

Creating Value-driven Port Logistics in Free Trade Zones

FTZ

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Raw materials

Semi-finished products

Final goods

Value-adding consolidation of goods

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international distribution hub, and
regional maintenance & repair services

Outline

- Free Trade Zone and Its Activities
- Comparisons of Free Trade Zones
- New Paradigm of Port Logistics
- Selection of Core Industries

What is Free Trade Zone?

➤ UNCTAD (1994) :

✓ A Designated Area within a Port or Airport Where Goods can be Imported, Stored or Processed and Re-exported, Free of All Customs Duties.

➤ Tansuhaj and Jackson (1989):

Benefits of FTZs:

✓ No customs

✓ Preferential tariff treatment for parts assembled into finished products in FTZ

✓ Free and safe flow of goods in FTZs

✓ Permissible transport of goods among different FTZs.

Activities in Free Trade Zone

- Storage, Trade, Transportation (Transshipment)
- Insurance, Finance, Communication Services
- Manufacturing /Assembling (Value-Added)



This Study Focuses on What Kind of Manufacturing Industries are Better Located in FTZ?

Comparison of FTZs among Countries—Location

- **Hong Kong:** All area is free port.
- **Singapore:** Within port / airport
- **Japan:** In Okinawa, near port
- **Korea:** Within port / airport
- **China:** Near port / airport or manufacturing site (bonded area)
- **Philippine:** An isolated policed area adjacent to a port and / or airport.
- **Netherlands:** Distribution center, permitted in whole country.
- **America:** Near port / airport.
- **Taiwan:** An area near or within port / airport



Within or Nearby!

Comparison of FTZs among Countries—Legal

- **Hong Kong:** The Basic Law
- **Singapore:** Free Trade Zone Act
- **Japan:** Okinawa Promotional Special Measures Law
- **China:** Administration Order (bonded area)
- **Philippine:** The Special Economic Zones Act (ECOZONES)
- **Korea:** Free Economic Zone Act (FEZ) and Comprehensive Investment Initiatives
- **Netherlands:** Community Provision of and National Provisions of the Netherlands
- **America:** Foreign Trade Zone Act
- **Taiwan:** The Free Trade Zone Act



Special Law or Act!!

Comparison of FTZs among Countries—Preferential Taxes

- Hong Kong:
 - ✓ No VAT
 - ✓ No customs duty
 - ✓ Only profit tax.
- Singapore:
 - ✓ No customs duty or customs permit.
 - ✓ No GST
 - ✓ No excise duty.
 - ✓ Adopt Major Exporter Scheme (MES)
- Japan: Reduce corporate tax
- China:
 - ✓ Exemption from customs duty for most imported goods.
 - ✓ Income tax of 15% throughout the whole country
 - ✓ No corporate tax for production companies during their first two years and 50% tax rebate during their 3rd to 5th years of operations.

Comparison of FTZs among Countries—Preferential Taxes

- **Philippine:**
 - ✓ Exemption from national and local taxes.
 - ✓ Member of ASEAN, with preferential tariffs
 - ✓ Exemption of 98% customs tariffs before 2010.
 - ✓ Preferential access to developed markets such as the U.S.
- **Korea:**
 - ✓ Reduction of corporate tax
 - ✓ Reduction of individual income tax and five-year tax exemption for foreign engineers.
- **Netherlands:**
 - ✓ No customs duty
 - ✓ No VAT
 - ✓ Income tax based on the level of activity.
- **America:**
 - ✓ Customs duty: maybe deferral, elimination of duty, tariff relief, or ad valorem,
 - ✓ Income tax: most states exempt all FTZ merchandise from inventory taxes.

Comparison of FTZs among Countries—Preferential Taxes

➤ Taiwan:

- ✓ Exempt from customs duties, commodity tax, tobacco and wine tax, tobacco health and welfare surcharge, trade promotion service charge, and port dues.
- ✓ Zero-rated business tax on sale of services within FTZ.
- ✓ Zero-rated business tax for domestic procurement.
- ✓ Zero-rated business tax for operator outside FTZ transporting goods and storing therein under instructions of foreign customer and obtaining foreign exchange.

