



# Introduction to the Baltic Exchange and the Freight Derivatives Market

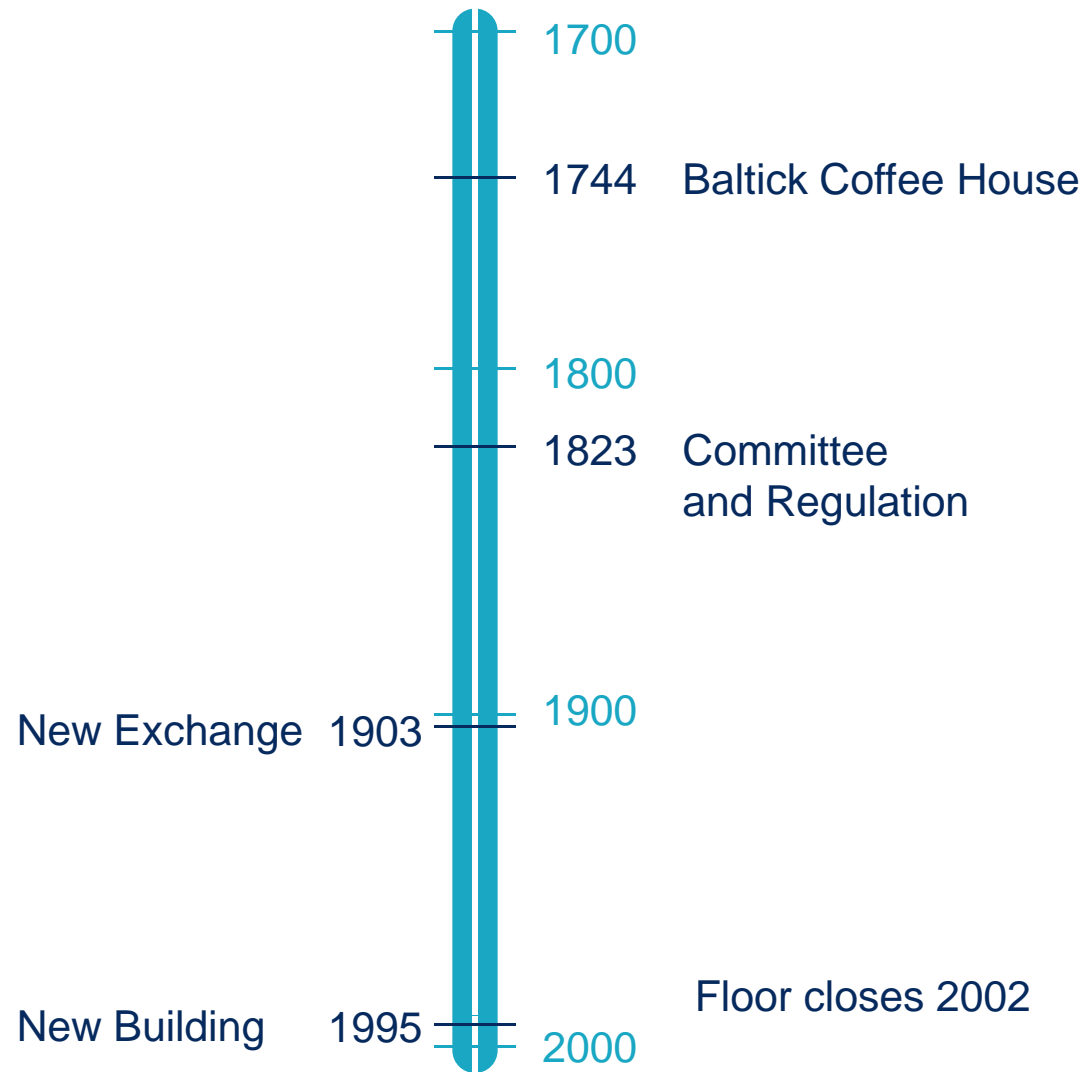
International Pig Iron Association – Milan 2009



Jeremy Penn, Chief Executive

Our word **our bond**

# History



# Baltic members

- Chartering
- Sale & purchase
- Freight derivatives
- Demolition
- Offshore
- Research



# The Baltic Exchange

- Baltic NOT a futures market
- Provider of price mechanism
- Community of market participants
- 580 member companies
- Pooling information for the benefit of the market
- Neutral, Independent, Reputable, Trusted
- Baltic Code
- Networking/community
- Meeting facilities



# The Baltic Exchange

- Turnover £5.1 million (profit £1.2 million)
- Balance Sheet £25 million
- Property £15 million
- Investments £13 million
- Member Companies approximately 580
- Shareholders approximately 440



# Baltic market information

- **Indices**
  - Baltic Exchange Dry Index (Baltic Freight Index)
  - Baltic Exchange Capesize Index
  - Baltic Exchange Panamax Index
  - Baltic Exchange Supramax Index
  - Baltic Exchange Handysize Index
- **Baltic Exchange Dirty/Clean Tanker Indices**
- **Settlement data**
- **LPG route assessment**
- **Baltic Exchange Sale & Purchase Assessment**
- **Baltic Exchange Ship Demolition Assessment**
- **Daily dry cargo fixture list**
- **Baltic Exchange Forward Assessment**



# Baltic market information

## **Dry timecharter route (pricing = US \$ per day):**

Standard "Tess 52" type vessel with grabs as follows: • 52,454 mt dwt self trimming single deck bulkcarrier on 12.02 m ssw • 189.99 m LOA 32.26 m Beam 5ho/ha 67,756 cum.grain 65,600 cum.bale • 14L /14.5B on 30mt (380 cst) no mdo at sea • Cr 4 x 30 mt with 12 cum grabs • Maximum age - 10 years

Route 1A Delivery Antwerp/Skaw range for a trip of 60/65 days redelivery Singapore/Japan range including China 5 per cent commission total. Laycan 5/10 days in advance. Weighting 12.5 per cent.

