

# Shipbuilding Market Overview

Cargotec Capital Markets Day, Helsinki, 17<sup>th</sup> November 2011. Steve Gordon,

Clarkson Research Services Limited (CRSL)

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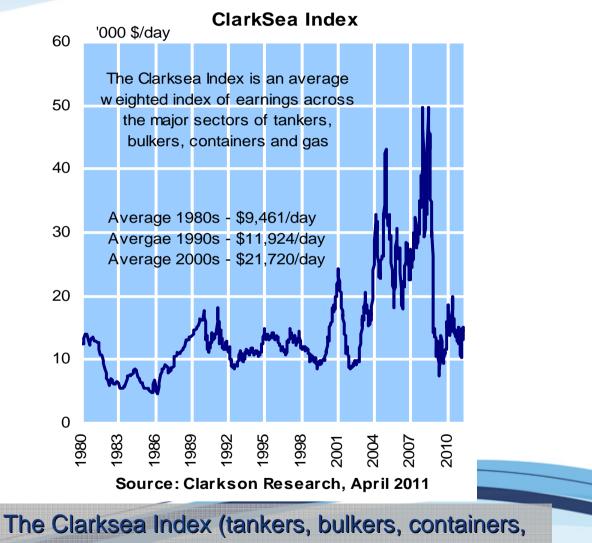
- **1.** Market Position, Seaborne Trade, World Fleet
- 2. Regional Shipbuilding Capacity
- 3. Ship Type Investment & Outlook
- 4. Summary





#### **Market Position: Clarksea Index**

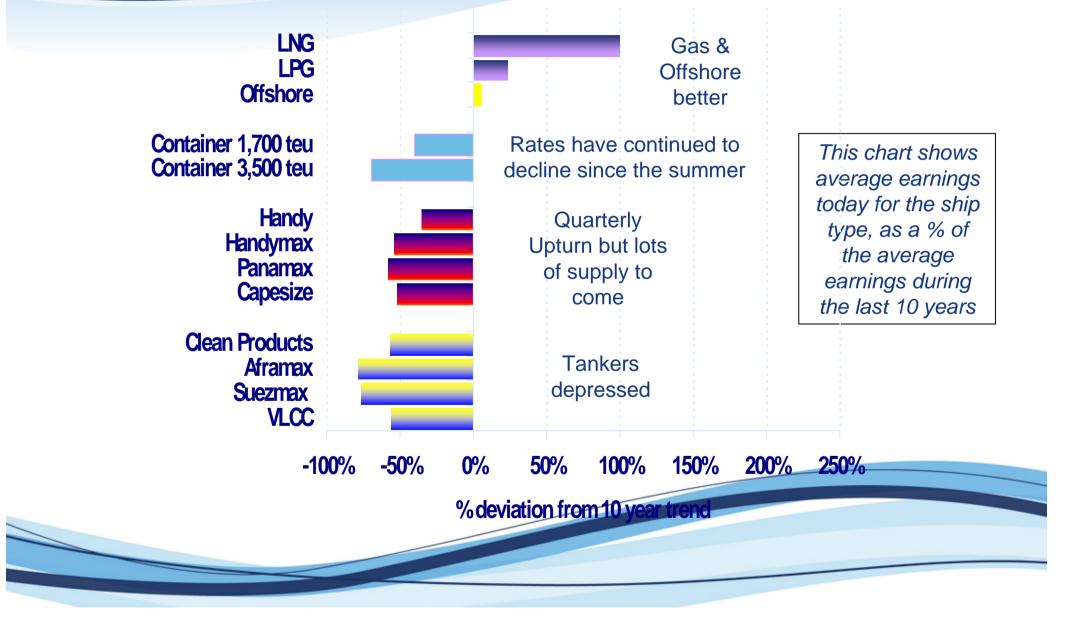
- Three very different decades!
- Between the end of May 2008 and mid-April 2009, the Index fell from almost \$50,000/day to a low of \$7,350/day.
- 2009 & 2010 proved better than expected and low interest rates helped.
- Sentiment now weaker as of 11<sup>th</sup> November 2011, \$11,142 / day



