Global Freight Trends and Private Sector Responses

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Global freight trends: “Doing freight right”

• Continued economic recovery $\propto$ freight work?
• Question 1: What is between here and horizon?
• Question 2: What might be over the horizon?

Three scales for perspective
• Local
• National (State and multi-state levels)
• Global
Don’t confuse the next decade with the freight response horizon
Crossplot of GDP and US Freight Ton-miles

\[ y = 205.73x + 3 \times 10^6 \]

\[ R^2 = 0.926 \]

TOTAL U.S. ton-miles of freight (Millions)
What does it mean to be *doing freight right*?

Public and private attention on more than one lever at a time?

Examples

• Port gateways – hubs of change?
• Energy, efficiency, economics – invest for profits?
• First-hand vs. second-hand fleets – green growth and brown bubbles
• Rules of the road – policy signals as push or pull?
What is happening to supply chain now?

• Container shipments have grown by 290% since 2000
• Vessel overcapacity, “right-steaming”
• Supply chain is more intermodal
• Distribution Centers now twice the size from a decade ago
• Alternative ports are on the rise

http://www.capacityllc.com/blog/7-striking-stats-logistics-global-local/

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The IF-TOLD Mitigation Framework: A Context for New LOS Discussions

The IF-TOLD Six degrees of freedom

- **Intermodalism/mode-shifting** – efficient modes
- **Fuels** – advanced, low-emission, low-carbon fuels
- **Technology** – efficient technologies
- **Operations** – best practices in operator behavior
- **Logistics** – supply chain management
- **Demand** – how much STUFF we transport and consume
Doing freight right – what is changing?

Key trends changing this decade(s)

• Right-shoring
• Right-steaming
• Right-routing
• Right-timing
• Right-bundling
• Right-mode mixing
Doing freight right – what is changing?

Key trends changing this decade(s)
• Right-shoring
• Locate the best combinations of enterprise components for cost and efficiency
Doing freight right – what is changing?

Key trends changing this decade(s)

- Right-shoring
- Right-steaming
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- Right-timing
- Right-bundling
- Right-mode mixing

- Energy price shocks and recession slowed ships; supply chain flexibility emerged
2020 Optimistic: ~$400/ton fuel

Costs Incurred per FEU-Mile:

- Total Cost
- Time Cost
- Fuel Cost

Vessel Service Speed (knots)
Doing freight right – what is changing?

Key trends changing this decade(s)

• Right-shoring

• Right-steaming

• Right-routing

• Routes are made not found; markets can result in circuits, pendulums, or empty backhauls
Doing freight right – what is changing?

Key trends changing this decade(s)

• Right-shoring
• Right-steaming
• Right-routing
• Right-timing
• Right-bundling
• Right-mode mixing
  • Liner (scheduled) transport
  • Spot (unscheduled) transport
  • Daily, weekly, biweekly flexibility

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Doing freight right – what is changing?

Key trends changing this decade(s)

• Better bundling and backhauls reduce annual miles, moves more goods, saves $ and energy, serves flexibly supply chain

• Right-bundling
Doing freight right – what is changing?

Key trends changing this decade(s)

• Locate the best combinations of enterprise components for cost and efficiency

• Right-mode mixing
Doing freight right – what is changing?

Key trends changing this decade(s)

• When some fleets modernize quickly, others benefit (?) from younger second-hand stock

• Right-investing
What might be over the horizon?
Questions and Discussion... and another thank you