GLOBAL SHIPPING MARKETS
current developments, outlook & the role of Asia

Martin Stopford,
President Clarkson Research
24th April 2018
Let’s take a look

AGENDA

PART 1: TRENDS
PART 2: DEMAND TRENDS
PART 3: SUPPLY TRENDS
PART 4: MARKET OUTLOOK
PART 5: THE ROLE OF ASIA
PART 1: CURRENT TRENDS

The main markets past cycle trough, but earnings still weak. Good stuff on demand side - world industrial growth peaking; and trade growing fast. But shipyards still busy (mainly). Asia’s never been more exciting.
S1: SUMMARY OF TRENDS

1. Past cycle trough, but still 19% surplus. Not there yet!
2. Clarksea index $10,248/day, below trend, edging up
3. Good news on demand side: –
   a) World industry growing at 4.3%.
   b) Trade up 3.9% in 2017 & 3.4% in 2018
   c) China imports up 8% pa in Dec 2017 - ore worries
4. Not so good news on supply side: -
   a) Ship orders 80 m dwt in 2017, orderbook 10.4% fleet
   b) Deliveries 98 m dwt in 2017, but 78 m dwt in 2018.
   c) Demolition 35 m dwt in 2017, one third of deliveries
5. Fleet growing 3.5% pa, same as trade. But only 2.6% in 2018.
Ship earnings over three decades to April 2018

This chart shows the average earnings of tankers, bulkers, containerships & gas

Like the 1990s?

Clarksea Index $000/day

0 5 10 15 20 25 30 35 40 45 50


$21,733/day

$11,919/day

$11,670/day
Cycle status in 12 markets: last 12 months as % seven year trend

- Bulk carriers much better than 12 months ago but tankers deterioration
- Tankers still weak
- Gas market now well below trend
- Chart shows average earnings in last 12 months as a % of average earnings in last 7 years May 2011 to April 2018)

Data to 14th April 2018
Comment: Over 28 years the new Capesize cost $25,066/day and revenue averaged $24,685/day, a 1.7% loss. Earnings barely covered depreciation until 2003, when revenue shot up, producing super-profits.
Comment: Over 25 years a new VLCC cost $36,178/day. Revenue averaged $37,515/day, a 3.7% margin. In 1990s earnings did not cover depreciation, then the 2000s saw big profits.
Second hand prices – bulkers just below replacement cost

Tanker 5 year old price index
Bulker 5 Year old price index

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PART 2: DEMAND TRENDS

Demand looking quite good
S10: World Industrial Production 1993-2017 (Dec) picking up

1. US Financial Crisis
2. Asia Crisis
3. Dot.com Crisis
4. Credit Crisis

% growth per annum

1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015 2017

Good recovery
China Trade – imports back on growth trend

- 100 million tonnes per annum increase in imports in 5 years 2003-8
- 205 million tonnes per annum increase in imports in 5 years 2008-2013
- 160 million tonnes per annum increase in imports in 2016-7
Sea Trade growth 2000-2017 (annual % change)

Total sea trade

-2000: 7.3%
-2001: 3.0%
-2002: 5.7%
-2003: 6.6%
-2004: 4.5%
-2005: 4.8%
-2006: 4.5%
-2007: 2.5%
-2008: -3.7%
-2009: 9.3%
-2010: 4.5%
-2011: 4.2%
-2012: 3.4%
-2013: 3.2%
-2014: 2.0%
-2015: 3%
-2016: 3.9%
-2017: 3.0%
-2018: 2.6%
-2019: 1.7%
-2020: 1.0%
-2021: 3.0%
-2022: 5.0%
-2023: 7.0%
-2024: 9.0%
-Total sea trade forecast: 3.0%
PART 3: SUPPLY TRENDS

Supply could respond faster!
In 2009 there were 992 active yards
In 2016 there were 423 active yards

Stage 1
(expand existing capacity)

Stage 2
(Build & sell contracts for new capacity)

Stage 3:
orderbook slippage

Stage 4
(Close 581 uneconomic shipyards)

Stage 5
(Slow production & diversify in 423 active shipyards)

Deliveries of demolition Million DWT

Orderbook slippage
Orderbook April 2016
Deliveries
Demolition

Deliveries based on o/book

What is CGT?
CGT is the Gross Tonnage (GT) of the ship weighted to reflect its work content per GT. For example the weight for a containership might be 1.0 and the weight for a big tanker 0.25.

