Shifting International Trade Routes
International Economic Outlook & Global Trade Patterns

AAPA American Association of Port Authorities

TAMPA PORT AUTHORITY

January 26, 2009

Norbridge

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!

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Economic Drivers and Challenges

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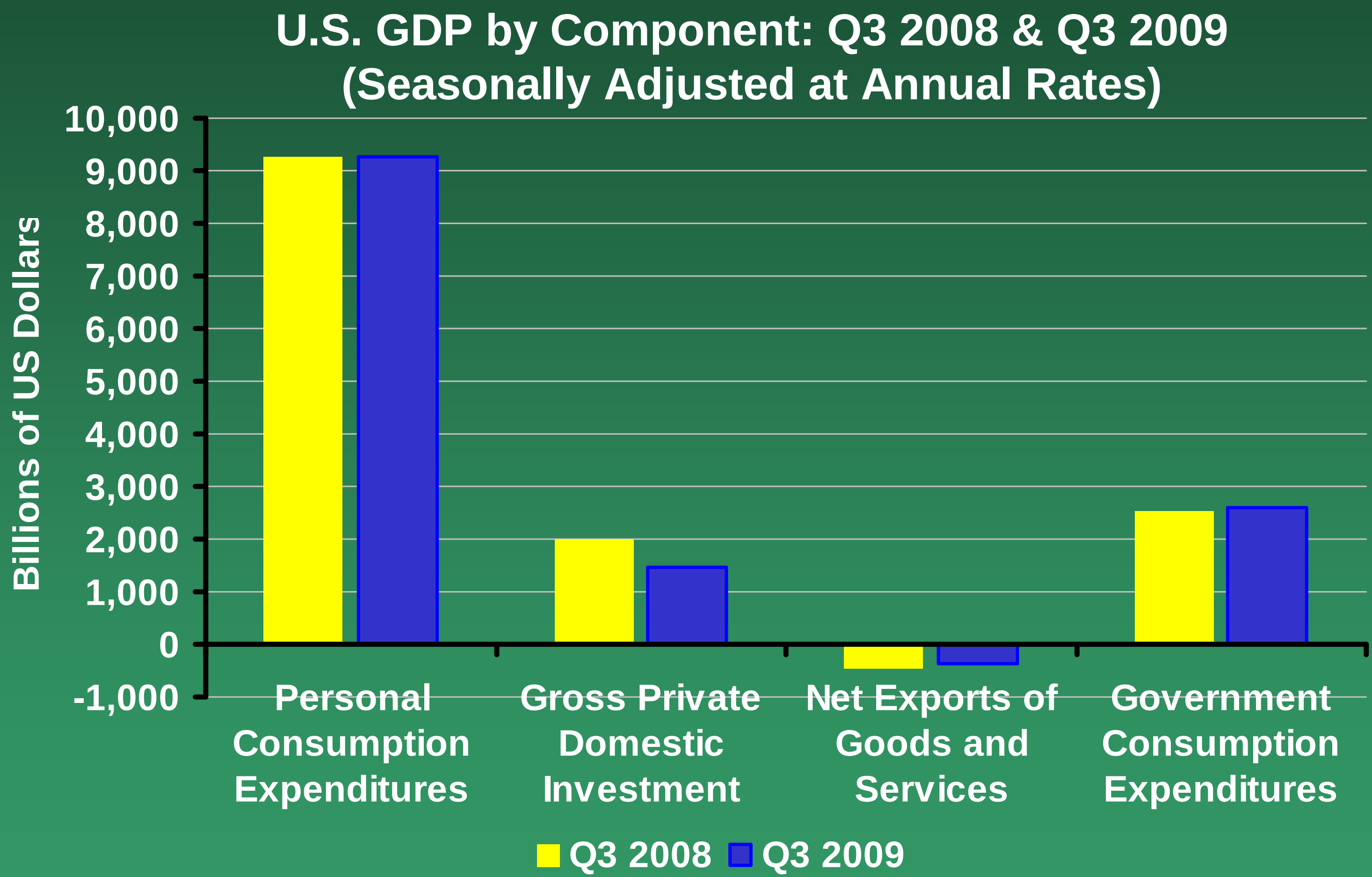
The Darkest Hour is…..

Just before things get really fuzzy!

Personal consumption expenditures represent the greatest portion of U.S. GDP.



Source: BEA; Norbridge analysis

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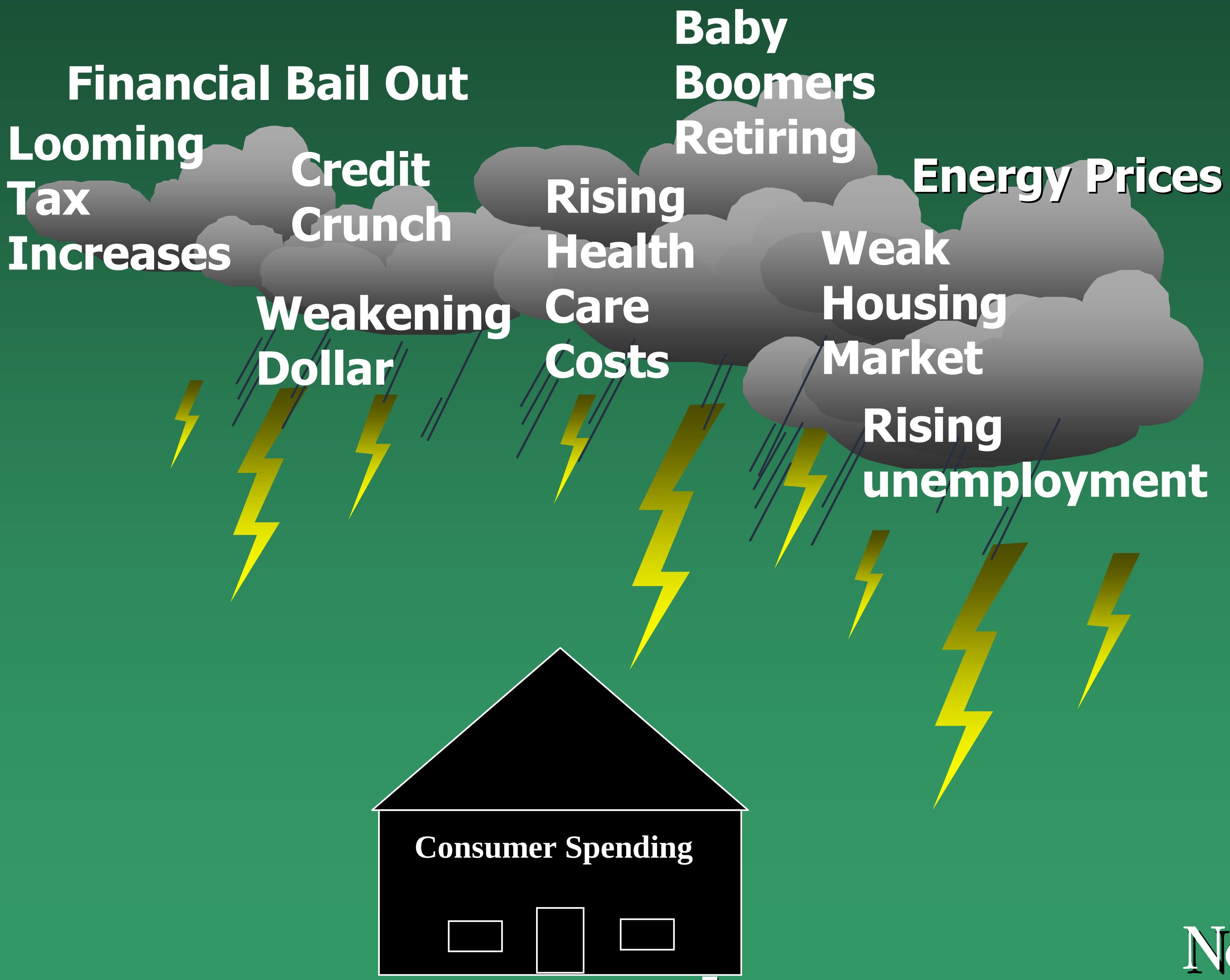
The consumer is under substantial pressure



