

# Economic Corridors and Industrial Clusters

## A Case Study on Auto Component Industry

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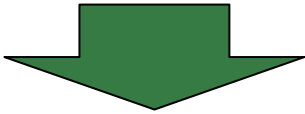
# Argument on Cluster Development

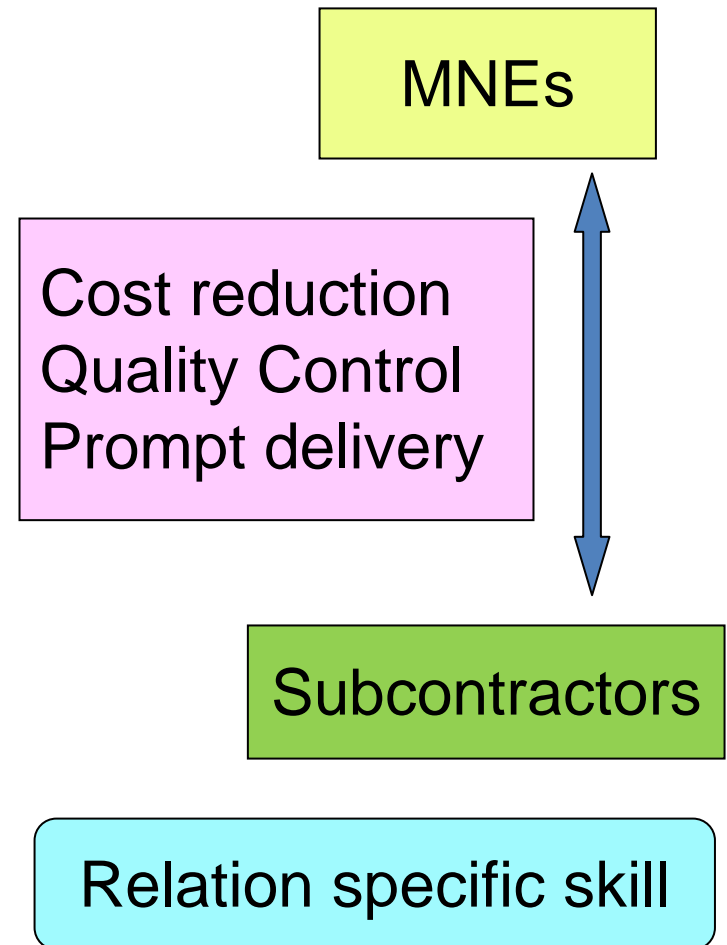
- Collective efficiency in the clusters
- The external linkage

If a cluster becomes a part of the global value chains, its overall efficiency and competitiveness improve because of the information, knowledge, and technological flows.

- Maruti-Suzuki started operation in 1983. It was a turning point of the passenger car market.

# Spillover Effects of Subcontracting

- Subcontractors acquire relation specific skill through transactions with parent companies.
  - Parent companies can save procurement costs
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- Improvement of supply chain



