills, "Thematic History of Urban Analysis," pp. 43 ff.
- World Bank, *Greening Industry*, http://www.worldbank.org/nipr/greening/

Threats to health from air pollution

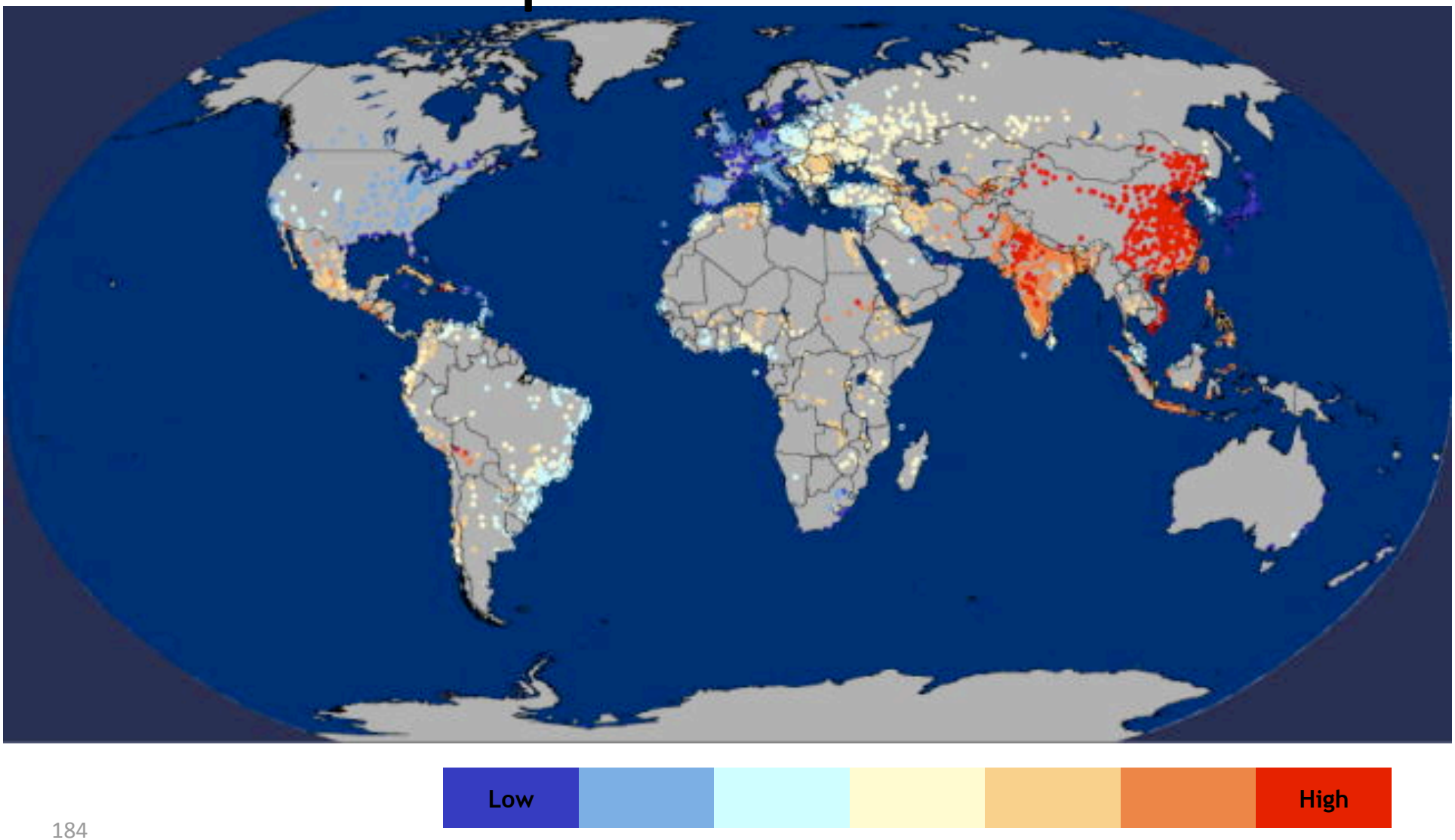
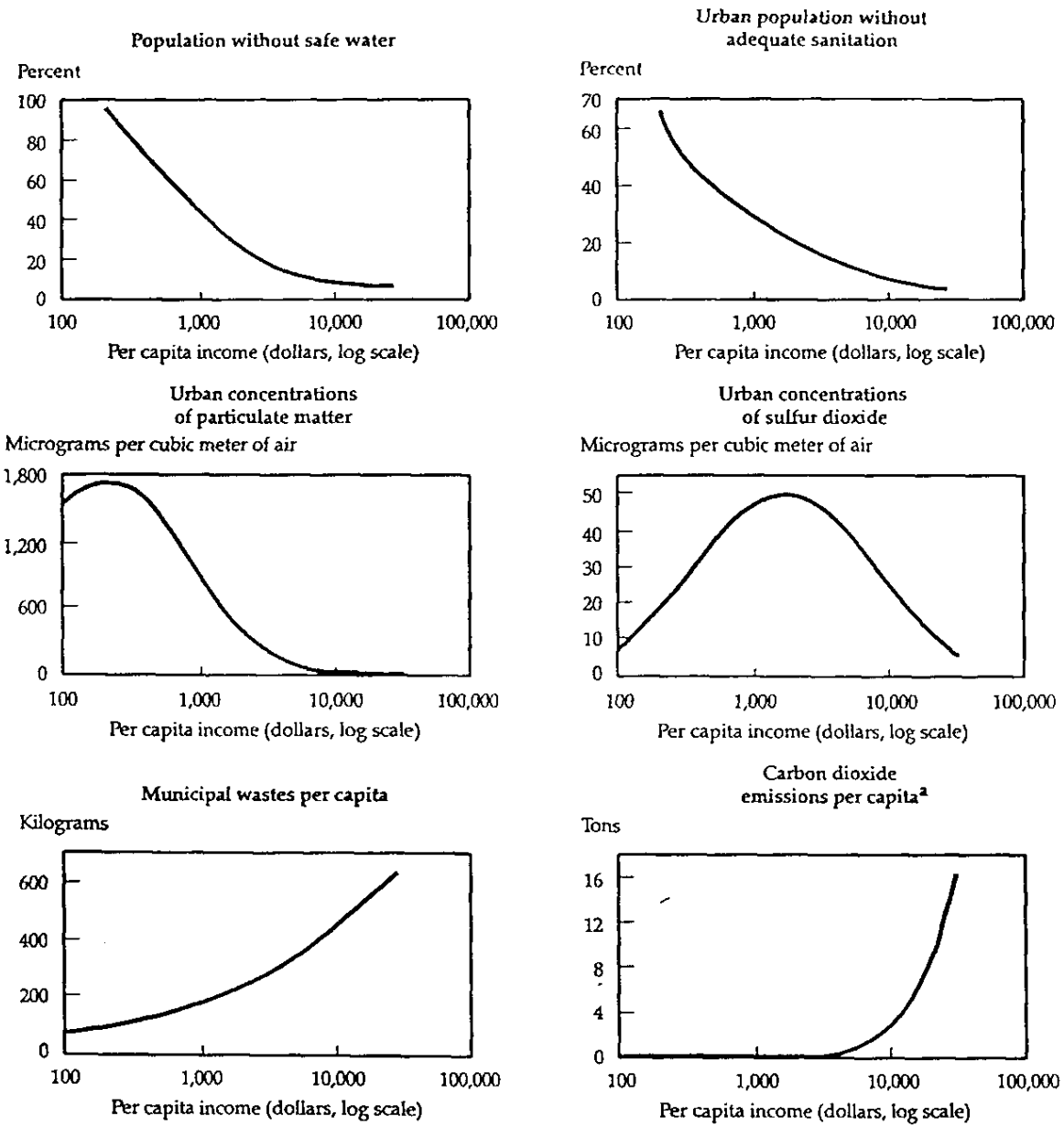