The Minimum:
No Customs Duty



Comparison of FTZs among Countries—Administration

- Hong Kong:
 - ✓ Using risk management, customs checking classified by origin country.
 - ✓ 24 hrs customs services provided by EDI
- Singapore:
 - ✓ 24 hrs service, clearance by TradeNet System, and no clearance within zones
- Japan:
 - ✓ Simplification of land acquisition.
- China:
 - ✓ No customs control, clearance data provided to supervise.
 - ✓ 24 hrs customs clearance
 - ✓ No customs inspection, customs levied taxes on finished goods.
- Philippine:
 - ✓ One stop shop center for registration
- Netherlands:
 - ✓ 24hrs services provided by EDI.
 - ✓ Different type of bonded warehouse: e-type , c-bac etc. Different type of bonded warehouse: e-type , c-bac etc.

Comparison of FTZs among Countries—Administration

➤ America:

- ✓ Form 214 must be completed for all cargo and permission must be given by the port authority.
- ✓ Direct delivery permitted before 30 days.
- ✓ No time constraints on storage

➤ Taiwan:

- ✓ “Inside national territory but outside customs” for flow of goods, commerce and people.
- ✓ Single-window administrative services.

Simplification, 24 hrs Service,
Single-window Center



New Paradigm of Port Logistics

—Value Chain

- Porter (1990)
 - ☑ Value chain analysis can be applied to divide industries according to whether they are engaged in **primary or support activities**.
 - ☑ **Primary activities** are the main source of profit for enterprises. Primary activities are what Hafreez et al.(2002) termed **core-competences or core businesses**.
- The **competitiveness of FTZ** lies in **selecting the most suitable core industries** for transshipping and maximizing added value.
- **Competition among Value Chains** v.s. Competition among Individual Ports

New Paradigm of Port Logistics

—Port Role

- Bichou and Gray (2005)
 - ✓ Port is a good location for value-added logistics, and for other related services including industrial, trade, financial, and even leisure and property development activities.
 - ✓ The World Bank broadens port activities to include a range of value-added services.

