The Blue Economy in Perspective

Volume of World Trade (%)
- Seaborne: 10.0%
- Airborne: 0.3%
- Overland: 89.8%

Value of World Trade (%)
- Seaborne: 14.3%
- Airborne: 13.0%
- Overland: 72.7%
The Blue Chain

1. Building
   Korea & China (72%)

2. Ownership
   Greece, Japan & China (38%), Panama, Liberia & Marshall Islands (42%)

3. Registration
   Hong Kong, Netherlands, Singapore & UAE (44%)

4. Operations
   Denmark & Switzerland (30%)

5. Scrapping
   India, Bangladesh, China & Pakistan (92%)

SUPPORT

- Financing and Insurance
- Global Terminal Operators
- Seafarers

UK & Scandinavia
Philippines & Indonesia

European countries: France, Spain, Italy, Portugal, Germany

Asian countries: India, China, Korea, Japan, Singapore

Central America: Panama, El Salvador, Costa Rica, Guatemala

Caribbean: Jamaica, Puerto Rico, Dominican Republic

The Blue Chain SUPPORT
Feeling the Blues…


- Seaborne Trade (billions of tons of goods loaded) - Left Axis
- Exports of Goods (trillions at current $US) - Left Axis
- Ratio Exports / Seaborne Trade - Right Axis
Blue Highways: Maritime Shipping

- Strait of Malacca: 30%
- Suez Canal: 15%
- Panama Canal: 5%
The Blue Pinch: Terminal Surface Controlled by the Main Global Terminal Operators

17,242 hectares
(172.4 km²)
The Big Blue: Evolution of Containerships

- **Early Containerships (1956-)**
  - 500 - 800 TEU
  - **Fully Cellular (1970-)**
    - 1,000 - 2,500 TEU
      - 6 containers across
      - 4 containers high on deck
- **Panamax (1980-)**
  - 3,000 - 3,400 TEU
- **Panamax Max (1985-)**
  - 3,400 - 4,500 TEU
- **Post Panamax I (1988-)**
  - 4,000 - 5,000 TEU
- **Post Panamax II (2000-)**
  - 6,000 - 8,000 TEU
- **New-Panamax (2014-)**
  - 12,500 TEU
- **Post Panamax III (2006-)**
  - 15,000 TEU
  - 397x56x15.5; 22-10-8 (not shown)
- **Triple E (2013-)**
  - 18,000 TEU
  - 400x59x15.5

**Dimensions**

- **Early Containerships**
  - 137x17x9 meters (LOA - Beam - Draft)
  - 200x20x9
  - 215x20x10

- **Panamax**
  - 250x32x12.5

- **Panamax Max**
  - 290x32x12.5

- **Post Panamax I**
  - 285x40x13

- **Post Panamax II**
  - 300x43x14.5

- **New-Panamax**
  - 366x49x15.2

- **Post Panamax III**
  - 397x56x15.5; 22-10-8 (not shown)

- **Triple E**
  - 400x59x15.5
World’s Major Container Ports, 2012
Transshipment Volume and Incidence by Major Ports, 2007-12
The Spatial Organization of the Ocean Economy: Maritime Clusters

### Port Clusters
- Multiport Gateway
- Transshipment cluster

### Terminal Clusters
- Terminal operator A (Container)
- Terminal operator B (Container)
- Terminal operator C (Bulk)
- Port authority

### Port / Logistics Clusters
- Port-Centric Logistics Zone
- First Tier Logistics
- Second Tier Logistics
- Bulk
The Geographical Setting of Multi-port Gateways Regions

- **Container port / terminal**
- **Logistics zone / site**
- **Strongly developed corridor**
- **Poorly developed corridor**
- **Multi-port gateway region**

**Pacific-Asia** (e.g. Pearl River Delta)

**North American West Coast** (e.g. LA/Long Beach)

**North Europe** (e.g. Rhine Scheldt Delta)
The East Asian Container Port System and its Multi-port Gateway Regions
The North-American Container Port System and its Multi-Port Gateway Regions

Multi-Port Gateway Regions
1. San Pedro Bay
2. Northeastern Seaboard
3. Southwestern Seaboard
4. Puget Sound
5. Southern Florida
6. Gulf Coast
7. Pacific Mexican Coast

TEU (2014)
- Less than 0.5 M
- 0.5 to 1.0 M
- 1.0 to 2.0 M
- 2.0 to 4.0 M
- More than 4.0 M
The European Container Port System and its Multi-port Gateway Regions