Figure 4 Environmental indicators at different country income levels



Note: Estimates are based on cross-country regression analysis of data from the 1980s.
a. Emissions are from fossil fuels.
Sources: Shafik and Bandyopadhyay, background paper; World Bank data.

Source: World Development Report

Two general approaches to pollution abatement

- "Command and control" regulation
  - Discharge standards
  - Require abatement facilities
  - Outlaw "dirty" technologies
- Market-based solutions
  - Emissions charges
  - Pollution abatement subsidies
  - Tradeable permits
- China – like most countries – has a mix of both.

Research findings

- Market-based solutions, and/or a mix of market-based with some command and control, work better than mostly command and control approaches.
  - How well does this result extend to China, given institutions?
- Most pollutants (excepting CO2?) decline with GDP per capita.
  - China's poorest regions tend to be its most heavily polluted?
- State-owned enterprises pollute more than similar private enterprises.

Implications of "Environment" for local officials

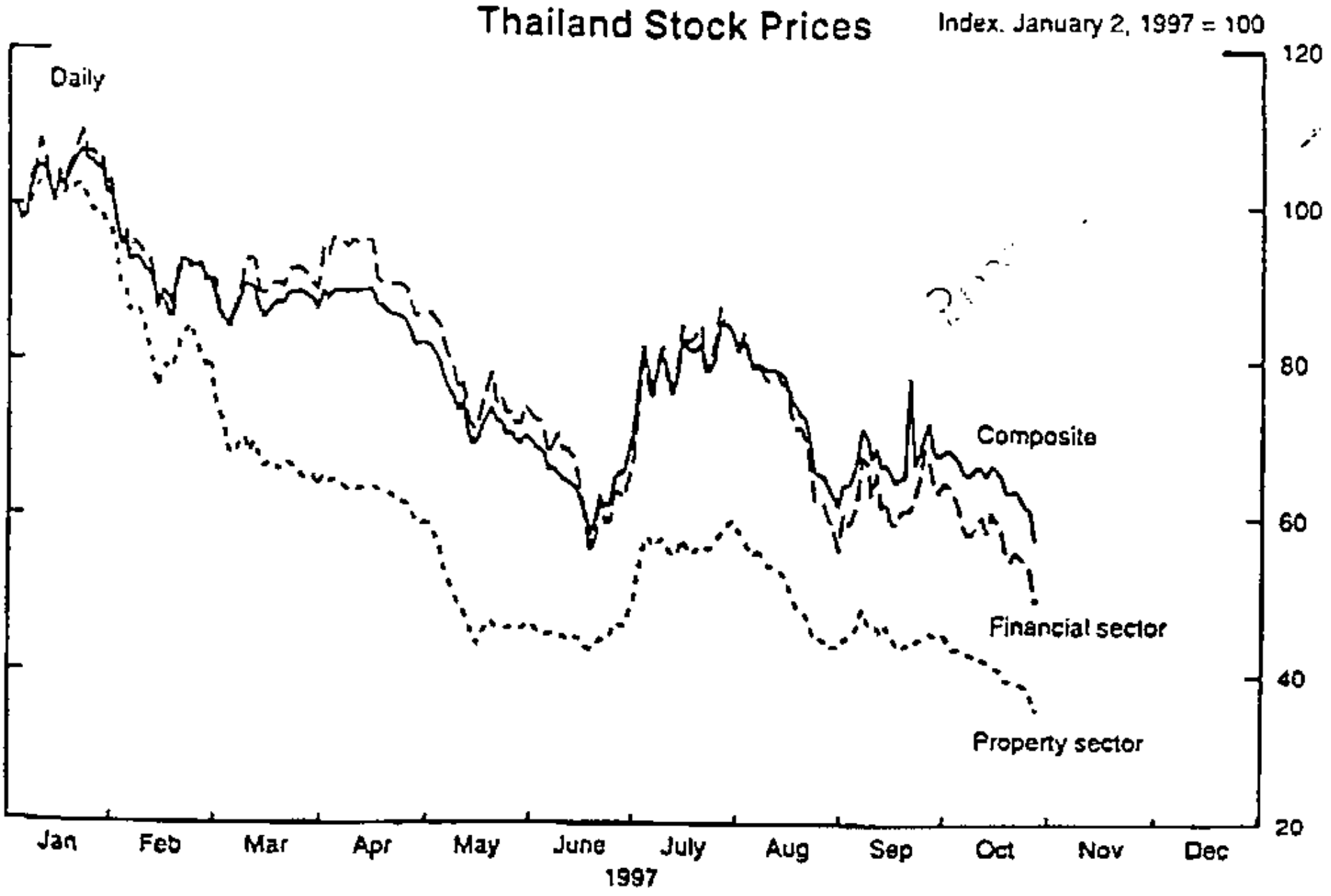
- Growth is good for the environment, in general.
  - But government must continue to press the right policies to ensure this happens.
- The move to a service economy, and away from SOEs, can help.
- Transport, especially internal combustion based, should pay full cost.
- Set emissions charges where marginal cost of reducing a unit of pollution equals marginal social benefit.
- Charge for all pollutants ($ for each milligram of a pollutant per unit of production) at that price, not just the amount *over* the standard.
- If effluent taxes are infeasible, "command and control" regulations are second-best solutions.

