What's the Encore for Ports Heading into the Next 100 Years?

RICKMERS-LINIE

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Todays Discussion

- Economic Indicators
- FDI & Infrastructure Development
- Demand & Supply
- Investment & Ship Finance
- Other Issues Impacting Shipping
- Trends in the Port Sector Looking Forward
- Appendix

Background

- **State of Global Economic Recovery Remains *Less than Robust***
  Sovereign debt concerns, rising commodity prices, continued low levels of employment, and a weak housing market all contributed to weak trade growth.

- **Carriers Investing in Scale to Offset Rising Costs**
  Shipping companies invested heavily in new tonnage in search of improved economies of scale. The result is disequilibrium in supply and demand.

- **Shippers and Carriers Face Increasing Business Complexity**
  A changing regulatory environment, the potential for possible labor disruptions, more stringent environmental regulations, and continued uncertainty in the global economy add complexity to the current situation.

- **Impacts Across a Broad set of Stakeholders**
  Numerous stakeholders are impacted by the present situation; importers, exporters, service providers, ports, and others – making it increasingly difficult to effectively plan in the near term.

Volatility & Uncertainty

The last three years have produced a more volatile trading environment across all sectors of shipping than our industry has ever seen

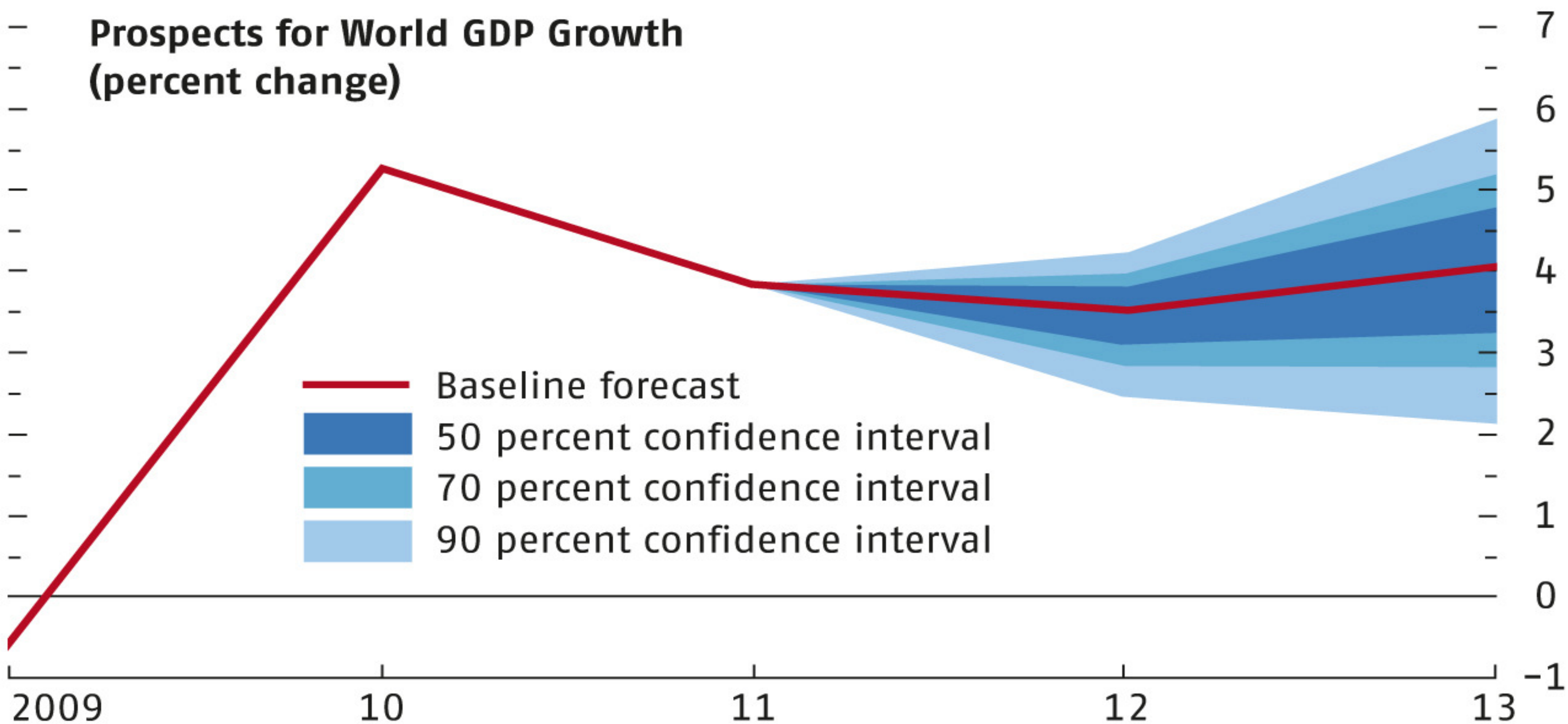
- Volatility in: operating and fuel costs, demand, freight & charter rates
- Softening economic growth; drop in commodity demand and prices
- Difficulty to forecast beyond the very near term
- Sovereign debt concerns and financial markets remain in flux…Europe in particular affecting markets globally
- Collapse of the German KG system
- Falling asset prices and flux in asset owning sector
- Consumer demand volatility
- Geopolitical turmoil
- Massive losses putting pressure on liquidity of many owners/carriers

Uncertainty and volatility continue to impact markets globally; Shipping will see the affects of this crisis for a number of years, however recovery will come sooner to some sectors than others

Macro-Economic Outlook

World GDP Growth

Source: IMF WEO April 2012



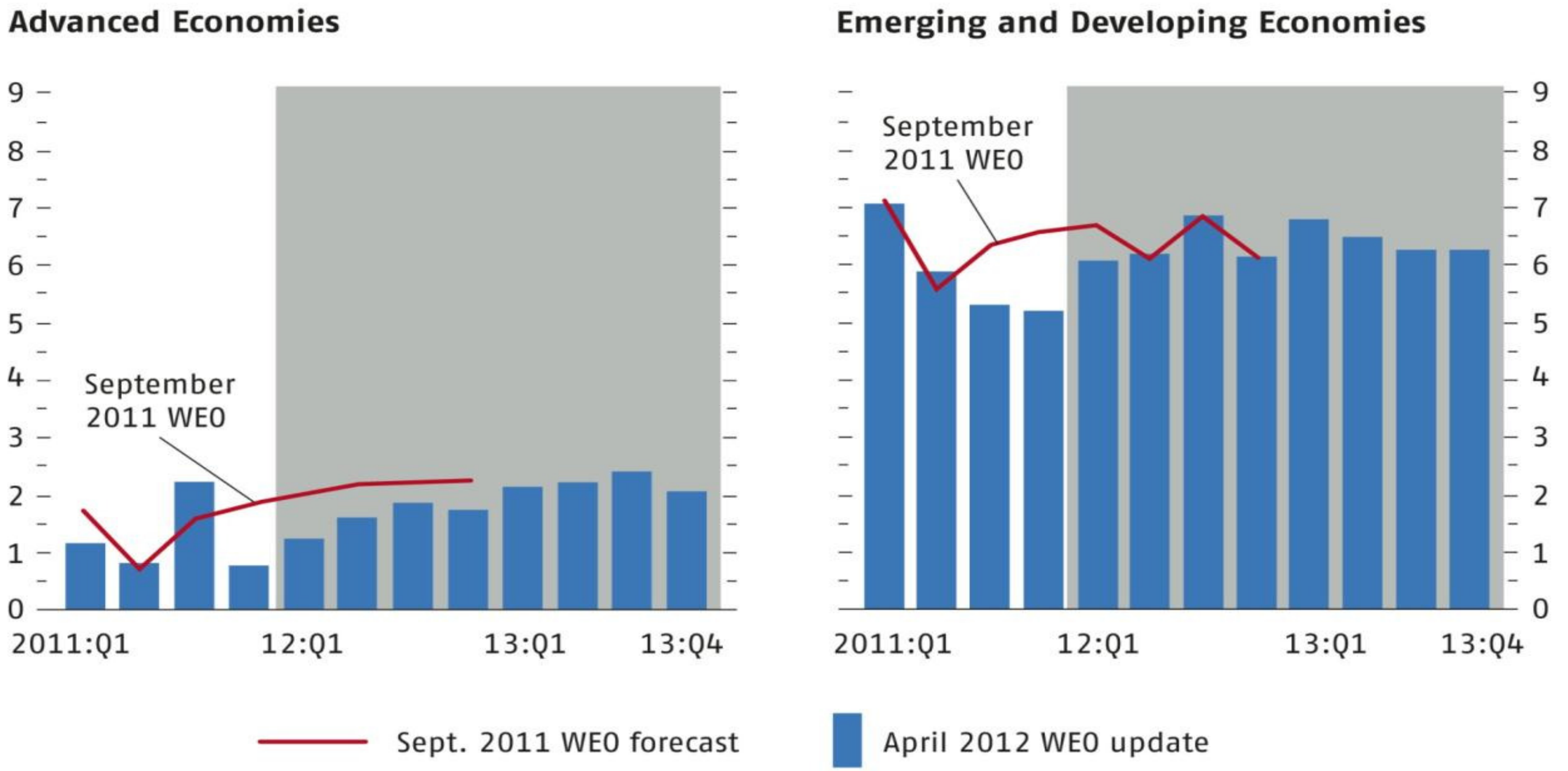
A more negative view begins to emerge as economies falter (Europe in particular)
IMF and OECD recently revising 2012/2013 forecast downward