**Route average (12/02/07): \$26,759**

## **Dry voyage route (pricing = US \$ per tonne):**

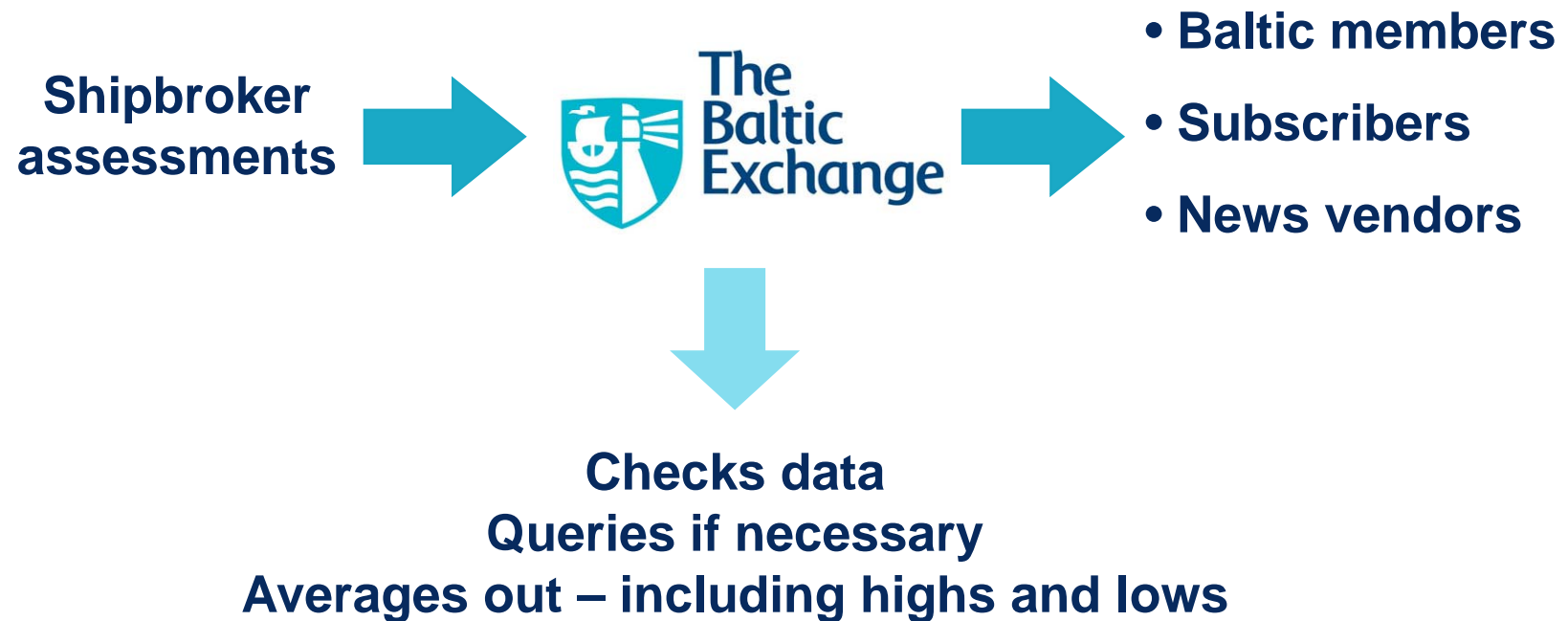
### **Route C4**

Richards Bay/Rotterdam, 150,000 mt 10 per cent coal free in and out and trimmed, scale load/25,000 mt Sundays holidays included discharge. 18 hours turn time at loading port and 12 hours at discharge port. Laydays 25 days forward from date of index, cancelling 40 days forward from date of index. Vessel's age max. 15 years. Freight based on metric tonnes. 3.75 per cent total commission. Weighting 5 per cent

