The Changing Competition Between Major Vegetable Oils

The Growing Influence of the Biofuel Industry on the Near Term CPO Price Outlook

Presentation to the 2007 PORAM Forum
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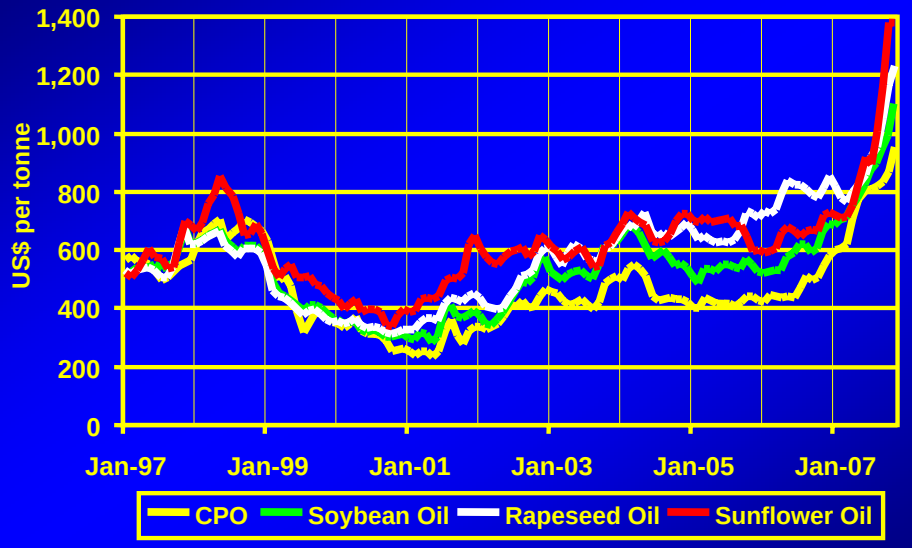
Outline of the Presentation

- The behaviour of vegetable oil prices:
  - In relation to one another
  - In relation to fossil fuel prices
- Is recent behaviour due to:
  - Speculation?
  - Fundamentals related to biofuel demand?
- Implications for vegetable oil prices
  - The role of government policies and subsidies
  - The outlook for CPO prices

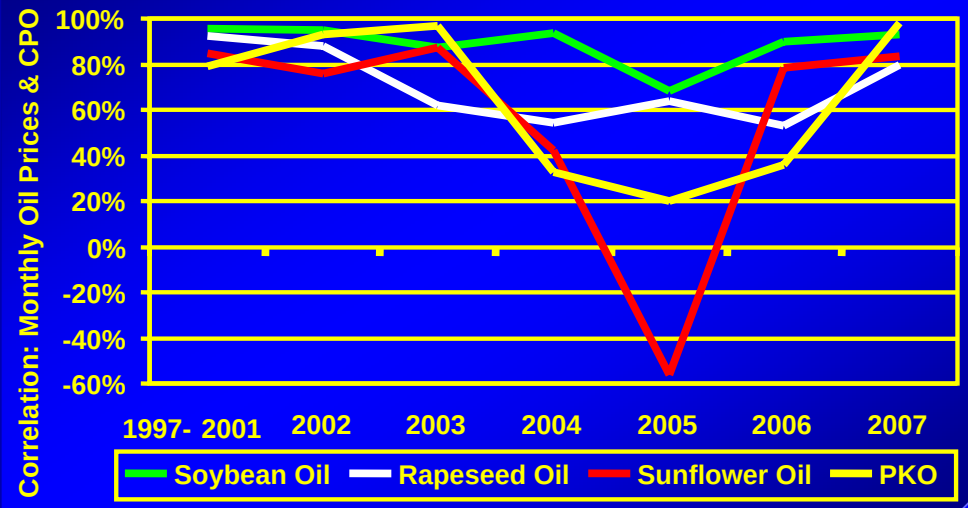
* Analysing The Recent Behaviour of Vegetable Oil Prices *

What Has Been Happening to the Links Between the Prices of Leading Vegetable Oils?

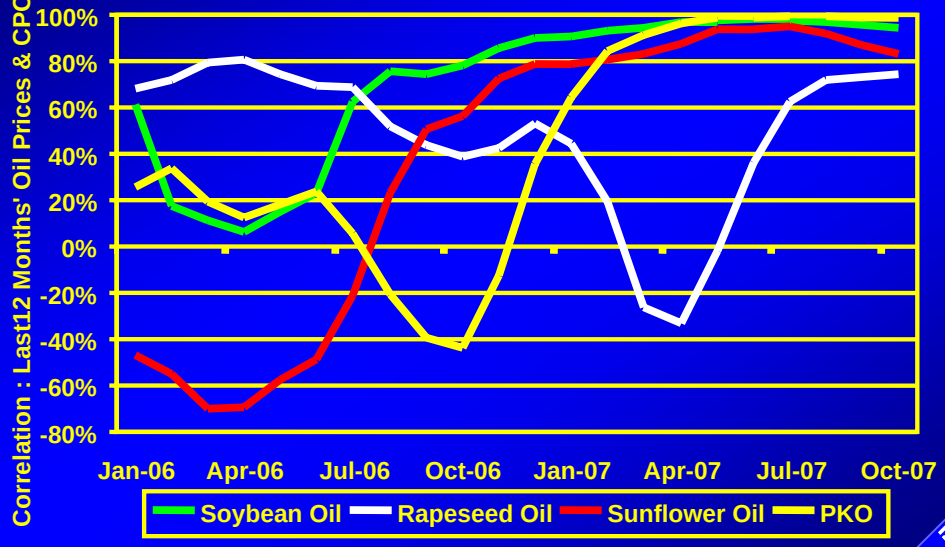
Vegetable Oil Prices Seem to Move Together