# Development of Auto Component Industry

Production number

Passenger cars

1994-95 264,000

2008-09 1,620,000

Motorcycle

1994-95 648,000

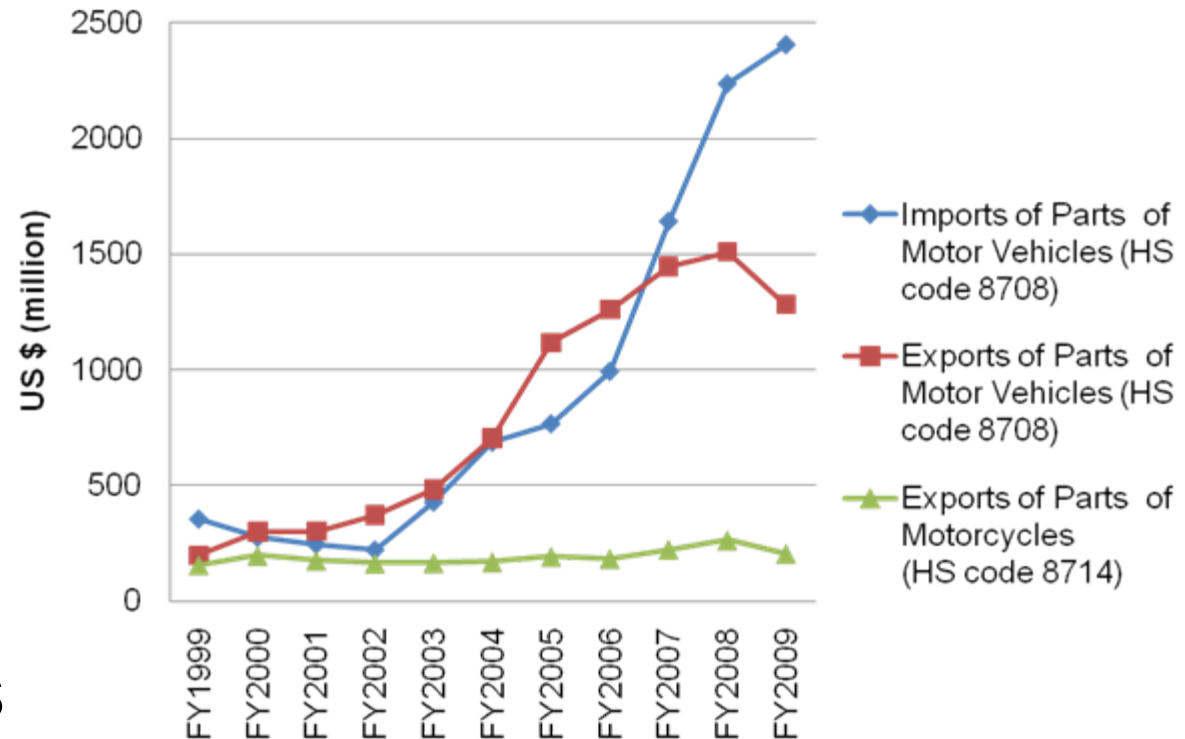
2008-09 6,802,000

Auto Components

2001-02 4,470 million US\$

2007-08 18,000 million US\$

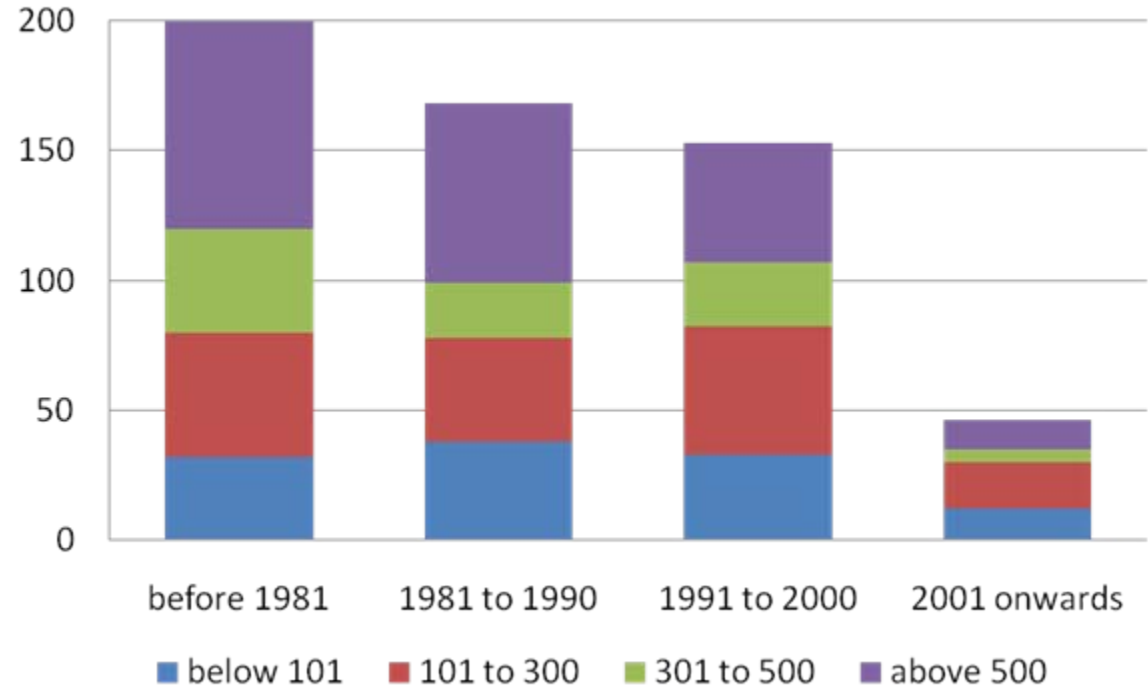
Imports and exports of auto components increased rapidly



Homepage of Ministry of Commerce and Industry, Export and Import Data Bank (<http://commerce.nic.in/eidb/default.asp>)

# New Entry of SMEs

Distribution of Companies Operating in 2010  
(Year of Commencing Production and Number of Employees)



Automotive Component Manufacturers  
Association of India, *2010 Buyers Guide*, 2010

Necessity of high technology raised initial investment amount and hiked entry barrier.

