LUKOIL
OILCOMPANY

LITASCO SA
LUKOIL INTERNATIONAL TRADING AND SUPPLY COMPANY

"Interactions between Financial and Energy Markets: Trends in Energy Commodities Trading with Respect to Market Participants, Products, Prices and Volatility"

Alessandro Mauro
Head of Risk Management

XVII International Tor Vergata Conference on Banking and Finance

GME session: Financial Markets Impact on Energy prices

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

- LITASCO (LUKOIL International Trading and Supply Company) is the **international marketing and trading company** of the LUKOIL Group.

- LITASCO is one of the **world's major traders** of crude oil and refined petroleum products, present in **twelve different countries on five continents**. LITASCO deals with a relevant number of suppliers and customers, including all of the world's major oil corporations.

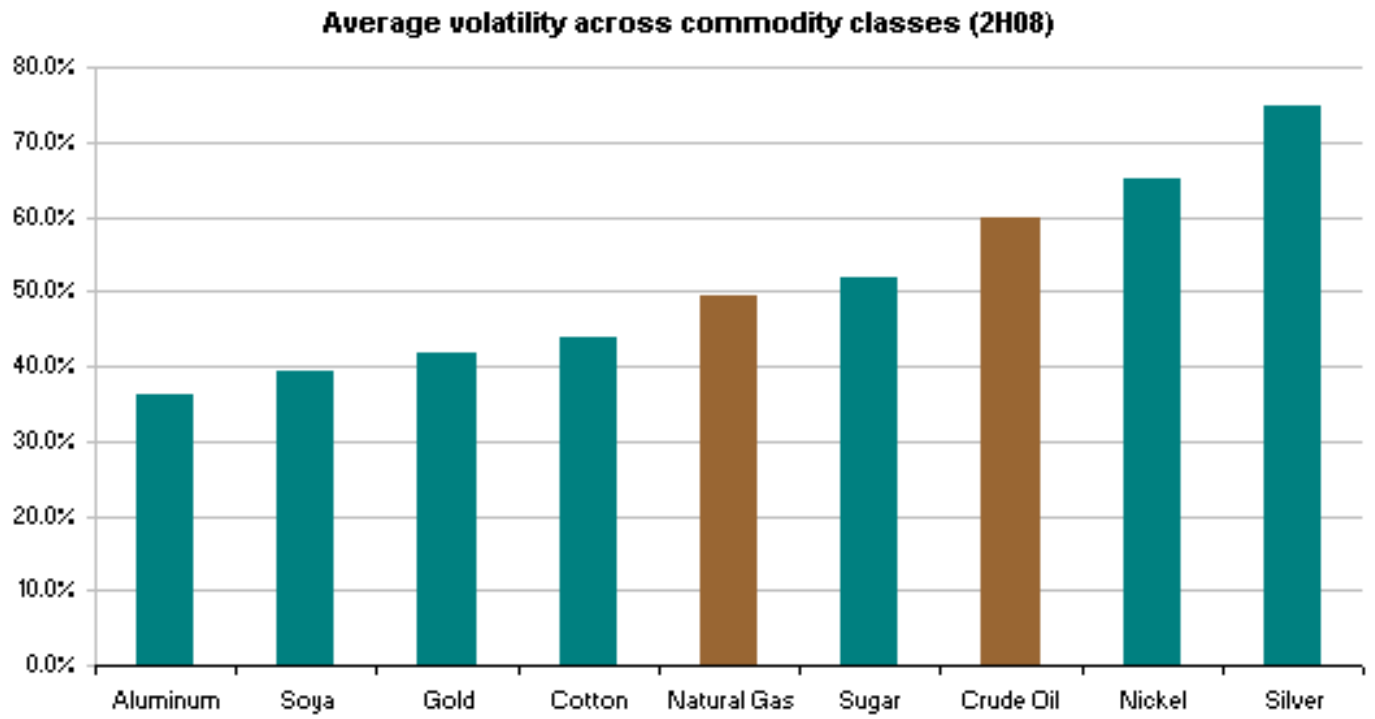
- LITASCO is continuously **exposed to price risk** and deals in a wide range of oil derivatives in order to reduce such risk.

