

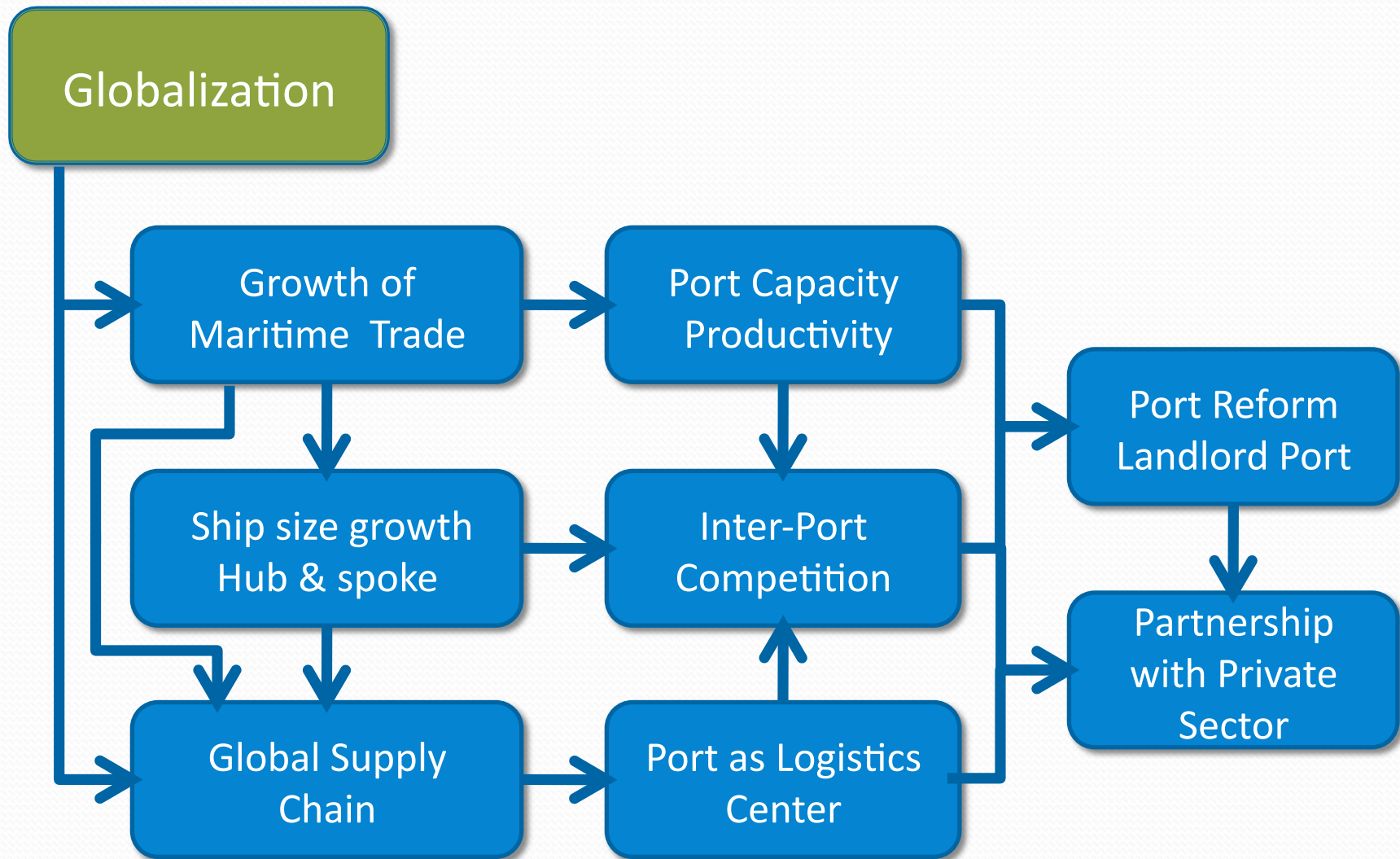
The 6<sup>th</sup> Young Leaders Training & Research Program  
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# Challenges of the World's Ports and Project Financing