Multi-Port Gateway Regions
1. Extended Rhine-Scheldt Delta
2. Helgoland Bay
3. UK SE Coast
4. Spanish Mediterranean
5. Ligurian Range
6. Seine Estuary
7. Black Sea West
8. South Finland
9. Portuguese Range
10. North Adriatic
11. Gdansk Bay
12. Kattegat/The Sound

TEU (2013)
- Less 0.5 M
- 0.5 to 2.0 M
- 2.0 to 4.0 M
- 4.0 to 8.0 M
- More than 8.0 M
Inter-firm Relationships in the Main Container Ports of the Pearl River Delta, 2015

**ZHOUHAI**
- Zhuhai International Container Terminals
- Yantian International Container Terminals
- Da Chan Bay Terminal One
- Shekou Container Terminals
- Chiwan Container Terminal
- China Merchant Mawan Port

**SHENZHEN**
- Nansha Container Terminal
- Nanhai International Container Terminals
- Guangzhou Huangpu Xingang Terminal
- Guangzhou Huangpu Xinsha Terminal
- Dongguan Container Terminal
- Shenzhen Municipal Government
- China Merchants Holdings International

**GUANGZHOU**
- Guangzhou South China Ocean Gate Container Terminal
- Nansha Container Terminal
- Nanhai International Container Terminals
- Guangzhou Huangpu Xingang Terminal
- Guangzhou Huangpu Xinsha Terminal
- Dongguan Container Terminal

**HONG KONG**
- Modern Terminals
- COSCO-HIT Terminal
- Hong Kong International Terminals
- Asia Port Services
- Asia Container Terminals
- DP World Hong Kong

**Shipping Line**
- Cosco Pacific
- PSA
- DP World

**Terminal Operator**
- APM Terminals (AP Moller Group)
- China Shipping Group
- Hutchison Port Holdings
- Guanzhou Port Group
- Shenzhen Yantian Port Group
- Modern Terminals

**Terminal**
- ZHUHAI: 50%, 50%
- SHENZHEN: 25%, 25%
- GUANGZHOU: 41%, 41%
- HONG KONG: 67%, 67%

**PORT**
- Financial Holding

**China Shipping Group**

**Cosco Pacific**

**DP World**

**APM Terminals (AP Moller Group)**

**Guangzhou Port Group**

**Palm Port Services**

**China Merchants Holdings International**

**Guangzhou South China Ocean Gate Container Terminal**
Inter-firm Relationships in the Three Main Container Ports of North America, 2015

**LOS ANGELES**
- Global Gateway South
- Yusen Terminals
- TraPac Los Angeles Berth 136
- APM Terminals Pier 400
- Evergreen Terminal
- West Basin Container Terminal

**LONG BEACH**
- Terminal C60
- Terminal A
- Long Beach Container Terminal
- Pier G Berth
- California United Terminals
- Pacific Container Terminal
- Total Terminals International

**NEW YORK**
- APM Terminals (AP Moller Group)
- Deutsche Bank RREEF
- Maher Terminals
- Ports America
- Stevedoring Services of America
- Macquarie Infrastructure
- AIG Highstar Capital

**Shipping Line**
- APL
- NYK
- Mitsui OSK
- Evergreen
- Yangming
- China Shipping

**Terminal Operator**
- Matson
- MSC
- OOIL
- K-Lines
- Hyundai
- Cosco Pacific
- Hanjin
- MSC

**PORT**
- Ontario Teachers’ Pension Plan
- Global Container Terminals
- New York Container Terminal
- Global Terminal and Container Services
- APM Terminals Port Elizabeth
- Maher Terminal
- Port Newark Container Terminal

**Financial Holding**
- Cosco Pacific
- Evergreen
- AIG
- Hanjin
- MSC
- Macquarie
- AIG Highstar Capital
- Ontario Teachers’ Pension Plan
- Global Container Terminals
Inter-firm Relationships in the Three Main Container Ports of the Rhine-Scheldt Delta, 2015
The Massification and Clustering of Transportation in Inland Systems
International Inventory of Inland Ports and Port Centric Logistics Zones

North America

Europe

Pacific Asia

Size in Hectares
- Less than 100
- 100 to 200
- 200 to 500
- 500 to 1,000
- More than 1,000

Inland Port (Terminal or Complex)
Port Centric Logistic Zone