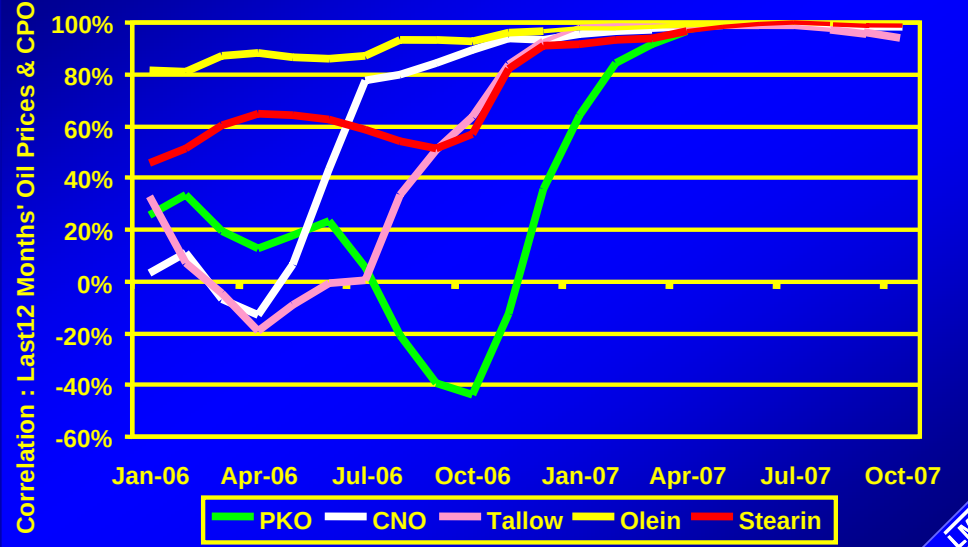
Correlations between EU Monthly Oil Prices and CPO Prices, 1997-2007



Correlations between Rolling 12 Month EU Leading Oil Prices and CPO Prices



Correlations between Rolling 12 Month EU CPO Prices and Those of Other Oils and Fats

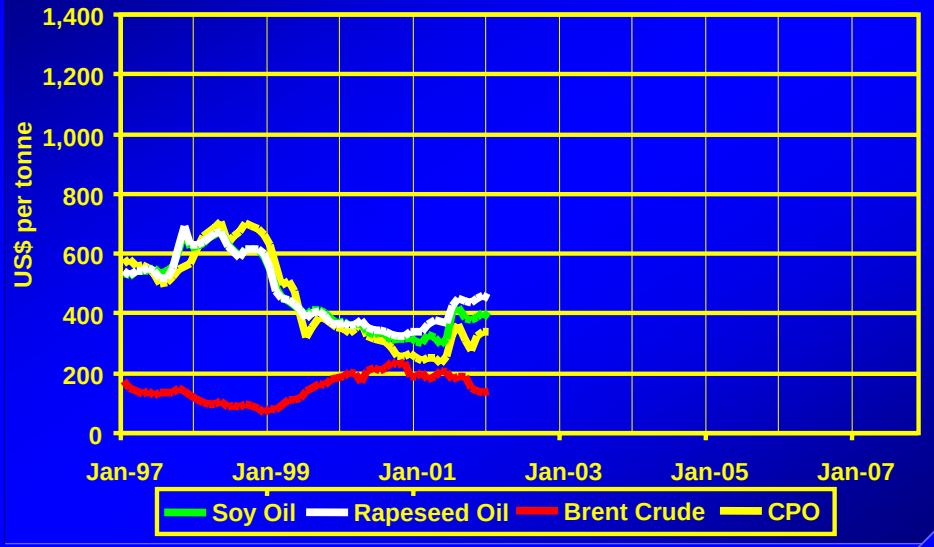


Vegetable Oil Price Links

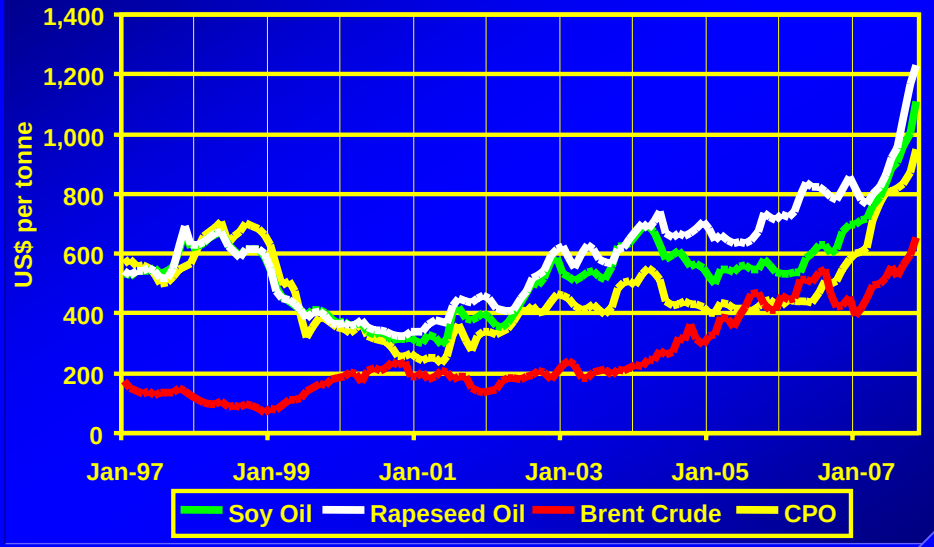
- Prices of oils do not always move together.
- Harvest problems, changes in import tariffs (e.g., those in India that lifted the CPO price discount after 2001) or biodiesel demand (which boosted rapeseed oil) are important.
- In the past 18-24 months, however, monthly prices of different oils and fats have become more closely linked than ever before.
- *Is this explained by the growth in biofuels; or is speculation lifting most commodity prices?*

What Has Actually Been Happening in Terms of Links Between Vegetable Oil Prices and Fossil Fuel Prices?