Big Idea VII: Urban development, real estate, and the macro agenda

- Why aren't we in the thick of the recent explosion of growth modeling?
- Real estate and macro policy, and the business cycle: key issues worldwide. Where's the Bank?
- Why ICORs are worse than useless when thinking about real estate investment
- Real estate investment is not consumption
  - Corollary: The Foreign Exchange Theory of Value
- Real estate and structural adjustment

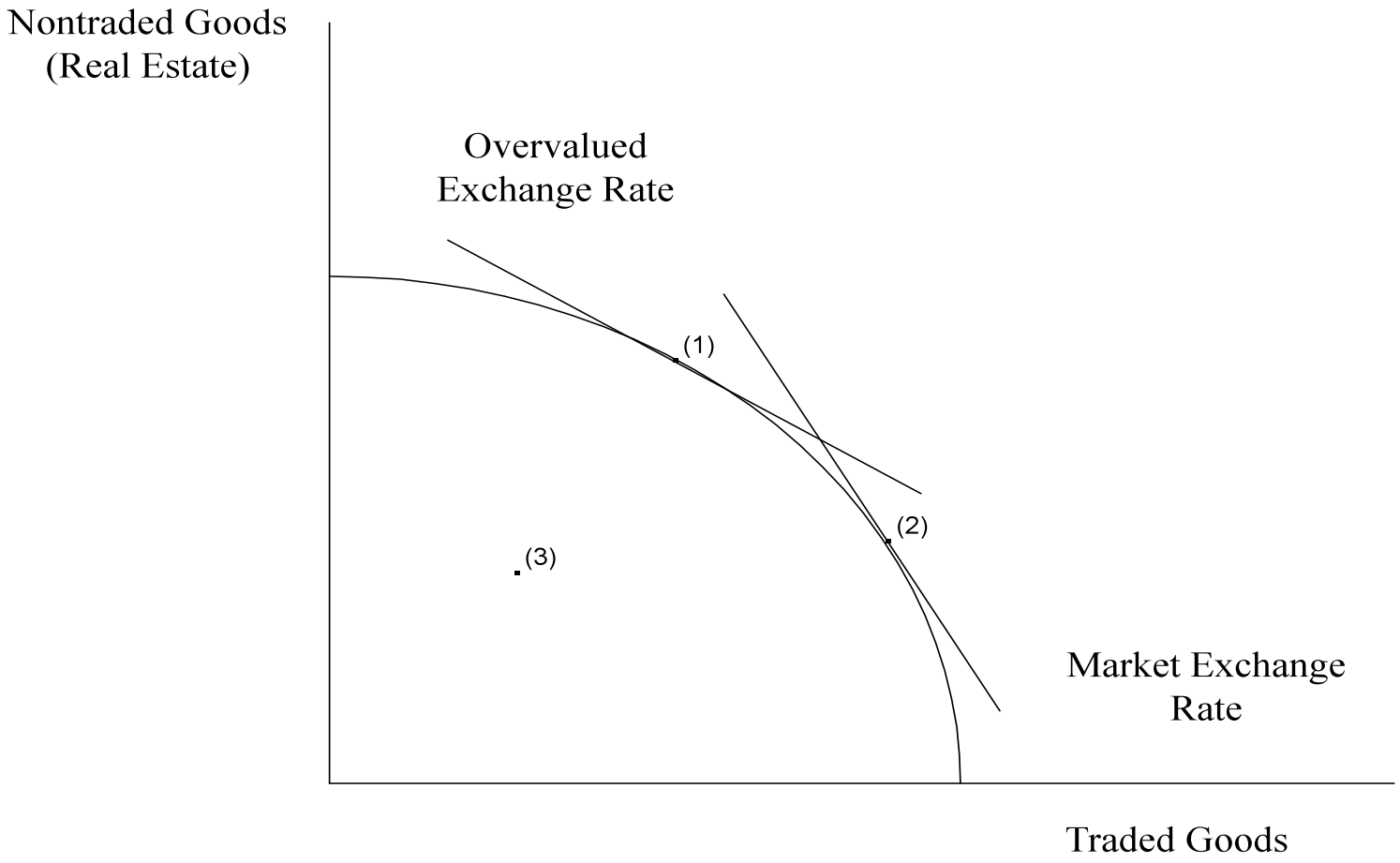
Real Estate and the Macro Economy: Examples

- Buckley shows mid 80s PV of welfare costs of Argentine housing finance subsidies were ~6% of GDP
- Mayo and Stein late 80s show Poland's underinvestment in housing, and poor location of investment, required compensating wage differentials (taxes) worth 10% of labor income.
- Zhang, Tolley many others discuss the negative effects of China's enterprise housing on labor mobility, corporate governance, the fisc.
- Another recent case study: Thailand (see Renaud).