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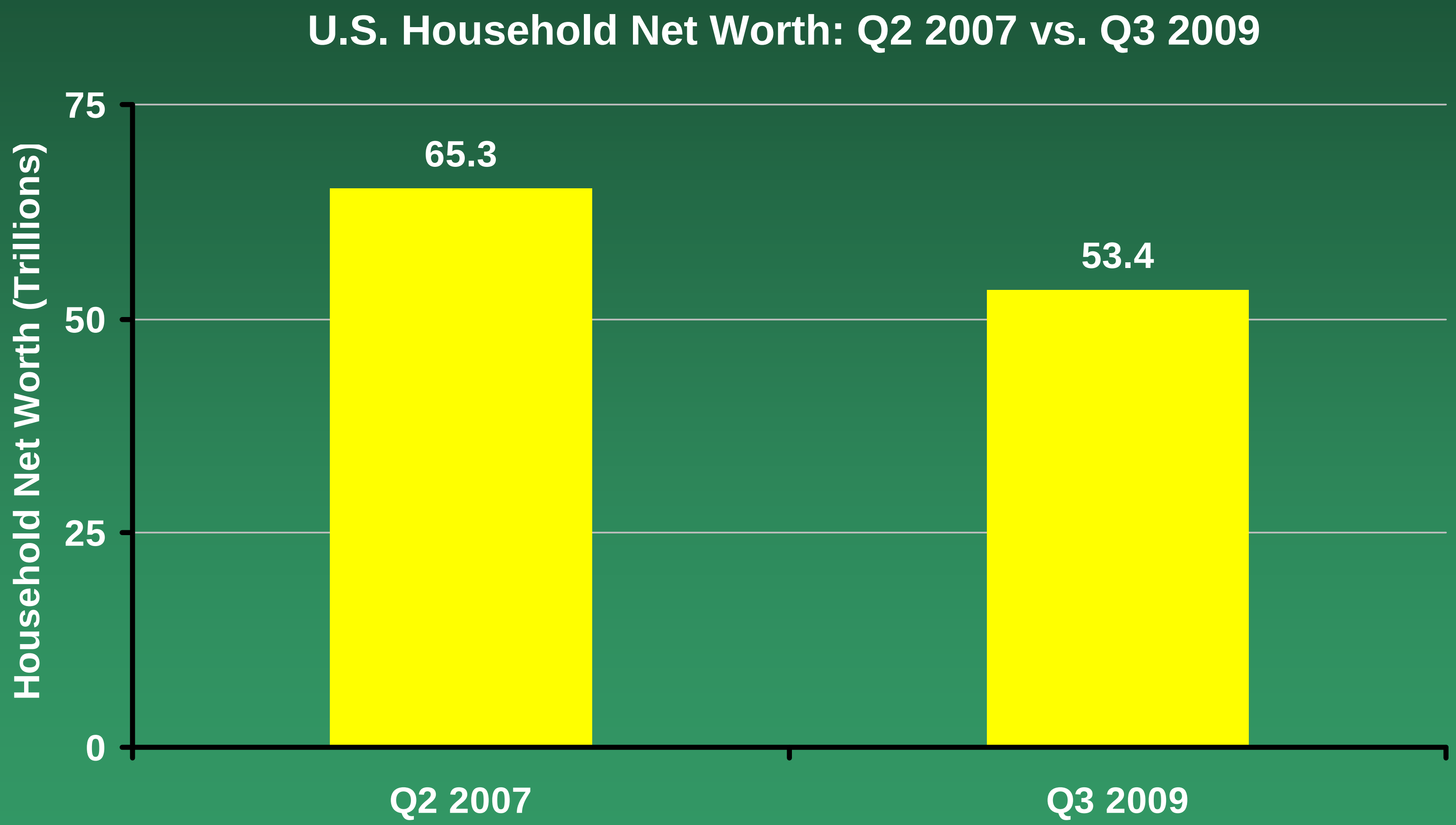
U.S. household net worth is down 18% since its Q2 2007 peak.



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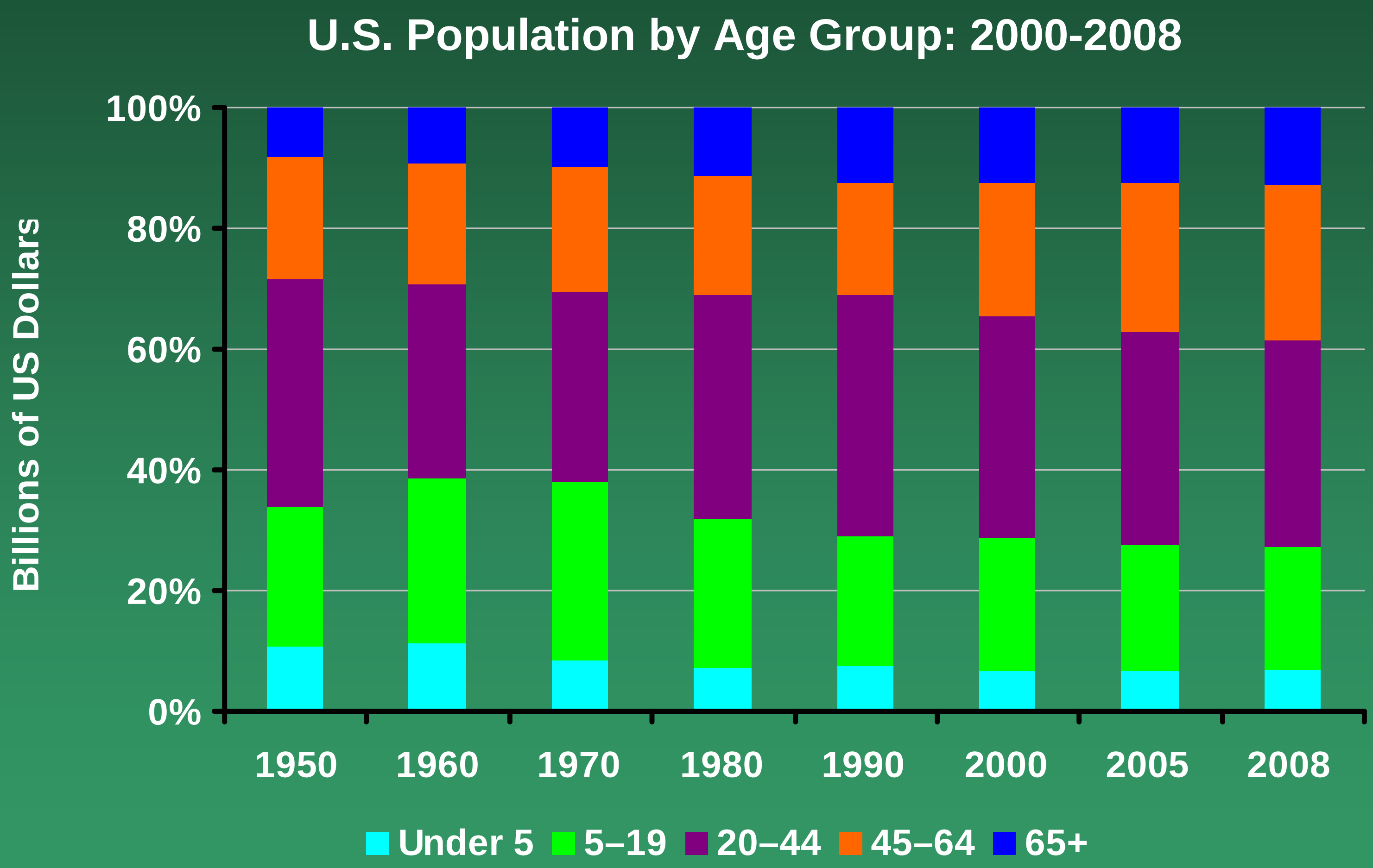
The U.S. population is slowly getting older.



Source: US Bureau of the Census; Norbridge analysis

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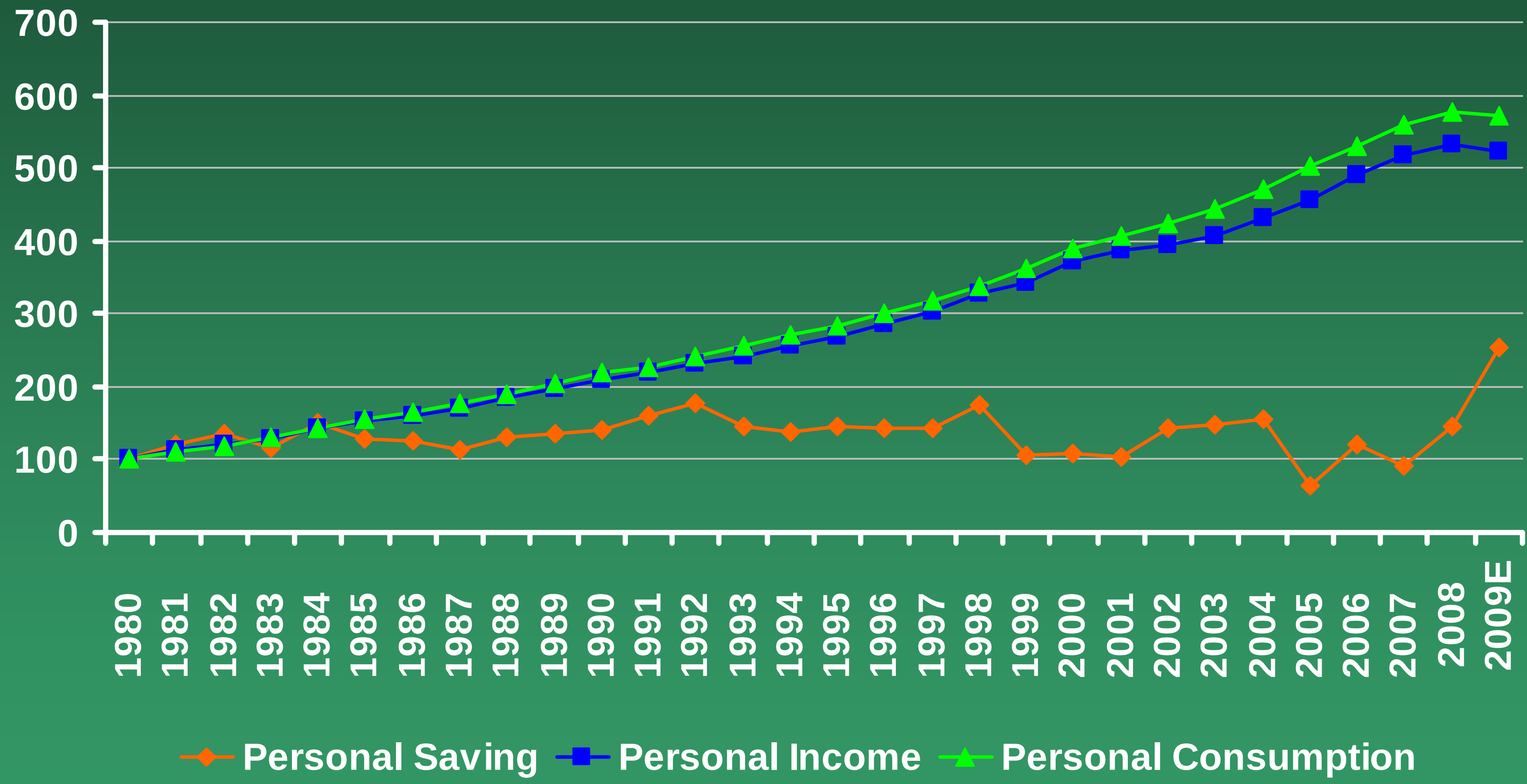
The consumer has begun to save—a good news/bad news story

Index of US Personal Consumption, Personal Income, and Personal Savings (1980-Q3 2009; 1980=100)



