2012 Oil Market Outlook

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Outline of Presentation

- Primary Thesis

- Fundamentals, 2012:
  - World oil balance embodied by Saudi Arabia
  - The ubiquitous geopolitical factors

- Financials, 2012:
  - A review of 2011-the tactical and strategic perspectives
    - Assessing non-commercial participation
      - CFTC data
      - The equity market
      - The dollar
  - Thoughts on 2012

- Price components in another "recovery" year: 2012
  - Broad fundamental view
  - Non-commercial influence
  - Seasonality

- Translate all factors into an "heroic" price forecast
  - Flat NYMEX crude oil price
  - The WTI-Brent spread

Primary Thesis: The Role of Fundamentals and Financials in Crude Oil Price Determination

- From a qualitative and quantitative standpoint, ***both*** fundamental and financial factors have played significant roles in NYMEX crude oil price determination over the last few years, but neither group of factors is perfectly ***consistent*** and ***continuous*** in its "explanatory power".

- Rather, it is the ***interplay*** of both sides of the equation over time with varying degrees of influence, either independently or together, during ***discrete*** time periods that ***link to form a continuous chain,*** ultimately yielding the actual path of NYMEX crude oil prices.

Fundamentals
2012

- The Bottom Line:

  Saudi crude oil deliveries expected to average almost 9.7 MMB/D this year, reaching 10.0+ MMB/D in the fourth quarter

- Libya production expected to average 1.1-1.2 MMB/D in 2012

- Iran will not be able to "close" the Strait of Hormuz

  Most neotraders have never lived through an Arabian Gulf supply disruption

  "Old salts" witnessed the Iraq-Iran tanker war and appreciate the resilience of the international shipping industry

- Iraq will be the major supply wildcard in 2012 and beyond and we cannot rule out civil war

Financials 2012
The "Tactical " Perspective:

- Last year we presented the argument that on a short-term basis one could observe what appeared to be the influence of funds via early-month asset allocation decisions.
- The early-month gain or loss (investment/disinvestment) relative to the average of the subsequent trading days was a function of economic optimism or pessimism.
- In 2011, no such pattern was clearly discernable or consistent, particularly in the first half of the year when fundamental themes, i.e. Arab Spring, MENA disruptions, and the revolution in Libya, dominated oil trading.
- We believe 2012 will be more similar to 2011 in this regard and replicate less the pattern of 2010.

The "Tactical" Perspective

Perceived Month-by-Month Capital Allocation Patterns in 2010

Cumulative Gain/Loss,
First Three Trading Days of the Month
Prompt NYMEX CL Settlements

Jan	**$3.82**
Feb	**$4.09**
Mar	**$1.21**
Apr	**$3.08**
May	-$6.18
Jun	$0.64
Jul	-$3.65
Aug	**$3.52**
Sep	**$2.68**
Oct	**$2.85**
Nov	**$3.26**
Dec	**$5.08**

Net Investment: Broad Economic Optimism

Net "Disinvestment": Euro Crisis and "Double Dip" Fever

Net Investment: Ben's QE II Discourse and Renewed Economic Optimism

For 2010 as a whole, the "average peak" in the first three trading days of the month was $81.25 per barrel. The average for remaining trading days of each month was $79.51 per barrel. Therefore, on average the difference was an early-month peak that was higher than the subsequent average by $1.74 per barrel, suggesting that early-month asset allocation played a role. A similar pattern often occurred in the equity market.

Financials 2012: The "Strategic" Perspective:

- With regard to financial factors, we have looked at a number of variables against NYMEX crude oil prices.

- These variables include:
  - The categories of the weekly CFTC Commitments of Traders Report
  - Changes and/or expectations of changes in Fed policy
  - The equity market as represented by the S&P 500
  - The dollar/euro rate

- Of course, these factors are not mutually exclusive. If hypothetically there is a close relationship between oil prices and CFTC fund position data, those positions are established for a reason, e.g. Fed policy, positive/negative economic expectations, etc. which implies in turn a close relationship between oil prices and those catalysts for fund positions.

Results:
CFTC Data: Explanatory or Not?