Dr. Satoshi Inoue

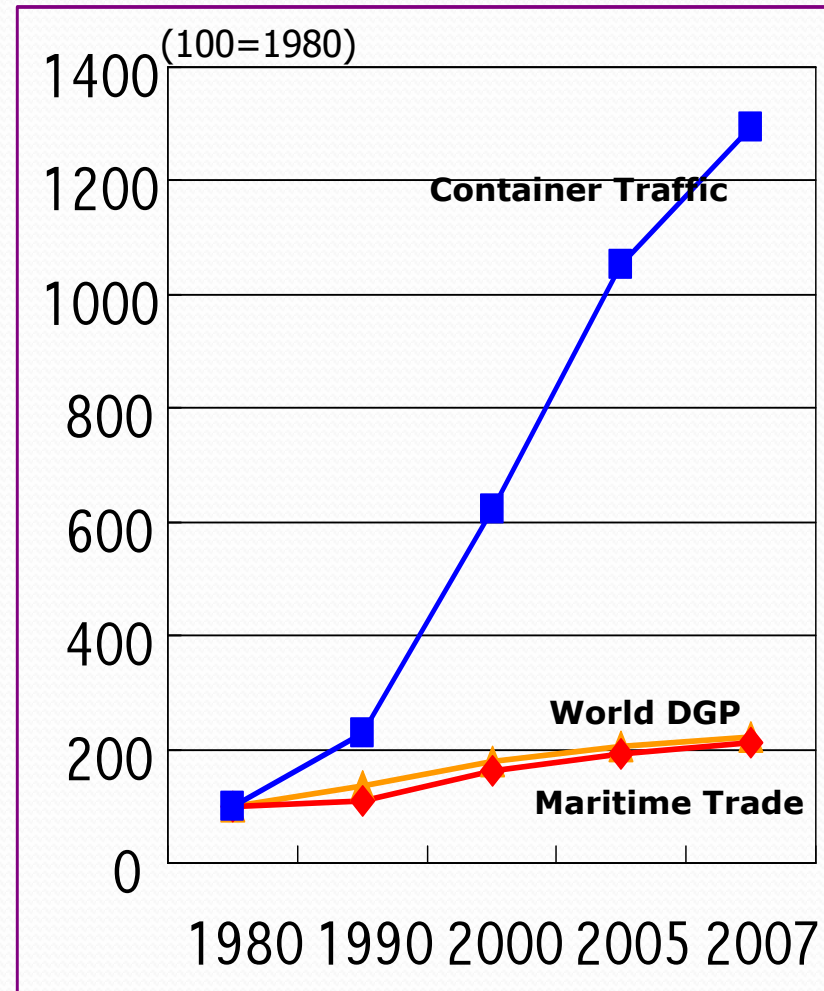
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# Globalization and Ports



# Unprecedented growth of maritime trade

- World Maritime Trade
  - 1980: 3.70 (billion tons)
  - 1990: 4.01
  - 2000: 5.98
  - 2005: 7.11
  - 2007: 7.88
- World Container Traffic
  - 1980: 0.37 (100 mil teu)
  - 1990: 0.86
  - 2000: 2.32
  - 2005: 3.92
  - 2007: 4.81

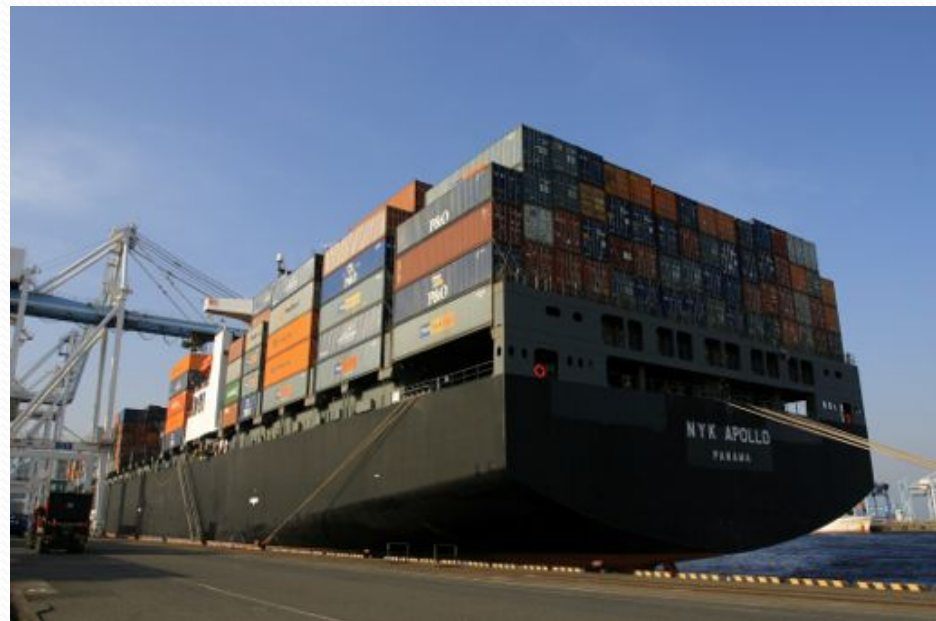


# Containerization

## “Box” has changed the world

20ft container (20 x 8 x 8) TEU: twenty-foot equivalent unit

40ft container (40 x 8 x 8) FEU: 2xTEU



# Revolution in freight transport

- How revolutionary?
  - Handling efficiency
  - Labor efficiency
  - Damage
  - Pilferage, security
  - Temperature control (reefer)
- Multi-modal transport