Real GDP – Advanced vs. Emerging and Developing Economies

China´s domestic economy still growing, but export economy slowing

Real GDP Growth (annualized quaterly percent change)

Source: IMF WEO April 2012
IMF: International Monetary Fund
WEO: World Economic Outlook



Foreign Direct Investments -FDI Inflows 2008-2011

In spite of economic turmoil, Foreign Direct Investment continues to grow (2010 to 2011) but does reflect some deceleration from pre-crisis levels e.g. OCED and G-20

last update: 20/04/2012	2008	2009	2010	2011
TOTAL WORLD	**1.752.209**	**1.131.349**	**1.291.316**	**1.417.999**
G-20 countries	**1.046.909**	**657.115**	**808.445**	**969.455**
OECD	**1.059.634**	**657.691**	**694.707**	**818.110**
EUROPEAN UNION	**541.138**	**365.915**	**322.683**	**420.695**
China	175.100	114.200	185.000	228.600
United States	310.091	158.581	236.227	227.865
Australia	47.008	26.554	32.149	67.192
Brazil	45.058	25.949	48.506	66.660
Russia	75.002	36.500	43.288	52.878

Source: OECD - April 2012

Global Annual Infrastructure spend totals ~ $7 trillion of which $4.5 trillion is related to 'Classical Infrastructure'

USD trillions, rounded[1], real gross fixed capital formation - estimates

Asset classes

Transport

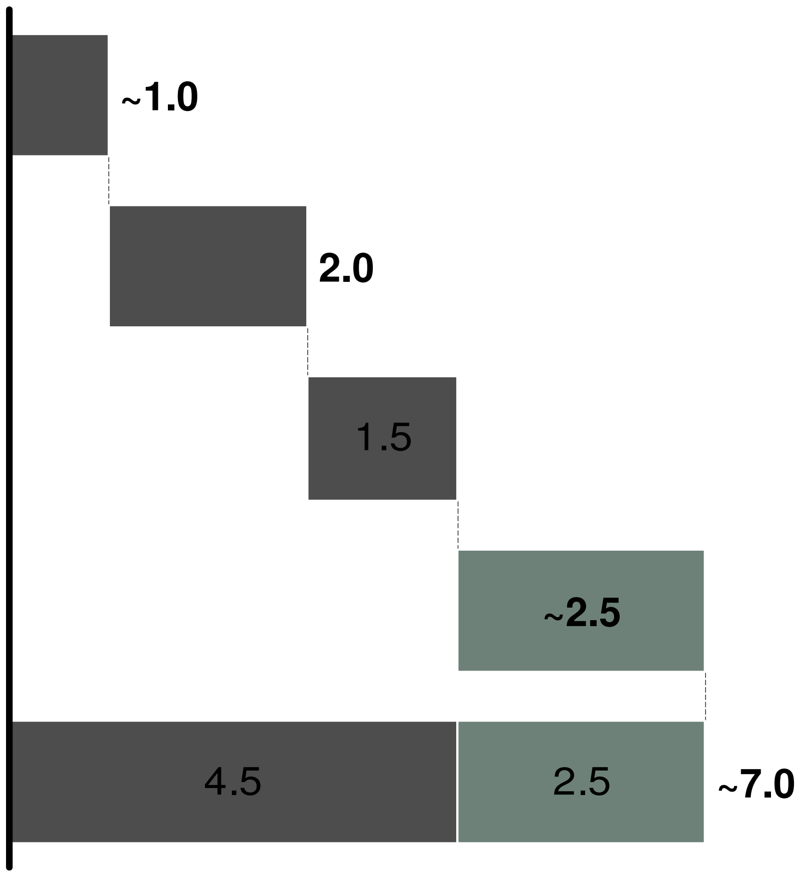
Utilities

Social and public infra

Real Estate

Total

Average annual[2] infrastructure spend



Definitions

- Including roads, bridges and tunnels (~65%) as well as rail, air and seaport infrastructure

- Down stream energy and water supply + telecom
- Upstream energy + water & waste installations

- Health and education infrastructure (45%)
- Other public buildings, parks and public parking (55 %)

- Mainly residential real estate
- ~85% contributed by small players with local market focus

- Estimated 4.5 trillion spent annually of which about 70% by the public sector

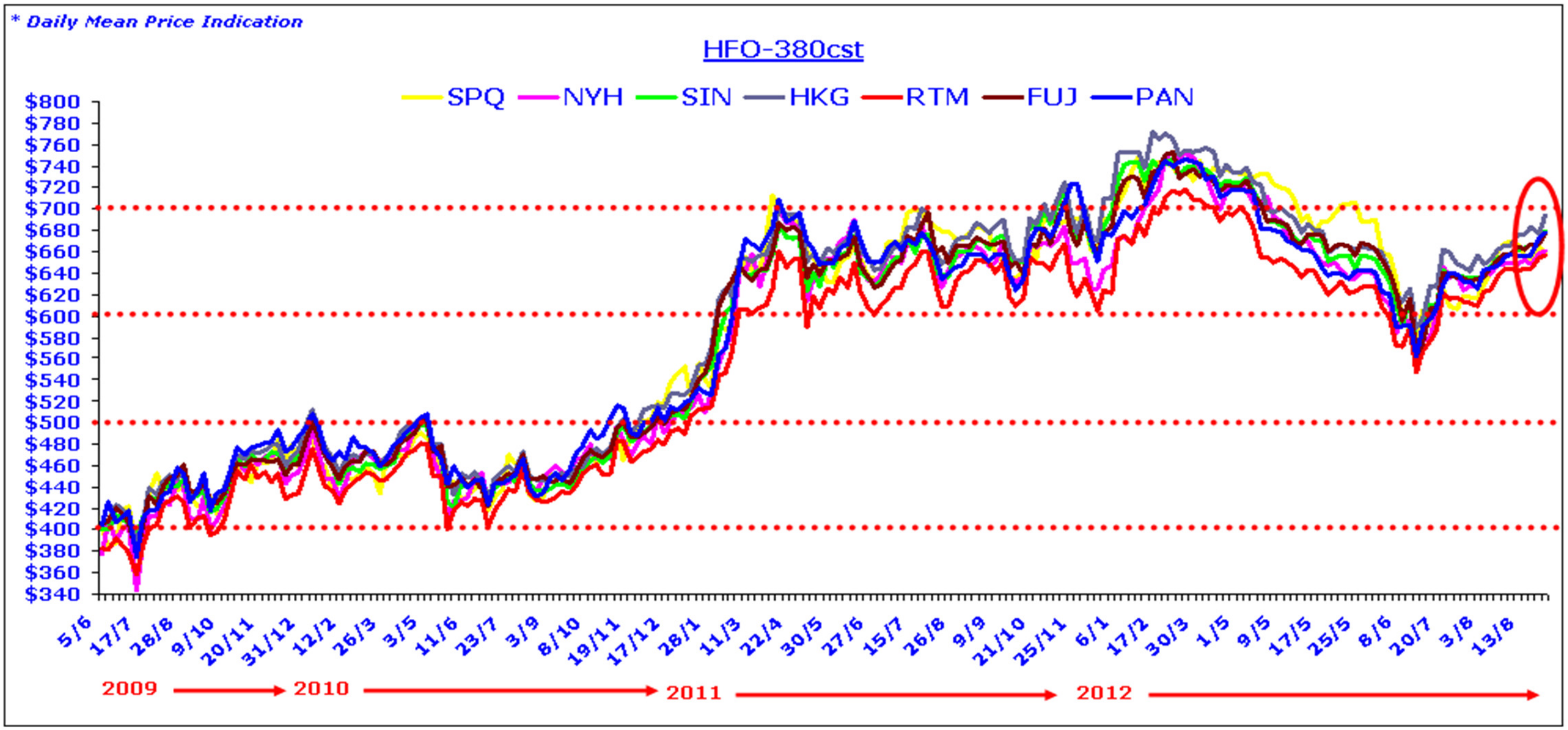
1 Rounded to the nearest USD 250 bn 2 Based on 2010-2014 forecast

SOURCE: Global Insight; Euroconstruct; IMF; McKinsey

Macro-Economic Outlook

Oil prices continue to be on the rise . Average bunker price is near $700/MT.

Bunker Index- marine fuel price trend

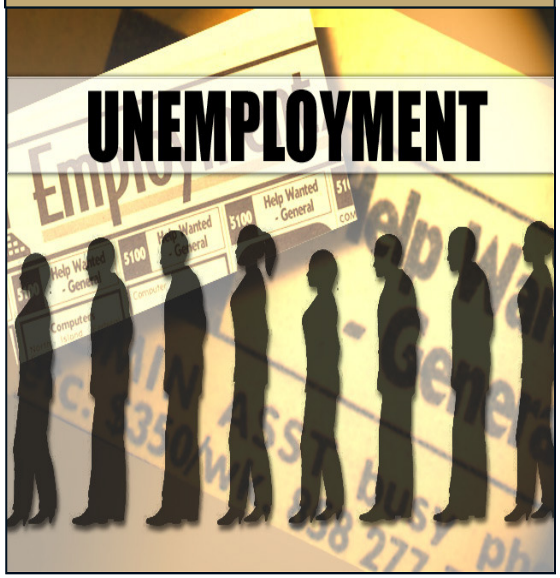


Source: Bunker world

Macro-Economic Outlook

With high unemployment across the developed world, euro zone debt crisis, weak housing markets, and high volatility in commodity prices, risks to a sustainable economic recovery persist. There are some promising signs, but perhaps too soon to tell.