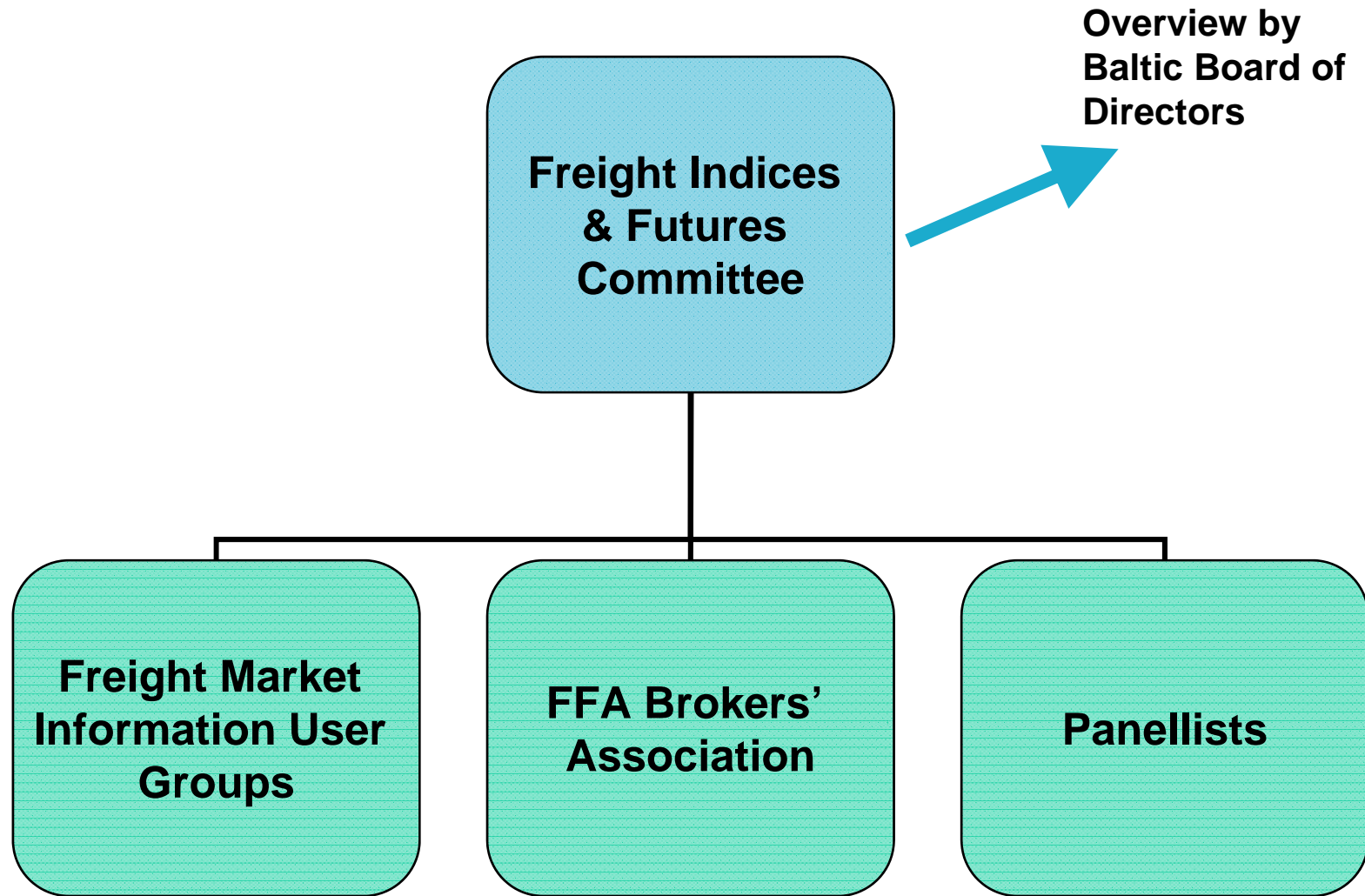
**Route average (12/02/07): \$22.33**



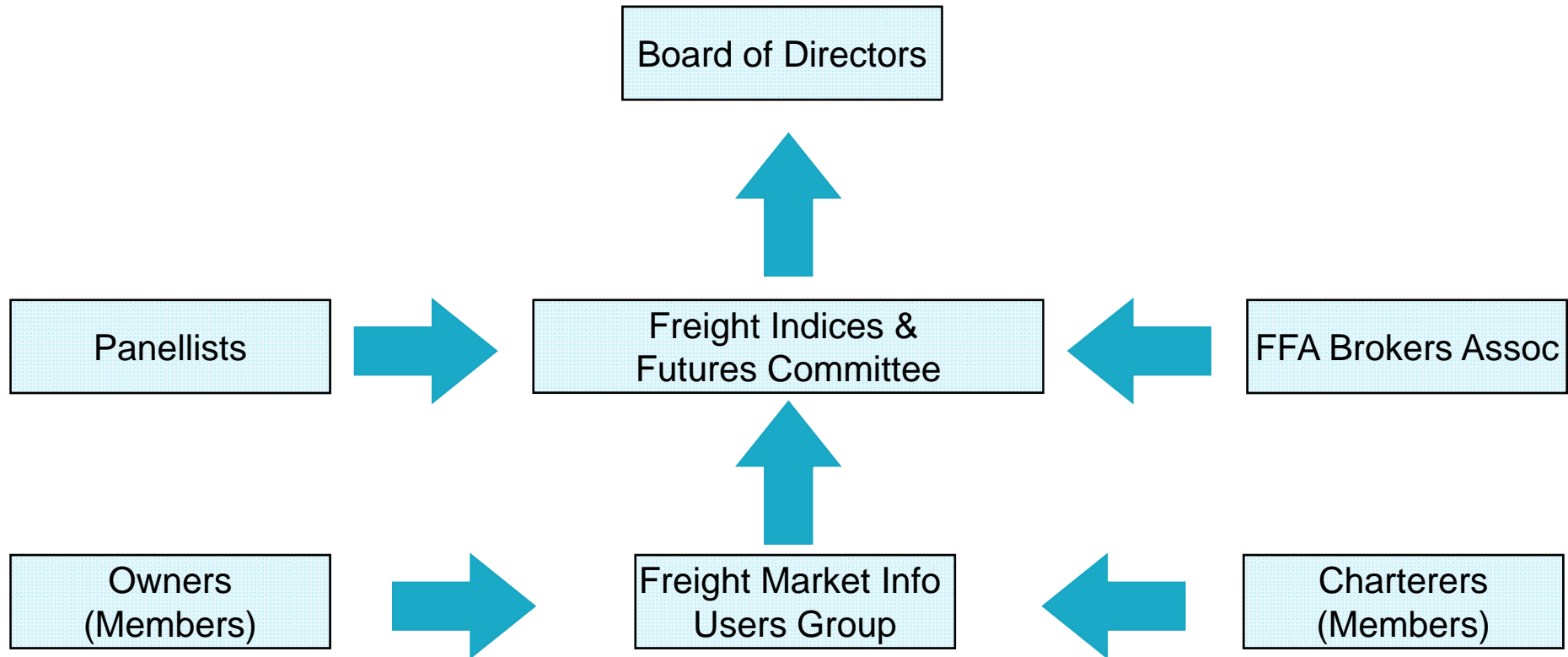
# Index production



# Control of Baltic information



# Consultation



# 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



# Sample route (wet)

## Route: TD1

280,000mt, Middle East Gulf to US Gulf. Ras Tanura to LOOP with laydays cancelling 20/30 in advance. Maximum age 20 years.

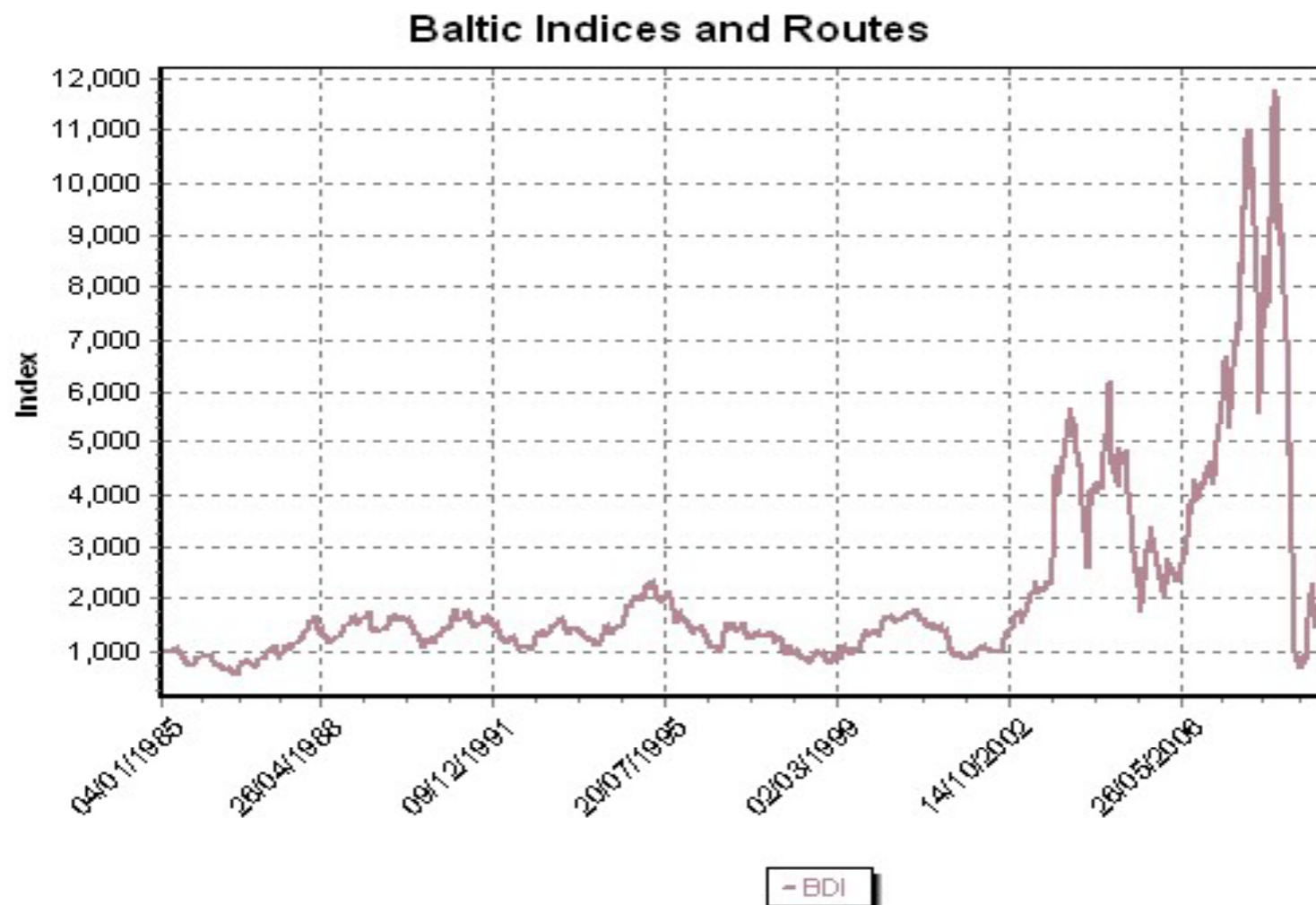


# Baltic Capesize Index

Route	Description	Size mt	Weighting	Average in usd
C2	Tubarao / Rotterdam	160,000	10%	11.006
C3	Tubarao / Beilun - Baoshan	150,000	15%	22.610
C4	Richards Bay / Rotterdam	150,000	5%	13.828
C5	W Australia / Beilun - Baoshan	150,000	15%	10.883
C7	Bolivar / Rotterdam	150,000	5%	11.239
C8_03	172000 Del. Gib - Hbg T/a r/v	172,000	10%	34167
C9_03	172000 Del. Cont - Med Trip F/E	172,000	5%	49380
C10_03	172000 Del. China - Japan F/E r/v	172,000	20%	42775
C11_03	172000 Del. China-Japan Trip Cont-Med	172,000	5%	32540
C12	Route Gladstone/Rotterdam	150,000	10%	19.152