Note: 2009 estimated based on three quarters of data

Source: BEA; Norbridge analysis

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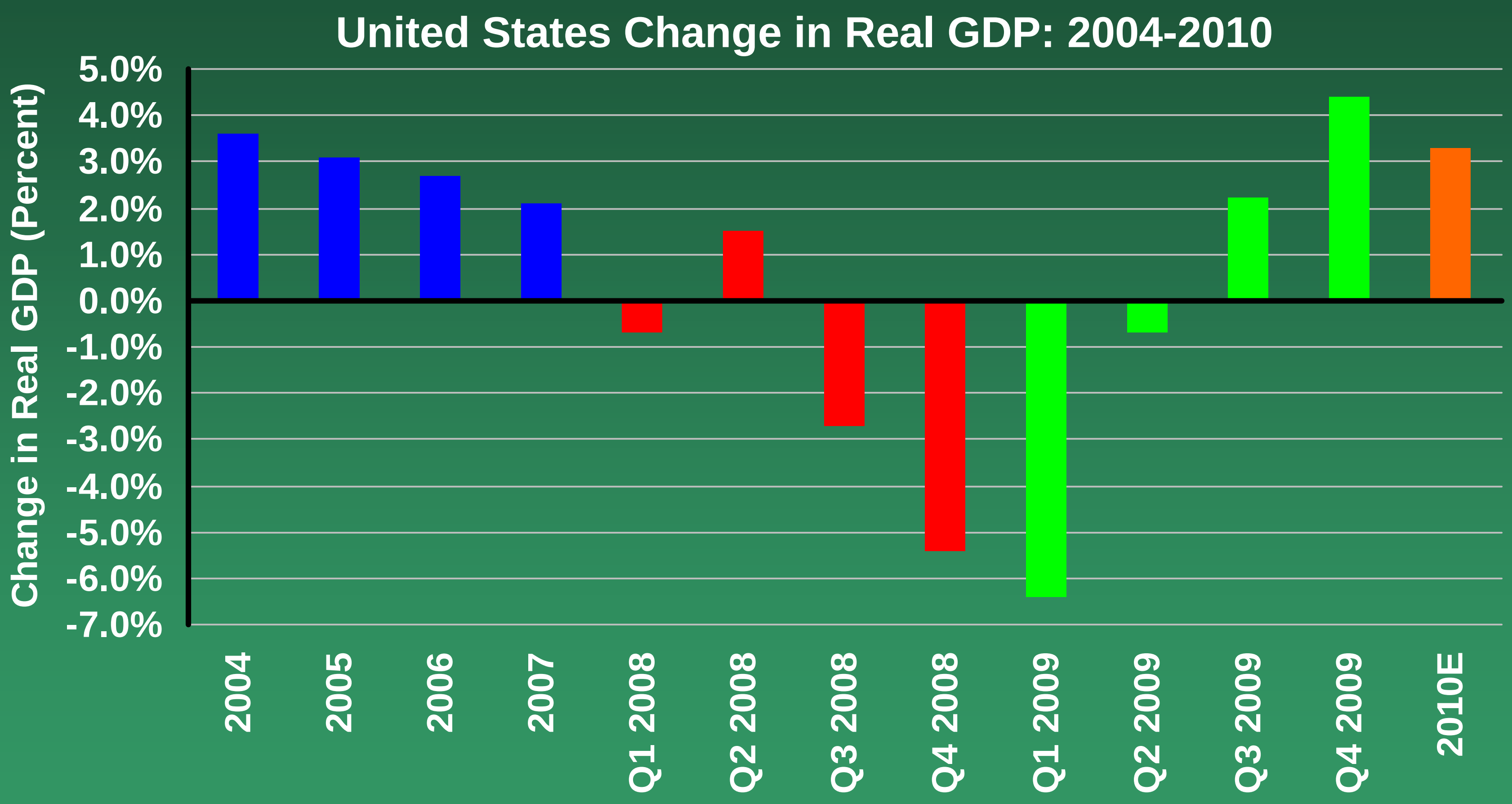
The US economy is projected to return to more normal GDP growth in 2010.



Source: BEA and WSJ; Norbridge Analysis

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Global and North American Container Trades

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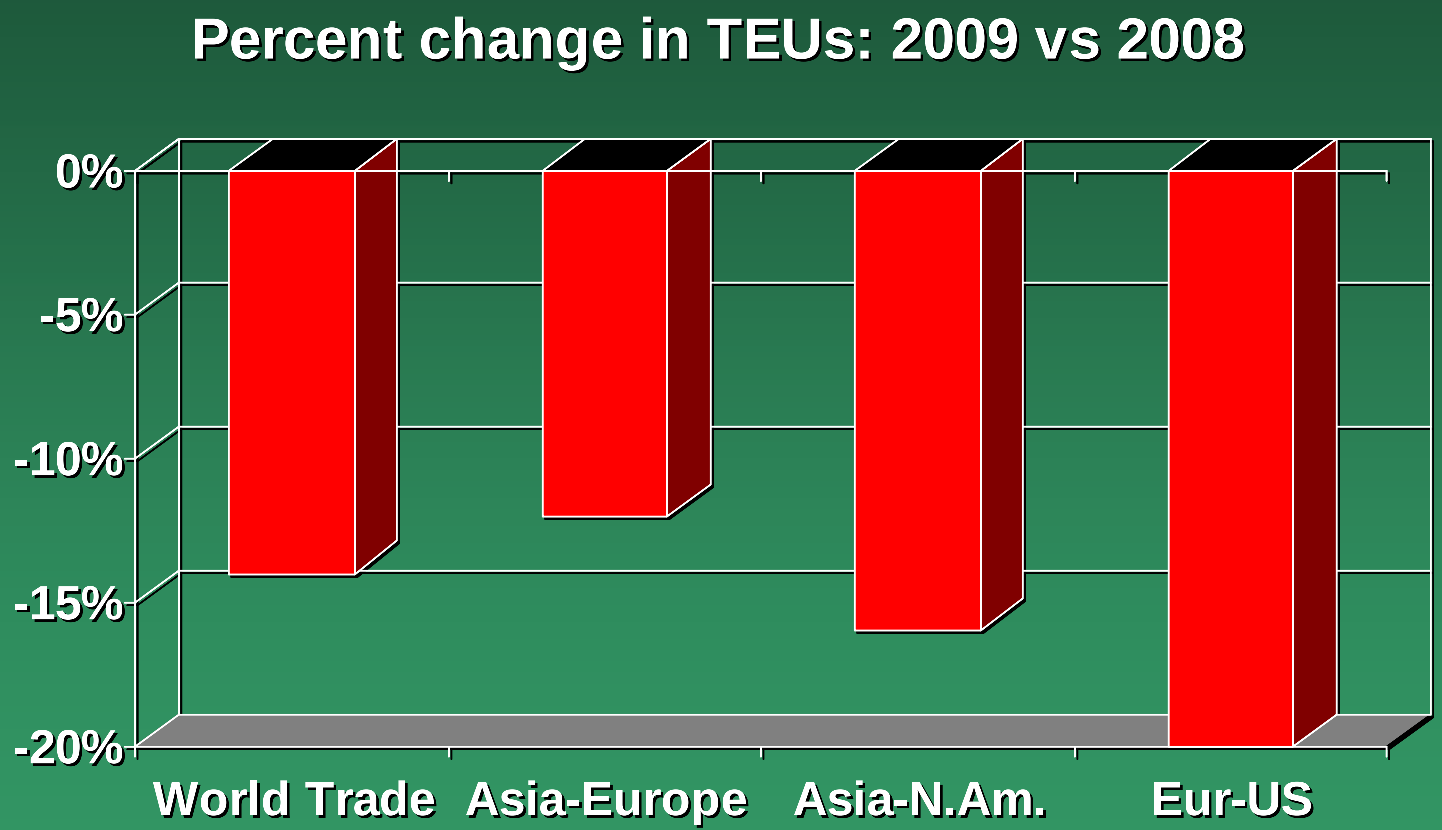
2009: "The worst of times"



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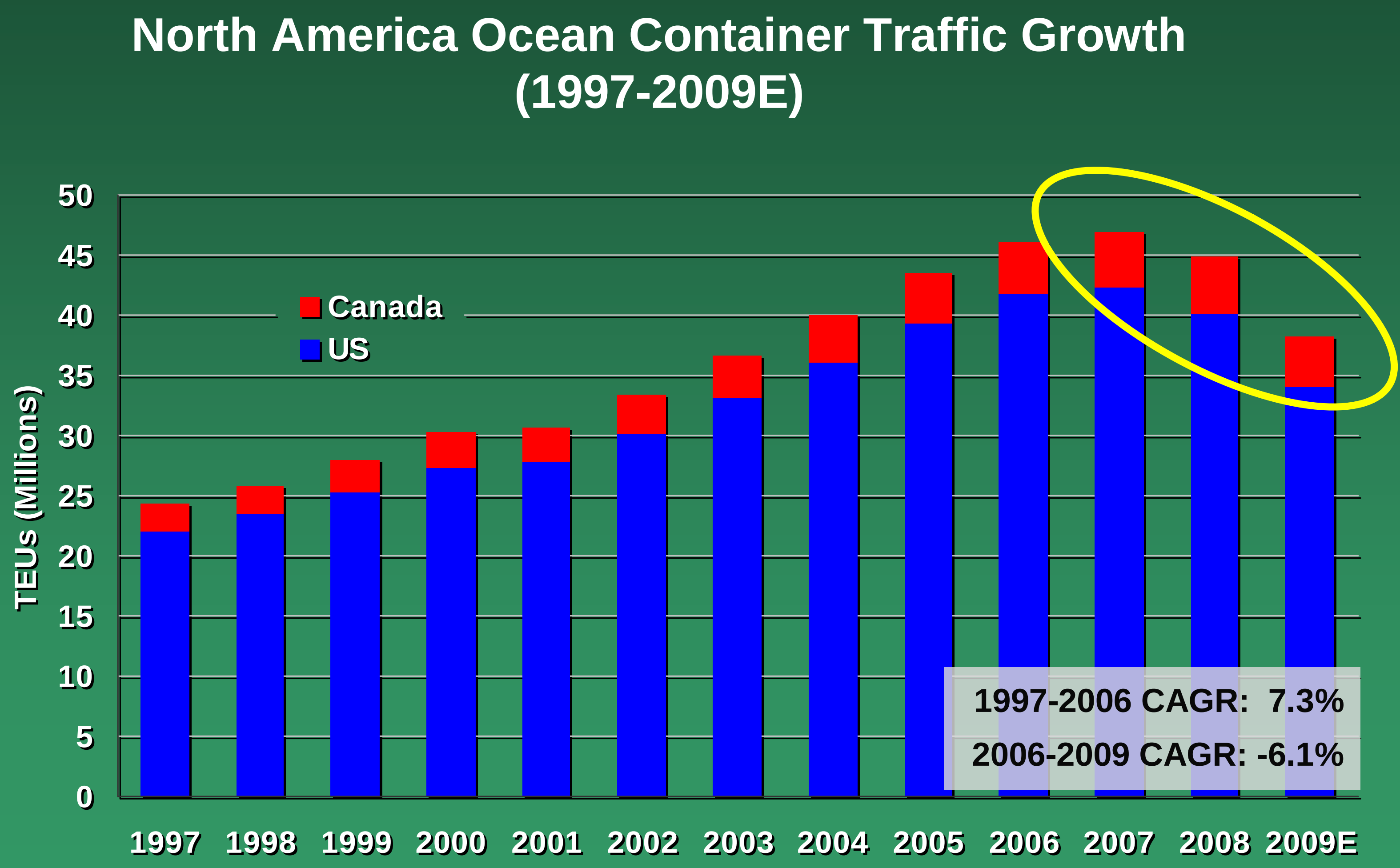
North American container traffic has declined nearly 20% in the past two years