gas) Source: Clarkson Research

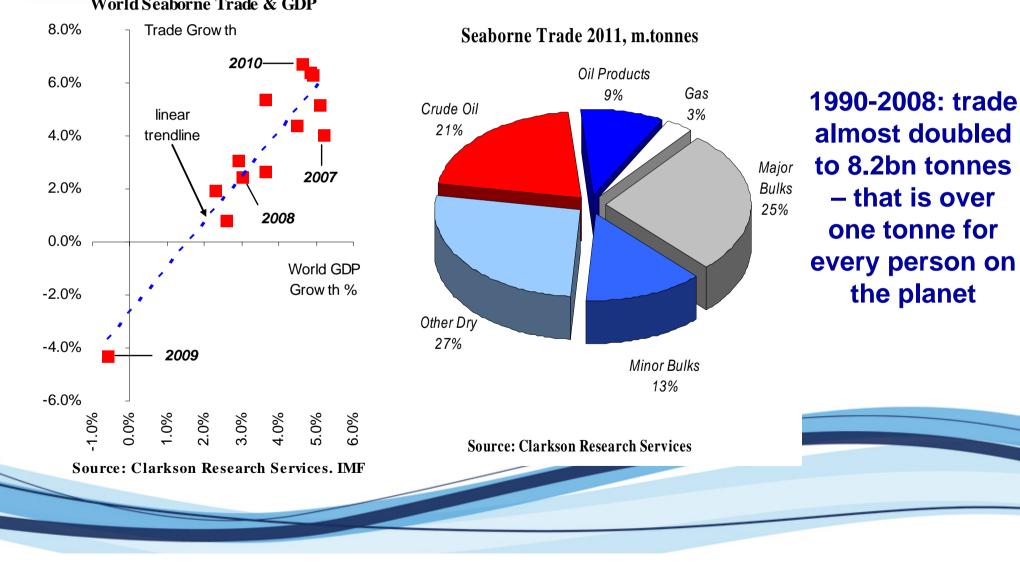


#### **Cycle Position November 2011**





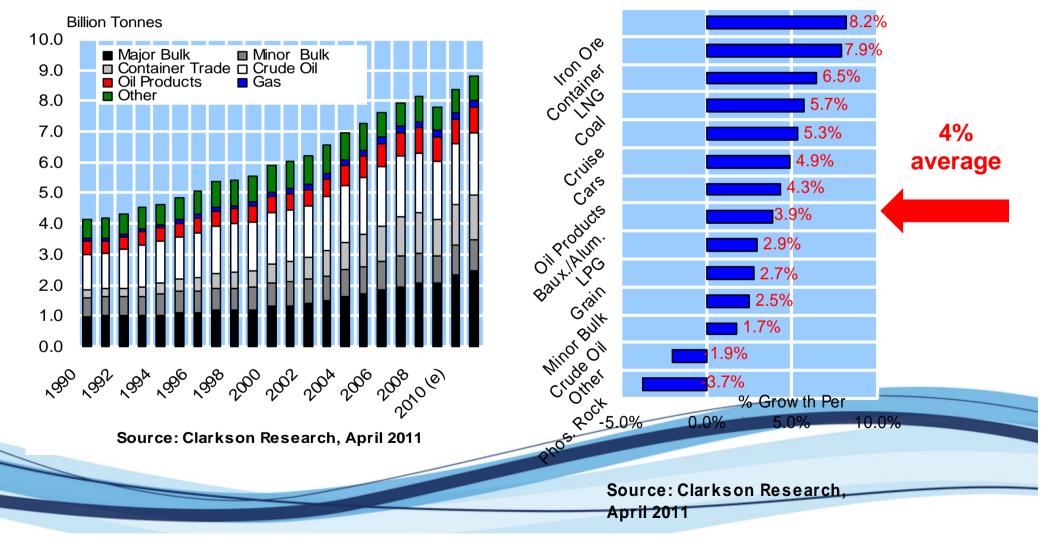
#### The World Economy - Sea trade cycles generally follow cycles in world GNP – but not precisely. World Seaborne Trade & GDP





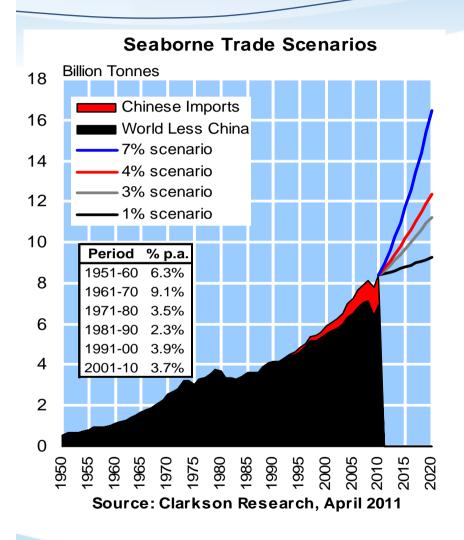
#### **World Seaborne Trade**

#### **Global Seaborne Trade**



2000-2010 Trade Growth





#### **Seaborne Trade Outlook**

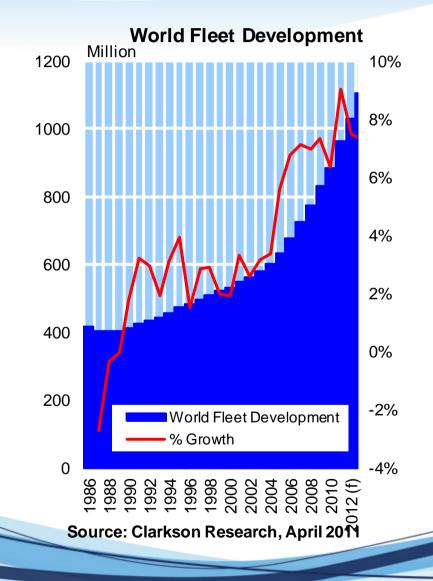
- We expect trade to grow by around 5% in 2011 but there are lots of risks given economic developments / uncertainty and there is a lag on trade data.
- For planning purposes, 4% growth in trade over the next decade does not seem unreasonable.



#### Age Profile –11% of fleet above 25 years Deliveries Relatively few vessels built in the 1980s so limited replacement requirement БЧ Million



#### World Fleet 1986 - 2012



#### Growth Rates:

- This year the fleet moved past the billion GT mark
- Fleet growth has moved up to 7-8% in recent years and this is also forecast for 2011 and 2012.
- This is roughly double long term trade growth and more than the 5% trade growth expected this year.

Graph in GT



1. Market Position, Seaborne Trade, World Fleet

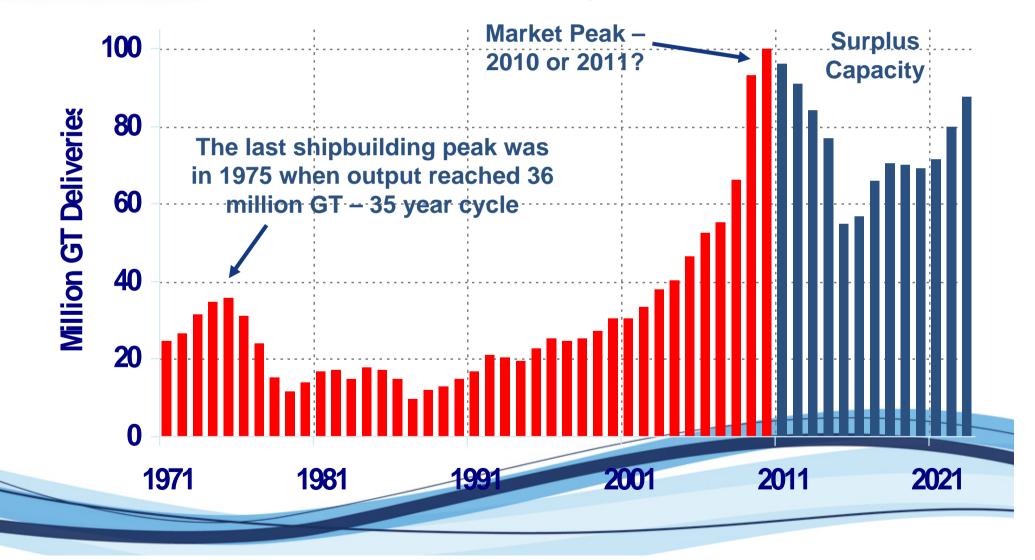
#### **2.** Regional Shipbuilding Capacity

