

Oil Prices & Volatility 2010-2011 and beyond

7th September 2011

Bunkerworld Conference Singapore

By Professor Tom James

Navitas Resources Pte Ltd

tjames@navitasresources.com

Tel: +65 6818 6268

95% of Transport Fuel Oil related

- Oil is the major energy source powering the global economy and supplying 95% of the total energy fuelling world transport.
- Maritime Transport relies heavily on oil and so is affected greatly by changes in Crude Oil prices and Price volatility.
- The dependency of the maritime transport sector on a source of energy that is becoming increasingly scarce and more costly to produce, compounded by limited prospects, at least in the short term, for using alternative energy may entail some serious implications for the cost of maritime transport services.
- With over 80 per cent of the volume of global merchandise trade being carried by sea, the affect of oil prices and volatility is of key concern to ALL industries not just bunker suppliers and shipping companies.

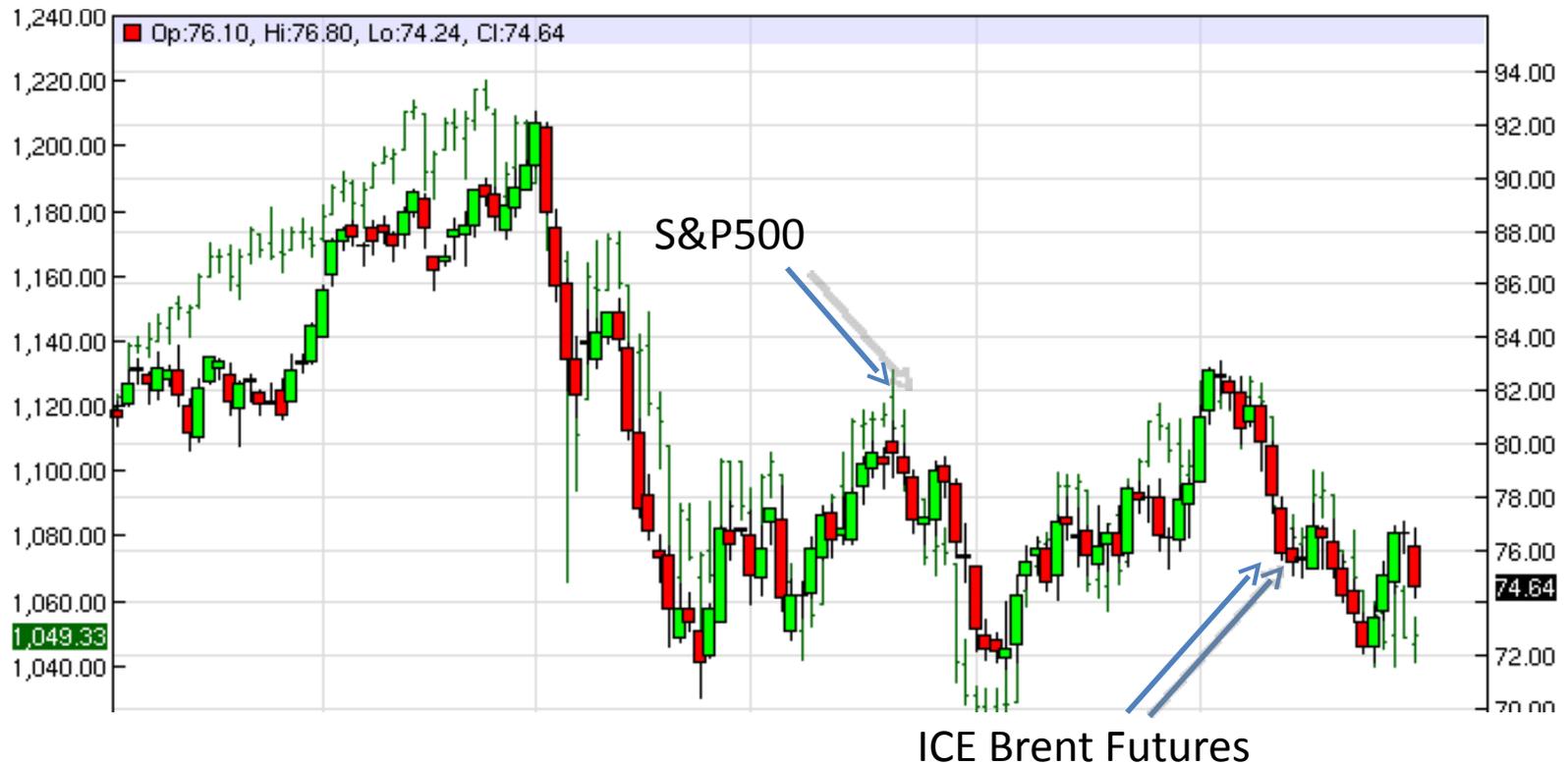
Factors leading to Strong Oil prices

- US Dollar Weakness primary driver of prices in 2010.
 - Only currencies holding strong are commodity backed e.g. Australian dollar (metals), Canada currency (commodities)
- Investors buying real assets, China spending reserves on rebuilding stocks of commodities or commodity producing firms.
- Forward expectation of recovery in demand post recession and if Quantitative Easing QE takes effect helping economies recover in Europe and USA
- Minimum \$bbl price for oil rose for Middle East producers due to Middle East tension forcing salaries higher in Government sector.

