XRTC
BUSINESS CONSULTANTS

5ο ΑΡΑΒΟ-ΕΛΛΗΝΙΚΟ ΟΙΚΟΝΟΜΙΚΟ ΦΟΡΟΥΜ
المنتدى الاقتصادي العربي اليوناني الخامس
5th ARAB-HELLENIC ECONOMIC FORUM
Athens, 29-30 November, 2016

"Why Greece remains a leader in International Maritime Industry? Is there room for investment?

Which are the prospects and the opportunities"

GEORGE C. XIRADAKIS

Founder and Managing Director XRTC Business Consultants

President of Propeller Club Port of Piraeus and

General Secretary of Association of Banking and

Shipping Executives in Greek Shipping

Athens November 29th , 2016

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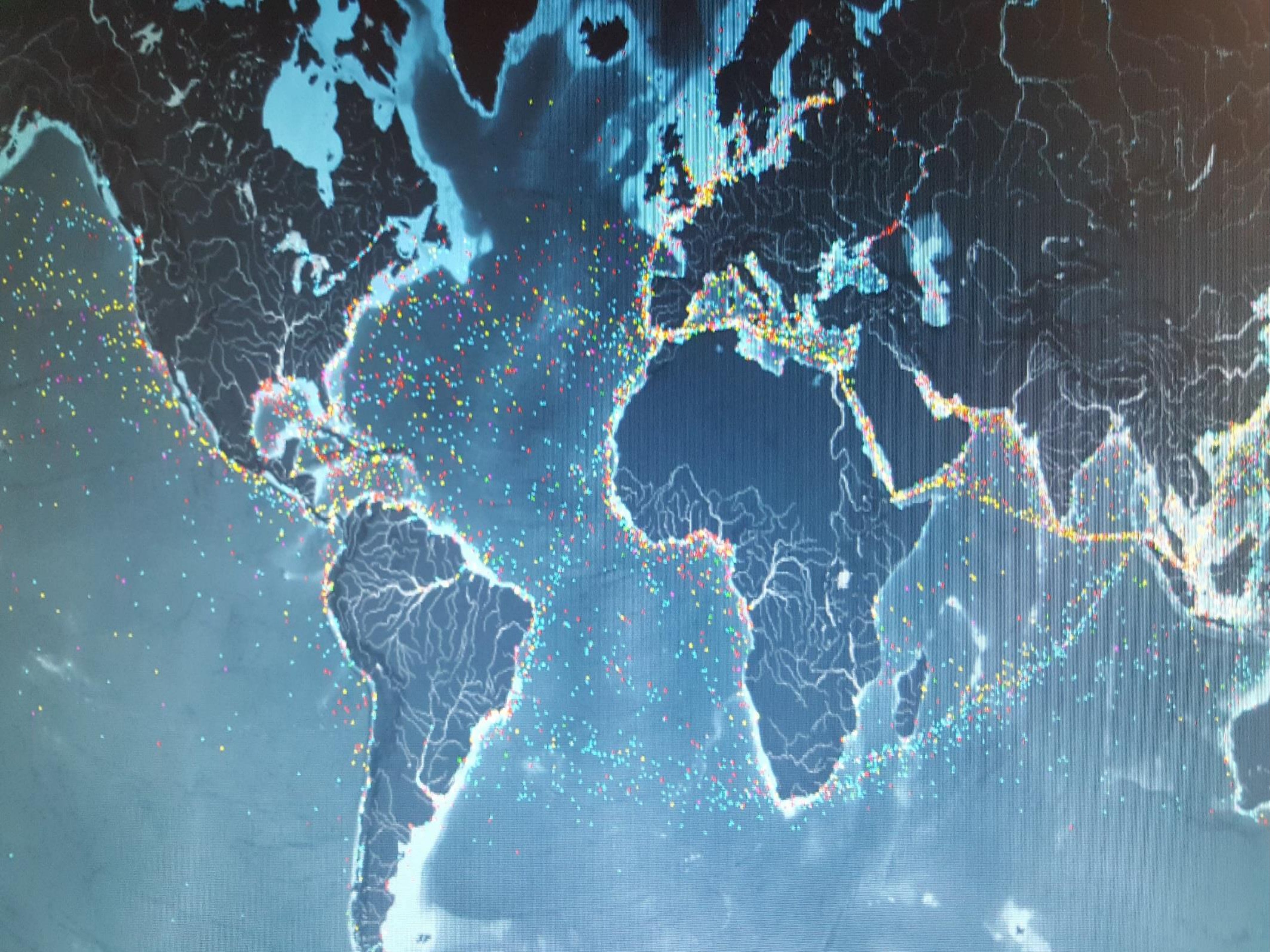
- Shipping
  - Importance /Sectors
- Greek Shipping in numbers
- The Orderbook
- Anatomy of Greek Shipping Companies
- Shipping – Main Characteristics
- Greek Shipping Banks Finance Market
- The Question

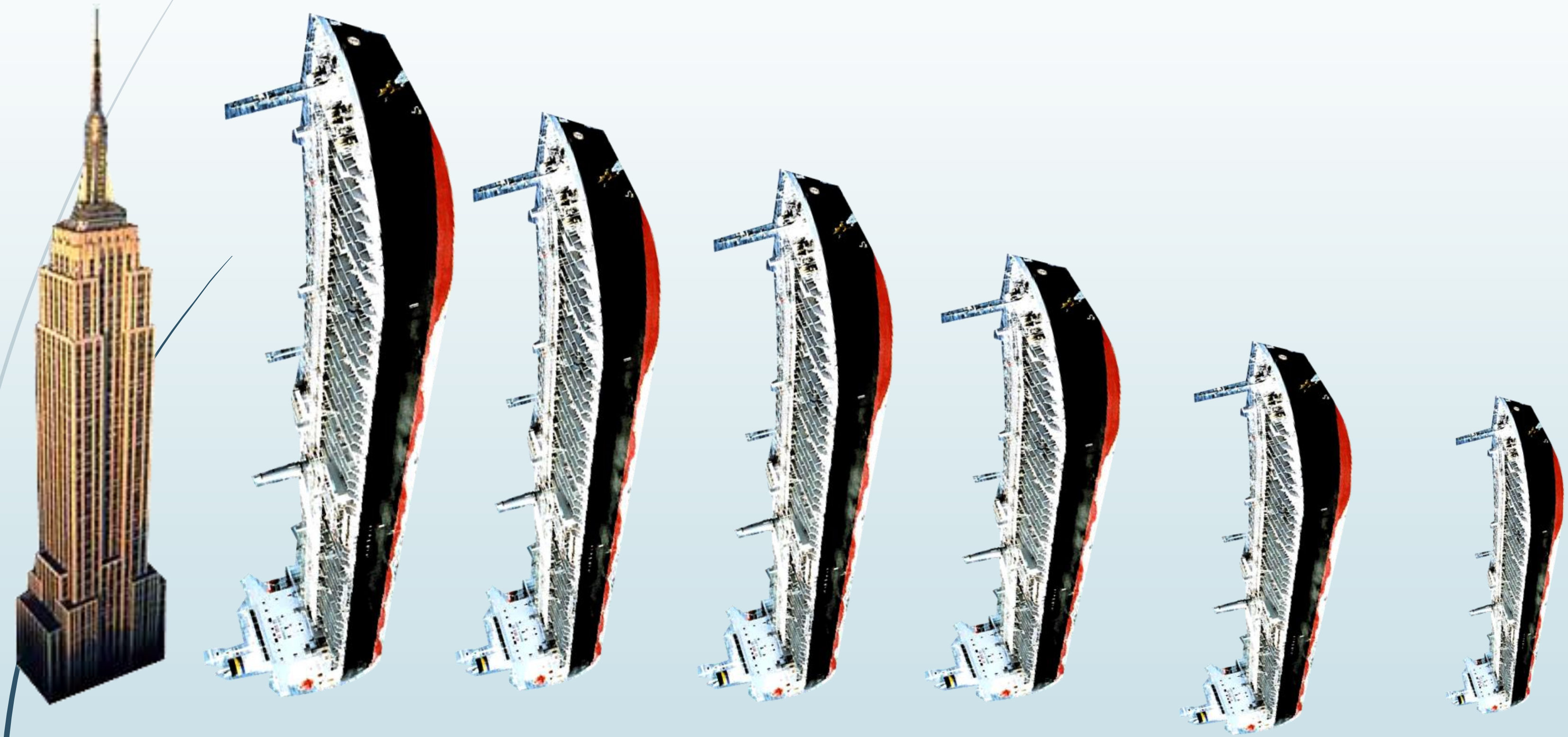
SHIPPING

- **Around 90% of world trade is carried by the international shipping industry.**
- **Without shipping the import and export of goods on the scale necessary for the modern world, would not be possible.**
- **Seaborne trade continues to expand, bringing benefits for consumers across the world through competitive freight costs.**
- **Thanks to the growing efficiency of shipping as a mode of transport and increased economic liberalization, the prospects for the industry’s further growth continue to be strong.**

A full year's global shipping movements (50,000 ships of 5 vessel types)

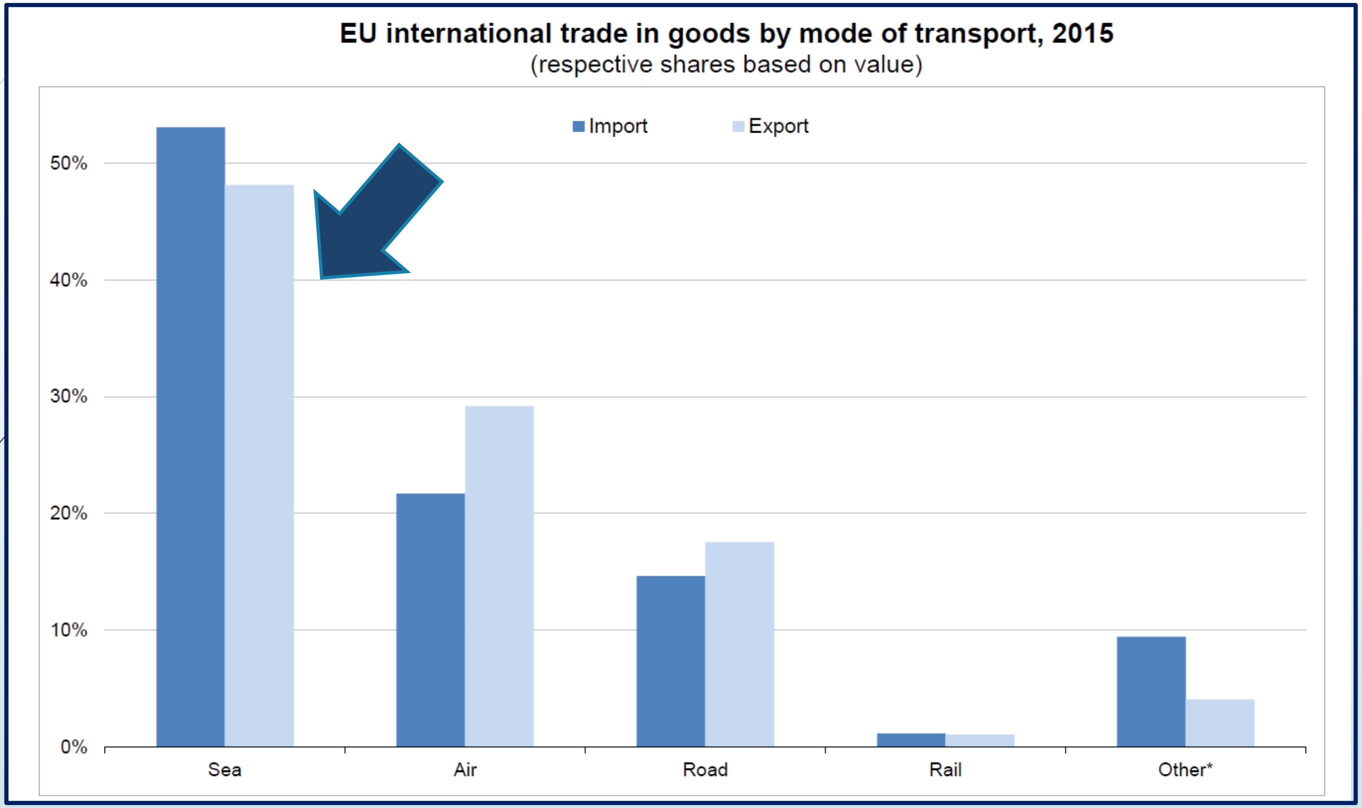


Shipping is a Big Business…



Empire State	VLCC	Suezmax	Aframax	Panamax	Handymax	Handysize
1,250′	1,100′	900′	850′	750′	615’	570’
	300,000dwt	150,000dwt	100,000dwt	70,000dwt	50,000dwt	37,000dwt

