

Predatory or Sunshine Trading? Evidence from Crude Oil ETF Rolls

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Discussion

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Summary

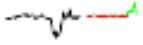
- 8 ETFs to track crude oil prices using crude oil futures contracts, involves “rolling” positions
- Puzzle: huge discount of ETF compared to the price of oil futures, on October 18, 2012, price of USO: \$34.04, November/2012 crude oil futures: \$90.99
- Conventional explanation on the Wall Street – predatory trading
- Break the convention – “sunshine trading”!

Summary

- The oil futures markets are resilient
- Limit order book is refilled frequently: on roll days an average of 850 front-month contracts trade each minute
- over 99% of the temporary price impact due to an order imbalance is reversed within ten minutes, implying that the limit order book refills rapidly
- Also there is a reduction in the permanent price impact of order imbalances on ETF roll days
- Because the market is resilient, the most profitable strategy is trading in the same direction as the upcoming ETF trades prior to the roll and trading opposite the ETF in the period after the ETF roll
- Strategic traders become liquidity providers
- Sunshine Trading!

Comments - 1

- Who is the marginal trader in the futures markets on roll days: hedgers vs speculators
- Acharya, Lochstoer and Ramadorai (2012) – hedging demand vs speculative activity, if speculators are capital constrained – they cannot absorb liquidity
- Time period - March 1, 2008 to February 28, 2009 – middle of the crash, S&P500 was plunging – Chen, Kirilenko, and Xiong (2012) – speculators reduced long positions. It means that market resiliency results reported in the paper are quite strong. But who re-fills limit order book?
- – funding liquidity dried up – may be it is worth to look at whether margin requirements changed during that time and by how much compared to normal times (especially in the second month contracts) for hedgers vs speculators

CLX2 ↓ **92.26** +.16  92.26 / 92.27 5x13 Prev 92.10
 At 10:26 Vol 33268 Op 92.04 Hi 93.05 Lo 91.82 OpenInt 63472

CLX2 COMB Comdty 99 Feedback Page 1/2 Futures Contract Description

1) Contract Information 2) Linked Instruments
 CLX2 Comdty WTI CRUDE FUTURE Nov12 NYM-New York Mercantile Exchange

3) Notes

Crude oil is the world's most actively traded commodity, and the NYMEX Division light, sweet crude oil futures contract is the world's most liquid forum for crude oil trading, as well as the world's largest-volume futures contract trading on a physical commodity. Because of its ...

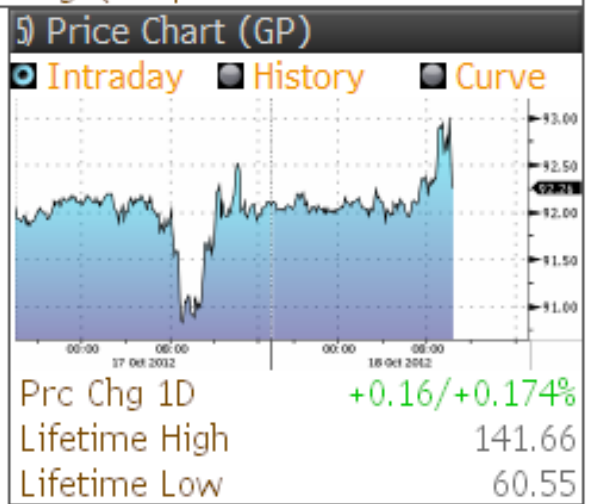
4) Contracts (CT) Jan:F Feb:G Mar:H Apr:J May:K Jun:M Jul:N Aug:Q Sep:U Oct:V Nov:X Dec:Z

Contract Specifications	
Contract Size	1,000 Barrels
Value of 1.0 pt	\$ 1,000
Tick Size	0.01
Tick Value	\$ 10
Price	92.26 USD/bbl.
Contract Value	\$ 92,260
Last Time	10:26:28
Exch Symbol	CL
BBGID	BBG000SPD5Y0
Daily Price Limits	
Up Limit	102.10
Down Limit	82.10

Trading Hours	
<input checked="" type="checkbox"/> Exchange	<input checked="" type="checkbox"/> Local
Electronic	18:00-17:15
Pit	09:00-14:30

6) Related Dates (EXS)		
First Trade	Mon	Nov 20, 2006
Last Trade	Mon	Oct 22, 2012
First Notice	Wed	Oct 24, 2012
First Delivery	Thu	Nov 1, 2012
Last Delivery	Fri	Nov 30, 2012


8) Holidays (CDR NM)	
9) Weekly COT Net Futs (COT)	



Margin Requirements		
	Speculator	Hedger
Initial	6,885	5,100
Secondary	5,100	5,100

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2012 Bloomberg Finance L.P.
 SN 463021 EDT GMT-4:00 6594-193-3 19-Oct-2012 10:26:36

1000 barrels, \$92,260 at the current price,
 13:1, and 18:1 leverage

CO2Z **↑112.49** +.07  112.48 / 112.50 10x4 Prev 112.42
 At 10:26 d Vol 86044 Op 112.26 Hi 113.27 Lo 112.26 OpenInt 303997

CO2Z Comdty **99 Feedback** Page 1/2 Futures Contract Description

1) Contract Information **2) Linked Instruments**

CO2Z Comdty BRENT CRUDE FUTR Dec12 ICE-ICE Futures Europe

3) Notes

Current pipeline export quality Brent blend as supplied at Sullom Voe. ICE Brent Futures is a deliverable contract based on EFP delivery with an option to cash settle.
 Date of launch: 23 June 1988....