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

COMMODITIES VOLATILITIES



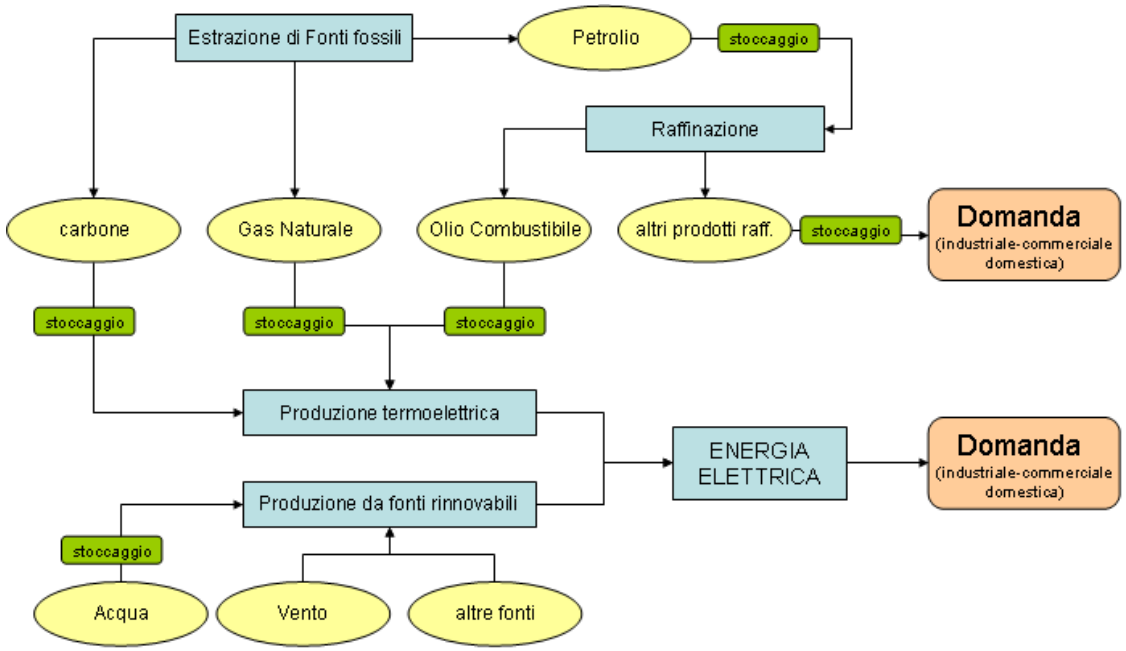
- Energy markets at the high end of commodities volatilities

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

PHYSICAL MARKET STRUCTURE



Important factors

- market **liberalization** status
- **logistics** (transport., storages, etc.)
- availability of **operators** willing to bear or pass-through risks

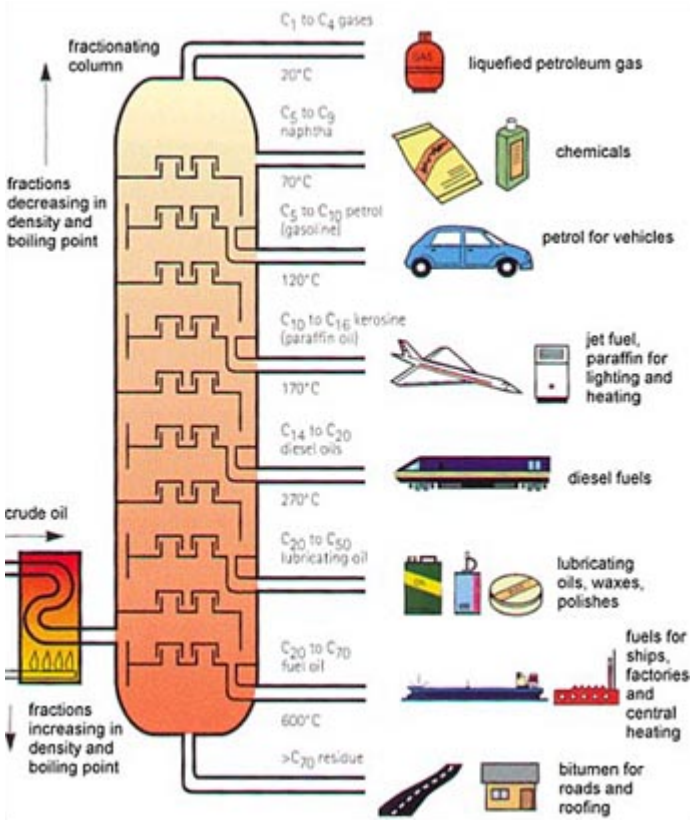
- **Price Risk** is continuously created, reshaped, bored or transferred.
- Trading **derivatives** is an efficient way to bear or transfer price risk