- Many new companies were established in 1980s and 1990s.
- Some of them graduated from SMEs and became large enterprises.
- New entry declined clearly in the 2000s

# Channel of Spillover in Large Enterprises

1. Co-development with assemblers
2. Learning through repeated interactions with a particular parent company
3. R & D in house
4. Foreign collaboration and technical collaboration

Most of large enterprises entered into technical or foreign collaboration in past or are still maintaining it.

5. Acquisition of foreign companies.

# Channel of Spillover in SMEs

1. Suggestion from customers
2. R & D mainly through reverse engineering
3. Training of engineers provided by suppliers of machinery
4. Cluster development programme organized by ACMA or assemblers
5. Advice from consultants
6. Foreign and technical collaboration

Suggestion and cluster development were appreciated by many managers of SMEs

# Decline of Tiny Enterprises

- Many tiny and small enterprises are supplying to domestic replacement market.

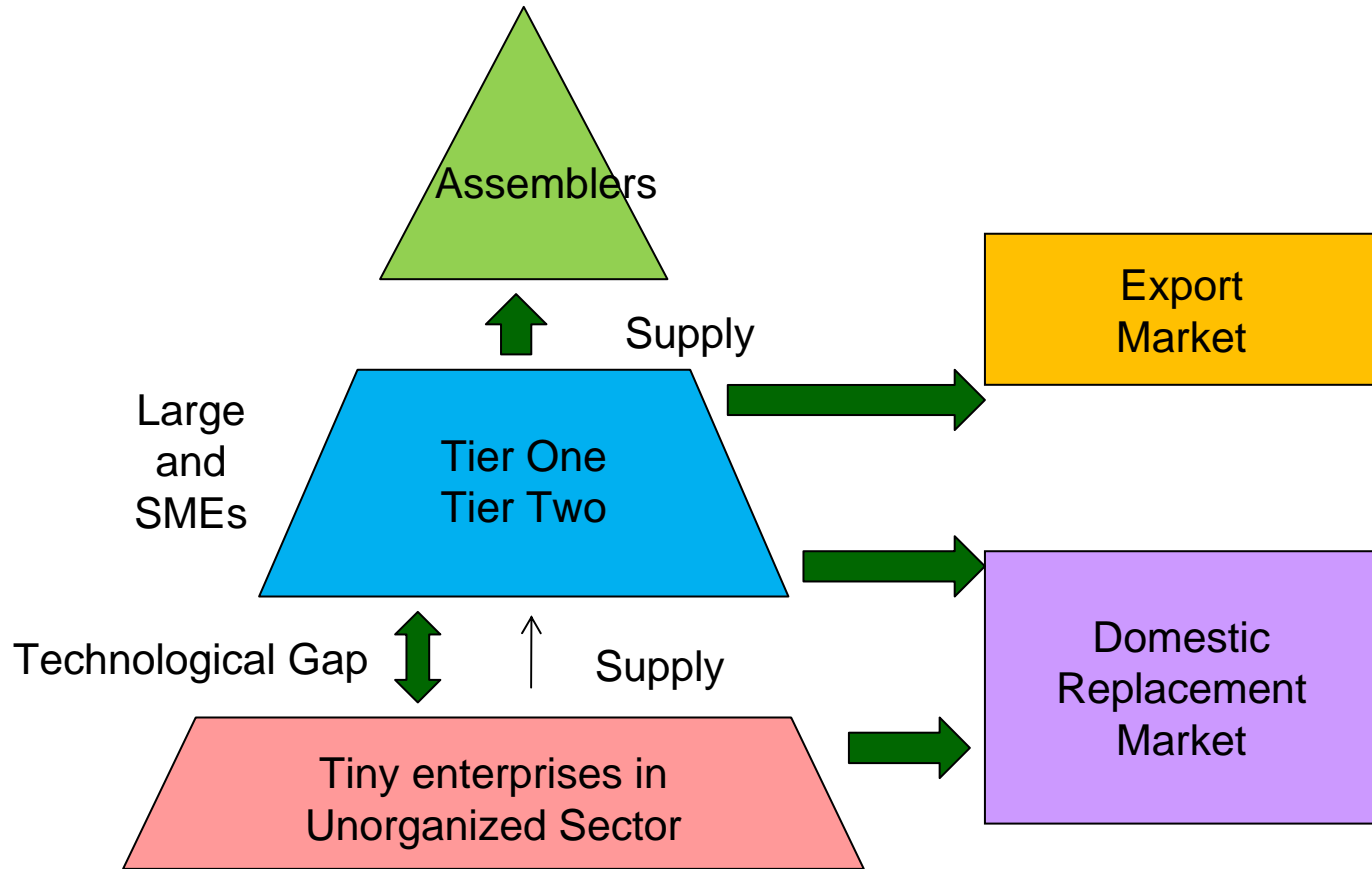
Consumer preference is shifting from cheap products made by tiny enterprises to high quality products sold by assemblers.

