



# Post-Industrial East Asian Cities

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## Urban Transition

East Asia is urbanizing rapidly. Simultaneously, the pace of urban structural change in its major cities is accelerating: The displacement of key manufacturing industries by other activities is occurring in decades as against centuries.

East Asia's mega-cities need to find new ways of financing 'imports' as their traditional manufactured exports diminish. Over the medium term, a city's 'current account' (i.e. its transactions via trade and capital transfers with the rest of the world) must balance.



## What is Accelerating Change

- Rapidly rising wages and overheads in major cities are affecting competitiveness of labor intensive manufacturing industries.
- Global market integration, production networking, and more efficient logistics are exacerbating pressures from lower cost producers.
- Technological advances are reducing the labor coefficients of manufacturing. Less labor is required and production is more skill intensive.
- Terms of trade are shifting against manufactured goods because of relatively higher productivity and because the changing composition of demand favors services.



## Why Focus on Urban Economies

- Salience of the urban economy: Share of population and GDP is rising steeply.
- Importance of city size for agglomeration and scale economies.
- Global networking of cities, especially large ones.
- Demographic patterns: currently a high percentage of the population is of working age; in the future, there will be many more old people.
- Impact of cities on the environment, resource use, and health.



## Which Cities Matter and Why

- The Asian miracle was and is an urban phenomenon. Key players are a small number of cities, which over time have grown into mega-urban centers. Asia's future linked to economic dynamism of these cities.
- The principal foci of Asian growth are: Tokyo, Seoul, Shanghai, Beijing, the Pearl River Delta, Hong Kong, Bangkok, Taipei, Singapore, Jakarta, KL/Klang Valley.



## Which Cities Matter and Why

- Why these: Administrative centers of “dirigiste” economic systems, past history and role, initial size, location, human capital, infrastructure—and virtuous spirals.
- Recent East Asian industrial revolutions geographically localized, mainly in capital cities.

## Share of National GDP

City	1985	1990	1995	2000	2003
Bangkok	35.94	40.5	39.08	36.31	--
Beijing	2.1	2.7	2.4	2.8	3.1
Seoul	24.9	25.3	24.9	24	24.1
Shanghai	5.2	4.1	4.2	5.1	5.3
Singapore	100	100	100	100	100
Tokyo	--	17.6	16.1	16.6	--

## City GDP in 2003 (US\$ billions)

City	Bangkok	Beijing	Seoul	Shanghai	Singapore	Tokyo
GDP	4.46	44.26	146.9	75.52	94.61	764.17





## What Does Post-Industrialism Imply

- Traditional manufacturing migrating out. Partially replaced by more skill and technology intensive manufacturing.
- Overall share of manufacturing in urban GDP and employment shrinking fast. Process most apparent in Tokyo, Seoul, Hong Kong, Singapore, and Beijing. Also quickly surfacing in Shanghai and Bangkok.



## What Does Post-Industrialism Imply

- Traditional bases for competitiveness—low cost labor slipping away.
- Sustaining growth—in fact, even maintaining current income levels—and achieving a balanced current account calls for new industrial engines and new sources of high value adding employment.



## What Brings New Industrial Engines to Life

- National/subnational policies towards industry
- Skill and design intensity reliant on local innovation system and local supply of skills
- Local incentives regime: fiscal (e.g., tax incentives, intergovernmental fiscal transfers), labor market related (e.g., regulatory institutions), financial (ease of raising funds from local sources), government purchases of goods and services, and social (e.g., poverty, income distribution)




## What Brings New Industrial Engines to Life

- Industrial organization, especially the mix of large and small firms and linkages with universities/research institutes
- Coalition of supporting interests, e.g. financiers, urban developers and politicians
- Regional or global orientation of industry and its effect on growth
- Urban environment: quality of amenities and public services



## New Leading Industrial Sectors for East Asian cities

- Robotics and animation: Tokyo
- Biotechnology: Singapore
- Electronics and IT: Beijing
- Movies and online videogames: Seoul
- Fashion garments and jewelry: Bangkok
- Construction services: Shanghai



# How are Cities Pursuing Industrial Transitions

- The Tokyo case: developing multifunctional robotic technologies
- The Singapore case: creating a biotech sector
- The Seoul case: the recipe for an online videogames industry
- The Beijing case: cultivating the innovation capabilities in the electronics sector
- The Bangkok case: developing the fashion and jewelry sector
- The Shanghai Case: enlarging the capabilities and export potential of the construction and engineering services sector



# How to Measure Impact and Potential of Emergent Leading Sectors

- Growth and contribution to urban economic performance
- Industrial linkages
- Employment, skill intensity
- Technological dynamism: Links with universities and research institutes
- Corporate capability
- International market penetration
- Future demand prospects: Local and global



## The Future of Robotics

- Multiple applications: Industrial applications, household use, medical, underwater and airborne vehicles, space exploration, mine clearing, and reactor decommissioning.
- Builds on broad industrial capabilities that took root in the 1970s and 1980s, many localized in the Tokyo area.
- Promotes and leverages research in mechanical, sensor, optical, power supply, remote control, and AI technology. High tech, skill intensive, high value adding industry ideally suited for Tokyo's diversified industrial base.





## The Future of Robotics

- Multiple linkages to universities and research institutes, many different kinds of supplier and many different kinds of military and civilian uses. Basic technologies can be widely applied e.g. in cars and smart houses.
- If accepted as an “essential” consumer item, robotic devices could displace consumer electronic and entertainment products as the mainstay of Japan’s leading industrial firms.



# Lessons for Emerging Post-industrial East Asia

- Models:
  - New York? Few leading sectors
  - London? Attracts FDI, high costs
  - San Francisco? Amenities, Silicon Valley, universities
  - Paris? Creative industries
  - Tokyo? Broad-based, size, high costs

# Thank You