*Note: Excludes AK, HI, Guam and Puerto Rico (largely domestic) traffic
Source: AAPA; Port Reported Throughput; Norbridge Analysis

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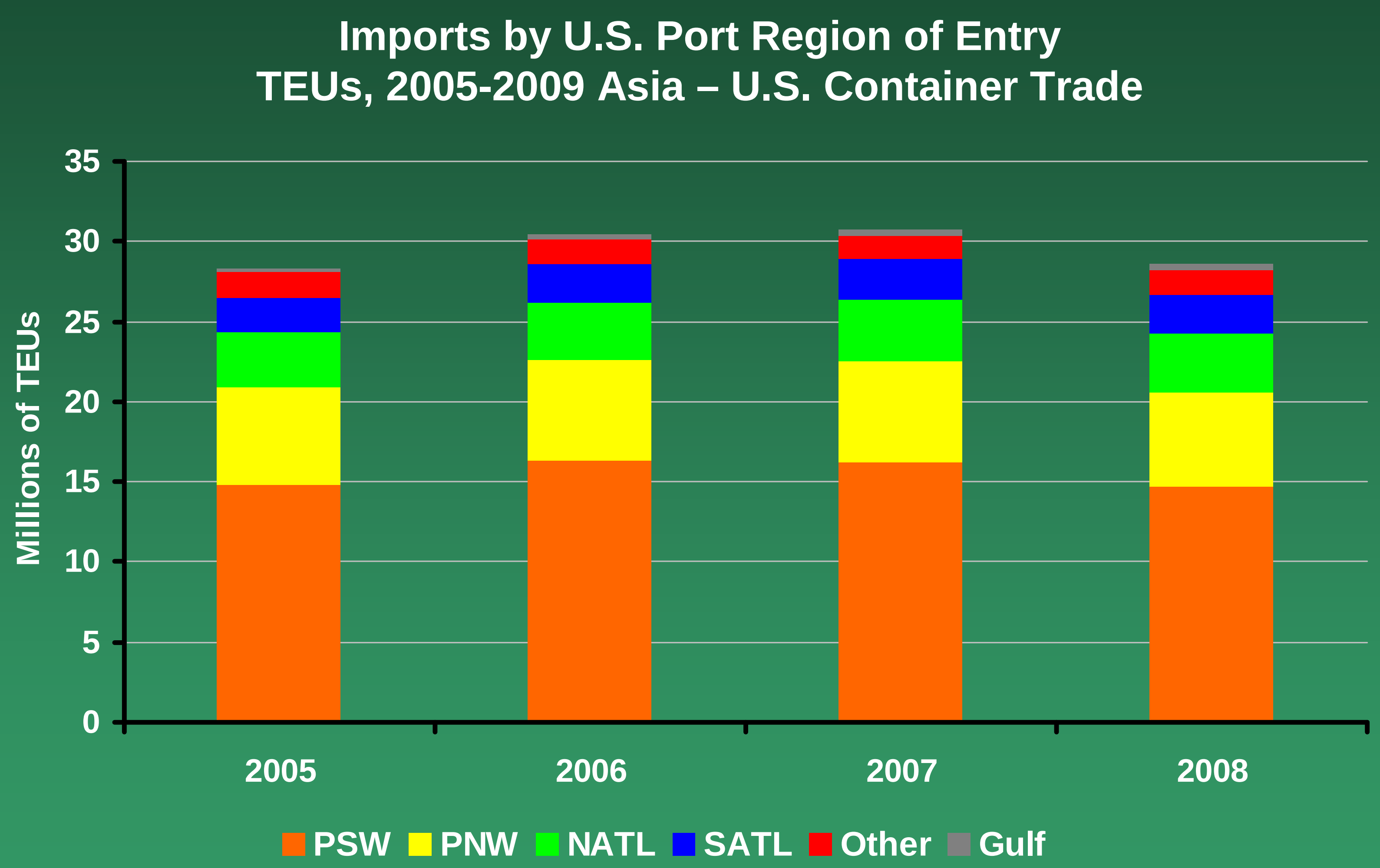
Asian Imports have declined across all coasts.



Source: PIERS 2005-2009

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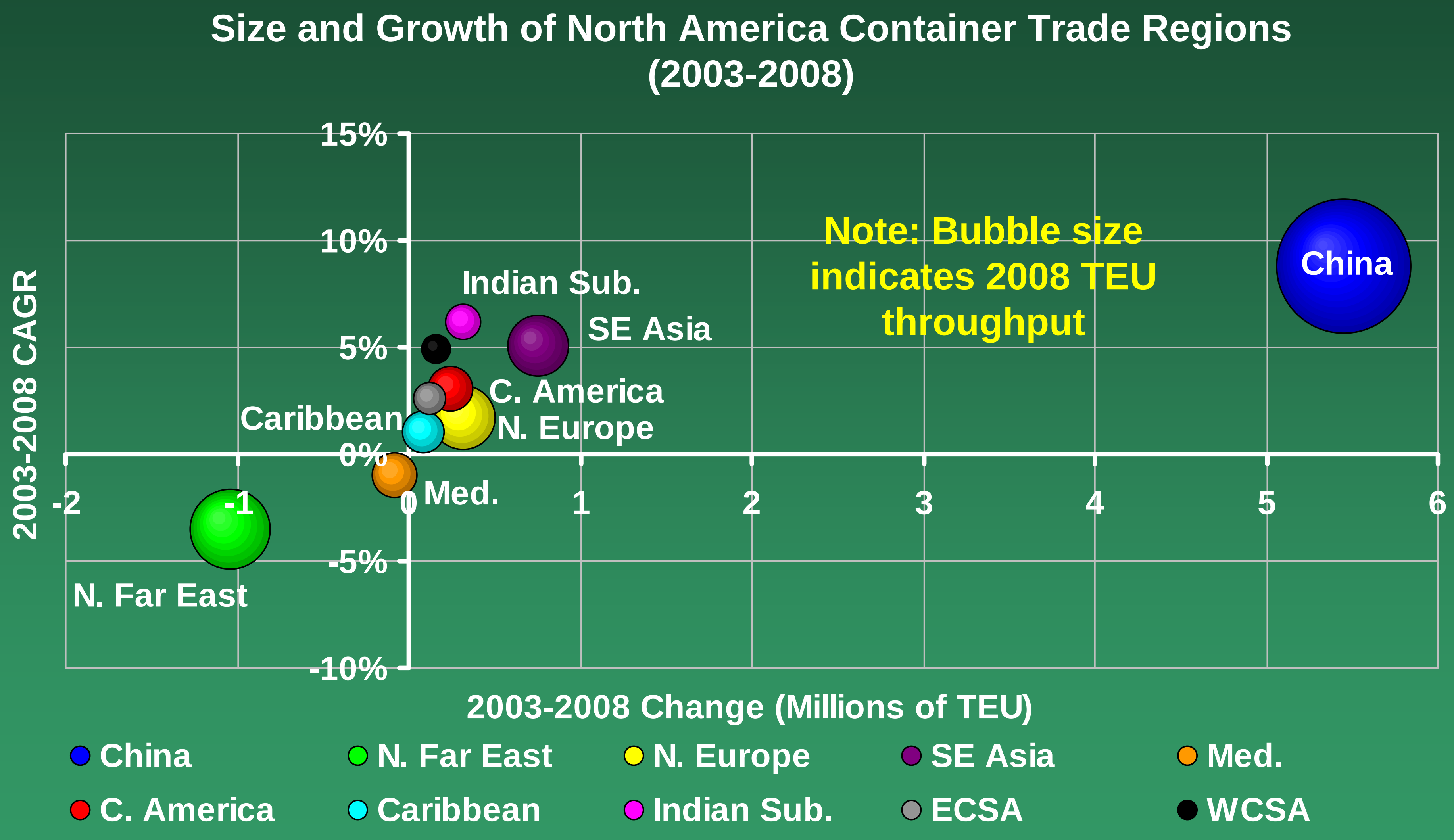
China continues to dominate North American container trade.



