Introduction to Freight Derivatives

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What is a derivative?

- A derivative is a contract that derives its value from the performance of an underlying entity.
Requirement for a Derivative

• Need from the underlying market
• Market volatility
• Many market participants
• Reference Price/Industry benchmark
• Reliable and robust
• Cash settlement
• Accepted by the market place
Freight Derivatives Background

- Why?
- BFI
- BIFFEX
- Wash Out clauses
- Dry Cargo
- Tankers
BDI pre 2000
What is an FFA?

• A Forward Freight Agreement (FFA) is a Cash Settled Contract for Difference (CFD)
• Bought and sold at an agreed rate per tonne or daily time-charter rate
• Fixes a price today for settlement against an agreed future period
• Position settled against an index or assessment of spot market over the agreed future period
• Over the Counter (OTC) or Exchange Cleared Contract
• Currently Cleared by SGX, LCH, Nasdaq, CME, ICE, EEX
• A Futures contract?
What can you hedge?

- **Capesize** – TC Average, C3, C4, C5, C7
- **Panamax** – TC Average, P1A, P2A, P3A
- **Supramax** – TC Average
- **Handysize** – TC Average
- **Clean Tankers** – TC2, TC5, TC6, TC7, TC12, TC14, TC15
- **Dirty Tankers** – TD3, TD7, TD8, TD17, TD19, TD20
- **LPG**
Index production

Shipbroker assessments → The Baltic Exchange → [Bullet points]

- Baltic members
- Subscribers
- News vendors

Checks data
Queries if necessary
Averages out – including highs and lows
Who are the Baltic panellists?

- International shipbroking firms
- No Principals
- Panellists must be recognised as competent, professional firms, actively engaged in the markets they report, with adequate personnel to perform the role of panellist
- Members of the Baltic Exchange
- Geographical spread
- Avoid the appointment of panellists who are exclusive representatives of charterers particularly influential in relevant trades
What are the Baltic Indices used for?

- The Indices are used by shipping and economic analysts as a market barometer and leading indicator.
- The index components are used as physical chartering benchmark rates.
- Used to establish value where contracts are frustrated or cannot be performed.
- Indices and components used for the settlement of shipping derivative contracts (FFAs).
Long or Short?

• A Ship Owner is by definition LONG of tonnage and will seek to protect themselves from a drop in Freight Rates
• A Charterer is by definition SHORT of tonnage and will seek to protect themselves from a rise in Freight Rates
• Hedging market risk
• Increasing exposure to market/speculation
Clearing in the FFA market

- SGX, LCH, Nasdaq, ICE, CME, EEX
- General Clearing Member
- Direct Clearing Membership
- Initial Margin
- Variation Margin
- Mark to market and the forward curve
FFA Cleared v. OTC volumes
Weekly dry FFA volumes
October 2011 – October 2016
FFA volumes year on year

Sources – broker estimates and Baltic Exchange
Weekly dry FFA Volumes by vessel class
October 2011 - October 2016
Tanker FFA volumes – Clean and Dirty
July 2014 – October 2016
Liquidity

- Current liquid markets
  - Dry
    - Capesize
    - Panamax
    - Supramax
    - Handysize
  - Wet
    - Clean
    - Dirty
  - Transparency
  - Basis Risk
  - Seasonality
  - Route definition changes
Capesize timecharter vs route-correlation

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Forward Assessments

- Mid prices submitted by panel of FFA brokers
- Clearing Houses use Baltic daily prices/forward curves to make margin calls against their customers with open positions
- Baltic Forward Assessments – used to help companies monitor their exposure to counterparties
Capesize Timecharter Average forward curve

STC_C–FFA

$ / day

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Capesize average Time Charter forward curves
Regulation and Financial markets

- FFAs fall under financial market regulation
- Dodd Frank
- MiFID
- IOSCO
- Benchmarks - underlying market relevance
- Who needs to be regulated?
Why use FFA’s

- Lock in Freight Costs
- Market Volatility
- No Physical Commitment
- Speculation/Arbitrage
Pros and Cons

Pros
• No physical performance
• Liquidity
• Expediency
• Flexibility
• Maintain control of physical assets

Cons
• Basis Risk
• Liquidity
• Other un-hedged variables
Who uses FFA’s

• Charterers
• Ship Owners
• Operators
• Traders
• Banks
• Hedge funds
• Speculators
The Future.........