Unemployment remains high



Euro Zone Debt Crisis

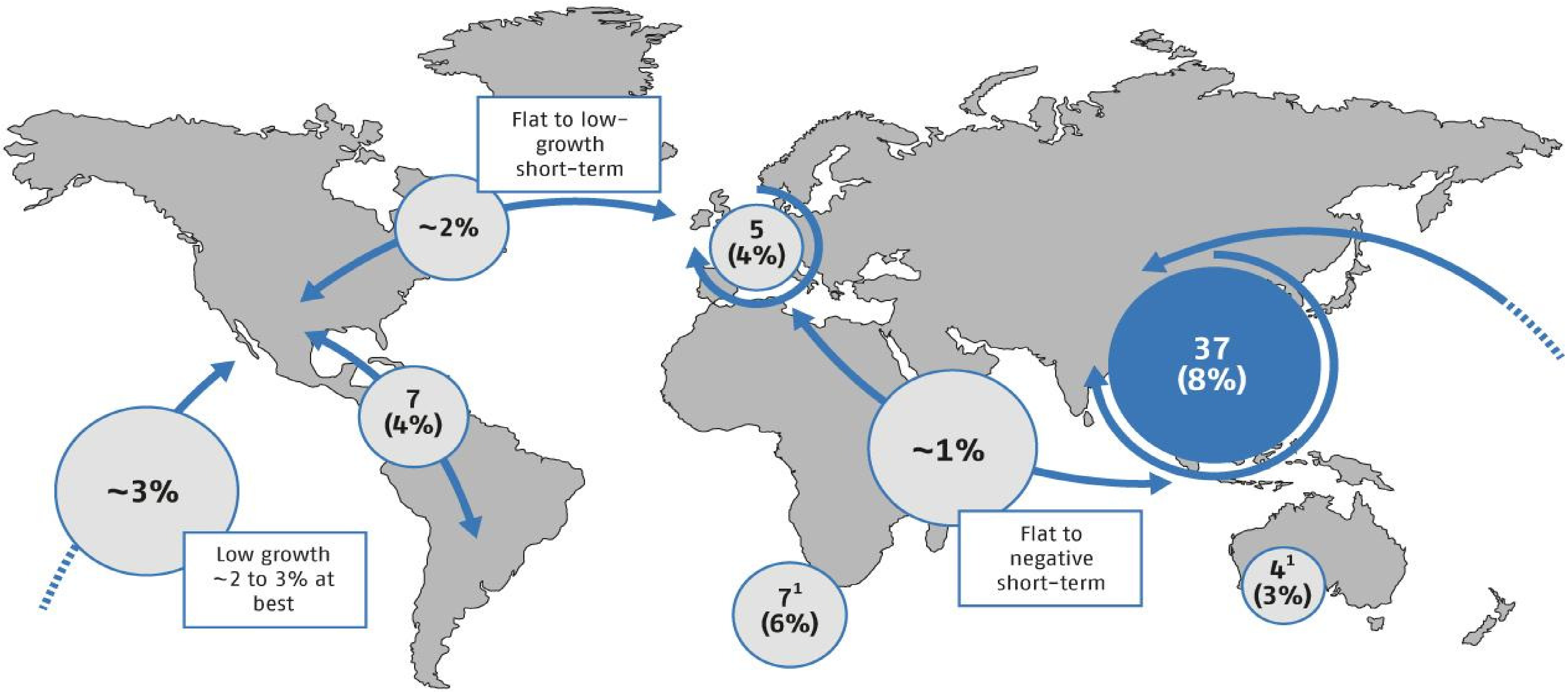
Oil Prices remain volatile, casting uncertainty /impacting economies

Industry Supply and Demand

Dynamics Impacting the Container Shipping Sector

Containertraffic - Growth by Region

Global container movements on main trades 2015E (MTEU)
(Average growth p.a. 2010–2015)



1. Trades with all other areas

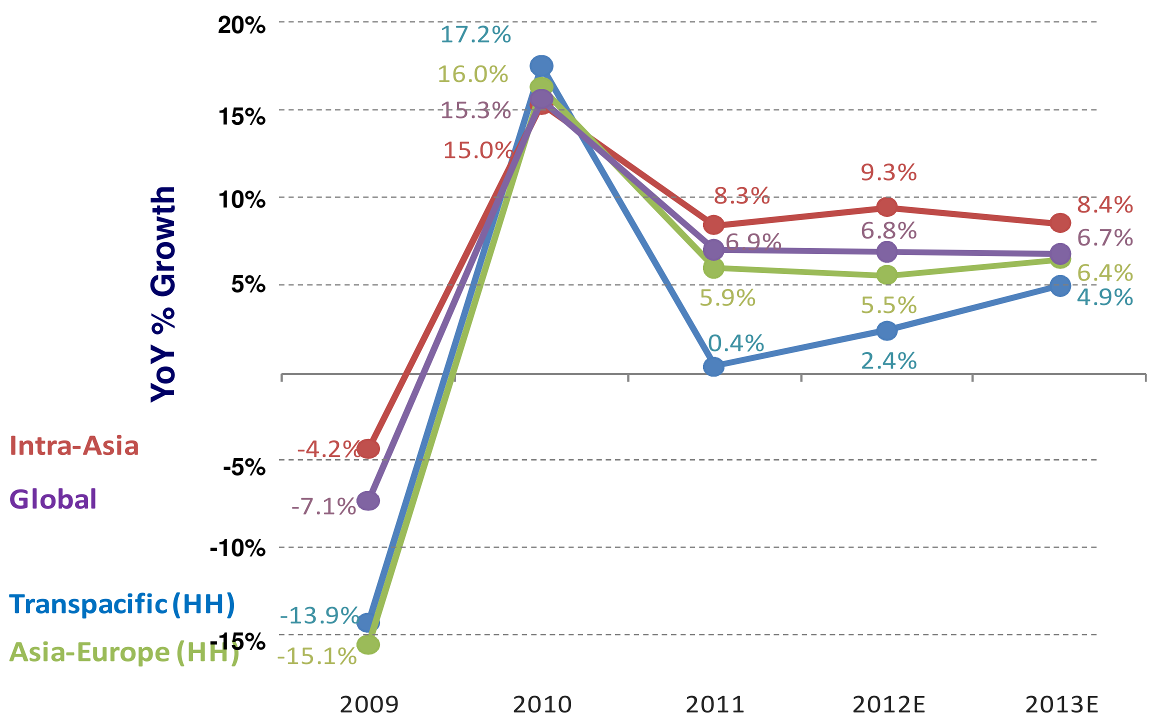
Note: Trades not displayed: Arab Gulf: 13 MTEU (CAGR 2010–2015: 6.5%) and Other: 8 MTEU (5.9%)

Source: Global Insight: Alphaliner: Drewery: BCG analysis

Industry Supply and Demand

World containerized trade is estimated to grow moderately this year but continues at a pace well below historical averages. Transpacific growth is expected to pick up in 2013 ? 2014 ?

Containerized Trade Growth



Global Trade Growth

	2011	2012	2013
Alphaliner (Mar 20, 2012)	7.7%	6.5%	7.5%
Clarksons (Feb 21, 2012)	7.9%	7.7%	8.3%
Drewry (Dec 22, 2011)	6.5%	5.4%	-
JP Morgan (Nov 29, 2011)	6.4%	4.5%	6.3%
Global Insights (Sep 30, 2011)	6.9%	6.8%	6.7%

Transpacific HH Trade Growth

	2011	2012	2013
Clarksons (Feb 21, 2012)	-0.4%	4.2%	6.1%
Alphaliner* (Jan 10, 2012)	-0.8%	4.6%	5.1%
Drewry (Dec 22, 2011)	0.4%	3.1%	
PIERS (Dec 2, 2011)	0.2%	2.7%	4.9%

Asia-Europe HH Trade Growth

	2011	2012	2013
Clarksons** (Feb 21, 2012)	3.3%	2.8%	6.1%
Alphaliner* (Jan 10, 2012)	2.8%	1.5%	6.3%
Drewry (Dec 22, 2011)	3.9%	2.0%	-

Source: Equity analysts, shipping consultants and Company's estimates

Note: *Alphaliner TP is FE-US, ASEU is FE-Europe
****Clarksons' growth is Far East to Europe**

Demand

- Demand in the MPP sector will continue to be heavily influenced by FDI inflows and Infrastructure development but exceedingly difficult to forecast

- Many sources of investment/funding; Government funding, Private investment, Sovereign Wealth Funds

- Significant swings in timing of projects

- Huge challenge to distill broad spending/investment into what translates into ocean transportation volumes

- ***Drewrys most recent forecast of growth in the Heavylift/Multi-purpose sector is a CAGR of roughly 5% from 2012 through 2015**