New Paradigm of Port Logistics

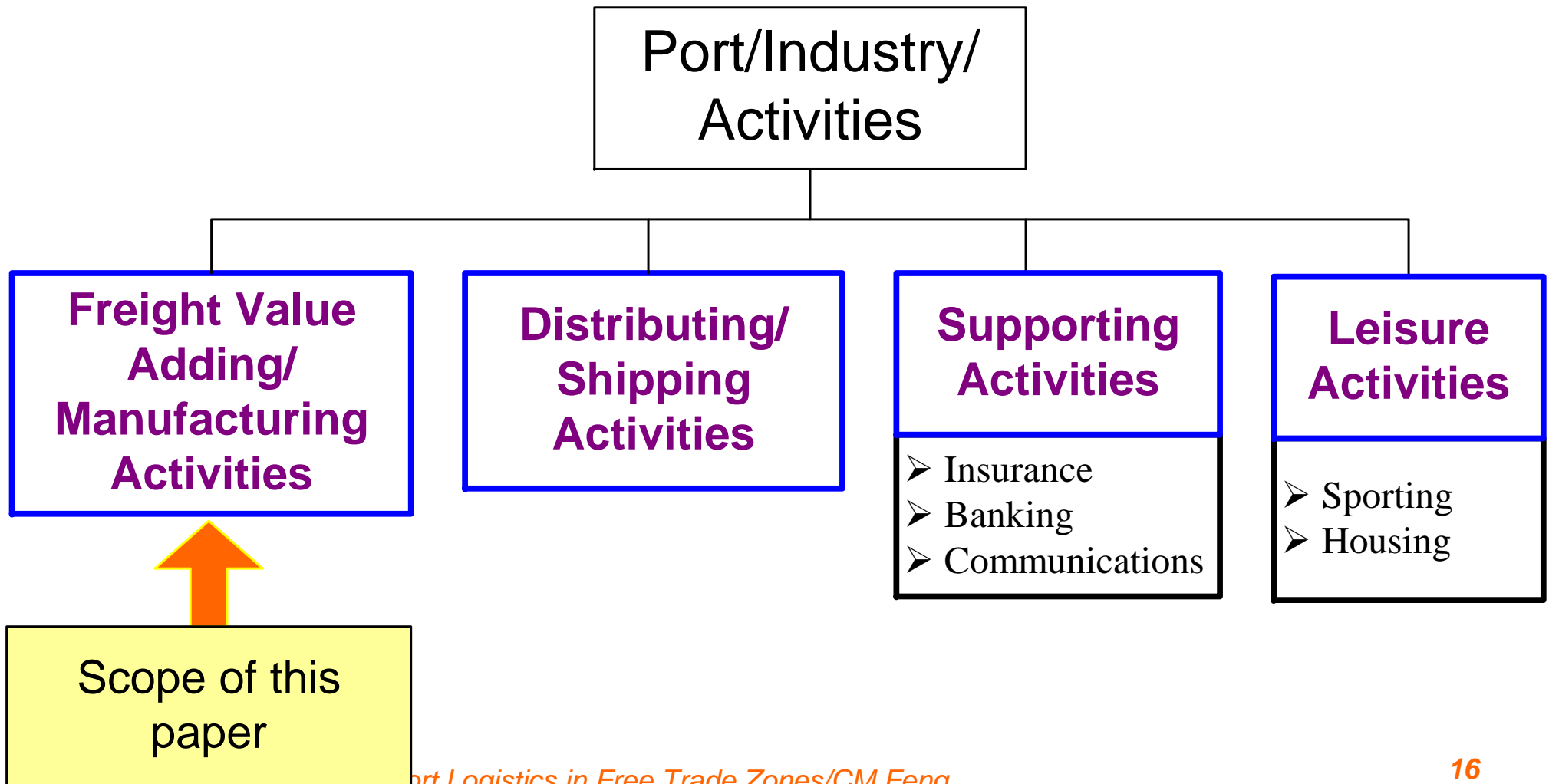
—Port Value Chain and Port Logistics

- Ports play an important role in integrating all three types of channel (Bichou and Gray, 2004; 2005) : logistics channel, trade channel, supply channel.
- Port system change to an “integrated channel management system”
- Logistics and other added value services should be provided in FTZ to enhance production and delivery efficiency

