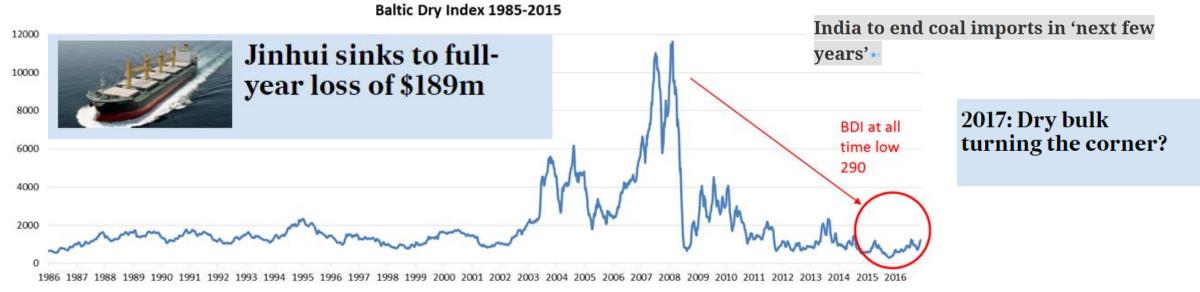


## 2016: THE PERFECT STORM

Bulk carrier scrapping hit an all-time high in the first quarter 2016

Dry-bulk shipping under water as bankruptcies rise

# The end of Hanjin Shipping - officially declared bankrupt





China imported record 1.02b tonnes of iron ore in 2016

Secondhand dry bulk asset values hit all-time low in first quarter

China's 2016 coal imports jump 25 percent





# Asset prices

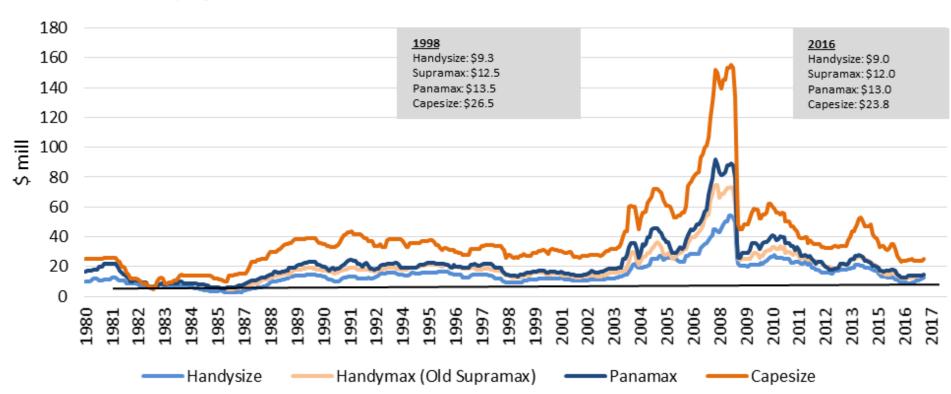




## In 2016, asset values\* reached the lowest level since the 1980s

Today's vessels are better designs, more efficient and of higher quality





<sup>\*</sup>Asset values are based on high quality Japanese tonnage Source: Grieg Shipbrokers, IHS



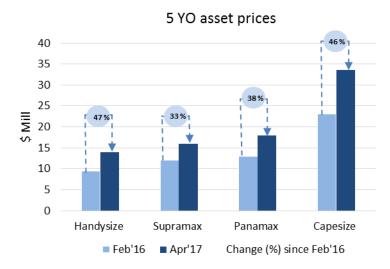
## Asset values\* are climbing rapidly

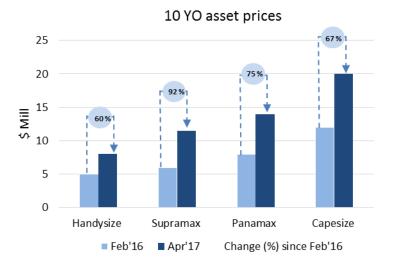
The change in values since February 2016 is quite substantial

- The sentiment has lead to further interest in dry bulk vessels
- March 2017 was an exceptional month for asset values:
  - Capesize (5yo) +34%
  - Panamax (5yo) +16%
  - Supramax (5yo) +6%
- Market players are taking positioning to take part in the anticipated dry bulk market recovery

<sup>\*</sup>Asset values are based on high quality Japanese tonnage Source: Grieg Shipbrokers, IHS