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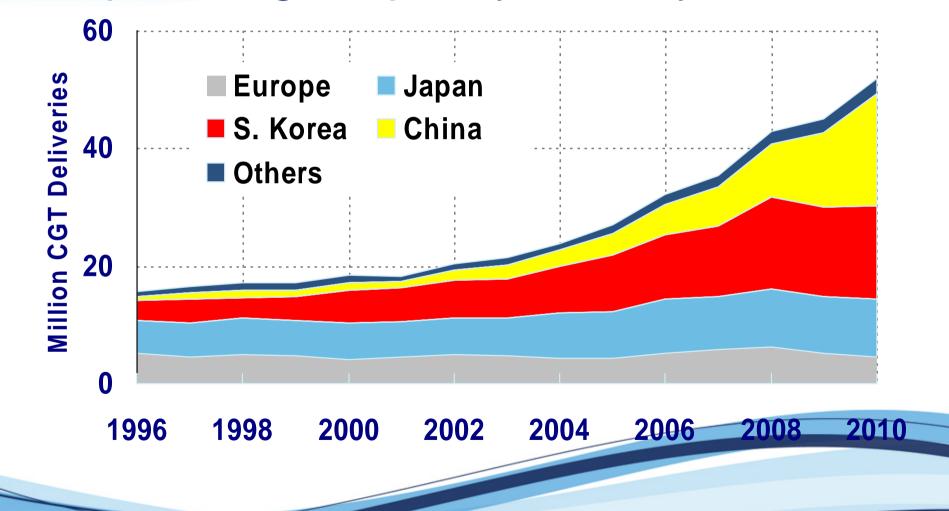


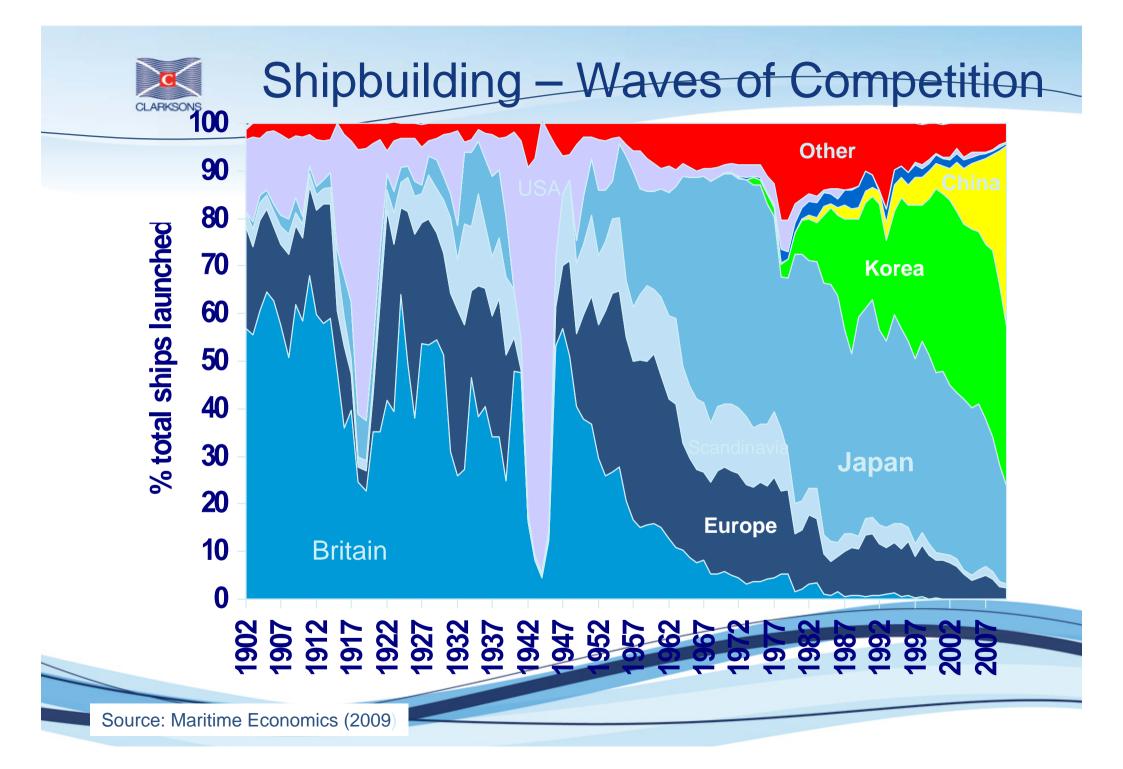
#### World Shipbuilding & Scenario





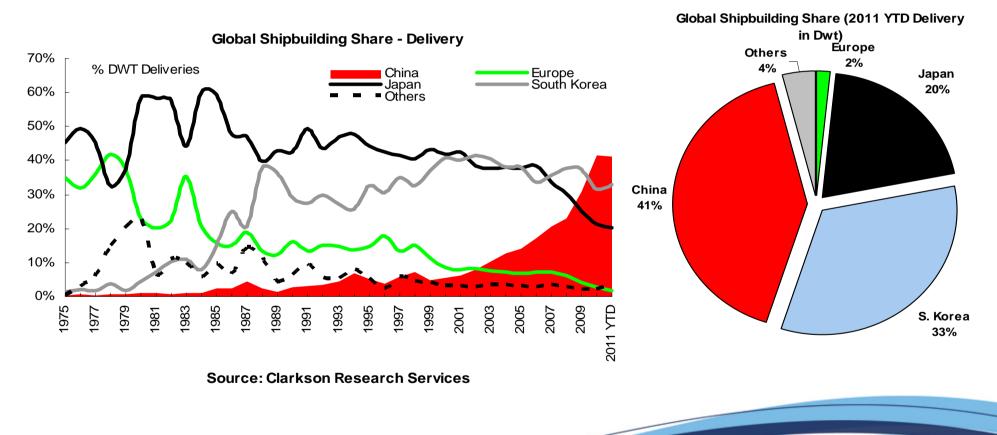
#### Shipbuilding Output by Country & CGT





