Oil Trading

Simon Basey / November 28, 2013
What does IST do?

- Imports crude oil and other feedstocks for the refinery system
- Markets BP’s equity crude oil, NGLs and natural gas
- Exports finished products and components to maximise refinery margins
- Generates entrepreneurial trading income
- Offers risk management products to third parties
- Works with each business segment to enhance value
- Imports products to meet marketing demand
- Manages BP’s forex requirements, debt positions and share buybacks
What is trading?

In the past deals had to be concluded face-to-face or on open outcry floors. Trading was centralised and participants had to be physically present or executing through nominees to be in the market.

Technological advances have made trading now more screen focussed, with less personal interaction, but physical trading still offers great opportunities for relationship-based business.
Physical or Paper?

Prices - 02/03/11

<table>
<thead>
<tr>
<th>Delivery</th>
<th>Time (CET)</th>
<th>Last</th>
<th>Vol</th>
<th>Day Vol</th>
<th>Bid</th>
<th>Ask</th>
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<th>+/-</th>
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<th>Low</th>
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Global business opportunities
Functional expertise is core to IST’s success

7 specialist functions

<table>
<thead>
<tr>
<th>Ethics &amp; Compliance</th>
<th>Commercial Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>Risk</td>
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<tr>
<td>IT&amp;S</td>
<td>Legal</td>
</tr>
<tr>
<td>HR</td>
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</table>
Logistics, planning, transportation

**Refineries**
BP Castellon

**Ships**
LR1 – Stena Poseidon

**Tank farm**
Linden, NJ
The importance of assets

Myth

We only speculate on the price of oil and gas.

Reality

We don’t speculate on price.

Assets form the basis of trading within BP.

We do speculate on quality differentials, regional differentials and time differentials.
Trading tactics

- **ARBITRAGE**: trade the dislocation of prices between geographical areas or time periods

- **FLAT PRICE TRADING**: trade the outright position and movement in one commodity

- **HEDGING**: mitigate risk, for example using offsetting futures contracts

- **SPREADS TRADING**: trade the movement in difference between two products or over time
  - **CRACKS/SPARKS**: trade the movement in difference between crude and refined product (crack spread) and gas and electricity (spark spread)
Tools of the trade

• Fundamentals
  – News, price feeds, stock reports, OPEC production
• Technical market analysis
• Sentiment
• Analysts
  – Quantitative
  – Risk
  – Credit
You are a crude all trader, focussing on US crude oil futures. How would you trade the following timeline of events:

b. A peace deal is agreed with the insurgents and attacks cease for the time being.
c. A hurricane develops in the Gulf of Mexico and threatens to shut in crude production.
d. New data indicates improving world economic conditions.
e. Shift in the course of the hurricane means that crude production is not impacted but refineries in the Houston area prepare to evacuate.
f. OPEC agree to increase headline output quota by 2mbbl/day
Entrepreneurial trading is a source of value
Some trading terminology

**PHYSICAL**
the tangible commodity e.g. crude, gasoline, jet fuel

**BULLISH**
the belief that market prices will rise

**LONG**
to net own a commodity in a market

**CARGO**
a standard size of crude or product traded on a market

**BID**
the price at which you are prepared to buy

**PAPER**
financial derivatives e.g. futures, swaps and options

**BEARISH**
the belief that market prices will fall

**SHORT**
to net owe a commodity in a market

**LOTS**
a standard volume of commodity relating to future contracts

**ASK/OFFER**
The price being quoted at which to sell
Cargo trading

A major part of trading involves identifying ways to trade cargoes effectively and trying to extract value from supply and demand of oil. Consider the below:

<table>
<thead>
<tr>
<th>Offers</th>
<th>Bids</th>
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<tbody>
<tr>
<td>FOB Rotterdam 95R</td>
<td>5kt</td>
</tr>
<tr>
<td>FOB Rotterdam 92R</td>
<td>5kt</td>
</tr>
<tr>
<td>FOB Rotterdam 95R</td>
<td>10kt</td>
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<tr>
<td>CFR Rotterdam 95R</td>
<td>5kt</td>
</tr>
<tr>
<td>CFR Antwerp 95R</td>
<td>5kt</td>
</tr>
<tr>
<td>CFR Amsterdam 92R</td>
<td>5kt</td>
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</table>

<table>
<thead>
<tr>
<th>Freight costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotterdam-Amsterdam: 5kt=$6mt / 10kt=$4mt</td>
</tr>
<tr>
<td>Rotterdam/Antwerp: 5kt=$3/mt / 10kt=$2/mt</td>
</tr>
</tbody>
</table>

| FOB= Free on Board |
| CFR= Cost and Freight |

What deals can you do on the above? How much money can you make from these deals? (You can only use each bid or offer once)
Some trading terminology

- **BACKWARDATED:** Market structure where prompt prices are at a premium to prices for delivery in the future.

- **CONTANGO:** Market structure where prompt prices are at a discount to prices for delivery in the future.

- **EXPOSURE:** The extent to which a price change in the market affects your profit or loss.

- **FUTURES:** A contract for the purchase or sale of a commodity which is traded for future delivery at a price or pricing formula agreed at the time the contract is entered into.

- **LIQUIDITY:** A market is said to be 'liquid' when it has a high level of trading activity, allowing buying and selling of commodities with minimum price movement.
Exposure Management

Market swap values

<table>
<thead>
<tr>
<th>Month</th>
<th>Value (mt)</th>
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<tr>
<td>December</td>
<td>$943</td>
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<tr>
<td>January</td>
<td>$931</td>
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<tr>
<td>Dec/Jan</td>
<td>$12</td>
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</table>

n.b. Market cargo value is +4. Assume you can trade this level at all times.

Trading cargoes

- There is a cargo on offer at January+14 for delivery on December 14-16. Do you buy it?

- In the Platts window Shell are bidding for a cargo at $938/mt for January delivery. Would you sell this bid? How much money do you make/lose? What other risks might this trade indicate compared to the one above?

- A cargo is offered by Trafigura at December-7 for delivery 10-20 January. Would you buy this? If it were a bid would you sell it? How can you make sure you don’t lose money? What if the real market for Dec/Jan was 11/13?