Note: Excludes AK, HI, Guam and Puerto Rico ports

Source: 2003 and 2008 PIERS data; Norbridge Analysis

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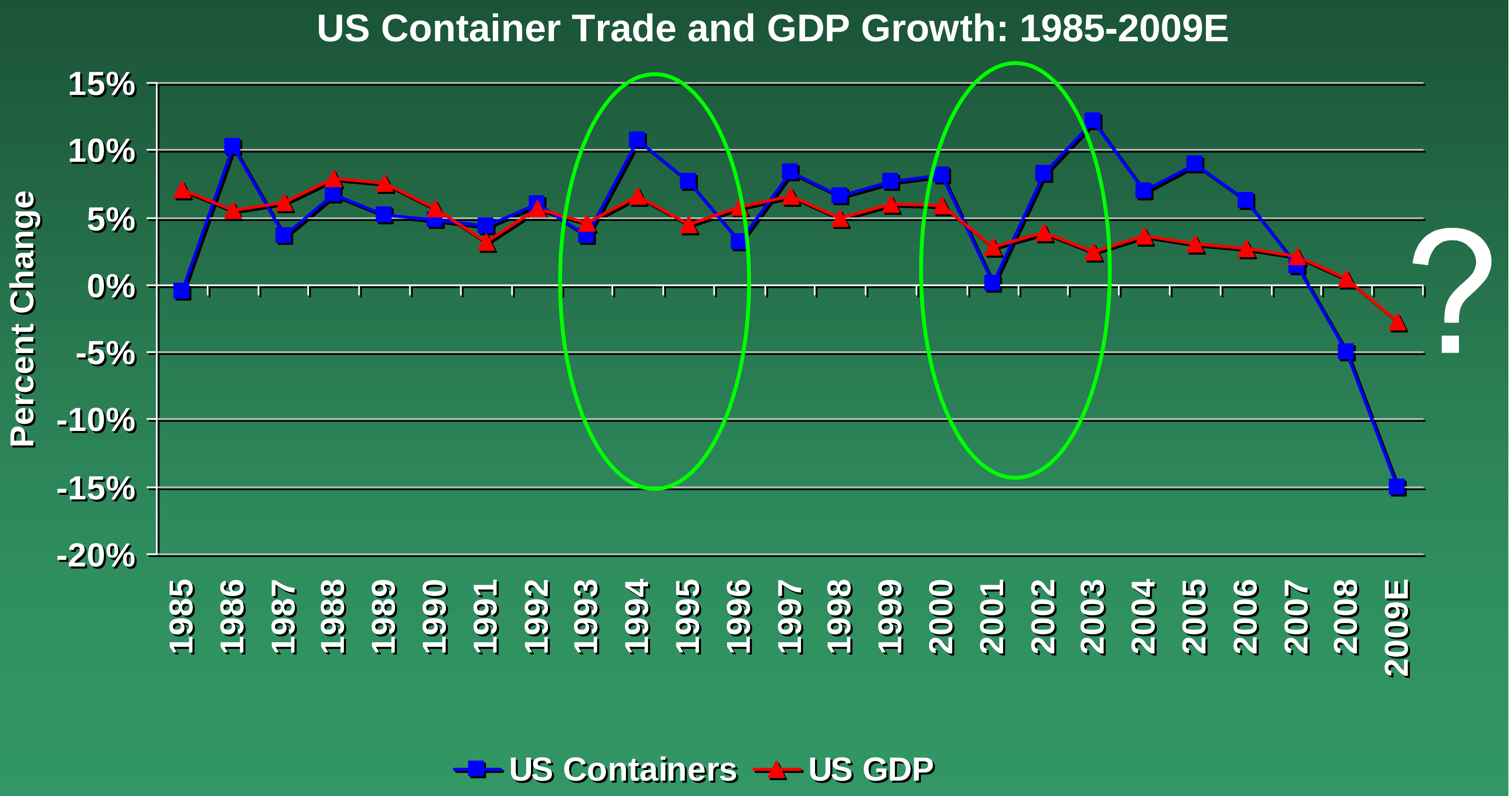
The economic recovery: an alphabet soup of scenarios.



Note : 2009 container volume is estimated

Source: IMJF; AAPA; Norbridge analysis

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Global & North American Container Shipping Industries

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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

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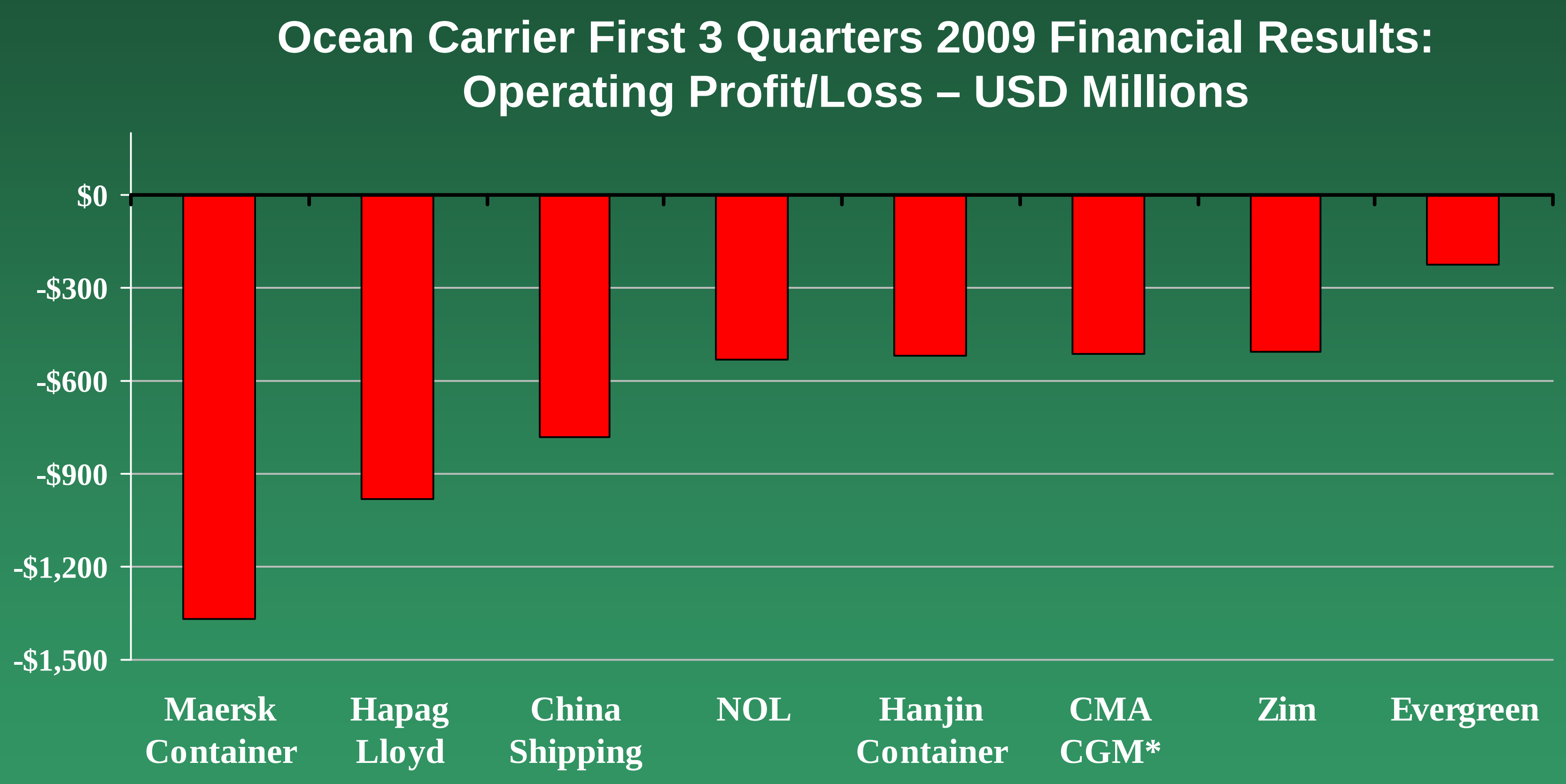
Global container carriers have incurred substantial financial losses



* CMA CGM first 6 months

Source: Carrier reports; Norbridge analysis

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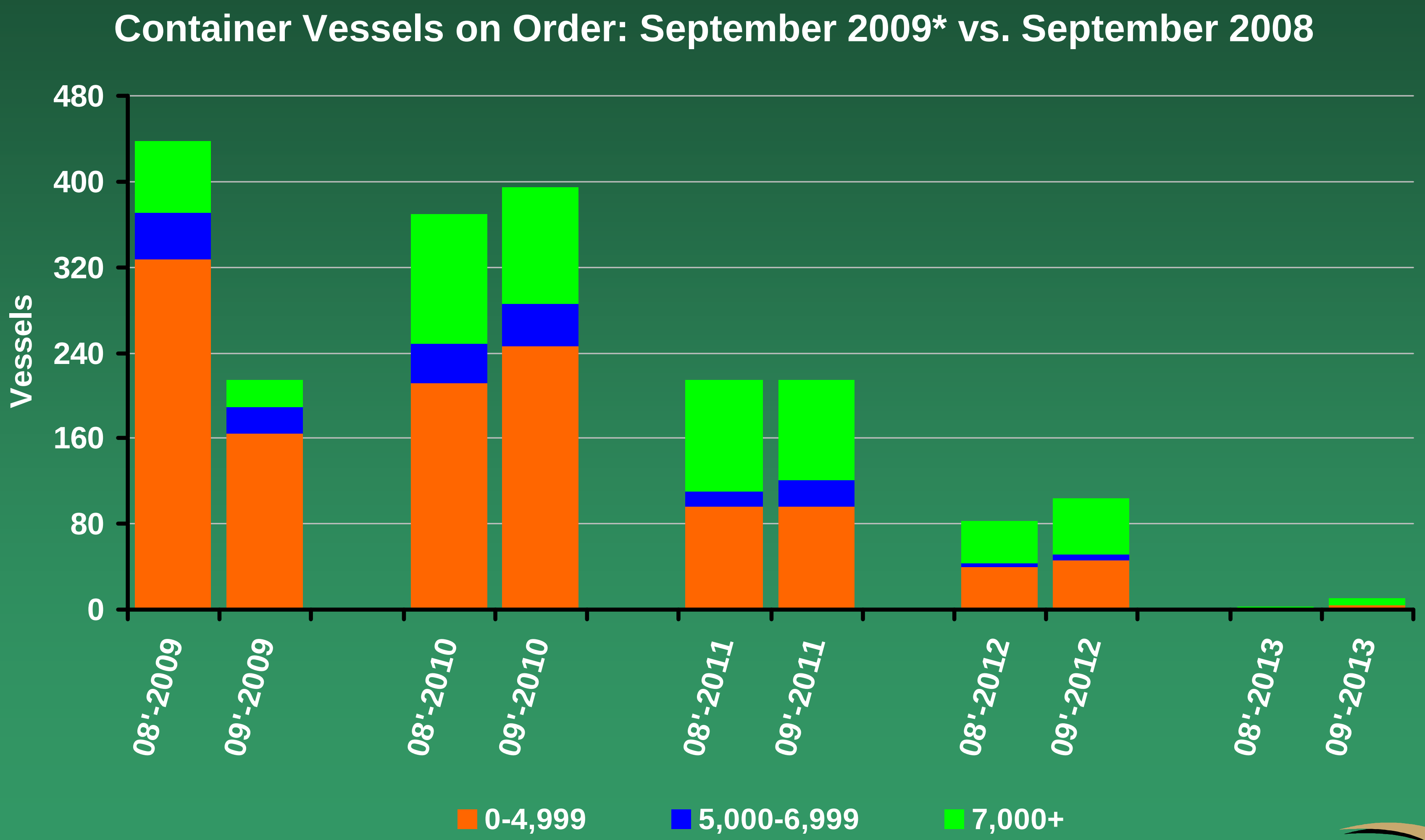
Although the order book is declining due to deliveries, postponements & cancelations….