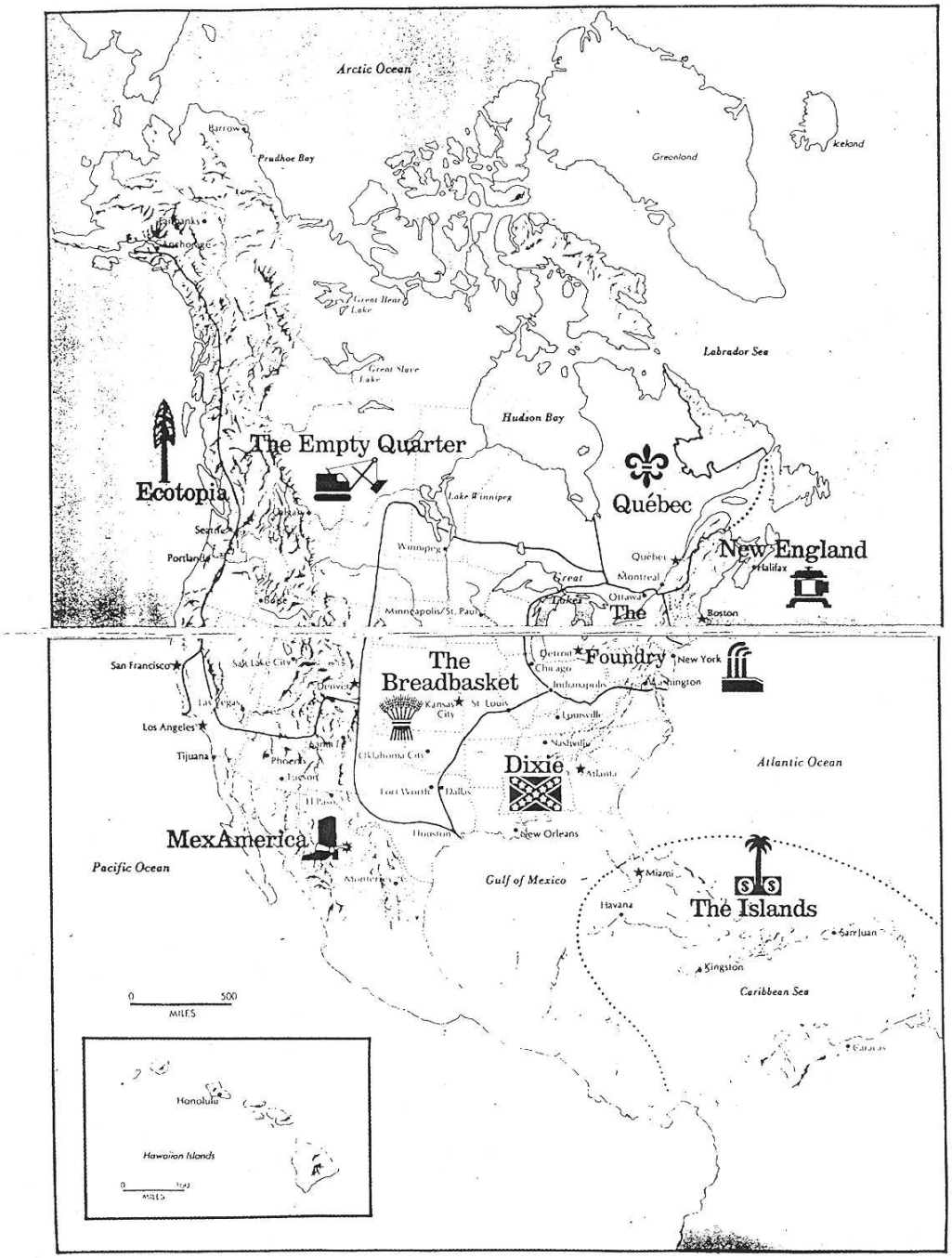
Source: Bloomberg

Stylized Structural Adjustment



Structural adjustment

- Why has growth response to SA been so disappointing?
  - Too much macro, not enough micro. Need structural reform at the enterprise/city/worker level.
- Well designed urban initiatives can make a major contribution.



Source:
Joel
Garreau

Why Do Regions Grow?