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

PHYSICAL OIL MARKETS



- different products
- different customers
- different locations
- different Incoterms (FOB/CIF)

- different prices & volatilities

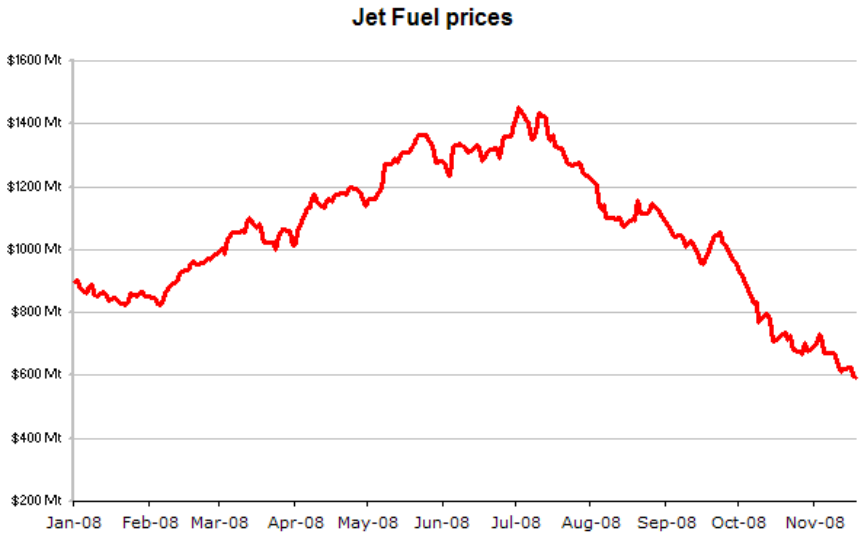
Source: www.theoildrum.com

9, rue du Conseil General
1205 Geneva, Switzerland

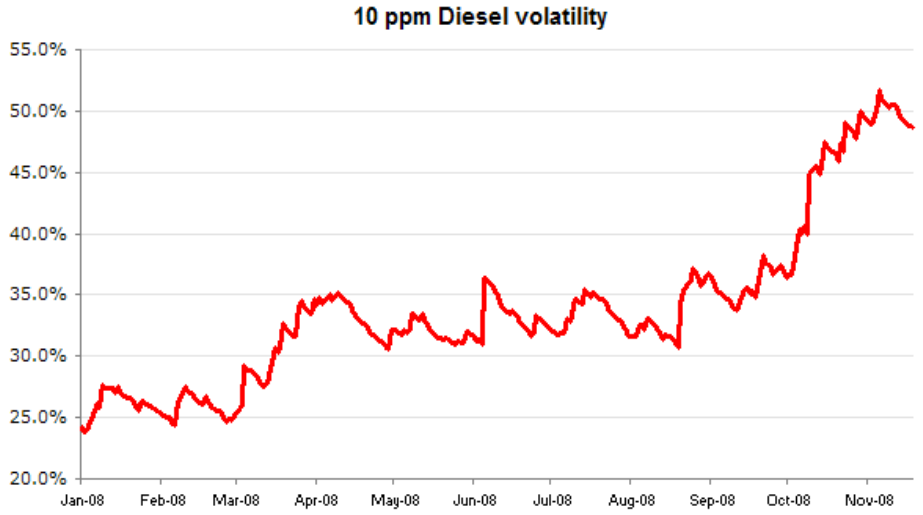
Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