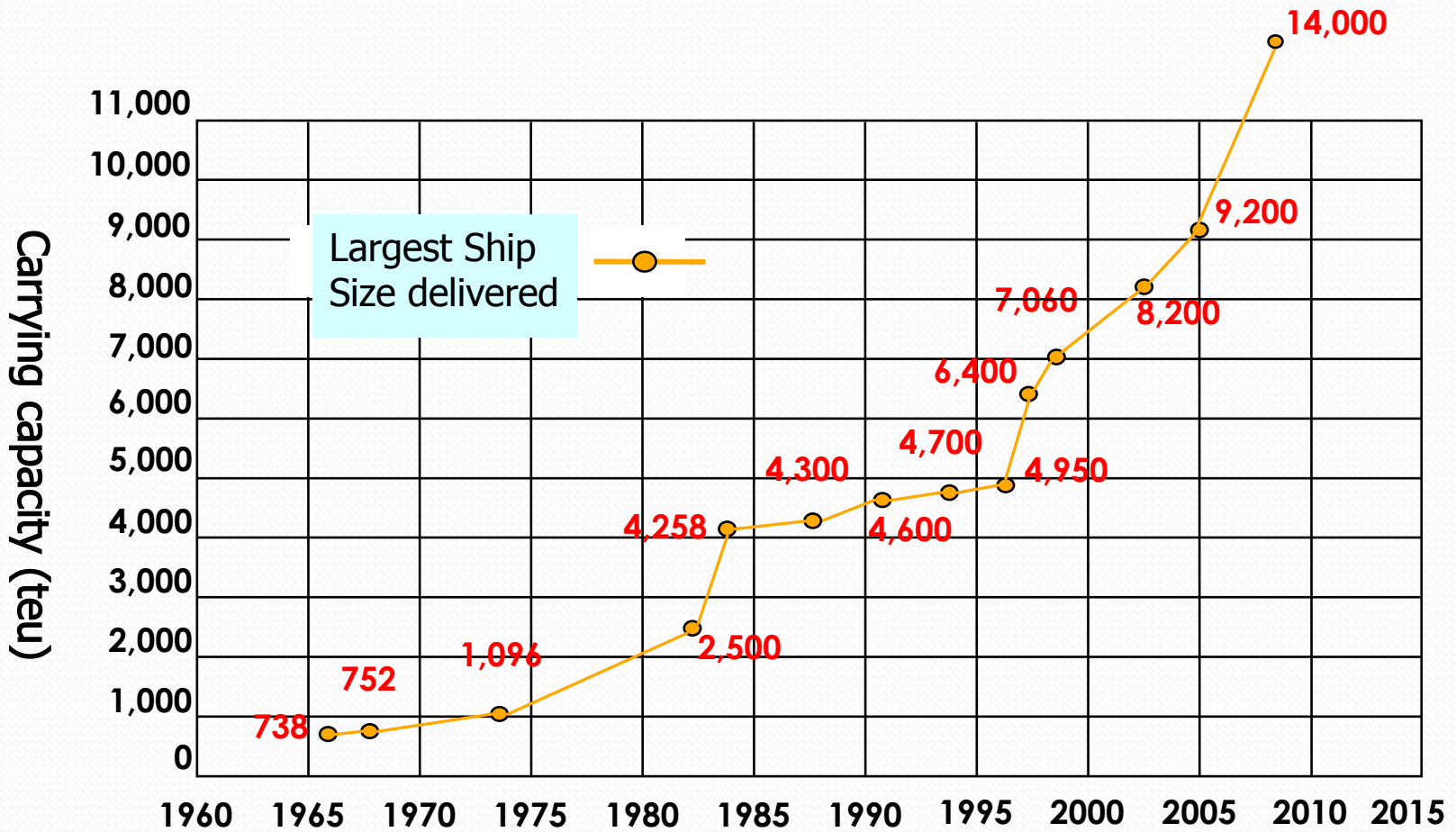




# Making possible “true” multi-modal transportation through ports



# Trends of container ship sizes



















Source: Ministry of Land, Infrastructure and Transport, Japan

# Port reforms in response to globalization

- Needs for port development
  - Expanding **port capacity** by new or re-development
  - Improving **efficiency & productivity** of terminal operations
- Needs for changes in port “business model”
  - Strengthening & diversifying **financial sources** for port development
  - Introducing up-to-dated **know-how & technology** for terminal operations
  - Providing **customer-oriented** port services
  - Getting rid of **bureaucratic** rules & procedures
  - Making the port responsive to the market