- Fact is the Heavylift/Multipurpose industry has no common place to go for demand information….and continues to struggle with difficulties in developing more accurate forecasts

Orderbook Comparison

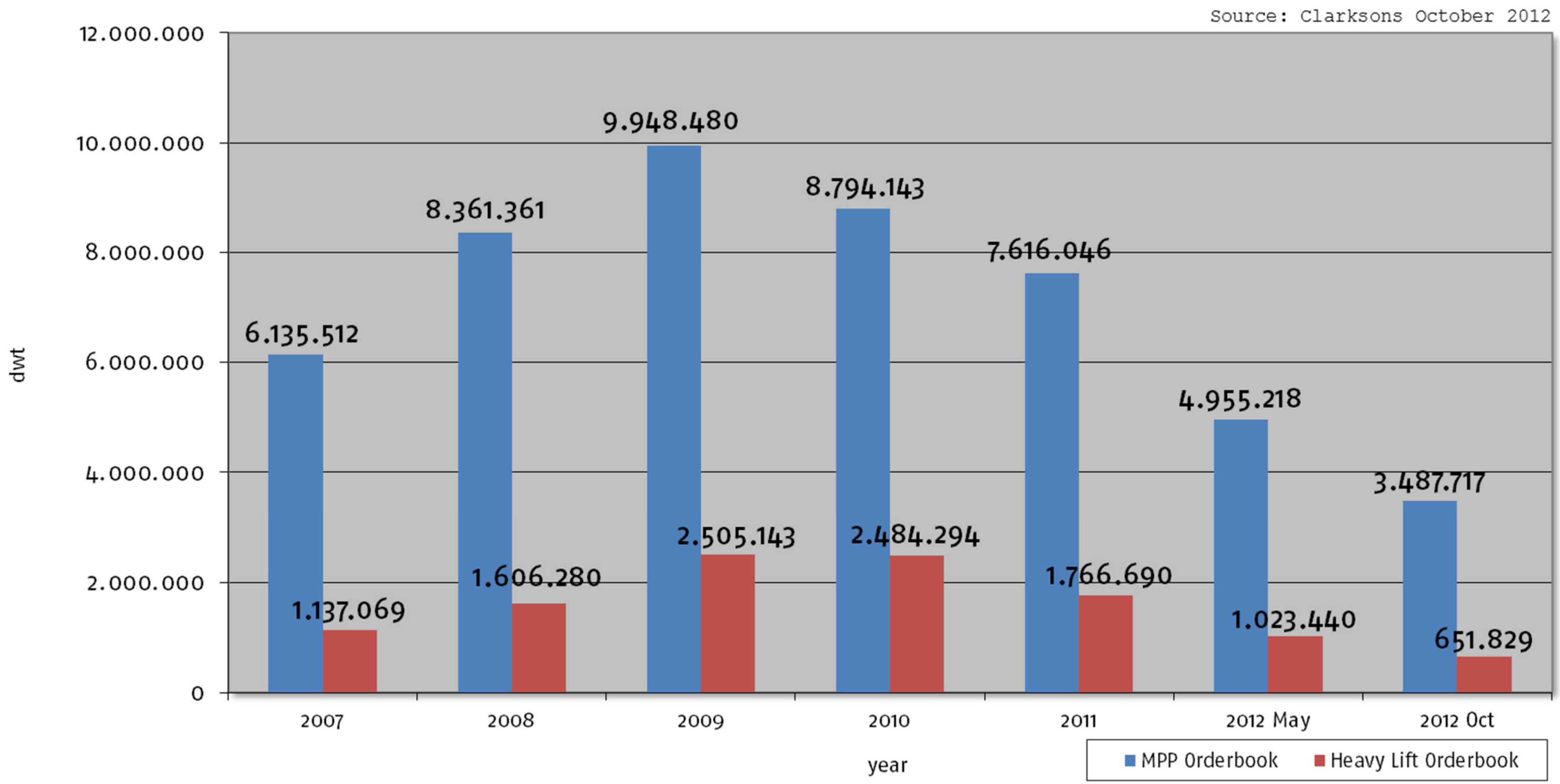
Container Orderbook	**20%** of total Container vessel fleet (in TEU)
Dry Bulk Orderbook	**22%** of total Dry Bulk fleet in dwt
Multipurpose Orderbook	**9.4** % of total fleet in dwt 34% of dwt older than 20 years
Heavy Lift Orderbook	**12.5** % of total Heavy Lift fleet in dwt 139% of dwt older than 20 years

- Structural overcapacities in container and dry bulk sectors that will stay with us for some time to come… this may have some negative impact on the demand side in the MPP & Heavy Lift segment

- The combination of scrapping of the aged MPP fleet and the low level of newbuilds coming through 2014 will likely result in a squeeze on capacity in the medium term…some excess capacity will exist in the near term

Source: Clarkson, Howe Robinson, Alphaliner

Multipurpose and Heavy Lift Orderbook Development 2007-2012 in dwt



The orderbook for MPP and HL vessels has fallen to the lowest level of any sector...effectively no tonnage coming beyond 2014

Multipurpose and Heavy Lift Fleet
Implications for the Future

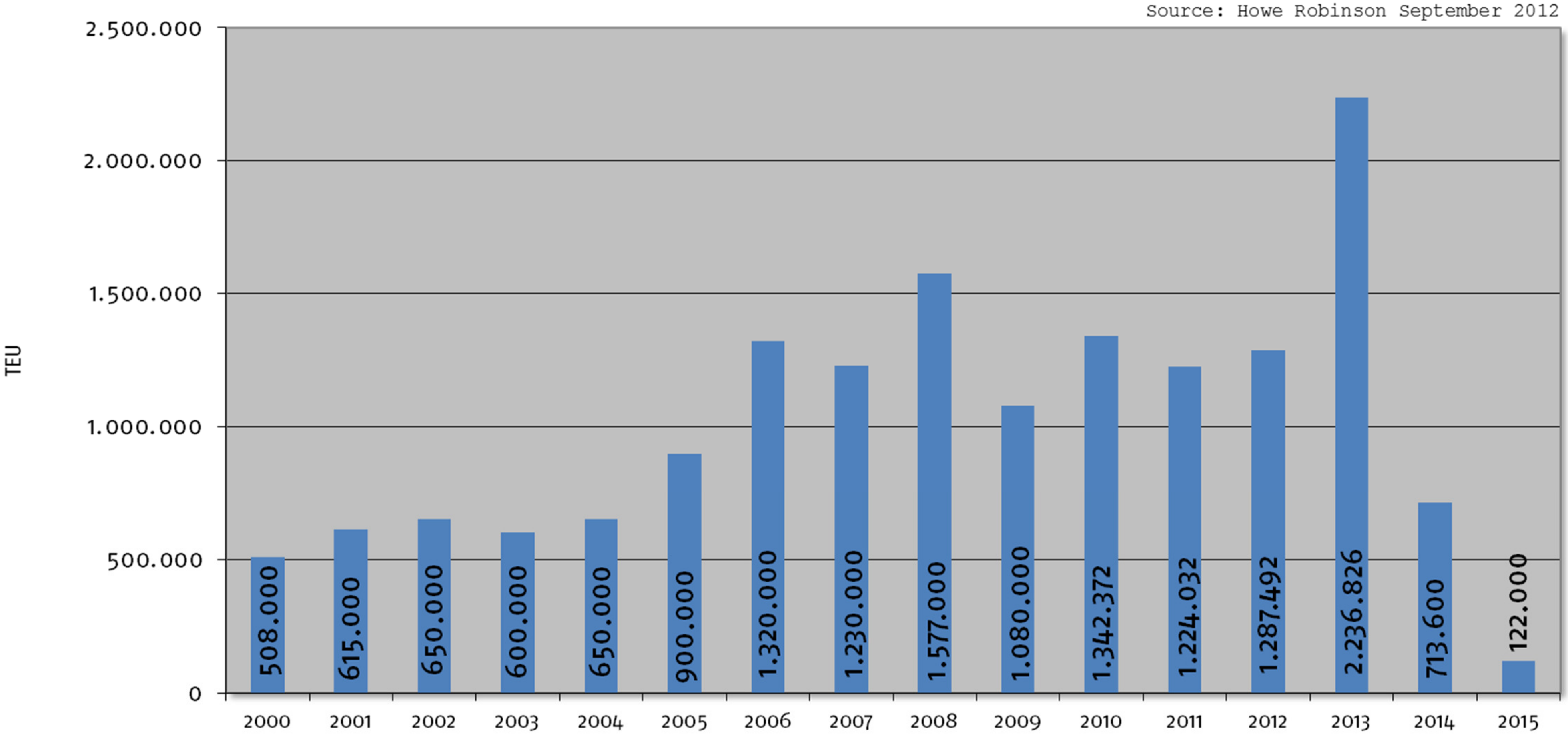
- Overall Multipurpose Fleet has started to decrease
  (May 2012 – Oct 2012 decrease by 1 Million dwt – according to Clarksons)
- Heavy Lift orderbook and MPP orderbooks have shrunk considerably
- Deliveries in Multipurpose and Heavy Lift sector fall to practically zero as from 2015

▶ If all ships older than 20 years of age were scrapped the total orderbook would only replace 34% of the lost capacity