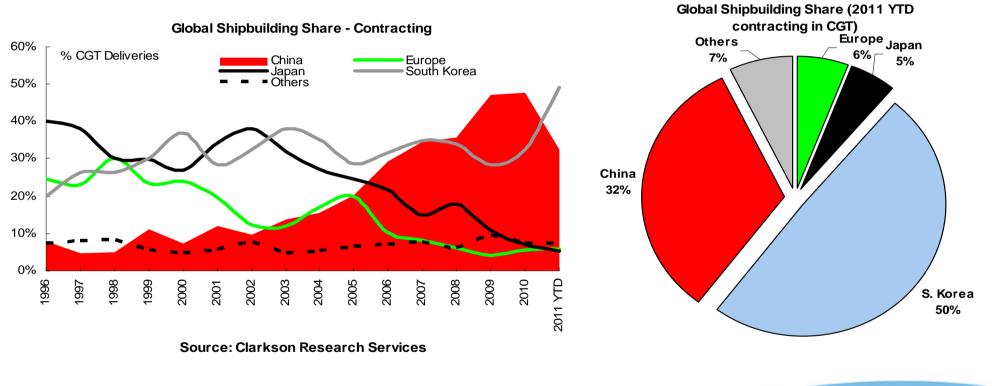


#### China takes the lead.....





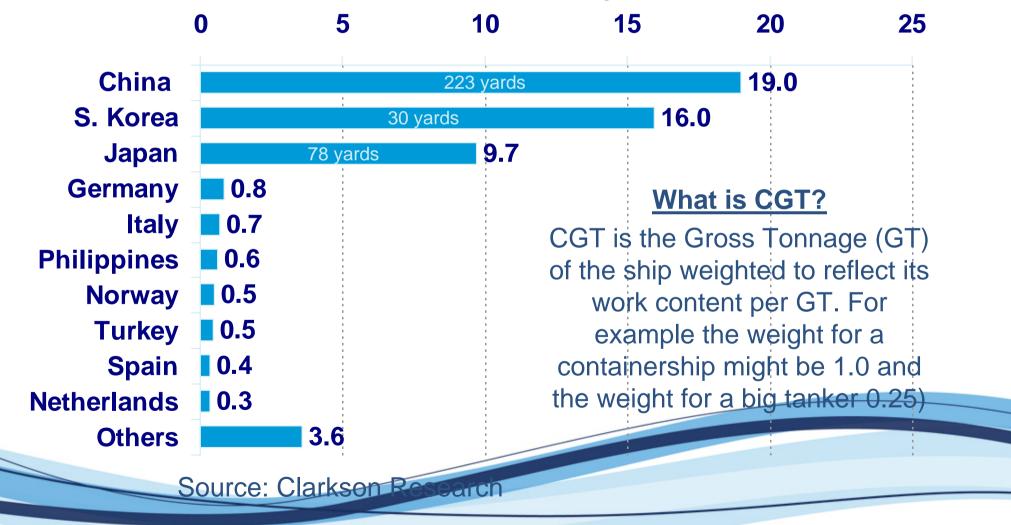
## South Korean success in high value orders





## World Shipbuilding by Country 2010

**Million CGT Output 2010** 



### World Shipbuilding by Country 2011 YTD

Million CGT Output in 2011 5 20 25 Λ 10 15 14.7 China 232 vards S. Korea 13.1 31 yards Japan 7.0 68 yards What is CGT? Germany 0.4 CGT is the Gross Tonnage (GT) Italy 0.4 of the ship weighted to reflect its Norway 0.2 work content per GT. For Turkey 0.2 example the weight for a 0.2 Spain containership might be 1.0 and the weight for a big tanker 0.25) **Netherlands** 0.2 **Others** 2.4 Source: Clarkson R esearc



## World Shipbuilding Capacity 2010 - CGT

#### World Shipbuilding Production by Country

COUNTRY	Tankers	Tankers Bulkers Conta		Gas	her	Total Output
	M CGT	M CGT	M CGT	M CGT	M CGT	M CGT
China	3.9	10.3	1.7	0.1	3.0	19.0
S. Korea	4.6	3.0	4.8	2.2	1.4	16.0
Japan	2.3	4.7	0.8	0.6	1.3	9.7
Germany	0.0	0.0	0.2	0.0	0.6	0.8
Italy	0.0	0.0	0.0	0.0	0.7	0.7
Philippines	0.1	0.3	0.2	0.0	0.0	0.6
Norway	0.0	0.0	0.0	0.0	0.5	0.5
Turkey	0.3	0.0	0.0	0.0	0.1	0.5
Spain	0.0	0.0	0.0	0.0	0.3	0.4
Netherlands	0.0	0.0	0.0	0.0	0.3	0.3
All Others	0.4	0.5	0.4	0.0	2.2	3.6
Total	11.6	18.8	8.1	3.(	) 10.5	52.0

Indicates market leader for each ship type



#### World Shipbuilding Capacity 2011 YTD - CGT

World Shipbuilding Production by Country											
COUNTRY	Tanker	Bulk Carrier	Containership	Gas	Others	Total					
China P.R.	2.6	9.3	0.7	0.1	2.1	14.7					
South Korea	3.3	3.6	4.2	0.7	1.4	13.1					
Japan	1.6	4.2	0.4	0.2	0.6	7.0					
Philippines	0.0	0.6	0.0	0.0	0.0	0.6					
Italy	0.0	0.0	0.0	0.0	0.4	0.4					
Germany	0.0	0.0	0.0	0.0	0.3	0.4					
Taiwan	0.0	0.1	0.2	0.0	0.0	0.3					
Vietnam	0.0	0.2	0.0	0.0	0.1	0.3					
Norway	0.0	0.0	0.0	0.0	0.2	0.2					
Turkey	0.1	0.0	0.1	0.0	0.0	0.2					
All Others	0.2	0.2	0.1	0.0	1.1	1.6					
Total	7.8	18.1	5.6	1.0	6.3	38.8					