ICE Brent Link with ICE USDX



ICE Brent Link with S&P 500 Index

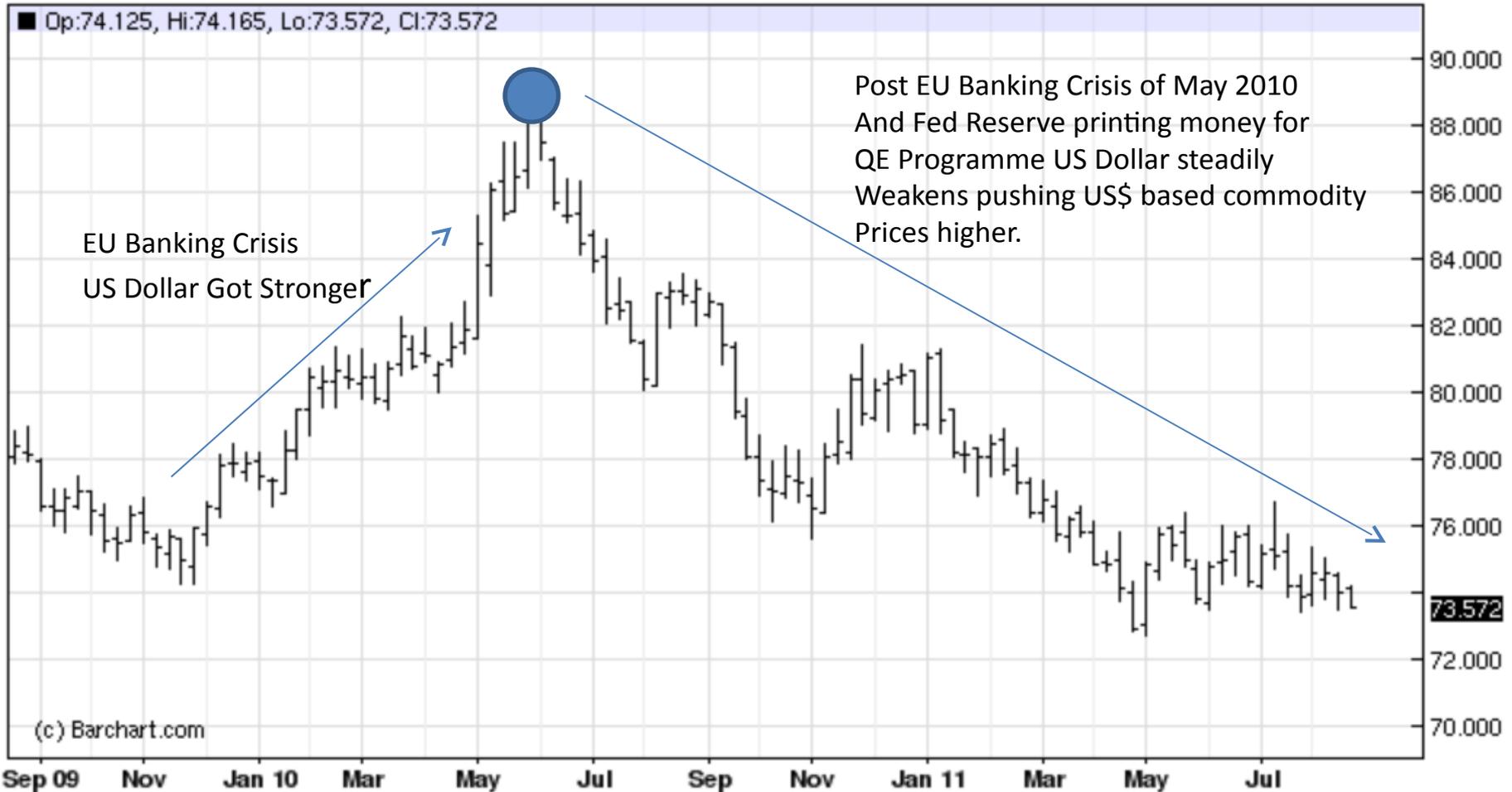


Factor – US Dollar weakening

- US Dollar has continued to weaken as the Federal Reserve has printed more money in the Quantitative Easing (QE) program of the US Government. As reflected by the US Dollar Index Futures since the European Union banking crisis in with Greece in May 2010 the Dollar has had a steady decline in Value against major international currencies.
- This has forced commodity prices based in US\$ higher, and in the case of Oil markets, it led oil price higher from May 2010 to December 2011 without actual real spot demand for oil increasing.
- We can say this because the Oil market was actually in contango (the forward price being stronger than the spot cash market) throughout 2010 until early 2011, despite the actual flat price of oil moving from US\$60 dollars to over US\$100 dollars in the same period.