Scheduled Deliveries of Container vessels 2000-2015

By contrast, the Container sector will see more capacity entering the market in 2013 than at any time in the history of the industry...structural over-supply will take some time to work through...making the next two years very challenging

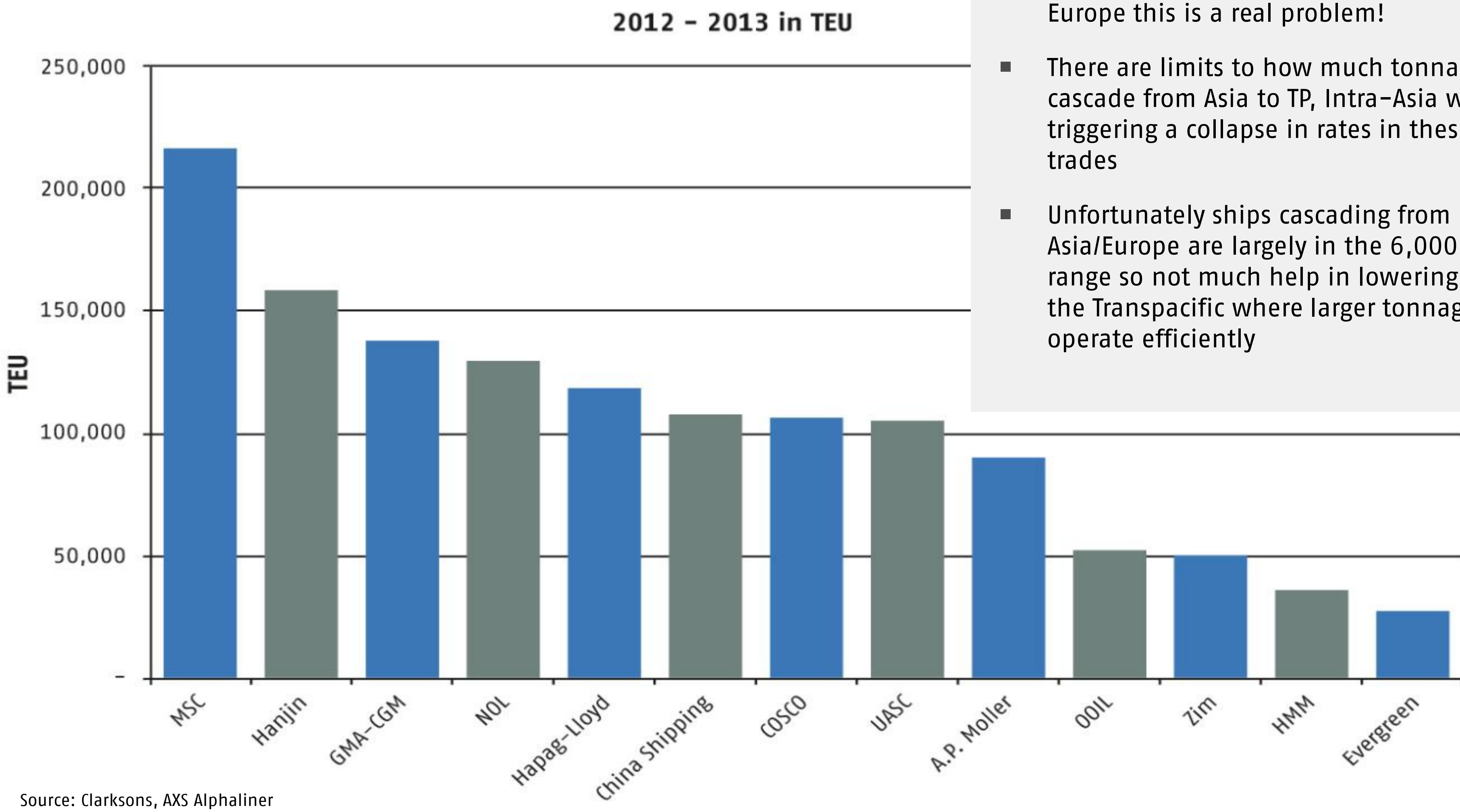
Source: Howe Robinson September 2012



Dynamics Impacting the Container Shipping Sector

Tonnage – Containership orderbook

VLCS (>10,000 TEU) deliveries by carrier



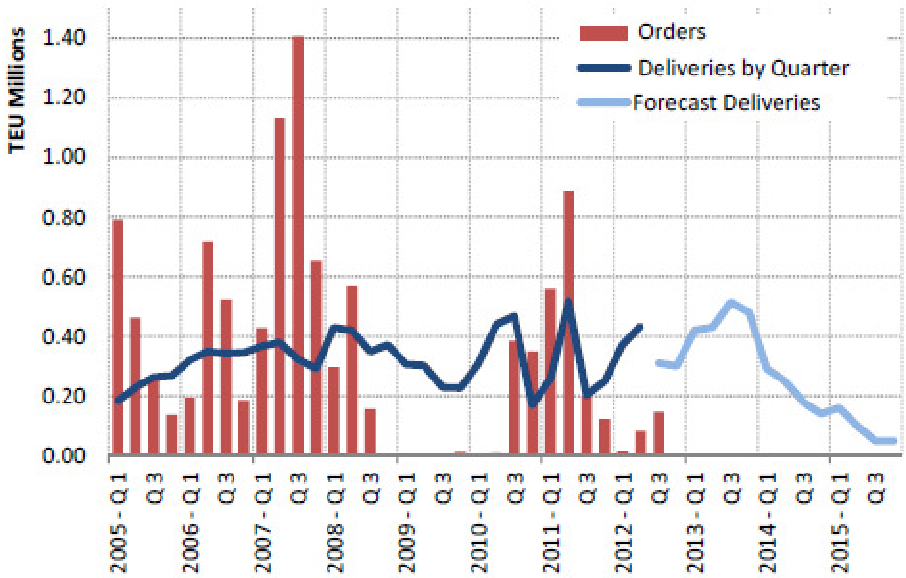
- Beyond absolute amount tonnage being delivered, some carriers will be growing in significant excess of the market – for Asia/ Europe this is a real problem!
- There are limits to how much tonnage can cascade from Asia to TP, Intra-Asia without triggering a collapse in rates in these trades
- Unfortunately ships cascading from Asia/Europe are largely in the 6,000 teu range so not much help in lowering cost in the Transpacific where larger tonnage can operate efficiently

Source: Clarksons, AXS Alphaliner

Dynamics Impacting Shipping

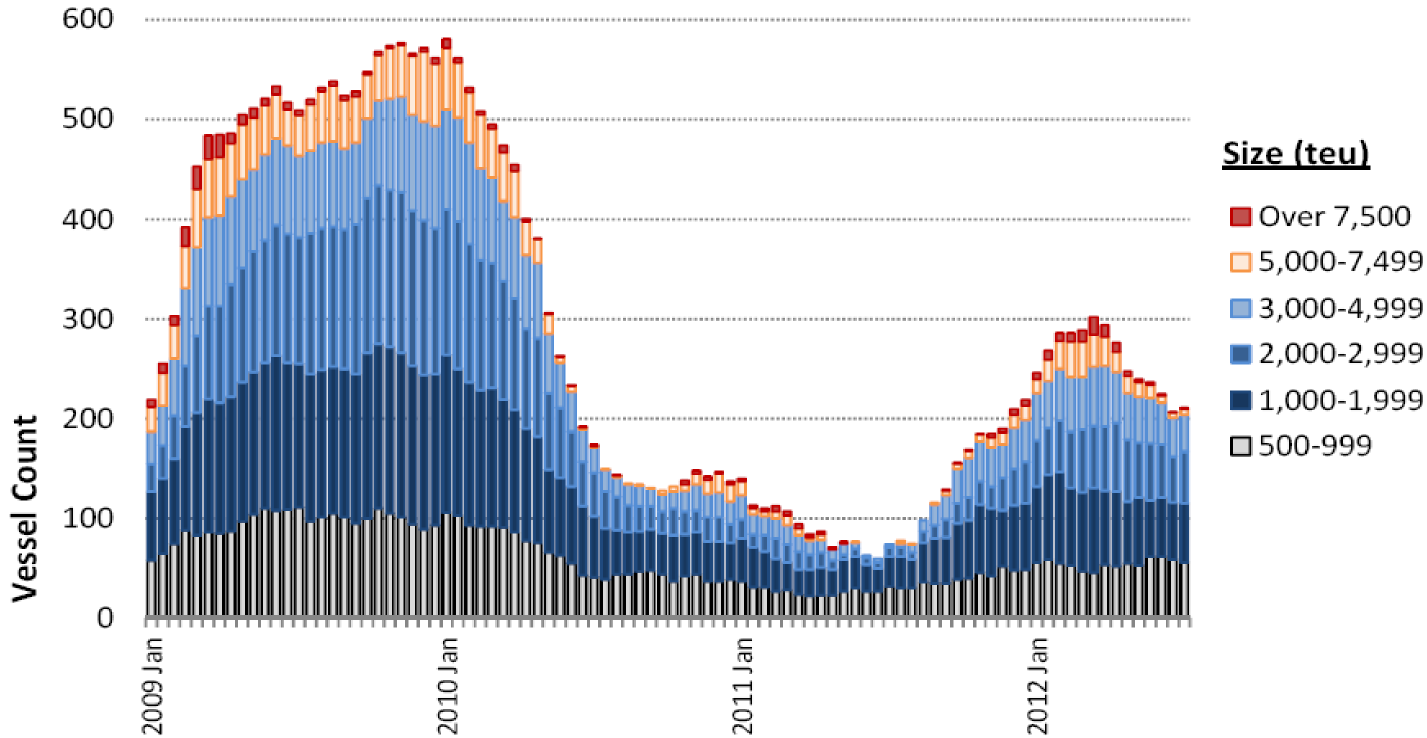
Order and Delivery

Shipyards remain profitable but in spite of the deliveries through 2014, are reporting significant drops in financial performance relative to 2011