	COUNTRY BUILDER Bulkers Container Gas Other Tankers Total Cont % tot   1 South Korea Daewoo 217 1,468 606 235 612 3,138 47%   2 South Korea Hyundai H.I. 467 1,304 263 446 488 2,968 44%   3 South Korea Samsung H.I. - 961 998 356 299 2,614 37%   4 South Korea Hyundai Samho 249 408 88 - 539 1,284 32%   5 China P.R. Jiangnan Changxing 50 377 - - 427 88%   6 Taiwan CSBC - 312 81 13 52 459 68%   8 China P.R. Jiangsu New YZJ 391 309 - - 700 44%   9 Japan Mitsubishi H.I. - 207 -										
	COUNTRY	BUILDER	Bulkers	Container	Gas	Other	Tankers	Total	Cont % tot		
-	1 South Korea	Daewoo	217	1,468	606	235	612	3,138	47%		
	2 South Korea	Hyundai H.I.	467	1,304	263	446	488	2,968	44%		
	3 South Korea	Samsung H.I.	-	961	998	356	299	2,614	37%		
	4 South Korea	Hyundai Samho	249	408	88	-	539	1,284	32%		
	5 China P.R.	Jiangnan Changxing	50	377	-	-	-	427	88%		
	6 Taiwan	CSBC	-	325	-	-	-	325	100%		
	7 South Korea	Hanjin H.I.	-	312	81	13	52	459	68%		
	8 China P.R.	Jiangsu New YZJ	391	309	-	-	-	700	44%		
	9 Japan	Mitsubishi H.I.	-	289	233	244	-	766	38%		
	10 Philippines	HHIC-Phil. Inc.	-	207	-	-	52	260	80%		
	11 China P.R.	Guangzhou Wenchon	-	207	-	58	-	264	78%		
	12 Japan	Koyo Dock K.K.	246	190	81	-	-	517	37%		
	13 China P.R.	Dalian Shipbuilding	409	168	-	-	554	1,131	15%		
	14 South Korea	Sungdong S.B.	709	154	-	-	156	1,020	15%		
	15 Japan	Naikai S.B.	-	118	-	-	17	135	88%		
-	16 China P.R.	Jiangsu Yangzijiang	-	113	-	156	-	269	42%		
	17 Japan	Imabari S.B.	752	101	-	233	44	1,131	9%		
	18 China P.R.	Shanghai S.Y.	248	96	-	-	-	344	28%		
	19 Japan	I.H.I.	194	95	-	-	178	466	20%		
_	20 China P.R.	Zhejiang S.B.	33	78	-	15	-	126	62%		

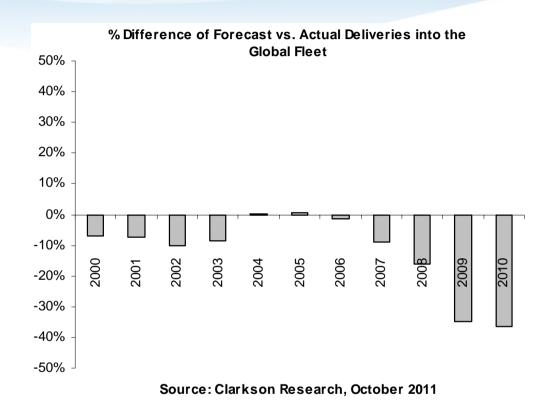


# CLARKSONS TOP Builders 2011 YTD

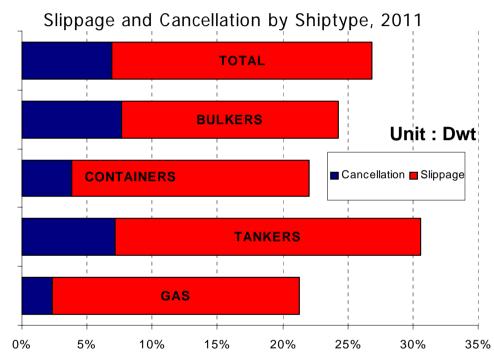
			2011 YTD O	utput - 000 CGT					
	COUNTRY	BUILDER	<b>Bulk Carrier</b>	Containership	Gas	Others	Tanker	Total	Cont % tot
	1 South Korea	Hyundai H.I.	513	1,173	83	363	641	2774	42%
	2 South Korea	Samsung H.I.	-	1,104	162	294	840	2400	46%
	3 South Korea	Daewoo	219	742	410	341	153	1866	40%
	4 South Korea	Hyundai Samho	271	898	-	114	305	1587	57%
	5 South Korea	Hyundai Mipo	438	21	17	223	493	1192	2%
	6 South Korea	STX Shipbuild.	558	120	34	-	275	987	12%
	7 China P.R.	Dalian Shipbuilding	346	49	-	-	545	941	5%
	8 South Korea	Sungdong S.B.	660	-	-	-	128	788	0%
	9 Japan	Imabari S.B.	595	-	-	99	-	694	0%
	10 China P.R.	Shanghai Waigaoqiao	403	-	-	-	181	583	0%
	11 South Korea	SPP Shipbuilding	472	-	-	-	104	575	0%
	12 Japan	Oshima S.B. Co.	566	-	-	-	-	566	0%
	13 China P.R.	Jiangsu New YZJ	492	26	-	-	-	517	5%
	14 Japan	Mitsubishi H.I.	-	248	-	174	89	511	49%
-	15 China P.R.	Dayang S.B.	440	-	-	47	-	487	0%
-	16 Japan	Universal S.B.	352	-	-	-	133	485	0%
	17 China P.R.	New Times S.B.	333	-	-	-	114	447	0%
	18 Japan	Mitsui SB	390	-	-	-	44	435	0%
	19 Japan	I.H.I.	209	47	-	-	177	433	11%
	20 China P.R.	Hudong Zhonghua	183	90	-	75	51	399	23%



#### "Non-Delivery" Trends



 In recent years around a quarter to a third of expected deliveries at the start of the year have not delivered.