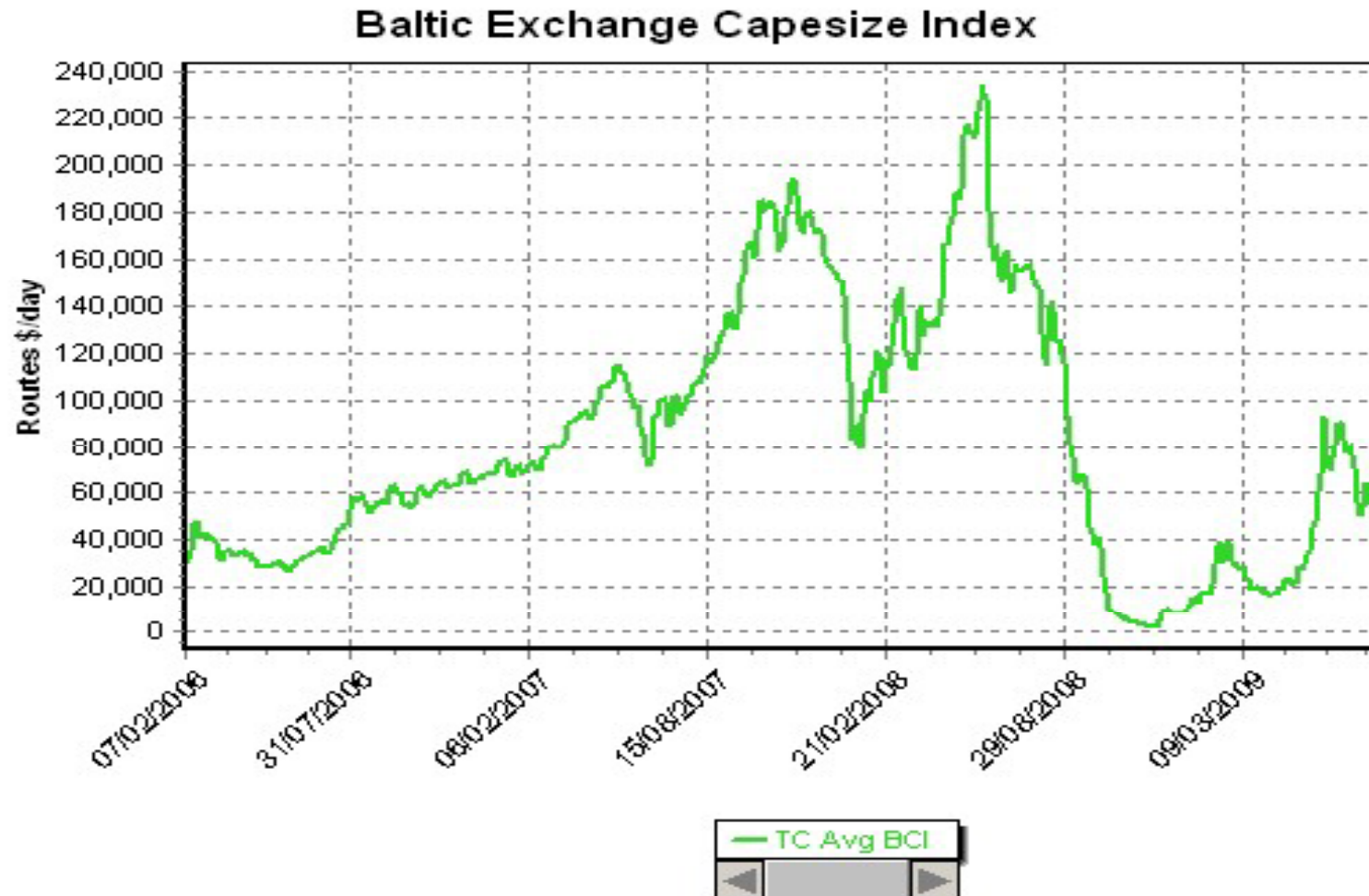
# Baltic Dry Index 1985 - 2009



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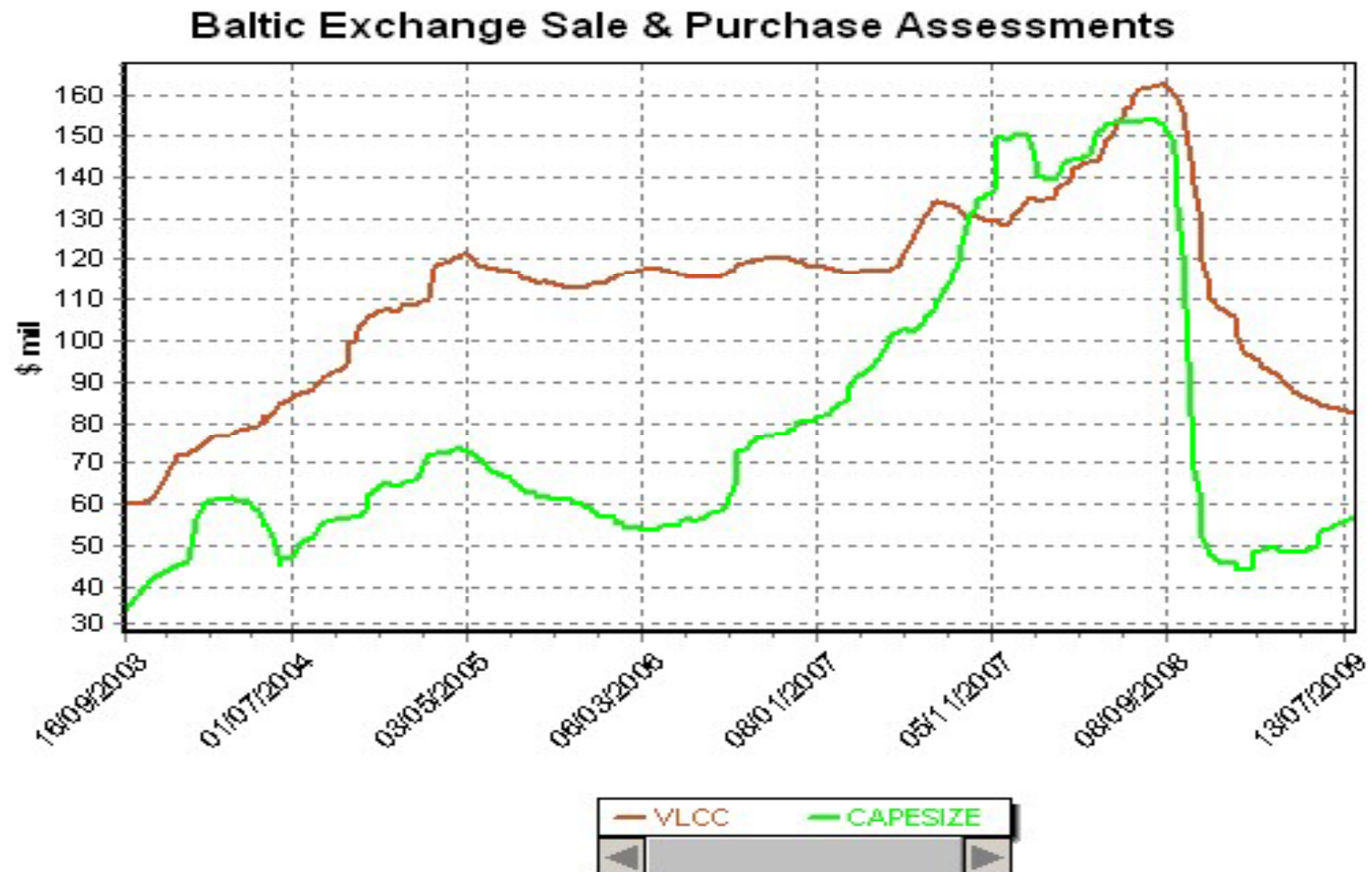
# Capesize 4tc average rates