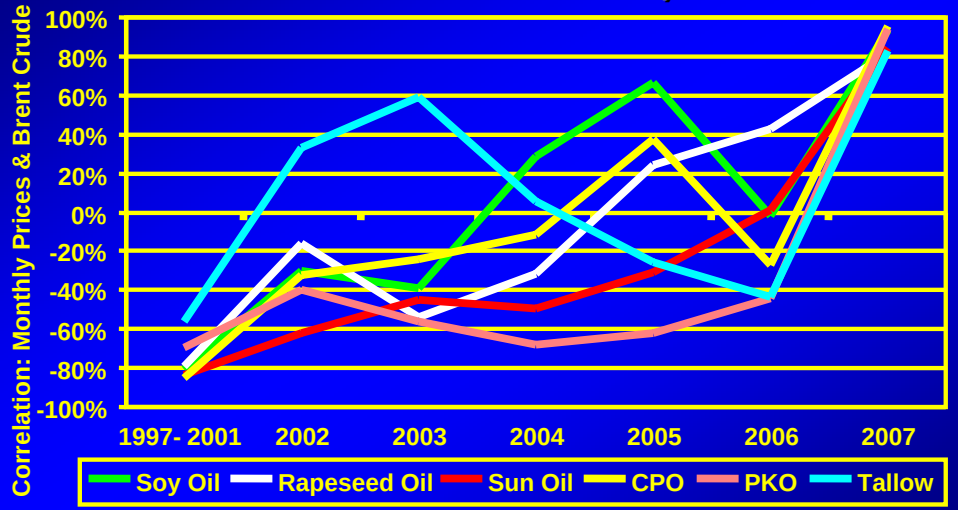
Vegetable Oil vs. Brent Crude Oil Prices Before 2002: Strong Negative Correlation



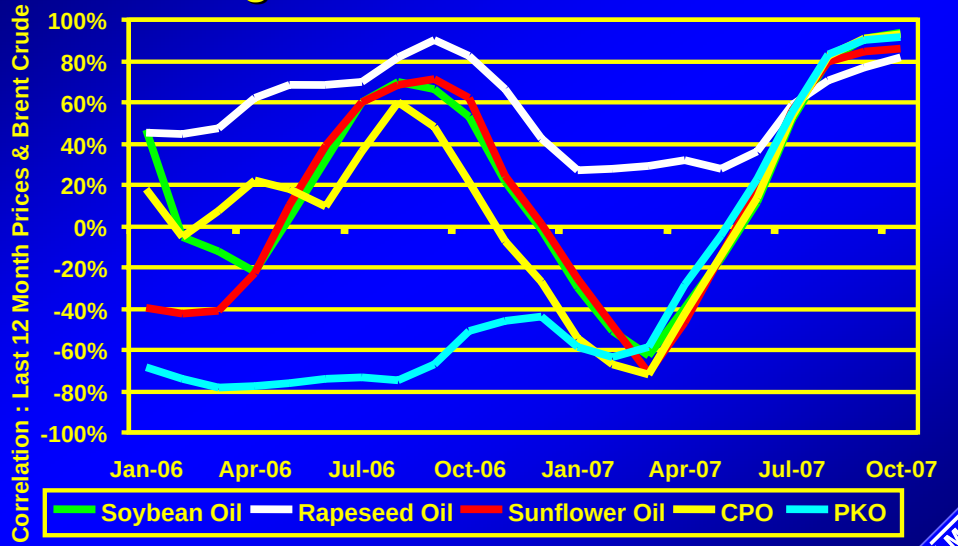
Vegetable Oil vs. Brent Crude Oil Prices: Since 2002 All Have More than Doubled



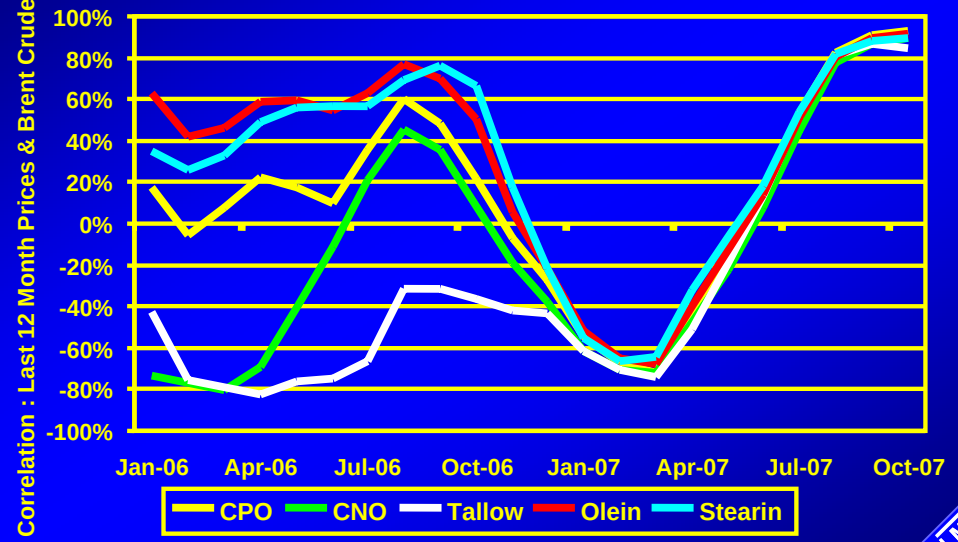
Yearly Correlations between EU Monthly Oil Prices and Brent Crude, 1997-2007



