DRY BULK FORWARD FREIGHT AGREEMENTS

SSY Futures Ltd are authorised and regulated by the Financial Conduct Authority. The material contained herein is for information purposes only and should not be seen as a trading recommendation or solicitation of trade.

OCTOBER 2015
SIMPSON SPENCE YOUNG

• Established 1880
• Largest privately owned shipbroker in the world
• Worldwide network of 15 offices
• Represented on all major shipping committees & indices.
• Expertise in:-

- Dry Cargo
- Tankers
- Futures
- Research and Consultancy
- Sale and Purchase
- Agency and Towage

**SSY Futures Ltd**
30 Derivatives Brokers
In London & Singapore

Team of 12 analysts
on tanker & dry bulk markets
THE BALTIC EXCHANGE

The Baltic Exchange is the international membership organization for the global shipping markets. Since 1985 it has been publishing Freight Indices:

- Baltic Exchange Dry Index (BDI)
- Baltic Exchange Handysize Index (BHSI)
- Baltic Exchange Supramax Index (BSI)
- Baltic Exchange Panamax Index (BPI)
- Baltic Exchange Capesize Index (BCI)
THE BALTIC PANELLISTS

- The Baltic carries out annual “audits” on independent ship brokers.
- Companies who are doing sufficient business fixing individual routes and who demonstrate competence are invited to become Panellists.
- The Panellists make daily professional assessments of where routes should be priced.
- The Baltic oversee assessments, publish results and calculate averages.
BALTIC INDICES ARE PRICED IN US$ PER DAY (TIMECHARTER) OR FREIGHT RATES IN US$ PER METRIC TONNE (VOYAGE)

• **Time Charter:**
  - Panamax Route 2a: A voyage from Europe to the far east priced in USD/Day.

• **Voyage:**
  - Capesize Route 4: Richards Bay to Rotterdam, coal route priced in USD/Mt.

The Board of Baltic Exchange Index Services Ltd decide on which rates to report and the correct specifications.
BALTIC TYPE VESSEL DESCRIPTIONS

**Capesize**: Basis a Capesize 172,000mt dwt, not over 10 years of age, 190,000cbm grain max. Loa 289m, max. beam 45m, draft 17.75m, 14.5 knots laden, 15.0 knots ballast on 56mts fuel oil no diesel at sea.

**Capesize 2014**: Basis a Capesize 180,000mt dwt, not over 10 years of age, 198,000cbm grain max. Loa 290m, max. beam 45m, draft 17.75m, 14 knots laden, 15.0 knots ballast on 62mts fuel oil or 12 knots laden, 13 knots ballast on 43mt, no diesel at sea.

**Panamax**: Basis a Panamax 74,000mt dwt, not over 12 years of age, 89,000cbm grain max. Loa 225m, max. draft 13.95m, 14.0 knots 32/28 fuel oil laden/ballast and no diesel at sea.

**Supramax**: Standard “Tess 52” type vessel with grabs as follows: 52,454 mt dwt self trimming single deck on 12.02m ssw 189.99m loa 32.26 m beam 5ho/ha 67,756 cbm grain 65,600 cum bale 14L/14.5B on 30mt (380cst) no mdo at sea Cr 4 x 30 mt with 12 cum grabs Max age 15yrs.

**Handysize**: Basis a 28,000mt dwt, self trimming single deck bulk carrier on 9.78 mssw 169m LOA 27m beam. 5 ho/ha. 37,523 cum grain 35,762 cum bale 14 knots average laden/ballast on 22 mt ifo (380) no diesel at sea. 4 x 30mt cranes. Maximum age 15 years.
The Capesize Time Charter Average 2014 now includes the China Brazil route to reflect the importance of this trade and the relative decline of the so called backhaul.
BALTIC SUPRAMAX TIME CHARTER AVERAGE
COMPONENT PARTS

S1A – Antwerp/Skaw trip to Sing/Japan – 12.5%
S1B - Cannakale trip to Sing/Japan – 12.5%
S2 – SK/Japan to Aus or Pacific RV - 25%
S3 – SK/Japan to Skaw/Passero – 25%
S4A – US Gulf to Skaw/Passero – 12.5%
S4B – Skaw/Passero to US Gulf – 12.5%

The Capesize Time Charter Average 2014 now includes the China Brazil route to reflect the importance of this trade and the relative decline of the so called backhaul.
An FFA or Forward Freight Agreement is a contract for differences on freight costs.