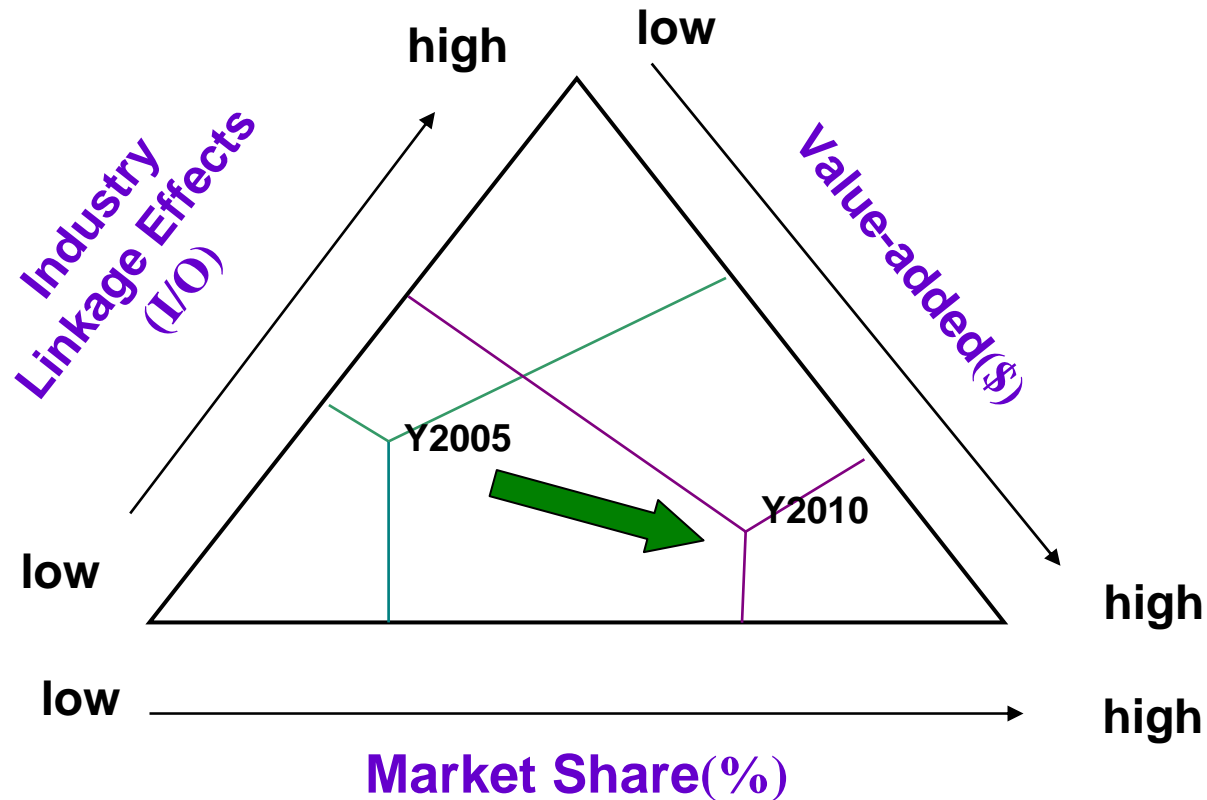
Selection Criteria of Core Industry

- Industries that can process high transshipment value added operations within the FTZ.
- Industries that are closely interrelated with downstream and up-stream industries, and could enhance the domestic industry developments.
- Industries that can bring about large positive impacts on international trades.
- Industries with effective land use, such as secondary and tertiary industries.

