Shifting International Trade Routes

International Economic Outlook & Global Trade Patterns

January 26, 2009
Agenda

Today’s Objectives
Economic Drivers and Challenges
Global & North American Container Trades
The Global Container Shipping Industry
The North American Container Port Industry
Will Trade Patterns Shift: Some Considerations
Today’s Objectives

Endeavor to provide a broad context for today’s program by briefly touching on:

- Economic realities and challenges
- Shippers’ supply chains
- The status of the global and North American container shipping industries
- Asia-North American container routing alternatives

But most importantly, finish on time!
Economic Drivers and Challenges
The Darkest Hour is.....
Just before things get really fuzzy!
Personal consumption expenditures represent the greatest portion of U.S. GDP.

U.S. GDP by Component: Q3 2008 & Q3 2009
(Seasonally Adjusted at Annual Rates)

Billions of US Dollars

-1,000
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
9,000
10,000

- Personal Consumption Expenditures
- Gross Private Domestic Investment
- Net Exports of Goods and Services
- Government Consumption Expenditures

Q3 2008
Q3 2009

Source: BEA; Norbridge analysis
The consumer is under substantial pressure

- Financial Bail Out
- Looming Tax Increases
- Credit Crunch
- Weakening Dollar
- Baby Boomers Retiring
- Energy Prices
- Rising Health Care Costs
- Rising Housing Market
- Rising Unemployment
- Weakening Dollar
- Baby Boomers Retiring
- Financial Bail Out

Consumer Spending

Norbridge
U.S. household net worth is down 18% since its Q2 2007 peak.


Household Net Worth (Trillions)

Q2 2007: 65.3
Q3 2009: 53.4
The U.S. population is slowly getting older.


Source: US Bureau of the Census; Norbridge analysis
The consumer has begun to save—a good news/bad news story


Note: 2009 estimated based on three quarters of data
Source: BEA; Norbridge analysis
The US economy is projected to return to more normal GDP growth in 2010.

United States Change in Real GDP: 2004-2010

Source: BEA and WSJ; Norbridge Analysis
Global and North American Container Trades
2009: “The worst of times”

Percent change in TEUs: 2009 vs 2008

World Trade  Asia-Europe  Asia-N.Am.  Eur-US
North American container traffic has declined nearly 20% in the past two years


*Note: Excludes AK, HI, Guam and Puerto Rico (largely domestic) traffic
Source: AAPA; Port Reported Throughput; Norbridge Analysis
Asian Imports have declined across all coasts.

Imports by U.S. Port Region of Entry
TEUs, 2005-2009 Asia – U.S. Container Trade

Source: PIERS 2005-2009
China continues to dominate North American container trade.

Size and Growth of North America Container Trade Regions (2003-2008)

Note: Bubble size indicates 2008 TEU throughput

Source: 2003 and 2008 PIERS data; Norbridge Analysis

Note: Excludes AK, HI, Guam and Puerto Rico ports
The economic recovery: an alphabet soup of scenarios.

US Container Trade and GDP Growth: 1985-2009E

Note: 2009 container volume is estimated
Source: IMIF; AAPA; Norbridge analysis
Global & North American Container Shipping Industries
The Global Container Shipping Industry

- 400+ companies

- Operating 4,718 fully cellular container capable ships
  - 13.1M TEU of capacity

- On 400+ trade routes

- Carrying about 140M total TEUs per year (2008)
  - Estimated to have dipped by about 15% in 2009 to approximately 122M TEUs

Source: Containerisation International; AXS Alphaliner
Global container carriers have incurred substantial financial losses

Ocean Carrier First 3 Quarters 2009 Financial Results:
Operating Profit/Loss – USD Millions

Maersk Container, Hapag Lloyd, China Shipping, NOL Container, Hanjin Container, CMA CGM*, Zim, Evergreen

* CMA CGM first 6 months
Source: Carrier reports; Norbridge analysis
Although the order book is declining due to deliveries, postponements & cancellations.

*Note: 2009 excludes newbuild postponements and cancellations under negotiation
Source: CI Magazine. Norbridge Analysis
The increasing supply of container ships may pose challenges for years.

**Number of Vessels***

- Active: 5,896
- On-Order: 735
- Laid-Up: 581

**Vessel Capacity (TEUs, millions)**

- Active: 13.7
- On-Order: 4.1
- Laid-Up: 1.5

Note: All container capable vessels
Source: January 2010 AXS Alphaliner; Norbridge analysis
Asia-North America container services have steadily declined

Total Number of Services & Average Weekly TEU Capacity by Year to North America from India, SE Asia, N. Asia, and China (3Q)

Source: Com Pair Q3 2006-2009
The North American Port Industry has added significant capacity...

- **Prince Rupert:**
  - Phase 1: 500K TEU

- **Evergreen Tacoma**

- **Mobile:**
  - New term: 350K TEU

- **Lazaro Cardenas:**
  - Phase I: 700K TEU

- **Bayport Phase 1**

- **Norfolk:**
  - New APMT terminal: 1M TEU

- **Savannah CT-9**

- **Jacksonville:**
  - MOL: 800K TEU

- **Tampa**
It has numerous projects currently in the planning/development stages…

- Prince Rupert: Phase 2: 1.5M TEU
- POLA / POLB: 7 Projects ~2.5M TEUs and rail
- Lazaro Cardenas: Fut. Phase: 2M TEU
- Melford, Nova Scotia: 1.5M TEU
- Vancouver: Terminal II
- Corpus Christi
- Charleston, SC: Navy Base Terminal 1.3M TEU
- Jacksonville: Hanjin: 800K TEU
- Tampa
....and many additional projects in the conceptual planning phase

- Vancouver Lynnterm
- Mobile: Phase II
- Bayport Phase II
- New York Auto Conversion
- Philadelphia Keystone
- Portsmouth Craney Island
- Sydney, Nova Scotia
- Galveston
- Punta Colonet
- Jasper County
- Galveston
- New York Auto Conversion
- Philadelphia Keystone
- Portsmouth Craney Island
- Sydney, Nova Scotia
- Vancouver Lynnterm
- Mobile: Phase II
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There are multiple options for Asia (China)-North American container trades

Asia-Americas Routing Options

China-WC Canada
China-US PNW
China-US PSW
China-PC-US Gulf/Atlantic
China-SUEZ-US Gulf/Atlantic
How big will the ships be?

Note: Asia-Europe, Asia-Europe/Med, and Asia-Med Trade Lanes can also include stops in the Middle East and India Subcontinent.

Note: “Other” Trade Lane is a bucket of Trade Lanes that have less volume than some of the more well traveled ones.

Source: Containerization International Magazine; Dec 2004 – Jan. 2010
Big Ship Draft Requirements: Some Realities

- The eastbound trade is the driver
- The eastbound trade is a cube, not a weight trade
- The expanded Panama Canal will have a draft of 50’ freshwater = about 14.5 meters or 47.5-48 feet salt water
- Containerships burn 40-50% of their bunkers in route from Asia to the East Coast of North America
- Most large containerships traversing the Panama Canal will likely arrive at vessel drafts significantly less than 14.5 meters or 48 feet
Economics: Some Important Questions

✓ Will North American western railroads price themselves out of interior markets?

✓ Will management & the ILWU solve the West Coast productivity issue?

✓ What will the optimal size vessel be on the expanded Panama Canal route?

✓ If one transships, can one fill a 10,000+ TEU vessel and deliver competitive service vs. direct call all-water?
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