PHYSICAL OIL MARKETS



Source: Platt' spot prices



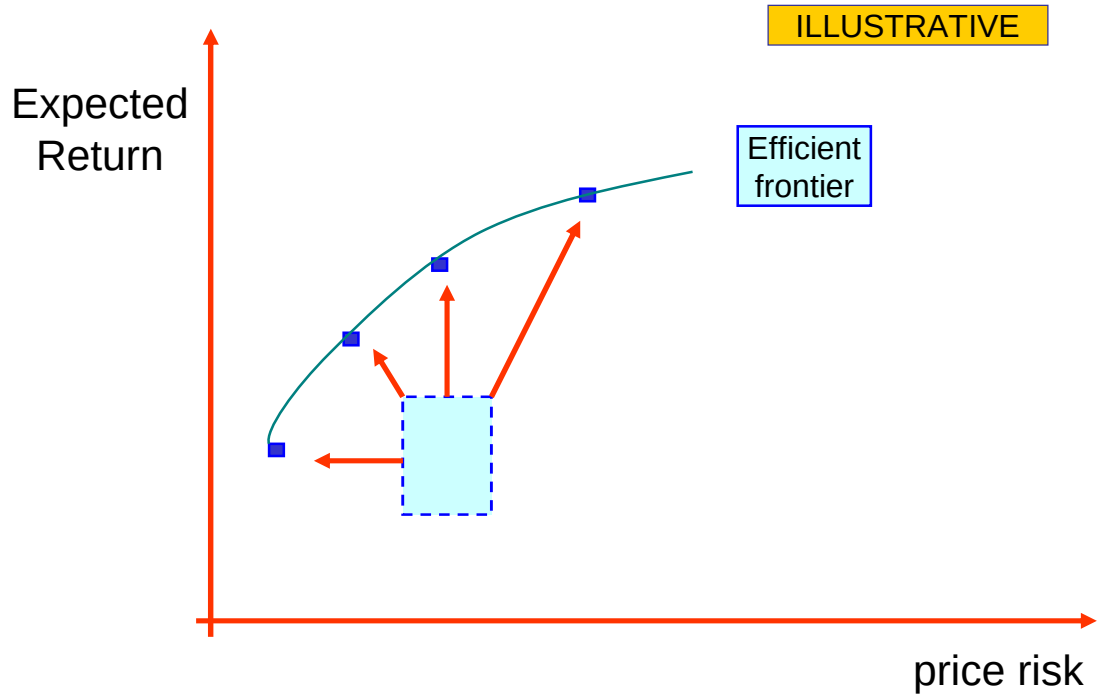
Source: E.W.M.A. volatility on Platt's 10 ppm FOB bgs R'dam spot prices

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

RETURN and RISK



- there is an **"efficient frontier"** representing the best available trade-offs between risk and return.
- A company should **get to the curve and select a point** according to its own risk appetite (**best "risk-adjusted return"**)
- In this framework, the **role of derivatives** in order to have **"complete markets"** is fundamental (Ross)
- **Risk lovers** can speculate, **risk adverse** can hedge. Role of speculation is fundamental (Speculation is different from manipulation)

- **Derivatives** bear the crucial role of **increasing the opportunities** for market participants, by enlarging the Efficient frontier

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

COMMODITY EXCHANGES

	Exchanges	Agriculture Futures	Metal Futures	Energy Futures
1	New York Mercantile Exchange		14,777	86,562
2	Dalian Commodity Exchange	91,330		
3	Chicago Board of Trade	60,800	15	
4	London Metals Exchange		59,412	
5	Tokyo Commodity Exchange	3,334	27,550	24,654
6	Central Japan Commodity Exchange	1,108		26,739
7	International Petroleum Exchange			26,400
8	Tokyo Grain Exchange	22,717		
9	New York Board of Trade	16,059		
10	Zhengzhou Commodity Exchange	12,060		
11	Shanghai Futures Exchange	146	11,074	
12	Chicago Mercantile Exchange	8,535		
13	Euronext-LIFFE	4,336		
14	Kansas City Board of Trade	2,600		
15	Minneapolis Grain Exchange	999		

Source: "Overview of the World's Commodity Exchanges", UNCTAD Secretariat, 2001. I.P.E. is now part of ICE.

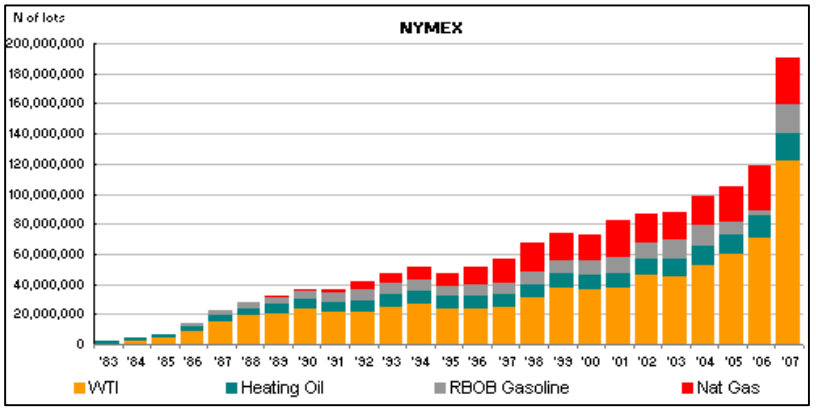
9, rue du Conseil General
1205 Geneva, Switzerland