Source: Clarkson Research

Martin Stopford, President CRSL 20 April 2018
The orderbook is now down to 10.4% of the fleet.

- **Bulkers 7.5%**,
- **Tankers 11.8%**
- **Containerships 11.9%**.

Bulkers edging up again.
Shipbuilding prices up a few % in April 2018

Source: Compiled from several sources including Fearnleys, CRSL

Martin Stopford, President CRSL 20 April 2018
### Merchant Orderbook April 2018 by % Fleet

Total cargo orderbook 195.8 m dwt (down 25%) and average is 10.9% of fleet.

<table>
<thead>
<tr>
<th>Category</th>
<th>Orderbook as % fleet in dwt</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNG CARRIERS</td>
<td>24.30%</td>
</tr>
<tr>
<td>LPG CARRIERS</td>
<td>9.20%</td>
</tr>
<tr>
<td>OFFSHORE (AHTS/PSV)</td>
<td>8.60%</td>
</tr>
<tr>
<td>BULKERS</td>
<td>9.00%</td>
</tr>
<tr>
<td>CONTAINER SHIPS</td>
<td>36.00%</td>
</tr>
<tr>
<td>OIL TANKERS &gt;10k dwt</td>
<td>11.40%</td>
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<tr>
<td>CHEMICAL TANKERS</td>
<td>6.00%</td>
</tr>
<tr>
<td>CAR CARRIERS</td>
<td>3.00%</td>
</tr>
<tr>
<td>MULTI-PURPOSE</td>
<td>3.30%</td>
</tr>
<tr>
<td>RO-RO</td>
<td>6.20%</td>
</tr>
<tr>
<td>OTHER CARGO</td>
<td>1.70%</td>
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<tr>
<td>OIL TANKERS &lt;10k dwt</td>
<td>3.10%</td>
</tr>
<tr>
<td>GENERAL CARGO</td>
<td>2.30%</td>
</tr>
<tr>
<td>REEFERS</td>
<td>2.60%</td>
</tr>
<tr>
<td>COMBOS</td>
<td>0.00%</td>
</tr>
<tr>
<td>WORLD CARGO FLEET</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Orderbook as % fleet in dwt**
S17: World fleet growth was 3.7% in 2017, and about 2.3% in 2018

Period of negative growth 1982-1987 when the fleet declined due to heavy scrapping.
PART 4: MARKET OUTLOOK

Now that we are past the trough of the recession the key issues are the development of the world economic business cycle, China steel, shipbuilding production, scrapping and the dynamics of releasing the surplus capacity. Not easy to weigh up.
S21: Bulk carrier supply demand balance – surplus gradually falling

Bars show surplus (+) & shortage (-) capacity as % of the fleet. Dark red line shows fleet capacity in billion dwt (left axis). Light blue line shows demand in billion dwt (left axis). Surplus and shortage scenarios are shown for comparison.
Capital Link Forum April 2018

PART 5: THE ROLE OF ASIA

Exciting possibilities as Asia adapts to its position as top cargo importer
If past trend continues, sea cargo will double by 2040.

Sea Trade grew at 3.1% per annum from 1.7 billion tonnes in 1965 to 11.5 billion tonnes in 2017.

If the trend continues, trade will reach 22 billion tonnes in 2040.

How will sea transport meet the changing trade & cut the carbon footprint by 50%?

Source: data collected by Martin Stopford from various sources, mainly United Nations and UNCTAD.
The changing regional trade matrix is creating a new trading matrix.

Figure 6: Regional change will be a major feature of the next 60 years.
Asia’s Belt and road needs a maritime B2B transport system

Central Asia (.07 bn)
Kazakhstan
Kyrgyzstan
Tajikistan
Turkmenistan
Uzbekistan

E. Asia (1.6 bn)
China
Hong Kong
N Korea
Japan, S. Korea
Mongolia

S. E. Asia (.7 bn)
Cambodia
Indonesia
Laos, Brunei
Malaysia
Myanmar
Philippines
Singapore
Thailand
Vietnam

S. Asia (1.8 bn)
Afghanistan
Bangladesh
India, Pakistan
Iran, Nepal
Sri Lanka, Bhutan

Marine digitalization and the Smart-Shipping roadmap
THE END
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Dry Bulk trade - about 2.7% growth likely in 2018

Growth of sea trade 2000-2018 (annual % change)