Correlations between Rolling 12 Month Leading Oil Prices and Brent Crude



Correlations between Other Rolling 12 Month Oil and Fat Prices and Brent Crude

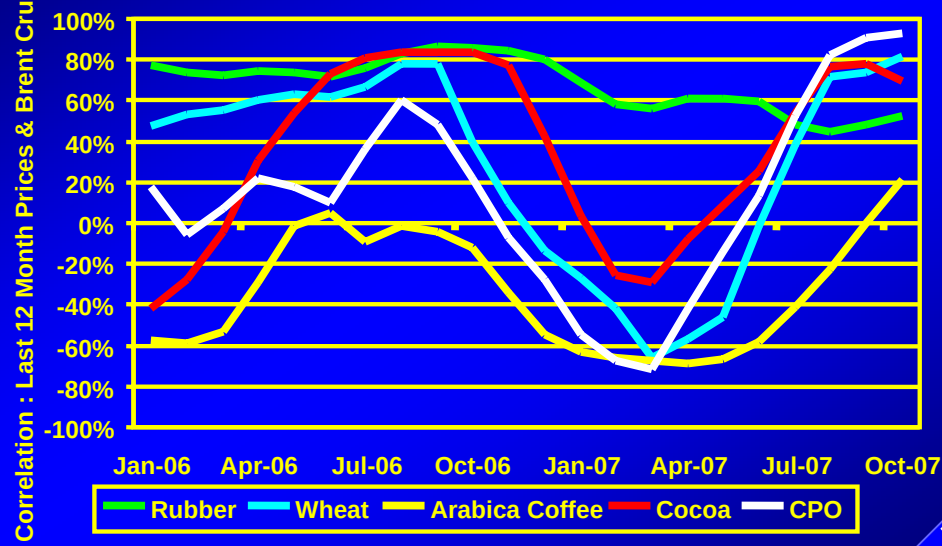


Vegetable vs. Mineral Oil Price Links

- The correlations between monthly prices of vegetable oils and animal fats leave no doubt that changes in prices throughout the whole spectrum of products are now very closely linked to changes in Brent crude oil prices.
- In broad terms, a given change in fossil fuel prices is transmitted directly throughout the oil and fat market.
- *Does the convergence between changes in the prices of fossil fuels and of different oils and fats signal a new era for vegetable oil prices?*

Is the Close Link with Mineral Oil Prices Found Among Other Agricultural Products?

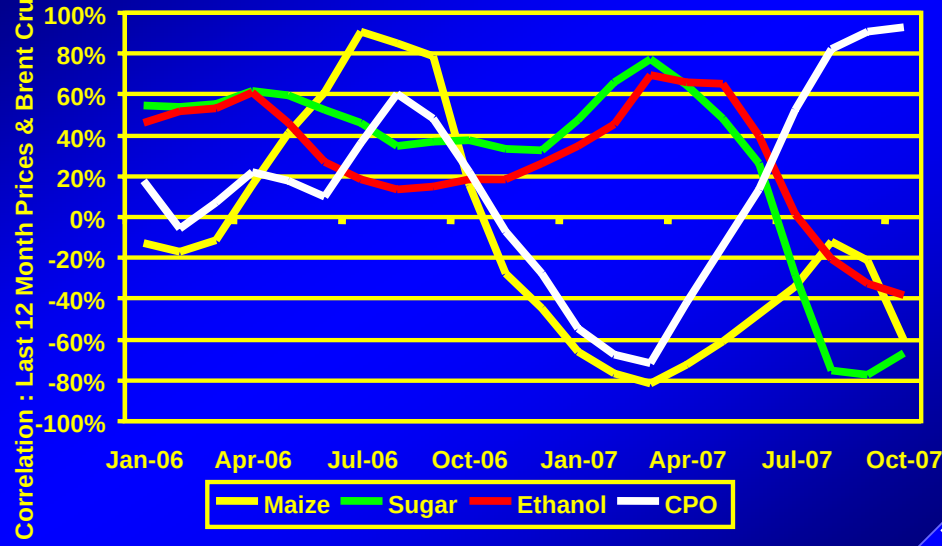
Correlations between Previous 12 Month Commodity Prices and Brent Crude



Other Agricultural Product Price Links with Mineral Oils

- There is no immediate reason to suppose that coffee, cocoa, rubber or wheat prices should be particularly closely linked to mineral oil prices.
- Yet, the evidence suggests that we are being swept along in a general commodity-energy price cycle, with all commodities enjoying a bull market.
- *What about other biofuel crops, such as maize and sugar, used for ethanol production?*

Correlations between Rolling 12 Month Fuel Commodity Prices and Brent Crude



Ethanol Crop Price Correlations

- At first sight, the two main crops used to make ethanol (sugar and maize) undermine the view that fuel prices are now driving crop prices; in fact, they may reinforce this conclusion.
- This paradoxical conclusion arises because, in practice, ethanol prices (unlike diesel prices) have not been following crude oil prices closely.
- Prices of the main ethanol raw materials have become closely linked to ethanol prices (sugar, in particular); however, ethanol prices have not been tied to crude oil prices in recent months.

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What Do We Conclude When Looking Into Our Crystal Ball?

- The evidence may seem ambiguous; there is good reason to think that prices of crops used for biofuels will become linked to fuel prices, but the evidence of a general commodity bull market suggests that there is also speculative "froth" affecting commodity prices today.
- Our view is that, under current policies, biofuel demand is now becoming so important for vegetable oils as a whole that the fuel price link will remain, even when fuel prices drop back.

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The Importance of Price-Sensitive Biodiesel Demand for Vegetable Oils

- In the world's two main biodiesel markets, the EU and US, biodiesel demand is supported by a mixture of tax incentives, targets, penalties for failing to achieve targets and direct mandates.
- Only with mandates is the demand for biodiesel unaffected by the level of fossil fuel prices.
- With all other policies, a drop in fossil diesel prices is translated directly into a drop in the price that blenders are prepared to pay for biodiesel – and hence vegetable oils.