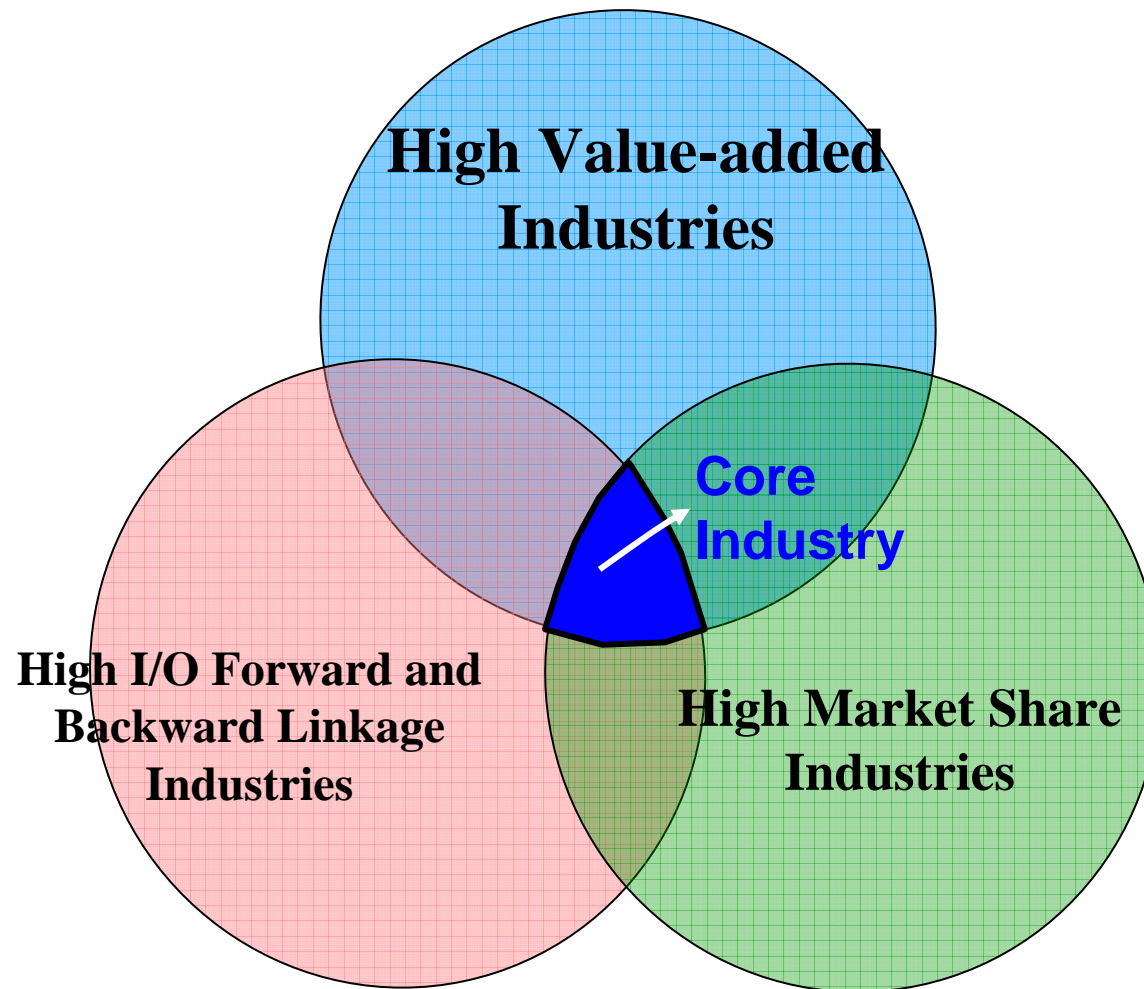
The Scope of Port Industries



The Selection Indicators of Core Industry



Union Set of Core Industries in Three Indicators



Measurement of Indicators

➤ Transshipment Added Value

$$\text{Rate of Added Value} = (CIF_j / FOB_j) - 1$$

where CIF_j = import shipping costs, including cost, insurance, and freight for industries j

FOB_j =merchandise value= value of free on board for industries j

$$\text{Market Share } S_{ij} = F_{ij} / (\sum_{j=1}^n F_{ij}) * 100\%$$

S_{ij} denotes the market share of industry j in port i

F_{ij} denotes the cargo volume for industry j in port i

The target competition ports in Mainland China ports selected to measure the market share in this study include ports of Ningbo, Shanghai, Guangzhou, Shenzhen and Xiamen.

Measurement of Indicators

➤ Forward and Backward Linkage

✓ Backward Linkage:

$$b_j = \sum_{i=1}^n r_{ij}$$

r_{ij} : the element of the Leontief inverse matrix $(I - A)^{-1}$ in input-output analysis.

b_j : the output multiplier used in input-output analysis.

✓ Forward Linkage:

$$f_i = \sum_{j=1}^n r_{ij}^*$$

r_{ij}^* : the element of inverse **matrix** $(I - A^*)^{-1}$, the elements of A^* are output coefficients.

Inter-industry Interdependency Linkage

Category	Backward Linkage Impact (index of power of dispersion X)	Forward Linkage Impact (index of sensitivity dispersion Y)	Meaning
I	High	High	Intermediate manufacture
II	Low	High	Intermediate primary production
III	Low	Low	Final primary production
IV	High	Low	Final manufacture

"High" means $b_j > 1$ or $f_i > 1$

The Core Industry of Each Indicator

Indicator	Value-added (>15%)	Forward and Backward Linkage (High, High)	Market Share (>40%)
Core industry	<ul style="list-style-type: none"> • products of the chemical or its relevant industries(16%) • leather and its product(17%) • footwear, headgear; umbrellas; feather and their products(16%) • base metals and its products(16%) • machinery and electronic component (15%) • precision instruments and equipments(20%) • miscellaneous (toys, games and sports requisites)(16%) 	<ul style="list-style-type: none"> • products of the chemical or its relevant industries • plastic and its products • base metals and its products • machinery and electronic component 	<ul style="list-style-type: none"> • products of the chemical or its relevant industries (45%) • base metals and its products (50%) • machinery and electronic component (50%) • precision instruments and equipments (60%)

Conclusion and Suggestion

➤ Core Industries of FTZ:

- ✓ **Products of The Chemical or Its Relevant Products**
- ✓ **Base Metals and Its Products**
- ✓ **Machinery and Electronic Component**
- ✓ **Precision Instruments and Equipments**

➤ Suggestions

- ✓ **Analyze More Detail in Industries Category**
- ✓ **Give Preferential Incentives to Core Industries**

Thank you for your attention.