Correlation Between the Prompt NYMEX Crude Oil Settlement
And
The Change in Managed Money Net Position

2007	**0.42**
2008	**0.41**
2009	**0.72**
2010	**0.75**
2011	**0.64**

- The relatively higher correlation in more recent history, on average, suggests that **either Managed Money is concurrently *reacting* to short-term fundamental developments (read demand) or is helping to *cause* prices to rise or fall.** This obviously begs the question of correlation versus causality. To believe that Managed Money is reacting to fundamentals, however, perhaps ***presupposes a real-time, continuous, and near-perfect knowledge of fundamental developments in the physical market, which we believe is unlikely given anecdotal evidence of the profile of the average oil trader these days who has come into the market as commodities became a more popular asset class.***

Results: CFTC Data: Explanatory or Not, 2011?

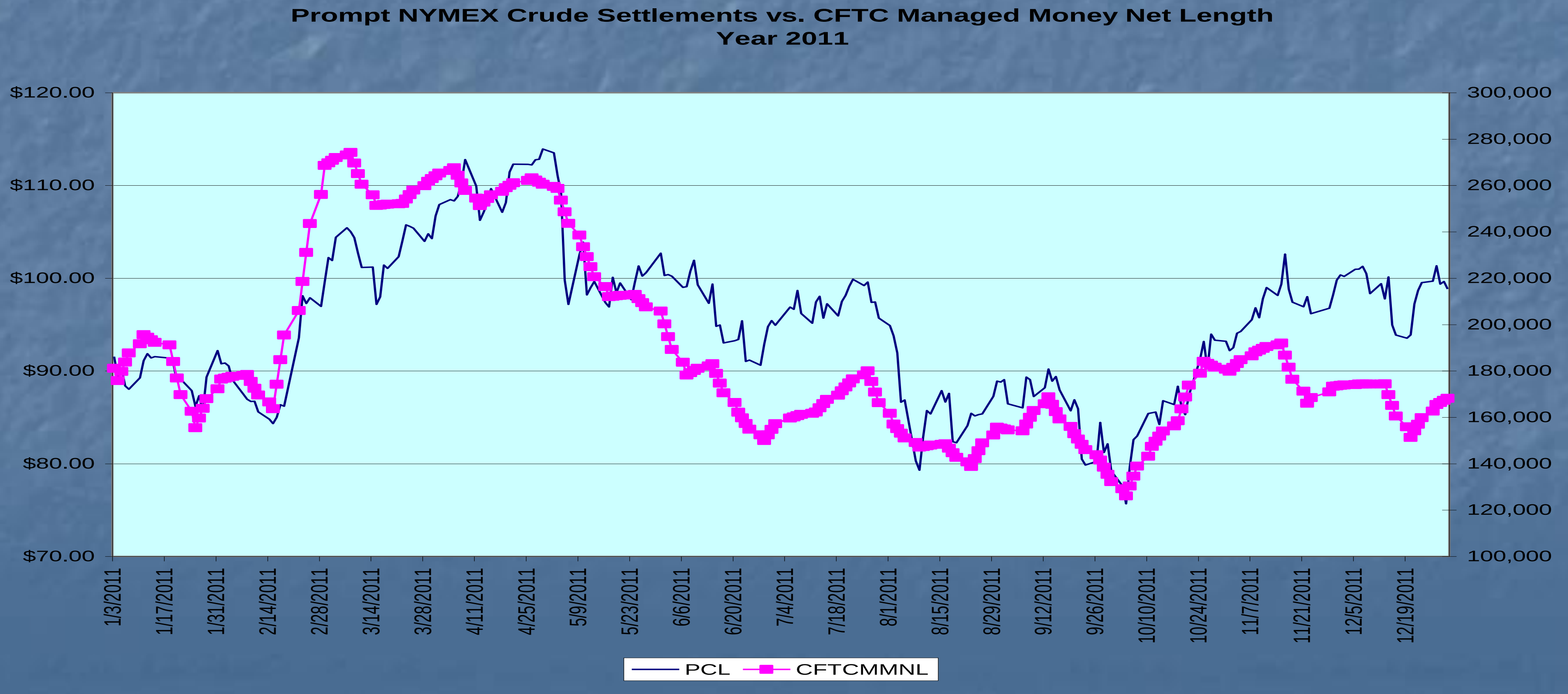
- Our point regarding the influence during ***periodic***, ***discrete*** periods can also be illustrated in tabular form for 2011. As indicated, earlier in the year the implied price impact was reasonably consistent, but in the second half of the year was much larger, implying in turn a fundamental as well as financial influence on price change as the global oil balance became "looser" and subsequently "tighter".