- Orders are decreasing significantly since 2011
- Large discounts to the prices of 2006 to 2009 are seen
- 1H/Q2 Shipyard profitability is down across the boards relative to 2011
- Some yards provided construction financing
- Better technology/designs are beginning to be presented primarily targeted at fuel efficiency and maximizing capacity intake
- Still a large amount of capacity to be delivered in 2012–2014…and there will be more deliveries added to 2014 as additional orders begin to appear later this year, early next year

Idle containership (units idle breakdown by size range) Jan. 2009 to July 2012
As at 2 July 2012



Source: Alphaliner Monthly Monitor

Only a significant increase in Idle tonnage, or a dramatic increase in cargo demand, will enable the market rate environment to sustainably improve…spot rate improvement has been achieved in H1 2012…how long will it last?

Dynamics Impacting Shipping

Newbuilds – How Many...How Soon?

There are too many ships nobody wants...demand for ships nobody has...and a chorus of calls for nobody to order anything!

- Many who call for "no more building" where of course participants in what created the asset over-supply we see today
- The market is suffering from long term over-supply but the key is how to deal with the number of relatively "inefficient" ships that will need to be replaced
- With financing for newbuildings either not available or very difficult to come by for most, we are to a degree "protected from ourselves"
- Asset prices continuing to fall to historically low levels...too attractive to pass up
- In spite of the current environment, some ships will be ordered and this will impact on the supply-demand balance in 2014/2015
- Hopefully new projects are undertaken in a cooperative fashion to minimize the impact

Good or bad news depending on your perspective is that given the challenges in securing new sources of financing and the requirements that investors will be demanding in return, in the near term a minimum of ships will be ordered