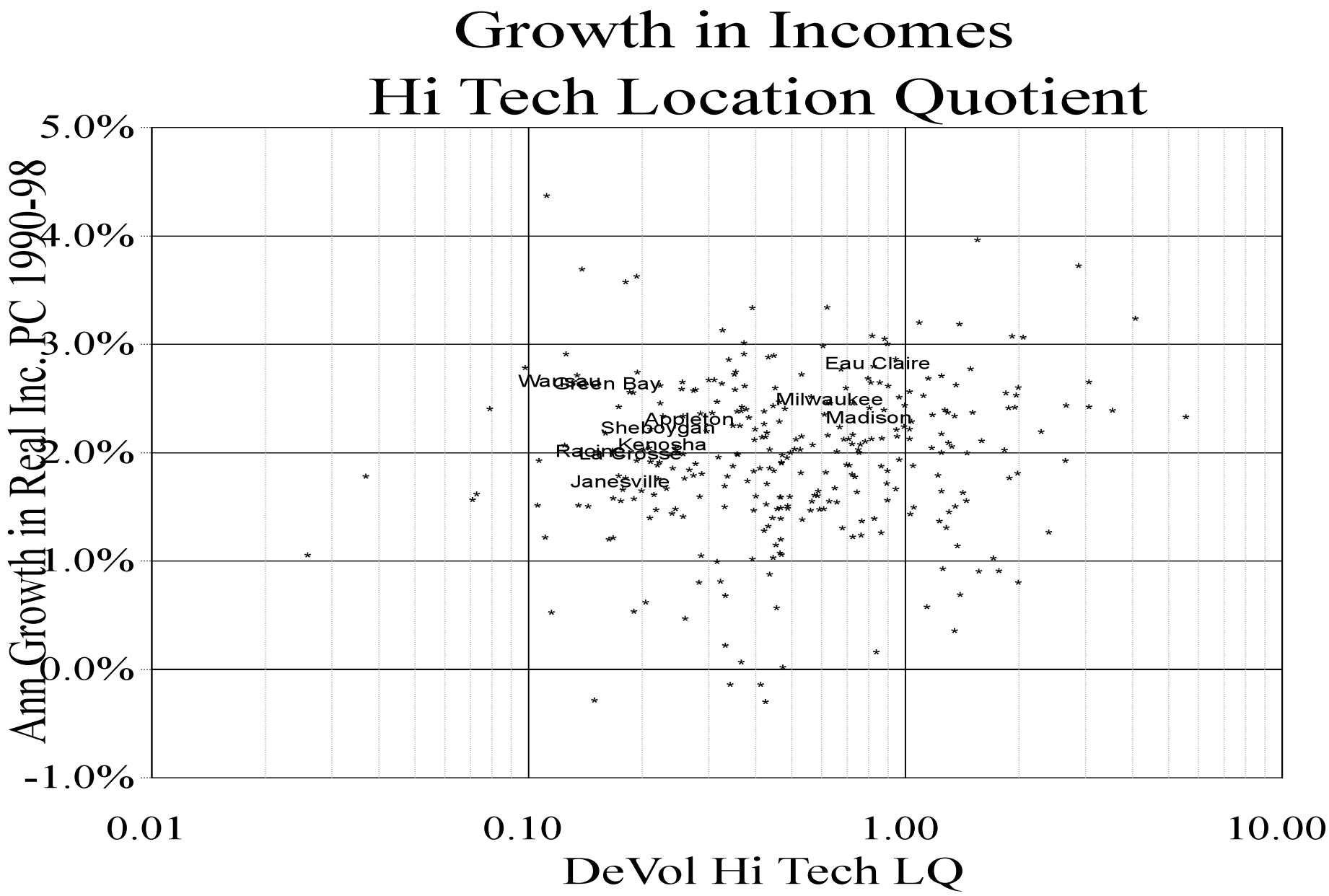
- Population (natural increase and migration)
- Capital:
  - Physical (tangible) capital
    - Includes real estate as well as the things you can drop on your foot
  - Infrastructure
  - Human capital (education and training)
  - Financial capital
- Trade
- Economies of scale
  - Internal to firms
  - Agglomeration

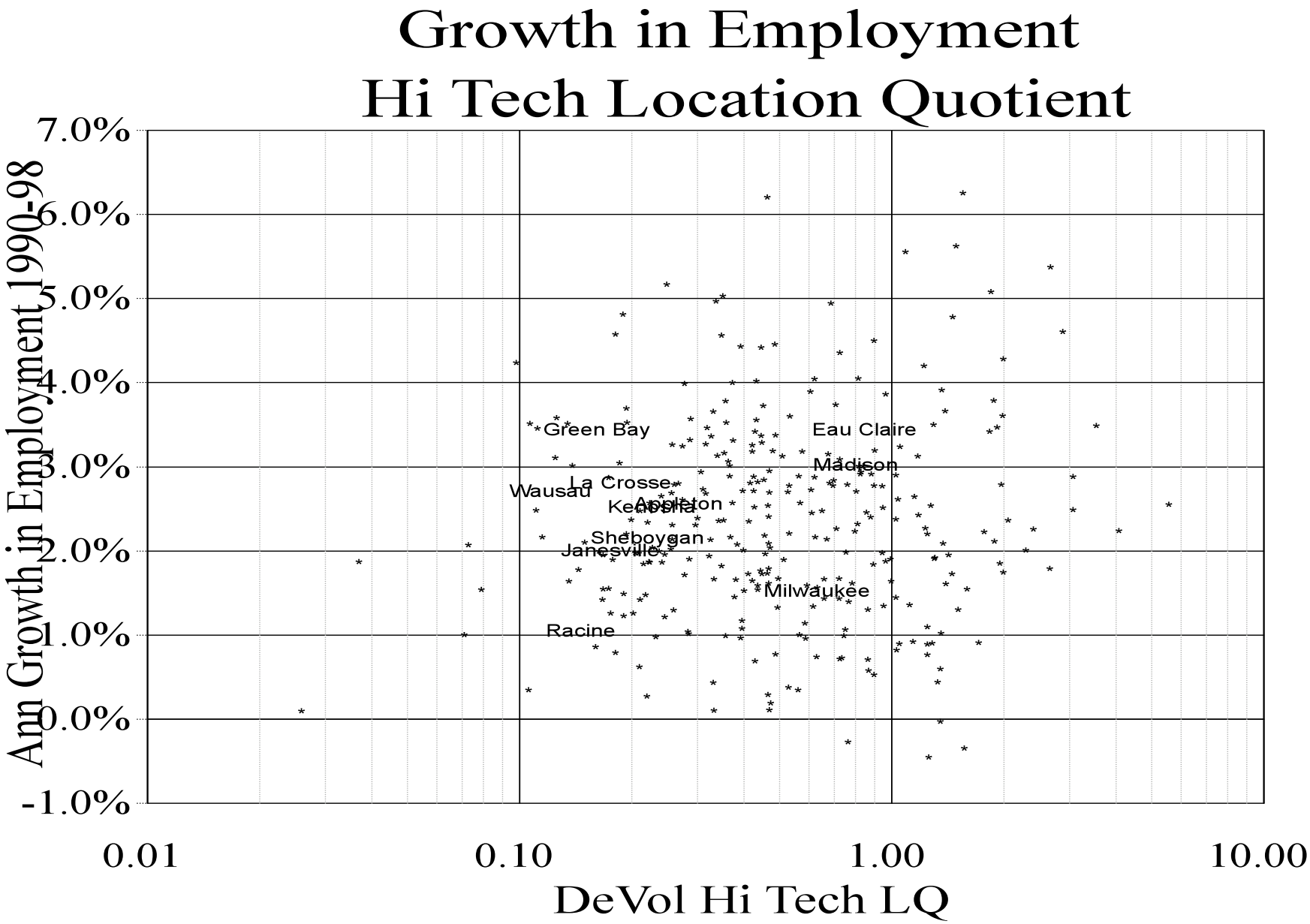
Why Do Regions Grow?