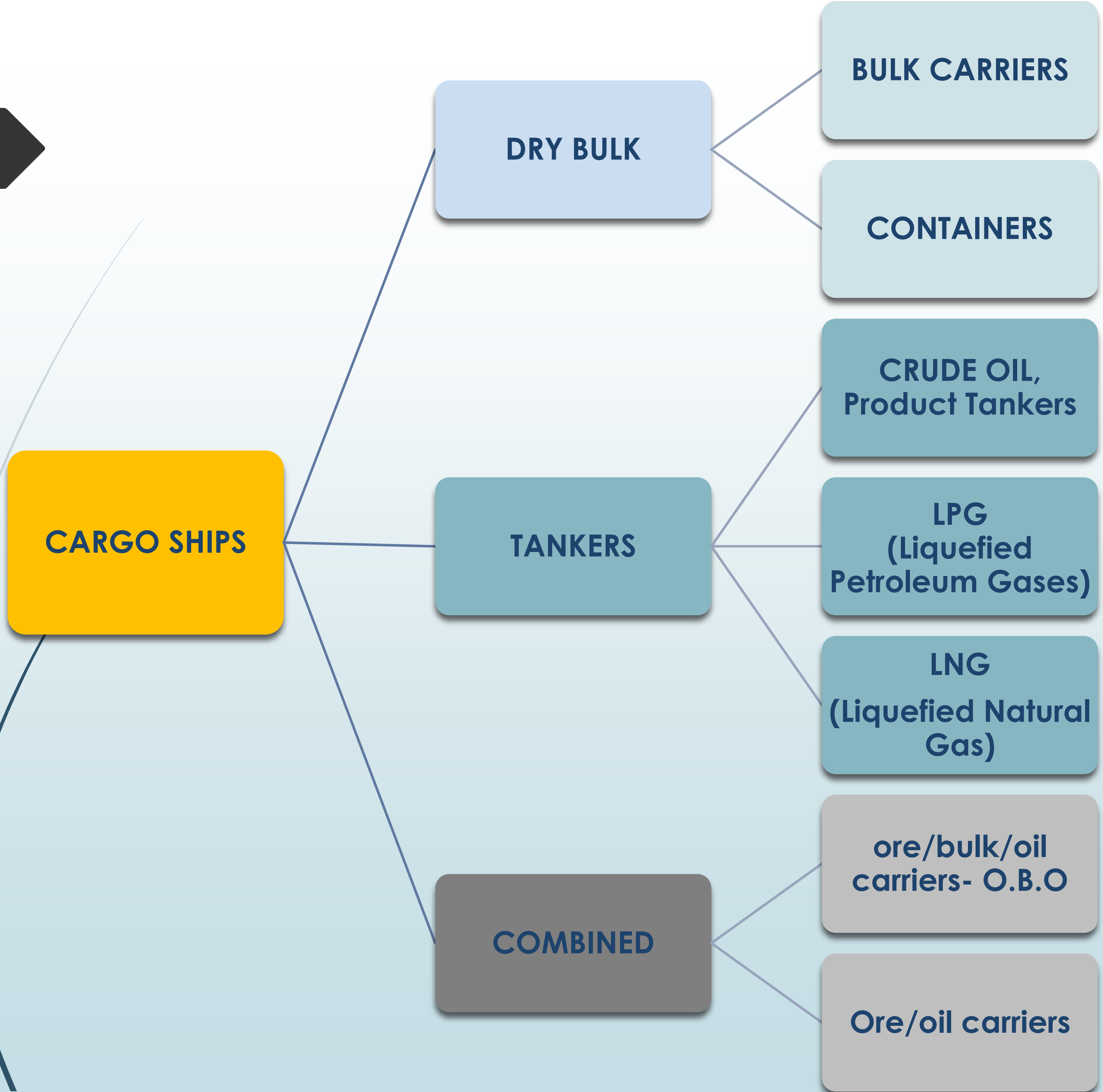
EU international trade in goods by mode of transport 2015



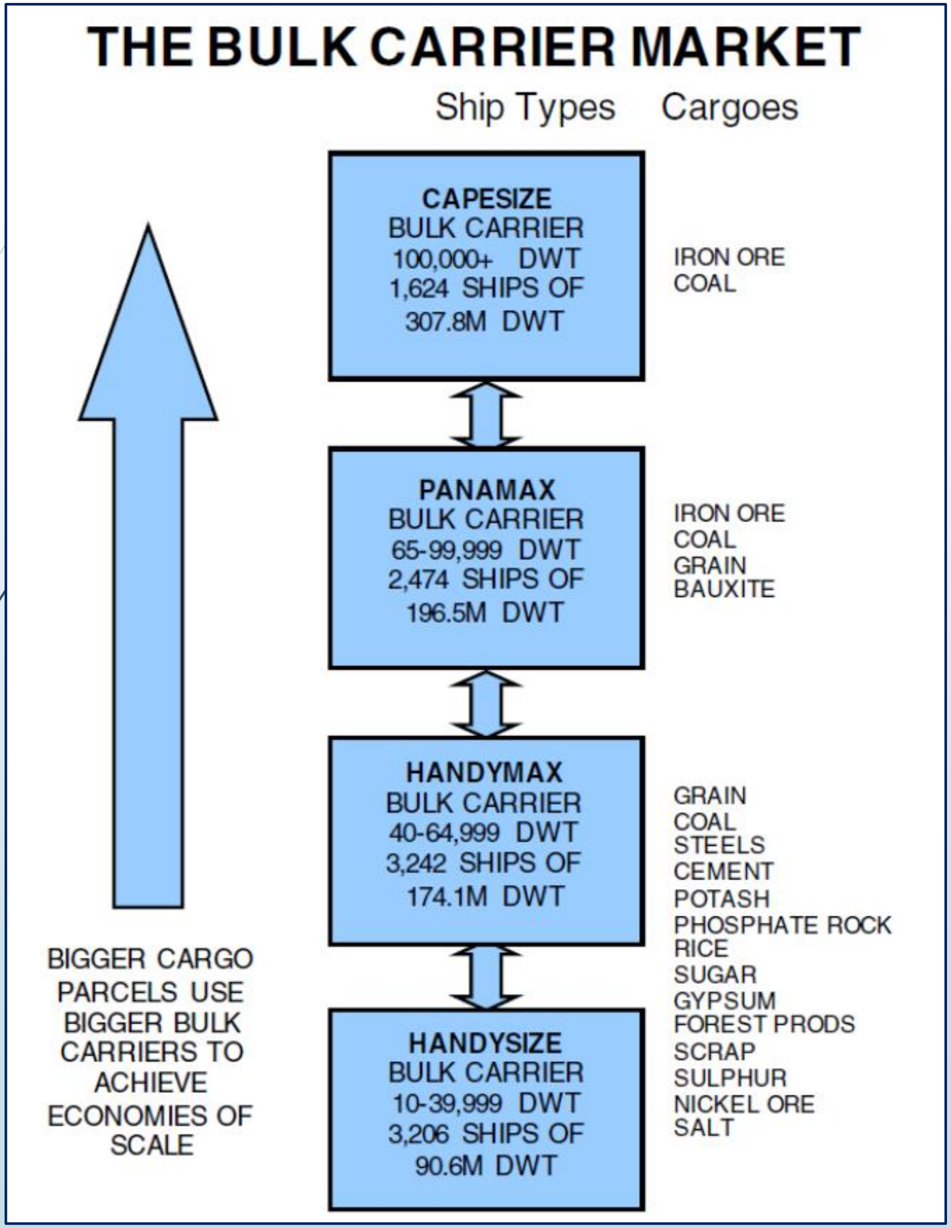
During 2015 the value of the EU int'l trade in goods by sea amounts € 1,777 bln

Shipping Sectors

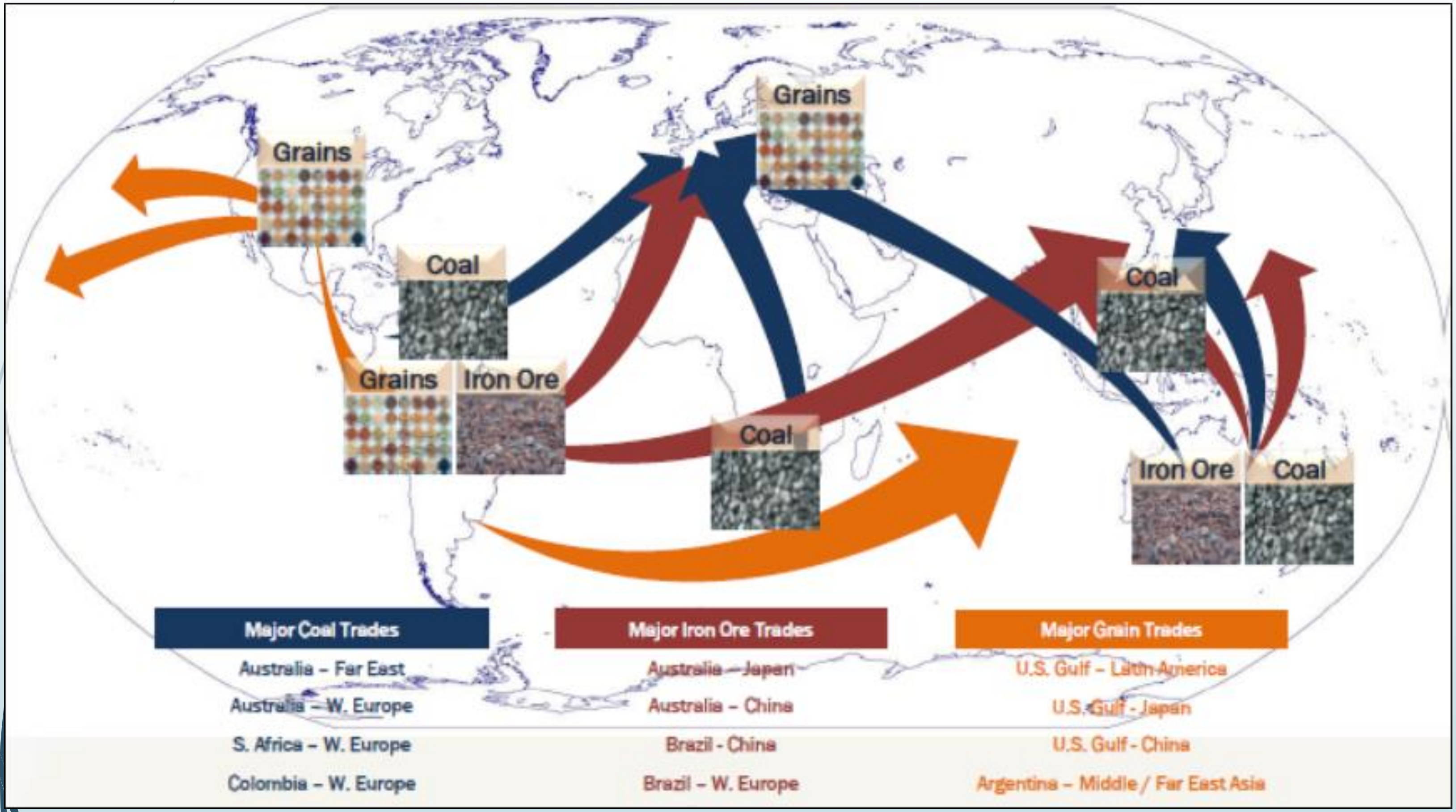
- Cargo
  - Dry Bulk
  - Tankers
  - Combined
- Container
- Tankers


CARGO SHIPS
DRY BULK
TANKERS
COMBINED
BULK CARRIERS
CONTAINERS
CRUDE OIL, Product Tankers
LPG (Liquefied Petroleum Gases)
LNG (Liquefied Natural Gas)
ore/bulk/oil carriers- O.B.O
Ore/oil carriers