In just the same way that people buy commodity futures to benefit from rising prices they can buy FFAs. They can also Sell FFAs if they believe freight prices will fall.

FFAs always have a buyer and a seller - one will make money at the settlement and the other will lose it.

It’s simple to trade an FFA instead of really participating in the freight market.

No need to own a ship, employ operations staff, fill it with crew, fuel, food, water etc etc.
Cape Average of 4 Time Charters
FORWARD CURVE – 25\textsuperscript{th} September 2015

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>CAPE 172 4TC</th>
<th>13921</th>
<th>929</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BID</td>
<td>OFFER</td>
<td>CHANGE</td>
</tr>
<tr>
<td>Sep 15</td>
<td>10400</td>
<td>10600</td>
<td>200</td>
</tr>
<tr>
<td>Oct 15</td>
<td>15700</td>
<td>15750</td>
<td>575</td>
</tr>
<tr>
<td>Nov 15</td>
<td>15700</td>
<td>15900</td>
<td>175</td>
</tr>
<tr>
<td>Q4 15</td>
<td>14900</td>
<td>15000</td>
<td>25</td>
</tr>
<tr>
<td>Q1 16</td>
<td>7000</td>
<td>7150</td>
<td>-125</td>
</tr>
<tr>
<td>Q2 16</td>
<td>7850</td>
<td>8050</td>
<td>-100</td>
</tr>
<tr>
<td>Cal 16</td>
<td>10350</td>
<td>10500</td>
<td>-38</td>
</tr>
<tr>
<td>Cal 17</td>
<td>11650</td>
<td>11800</td>
<td>-25</td>
</tr>
<tr>
<td>Cal 18</td>
<td>13400</td>
<td>13650</td>
<td>-25</td>
</tr>
</tbody>
</table>
### PANAMAX TIME CHARTER AVERAGE
#### FORWARD CURVE – 16th JUNE 2015

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>PANAMAX 4TC</th>
<th>6161</th>
<th>240</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BID</td>
<td>OFFER</td>
<td>CHANGE</td>
</tr>
<tr>
<td>Jun 15</td>
<td>5850</td>
<td>6000</td>
<td>150</td>
</tr>
<tr>
<td>Jul 15</td>
<td>6600</td>
<td>6750</td>
<td>250</td>
</tr>
<tr>
<td>Aug 15</td>
<td>6150</td>
<td>6350</td>
<td>0</td>
</tr>
<tr>
<td>Q3 15</td>
<td>6450</td>
<td>6550</td>
<td>-50</td>
</tr>
<tr>
<td>Q3+Q4</td>
<td>6875</td>
<td>6975</td>
<td>-75</td>
</tr>
<tr>
<td>Q4 15</td>
<td>7300</td>
<td>7400</td>
<td>-100</td>
</tr>
<tr>
<td>Q1 16</td>
<td>5850</td>
<td>6050</td>
<td>75</td>
</tr>
<tr>
<td>Q2 16</td>
<td>6850</td>
<td>7100</td>
<td>0</td>
</tr>
<tr>
<td>Cal 16</td>
<td>6900</td>
<td>7050</td>
<td>-125</td>
</tr>
<tr>
<td>Cal 17</td>
<td>7450</td>
<td>7650</td>
<td>-75</td>
</tr>
<tr>
<td>Cal 18</td>
<td>8000</td>
<td>8250</td>
<td>-75</td>
</tr>
</tbody>
</table>
PANAMAX SPOT AND FORWARD PRICING BASIS 16th June 2015
ELEMENTS OF A TIMECHARTER AVERAGE FFA

- Buyer / Seller - Freight exposure / market view
- Vessel Type - Cape, Panamax, Supramax, Handy
- Period - month / quarter / year
- Quantity - number of days
- Contract Price - Level traded
- Contract Form - FFABA / ISDA
- Clearing - LCH / NOS / SGX
FFAs CASH SETTLE AGAINST AVERAGE DAILY PRICE PER MONTH