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# Asset values



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# Time Charter Equivalent

- Eliminates obscurity of Worldscale (WS) rates
- Eliminates WS year-end change
- Transparent process
- Inputs/input sources published on Baltic website
- Existing market participants committed to making TCE prices derived from WS market



# Time Charter Equivalents

- Reflect worldwide daily TC value of different standard vessel types
- Permit trading based on owner/operator/analyst point of view
- Dollar rates more accessible
- Enable transparent pricing of FFAs for banks and other traders



# VLCC

- 300,000 mt dwt, double hull. 155,000 scnt
- 14.5 knots on 90 mt IFO (average laden/ballast)

## IN PORT

- 2 days loading 20 mt per day
- 2 days discharging 85 mt per day
- 1.5 days waiting/anchor 10mt per day

TD1 (Ras Tanura/LOOP)

TD3 (Ras Tanura/Chiba)



# Derivatives market overview

- Hedging market risk
- Increasing exposure to market (speculation)
- Liquidity
- Basis risk
- Futures, swaps, options
- Derivatives as a tool for the physical market



# What is a Forward Freight Agreement?

- Paper swap deal between 2 principals
- 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 closed out against an index or assessment of spot market over the future period
- Cleared or mutual credit



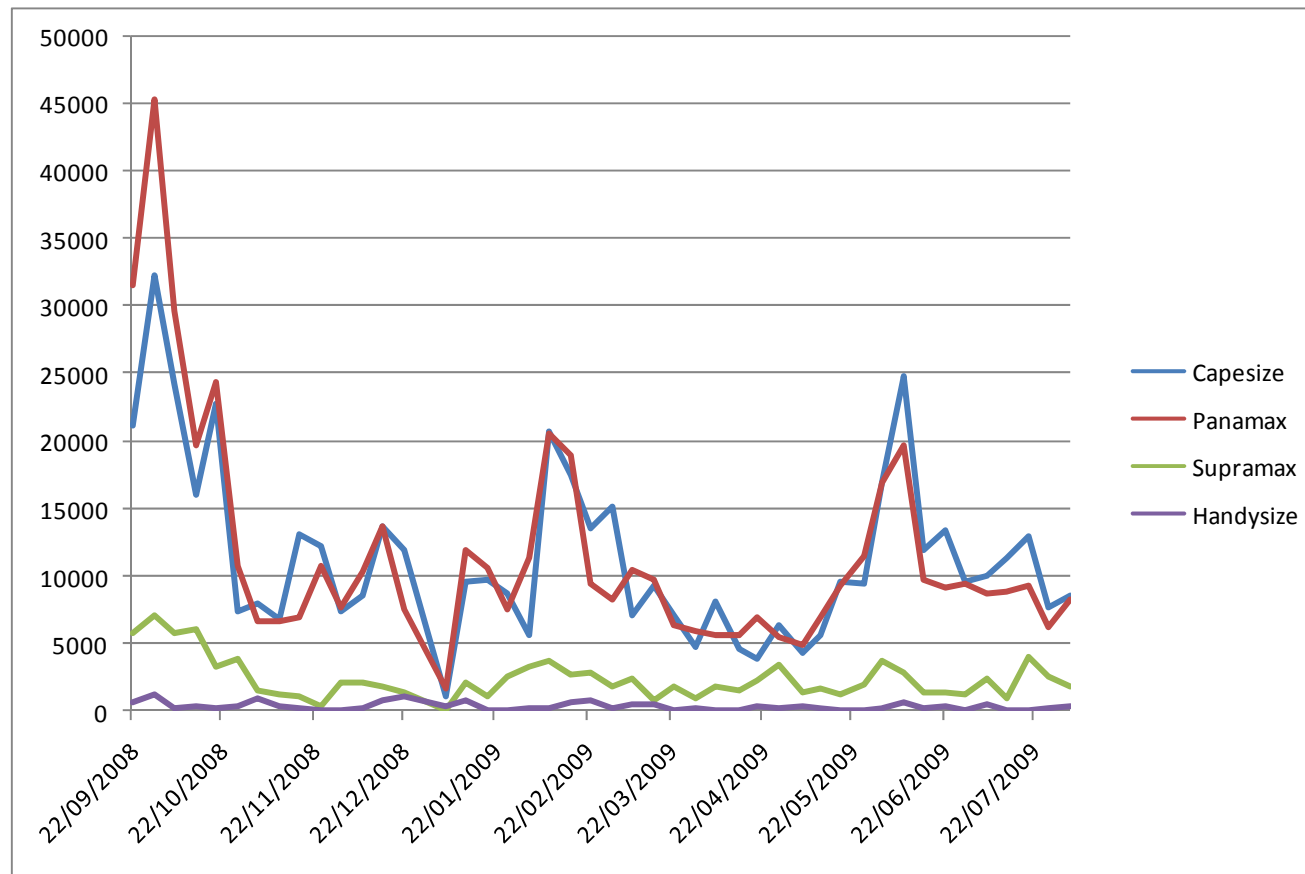
# Clearing in the FFA market

- NOS, LCH-Clearnet, SGX, Nymex
- General Clearing Member
- Direct Clearing Membership
- Initial Margin
- Variation Margin
- Mark to market and the forward curve