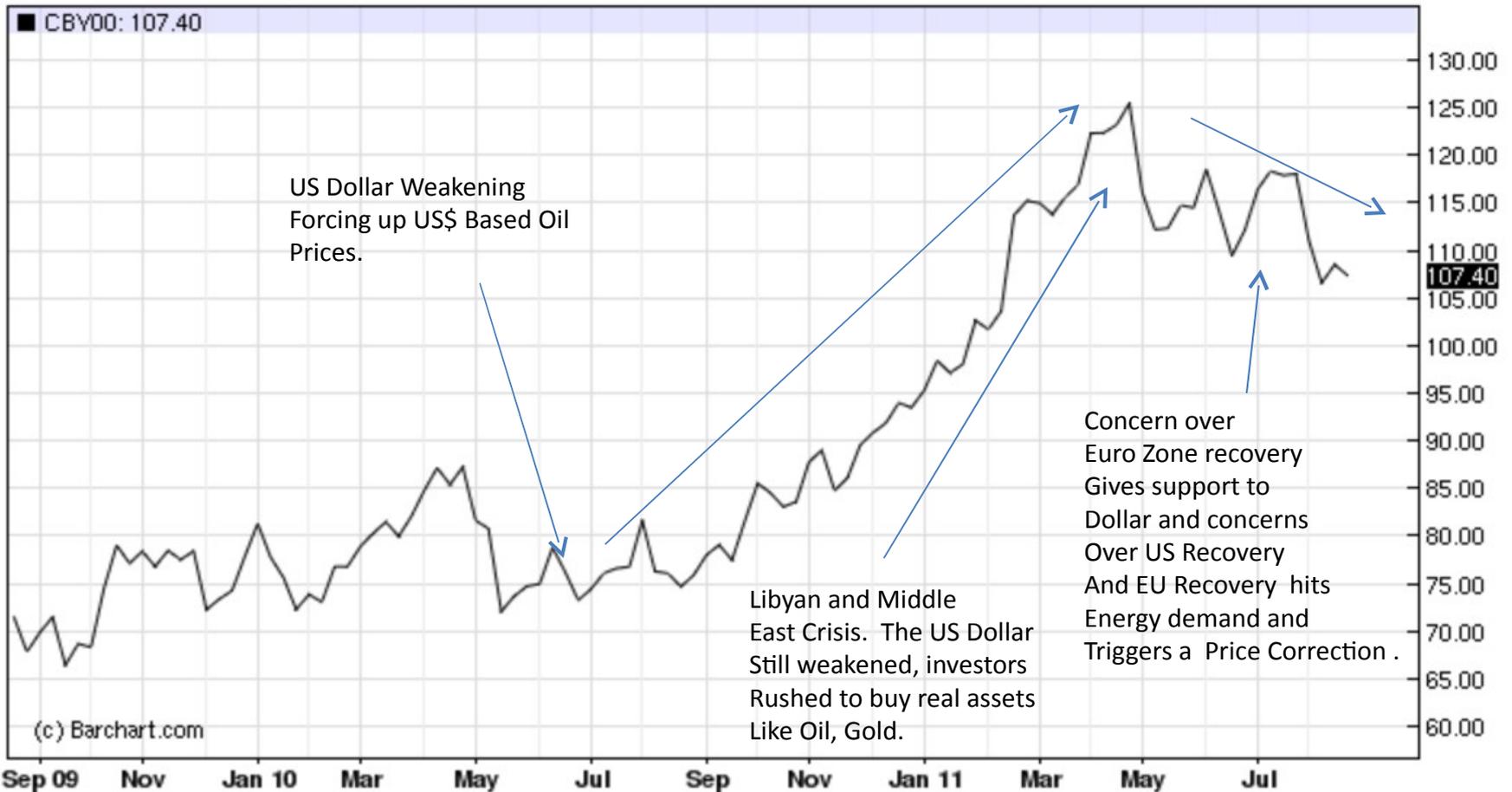
US Dollar Index

DX - U.S. Dollar Index (ICEFI) - Weekly OHLC Chart



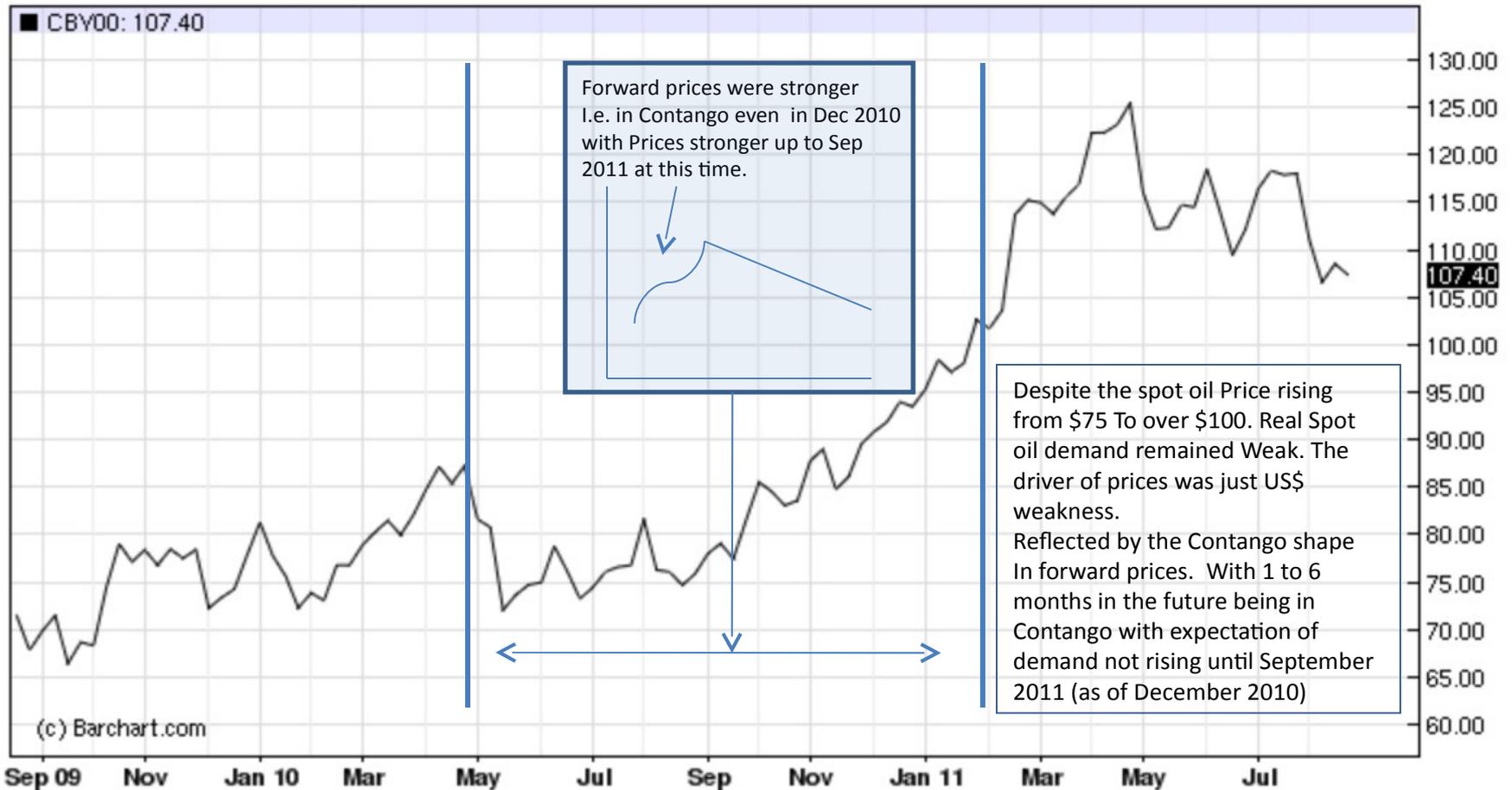
ICE Brent Crude

CB - Crude Oil Brent (ICE) - Weekly Line Chart



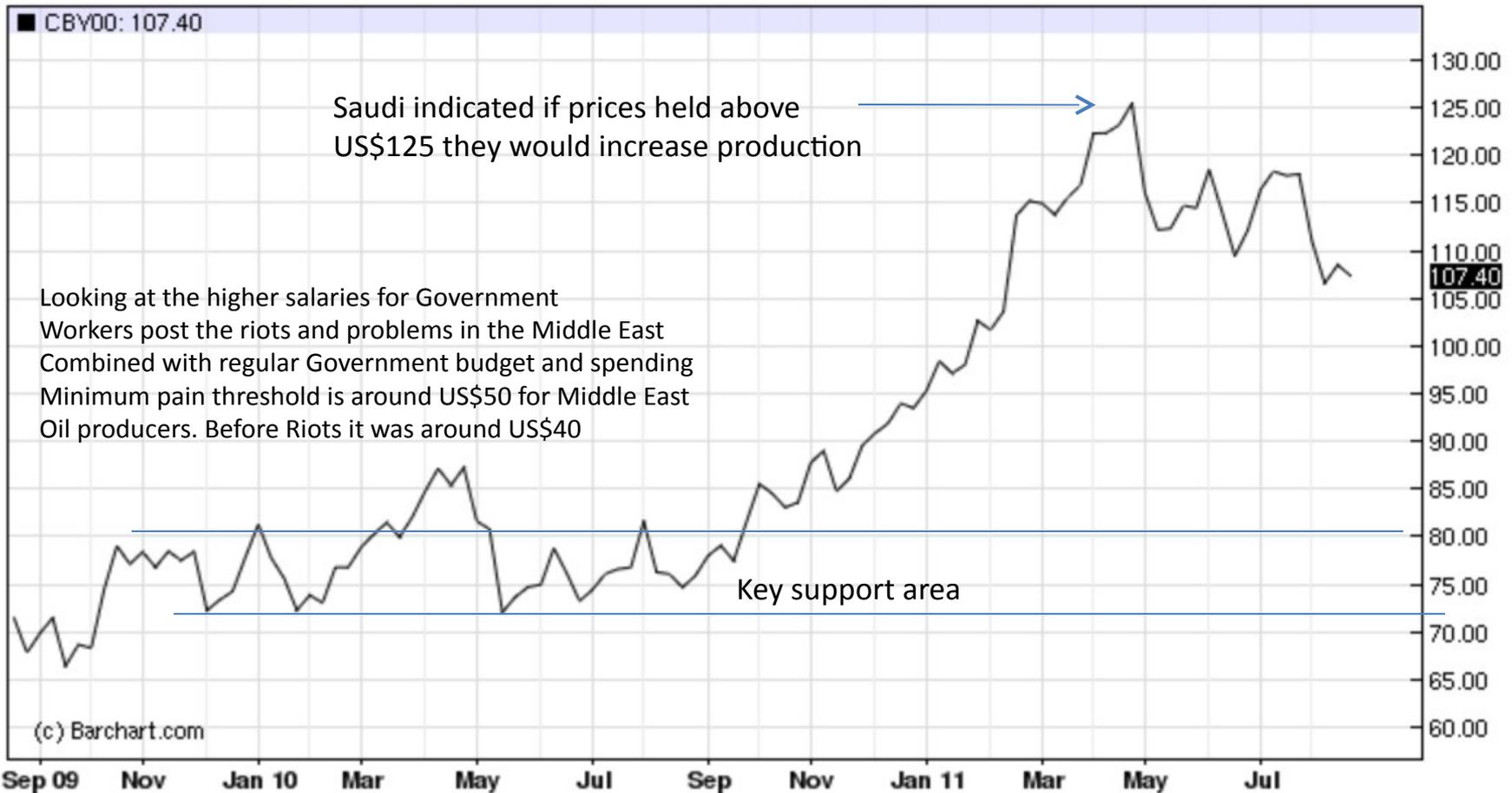
ICE Brent Crude

CB - Crude Oil Brent (ICE) - Weekly Line Chart



Base Line Oil Price Rises

CB - Crude Oil Brent (ICE) - Weekly Line Chart



Crude Oil Market Targets

A buy the dip... US\$ Driven and Bullish Flag