# Port Reform: types of port privatization

	Regulation	Infra-Structure	Super-Structure	Cargo-handling
Service Port				
Tool Port				
Landlord Port				
Private Port				

 : public     : private

# Port reforms around the world

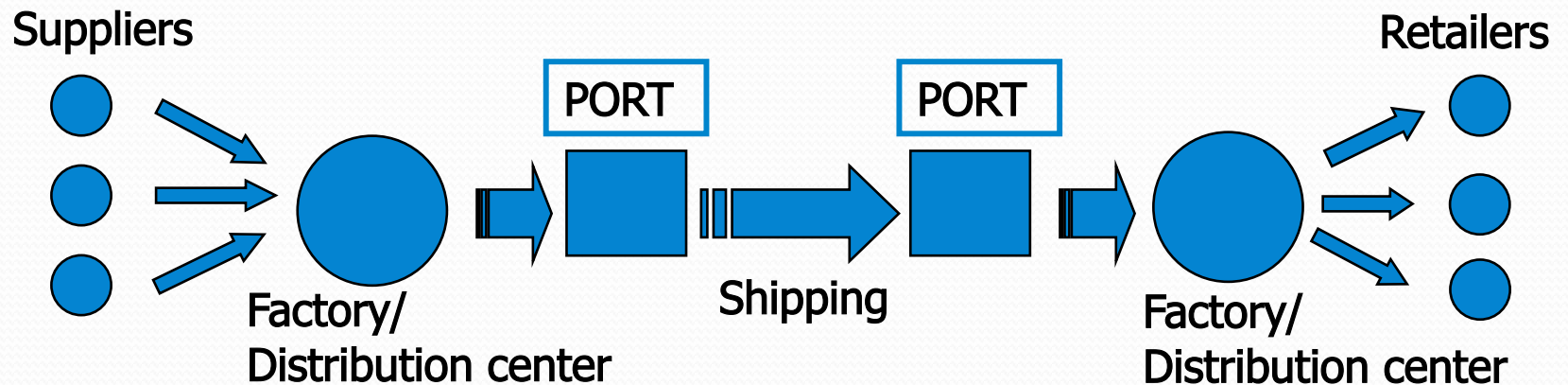
Port “**Privatization**” towards “Landlord Port”

Port “**Corporatization**” towards “More Autonomy”

	1980'-1990'	2000'-
Europe	UK Spain, Italy, Greece, Poland	France, Netherlands, Belgium, Germany
Africa	Nigeria, South Africa, Senegal, Egypt, Djibouti	
Asia	Singapore, Malaysia, India, Pakistan, Indonesia, Thailand	Korea, China
Oceania	Australia, New Zealand	
Americas	Canada Mexico, Chile, Peru, Argentina	

# Integrating logistics activities into supply chain system

- Supply Chain Management
  - **Optimization** of total logistics system
  - Not just **cost & time** at port terminals, but also **predictability & traceability** of entire cargo flow are critical for SCM



# New business model of port

## ■ Traditional port business model

- Port: “Interface” between shipping and land transportation
- Goal: to provide quick port services with low price

## ■ Emerging port business model

- Port: “Logistics Center” or “Logistics Hub” in global supply chain systems
- Goal: to provide integrated & seamless logistics systems and logistics value-added services

# Transforming a port into “logistics center” in supply chain

- Innovative terminals
  - Logistics parks/zones
  - Advanced hinterland access
  - IT system & infrastructure
- ➔ ***PPP projects***





# Sustainability-license to operate ports

## ■ Global Warming

### ➤ Port Climate Programs

- Onshore Power Supply, Ship speed reduction, etc.
- Electrification of cargo handling equipment, etc.

### ➤ Green logistics systems

- Modal shift from trucks to rail and inland shipping
- Eco-mileage, logistics carbon footprint

## ■ Logistics Security

### ➤ Port security system

- SOLAS-ISPS Code

### ➤ Supply chain security

- Authorized Economic Operator (AEO)

# Sustainability & port management

- “Sustainability” becomes a central part of port management system and strategy
  - Not trade-off but go-together with port business
  - Provide incentives to program participants
- “Sustainability” accelerates intra-regional economic activities
  - Increasing importance of “regional logistics system”
  - Integrating local or fragmented logistics systems
  - Cooperation between ports and logistics players

# Partnership with Private Sector

- Port strategies to accelerate the PPP approach
  - Strengthening its market position through partnership with private sectors
  - Gaining freedom to choose best-mixed options through port reforms
- New opportunities for PPP projects
  - Terminal development & operations (lease, BOT, etc.)
  - Development of Logistics Parks
  - Hinterland Assess Projects (development of highways/ railroads, dedicated shuttle service, etc.)
  - Information Service Systems (port community system, etc.)

*Thank you for your attention*

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