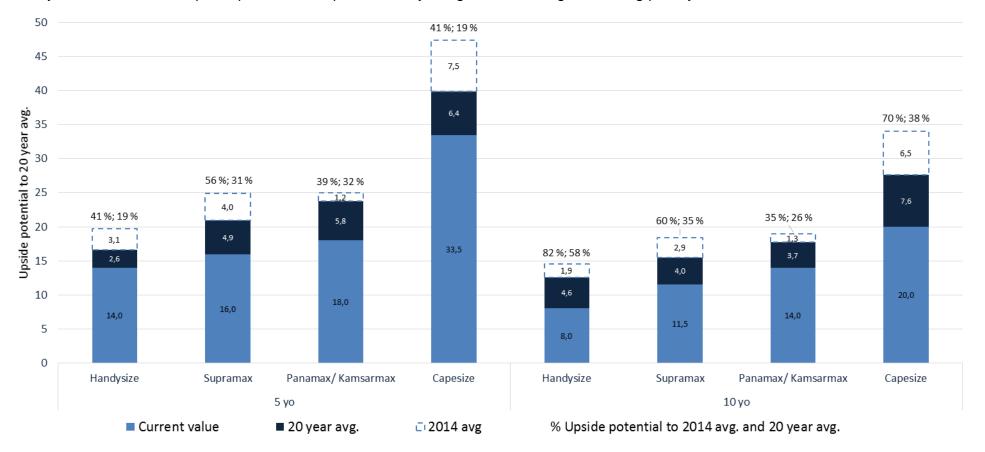




## Despite a significant increase since 2016, dry bulk vessels remain an attractive investment

Current asset values are still below the 20 year average and increasing earnings will drive up asset values, potentially back to 2013/14 levels

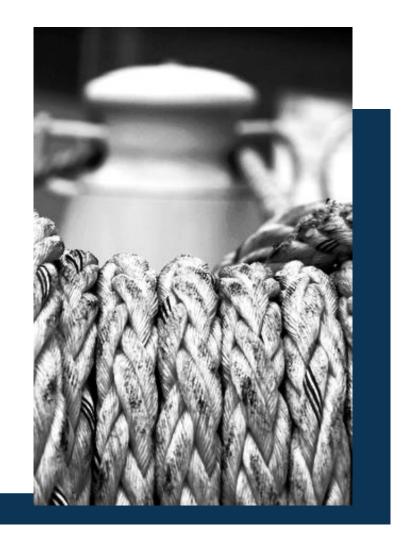
Dry bulk asset values upside potential compared to 20 yo avg and 2014 avg. Excluding peak years 2006-2008



<sup>\*</sup>Asset values are based on high quality Japanese tonnage Source: Grieg Shipbrokers, IHS



# Demand developments

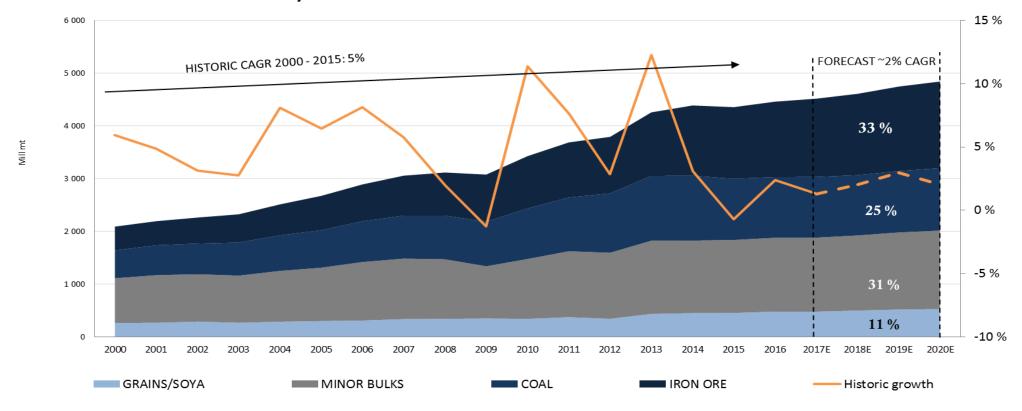




## Moderate growth in dry bulk demand of ~2% avg. pa to 2020E

With upside potential of stronger iron ore exports from India, stronger coal imports to China, and better than expected nickel ore trade from Indonesia and the Philippines