CFTC-Reported, Futures Only Managed Money Net Length
vs.
Prompt NYMEX Crude Oil Settlement
Year 2011

	---------------------Managed Money---------------			Prompt NYMEX	Cumulative Increase (Decrease)	Increase (Decrease)	$ Change per
	Long	Short	Net	PCL	in Net Length	in Price	10,000
4-Jan-11	243,085	67,233	175,852	$89.38			
11-Jan-11	253,290	57,635	**195,655**	**$91.11**			
18-Jan-11	248,173	56,970	**191,203**	**$91.38**			
25-Jan-11	217,026	61,539	**155,487**	**$86.19**	(40,168)	($4.92)	($1.22)
1-Feb-11	239,160	62,712	176,448	$90.77			
8-Feb-11	230,615	52,183	178,432	$86.94			
15-Feb-11	218,807	55,137	**163,670**	**$84.32**			
22-Feb-11	249,629	43,606	**206,023**	**$93.57**			
1-Mar-11	293,884	25,262	**268,622**	**$99.63**			
8-Mar-11	301,202	26,967	**274,235**	**$105.02**	110,565	$20.70	$1.87
15-Mar-11	283,647	32,267	251,380	$97.18			
22-Mar-11	281,134	28,916	252,218	$104.00			
29-Mar-11	293,308	31,549	261,759	$104.79			
5-Apr-11	296,432	28,803	267,629	$108.34			
12-Apr-11	279,198	27,951	251,247	$106.25			
19-Apr-11	296,915	37,904	259,011	$108.15			
26-Apr-11	296,609	33,373	**263,236**	**$112.21**			
3-May-11	295,640	36,972	**258,668**	**$111.05**			
10-May-11	280,900	47,331	**233,569**	**$103.88**			
17-May-11	249,943	37,935	**212,008**	**$96.91**			
24-May-11	251,438	38,498	**212,940**	**$99.59**			
31-May-11	246,234	40,407	**205,827**	**$102.70**			
7-Jun-11	236,116	57,899	**178,217**	**$99.09**	(85,019)	($13.12)	($1.54)
14-Jun-11	240,024	56,911	183,113	$99.37			
21-Jun-11	228,586	66,396	162,190	$93.40			
28-Jun-11	223,022	73,018	**150,004**	**$92.89**			
5-Jul-11	224,114	64,473	**159,641**	**$96.89**			
12-Jul-11	228,578	66,290	**162,288**	**$97.43**			
19-Jul-11	237,123	65,733	**171,390**	**$97.50**			
26-Jul-11	244,362	64,349	**180,013**	**$99.59**	30,009	$6.70	$2.23
2-Aug-11	234,633	77,524	**157,109**	**$93.79**			
9-Aug-11	227,268	80,156	**147,112**	**$79.30**			
16-Aug-11	226,918	78,323	**148,595**	**$86.65**			
23-Aug-11	218,941	80,170	**138,771**	**$85.44**			
30-Aug-11	221,311	65,583	**155,728**	**$88.90**			
6-Sep-11	224,199	70,072	**154,127**	**$86.02**			
13-Sep-11	228,362	59,564	**168,798**	**$90.21**			
20-Sep-11	217,699	64,824	**152,875**	**$86.89**			
27-Sep-11	215,424	73,890	**141,534**	**$84.45**	(38,479)	($15.14)	($3.93)
4-Oct-11	211,402	85,309	**126,093**	**$75.67**			
11-Oct-11	210,780	63,332	**147,448**	**$85.81**			
18-Oct-11	219,391	60,870	**158,521**	**$88.34**			
25-Oct-11	237,254	53,107	**184,147**	**$93.17**			
1-Nov-11	229,279	49,434	**179,845**	**$92.19**			
8-Nov-11	235,730	47,549	**188,181**	**$96.80**			
15-Nov-11	230,682	38,682	**192,000**	**$99.37**			
22-Nov-11	210,899	44,866	**166,033**	**$98.01**			
29-Nov-11	212,820	39,425	**173,395**	**$99.79**			
6-Dec-11	210,754	36,431	**174,323**	**$101.28**			
13-Dec-11	219,394	45,013	**174,381**	**$100.14**			
20-Dec-11	197,370	46,066	**151,304**	**$97.22**			
27-Dec-11	210,113	44,608	**165,505**	**$101.34**	23,971	$16.89	$7.05

Financials: CFTC Data: Explanatory or Not?