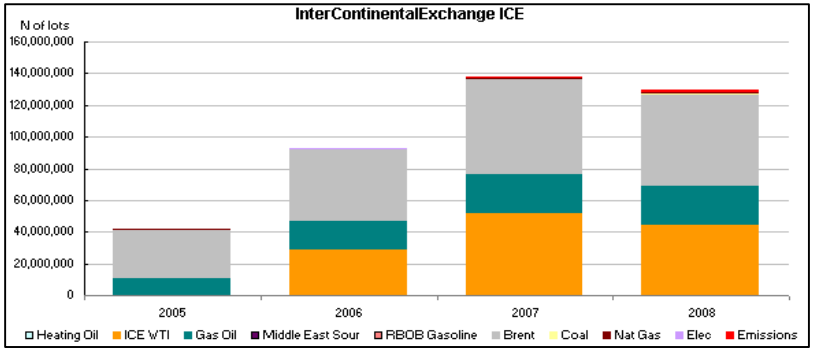
Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

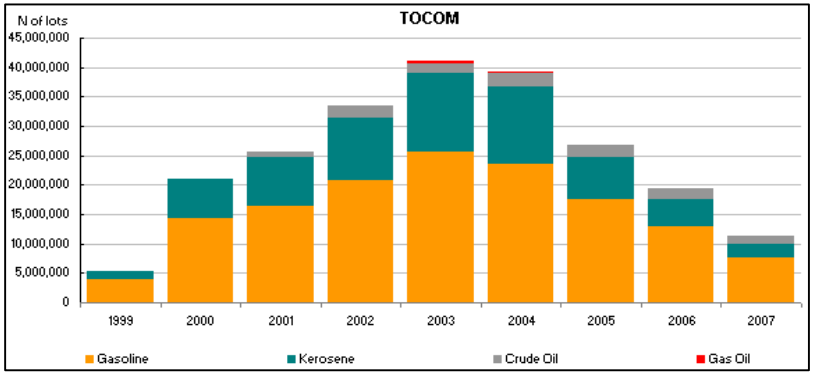
Telex 425 140, 425 153
E-mail: mailer@litasco.ch

EXCHANGE TRADED OIL FUTURES

- main derivative: Futures on crude
- limited typologies of Futures traded
- new instruments/markets prone to failure/disappear
- no relevant & lasting innovations







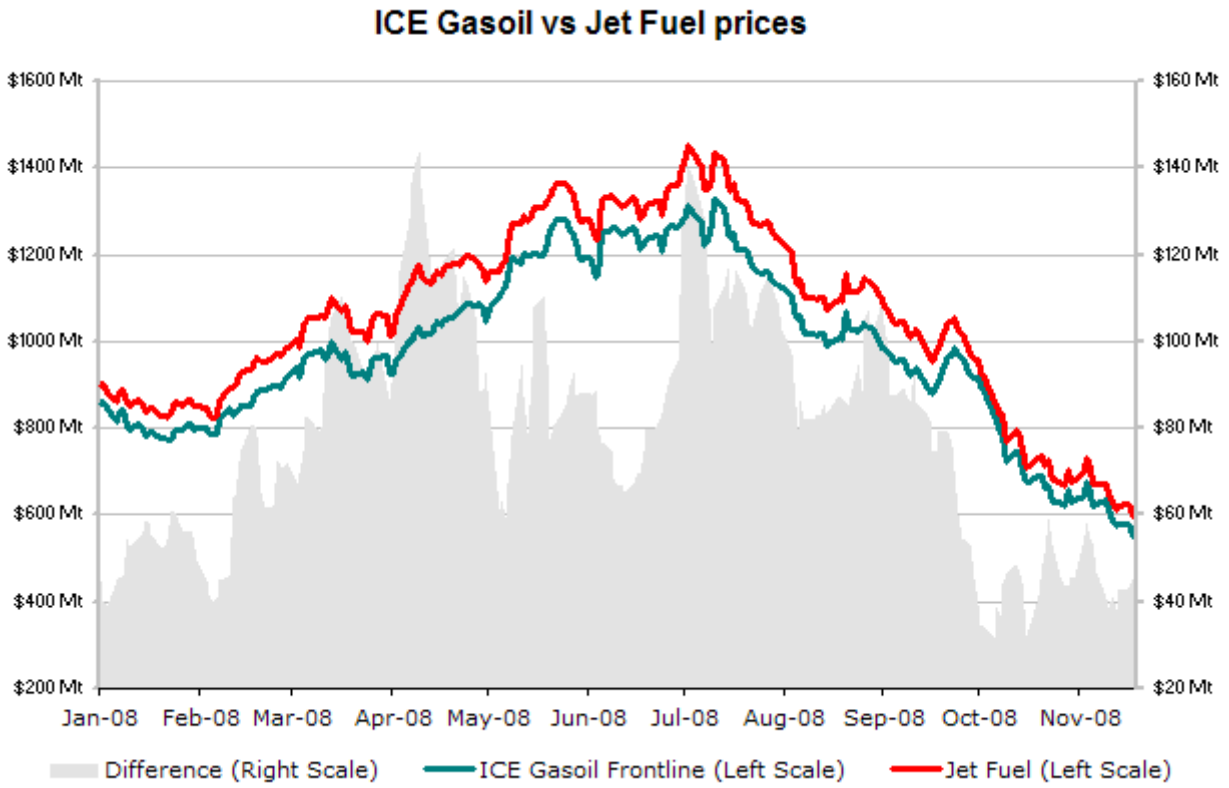
Sources: Exchanges data. (ICE 2008 data till Sept. 08)