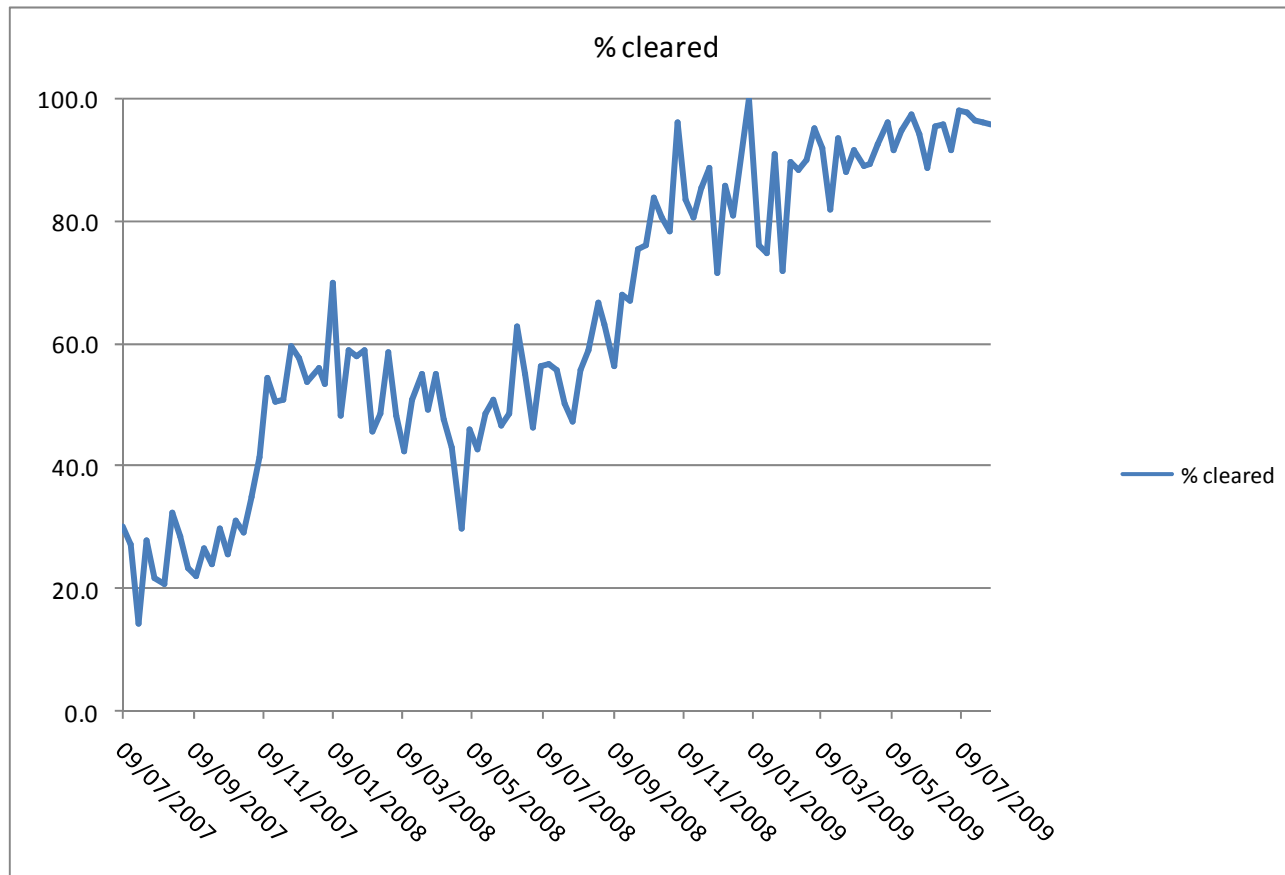


# Weekly dry FFA volumes

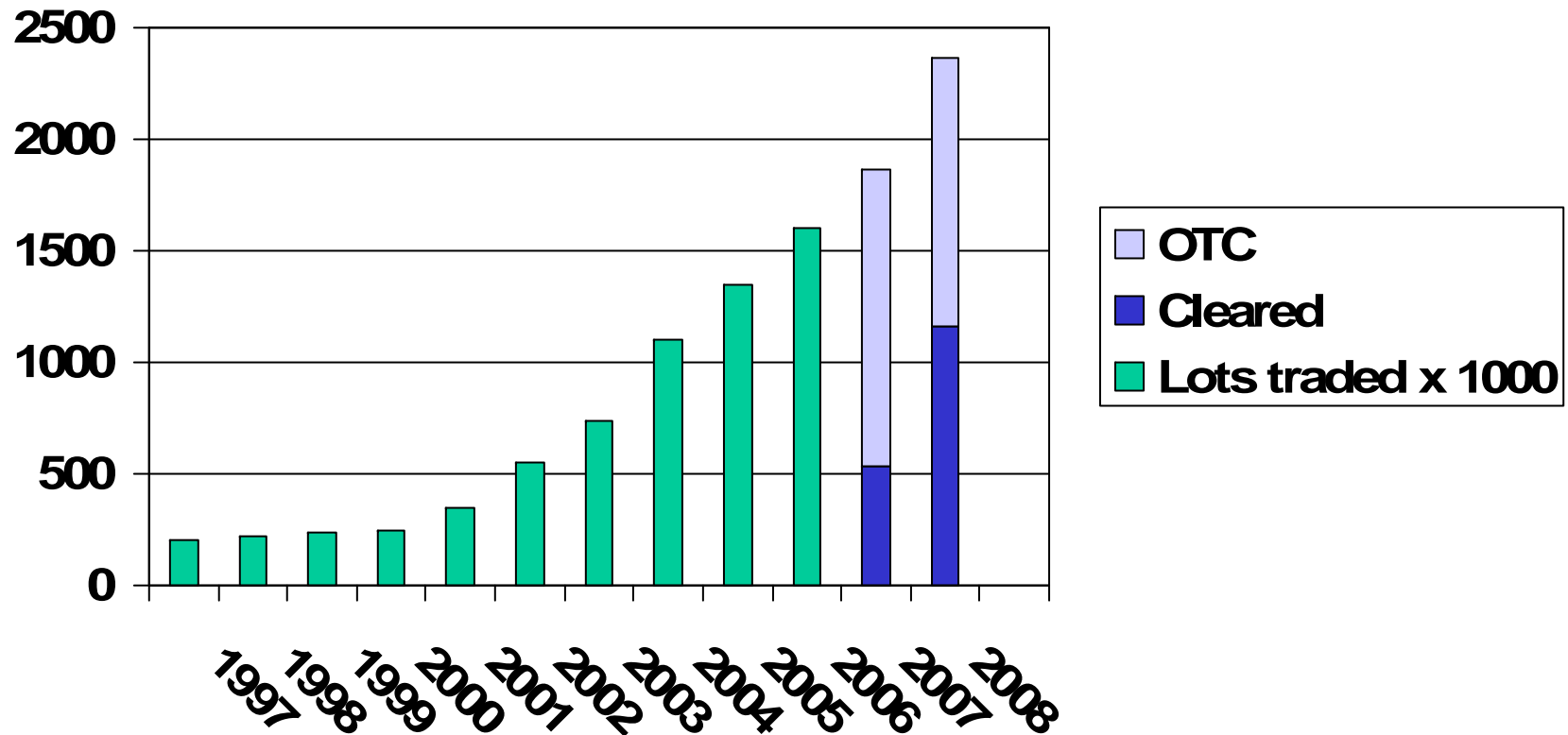
## 22 Sept 08 – 03 Aug 09



# % of dry cleared trades July 2007 – Aug 2009



# FFA yearly volumes - dry

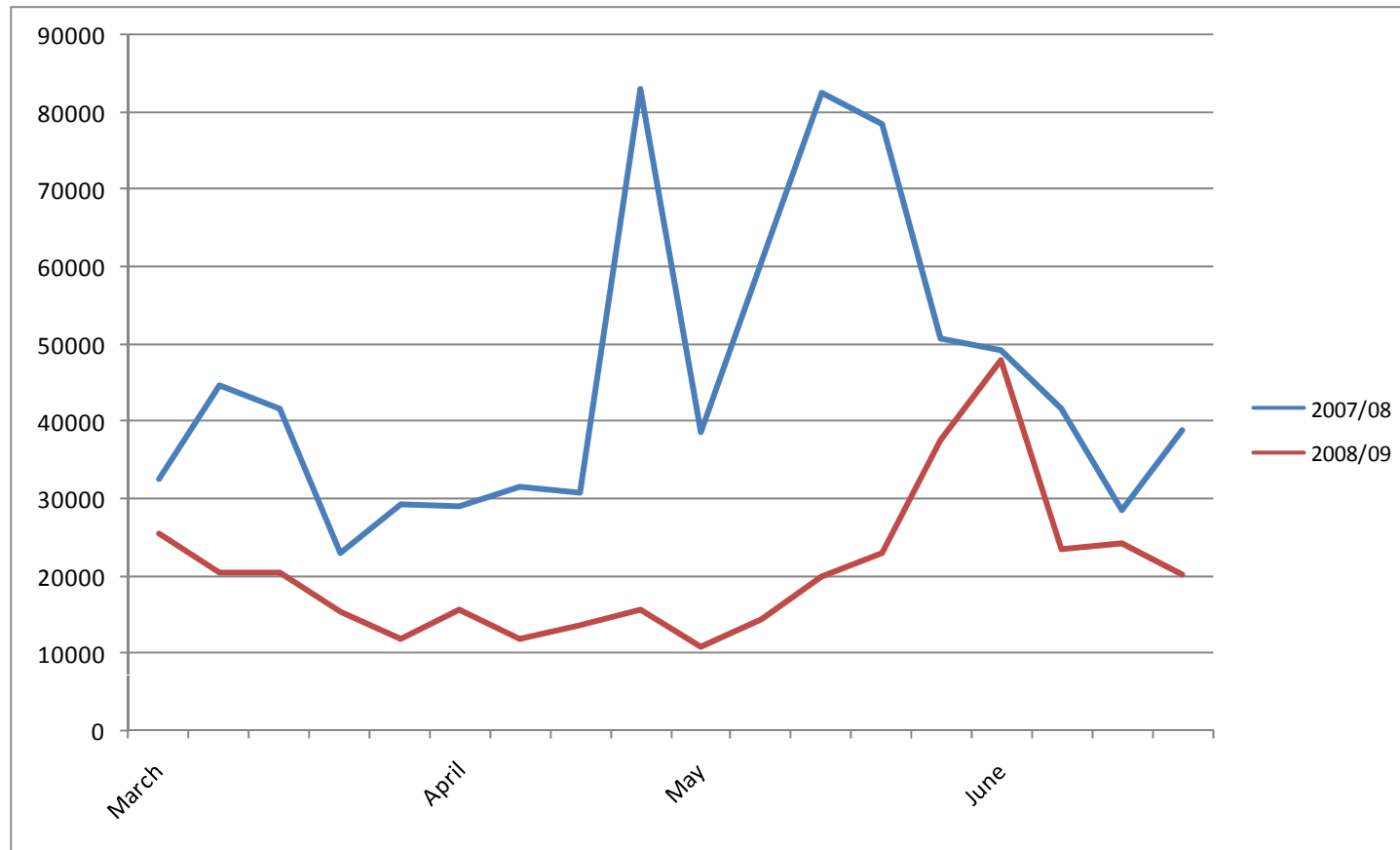


X1 lot = 1000 mt ocean transportation or x1 day vessel hire