#### **Total Dry Bulk Demand**

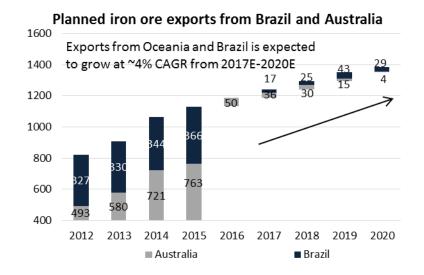


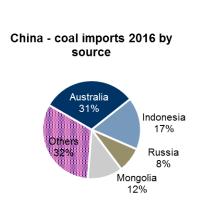
Source: Grieg Shipbrokers, MSI

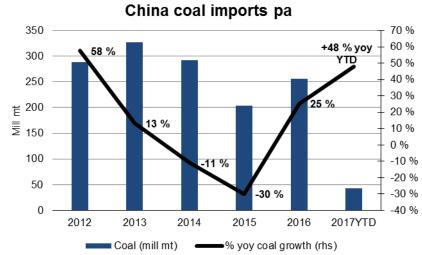


# Iron ore export growth projections at 4% avg. pa to 2020E and coal has the potential to surprise on the upside

- Infrastructure spending is expected to boost steel production and the need for higher quality iron ore
- China will continue to substitute domestic iron ore production for overseas supplies from Australia and Brazil
- We are carefully watching increasing iron ore inventories in China, but steel exports are declining
- China's environmental focus will reduce coal demand, but coal will remain the lion's share of the Chinese energy mix (~75%)
- India continues to struggle with bottlenecks and infrastructure issues hindering the rapid growth in domestic production needed to meet the production target of 1.5Bn mt by 2022







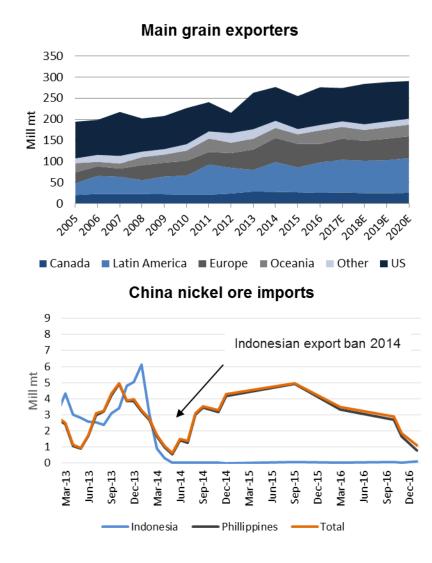
Source: Grieg Shipbrokers, Bloomberg, MSI

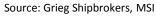


## Grains and minor bulk accounts for ~40% of dry bulk trade

Grain trade is dependent on weather and minor bulk is highly affected by policy changes

- Wheat and coarse grains is expected to decline by ~2% yoy due to a stronger than usual wheat trade in 2016
- Soybean trade is expected to grow by 2% yoy in 2017E
- Weather related issues will as always affect grain trade forecasts...
- Temporary production outages in the Philippines and the relaxation of the Indonesian export ban makes forecasting nickel ore exports very challenging
  - Nickel ore trade can range from 19 mill mt to 46 mill mt in 2017E depending on policy changes





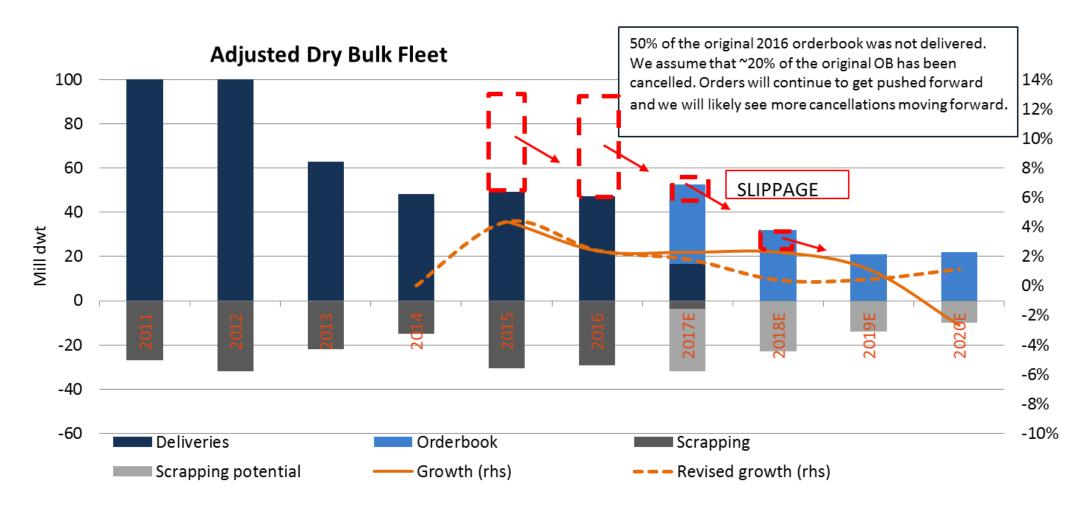


# Supply adjustments





## Large adjustments to the orderbook are limiting fleet growth to zero in 2018E



Source: Grieg Shipbrokers, IHS

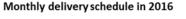


## Massive adjustments to the orderbook with 60% slippage so far this year

A vast majority of the orders scheduled for delivery this year is not even keel laid