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

HEDGING WITH OIL FUTURES



- Hedging Jet fuel exposure by using ICE Gasoil future contracts, while cancelling **outright exposure**, leaves relevant **basis risk**

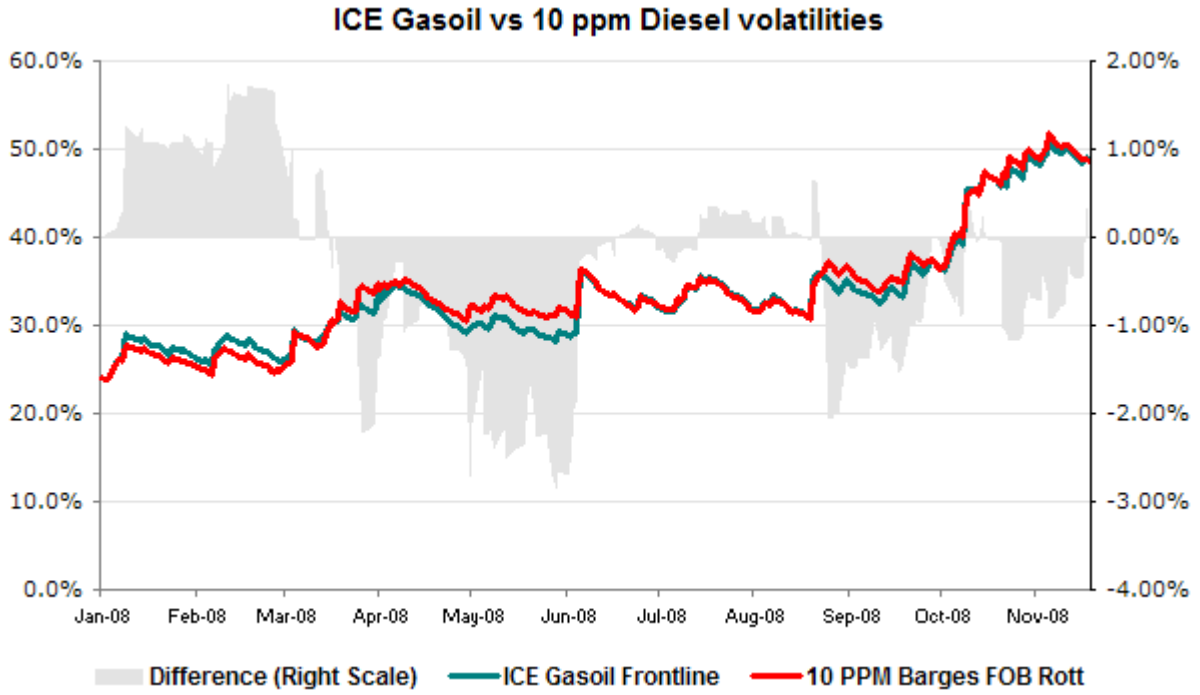
Source: ICE and Platt's prices

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

HEDGING WITH OIL FUTURES



- increase in volatility in 2008
- high short-term correlations
- but jumps frequent
- relevant “basis risk”

Source: annualized Exponentially Weighted Moving Average on ICE and Platt’s prices