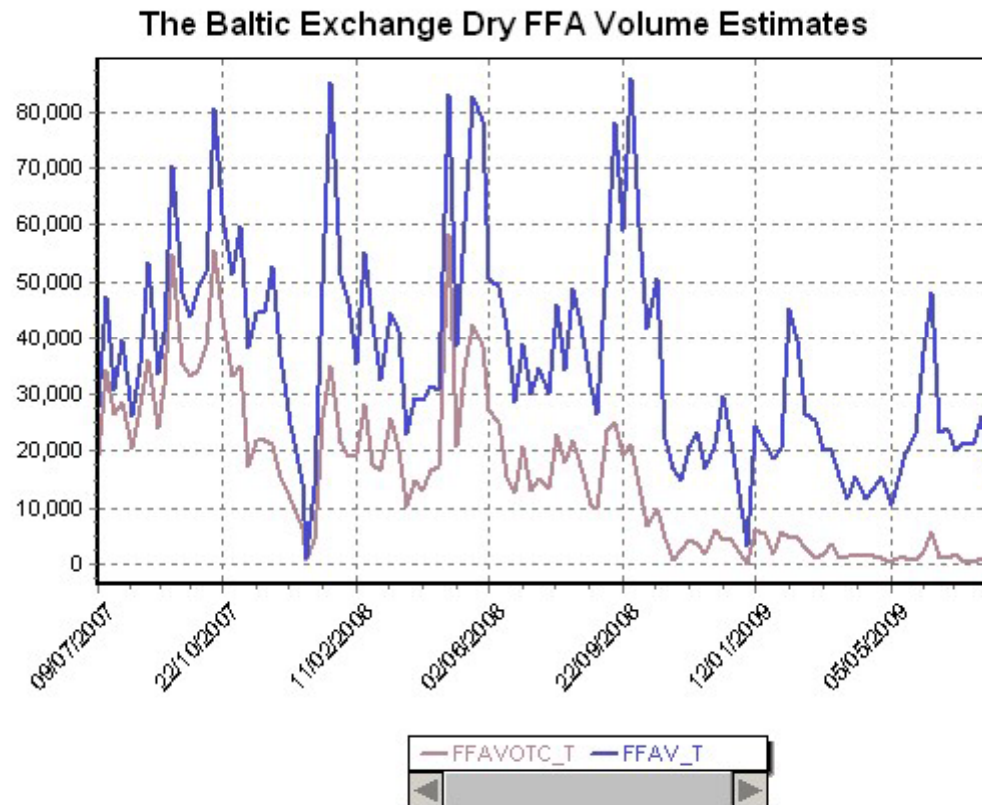
Source: Broker estimates



# FFA volumes Mar 08 to Jun 08 vs Mar 09 to Jun 09



# FFAs: cleared vs Bilateral



← Cleared

← Bilateral



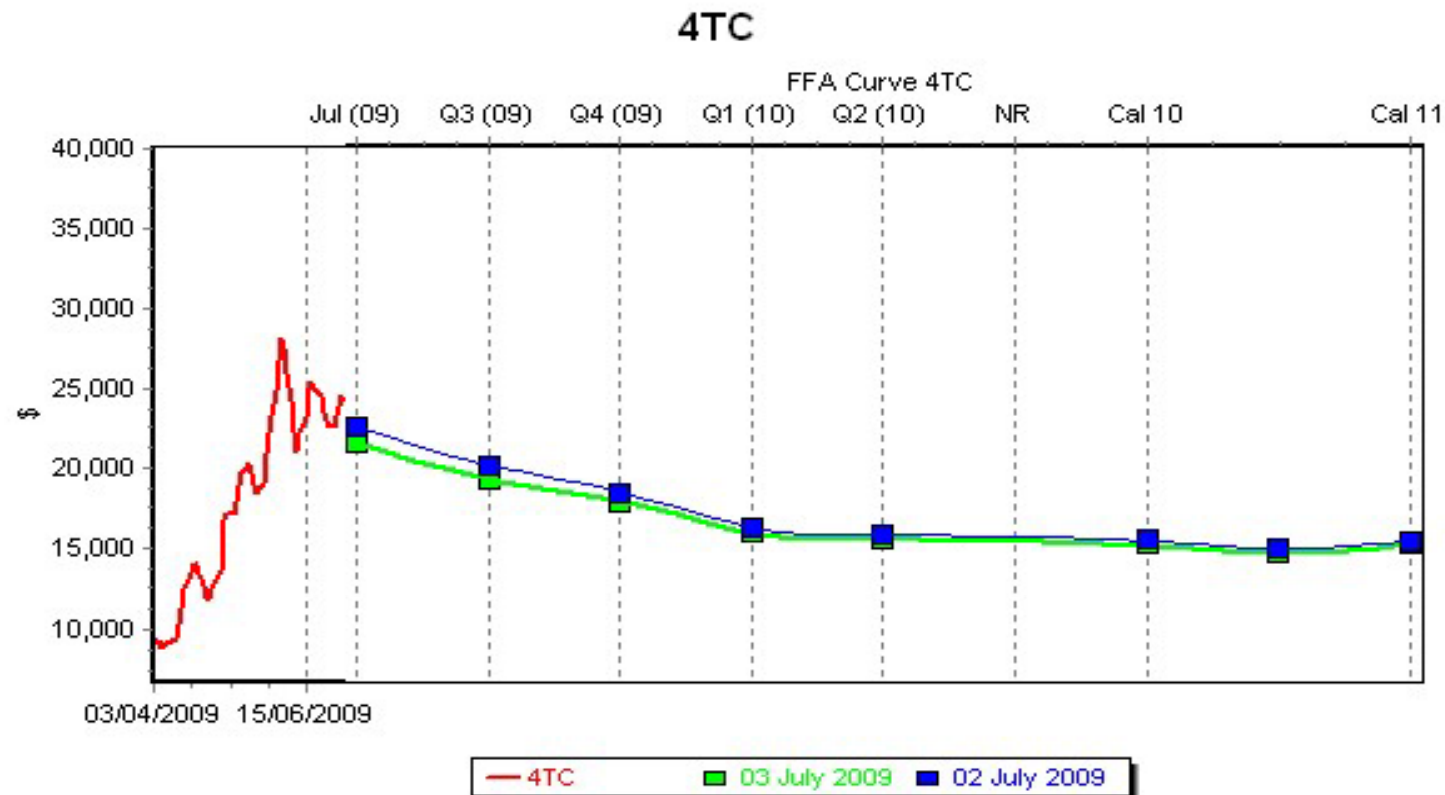
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# Forward Assessments