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* In the Background, the Impact of Biodiesel Export Subsidies *

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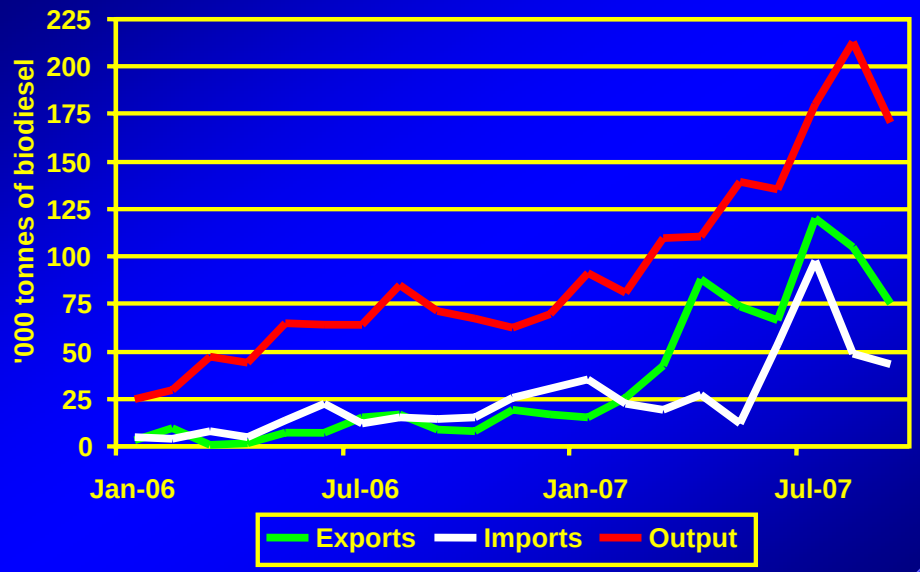
1. US Biodiesel Policy

Splash & Dash or *Touch & Go*

- The US government gives blending credits of $1/gallon (nearly US$300/tonne) on all biodiesel blended with fossil diesel.
- This is given on all blends, both exported, as well as for local use, and has led to
  - A surge in imports of biodiesel (including from Ecuador) for blending with 1% fossil diesel for re-export as B99, with the blending credit, and
  - A boom in the blending of US-produced biodiesel with fossil diesel for export as B99.
- Most of the exports go to the EU, where the biodiesel enjoys a second subsidy.

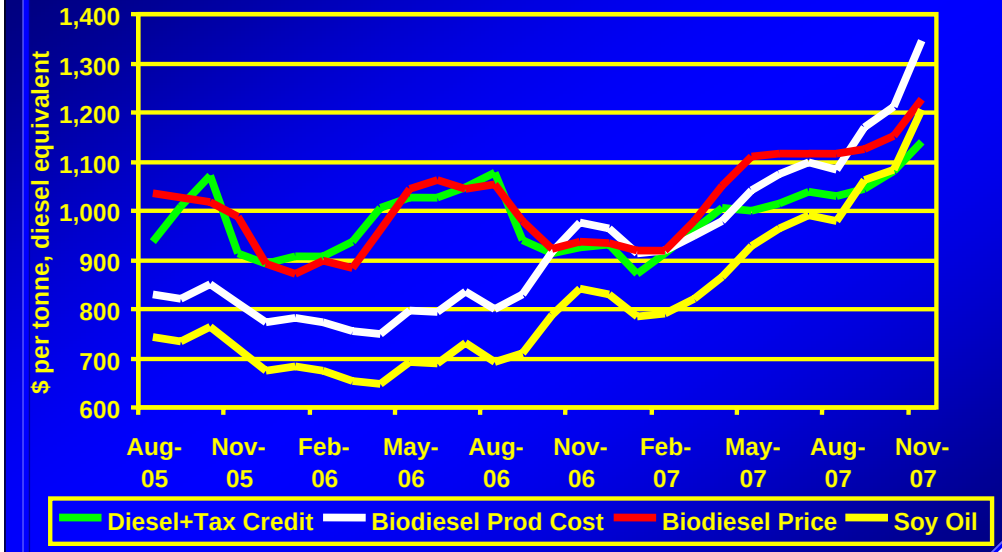
US Monthly Biodiesel Output and Trade



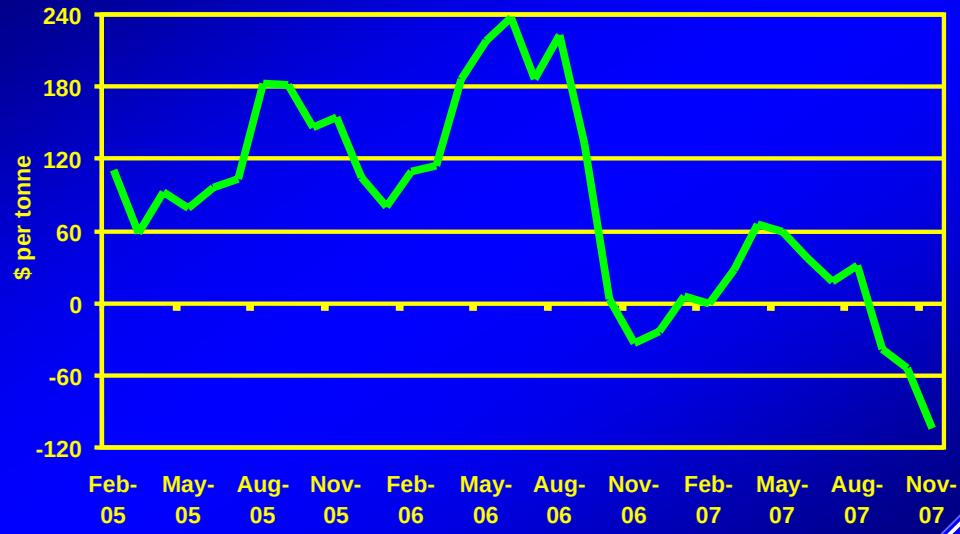
US Exports are Now Large

- US biodiesel exports have recently been close to half local production, i.e., 100,000 tonnes per month vs. 200,000 tonnes of output.
- US biodiesel imports have also been growing. Recently, they have been in the region of a quarter of local production, i.e., 50,000 tonnes per month.
- Most imports are from S.E. Asia, but S. American supplies should become larger.