CB - Crude Oil Brent (ICE) - Weekly Nearest OHLC Chart



Crude Oil Market Targets

A buy the dip... US\$ Driven and Bullish Flag

CB - Crude Oil Brent (ICE) - Weekly Nearest OHLC Chart



Derivative Products we can use

Futures, Swaps, Options

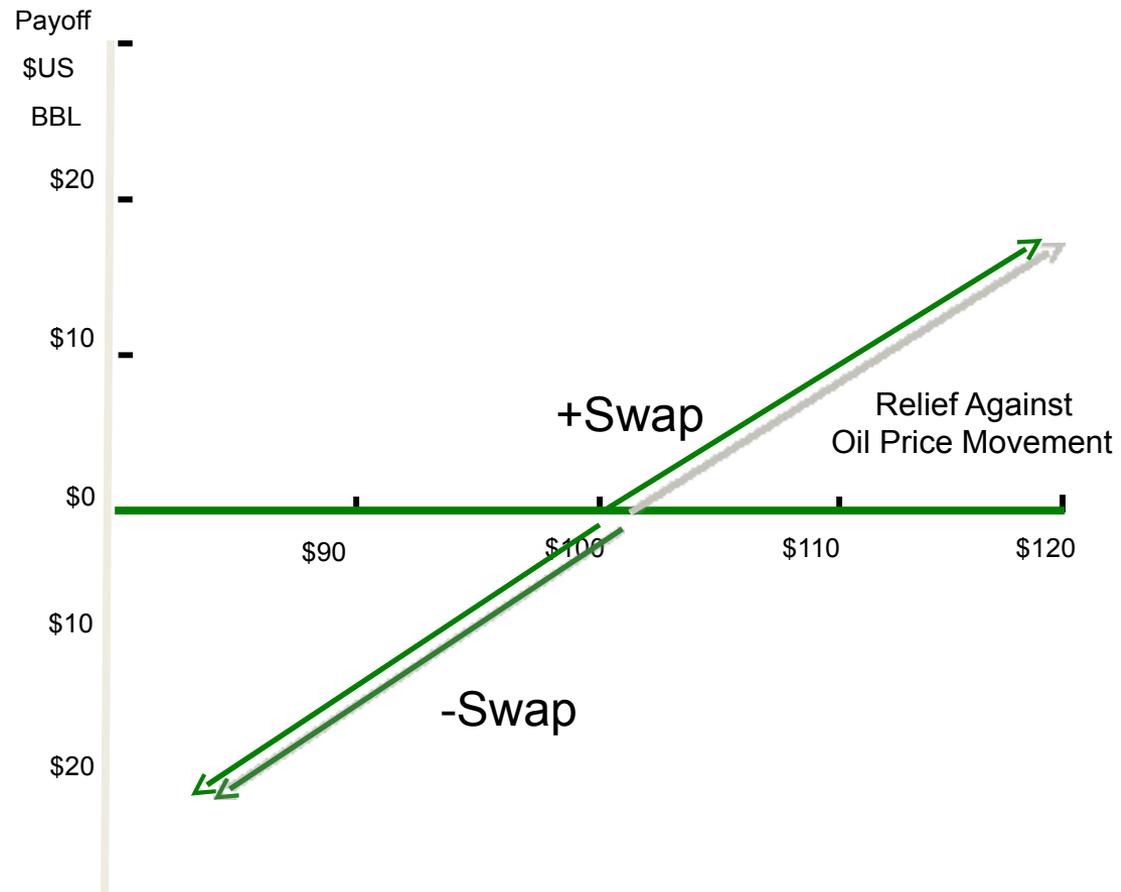
Markets we can use

- Platts related contracts in OTC contracts
“Swaps”, Gasoil Diesel and Fuel Oil
- ICE Brent crude oil for protecting against volatility in forward prices of 4 / 6 or more months forward. Strong correlation. “ Futures”