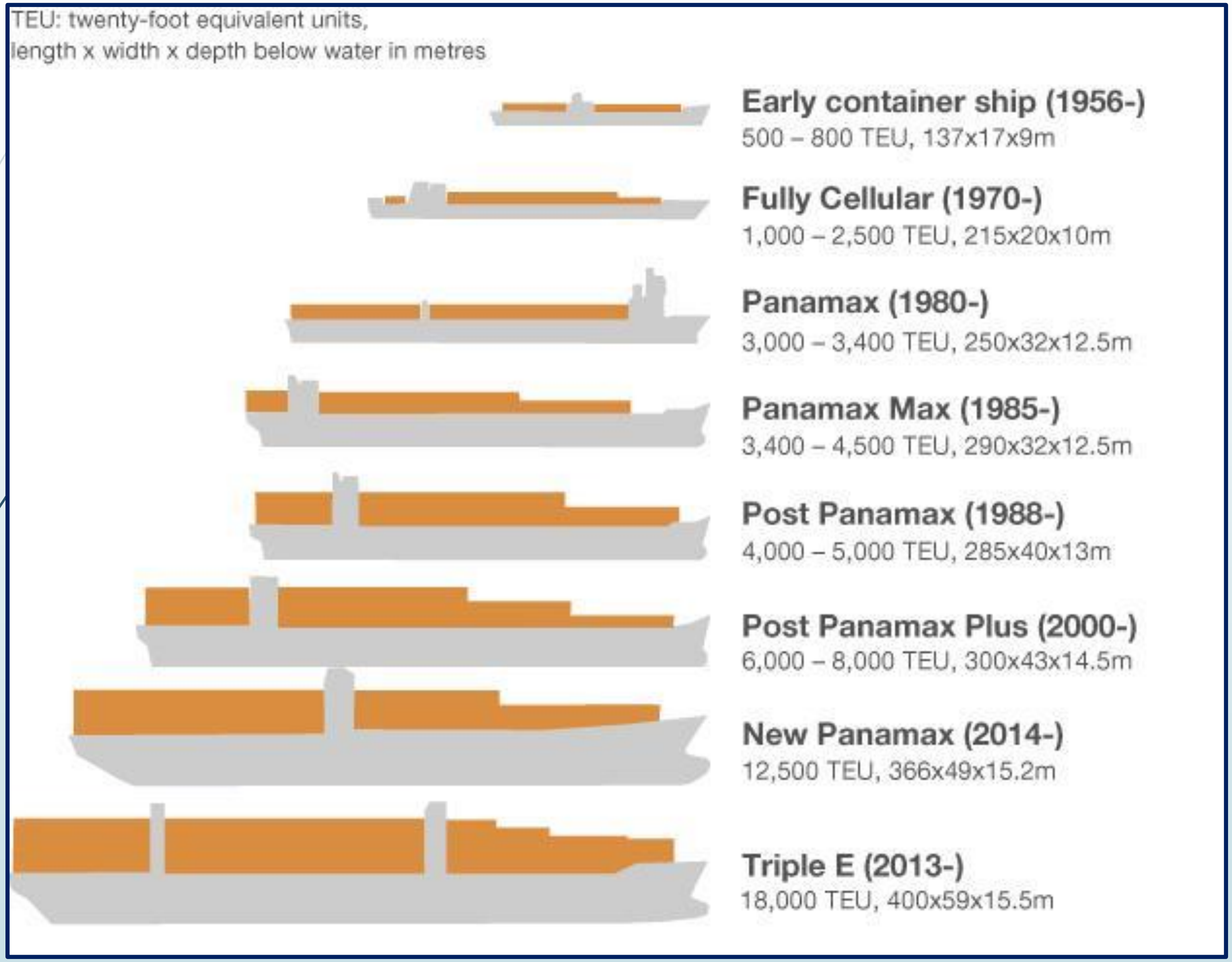
Dry Bulk Carriers



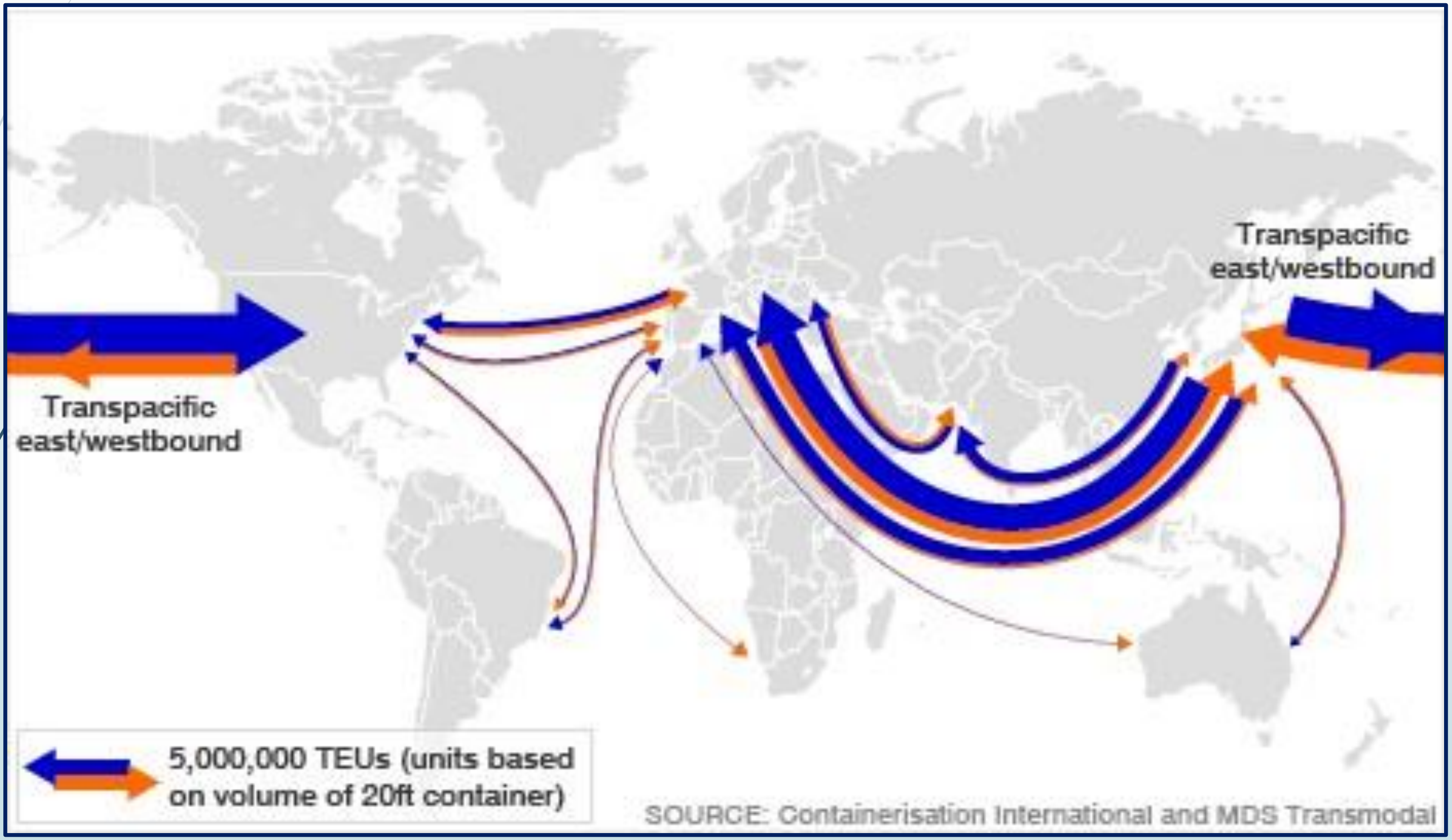
Main Dry Bulk Routes



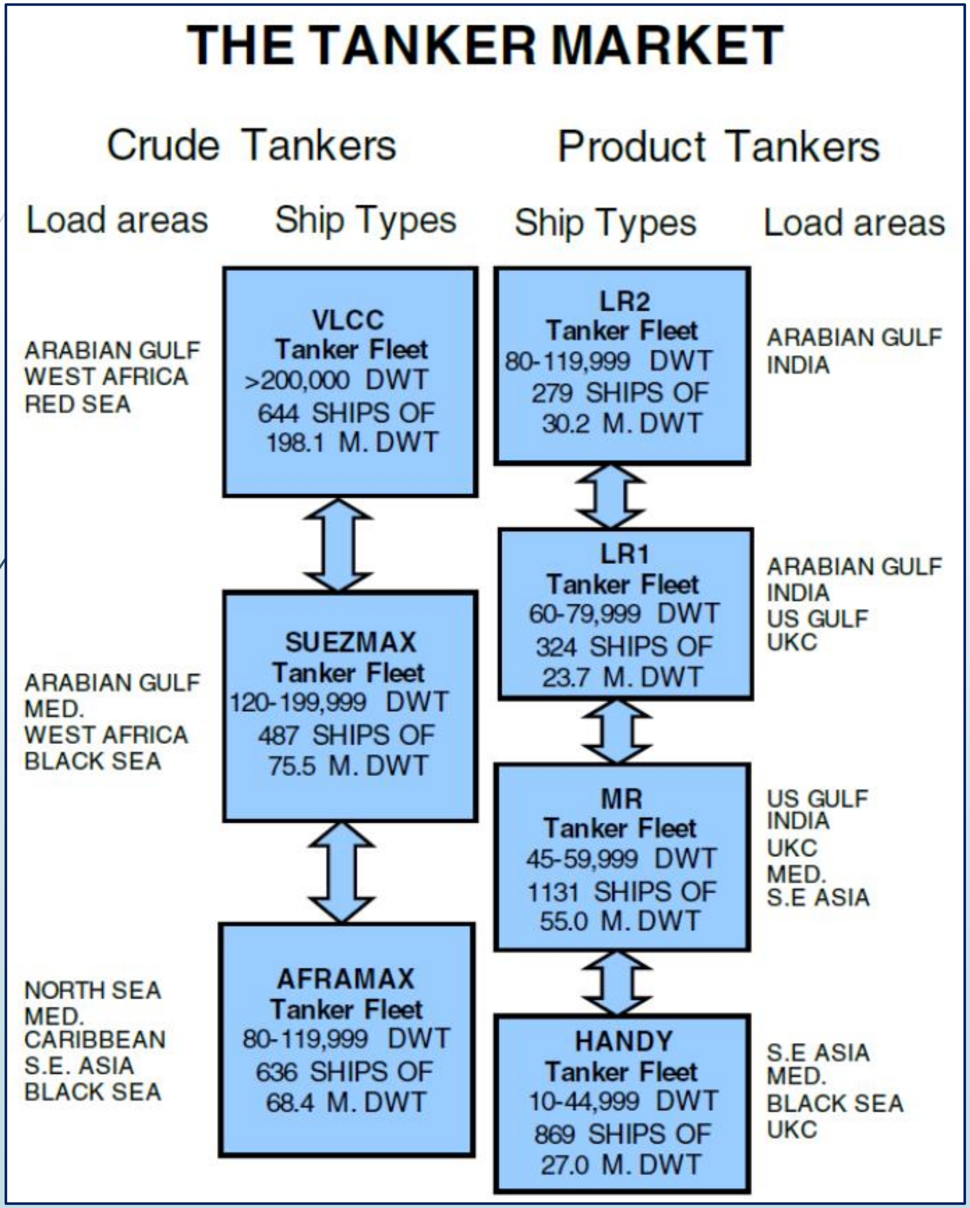
Containers


TEU: twenty-foot equivalent units,
length x width x depth below water in metres
Early container ship (1956-)
500 – 800 TEU, 137x17x9m
Fully Cellular (1970-)
1,000 – 2,500 TEU, 215x20x10m
Panamax (1980-)
3,000 – 3,400 TEU, 250x32x12.5m
Panamax Max (1985-)
3,400 – 4,500 TEU, 290x32x12.5m
Post Panamax (1988-)
4,000 – 5,000 TEU, 285x40x13m
Post Panamax Plus (2000-)
6,000 – 8,000 TEU, 300x43x14.5m
New Panamax (2014-)
12,500 TEU, 366x49x15.2m
Triple E (2013-)
18,000 TEU, 400x59x15.5m