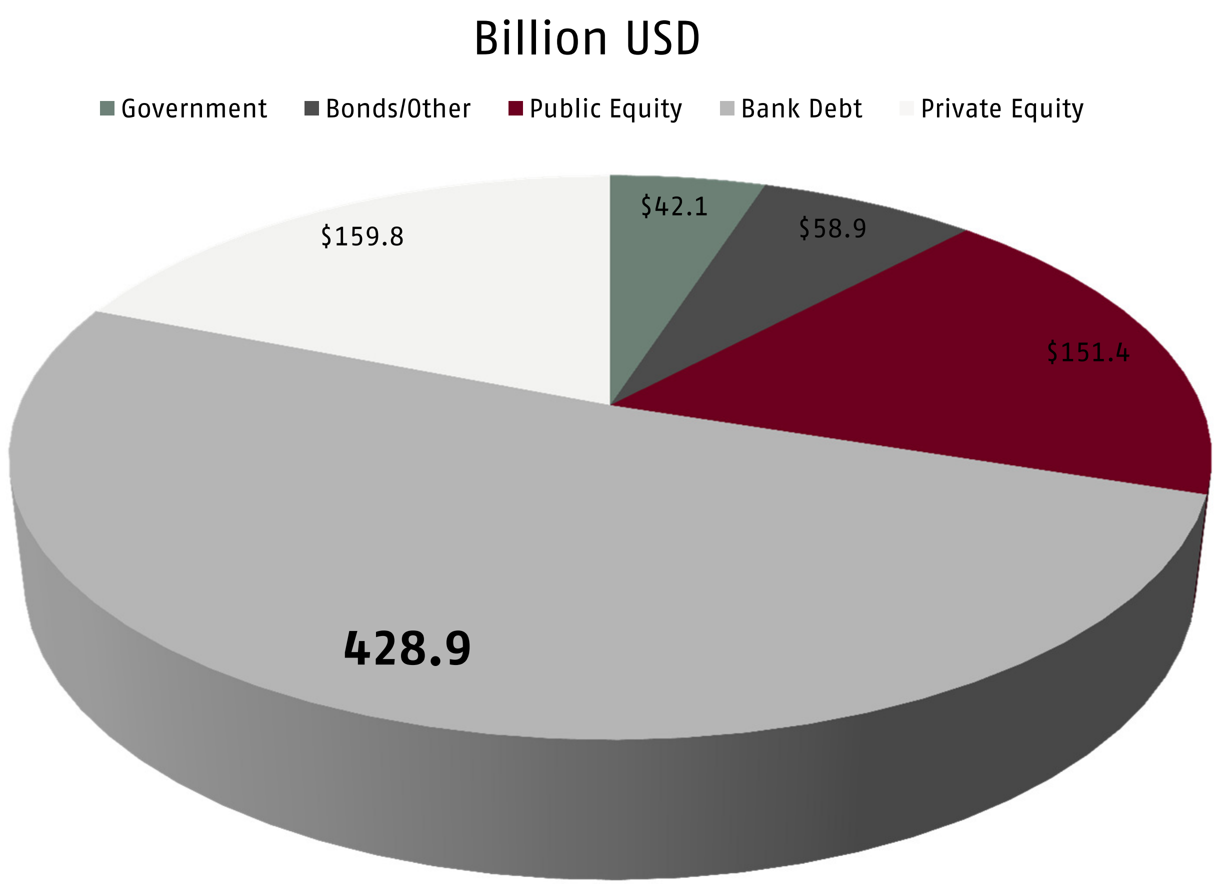
Other Investments/Ship Finance

Current State of Ship Finance

Financing of Current Fleet

$841 billion dollar existing fleet

51% financed by bank debt



Source: Andrew Hampson, Tufton Oceanic, Marine Money London 2012

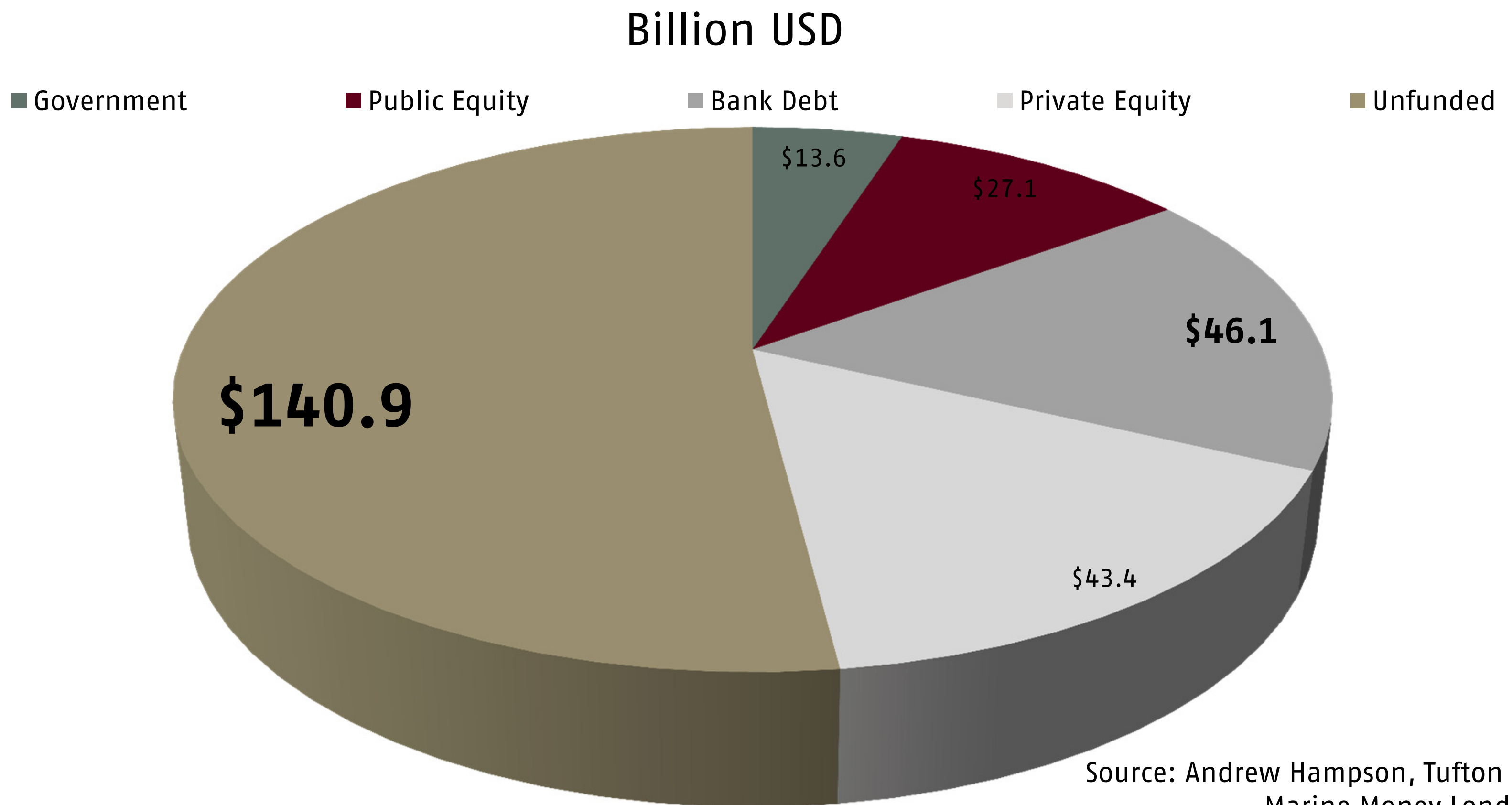
Current State of Ship Finance

Orderbook Funding

$271 billion dollar orderbook

52% unfunded

Decline in funding from all sources of funding



Source: Andrew Hampson, Tufton Oceanic, Marine Money London 2012

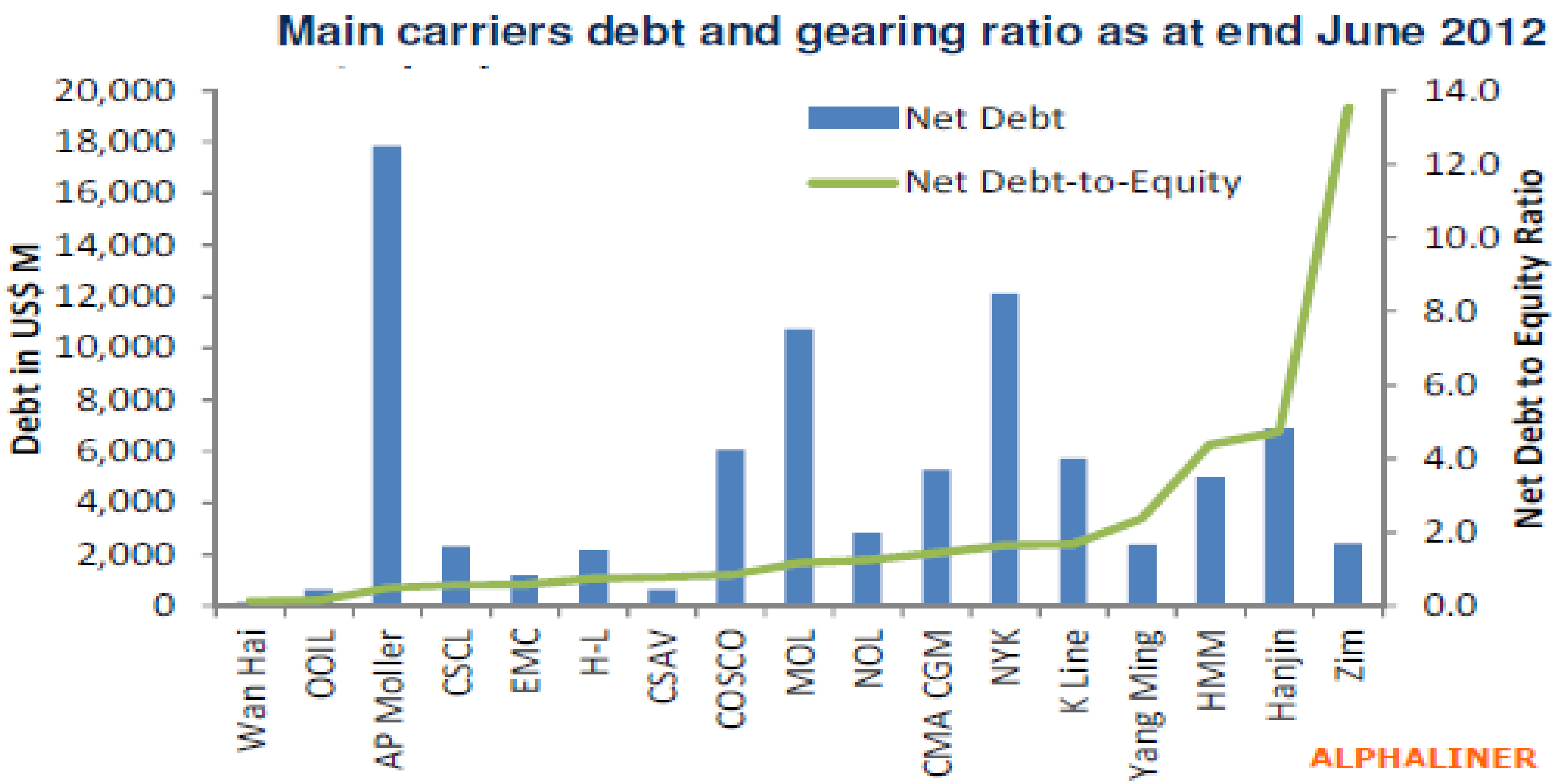
Banks and Equity Investors Perspective

Traditional ship finance banks are seeking to protect their balance sheets avoiding any significant write downs on existing vessels…

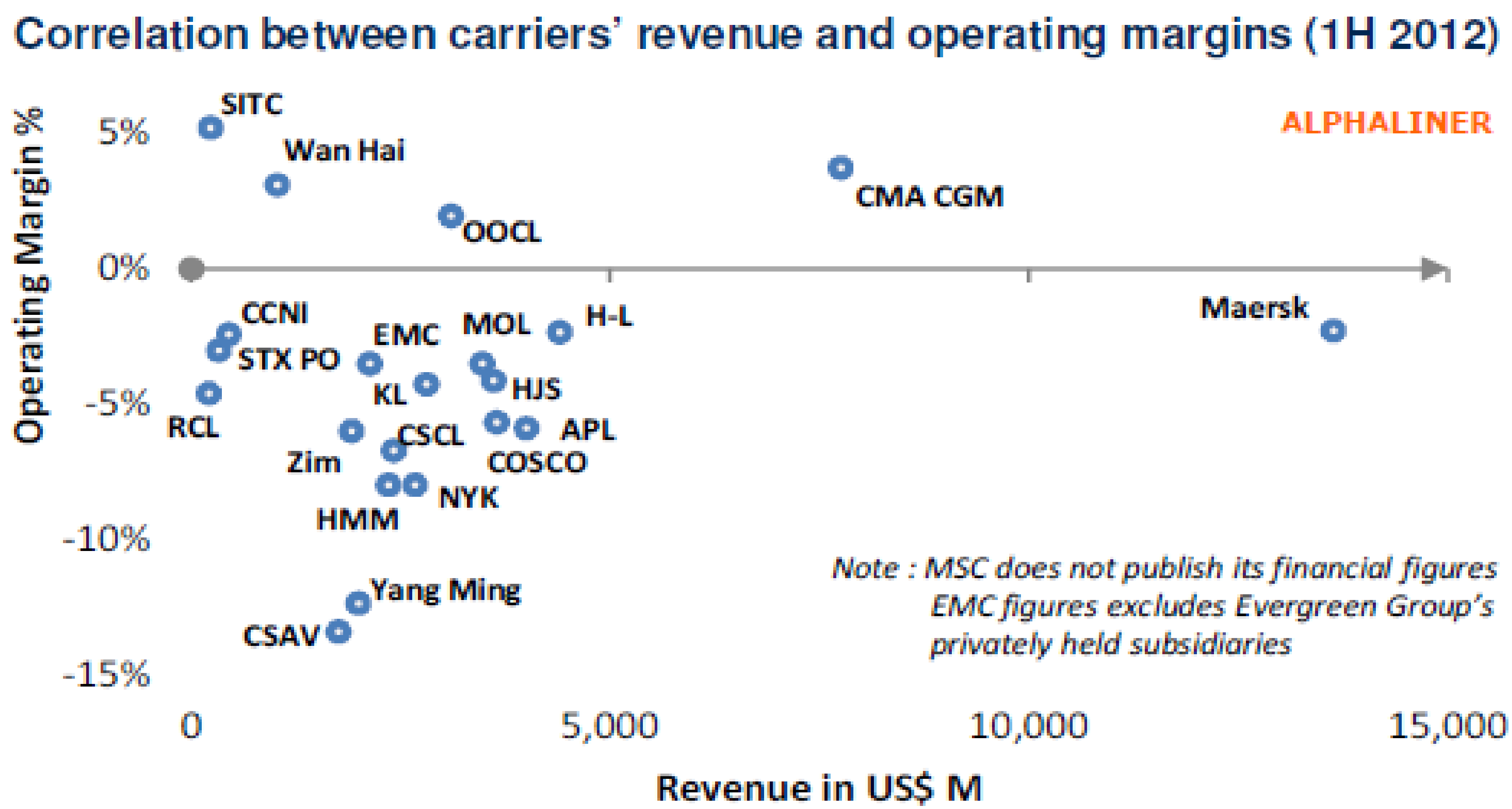
- Some banks are seeking to support consolidation and solutions that can secure asset values, while others withdraw from the market completely
- Few if any German banks are prepared to finance newbuildings today
- Low interest rate environment allows to take some time in finding solutions
- Banks still working off the effects of the collapse of Beluga in the MPP sector
- New vehicles will be created to hold distressed assets in hope that market will recover in the future