- Once again we would make the point that "Managed Money" has a strong explanatory power regarding NYMEX crude oil, but generally during *discrete* periods *within* a given year.



Financials:
Prompt NYMEX Crude Oil vs. S&P 500

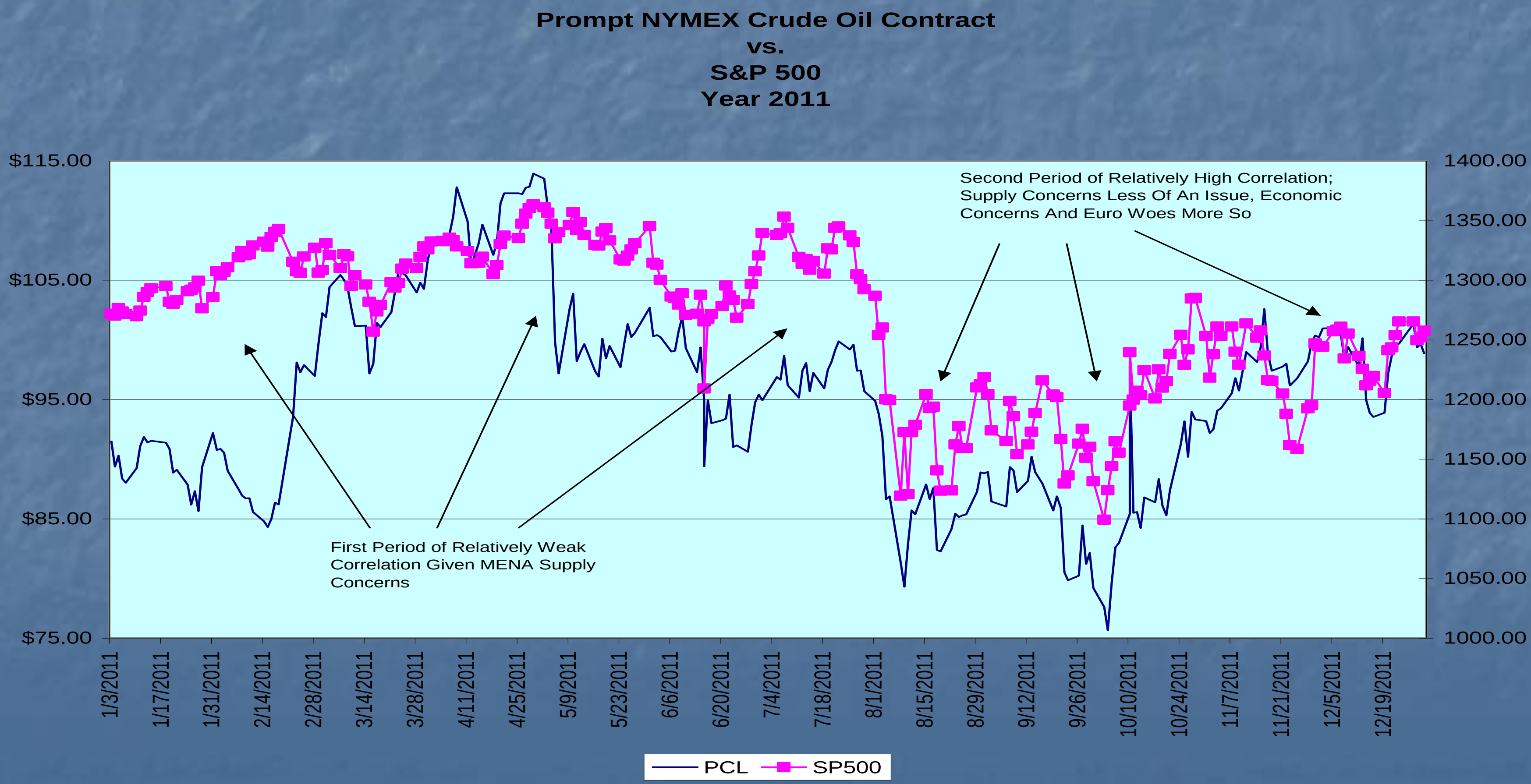
Correlation,
S&P 500 Close vs. Prompt NYMEX Settlements