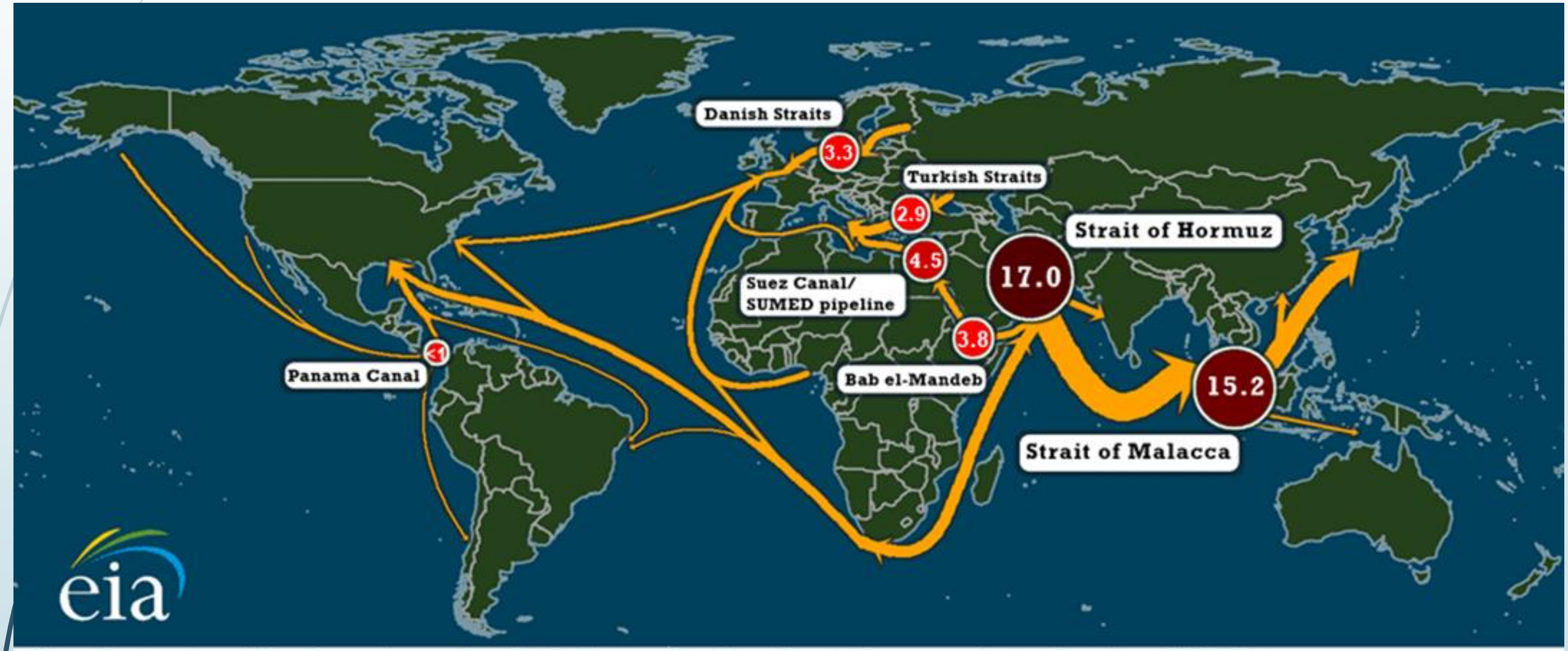
Main Container Routes



Tankers

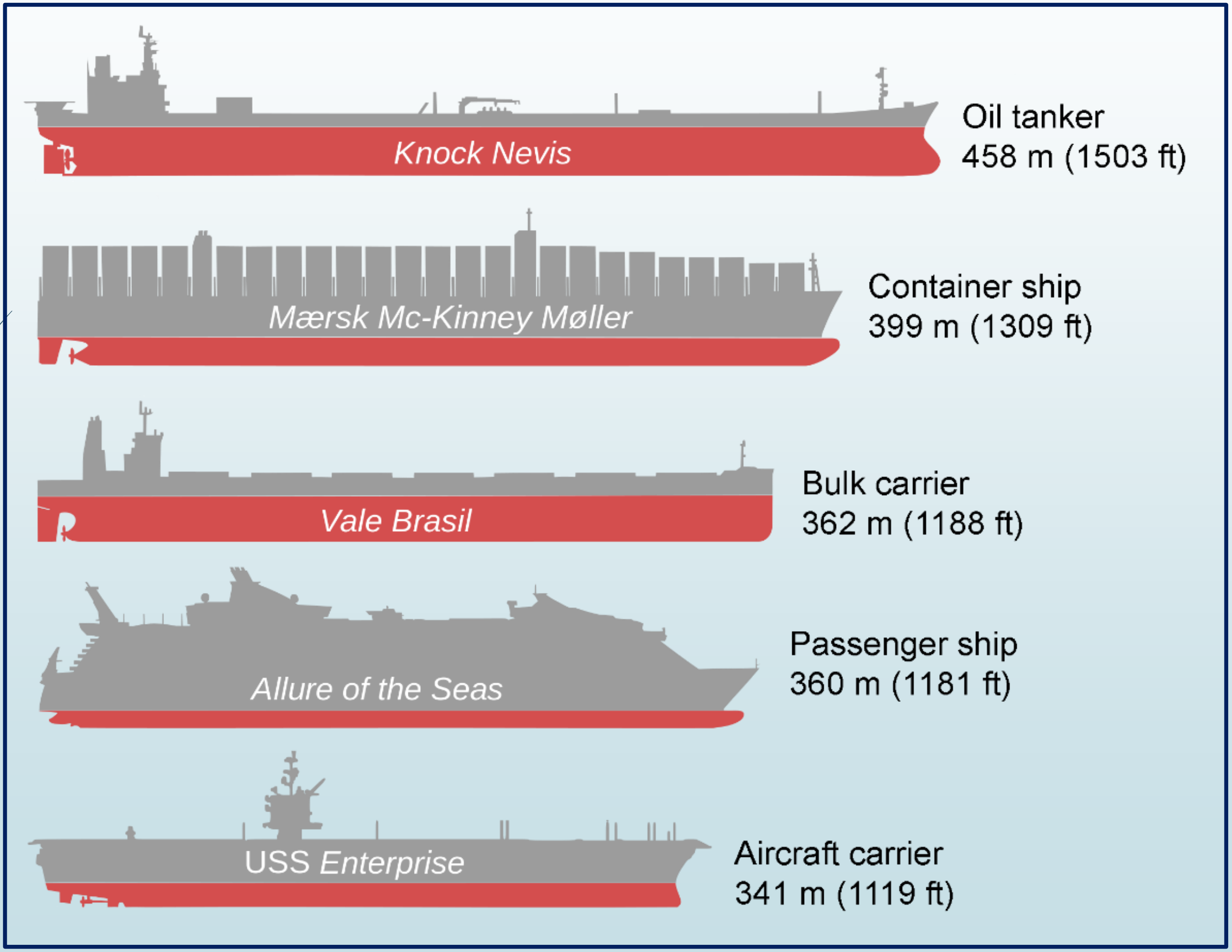

THE TANKER MARKET
Crude Tankers
Product Tankers
Load areas
Ship Types
Ship Types
Load areas
ARABIAN GULF
WEST AFRICA
RED SEA
VLCC
Tanker Fleet
>200,000 DWT
644 SHIPS OF
198.1 M. DWT
LR2
Tanker Fleet
80-119,999 DWT
279 SHIPS OF
30.2 M. DWT
ARABIAN GULF
INDIA
LR1
Tanker Fleet
60-79,999 DWT
324 SHIPS OF
23.7 M. DWT
ARABIAN GULF
INDIA
US GULF
UKC
ARABIAN GULF
MED.
WEST AFRICA
BLACK SEA
SUEZMAX
Tanker Fleet
120-199,999 DWT
487 SHIPS OF
75.5 M. DWT
MR
Tanker Fleet
45-59,999 DWT
1131 SHIPS OF
55.0 M. DWT
US GULF
INDIA
UKC
MED.
S.E ASIA
NORTH SEA
MED.
CARIBBEAN
S.E. ASIA
BLACK SEA
AFRAMAX
Tanker Fleet
80-119,999 DWT
636 SHIPS OF
68.4 M. DWT
HANDY
Tanker Fleet
10-44,999 DWT
869 SHIPS OF
27.0 M. DWT
S.E ASIA
MED.
BLACK SEA
UKC

Main Tankers Routes



All estimates in million barrels per day. Includes crude oil and petroleum products. Based on 2013 data.

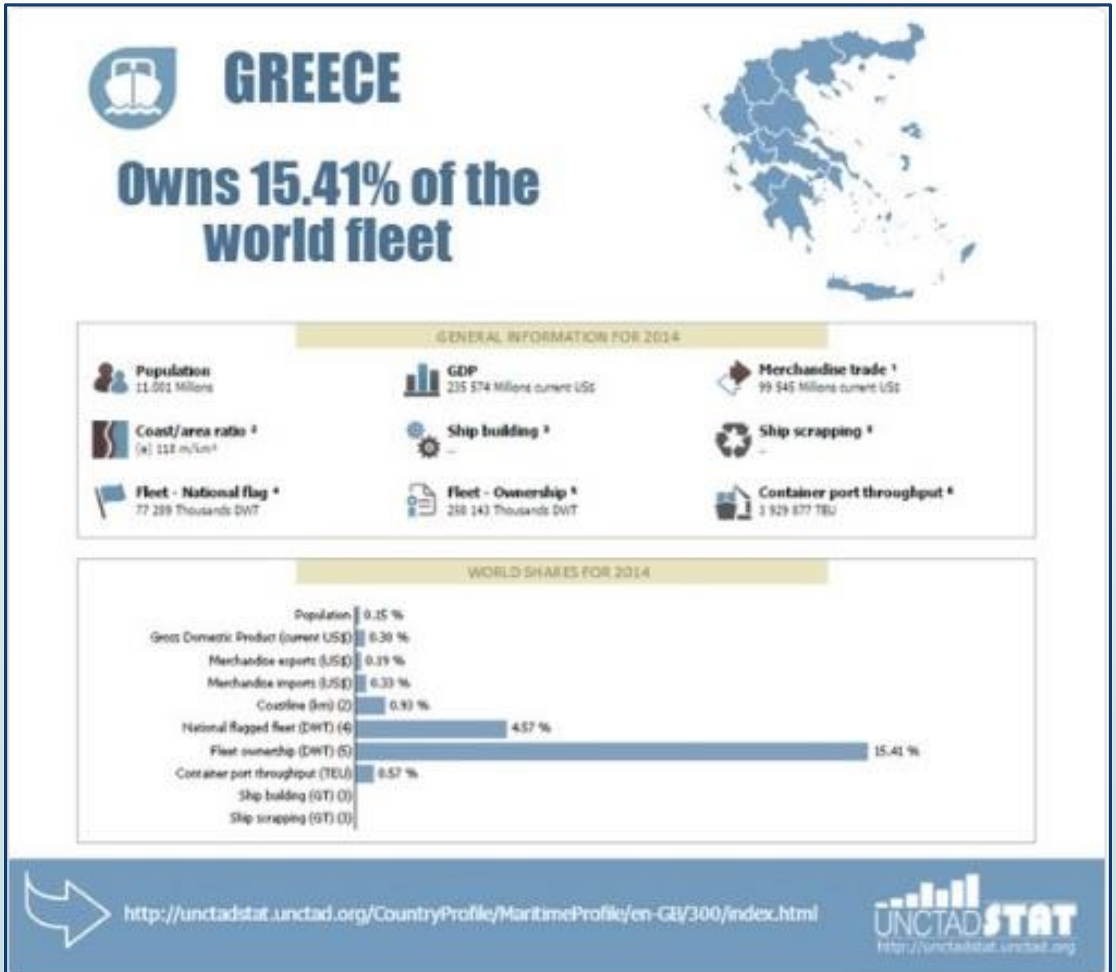
Size Comparison….



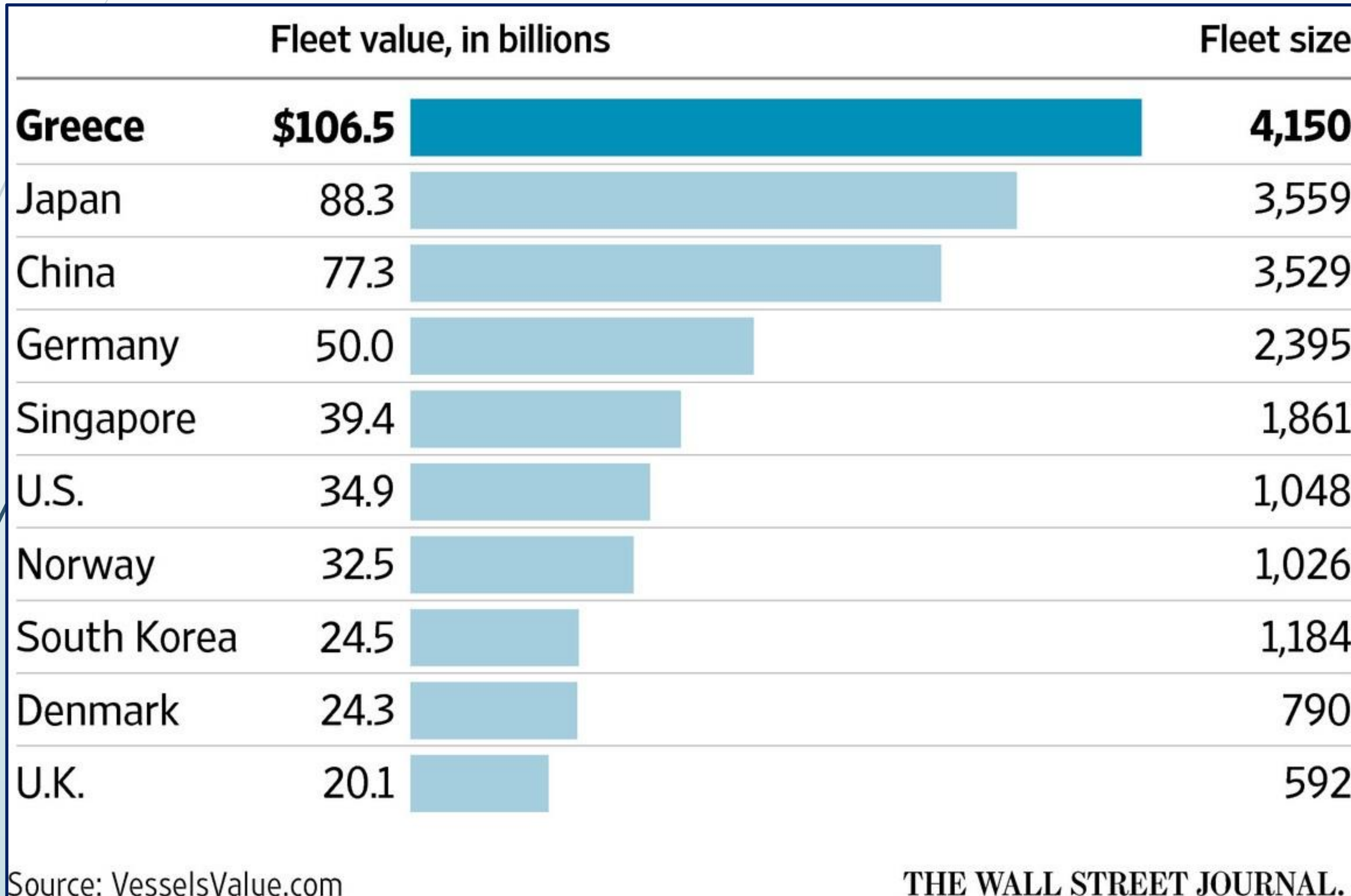
Greek Shipping In Numbers

- **GREECE : No 1 Shipowning Nation in the world**
- **Leader in Ship Management Tonnage**
- **Leader in Shipbuilding**
- **Leader in the Second Hand Market**

GREECE : No 1 Shipowning Nation in the world



World Shipping Fleet Value



GREEK SHIPPING

16% of the world's fleet value in Greek ownership

Greek Orderbook

World N/B Orders October 2016			Greek N/B Orders October 2016		
No of Vsls	Capacity (mil.dwt)	%world fleet dwt	No of Vsls	Capacity (mil.dwt)	%world order dwt
4.396	250,2	14%	327	32,5	13%
Source: Clarksons					

Greek orderbook per builders nation (October 2016)		
Yards Nationality	No of Vessels	Capacity (σε dwt)
Korea	127	15.515.962
China	135	11.189.270
Japan	47	4.422.480
Philippines	8	963.906
Vietnam	8	420.932
Taiwan	2	43.300
TOTAL	**327**	**32.555.850**

Greek Orderbook investment

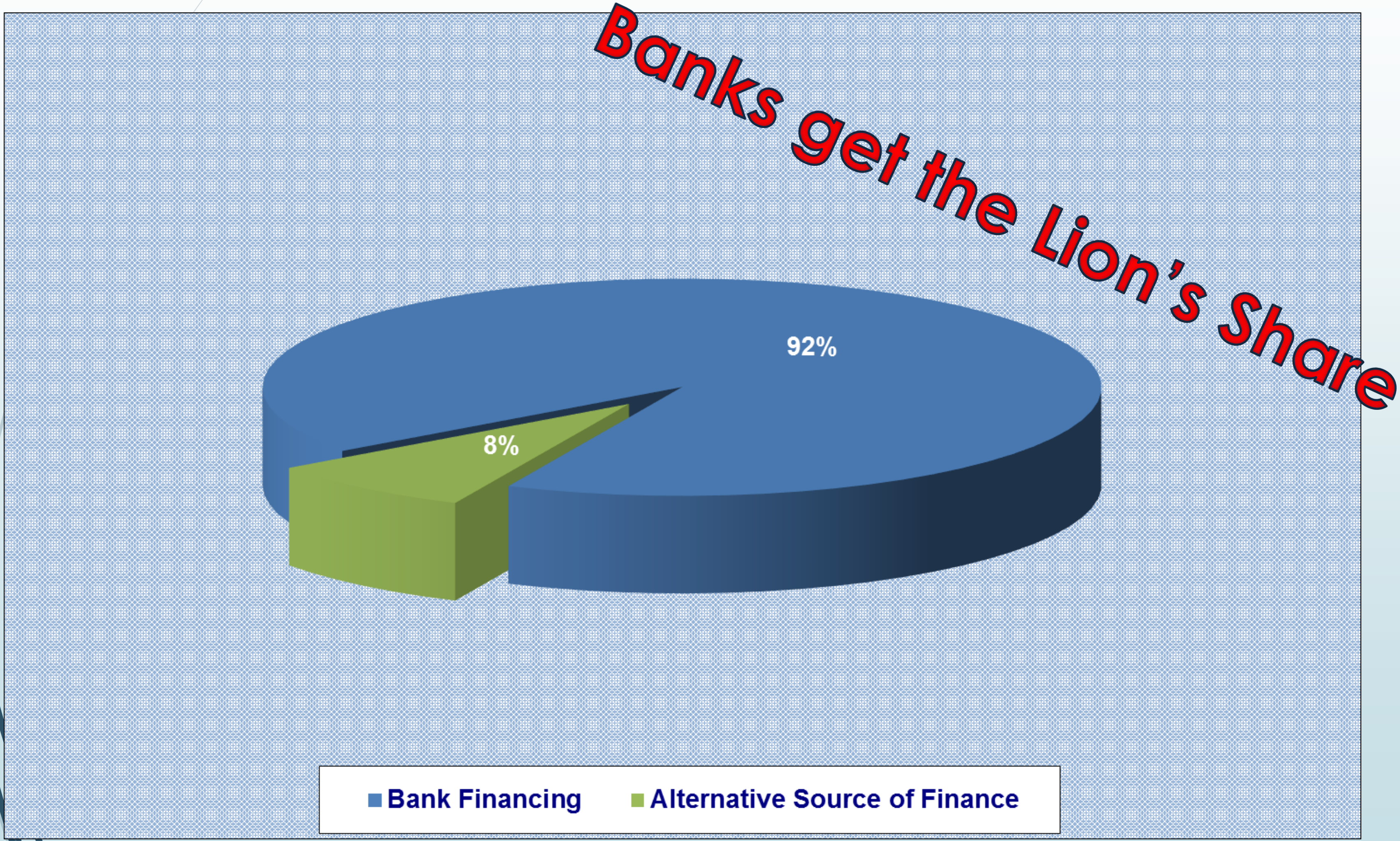
Newbuilding Investment 2007-2015			
Year	$bn - Greek	$bn - Global	% of Global Investment
2007	36,00	260,55	14%
2008	21,00	164,18	13%
2009	3,00	41,10	7%
2010	13,80	111,30	12%
2011	13,50	105,10	13%
2012	7,10	90,50	8%
2013	14,80	126,70	12%
2014	11,10	101,20	11%
2015	6,20	69,00	9%