BUYER: Charterer
SELLER: Shipowner
TYPE: BCI TC AVG Q2 ‘14
RATE: USD 16,000
QUANTITY: 10 days per month
PERIOD: April, May, June ‘14
SETTLEMENT: Avg of all index Days
SETTLEMENT DATE: Last Day of each Month

Market Rises
April settlement = $17,000
Sett Val = 17,000 – 16,000
X 10 Days = $10,000
BUYER PROFITS

Market Falls
May settlement = $15,000
Sett Val = 15,000 – 16,000
X 10 Days = ($10,000)
SELLER PROFITS
Example: March 4th ‘09
A ship owner sells Panamax Cal 10 at $14,250 opening an FFA.
The market falls quickly -
by the 18th March Cal 10 is trading at $12,000.
The owner Buys Cal 10 at $12,250 closing the FFA and adding $2,000 a day to his earnings in just two weeks.

4th March Sell: $14,250 Opens FFA Position
18th March Buy: $12,250 Closes FFA Position
Profit: $2,000 per day
OWNERS OPPORTUNITIES FOR USING FFAs

• Time Charter and FFA
Fix ships on long term time charter but buy/sell FFAs to switch To a floating price if rates show signs of improvement.

• Spot Market and FFA
Leave ships on the spot market but buy/sell FFAs to prevent earnings from erosion if the market starts to move.

• Floating Rate Time Charter and FFA.
Fix floating rate time charter and then buy/sell FFAs to lock in the rate when better rates are achievable.
A CHARTERERS OPPORTUNITIES FOR USING FFAs

• Time Charter and FFA
  Fix ships on long term time charter but Sell FFAs to switch to a floating price if rates show signs of falling.

• Spot Market and FFA
  Leave ships on the spot market but buy FFAs to prevent costs increasing if the market starts to rise.

• Floating Rate Time Charter and FFA.
  Fix floating rate time charter and then buy FFAs to lock in the benefits when lower rates are achievable.
TRADITIONALLY FFAs WERE TRANSACTED DIRECTLY BETWEEN THE BUYER AND THE SELLER
OTC BI-LATERAL TRADES EVENTUALLY LEAD TO INCREASED COUNTERPARTY RISK AS TRADERS OPEN AND CLOSE FFAs WITH MULTIPLE COUNTERPARTIES
COUNTERPARTY CREDIT RISK IS MITIGATED BY USING A CENTRAL CLEARING COUNTERPARTY
THE CLEARING PROCESS
BENEFITS OF CLEARING

• Virtual Elimination of counterparty risk
• Multilateral netting
• Free up bilateral credit lines
• Standardised Contracts
• Daily Realisation of P&L (due to mark-to-market) – profit taking
• Increase liquidity via introduction of non-shipping market participants
• Level playing field for all players – anonymity can be requested
• A “cleared” price is closer to “true” market value of a contract, excludes any additional (counterparty) risk costs
Clearing Example: Initial margin requirement.
A $P_{max} \times Q_{4\text{ 15 position}}$ 10 days a month $= \$1,100 \times 0.87$
$= \$957 \times 30 \text{ days} = \$28,710$

+/- Variation margin, marked to market each day.

LCH.Clearnet margins as at 29\textsuperscript{th} May 2015
Trading Strategies

Beyond the core broking service there are a number of strategies brokers can assist with:

- Integrating FFAs in Physical Trading Strategies
- Inter-Market Spreads – i.e. Cape vs Panamax
- Time Spreads – i.e. Cape Cal16 vs Cape Cal 17
- Options Strategies
- Integrated FFA / Option Strategies
Cape Spot Market vs Forward Curve
Inter-Market Spreads

Cape vs Pmx Cal 16 Spread

- Cape
- Pmx
- Differential

Curves Price (s)

Differential

TICKER CURVE | OCTOBER 2015 | 31
DRY FFAs – HOW DO THE VOLUMES STACK UP?

Quarterly Volume

[Line graph showing the quarterly volumes from Q3 2007 to Q2 2015 for Cleared, OTC, and Total categories.]
CURRENT APPROX. MARKET SHARE BY OPEN INTEREST

- Cape: 46%
- Pmax: 37%
- Smax: 15%
- Hsize: 2%