2004	**.00**
2005	**.25**
2006	**.40**
2007	**.15**
2008	**.66**
2009	**.76**
2010	**.76**
2011	**.46**

The “heydays” of consistent positive relationships were in 2009 and 2010 due to the market’s preoccupation with economic recovery and the assumption that economic growth = oil demand = oil prices

The 2011 NYMEX/S&P 500 Relationship: Two Distinct Periods

- Early last year there was a "breakaway" of crude oil prices from the equity market because of supply issues. In the second half there was a "re-linking" as economic and euro concerns took center stage.



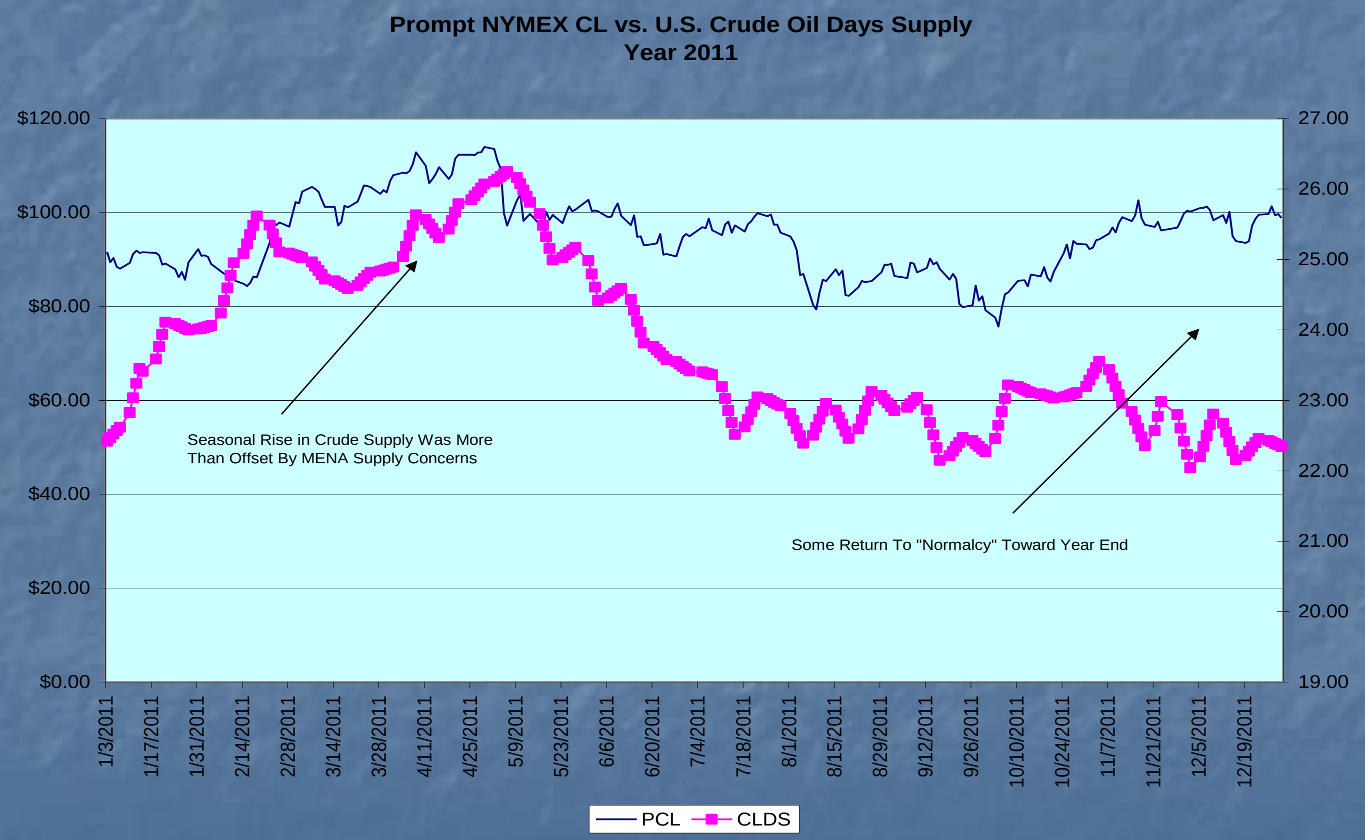
Financials:
NYMEX Crude Oil Prices vs. the Dollar