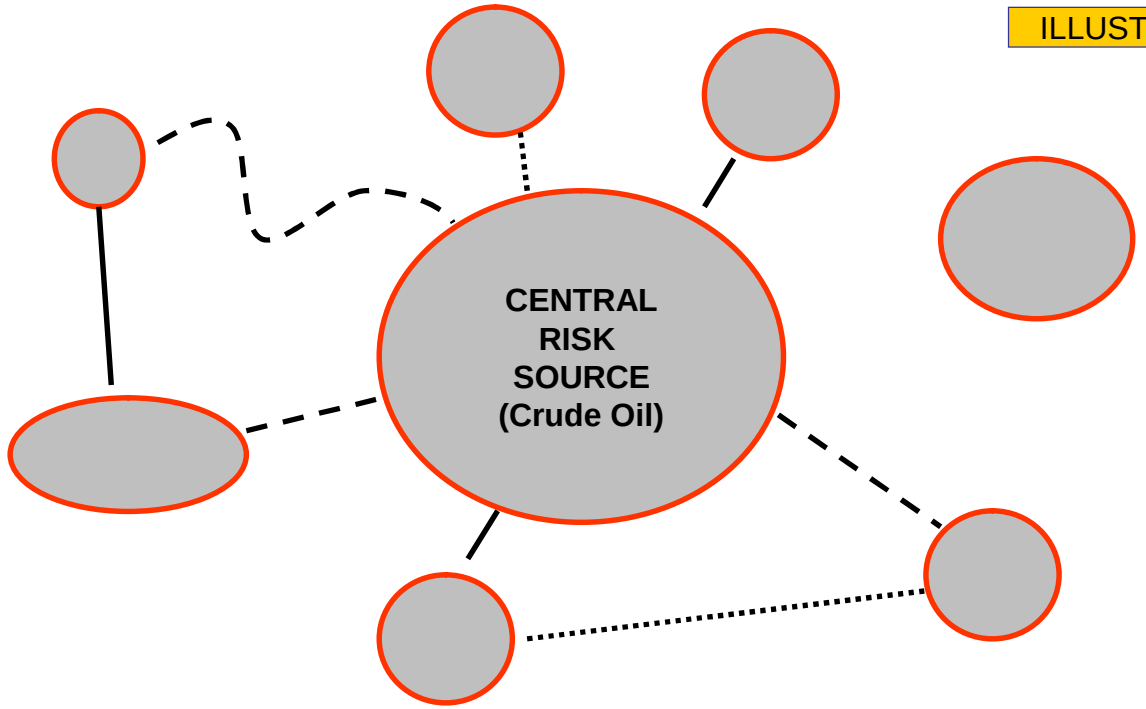
9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

BASIS RISK

ILLUSTRATIVE



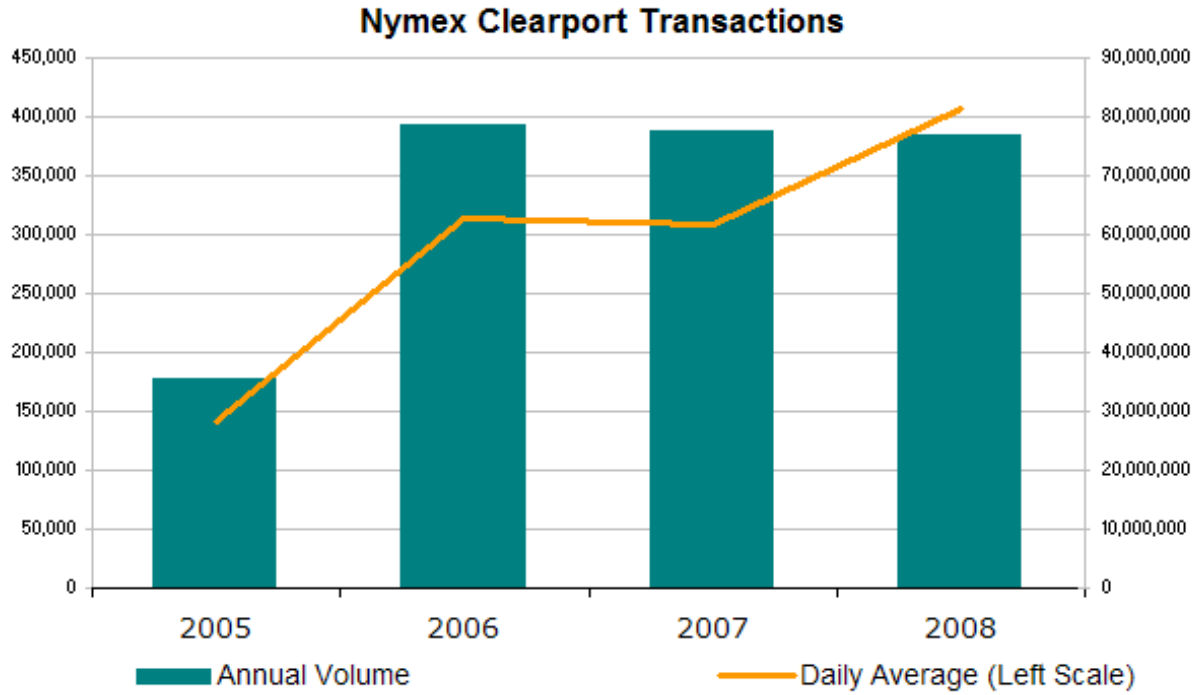
- Oil price as the central price and volatility **engine.** Oil futures as main hedging instrument
- Risk reduction often hindered by **low correlations** and **lack of a sufficient number of derivatives instruments.**
- **Basis Risk** is probably the most relevant issue for Risk management in the oil industry.