+ - Swap / Futures

Hedger benefits from full relief against the market price moving above or below the Price you have bought or sold at but cannot benefit from any benefit in the physical market position if that were to improve.

*Subject to Basis Risk



+ Call option

A call option sets the maximum price at which the hedger is willing to purchase oil (e.g. US\$100).

Hedger benefits from full relief against the market price moving above the selected strike price (i.e. bank pays the hedger), in return for the payment of an upfront cash premium.

Hedger can set the strike price at any price level where it requires relief:

- strike price above the market price = lower premium
- strike price below the market price = higher premium

Typically for periods longer than a month



+ Put option

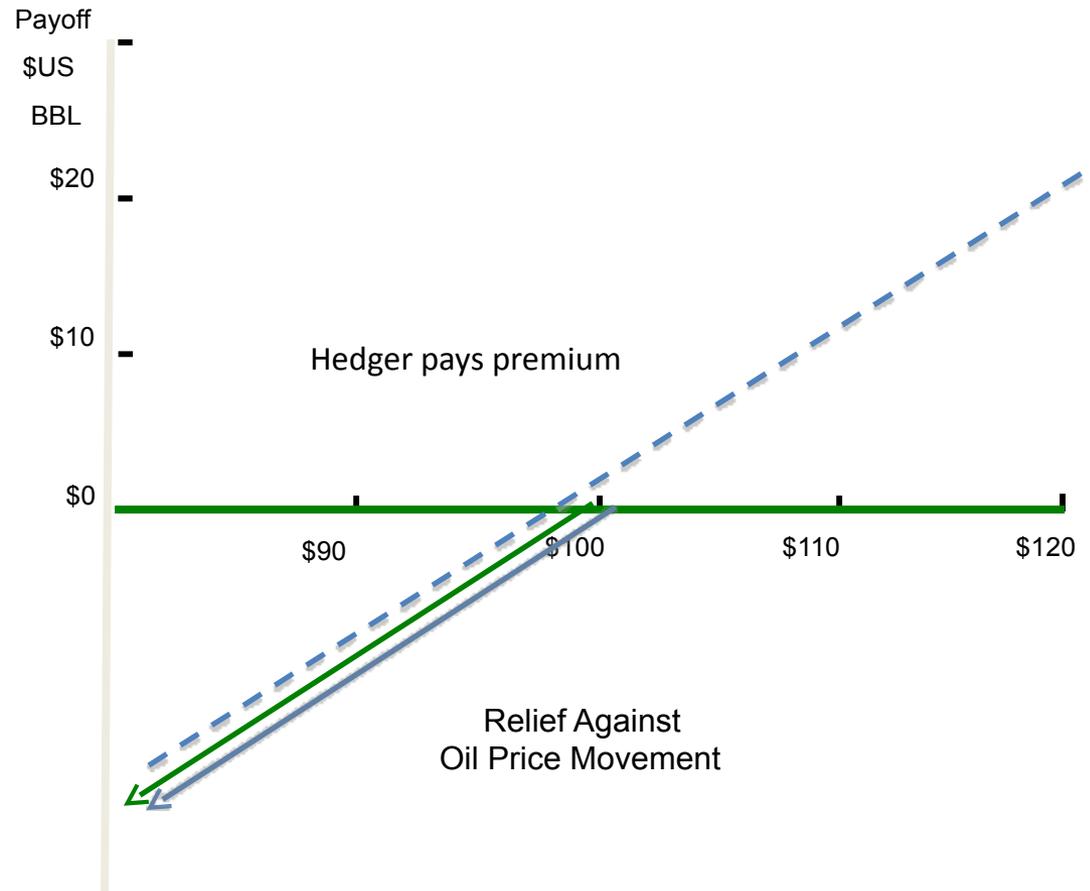
A put option sets the minimum price at which the hedger is willing to sell oil (e.g. US\$100).