US Biodiesel Becomes Over-Priced



US Biodiesel Processing Margins Fall



US Suppliers Face a Squeeze

- US biodiesel producers face pressure on two fronts in sales for local consumption.
- Their product has become increasingly expensive vs. fossil diesel, restricting its ability to sell in the domestic market.
- Refined soy oil prices are so high that net processing margins are negative today.
- This means that *splash and dash* exports are vital for short term survival.

2. EU Biodiesel Producers Are Squeezed by High Rapeseed Oil Prices

A 2-Tier EU Biodiesel Market

- The leading EU biodiesel market, that in Germany, has two separate segments.
- One – to meet the official biodiesel target B5 (5%) blend – pays no fuel taxation.
- The other – the sale of B100 biodiesel fuel for heavy transport vehicles – has, since August 2006, paid a low level of fuel taxation, of 12.5 US cents per litre, which reduces the profitability of such sales. This B100 tax is meant to be increased on 1st January 2008.

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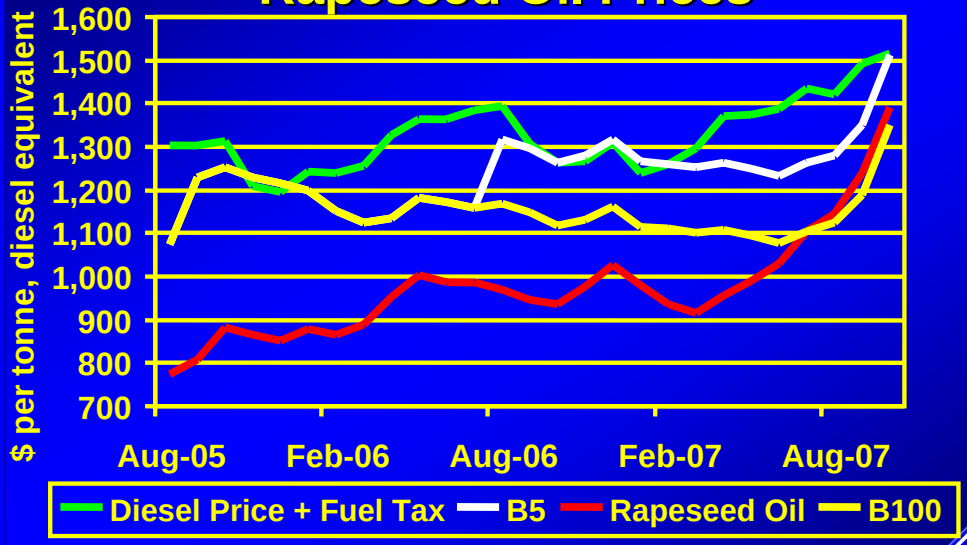
German Fuel Prices vs. Crude Rapeseed Oil Prices



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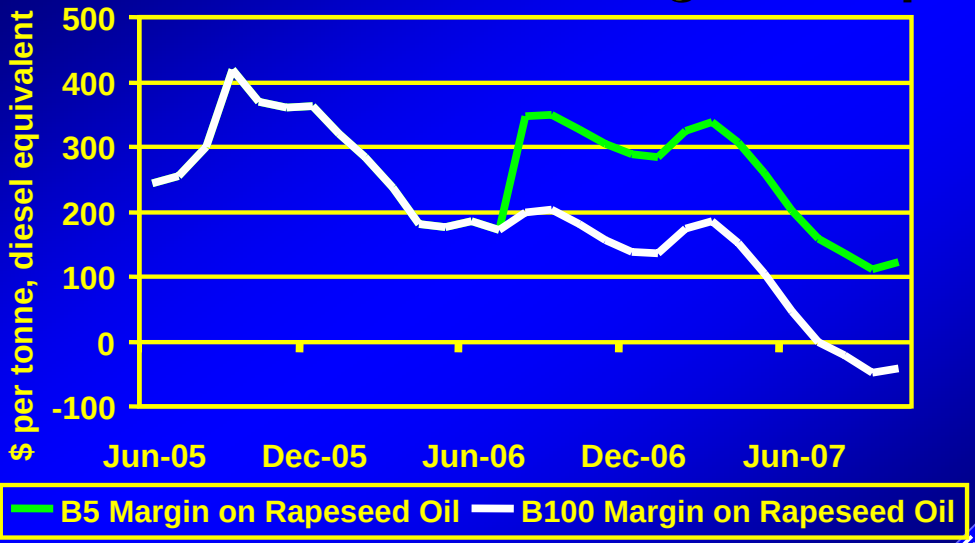
German Biodiesel Margins Drop



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EU Biodiesel Margins Slump

- Rapeseed methyl ester enjoys a premium in the EU market and is well placed for sales when winter fuel standards apply.
- Nevertheless, crude rapeseed oil prices have risen to the point where biodiesel margins are low or negative once the biodiesel processing costs are added to rapeseed oil prices.
- This squeeze upon biodiesel processing margins is true even when making biodiesel for B5 mandated blends, which pays no fuel tax.