#### **Investor Behaviour**

Major	No. of Vessels						V	Value \$ billion				Investment Trends			
Investors	2007	2008	2009	2010	2011*		2007	2008	2009	2010	20	011*	This Year	•••	
Greece	655	257	67	292	118		37.7	21.2	3.0	13.3		11.5	STEADY	4%	
Norway	259	104	19	119	67		19.9	10.2	0.5	5.8		7.5	<b>UP BY</b>	55%	
Denmark	103	143	14	15	37		4.1	8.6	0.4	0.3		6.7	<b>UP BY</b>	BY 2222%	
Germany	667	366	35	75	42		35.2	19.3	1.7	3.0		3.4	<b>UP BY</b>	35%	
France	103	38	11	68	27		4.4	1.8	0.1	3.1		0.9	DOWN BY	-63%	
Italy	165	102	30	18	13		8.9	6.0	1.1	2.4		0.8	DOWN BY	-59%	
Netherlands	165	99	55	43	28		4.6	2.1	1.0	2.4		0.7	DOWN BY	-64%	
Turkey	242	108	12	43	22		9.0	5.0	0.1	1.5		0.7	DOWN BY	-49%	
Russia	40	63	28	30	22		1.1	1.6	0.4	1.2		0.6	DOWN BY	-37%	
Sweden	7	10	4	14	5		1.1	1.7	0.1	0.5		0.5	<b>UP BY</b>	20%	
United Kingdom	79	35	9	26	7		1.7	2.0	0.4	1.0		0.2	DOWN BY	-75%	
Monaco	0	3	0	5	5		0.0	0.1	0.0	0.2		0.2	<b>UP BY</b>	28%	
Other Europe	246	107	41	58	19		11.0	6.0	1.2	2.1		0.3	DOWN BY	-81%	
TOTAL EUROPE	2,731	1,435	325	806	412		138.7	85.7	10.0	36.9		34.2	<b>UP BY</b>	11%	
China P.R.	391	273	230	444	136		18.5	13.8	6.9	14.5		4.4	DOWN BY	-64%	
Singapore	234	149	91	111	76		6.0	6.2	1.5	4.3		3.2	DOWN BY	-13%	
Hong Kong	157	63	32	81	36		6.9	3.0	1.6	2.6		2.5	<b>UP BY</b>	13%	
Japan	423	326	84	100	39		24.4	17.8	2.8	3.7		2.3	DOWN BY	-25%	
South Korea	253	141	43	89	43		12.8	8.3	2.1	4.2		2.1	DOWN BY	-41%	
Taiwan	103	44	12	63	24		8.6	3.1	0.4	3.4		1.4	DOWN BY	-50%	
Malaysia	85	61	31	35	24		1.8	0.8	0.5	3.3		0.4	DOWN BY	-86%	
India	94	31	18	47	11		3.9	1.6	0.4	1.9		0.3	DOWN BY	-80%	
Other Asia	84	60	30	21	17		1.9	1.6	0.3	0.3		0.2	DOWN BY	-13%	
TOTAL ASIA	1,824	1,148	571	991	406		84.9	56.1	16.5	38.4		16.7	DOWN BY	-48%	
Israel	49	19	2	21	28		4.5	1.8	0.1	1.2		1.5	<b>UP BY</b>	<b>49%</b>	
Saudi Arabia	33	7	3	3	6		1.2	0.4	0.0	0.3		0.4	<b>UP BY</b>	76%	
U.A.E.	81	77	51	22	4		2.5	3.6	0.6	0.8		0.2	DOWN BY	-66%	
Other Mid. East	37	63	13	10	4		3.5	5.0	0.7	0.3		0.2	DOWN BY	-24%	
TOTAL MID. EAST	200	166	69	56	42		11.7	10.7	1.4	2.6		2.3	<i>UP BY</i>	8%	
United States	178	61	43	67	53		19.4	6.1	1.8	5.7		14.3	<i>UP BY</i>	200%	
Brazil	28	32	30	21	28		1.1	7.4	5.2	1.4		5.3	<b>UP BY</b>	355%	
Canada	52	13	5	40	16		4.2	0.2	0.1	1.3		2.1	<b>UP BY</b>	<b>98%</b>	
Other	100	69	56	56	8		4.1	3.6	2.5	2.8		0.2	DOWN BY	-91%	
TOTAL OTHER	358	175	134	184	105		28.8	17.4	9.7	11.1		21.8	<i>UP BY</i>	135%	
GLOBAL TOTAL	5,113	2,924	1,099	2,037	965	[	264.1	169.9	37.5	88.9		75.0	STEADY	1%	



#### **Chinese Owned Fleet & Contracts**



Source: Clarkson Research Services

- Strong Chinese owned contracts before the financial crisis leads to strong growth rate after financial crisis.
- About 9% (in GT) yoy growth rate pre-financial crisis.
- Over 20% (in GT) yoy growth rate post-financial crisis.
- Global fleet growth rate consist at about 7% yoy during the same period.



1. Market Position, Seaborne Trade, World Fleet

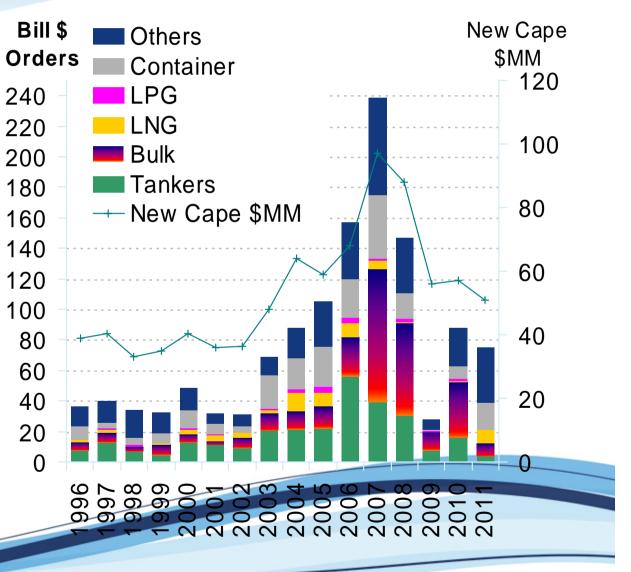
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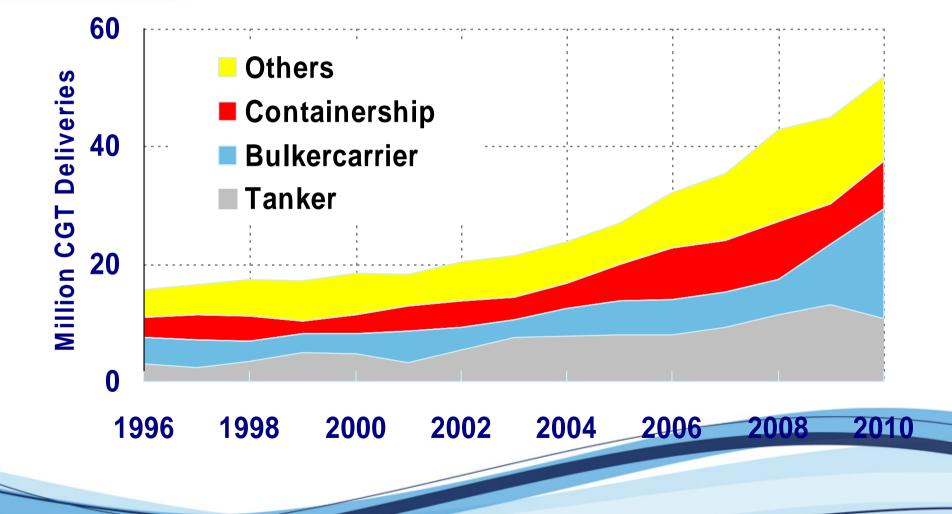
#### Massive Investment In New Ships

