Commentary and presentation materials are based on the personal views of the speaker and may not coincide with opinions held by Moffatt & Nichol or its employees.
Private Sector Port Financing, Investment and Development Trends

1. Infrastructure investment requirements exceed public finance capacity, calling for increased use of PPPs and private financing

2. Shipping industry market dynamics are pressuring the status quo

3. Port authorities need to understand market trends and how they may impact their policy goals

4. Anticipated technology changes have the potential to fundamentally reshape our way of life, and how we move goods to market
Infrastructure investment need is greater than availability of public finances

Chronic underinvestment in infrastructure

Availability of private financing

Possible policy goals

PPP’s can leverage private and public funds to fill the gap

$800 billion annually through 2030

1 McKinsey Study, 2016
Different investors in the port space; risk profiles drive investment decisions

Two Types of Capital

1. Debt
2. Equity

Three Types of Investors

1. Strategic
2. Financial
3. Public

What Infrastructure Investors Want

1. Essential services resilient to the economic cycle
2. High barriers to entry
3. Predictable and resilient long-term cash flows
4. Inflation-linked revenues
5. Predictable operations and maintenance capital
The AAPA Port Planning and Investment Tool Kit

**COMPREHENSIVE**

**Identification**
- Planning/Feasibility
- Develop/Refine: Port Vision, Mission, Goals & Objectives
- Quantify: Port Capabilities, Needs and Gaps
- Engage: Port & Community Stakeholders
- Identify Actions, Developments, Improvements
- Assess: Conceivable Impacts

**PROJECT-SPECIFIC**

**Definition**
- Planning
  - Initiate
    - Project Goals & Objectives
    - Data Collection
    - Stakeholder Engagement
  - Quantify
    - Existing Conditions
    - Project Drivers
    - Project Needs
  - Form
    - Project Context
    - Alternatives Development and Analysis
    - Refinement of Reasonable Alternatives
  - Feasibility
    - Physical and Operational Performance
    - Market and Financial Performance
    - Impacts
    - Risk
  - Measure
    - Evaluation Approach
    - Alternatives Comparison
    - Recommended Project

**FEEDBACK LOOP**

**PPIT Focus**
- Plan of Finance
- Financeable Project
- Implementation
- Monitoring/Evaluation

**COMPREHENSIVE**

**Feasibility**
- Strategize
  - Investment Approach
  - Project Due Diligence
  - Credit/Debt Profile

**PROJECT-SPECIFIC**

**Financing**
- Structure
  - Business Models
  - Finance Alternatives
  - Financial Modeling
  - Debt Implementation & Management
  - Public Private Partnerships
  - Grants
  - Government Loans

*Consideration of NEPA compliance for projects requiring Federal Action is of particular importance during these efforts.*
Private investors evaluate opportunities using a financial model, and so should you.
It feels like it’s getting harder to tell the future, but it has never been easy

Global Economic Policy Uncertainty, January 1997 to August 2017

Source: PolicyUncertainty.com; Baker, Bloom and Davis
Overall volume growth not as exciting; more uncertainty over market shares

U.S. TEU to GDP growth multiple trending downward

Coastal shares of container cargo will continue alternating

Commercial risk today is greater than in prior decades – Slide 1
Commercial risk today is greater than in prior decades – Slide 2

Liner Consolidation and Alliances

Existing Alliances

2M
- Maersk
- MSC

CKYHE
- China Cosco Shipping Corp.
- K Line
- Yang Ming
- Hanjin Shipping*
- Evergreen

G6
- APL**
- Hapag-Lloyd
- HMM
- Mitsui OSK Lines
- NYK Line
- OOCL

O3
- CMA CGM
- China Cosco Shipping Corp.
- UASC***

New Alliances (April 1, 2017)

2M ALLIANCE+HMM
- Maersk Line
- MSC
- HMM
- COSCO

THE ALLIANCE
- Yang Ming
- K Line
- Hapag-Lloyd
- Mitsui OSK Lines
- NYK Line
- CMA CGM
- China Cosco Shipping Corp.
- Evergreen
- OOCL

New Alliances Structure (July 1, 2017)

2M ALLIANCE+HMM
- Maersk Line
- MSC
- HMM

THE ALLIANCE
- Yang Ming
- Hapag-Lloyd
- Ocean Network Express****

COSCO to acquire OOCL, pending approval

*Hanjin Shipping was declared bankrupt in early 2017
**APL has been acquired by CMA CGM
***UASC has merged with Hapag-Lloyd
****Ocean Network Express will market services from April 1, 2018
Maersk acquisition of Hamburg Sud expected end-2017

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Consolidation trickling down to terminals and port authorities

- Port of Oakland consolidates from 8 terminals to 3
- US Regulators approve Miami Terminal Alliance, allowing SFCT and POMTOC to jointly negotiate service contracts with liner alliances
- ONE, China COSCO expected to each rationalize their terminals in Southern California
- NW Seaport Alliance: Seattle-Tacoma cooperating to maximize the utility of their terminal assets and avoid misaligned capex investments
- Portland loses its only container terminal
Valuations are increasing but are not always the main obstacle to deals
Three Trends Worth Keeping an Eye On

1. Trends in e-commerce & retail; implications for logistics
2. Trends in autonomous technology
3. Trends in what investors value
Consumer trends exerting pressure on logistics

The Rise of E-Commerce

Mobile “Snacking”

Source: eMarketer

*Snacking” concept courtesy of Jim Tompkins
Three trends worth keeping an eye on – Trend 2

**Autonomous Vehicles**

**Vessels**

**Trucks**

**Personal Vehicles**

Sources: Yara & Kongsberg, Scania, Otto, Volvo
Three trends worth keeping an eye on – Trend 3

Data (and context) is now the most valuable asset class

Top ten companies by market cap, 1997 and 2017

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<td>General Electric</td>
<td>Conglomerate</td>
<td>223</td>
<td>Apple</td>
<td>Tech/Data</td>
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<td>Alphabet</td>
<td>Tech/Data</td>
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<td>JP Morgan Chase</td>
<td>Financial</td>
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In Conclusion

1. Infrastructure investment requirements exceed public finance capacity, calling for increased use of PPPs and private financing
   • Private financing comes with their own set of needs

2. Shipping industry market dynamics are pressuring the status quo
   • Creating risks and opportunities

3. Port authorities need to understand market trends and how they may impact their policy goals
   • Will require careful analysis, well-designed partnership structures, clarity on goals and trade-offs

4. Anticipated technology changes have the potential to fundamentally reshape our way of life, and how we move goods to market
THANK YOU

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