

# **Sustainable Growth and Industrial Transitions in three East Asian Cities**

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## **What is Sustainability?**



Several meanings, but among them economic sustainability is key.

Cities that do not sustain their economic vigor and face diminishing economic prospects are likely to encounter mounting difficulties in maintaining and improving services, in responding to challenges and meeting desirable standards of livability.

## Achieving Sustainability



Requires managing industrial lifecycles, promoting competitiveness, being on the lookout for better opportunities, and improving the portfolio of economic activities.

Requires building resilience, the capacity to anticipate and recover from a variety of shocks.

## Assessing Sustainability of Shanghai, Bangkok and Penang



Three cities with a track record of industrial success and rapid economic growth.

- Cities of different sizes and industrial mixes.
- At different stages of their industrial lifecycles and facing different kinds of challenges.
- All three are confronting industrial transitions and must make choices that will impinge upon sustainability.

## Comparing the three cities



City	Population	Share of Industry	Share of Services
Shanghai	18,580,000	46.60	52.60
Bangkok	8,160,522	45.58	54.22
Penang	1,468,800	44.25	53.43

Source: Shanghai Statistical Yearbook 2008; Bangkok: National Economic and Social Development Board, 2003 Edition; Penang: SERI Quarterly Penang Statistics, various years.

### Leading Manufacturing Industries

Shanghai	Electronics Equipment, Autos, Chemicals, Steel
Bangkok	Textiles, Food processing, Jewelry, Electronics and Construction Materials
Penang	Electronics, Basic Metals, Machinery and Equipment

## Defining Characteristics



- Account for substantial shares of national GDP.
- Main economic focus is manufacturing, however, services are becoming more important in Shanghai and Penang
- Shanghai and Bangkok enjoy agglomeration and scale economies and Shanghai in particular benefits from industrial diversity (urbanization economies).
- Penang is a mid sized city that is a leading regional producer and exporter of electronics
- Shanghai and Bangkok are both regional financial and logistics hubs. Penang is also a significant logistics center for Malaysia.

## Challenges to Sustainability: For Penang



- Low-cost model of development based on assembly/testing of electronics equipment threatened by rising wages and external competition. FDI in this sector slowing and little upgrading of products under way.
- Need to move up the value chain in electronics via local R&D and innovation by existing or new domestic firms and diversifying into other high value activities- manufacturing or services.
- Small size and industrial specialization of Penang reduces urbanization economies, local entrepreneurship and limited research by private sector also at low level. Quality of tertiary level education and entry barriers to new firms pose serious hurdles to a “high mix, low volume” strategy for sustainable growth.

## Challenges to Sustainability: For Bangkok



Land and labor intensive light industries are migrating out of the core metro area, as costs rise, to the periurban fringe or to other cities on the Eastern Seaboard

Replacements are services but not necessarily with higher added value e.g. medical, tourism-linked, design, advertising, logistics and finance.

Key hurdles are limited urbanization economies in spite of Bangkok's size; modest base of skills; low level of R&D; lack of initiative by major firms to move up the value chain; weak university industry linkages; few spillovers from FDI.

Without a new suite of industrial/services activities, Bangkok's future growth would be jeopardized; with a weaker industrial base it would also be more vulnerable to shocks.

## Challenges to Sustainability: For Shanghai



Has a vast diversified industrial base with six major pillar industries ranging from electronics to steel.

Reaps great advantages from urbanization and scale economies, from manufacturing base, and from emergence of financial and logistics sectors.

Strong tertiary education sector and substantial R&D capacity is contributing to potential for industrial change and innovation.

FDI is leading to some spillovers.

Fiscal capacity, growing financial depth, industrial breadth and export performance all underpin current resilience.

## Challenges to Sustainability: For Shanghai



Government accelerating exodus of heavy industries, encouraging services and promoting high-tech and creative activities.

However, this may be premature.

Comparative advantage in financial services uncertain and also in other services.

Growth potential of services through innovation and TFP is questionable (Baumol's Disease).

Biotech, nanotech and other high risk, skill and research intensive activities might not sustain Shanghai's growth and employment.

## Challenges to Sustainability: For Shanghai



Quickening industrial transition a risky strategy.

Graduation from manufacturing to services widely touted, but many graduates fail and end up as 'rusting' cities.

Should Shanghai go down this path yet – or ever?

## Strategies for Sustainability: For Middle Income Countries



Maintain substantial and diversified manufacturing base that is technologically dynamic and steadily more innovative.

Services and creative industries valuable supplements if they too can be increasingly productive and innovative.

## Main sources of long term strength are:



Quality/volume of human capital.

R&D capacity and close two way links between tertiary institutes and businesses.

Physical infrastructure (especially transport, IT etc.)

Revenue base and effort.

Urban governance, planning and business climate.