Equity investors criteria very different in the future when investing into assets…

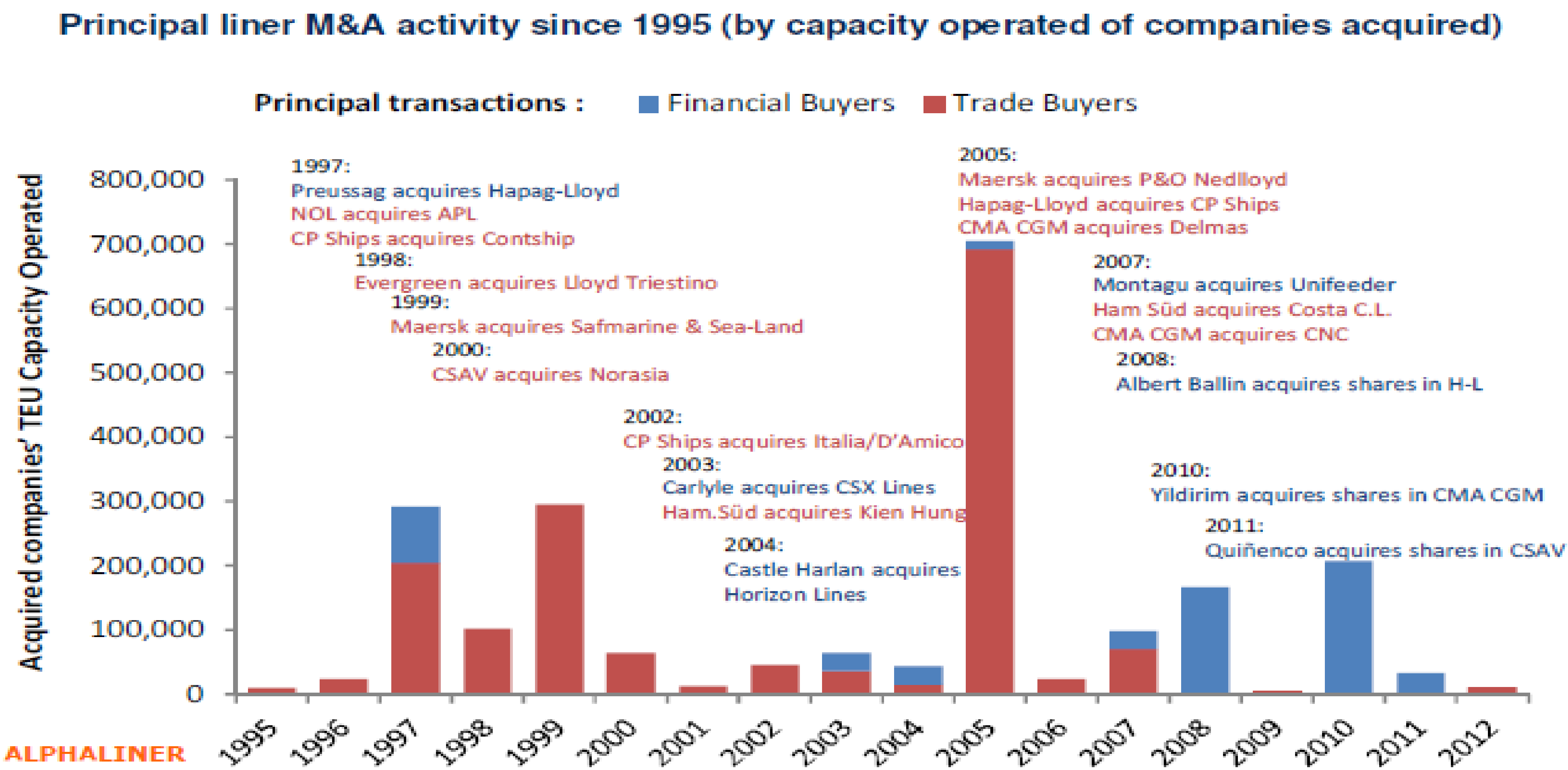
- The world of assets comprises more than just ships – fund allocation to ships is limited
- Returns of 15%+ are sought by PE and Hedge Funds; However Sovereign Wealth, Pension and some Institutional Funds prefer secure investments with low volatility over large returns and higher risk profiles
- Investors will seek partners who have been able to make the transition to a much more transparent approach to financial reporting and corporate governance….traditional ship owners have quite some ways to go in this transition process



Main carriers debt and gearing ratio as at end June 2012
Net Debt
Net Debt-to-Equity
Debt in US$ M
Net Debt to Equity Ratio
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Wan Hai
OOIL
AP Moller
CSCL
EMC
H-L
CSAV
COSCO
MOL
NOL
CMA CGM
NYK
K Line
Yang Ming
HMM
Hanjin
Zim
ALPHALINER


Correlation between carriers' revenue and operating margins (1H 2012)
ALPHALINER
Operating Margin %
5%
0%
-5%
-10%
-15%
SITC
Wan Hai
OOCL
CMA CGM
Maersk
CCNI
STX PO
EMC
MOL
H-L
KL
HJS
RCL
Zim
CSCL
APL
COSCO
NYK
HMM
Yang Ming
CSAV
Note : MSC does not publish its financial figures
EMC figures excludes Evergreen Group's
privately held subsidiaries
0
5,000
10,000
15,000
Revenue in US$ M

Current State of Ship Finance



Consolidation in the Breakbulk/Project Shipping Sector

Status

- Fragmented sector, with many smaller, privately held companies
- Some consolidation has already taken place, more to come
- Cost pressure coupled with continuing softness in the market will result in more cooperative arrangements between carriers to emerge

Benefits from consolidation

- Broader service offerings
- Greater financial strength to weather cycles of the industry
- Scale will enable more effective cost structure/ablity to employ larger ships with better economics in place of smaller ships in some lanes
- Larger companies that are capable to attract capital market investors to fuel the next phase of MPP fleet growth in larger and more fuel efficient ships

Other Issues Impacting The Shipping Industry

Other Issues Impacting Liner Shipping

There are many other issues of material importance that carriers and shippers have to consider in the current environment .

- **Chassis Management**
  - **No clear an efficient model becoming apparent**
  - **Disjointed approach by carriers creating confusion**
  - **More transparency is required**
- **Labor related issues**
  - **New agreements need to be concluded this year**
  - **Carriers must improve productivity- larger ships make it so**
  - **Carriers are ill prepared to bear higher costs**
- **Panama Canal expansion**
  - **A significant improvement in infrastructure, but…..**
  - **Over the last decade a major shift in cargo has already taken place**
  - **Will the East Coast infrastructure be ready?**
- **Indexed Service Contracts**
  - **Nothing new here – many have been doing so for years**
  - **There is a difference between indexed contracts / rate index**
  - **The industry needs more indexed contracts v. rate index**
- **Environmental matters**
  - **Increasing interest from shippers on a lower carbon footprint**
  - **Low sulphur fuel in 2012 and again in 2015 – how much $$$**
  - **Ballast water regulations – how much $$$**

Trends in the Heavy Lift/Breakbulk Sector Looking Forward

- Squeeze on capacity caused by the current reduced orderbook will begin to be felt from 2014 onward, as the level of new vessel deliveries slows down to practically zero and scrapping accelerates

- This will lead to a strengthening freight rate environment, but will take some months to manifest

- Continued competition from Container and Dry Bulk markets, where over-capacity will remain for at least the next two years failing dramatic develops

- Vessel characteristics will change in terms of size, lifting capacity and fuel efficiency.

- Shipbuilding prices will likely continue to soften however lack of financing will result in a minimum of ships being ordered in the near term

Trends in the Heavy Lift/Breakbulk Sector

- Increasing trend for consolidation, similar to other shipping segments,
  specially affecting small and medium sized operators

- Cost pressure will drive greater rationalization/cooperation in the next few years

- Shippers will more carefully consider counter party risks; of those operating over-aged fleets, and the financial strength of the companies they rely on for transportation

- Demand will show a more positive trend in the future, taking into account all the investments into infrastructure and other project cargos

- Increased modularization leads to larger and heavier units to be transported, which will drive a need for a growing heavy lift fleet, and will raise the demand for more lifting capacity

Future Trends and Outlook – Port Sector

Challenges Facing Ports

- Changing Vessel Design/Future Vessel Design
  - Increasing vessel size
    - Increased vessel dimensions impacting on depth of water, channel and turning basin widths/diameters, quay lengths, fendering, tug requirements
    - Larger containers exchanges & more feeder connections to be services
  - Constraints for expansion
    - Increase yard density
    - Increase productivity
    - Alternative berth designs
    - Environmental Issues
  - Productivity
    - Challenges in labor practices restrictive to improvement
    - Introduce incremental equipment/technology improvements
    - Optimize terminal operating & administration systems & increase levels of system automation

PSA Brani Terminal, Singapore

Technology/Automation

- Quantum Leap – Yard Innovation
  - Overhead Bridge Crane – Increased Stacking Density

  - Automation:
    - ASC (Automated Stacking Crane)
    - AGV (Automated Guide Vehicle)
  - Container Terminal Altenwerder, Hamburg
    - Automated RMG & AGV technology
    - Twin Trolley Quay Cranes
    - Increased yard density, reduced labor requirements

Thank you for your attention