- 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



# Forward curve: Panamax TC Average



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# Mark to market example

How Many Days Exposure for each Contract in Jan 2008. The Net total is 72, but the total days contracted are 371

Long Freight = Buy  
Short Freight = Sell  
Buy is an owned vessel, time charter in, paper buy, or the re-let of a cargo

Curve Selected to Measure Forward Market, either the BSI T/C Average or A Baltic BSI Route

Mathematical Value of (Curve Price – Deal Price) x Days. The US\$ 1.53 m is the expected profit in Jan 08 with the current positions and forward curve

ID	Month	Days	Deal Type	Long/Short	Deal Price	Forward Curve	Curve Price	M2M Value	Counterparty
57	Jan-08	31.00	OWNED	BUY	\$11,056	HMX BSI Avg - Physical	\$54,251	\$1,339,052	INTERNAL
62	Jan-08	-31.00	TC OUT	SELL	\$20,185	HMX BSI Avg - Physical	\$54,251	-\$1,056,053	CHARTERER 1
85	Jan-08	20.00	TC IN	BUY	\$24,154	HMX BSI Avg - Physical	\$54,251	\$601,944	OWNER 2
114	Jan-08	-48.00	VC	SELL	\$47,000	HMX BSI Avg - Physical	\$54,251	-\$348,048	CHARTERER 2
187	Jan-08	31.00	TC IN	BUY	\$39,250	HMX BSI Avg - Physical	\$54,251	\$465,038	OWNER 3
191	Jan-08	31.00	TC IN	BUY	\$36,250	BSI - S2 - Physical	\$51,458	\$471,448	OWNER 4
193	Jan-08	31.00	TC IN	BUY	\$41,175	HMX BSI Avg - Physical	\$54,251	\$405,363	OWNER 5
195	Jan-08	-55.00	VC	SELL	\$41,000	HMX BSI Avg - Physical	\$54,251	-\$728,805	CHARTERER 3
198	Jan-08	31.00	TC IN	BUY	\$47,500	HMX BSI Avg - Physical	\$54,251	\$209,288	OWNER 2
201	Jan-08	31.00	PAPER	BUY	\$46,375	HMX BSI Avg - Paper	\$51,818	\$168,735	FFA CP 1
<b>Total (Net)</b>		<b>72.00</b>						<b>\$1,527,961</b>	

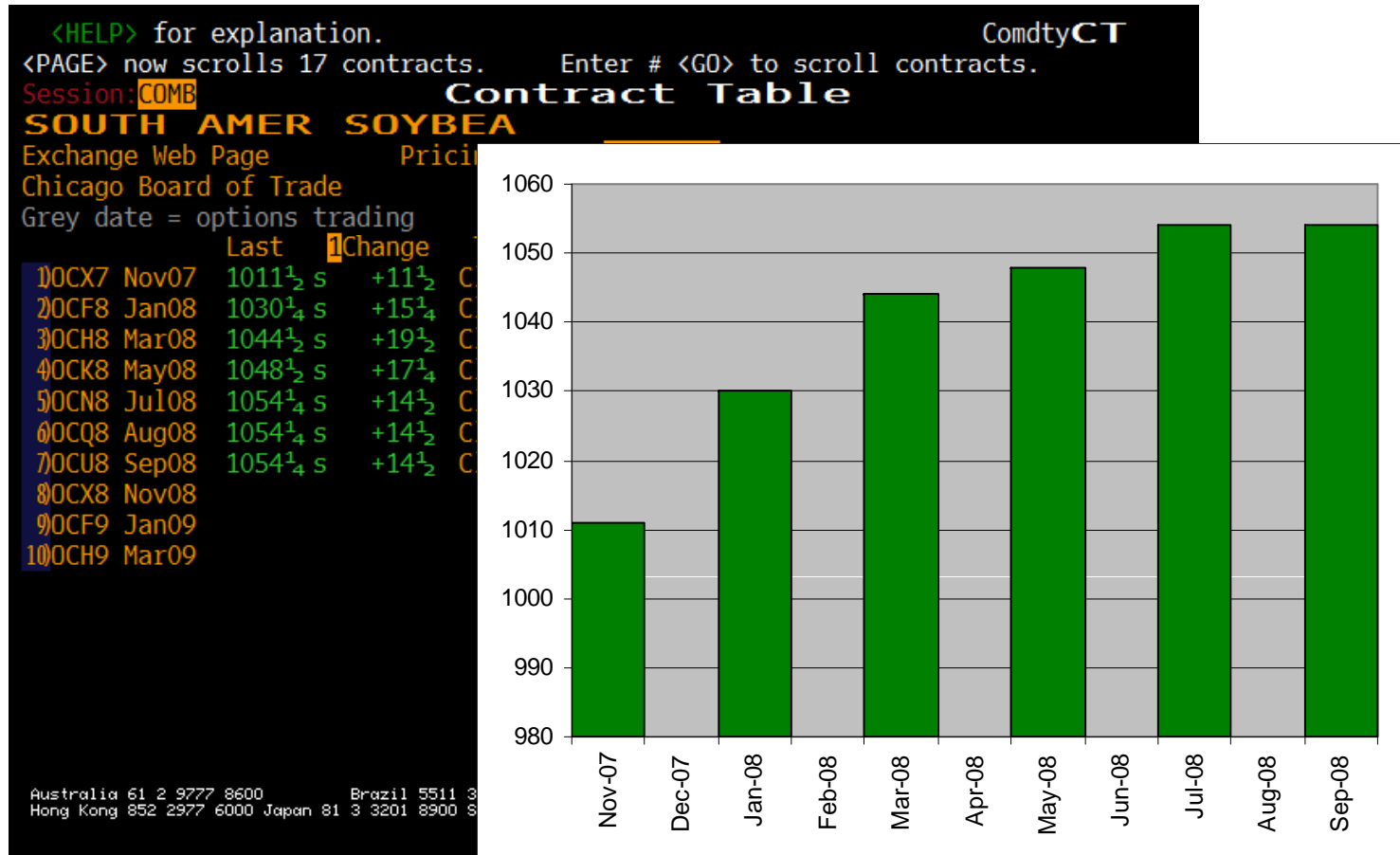
Type of Contract

Price Paid or Received in US\$ per day, converted always to the equivalent of a BSI 52 dwt

Monthly slice of Applicable Forward Curve in US\$ per day basis a BSI 52 dwt

Counter Party Detail, for Use to Establish Credit Exposure

# S American soy bean contract





The  
Baltic  
Exchange



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