

# Pricing models in a new regulatory environment

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# Overview

- The importance of benchmarks
- Different methodologies
- Credit crunch fall-out
- Conclusions

# Why are pricing benchmarks important?

- Settlement of physical contracts
- Settlement of derivative contracts
- Mark to market
- Ensuring a fair price for buyer and seller

# Price reporting methodologies

- What is the rationale behind the competing pricing methodologies?
- Do jet fuel markets suffer from low liquidity?
- How can airlines and suppliers ensure that market prices are representative?

# How are prices assessed?

- Incremental jet trade on spot market only way to establish price
- Agencies conduct daily market surveys
- Jet fuel assessed as a premium to gasoil futures

# Alternative methodologies

- Intelligent assessment involving subjective market analysis
- Volume-weighting spot trade
- Using Market-on-close indicators
- Publishing range of daily trade
- Deriving physical prices from forward markets

# The Argus Methodology

- Listen to the market. Design a methodology that meets the needs of the market.
- The majority of refiners and airlines want to see trade throughout the entire day reflected in the index price.
- Jet fuel trades throughout the entire day.
- Jet fuel trade data is readily available from refiners, traders, brokers, airlines.

# The Argus Methodology

- Argus jet prices represent the range of trade over the course of the entire trading day.
  - In the US, publish low and high of deals done. Deals must meet strict volume, timing, specifications.
  - Publish volume-weighted average for Houston jet fuel.
  - Publish lists of deals done in all markets every day.
- In markets with no trade, assess the range within which product could have traded based on bids, offers, and other correlative markets.
- Survey all participants. Confirm all deals.
- Maintain constant ethical control and compliance.

# Market on close

- Fully transparent with bids, offers and trades all recorded on real-time information system
- Avoids “stale price arbitrage”
- All oil products and crude oil assessed at the same time offering “true” refinery margins
- Backed up with strict compliance

# Liquidity matters

- Pricing models all susceptible to distortion without liquidity
- European markets need more spot players
- What percentage of trade is reported?
- Swap markets only useful as a true hedge if you can get in and out of positions easily

# Why is market liquidity important to refiners and airlines?

- Liquidity is necessary for market efficiency, to provide a fair clearing market to endusers that are price-takers.
- Liquid markets create more accurate refining margins, which dictate key production decisions at refineries.
- Truly active spot markets are rare across all energy commodities, not just jet fuel.
- Industry feels that trade data should not be discarded, but utilized as much as possible.
- Which pricing methodology most effectively uses the liquidity that is available?

# Are European jet fuel markets illiquid?

- NWE often sees just one cargo trade per week.
- Rotterdam barges trade around 20,000 tons per week.
- Trade occurs underground
  - Before the launch of market-on-close, liquidity was 10 times greater than at present.
  - Companies estimate that 90% of spot market trading today is not reported to the services.
- The trade that is made known is done in the MOC window – because airline contracts are linked to an MOC price.
  - If an entire-day index was used, trade throughout the day should return and liquidity would increase.
  - Argus uses an entire-day method, but all trade reflects an MOC price.

# Credit-crunch fall-out

- Derivative trade under the microscope
- US will set the tone on regulation
- OTC markets move to exchanges

# What regulators will require from reporting agencies

- Transparency
- Open databases and audit trail
- Ethical compliance
- Independent compliance officer

# European jet barge deals

- Date GradeDel. ModeVolumePriceSellerBuyer
- 11 Sep 2009 Jet-kerosine  
ARAcif12,500t611.00USD/t StatoilBP
- 11 Sep 2009 Jet-kerosine ARAfob2,000t+38.00 Ice  
gasoil OctUSD/t KLMS Shell 10 Sep 2009 Jet-kerosine  
ARAcif2,000t+38.00 Ice gasoil OctUSD/t KLMBP
- 08 Sep 2009 Jet-kerosine ARAfob2,000t+37.00 Ice  
gasoil OctUSD/t KLMS Shell
- 02 Sep 2009 Jet-kerosine ARAfob2,000t+45.00 Ice  
gasoil SepUSD/t Hetco Petrofina
- 01 Sep 2009 Jet-kerosine ARAfob2,000t+42.00 Ice  
gasoil SepUSD/t Hetco Mabanft

# Representative prices

- Liquidity is the best way to achieve representative prices.
- The more trade the methodology includes, the less effect a single company can have on the final published price.
- Volume-weighted averages
  - Smaller trades have less influence on a volume-weighted average. Requires a liquid market.
- Low & High range of deals done
  - Can be fortified by strict guidelines, confirmations, and an intelligent approach to market assessments.
- Intelligent assessments
  - The most functional method of preventing against manipulation in illiquid markets.

# What can airlines and fuel suppliers do to ensure better indices?

- Compare methodologies based on your concerns over liquidity.
  - If liquid clearing markets are important to you, choose the pricing service that includes the most liquidity.
- Diversify your indexation strategy.
  - Refiners should review their current transfer pricing index to see if it is representative and if it meets needs of airline clients.
  - Airlines should diversify term contract indices and work to understand the methodological differences. Airlines have started to do this in US.
- This will in turn create more liquidity, efficiency, and a competitive structure.

# Conclusions

- Monopolies are not good for business
- Market reporting is an inexact science
- The spotlight will increasingly fall on agencies
- Liquidity will lead to competition