*Note: 2009 excludes newbuild postponements and cancellations under negotiation
Source: CI Magazine. Norbridge Analysis

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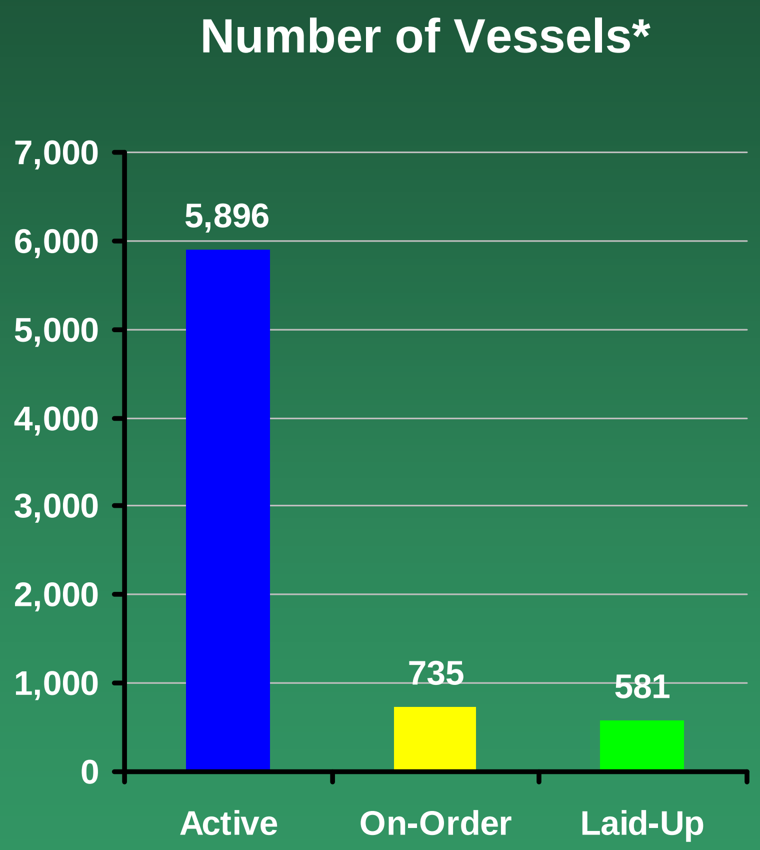
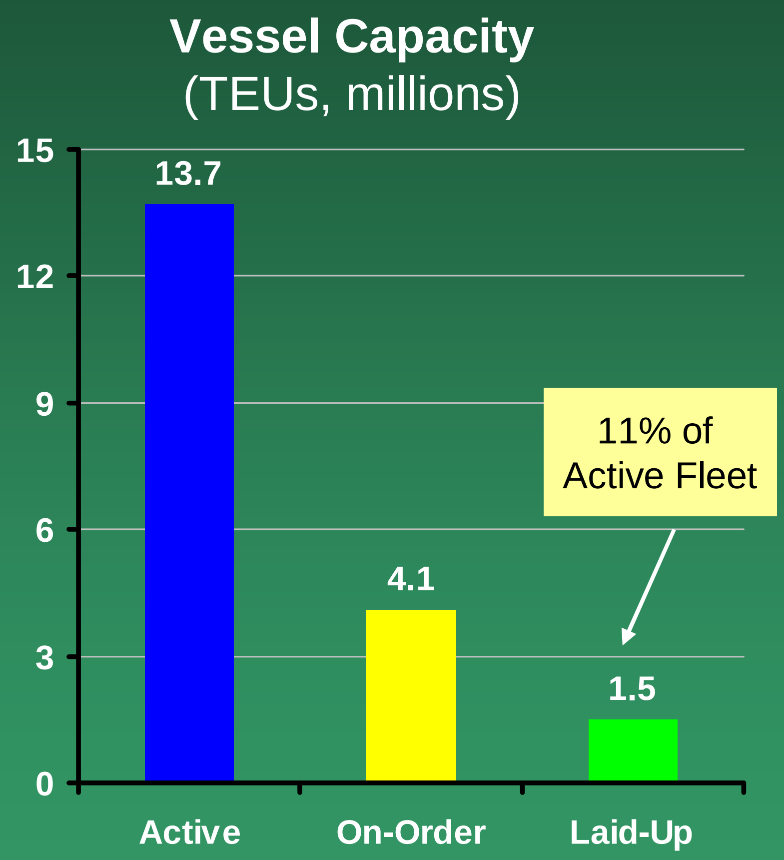
The increasing supply of container ships may pose challenges for years.





Note: All container capable vessels
Source: January 2010 AXS Alphaliner; Norbridge analysis

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North American Container Port Industry

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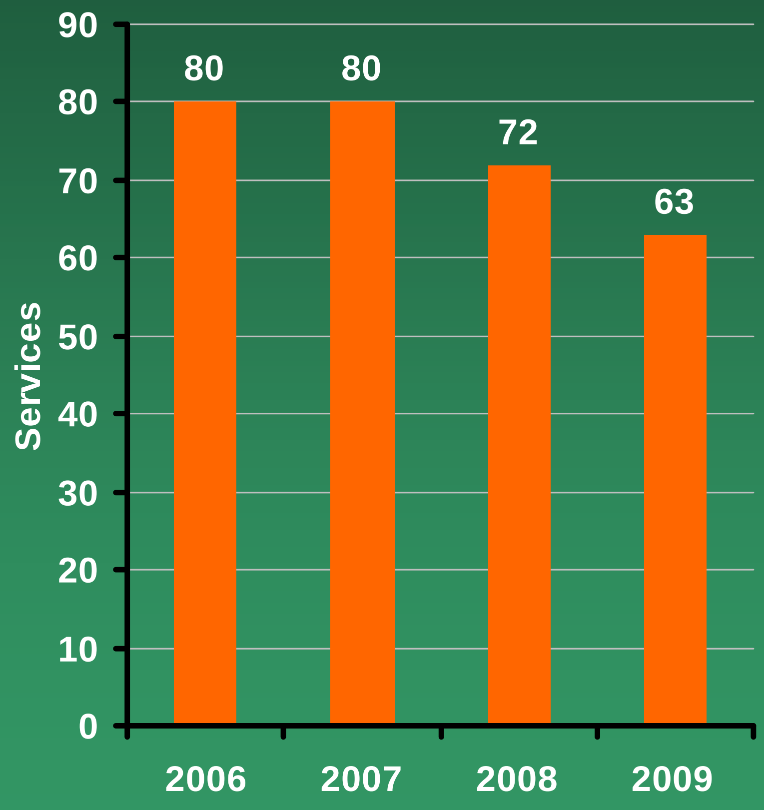
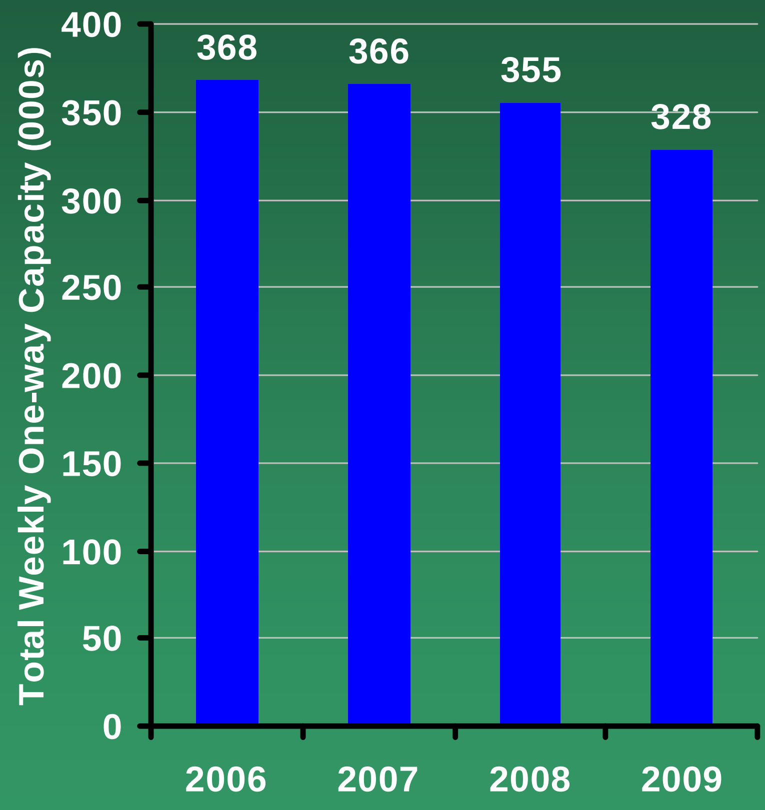
Asia-North America container services have steadily declined