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3. New Subsidised Biodiesel Exporters Emerge, Led by Argentina and Indonesia

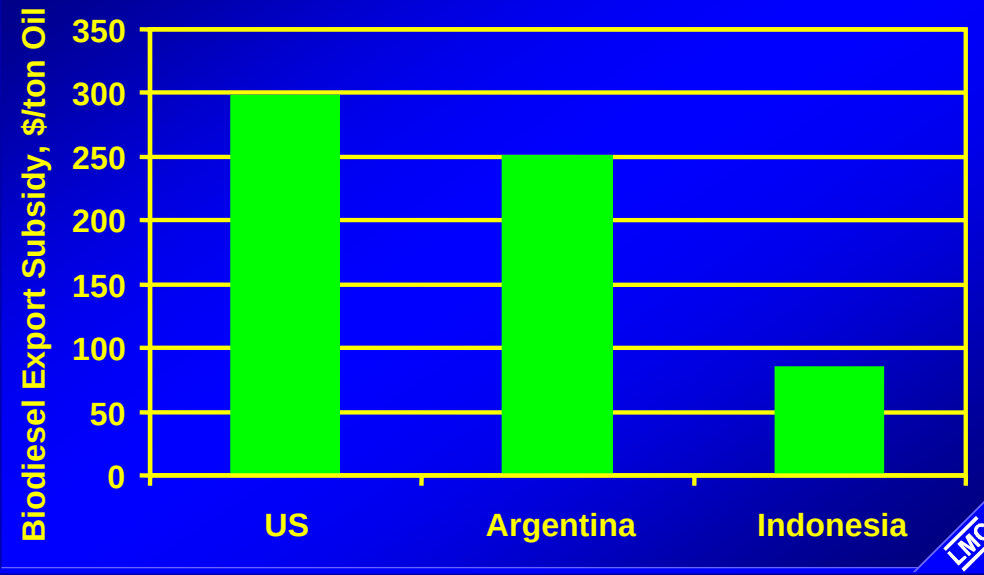
Differential Export Taxes

- US and EU biodiesel processing margins are being hit by high vegetable oil prices, which have moved above break-even levels for some local biodiesel producers.
- However, new exporters are emerging with subsidised biodiesel exports.
- Both Argentina and Indonesia apply lower differential export taxes (DETs) on biodiesel than they do on vegetable oil.

Argentina and Indonesia

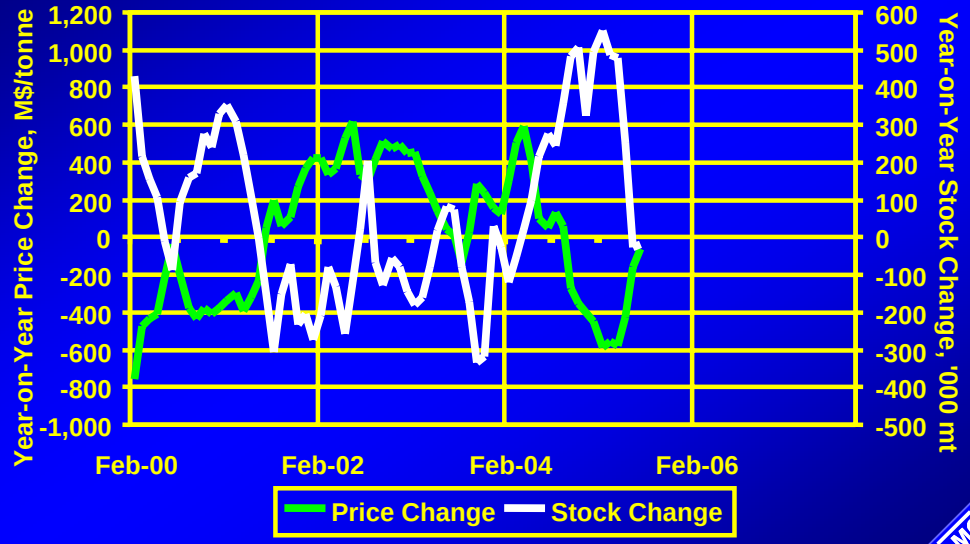
- In Argentina, soy oil exports pay a tax of 32%, while biodiesel exports pay a tax of only 5% (and receive a 2.5% *reembolso*), which makes the net export tax on biodiesel just 2.5%.
- This gives Argentine biodiesel exporters an advantage of over $250/ tonne today.
- Indonesian RBD olein today pays an export tax of 10%, while biodiesel pays no export tax. This gives local processors an export subsidy of around $85/tonne.