9% of the global investment in newbuilding vessels by Greeks

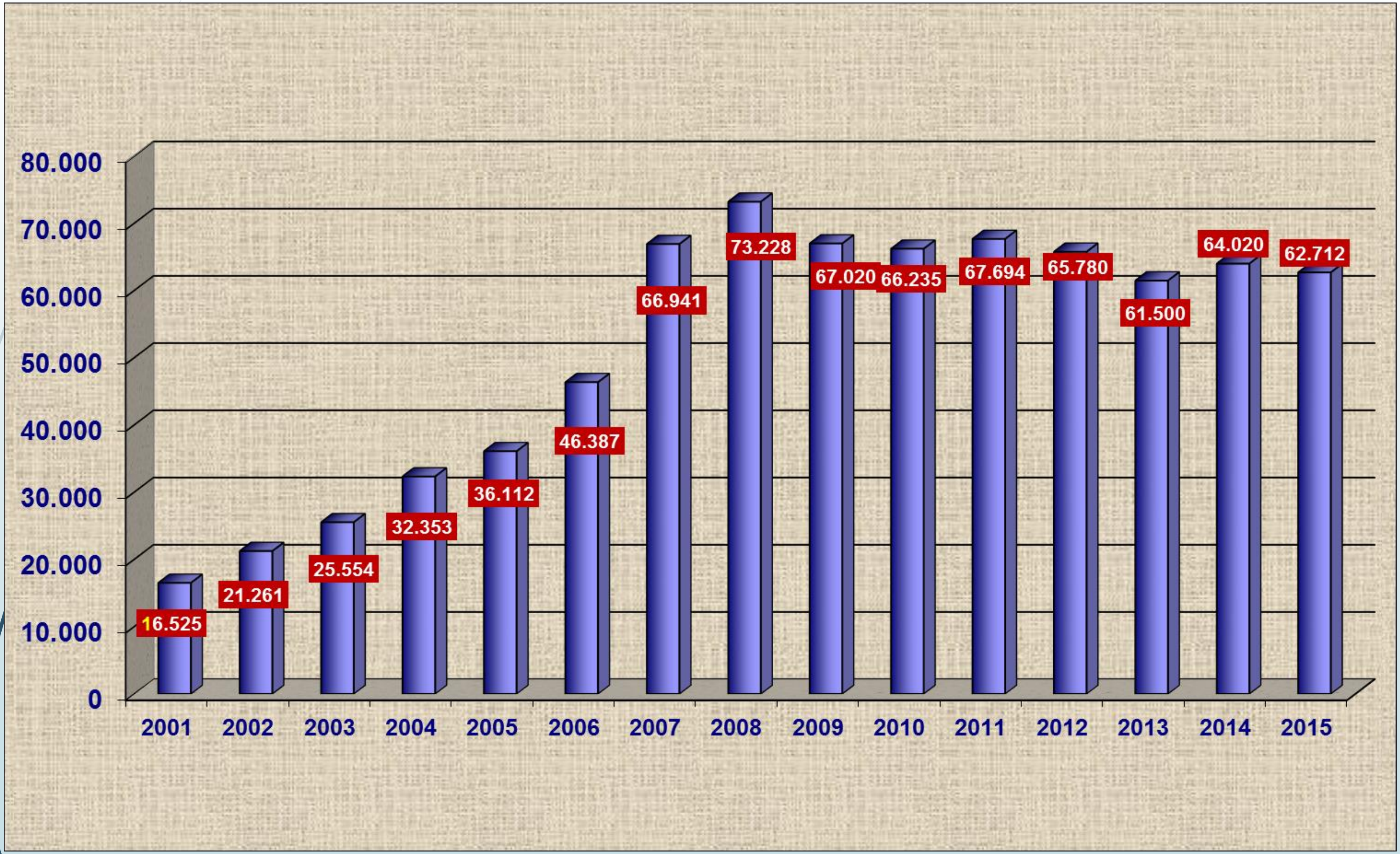
Greek Shipping Finance Market

- 51 Banks finance Greek Shipping with a total portfolio of US$62.712 billion
- Major banks exit of reduce their shipping portfolios
- The top 10 banks held 53% of said portfolio
- Greek Banks total portfolio in Greek Shipping held 15%
- Greek Banks reduced their exposure to Greek Shipping by 15,22% compared to 2014

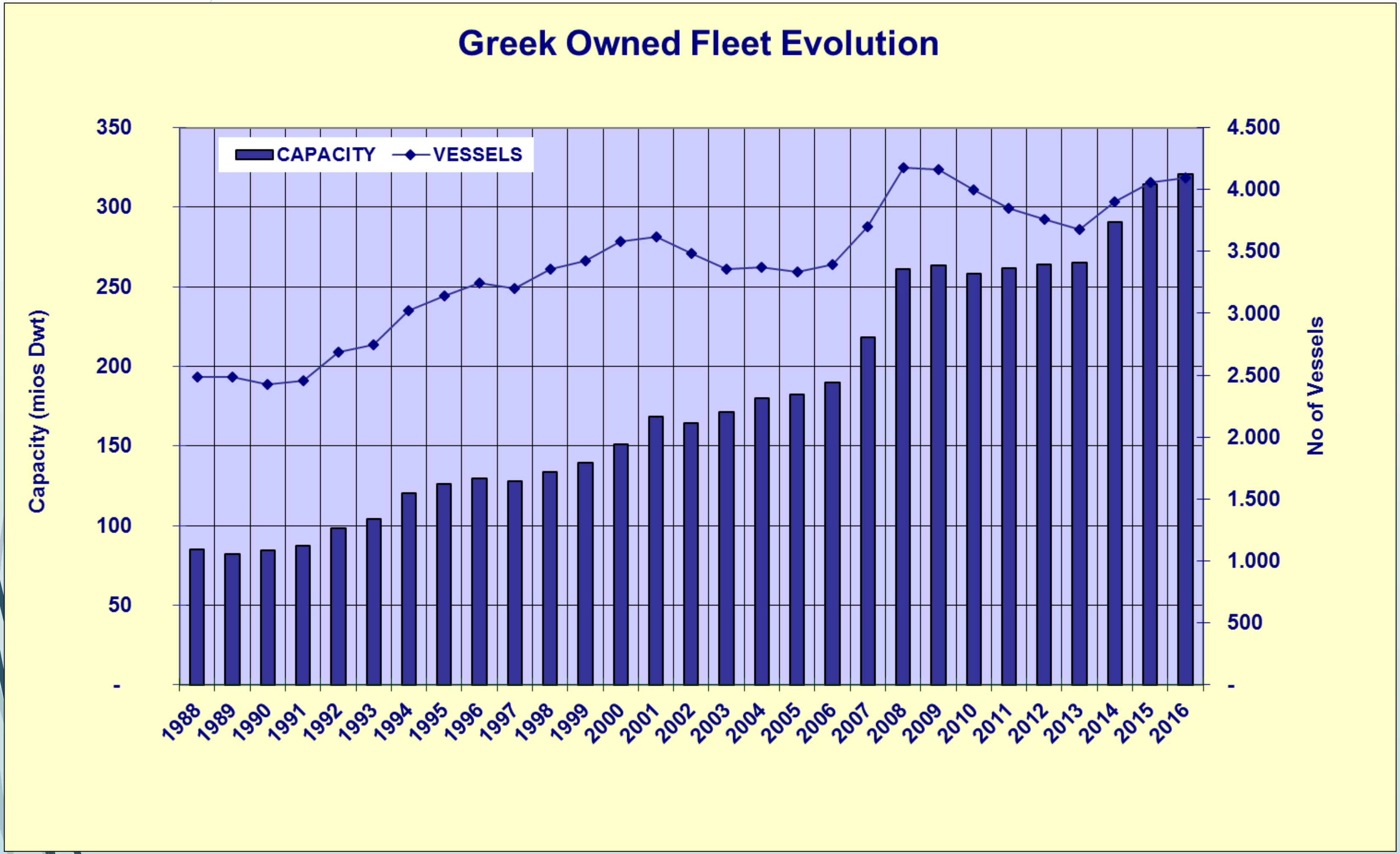
Shipping Finance Sources



Banks Financing Evolution in Greek Shipping



Evolution of Greek owned fleet



The big question….

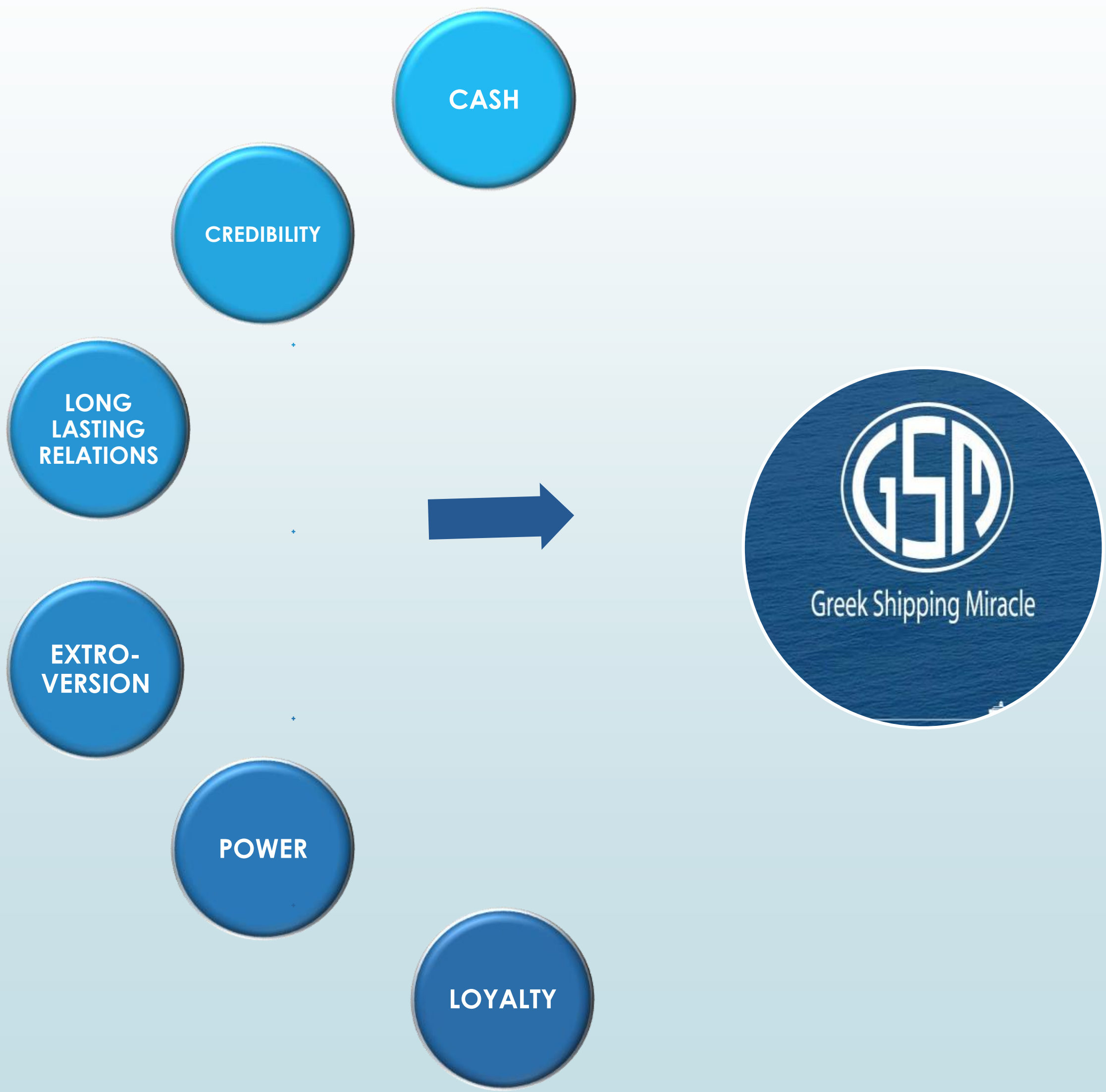
How it is possible that members of a small European nation of 11m people operate the biggest fleet in the world surpassing economic giants like Japan, China or the United States???


Does Greek blood contain sea water???