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

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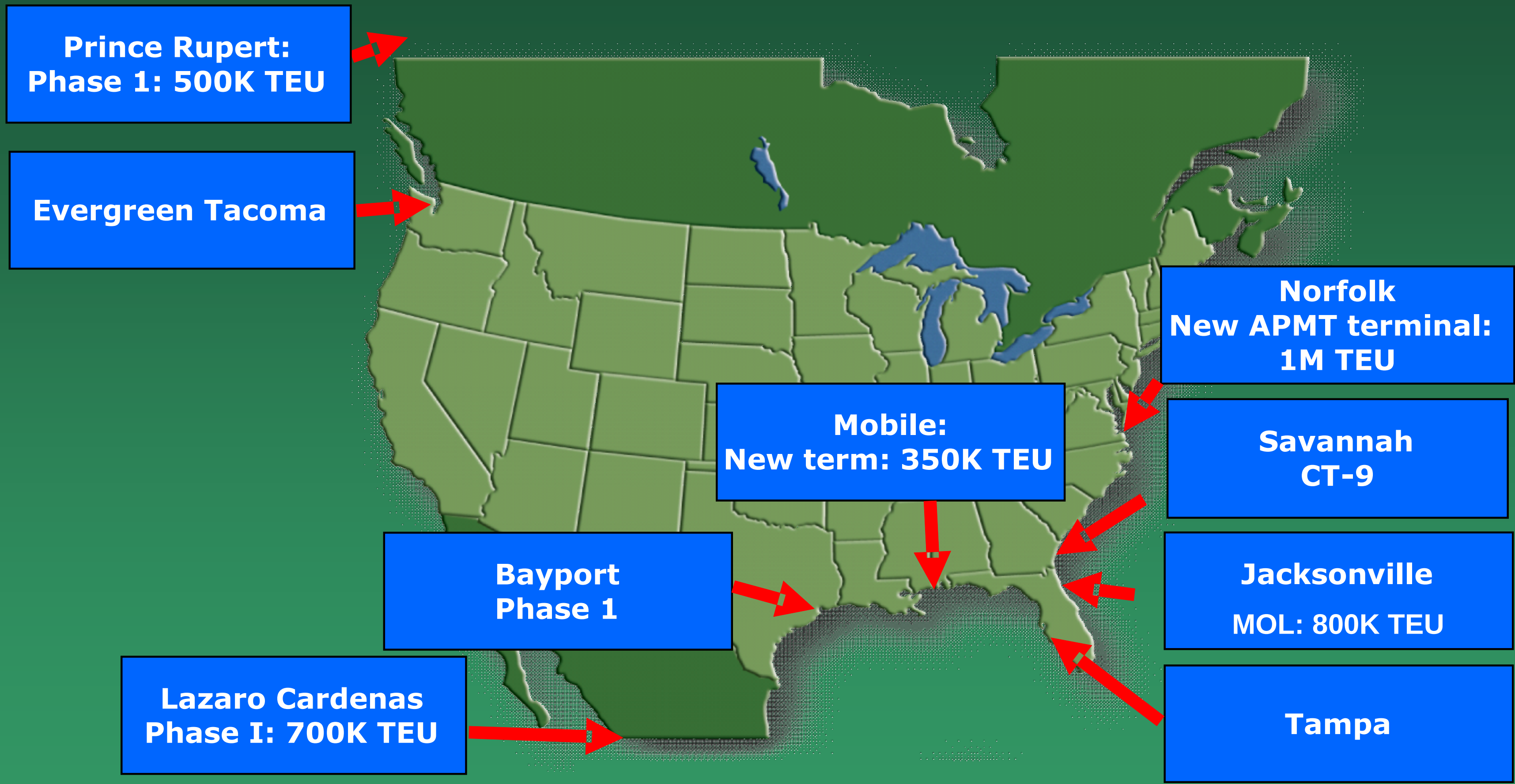
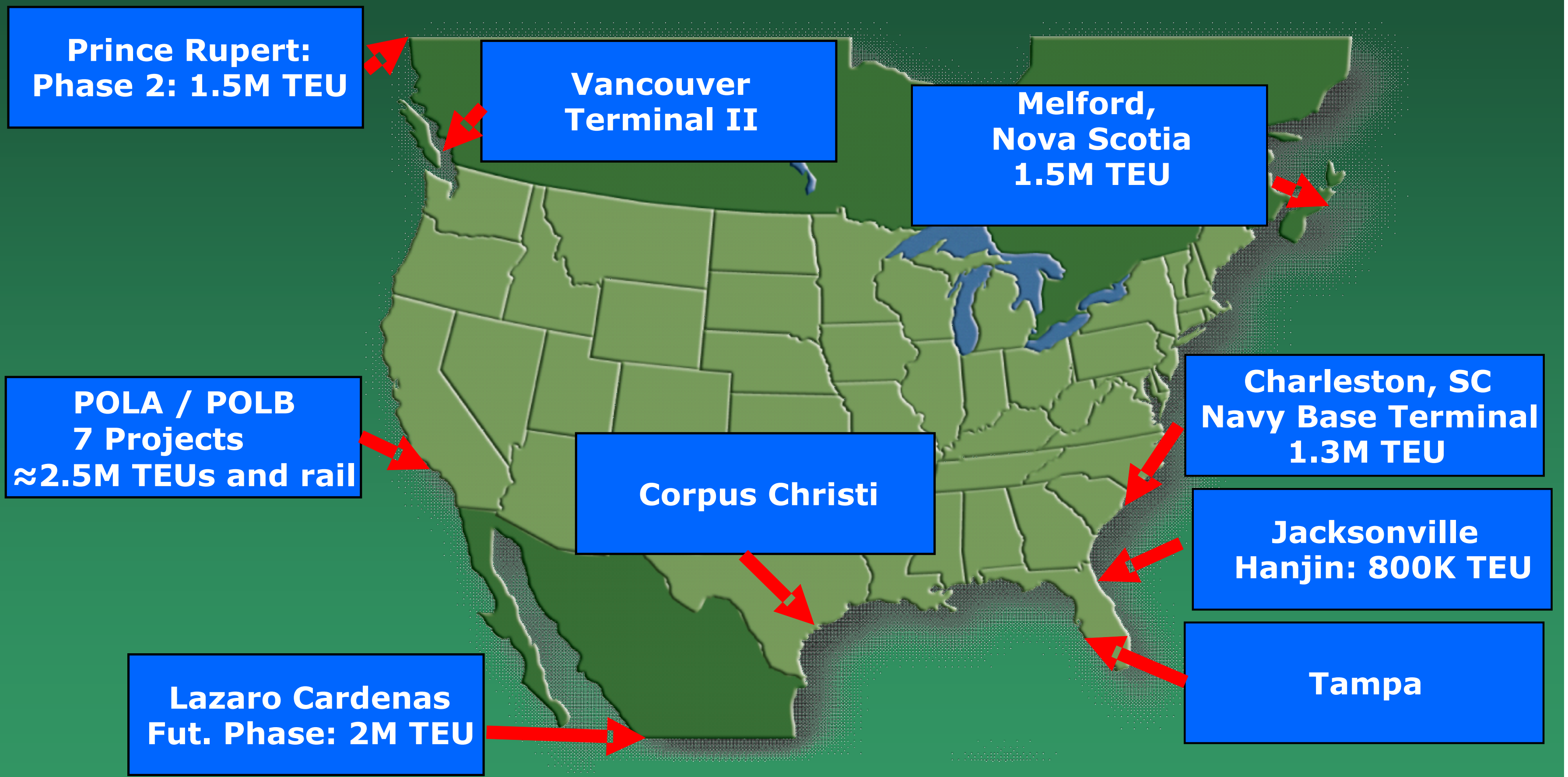
The North American Port Industry has added significant capacity…



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



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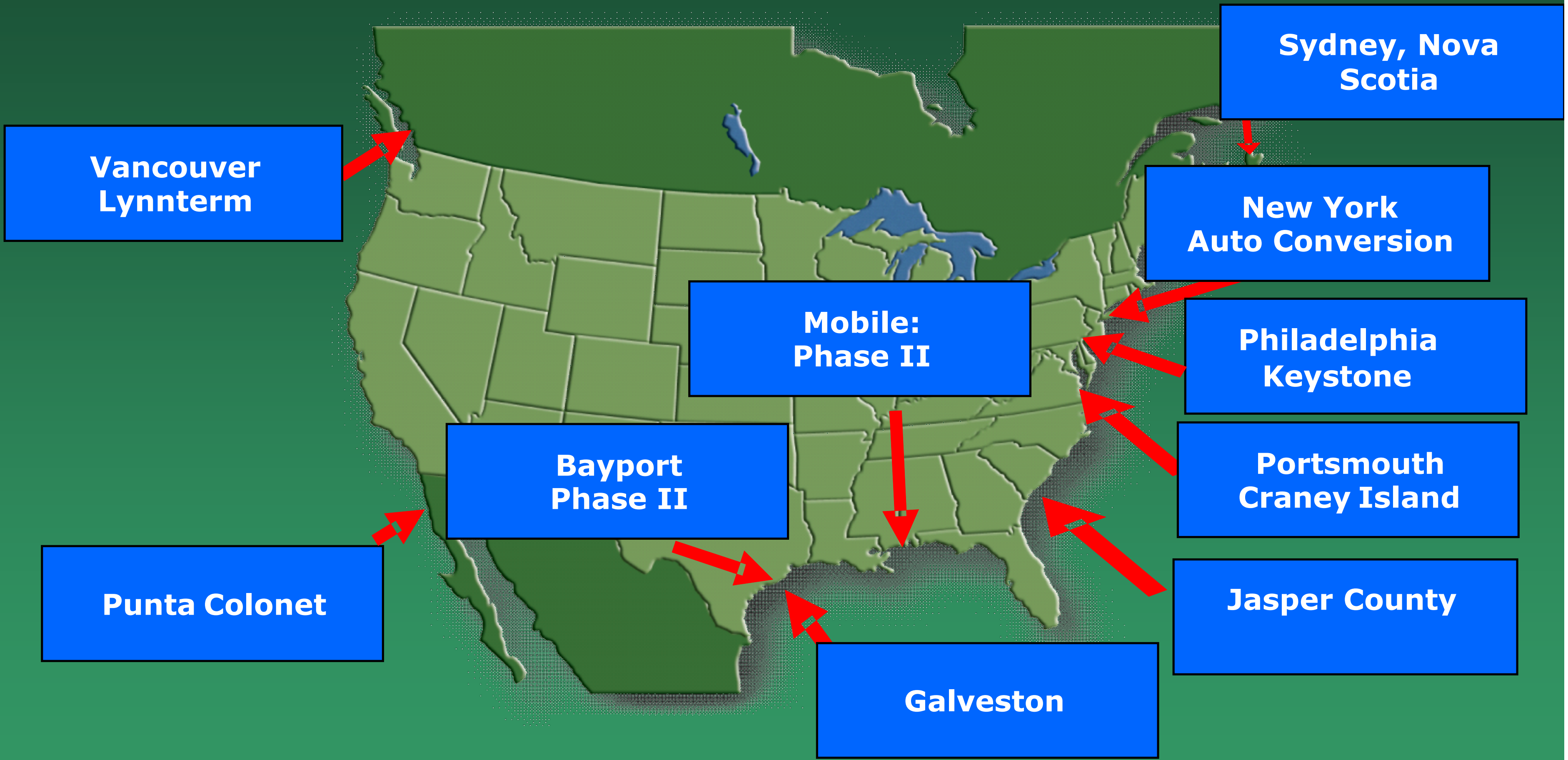
….and many additional projects in the conceptual planning phase