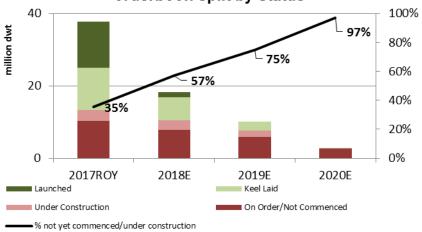
- The original orderbook for 2017 at 52 mill dwt is in reality closer to ~35 mill dwt, 26% less than in 2016
- In December 2016, 25% of the orderbook scheduled for delivery in 2016 was not even keel laid
- 41% of newbuilding orders that slipped from 2016 to 2017 were contracted in 2014
- Since 2014 newbuilding prices have slumped by at least 30%
  - Owners with vessels scheduled for delivery in 2017 are facing a substantial erosion in values
- The orderbook to fleet ratio is at the lowest in over a decade at ~8%







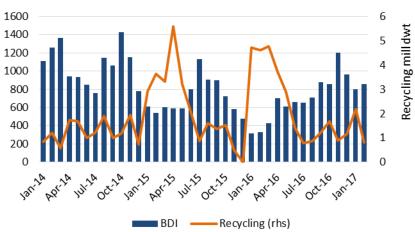
#### Building devlopment schedule: Total orderbook split by status



## We see potential for continued high levels of scrapping

Regulatory changes and higher scrap prices are likely to trigger scrapping



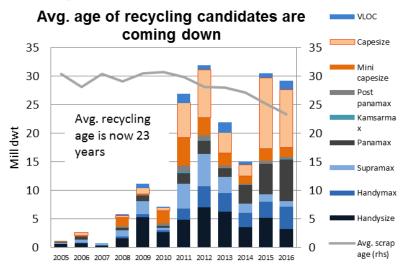


#### Scrapping pa has potential to remain high

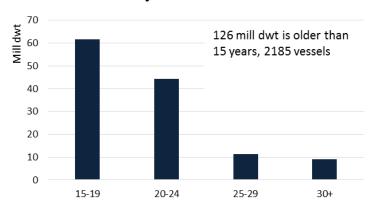


Source: Grieg Shipbrokers, Bloomberg, IHS, MSI





Age profile: 16% of the existing fleet is 15 years or older



Rates, values and supply/demand balance

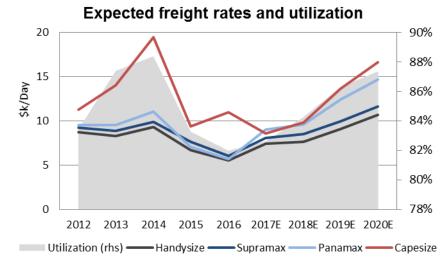




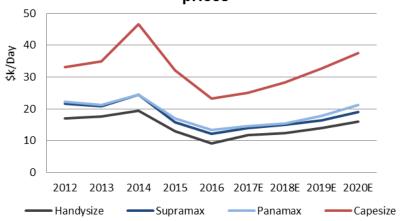
## Historically there is ~95% correlation between time charter rates and asset values

Given that we foresee a gradual increase in freight rates over the coming years, this should also increase asset values substantially

- Increased volatility signals that we are getting closer to a market balance
- Sentiment is an important factor in the dry bulk market and we have already experienced a rapid increase in asset values
- A gradual increase in utilization back to around ~88% implies a 40-50% increase in asset values from the beginning of 2017 to 2020E







Source: Grieg Shipbrokers, Bloomberg, MSI

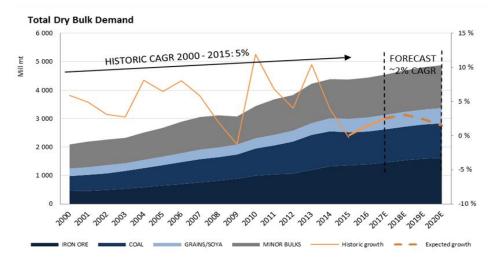


## Recovery is getting closer, and the market has improved from the all time low seen in 2016

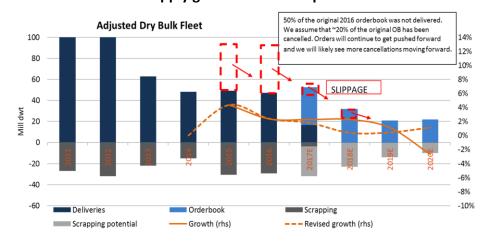
More volatility in freight rates is expected, but asset values are still on the rise

Dry bulk demand growth of ~2% pa

- Improved demand momentum with dry cargo trade expected to grow at ~2% pa from 2017E to 2020E.
   With potential for surprises on the upside
- Fleet growth is abating to below ~2% pa from 2017E to 2020E, mainly due to the large adjustments to the orderbook
- Access to finance is limited
- Take advantage of the volatility ahead!
- Limited new dry bulk orders in the short term is expected
- But...