Correlations,
Dollar/Euro Rate vs. Prompt NYMEX Crude Oil Settlements

2004	**.04**
2005	**.43**
2006	**.02**
2007	**.93**
2008	**.73**
2009	**.87**
2010	**.22**
2011	**.14**

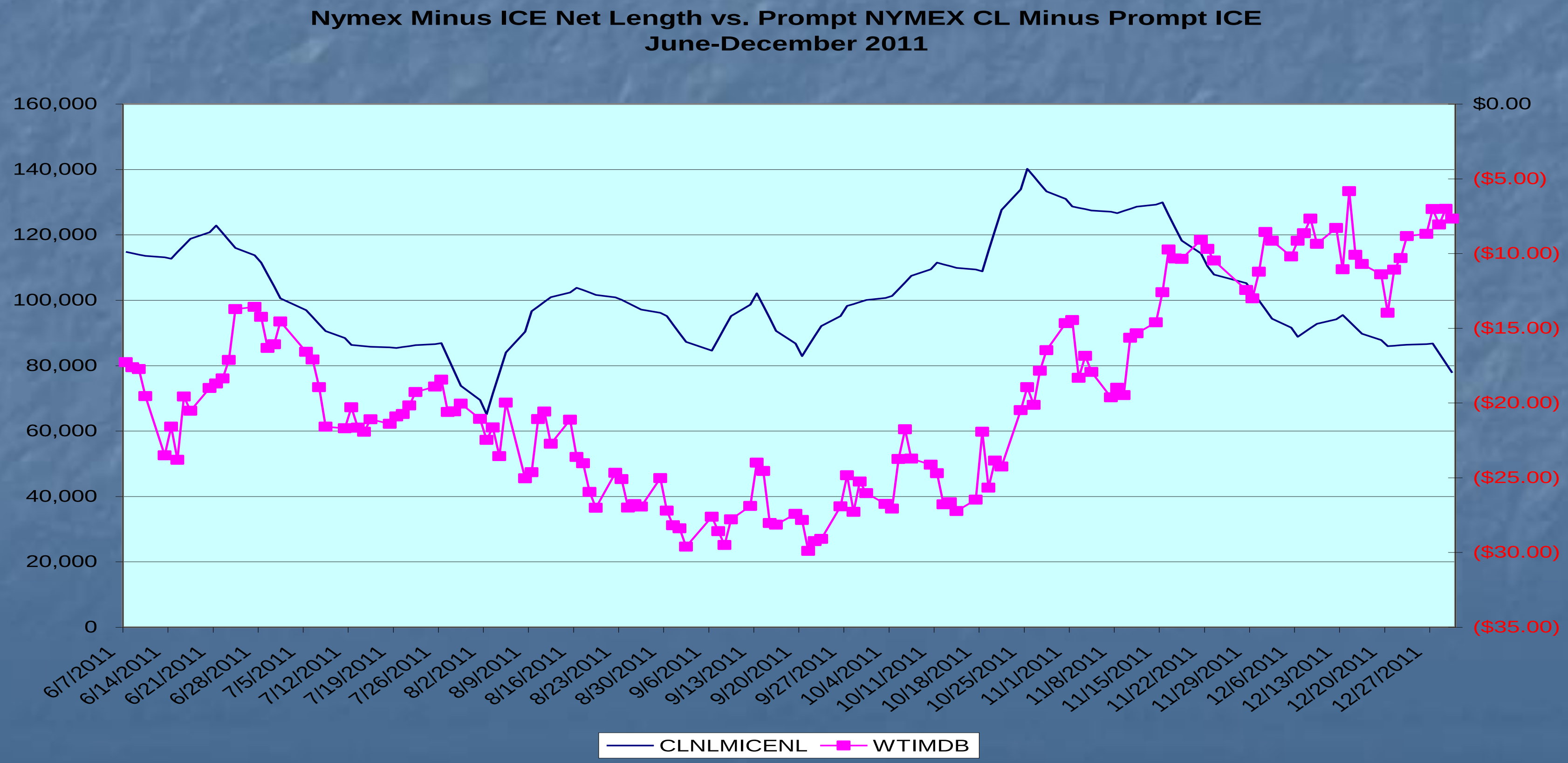
- The crude oil/dollar trade had its "heydays" in 2007-2009. Since then, despite periodic references by the media as the cause of daily oil price movements, for the last couple years the dollar/euro rate has not had consistent explanatory power.