Current Biodiesel Export Subsidies

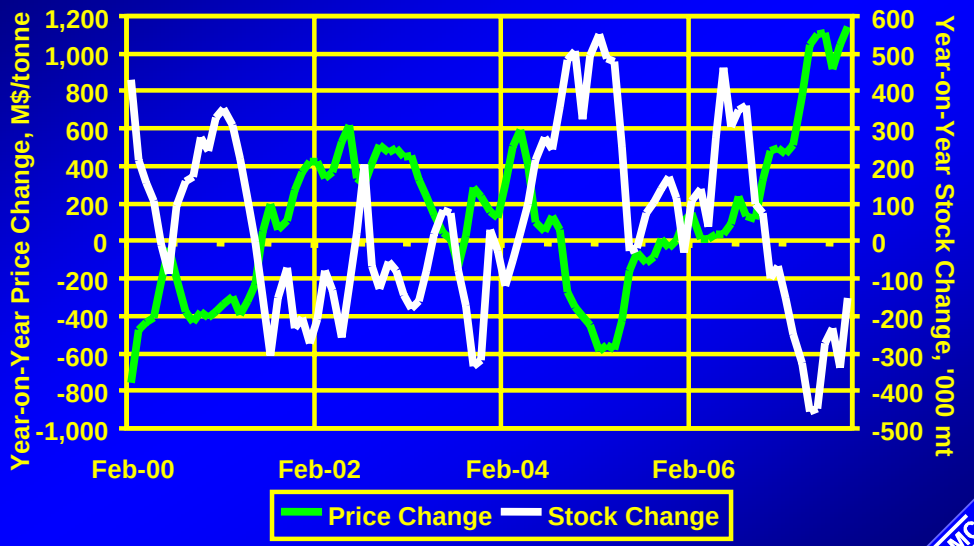


* The Impact of Biofuels on Vegetable Oil Forecasts *

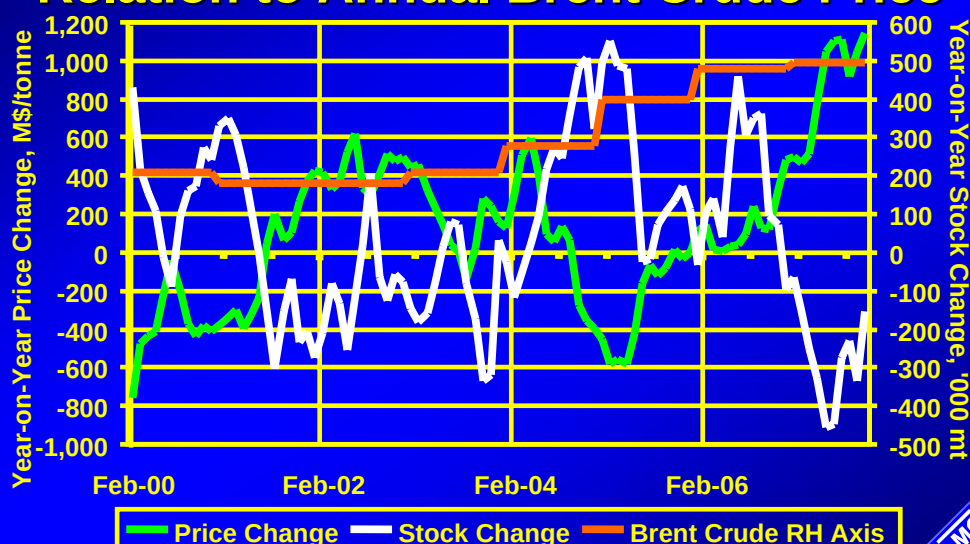
CPO Price vs. Stock Changes to 2005



CPO Price vs. Stock Changes to 2007



Changes in CPO Price vs. Stocks in Relation to Annual Brent Crude Price

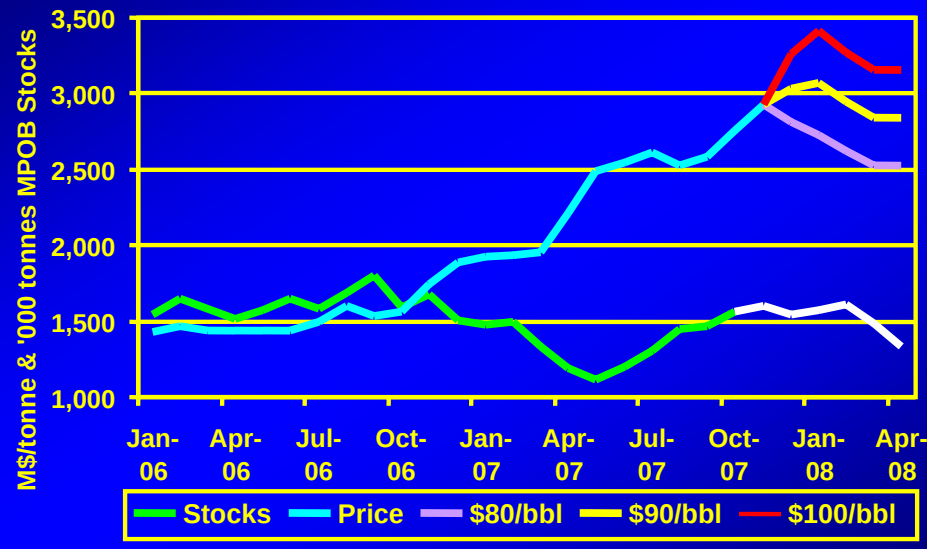


The Influence of Fuel and Stocks

- The nice inverse relationship between year-on-year MPOB palm oil stock changes and local CPO price changes that prevailed for years has been shaken since 2006.
- I have therefore taken the advice of the great economist, JM Keynes who said:

  "*When the facts change, I change my mind*".
- Two years ago, there was no statistical link between fuel and CPO prices. Looking back today, we see we can identify when the impact of fuel prices started to make itself felt.

Sensitivity of CPO Prices to Crude Oil



Conclusion

- YOU can make your own forecasts!
- If you believe that crude oil will actually remain at $100/bbl, then MDEX CPO prices will settle slightly above M$3,000/tonne in six months
- If $90/bbl is your projection, then you are forecasting M$2,800
- If $80 is your feeling, then M$2,500 is the outlook.
- Around these average forecast price levels, there will still be fluctuations that reflect the "old" influences of stocks.

Surprises Along the Way

- Five factors likely to dampen prices are:
  - The US will reduce, or end, splash and dash
  - Germany will raise B100 taxes in January as promised
  - Slower food demand growth (hit by high prices)
  - Remarkably strong growth in world palm oil output
  - A world economic slowdown when the bubble bursts
- Bullish factors, besides higher energy prices and the usual possibility of climatic shocks, include:
  - Slower than expected increase in oilseeds areas (EU rapeseed plantings will actually fall in 2008)
  - Governments may try to resist high prices by imposing export taxes, cutting import tariffs and building stocks

My Personal View

- The current commodity boom does not feel fundamentally different from previous ones.
- We have seen that all commodities have been swept up in the euphoria, regardless of realities.
- In the end, as is so often said, “the cure for high prices is high prices”. This is because high prices
  - Cause inflation, inviting macro-economic responses leading to slower economic growth,
  - They also stimulate new production sources, whether of energy, agricultural products or metals, and
  - They reduce demand, whether for food from poor consumers or by encouraging energy saving.

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Thank You

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