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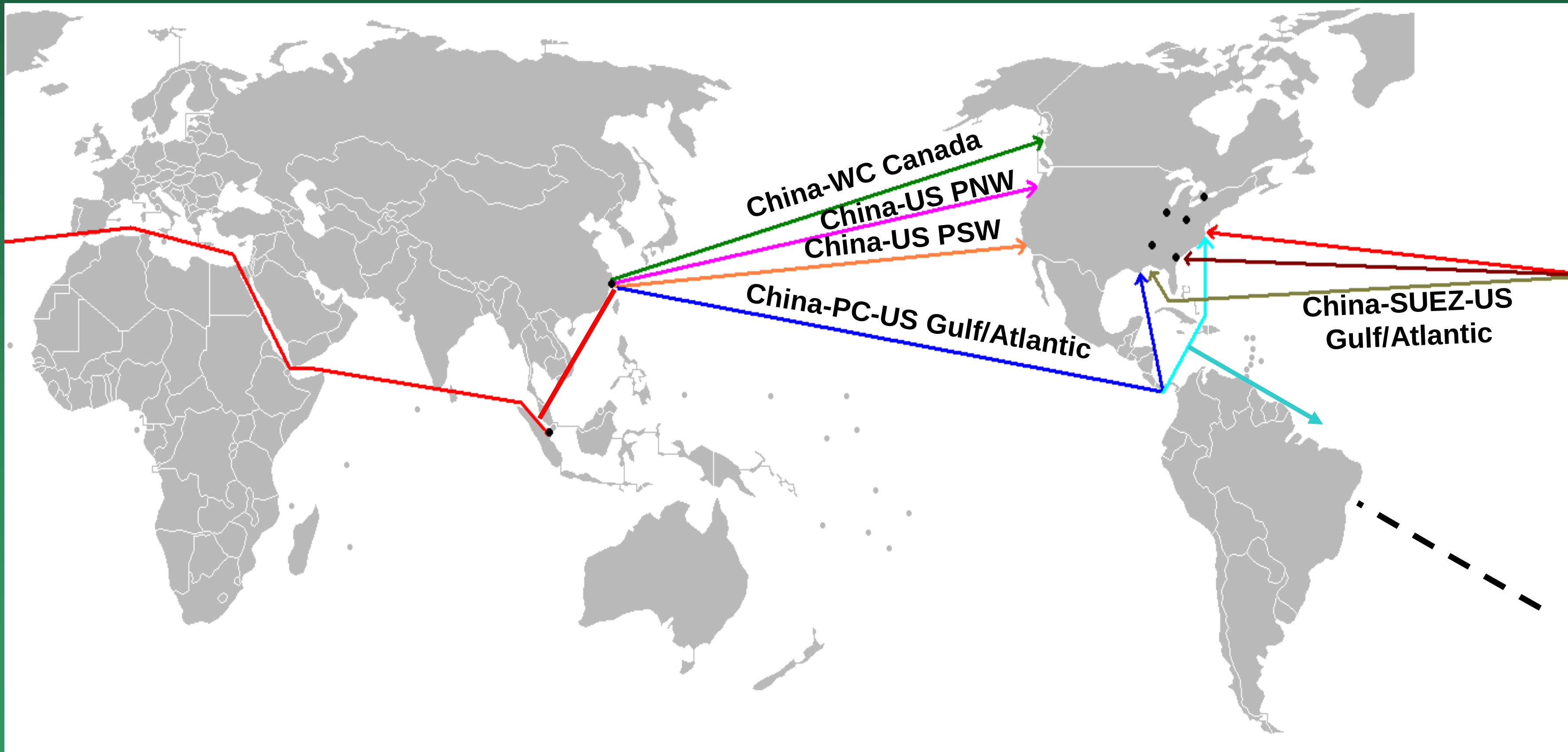
There are multiple options for Asia (China)-North American container trades

Asia-Americas Routing Options



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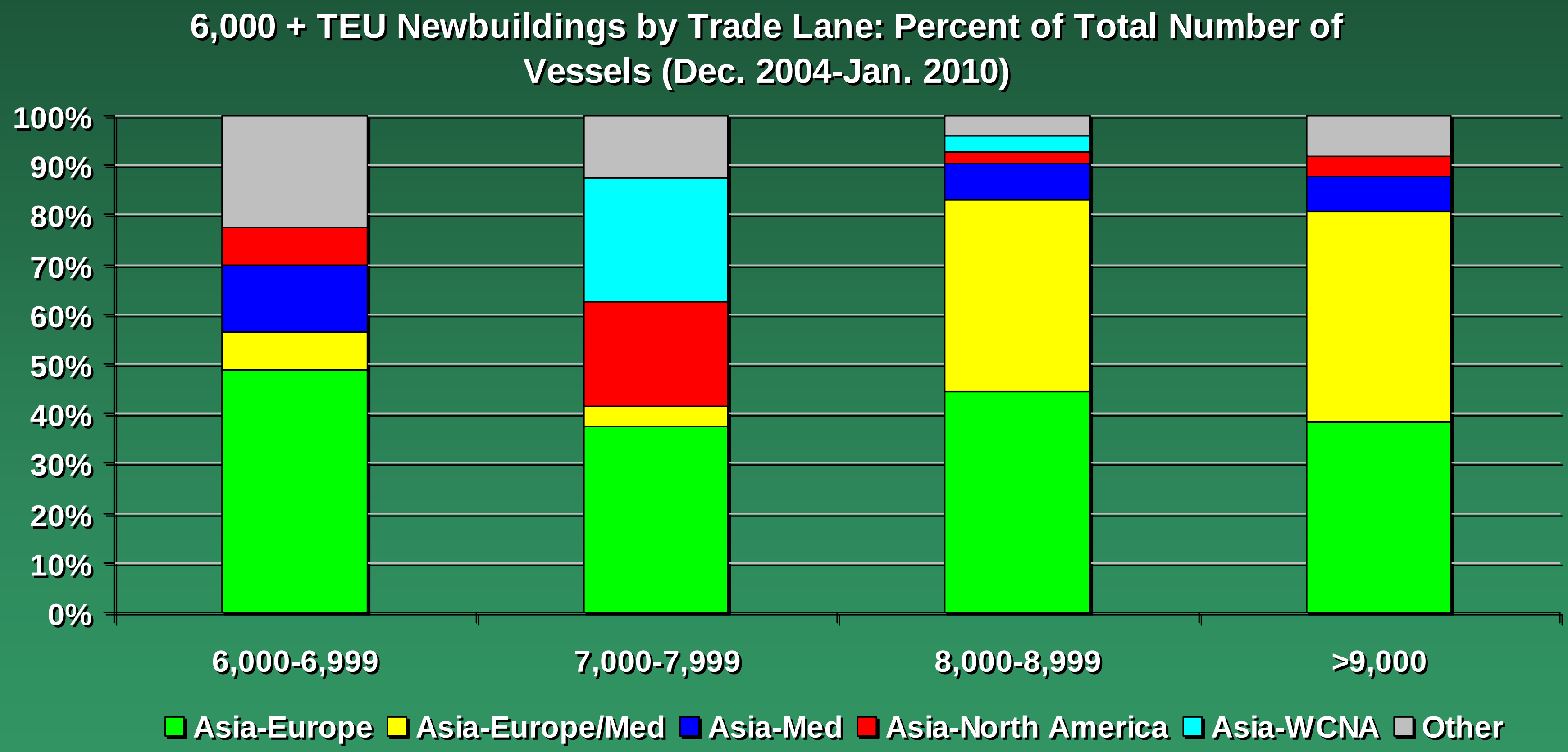
How big will the ships be?



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

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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

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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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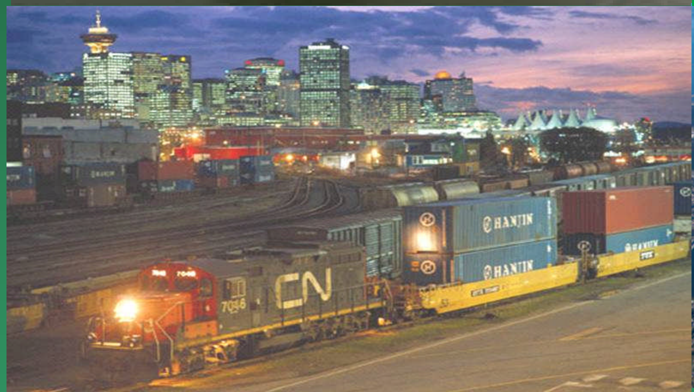
Shifting International Trade Routes



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