- Research and innovation
- Physical geography
- Environment, climate, amenities
- Culture and entrepreneurial spirit
- Good government
  - Stability, safety and security
  - Property rights
  - Tax and spending
  - Appropriate regulation and incentives

Myth: Going "Hi-tech" is the "key" to local economic development

- DeVol study for Miliken Institute defines "hi-tech" industries, and claims that hi-tech metro areas grow faster.
- DeVol compares metro growth rates to end-of-period "location quotients."
- Picture is quite different when we examine growth *after fixing LQs*.


Growth in Incomes
Hi Tech Location Quotient
Ann Growth in Real Inc. PC 1990-98
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
-1.0%
0.01
0.10
1.00
10.00
DeVol Hi Tech LQ
Eau Claire
Wausau
Green Bay
Milwaukee
Madison
Appleton
Sheboygan
Kenosha
Racine
LaCrosse
Janesville


Growth in Employment
Hi Tech Location Quotient
Ann Growth in Employment 1990-98
7.0%
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
-1.0%
Green Bay
Eau Claire
Madison
La Crosse
Wausau
Appleton
Kenosha
Sheboygan
Janesville
Milwaukee
Racine
0.01
0.10
1.00
10.00
DeVol Hi Tech LQ

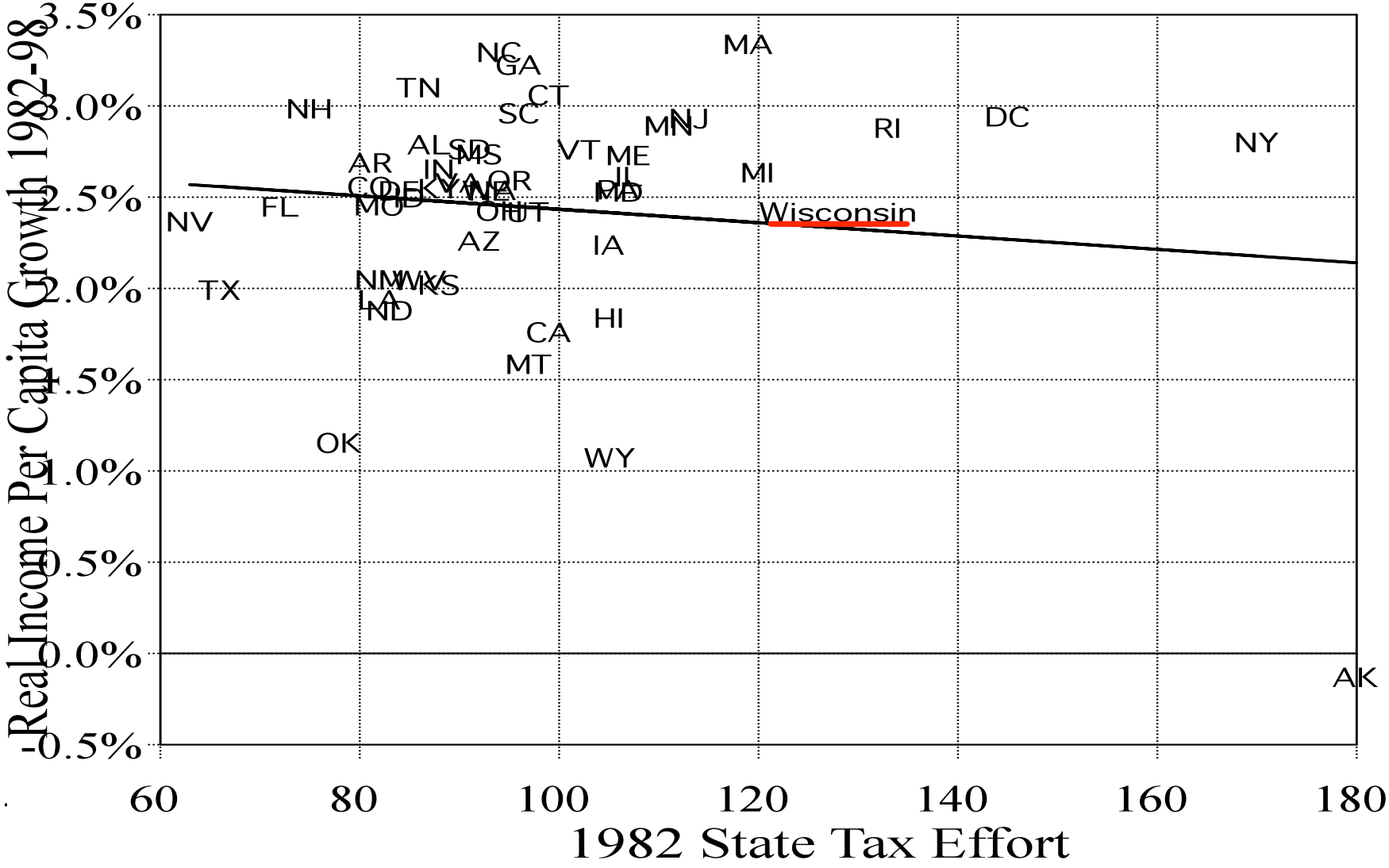
Realities: Technology is critical to development.