Hedger benefits from full relief against the market price moving down below the selected strike price (i.e. bank pays the hedger), in return for the payment of an upfront cash premium.

Hedger can set the strike price at any price level where it requires relief:

- strike price below the market price = lower premium
- strike price above the market price = higher premium

Typically for periods longer than a month



Popular Option Structure

“Collars”

- Collars are often constructed at “zero cost” it is made by simultaneously buying a cap and selling a floor

Zero Cost Collar (a call and a put)

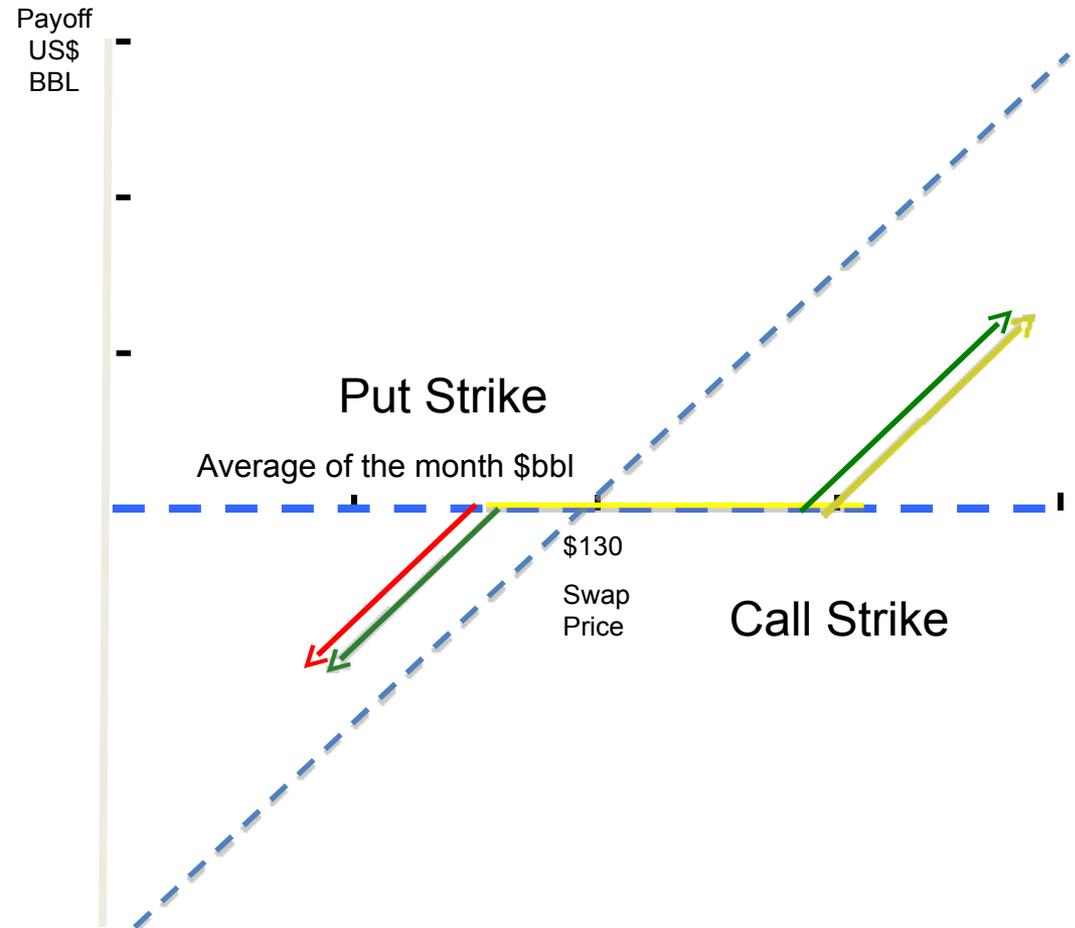
Put strike price is lowered and call strike price is raised.