- Between 2003 and 2008 the industry ordered over \$800 billion of new ships. 50% of the orders were placed in 2007/8 when prices were at a peak
- 2. Majority of investment related to standard designs and technology
- 3. In 2011, 40% of investment has been offshore related and 15% gas.
- Today, the contract value of the marine orderbook is over \$300 billion and offshore is nearly \$150 billion.



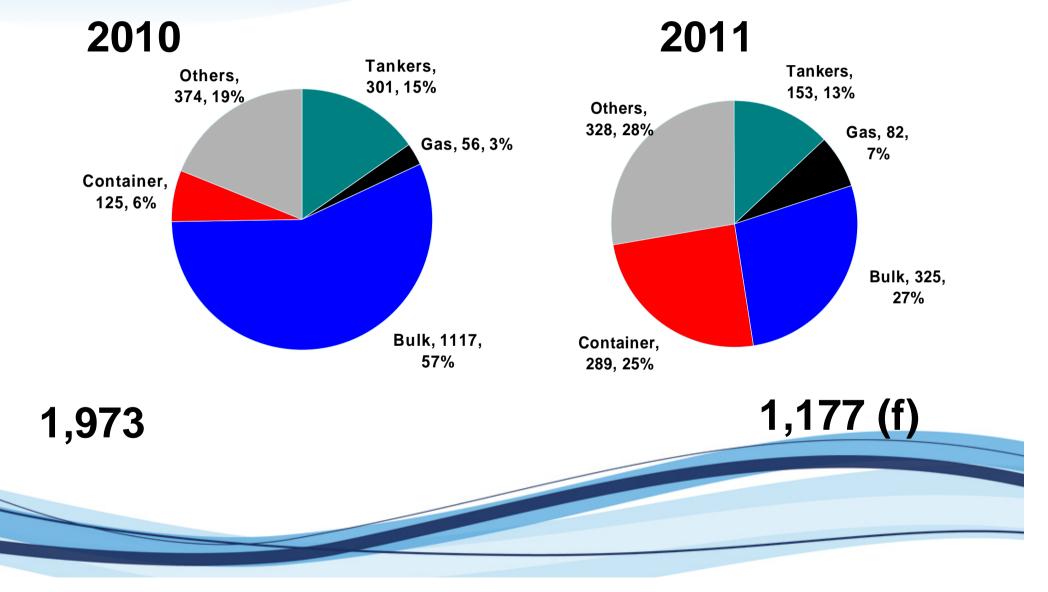


## Shipbuilding Output by Type & CGT

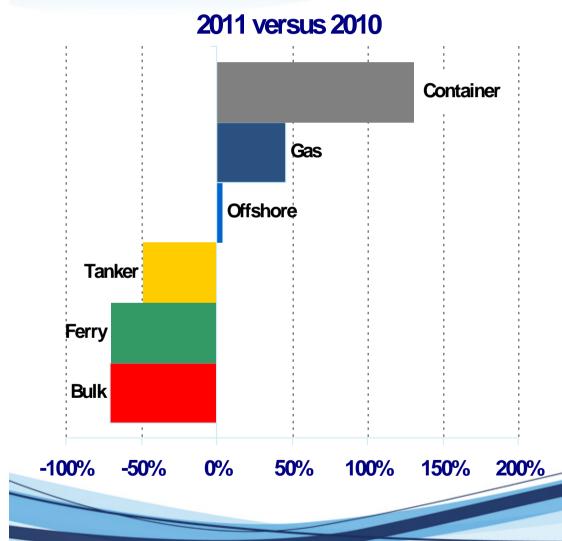




#### 2010 Activity & 2011 Potential



#### 2011 ..... Winners & Losers



- We expect the relative share of orders by sector to change in 2011.
- We expected Offshore, Container and Gas to do better.
- We expect bulkers and tankers to be down year on year.
- Overall volumes expected to be slightly down on 2010.



#### Newbuilding Requirement Scenario

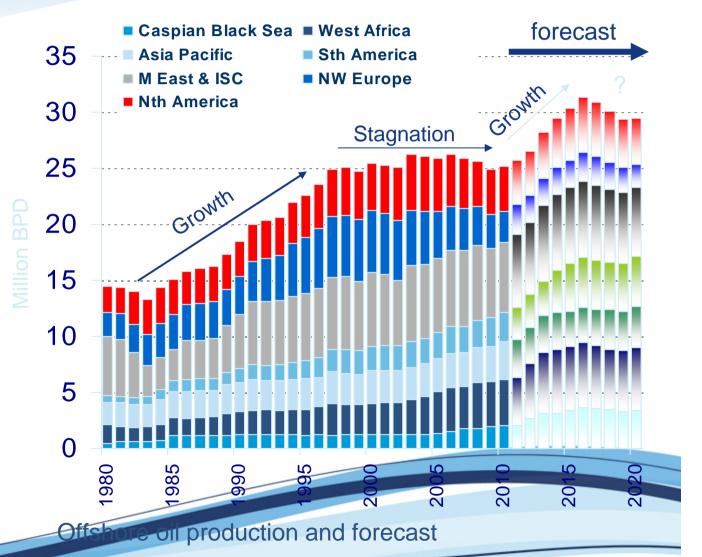
- Relatively low ordering expected in the short term.
- Surplus capacity may put pressure on pricing.
- Gradual pick up later in the decade but with relatively more gas, container, ferry, Ro Ro, PCC and Offshore.
- Bulkers remains a volume market but not at the same levels as the boom.
- Counter cyclical ordering possible.
- New designs and technology provide marketing opportunities.