- There are job-work units specializing on specific process like machining, foundries, heat treatment and forging.

Severe competition forced tiny enterprises to reduce sales prices to the level which did not guarantee entrepreneur's interest in the long term.



# Industrial Structure of Auto Components



Spillover effects reach to SMEs in tier one and two suppliers.

# Rapid Growth of Motor Vehicles

- Growth Value Added (GVA) increased in large enterprises and SMEs
- Number of enterprises declined in tiny enterprises.

Competition might have excluded some of them.

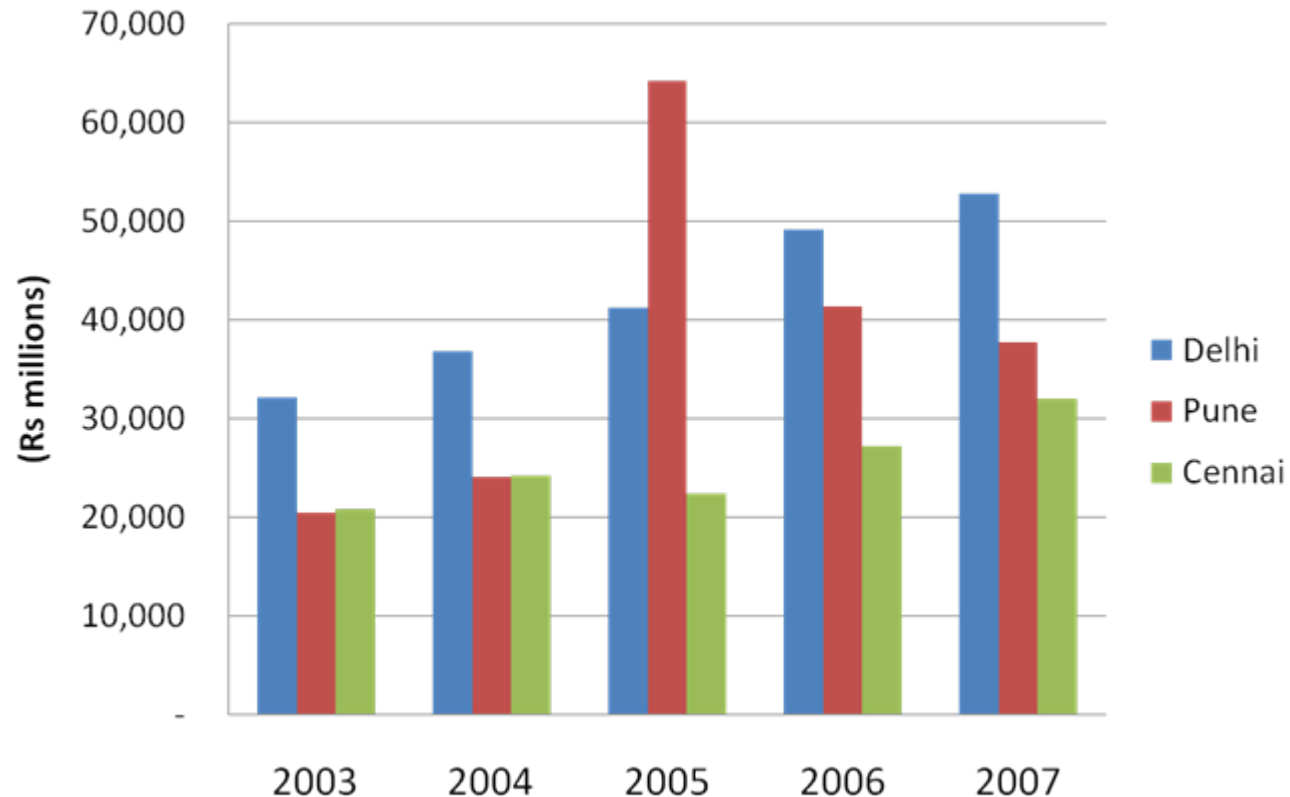
## Annual Growth Rates between 2000-01 and 2005-06