Hedger gets full relief against the market price moving above the strike price of the call option, but will not benefit from any fall in the market price below the strike price of the put option.

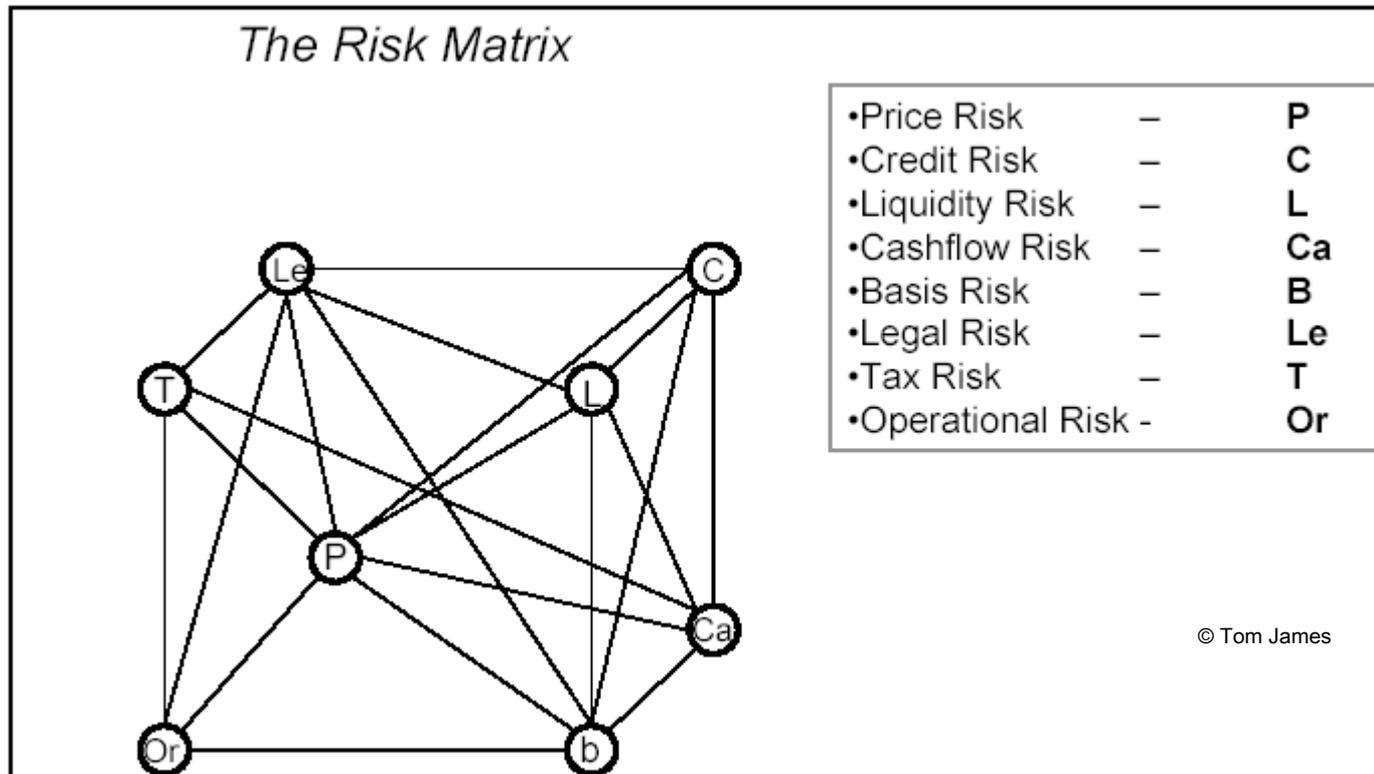
Hedger gets no relief against market prices within the range of the collar.

Advantage: lowers price at which the hedger forgoes benefit.

Disadvantage: in a rising market, call strike price may be too far away and therefore offer little protection.



Firms Developing a Positive Risk Culture... What Risk ?



Oil Prices & Volatility 2010-2011 and beyond

7th September 2011

Bunkerworld Conference Singapore

NAVITAS RESOURCES PTE LTD

tjames@navitasresources.com

Tel: +65 6818 6268