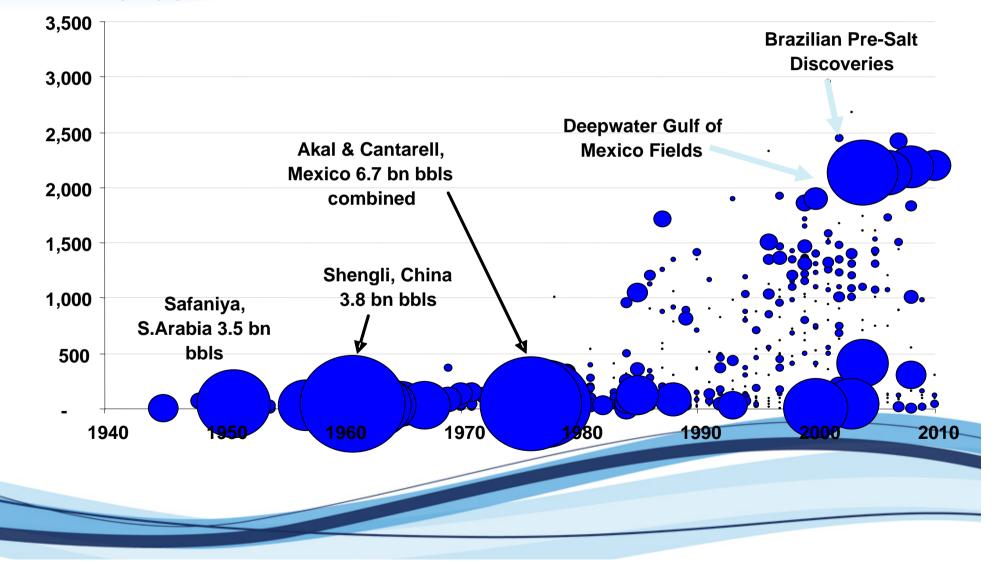
#### **Offshore Oil Production & Forecast**

- Following a decade of stagnation, offshore oil is expected to grow strongly.
- Step change in oil price expectation and offshore oil is getting deeper
- Projection based on over 178 oil fields currently under development
- 1,125 potential development oil fields and 1,038 gas fields



# Offshore Discoveries Getting Deeper

Water Depth (M)

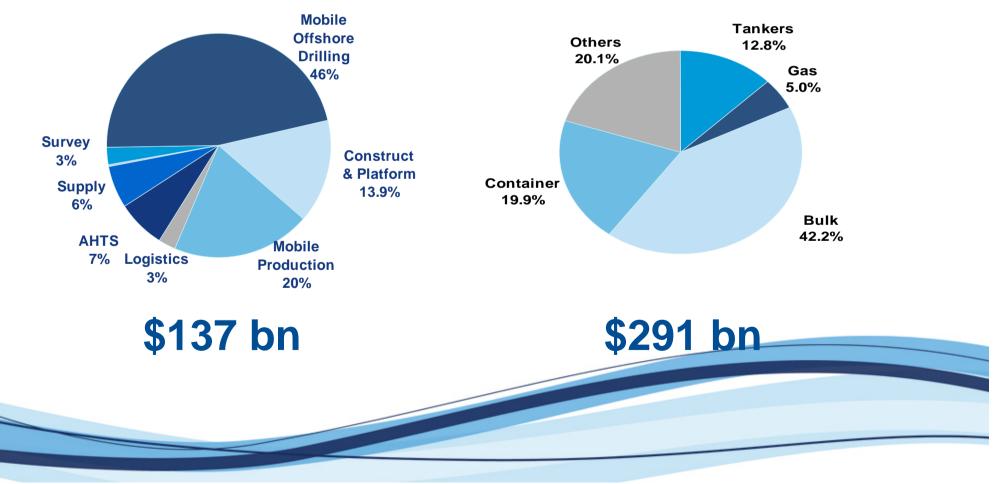




## Offshore & Marine Orderbook-Value by Type

Offshore



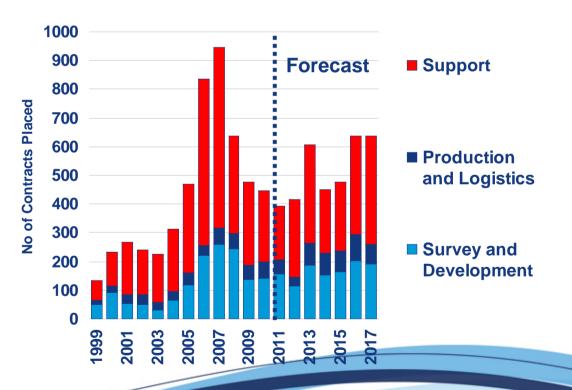


## Offshore Contracting Forecast – Significant Requirement

**Project Intelligence Methodology** 

CLARKSONS

 Long Term Project Intelligence Forecast is based on the projected construction and startup of future offshore fields. The contracting forecast is based on the units required for each of the fields in the projection start-up.



**Contracting Forecast** 



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#### Conclusions

- We have entered a market trough following a decade of exceptional earnings. The big three volume sectors – tankers, bulkers, containers – all face difficult issues.
- World trade averages under 4% growth but there is currently shipbuilding capacity to grow the fleet at 7%. Suggests prices may ease back and a return towards boom ordering levels is unlikely.
- Shipbuilding output is at a record high and marks the peak of a 35 year cycle. China took the shipbuilding crown last year but is having a tough 2011 in contracting terms.
- In 2011, Gas, Container and Offshore have been more active. Securing finance at the moment is difficult.
- We expect dry bulk to remain a volume newbuild market but for Gas, Ro Ro, Ferry and Offshore to do relatively better over the coming decade
- It is a buyers market and yards are being far more flexible with new designs. Solutions that reduce fuel consumption and have a green angle are very attractive. Lower newbuild prices may encourage counter cyclical ordering.



**Clarksons Research** 



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