- But spillovers suggest some hi-tech activities "raise all boats" (or at least a lot of boats).
- Increasingly, research shows it's not what we do, but how we do it.
- If a metro area has comparative advantage in (say) biotech, well and good.
- But you can't push on a string.

Myth: Lowering Local Taxes will Raise Growth

- Tax limitation movements have arisen in a number of states (California, Colorado, Florida, Nevada, Wisconsin, etc.). For example,
  - Prop 13, Prop 2 ½ style property tax limitations
  - require supermajority votes for tax increases
  - limit tax increases to population growth plus inflation.
- An important motivation for these movements is often a desire to increase the growth of the local economy.
  - (Another motivation: "I'm mad as hell, and I'm not going to take it any more," Howard Jarvis)

State Tax Effort & Growth



Exploratory data analysis

- Little correlation between taxes, and growth in succeeding periods.
- Why? States that are high tax also *tend* to be high service. Over this period:
  - Alaska is just plain weird. (Oil does that).
  - High tax, high growth: New York, Rhode Island, Massachusetts.
  - High tax, low growth: none, really, but WI has high taxes and only average growth.
  - Low tax, low growth: Oklahoma and Wyoming
  - Low tax, high growth: New Hampshire, Tennessee and North Carolina

Reality: It's the Tax-Service Package that Matters

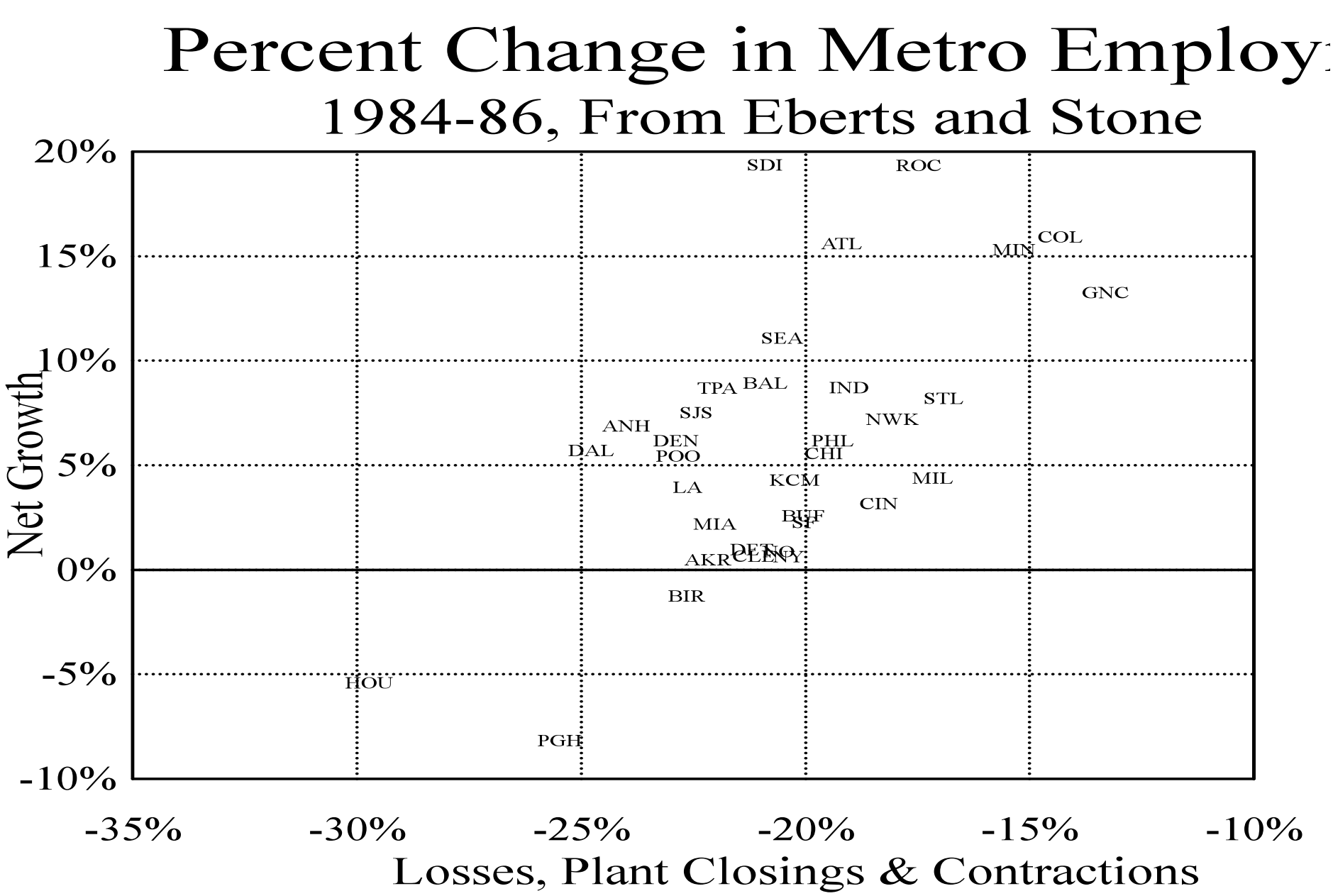
- Detailed studies demonstrate: aggregate tax burdens seem to have less impact than we'd expect; *until* you control for services provided.
  - Lower taxes, faster growth; better services, faster growth.
  - Solution: ***cut taxes while improving services***. (That was easy, wasn't it?)
- Until recently, government's productivity growth has tended to lag behind elements of the private sector.
  - In large part because government is mainly about services, and (much) service productivity growth has lagged industry and agriculture.
- ***Improving government's productivity*** is the way to square the circle: to improve services while restraining spending growth.