% growth of trade in year

-4%  -2%  0%  2%  4%  6%  8%  10%


-4%  -2%  0%  2%  4%  6%  8%  10%

Dry Bulk trade - about 2.7% growth likely in 2018

8.4%  4.0%  6.1%  6.2%  5.9%  7.2%  3.8%  6.2%  6.3%  6.1%  5.2%  1.6%  1.9%  1.6%  3.9%  2.7%
S5 Dry bulk market cycles 1947-2018

Note: based on the Norwegian Shipping News Tramp index from 1947 to 1963 & US Gulf-Japan grain freight 1964-2015. Parcel size increased from around 10,000 dwt in the early 1950s to 55,000 dwt in the 2000s

Peak 15
1947
"positive market"

Peak 16
1952-3
"Undreamed of freight rates"

Peak 17
1956-7
"Healthy atmosphere"

Peak 18
1970
"Firm & healthy"

Peak 19
1973-4
"An exciting market"

Peak 20
1979-81
"Rates boomed"

Peak 21
1995
"Firm"

Peak 22
2004
"fortunes made"

Peak 23
2013
"activity increased firmly"

Peak 24
2015
"Bullish sentiment shows no sign of changing"

Peak 25
2017
"so far sentiment firm"

Peak 26
2019
"staring into the abyss"


1948-9
"pessimism"

1951
"Sad year"

1956
"Rock bottom"

1961-2
"worse than 30s"

1971-2
"Very poor"

1975-7
"Worst ever"

1979-81
"Rates boomed"

1995-9
"Firm"

Note:
- Korean war started in 1950
- Suez canal closed 29 Oct 1956
- Suez canal opens April 1957
- Suez reopens June 1975
- Oil Crisis Oct 1973
- Iran revolution 1979
- Iran-Iraq war starts 1982
- Iraq Invades Kuwait Aug 1990
- Asia Crisis June 1997
- Dot.com Crisis 2001
- China boom 2003
- Credit crisis Oct 2008

2007
"Bullish sentiment shows no sign of changing"

2010
"so far sentiment firm"

2013
"activity increased firmly"

2016
"staring into the abyss"
2004-8 Investment super boom still in play

SHIP INVESTMENT CYCLE 1 1950-1973
During this cycle newbuilding investment gradually built up from 5% of the fleet to a peak of 30% in 1973. The upswing lasted 23 years.

SHIP INVESTMENT CYCLE 2 1987-2017
During this cycle newbuilding investment gradually built up from 5% of the fleet to a peak of 30% in 1973. The upswing lasted 20 years.

Figure 5: The last sixty years was dominated by two super-cycles

Source: data compiled by Martin Stopford from several sources
Investment in new ships – doubled in 2017 (from low base)

NB This data excludes Cruise & Offshore

- Tankers
- Bulkers
- LNG
- LPG
- Containers

$ billion ordered in year

0 20 40 60 80 100 120 140 160 180 200

The 1970s bubble was about tankers; the 2000s bubble is about bulkers.
Global Shipping Markets - Martin Stopford 24 April 2018

S14: Shipbuilding contracts & deliveries 1963-2017 & forecast

Million dwt contracts

- Deliveries
- Delivs Fcst
- Contracting

2007 peak
274m dwt

Contracting
73 m dwt in 2017

0 50 100 150 200 250 300
S6 Shipbuilding dry cargo price cycles 1945-2018

Source: Compiled from several sources including Fearnleys, CRSL, RS Platou Price 1945-1963 based on 9,500 dwt ‘tweendecker
S21: World fleet supply demand balance – surplus gradually falling

Bars show surplus (+) & shortage (-) capacity as % of the fleet. Dark red line shows fleet capacity in billion dwt (left axis). Light blue line shows demand in billion dwt (right axis). Scenario is indicated by a dotted line.
S20: “Shadow” Surplus & Laid Up Tonnage

Shows “Shadow” surplus tonnage and the proportion laid up

“Shadow” Surplus – tonnage in excess of the dwt of ships needed to carry trade at full speed

“Shadow” surplus is soaked up by slow steaming today (19% fleet)
Tanker & bulk carrier Demolition

- **Series2**
- **Bulk fcst**
- **Tankers**
- **Tank Fcst**

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<th>Series2</th>
<th>Bulk fcst</th>
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Second hand tanker prices – replacement cost (74% new)
Second hand bulker prices – just below replacement cost

Price of 5 year old ship $ m

Panamax Bulk carrier
Capesize
Linear (Capesize)