The Key Characteristics

- Greek Shipping is competitive, flexible with quick reactions.
- It manages to adapt in continuously newly conditions.
- International market
- Raising funds from foreign banks and capital markets.
- Capable of taking advantage of the "crisis"
- Top shipping nation of E.U.
- Continuous fleet renewal
- Diversification in specialized markets (LNG, Offshore)
- Training of its executives

The Secret of Success

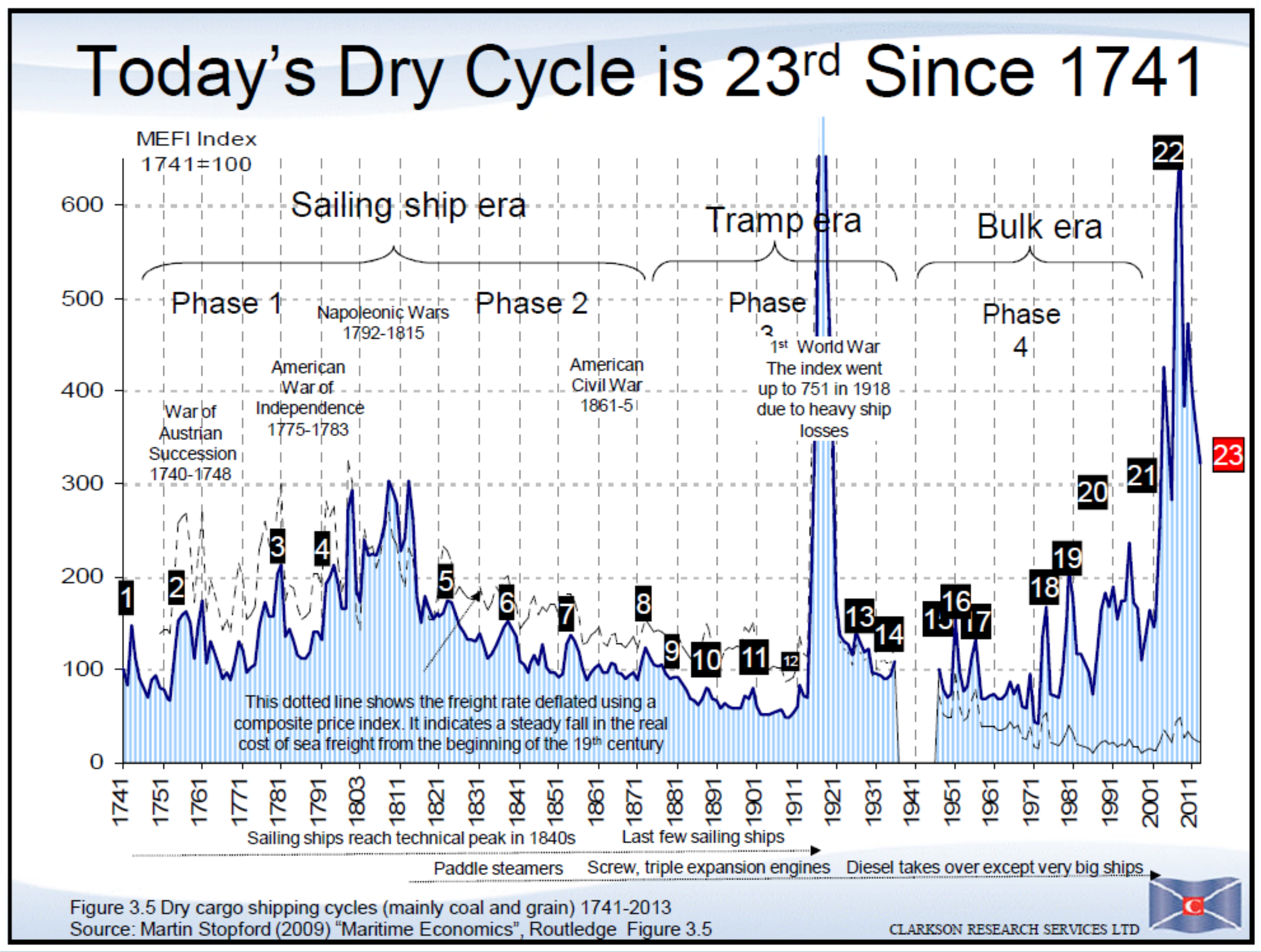


"In International Shipping Industry you feel like business"

Shipping – Main Characteristics

Volatility/Cyclicality

Shipping Cycles



Shipping Cycles (cont.)

Figure 3.6: Length of shipping cycles 1740-2021 ?

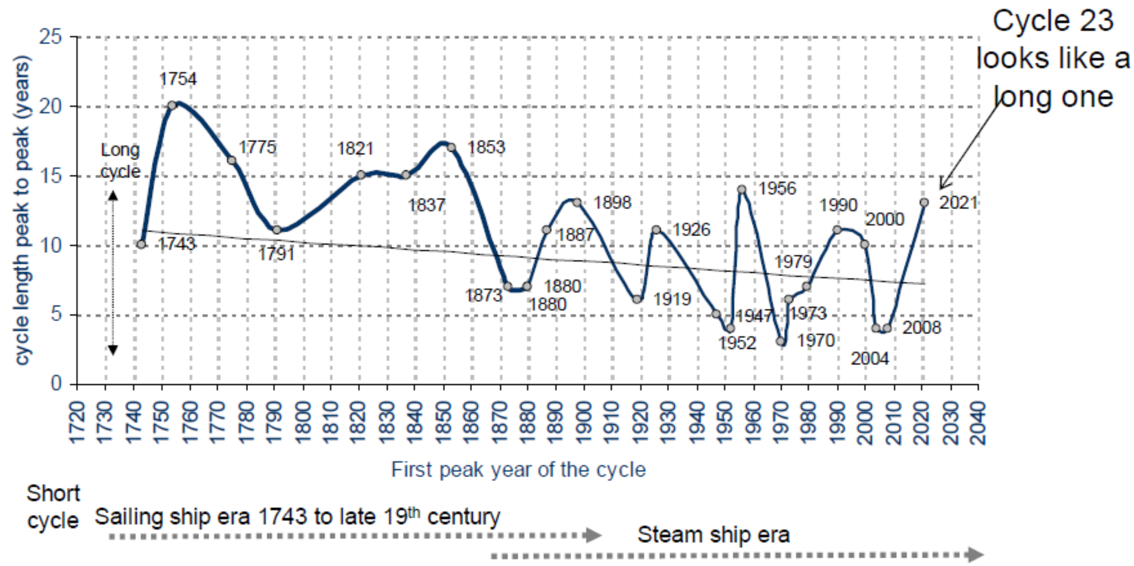


Figure 3.6 Length of shipping cycles 1740-2007
Source: compiled by Martin Stopford from various sources

This chart shows the length of shipping cycles in Table 3.1, indicating the first year of the cycle and its length (peak to peak) in years. Since 1952 the average cycle has lasted 7.7 years. The 2003 cycle was completed in 2008 (while the book was with the publishers)

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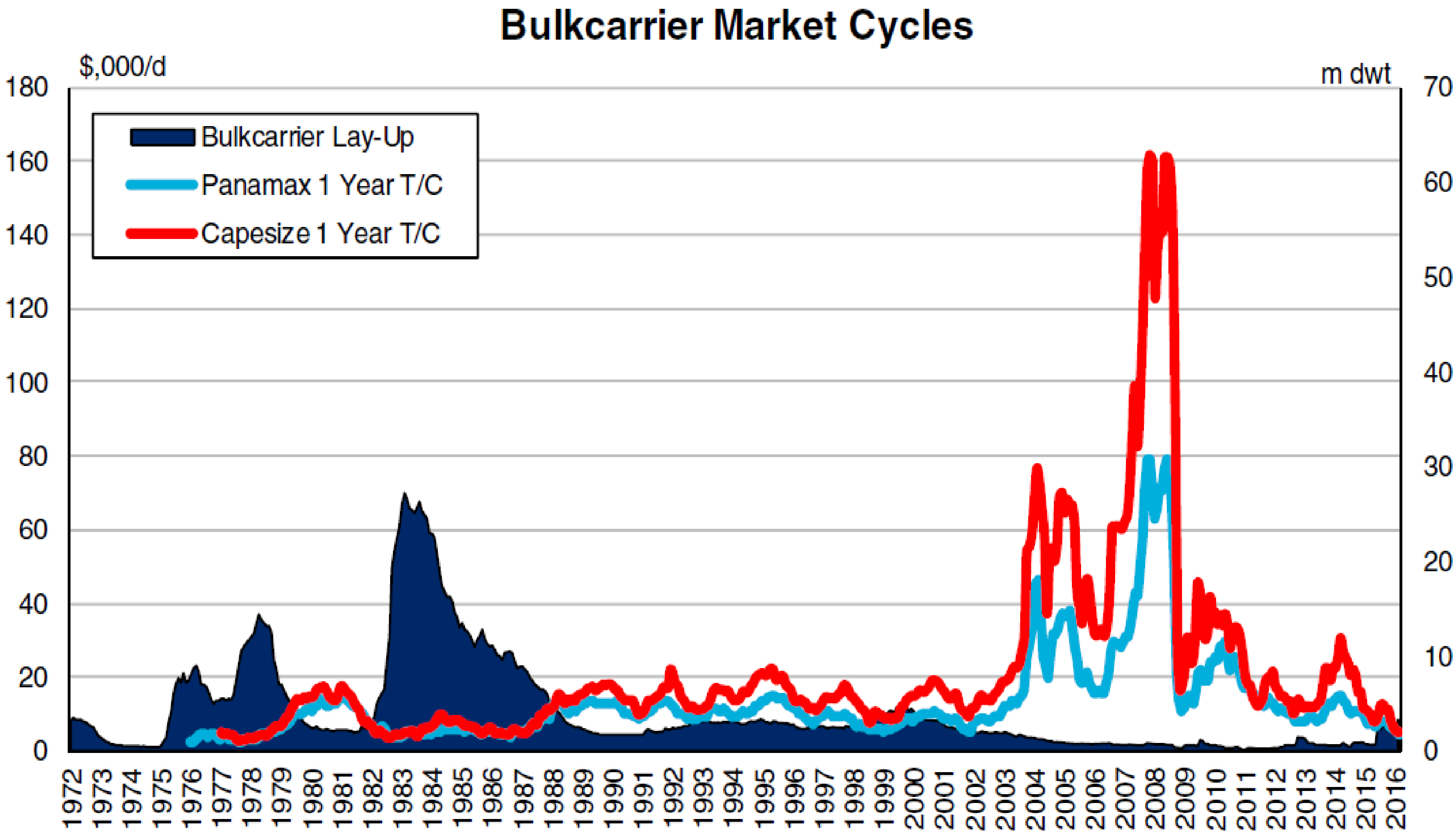
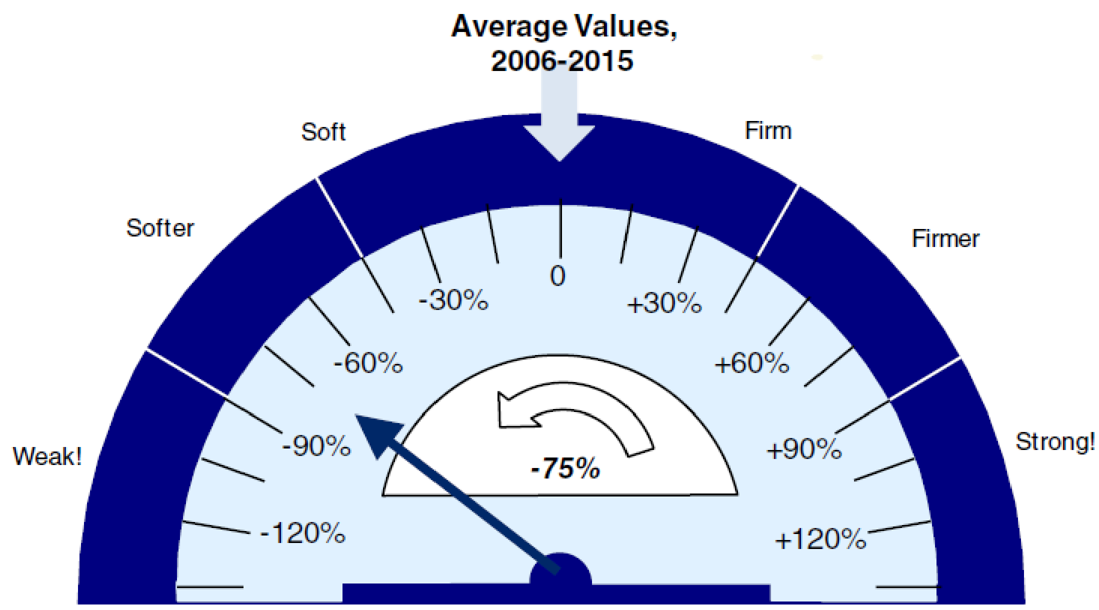
What about the shipping markets today???