Myth: Reducing layoffs and downsizing is the key to growth

- Even the New York Times got this one wrong: *The Downsizing of America* (New York: Times Books, 1996) must have been ghosted by Chicken Little.
- Never forget the difference between net and gross. Davis, Haltiwanger and Schuh: for every 100 manufacturing jobs, in a typical year 10 are layoffs or downsized, and 9 new ones are created.
- Result: a lot of churning, and a slow reduction in the share of the labor force in manufacturing.
  - This "works" for the aggregate economy because of greatly increased productivity in manufacturing, mostly due to technical change.
  - Problem: some manufacturing workers (especially older, less educated) have good salaries because of firm- and plant-specific skills; once the plant retools, or moves, their wage plummets.

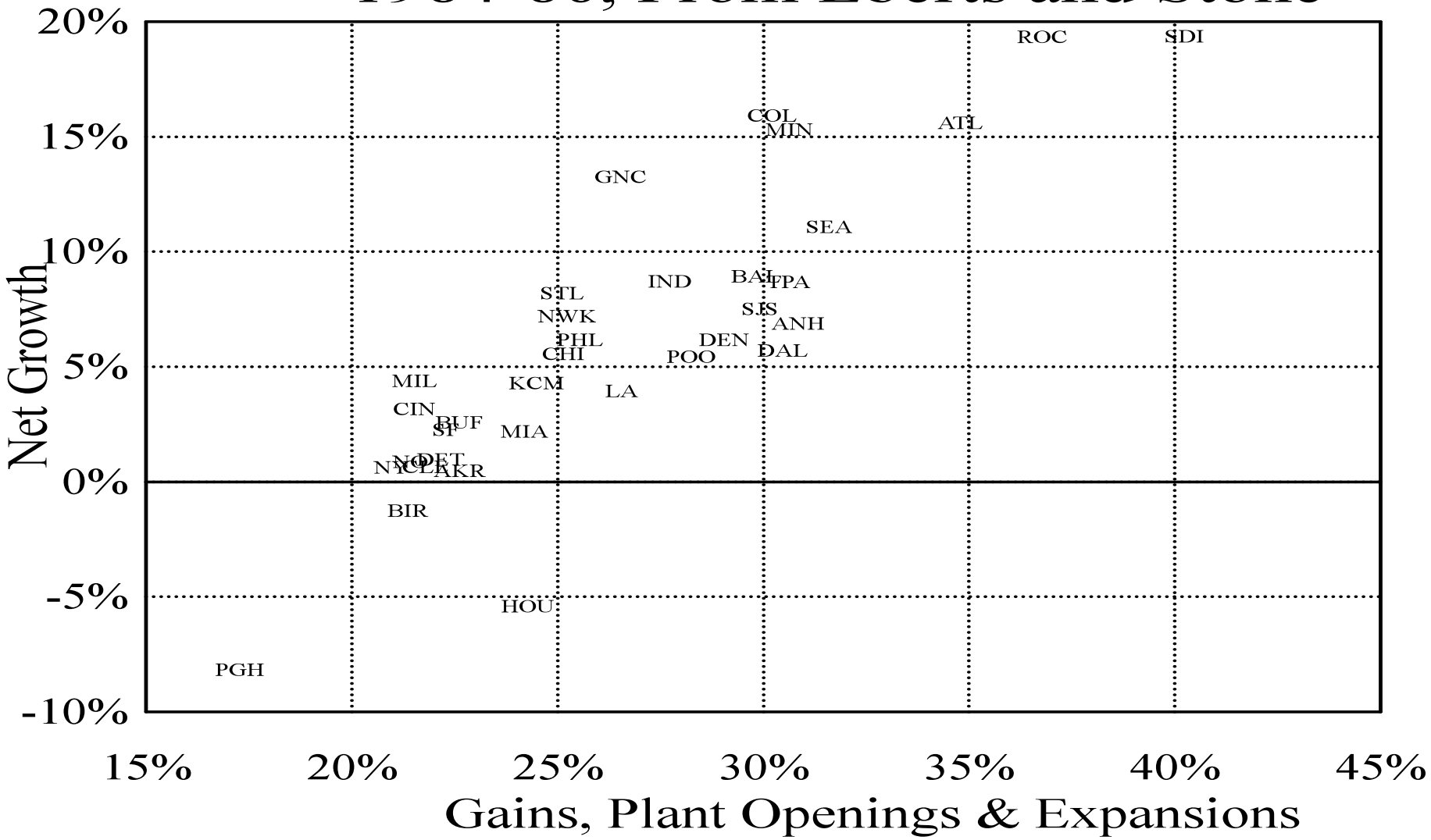
Dynamic Economies Close Old Activities As Well As Start Up New Ones

- Eberts & Stone show that even the fastest growing regions have significant plant closings and contractions.
- Faster growing regions have slightly lower closing rates, but still significant.
- Most of the variation in growth rates is due to variation in openings and expansions, not closings.
  - Roughly, it's a 2/3 – 1/3 split.
- Problem: public policies to reduce closings/layoffs can impede openings and expansions.


Percent Change in Metro Employ
1984-86, From Eberts and Stone
20%
15%
10%
5%
0%
-5%
-10%
Net Growth
SDI
ROC
ATL
COL
MIN
GNC
SEA
TPA
BAL
IND
STL
SJS
NWK
ANH
DEN
PHL
DAL
POO
CHI
KCM
MIL
LA
CIN
MIA
BUF
SF
DETRO
AKR
CLEVY
BIR
HOU
PGH
-35%
-30%
-25%
-20%
-15%
-10%
Losses, Plant Closings & Contractions

Percent Change in Metro Employ

1984-86, From Eberts and Stone



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In this version, references are very incomplete.

Most LED references are U.S. focused, for the moment.

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