#### Supply growth below 2% pa



Source: Grieg Shipbrokers, Bloomberg, IHS, MSI



## ... Newbuilding prices are starting to look very attractive



Should I order another vessel now that prices are so attractive?

Nah, I'll order five vessels while I'm at it!



# Appendix





## Regulations

### MARPOL Annex VI – Regulation 13 – NOx-emissions

Increased investment cost and fuel consumption for newbuildings with keellaying after 1 January 2016

Tier III compliance is required for operation in ECA for all ships with keel-laying after 1 January 2016. It is expected that the investment will increase consumption by an estimated 2-3%

### MARPOL Annex VI – Regulation 14 – SOx-emissions

Significantly higher fuel bill for worldwide operation after 1 January 2020

Compliance can be achieved through 1) MGO fuel, 2) Scrubber or 3) LNG fuel. Hence, owners not investing in Scrubber or LNG propulsion will have to operate on expensive 0.5% Sulphur MGO.

#### **Ballast Water Convention**

The required Ballast Water Treatment investment will potentially result in substantial scrapping of mature tonnage

The ballast water convention will enter into force in September 2017. A required investment of USD 1.0m-2.5m depending ship type will likely prompt more aggressive scrapping of older tonnage

Source: Grieg Shipbrokers, Bloomberg





## Dry bulk fleet statistics

Dry bulk fleet		Existing fleet (mdwt)	No of ships		OD (see of chine)	OB-to-fleet	Fleet >= 20 yrs	Del. YTD 2017 (mdwt)	Del. YTD 2017 (no F	tem. Del. 2017 (no l of ships)	Del. in 2018 (no of ships)	Del. 2019 (no of ships)	Demo. 2016 (no of ships)	Demo. YTD 2017	
Dry bulk fleet		(mawt)	NO OT SNIPS	Avg. age	OB (no of ships)	OB-to-fleet	Fleet >= 20 yrs	(mawt)	or snips)	or snips)	snips)	snips)	or snips)	(no of ships)	(mdwt)
10-40k dwt	Handysize	94,7	3 335	10,6	236	9 %	13,7 %	1,2	31	158	54	21	116	20	0,8 %
40-50k dwt	Handymax	34,1	742	15,3	20	3 %	38,0 %	0,1	3	17	3	0	90	10	-0,9 %
50-60k dwt	Supramax	114,9	2 068	7,9	34	2 %	0,9 %	0,5	9	25	8	1	é	i 4	0,3 %
		<i></i>		,-				-,-							-,
60-67k dwt	Ultramax	43,3	693	3,1	190	27 %	1,9 %	3,4	55	144	32	11	10	0	8,7 %
67-80k dwt	Panamax	00.2	1 202	12.0	10	1.0/	42.6.0/	0.3	2	10	0	0	100	9	0.5.0/
67-80K UWL	Pallalliax	90,3	1 203	12,0	10	1 %	12,6 %	0,2	3	10	0	0	100	9	-0,5 %
80-85k dwt	Kamsarmax	70,1	856	4,6	119	14 %	0,1 %	3,4	41	80	31	6	2	. 0	5,1 %
85-120k dwt	Post Panamax	53,2	550	6,8	11	2 %	2,5 %	0,8	9	5	6	0	3	1	1,4 %
120-150k dwt	Mini Capesize	3,7	26	16,7	1	4 %	64,8 %	0,1	1	0	0	0	12	. 0	4,2 %
	·	,		,			,	,							
150-215k dwt	Capesize	238,7	1 304	7,2	66	5 %	1,9 %	5,6	28	41	22	3	60	9	1,8 %
215-500k dwt	VLOC	62,8	216	10,2	58	31 %	25,1 %	1,3	5	13	30	15	6	i 4	0,2 %
213-300K UWI	VLOC	02,8	210	10,2	38	31 %	23,1 %	1,3	5	13	30	15	C	4	0,2 70
	Total	805,9	10 993	9,4	745	8 %	7,9 %	16,7	185	493	186	57	405	5 57	1,6 %

Source: Grieg Shipbrokers, IHS