The “Purest” of Fundamental Relationships Is Often Elusive These Days



The WTI-Brent Spread

- One of the major trades in 2011 was the WTI-Brent spread. There were fundamental factors at work such as rising Cushing stocks in the context of short-haul crude supply reductions to Europe as a result of Libya plus incessant Buzzard field problems. Did funds play a role in exacerbating the trend? The limited data suggest they ***did not,*** at least when comparing the WTI-Brent spread versus CFTC Managed Money net length minus ICE Managed Money net length



Price Components in Yet Another "Recovery" Year 2012: A Summary

2012 NYMEX crude oil prices will once again be determined by a combination of fundamental and financial variables:

- Fundamental factors:

  -Growth in world oil demand

  -Growth in non-OPEC supply

  -Geopolitical influences on supply

  -Global days supply of crude oil and product inventories influenced by:

    -Excess refining capacity

    -Excess producing capacity, primarily Arabian Gulf sour grades

- Financial factors:

  -Need/desire by financial institutions to diversify invested assets, including possibility of generating "excess" returns given risk of supply disruption

  -Global equity market strength/weakness

  -Monetary policy *expectations:* QE III? IV? Euro QE?

Price Components in Yet Another "Recovery" Year 2012: Conclusions

- The overall fundamental global balance should remain competitive in 2012 with excess producing and refining capacity suggesting lower prices than $80.00 per barrel, basis WTI.
- However, funds and other non-commercials may be intent upon allocating incremental capital to oil this year, if risk of global recession wanes.
- Thus, a higher price "bar" will be established from which prices will rise seasonally as we move through the first half of the year from a first quarter trough.
- Price elasticity of demand remains alive and well, however, suggesting that the period of greatest crude oil price strength in 2012 will extend only through summer. In the fourth quarter, concerns over the impact of higher oil prices on 2013 economic activity once again will lead to fund net length liquidation back toward, but not to, underlying fundamental value. ***Funds will limit their net length liquidation in order to retain some exposure to the possibility of generating "excess" portfolio returns.***

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- ***We are therefore suggesting a continued crude oil price cycle of mini "boom and bust" for the foreseeable future.***

Price Components in Yet Another "Recovery" Year 2012: Adding It All Up

- 2011 Post Mortem:
  At last year's presentation WTI was trading at $90.54 per barrel. We laid the groundwork for the prompt NYMEX crude oil contract to average $96.00 per barrel in 2011 based on pure fundamentals plus a "robust" financial outlook, but we thought the actual would come in at $89.00 per barrel assuming funds would become increasingly concerned about the 2012 economic picture. They did, but the concern was shorter lived than anticipated.
- The actual average came in at $95.12 per barrel, thanks largely to Libya.
- Our fundamental balance was close to the mark, with demand and non-OPEC supply both a bit lower than originally forecast.
- Our expected second quarter seasonal price recovery was on track until Euro Crisis II unfolded in May, a precise price replication of 2010. Prices were "derailed" during summer from "double-dip fears" once again which, as we anticipated, never materialized.
- Let's try it again, shall we?

Price Outlook for Another "Recovery" Year 2012: Laying It On The Line

Prompt NYMEX Crude Oil and Dated Brent

	Prompt NYMEX CL	Dated Brent	Differential
Q1	$92.50	$100.50	-$8.00
Q2	$104.50	$114.50	-$10.00
Q3	$99.00	$108.50	-$9.50
Q4	$98.00	$105.50	-$7.50
Year	$98.50	$107.25	-$8.75

First quarter price risk is upside, not downside, irrespective of euro zone developments. If prices end up higher, however, we are unlikely to extrapolate into our second quarter seasonal rise from a higher Q1 base since Q2 prices approach "terminal value" under our Base Case.