Large enterprises and SMEs	Number of establishments	2.8
	GVA at 1993-94 prices	24.3
Tiny enterprises (Number of employees from 6 to 9)	Number of establishments	-2.4
	GVA at 1993-94 prices	6.0

# Development of Main Three Clusters

- Growth of GVA is clear in Delhi.
- GVA fluctuated in Pune.
- Growth of GVA is relatively slow in Chennai.
- Existing companies are setting up second and third factories.

Growth of GVA at 1993-94 Prices in Three Clusters



CSO, Annual Survey of Industries (Unit Level Data)

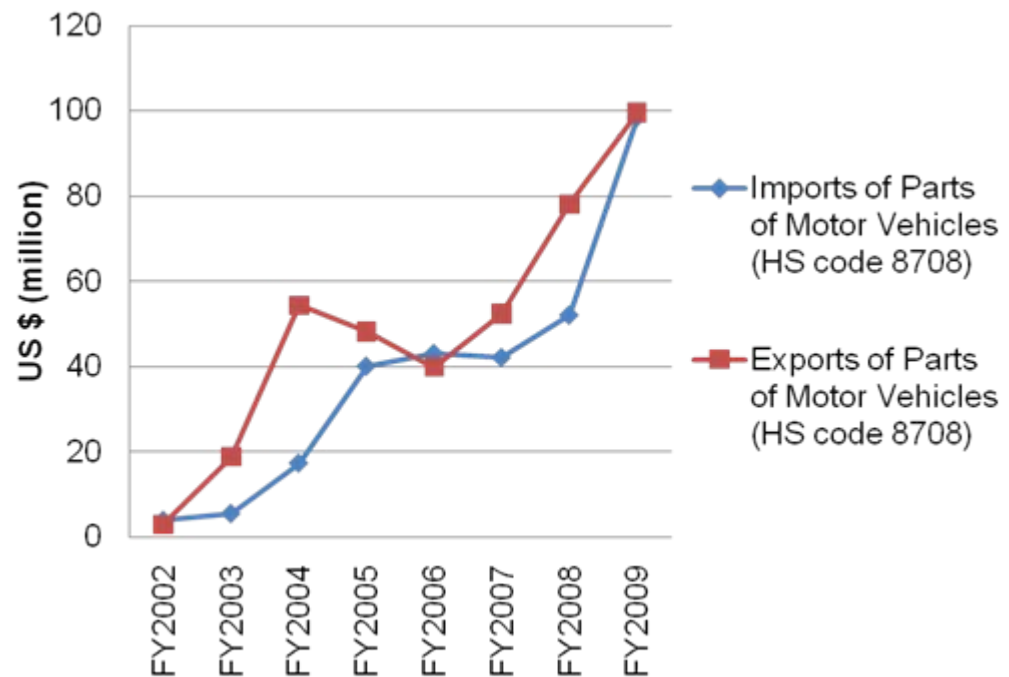
# Impact of FTA with Thailand

- Inter-firm trade by MNEs might have risen.
- Only gearbox was included in early harvest.

FTA will encourage trade of auto components among two countries.

- Indian auto component industry can compete with import.

Trade of auto components between India and Thailand increased rapidly



Homepage of Ministry of Commerce and Industry, Export and Import Data Bank (<http://commerce.nic.in/eidb/default.asp>)

# Conclusion

- Technology and management skill have spread from MNEs to Indian subcontractors in tier one and two.
- Necessity of high technology raised initial investment amount and hiked entry barrier. As a result, new entry declined in the 2000s.
- Tiny enter enterprises catering to domestic replacement market are losing market and exiting from market.
- Economic corridors may encourage development of clusters (e.g. Delhi NCR, Chennai – Ennore)
- FTA will encourage trade of auto components.