Dry Bulk Market



Source: Clarksons Research

Dry Bulk Market

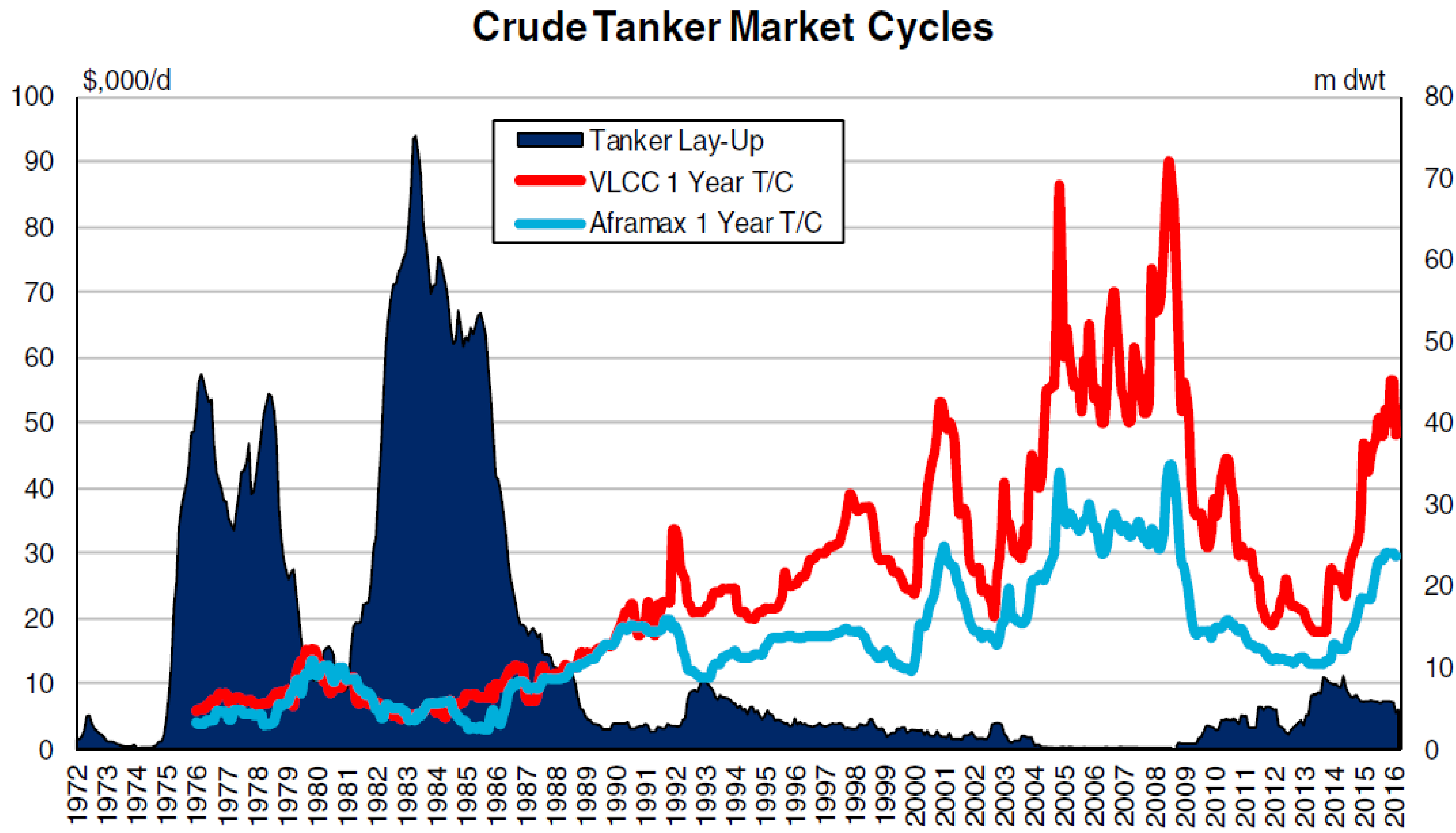


Where are we in the Bulkcarrier Cycle?

Ship by Type	Market Rate Indicator	2006-15 Average Value	2015 Market Rate	2015 % diff. from Average	2016 YTD Market Rate	2016 YTD % diff. from Average	This Year...	
Capesize (170k dwt)	Spot ($/day)	40,623	9,060	-78%	3,262	-92%	*-14%*	*Worse*
	1 year t/c ($/day)	40,797	10,049	-75%	5,331	-87%	*-12%*	*Worse*
	5 year old ($m.)	60.3	25.0	-59%	23.8	-61%	*-2%*	*Bit Worse*
Capesize Average				-71%		-80%	*-9%*	*Bit Worse*
Panamax (75k dwt)	Spot ($/day)	19,340	7,335	-62%	4,916	-75%	*-13%*	*Worse*
	1 year t/c ($/day)	22,685	7,492	-67%	5,108	-77%	*-11%*	*Worse*
	5 year old ($m.)	36.2	14.0	-61%	13.0	-64%	*-3%*	*Bit Worse*
Panamax Average				-63%		-72%	*-9%*	*Bit Worse*
Supramax (52k dwt)	Trip ($/day)	19,835	6,578	-67%	3,356	-83%	*-16%*	*Worse*
	1 year t/c ($/day)	20,191	7,620	-62%	4,667	-77%	*-15%*	*Worse*
	5 year old ($m.)	32.0	13.5	-58%	12.0	-62%	*-5%*	*Bit Worse*
Supramax Average				-62%		-74%	*-12%*	*Worse*
Dry Bulk Average				-65%		-75%	*-10%*	*Bit Worse*

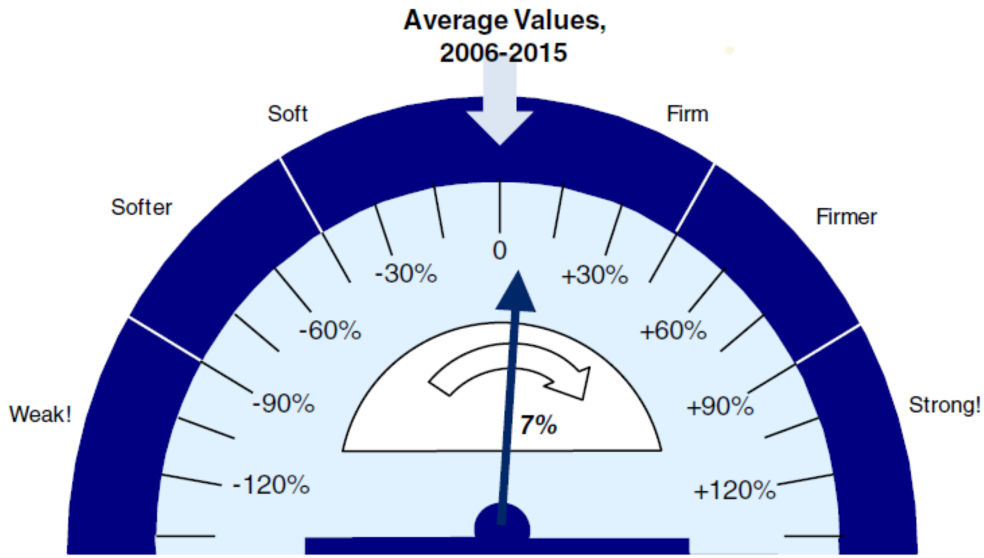
Πηγή: Clarksons

Tanker Market



Source: Clarksons Research

Tanker Market

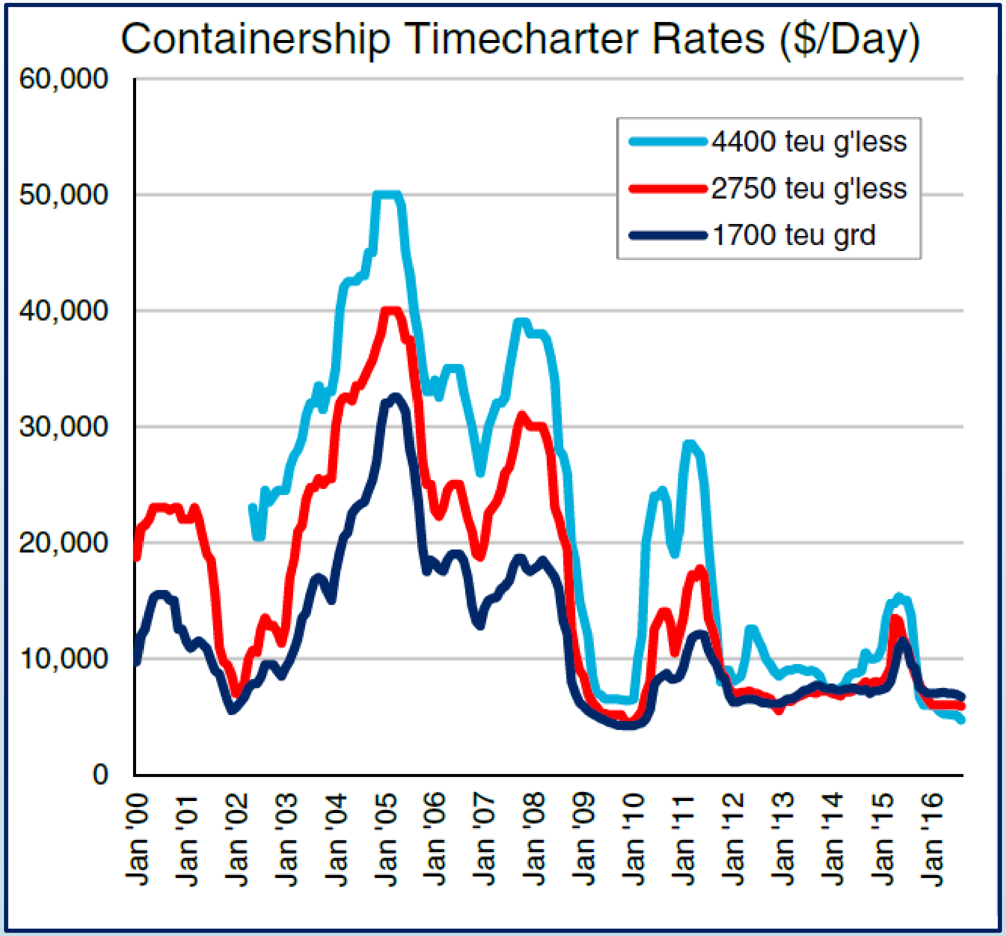


Where are we in the Tanker Cycle ?

Ship by Type	Market Rate Indicator	2006-15 Average Value	2015 Market Rate	2015 % diff. from Average	2016 YTD Market Rate	2016 YTD % diff. from Average	This Year...	
VLCC	Spot ($/day)	43,583	64,846	49%	59,417	36%	*-12%*	*Worse*
	1 year t/c ($/day)	40,821	48,433	19%	52,667	29%	*10%*	*Better*
	5 year old ($m)	90.8	80.0	-12%	76.0	-16%	*-4%*	*Bit Worse*
VLCC Average				19%		16%	*-2%*	*Bit Worse*
Suezmax	Spot ($/day)	35,031	46,713	33%	41,067	17%	*-16%*	*Worse*
	1 year t/c ($/day)	30,529	35,875	18%	37,444	23%	*5%*	*Bit Better*
	5 year old ($m)	63.3	60.0	-5%	57.0	-10%	*-5%*	*Bit Worse*
Suezmax Average				15%		10%	*-5%*	*Bit Worse*
Aframax	Spot ($/day)	35,031	37,954	8%	30,302	-14%	*-22%*	*Worse!*
	1 year t/c ($/day)	22,744	26,712	17%	29,778	31%	*13%*	*Better*
	5 year old ($m)	47.4	46.0	-3%	40.0	-16%	*-13%*	*Worse*
Aframax Average				8%		1%	*-7%*	*Bit Worse*
Clean Products (30k dwt)	Spot ($/day)	16,813	21,536	28%	16,676	-1%	*-29%*	*Worse!*
	1 year t/c ($/day)	17,862	17,769	-1%	18,194	2%	*2%*	*Bit Better*
	5 year old ($m)	33.6	29.0	-14%	27.5	-18%	*-4%*	*Bit Worse*
Clean Products Average				5%		-6%	*-10%*	*Worse*
Tanker Average				13%		7%	*-6%*	*Bit Worse*

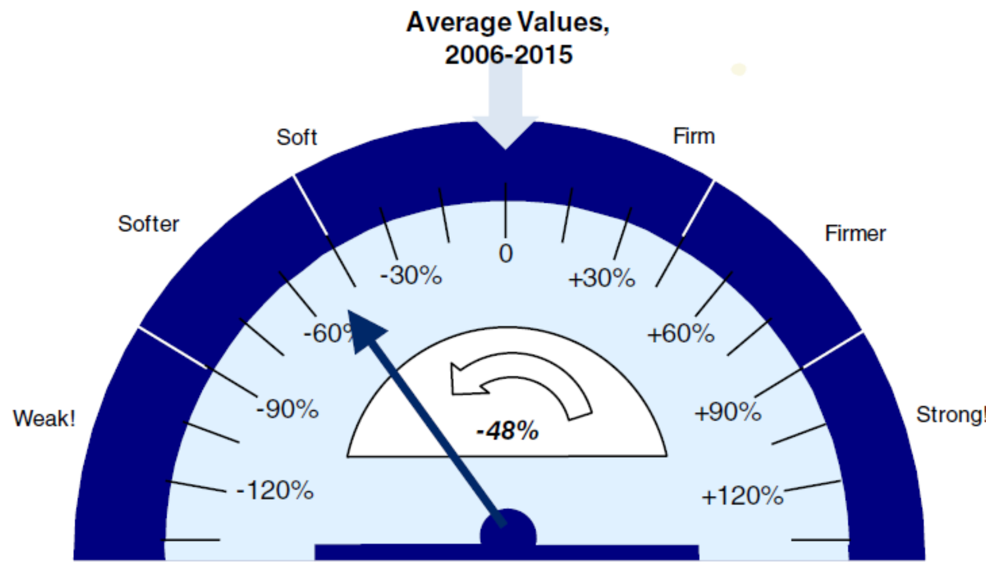
Πηγή: Clarksons

Container Market



Πηγή: Clarksons

Container Market



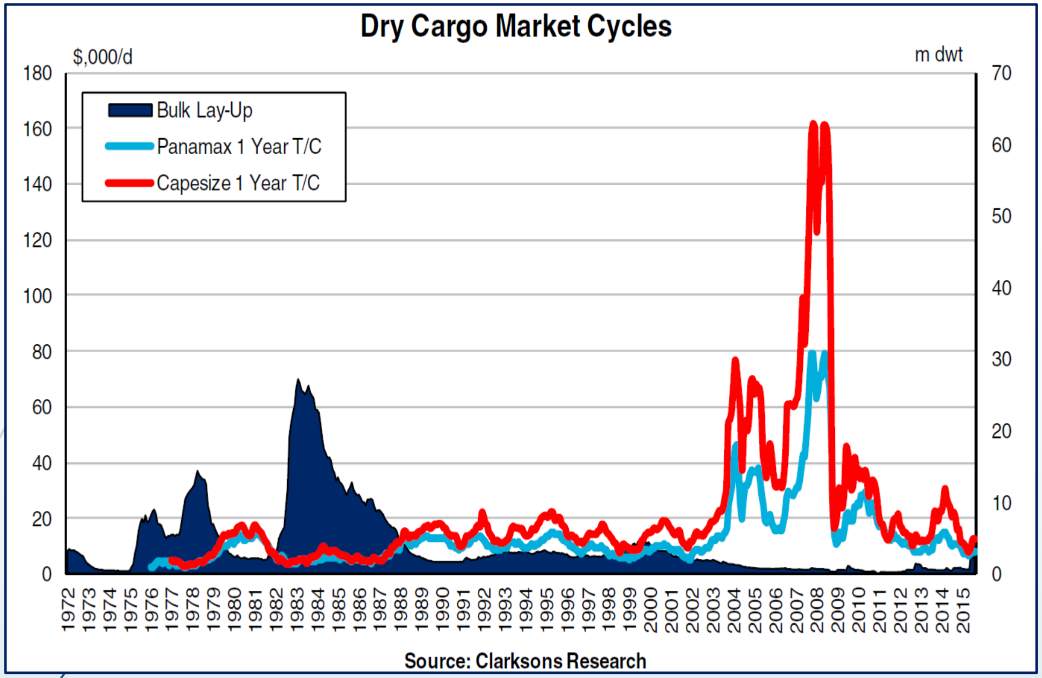
Where are we in the Containership Cycle ?