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

OTC CLEARING



- derivatives (Swaps) still transacted Over-The-Counter but then **submitted for clearing**
- distinction between **organized markets and OTC** nowadays less relevant

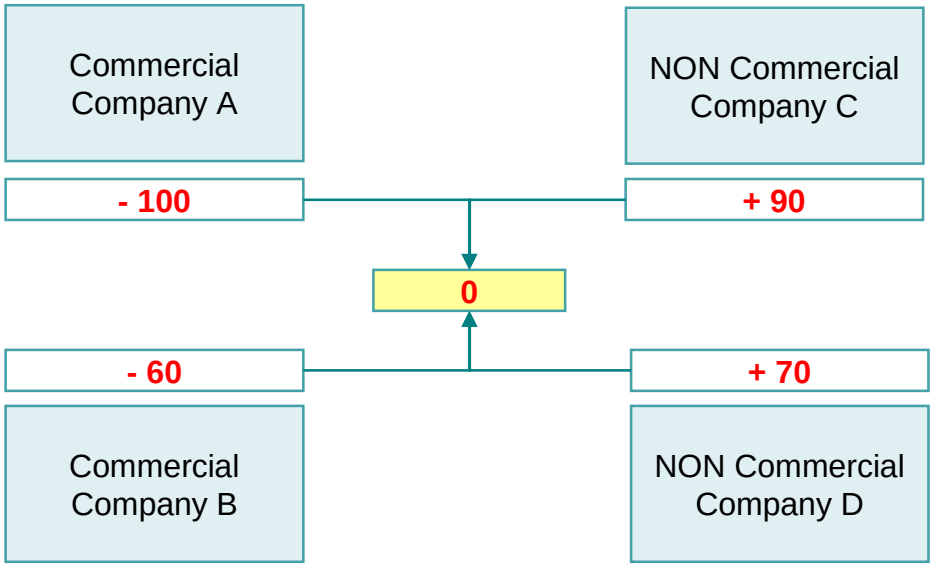
9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

DERIVATIVES MARKET PARTICIPANTS

ILLUSTRATIVE



- market **net position** always to be at zero (zero-sum game)
- role of **Non Commercials** is thus fundamental
- recent **de-leveraging** of N.C. from oil markets will **lower the Efficient Frontier**

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

CURRENT AND FUTURE TRENDS

- de-leveraging from oil – non commercials pull out.
- volatility here to stay
- new Futures contracts not probable
- increasing liquidity on long-dated maturities
- more involvement from physical players, including N.O.C.
- OTC clearing increasing
- new derivatives underlyings

(FFAs, Emissions related, Weather derivatives)

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch

LUKOIL OILCOMPANY

LITASCO SA

LUKOIL INTERNATIONAL TRADING AND SUPPLY COMPANY

Thank you !

Alessandro Mauro

Head of Risk Management

XVII International Tor Vergata Conference on Banking and Finance

GME session: Financial Markets Impact on Energy prices

9, rue du Conseil General
1205 Geneva, Switzerland

Tel.: 41 22/705 20 00
Fax: 41 22/705 20 01

Telex 425 140, 425 153
E-mail: mailer@litasco.ch