Ship by Type	Market Rate Indicator	2006-15 Average Value	2015 Market Rate	2015 % diff. from Average	2016 YTD Market Rate	2016 YTD % diff. from Average	This Year...	
1,000 teu geared	1 year t/c ($/day)	7,846	8,220	5%	6,475	-17%	-22%	Worse!
	10 year old ($m.)	10.2	6.0	-41%	4.8	-53%	-12%	Worse
				-18%		-35%	-17%	Worse
1,700 teu geared	1 year t/c ($/day)	9,904	10,825	9%	7,000	-29%	-39%	Worse!!
	10 year old ($m.)	14.8	8.5	-43%	7.0	-53%	-10%	Worse
				-17%		-41%	-24%	Worse!
2,000 teu gearless	1 year t/c ($/day)	10,592	11,339	7%	6,650	-37%	-44%	Worse!!
	10 year old ($m.)	16.7	8.5	-49%	7.0	-58%	-9%	Bit Worse
				-21%		-48%	-27%	Worse!
2,750 teu gearless	1 year t/c ($/day)	13,042	13,544	4%	6,000	-54%	-58%	Worse!!
	10 year old ($m.)	22.1	11.0	-50%	9.0	-59%	-9%	Bit Worse
				-23%		-57%	-33%	Worse!!
4,400 teu gearless	1 year t/c ($/day)	18,222	15,660	-14%	5,875	-68%	-54%	Worse!!
	10 year old ($m.)	21.2	12.0	-43%	9.5	-55%	-12%	Worse
				-29%		-61%	-33%	Worse!!
Container Charter Market Average				-22%		-48%	-27%	Worse!

Πηγή: Clarksons

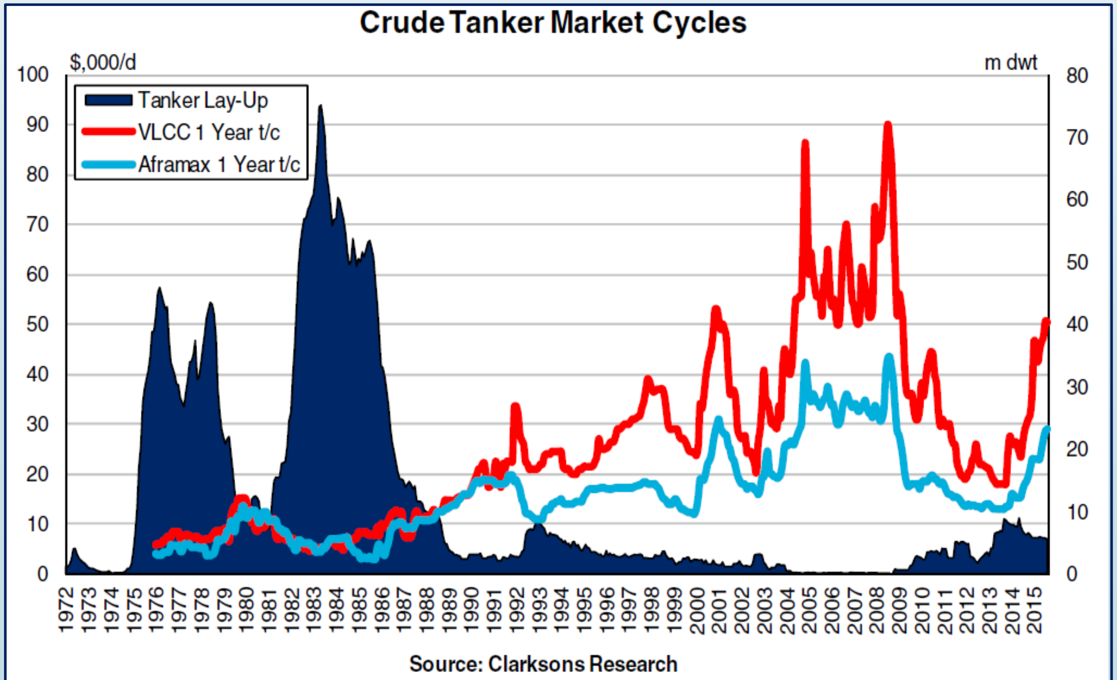
Is there room for investment and/or expansion in Greek Shipping?

Investment Environment in Greek


Dry Cargo Market Cycles
$,000/d
m dwt
Bulk Lay-Up
Panamax 1 Year T/C
Capesize 1 Year T/C
Source: Clarksons Research

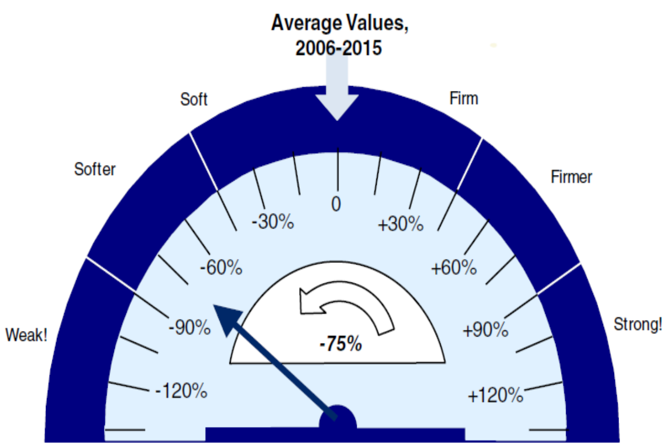
YES

MAYBE


Crude Tanker Market Cycles
$,000/d
m dwt
Tanker Lay-Up
VLCC 1 Year t/c
Aframax 1 Year t/c
Source: Clarksons Research

The Prospects

Opportunities Versus Threats



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	5 year old ($m.)	60.3	25.0	-59%	23.8	-61%	-2%	Bit Worse
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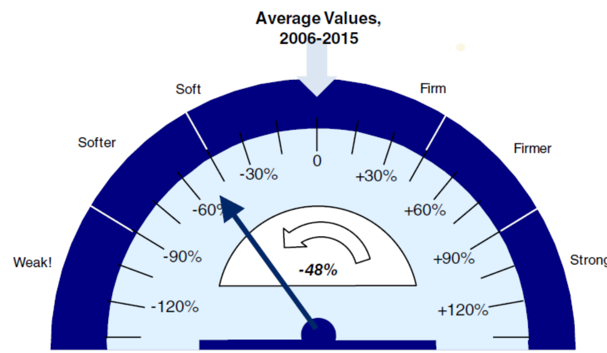
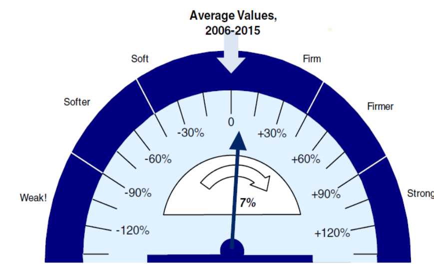
Dry Bulk Average				-65%		-75%	-10%	Bit Worse



Where are we in the Containership Cycle ?

Ship by Type	Market Rate Indicator	2006-15 Average Value	2015 Market Rate	2015 % diff. from Average	2016 YTD Market Rate	2016 YTD % diff. from Average	This Year...	
1,000 teu geared	1 year t/c ($/day)	7,846	8,220	5%	6,475	-17%	-22%	Worse!
	10 year old ($m.)	10.2	6.0	-41%	4.8	-53%	-12%	Worse
				-18%		-35%	-17%	Worse
1,700 teu geared	1 year t/c ($/day)	9,904	10,825	9%	7,000	-29%	-39%	Worse!!
	10 year old ($m.)	14.8	8.5	-43%	7.0	-53%	-10%	Worse
				-17%		-41%	-24%	Worse!
2,000 teu gearless	1 year t/c ($/day)	10,592	11,339	7%	6,650	-37%	-44%	Worse!!
	10 year old ($m.)	16.7	8.5	-49%	7.0	-58%	-9%	Bit Worse
				-21%		-48%	-27%	Worse!
2,750 teu gearless	1 year t/c ($/day)	13,042	13,544	4%	6,000	-54%	-58%	Worse!!
	10 year old ($m.)	22.1	11.0	-50%	9.0	-59%	-9%	Bit Worse
				-23%		-57%	-33%	Worse!!
4,400 teu gearless	1 year t/c ($/day)	18,222	15,660	-14%	5,875	-68%	-54%	Worse!!
	10 year old ($m.)	21.2	12.0	-43%	9.5	-55%	-12%	Worse
				-29%		-61%	-33%	Worse!!
Container Charter Market Average				-22%		-48%	-27%	Worse!

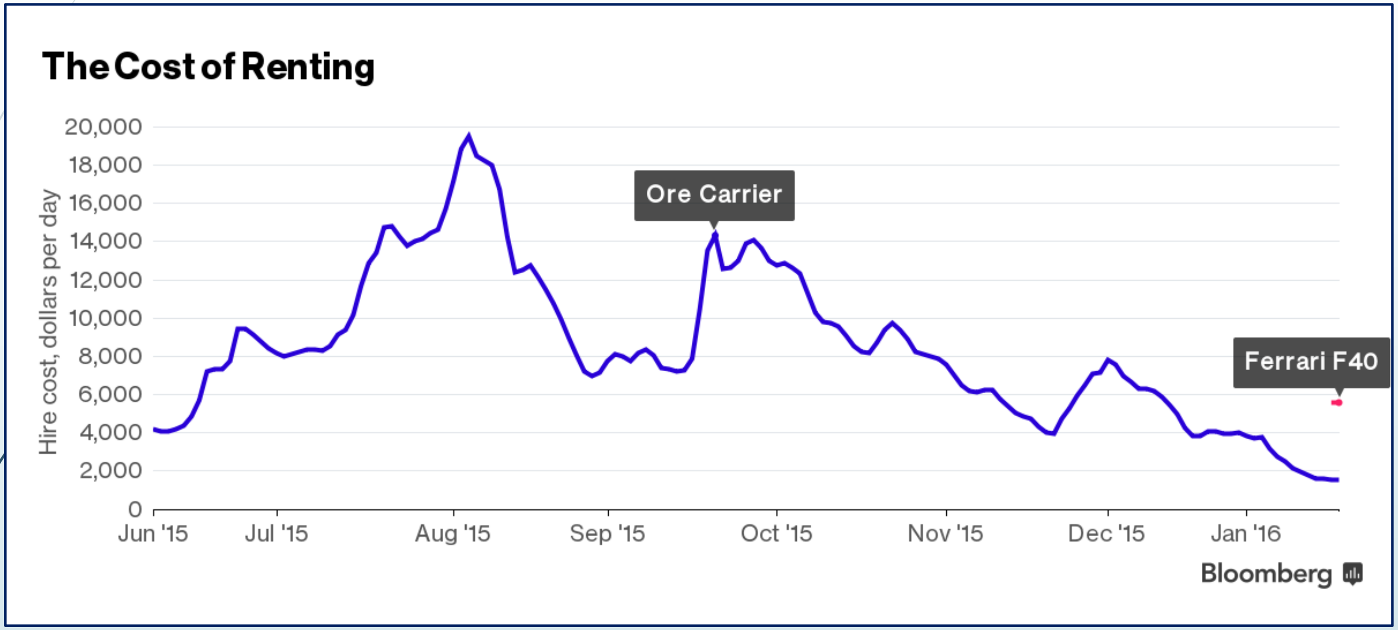


Where are we in the Tanker Cycle ?

Ship by Type	Market Rate Indicator	2006-15 Average Value	2015 Market Rate	2015 % diff. from Average	2016 YTD Market Rate	2016 YTD % diff. from Average	This Year...	
VLCC	Spot ($/day)	43,583	64,846	49%	59,417	36%	-12%	Worse
	1 year t/c ($/day)	40,821	48,433	19%	52,667	29%	10%	Better
	5 year old ($m)	90.8	80.0	-12%	76.0	-16%	-4%	Bit Worse
VLCC Average				19%		16%	-2%	Bit Worse
Suezmax	Spot ($/day)	35,031	46,713	33%	41,067	17%	-16%	Worse
	1 year t/c ($/day)	30,529	35,875	18%	37,444	23%	5%	Bit Better
	5 year old ($m)	63.3	60.0	-5%	57.0	-10%	-5%	Bit Worse
Suezmax Average				15%		10%	-5%	Bit Worse
Aframax	Spot ($/day)	35,031	37,954	8%	30,302	-14%	-22%	Worse!
	1 year t/c ($/day)	22,744	26,712	17%	29,778	31%	13%	Better
	5 year old ($m)	47.4	46.0	-3%	40.0	-16%	-13%	Worse
Aframax Average				8%		1%	-7%	Bit Worse
Clean Products (30k dwt)	Spot ($/day)	16,813	21,536	28%	16,676	-1%	-29%	Worse!
	1 year t/c ($/day)	17,862	17,769	-1%	18,194	2%	2%	Bit Better
	5 year old ($m)	33.6	29.0	-14%	27.5	-18%	-4%	Bit Worse
Clean Products Average				5%		-6%	-10%	Worse
Tanker Average				13%		7%	-6%	Bit Worse

Capesize or Ferrari F40 ????

According to Bloomberg.....



.....The daily charter rate of a dry bulk carrier vessel today is less than the cost of renting a Ferrari F40.....

Despite the fact that shipping fundamentals change, one thing remains unchanged…

….Greeks are still present globally

Thank you for your kind attention

Advisor to: 国家开发银行 China Development Bank

Piraeus Office
Chandris Building
95 Akti Miaouli, Piraeus 18538 Greece
Tel: +30 210 4291226, Fax: +30 210 4291230
E. mail@xrtc.gr, george.xiradakis@xrtc.gr, www.xrtc.gr ,