4) Contracts (CT) Jan:F Feb:G Mar:H Apr:J May:K Jun:M Jul:N Aug:Q Sep:U Oct:V Nov:X Dec:Z

Contract Specifications	
Contract Size	1,000 Barrels
Value of 1.0 pt	\$ 1,000
Tick Size	0.01
Tick Value	\$ 10
Price	112.48 USD/bbl.
Contract Value	\$ 112,480
Last Time	10:26:12
Exch Symbol	BRN
BBGID	BBG000VKFRN9

Trading Hours	
<input type="checkbox"/> Exchange	<input checked="" type="checkbox"/> Local
20:00-18:00	

Related Dates (EXS)	
Cash Settled	
First Trade	Wed Nov 16, 2005
Last Trade	Thu Nov 15, 2012
Valuation Date	Thu Nov 15, 2012

5) Price Chart (GP)	
<input checked="" type="checkbox"/> Intraday	<input type="checkbox"/> History
<input type="checkbox"/> Curve	
	
Prc Chg 1D	+0.06/+0.053%
Lifetime High	143.92
Lifetime Low	53.90

Daily Price Limits	
Up Limit	500.00
Down Limit	5.00

8) Holidays (CDR IP)

9) Weekly COT Net Futs (COT)

Margin Requirements	
Initial	5,200
Secondary	

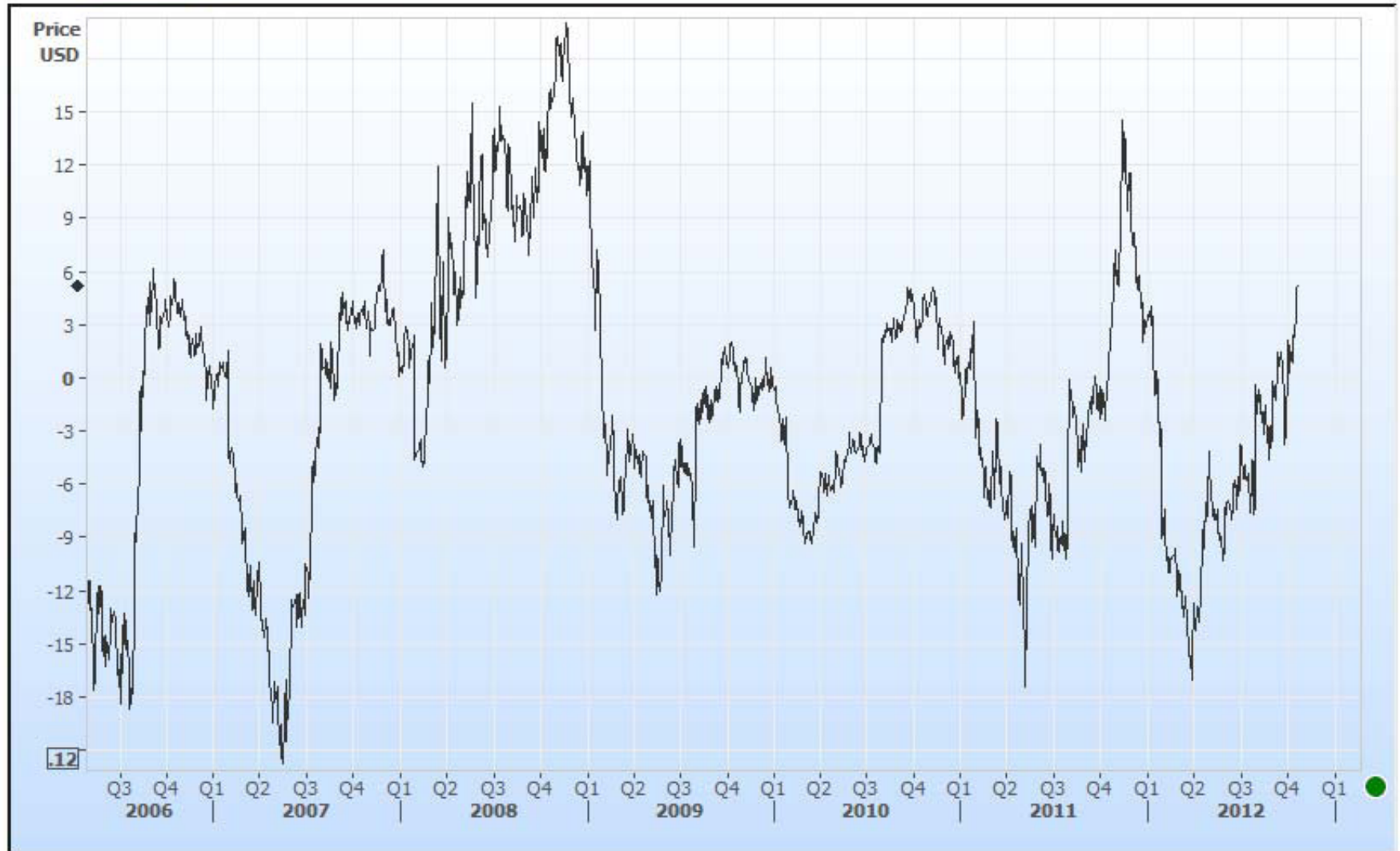
Comments - 2

- Table 5 – permanent price impact, λ , is higher on the roll days than non-roll days for the second-month contracts: can the strategic trader be intra-commodity spread trader and use the second-month contract?
- Margins are lower for intra-commodity spread trading
- Table 2 – Second Month contracts, *intra-commodity spread*, 55.5% - indicates a significant presence of speculators. May be that's why the permanent price impact is higher for roll days

Crack spread

Show: Spread 1: RBOB Gasoline <RBc2> M#2 2: US Heating Oil <HOc2> M#2 3: WTI Crude <CLc2> M#2

Start Date: 01 May 2006 Interval: Daily Y-Axis of Spread: Primary

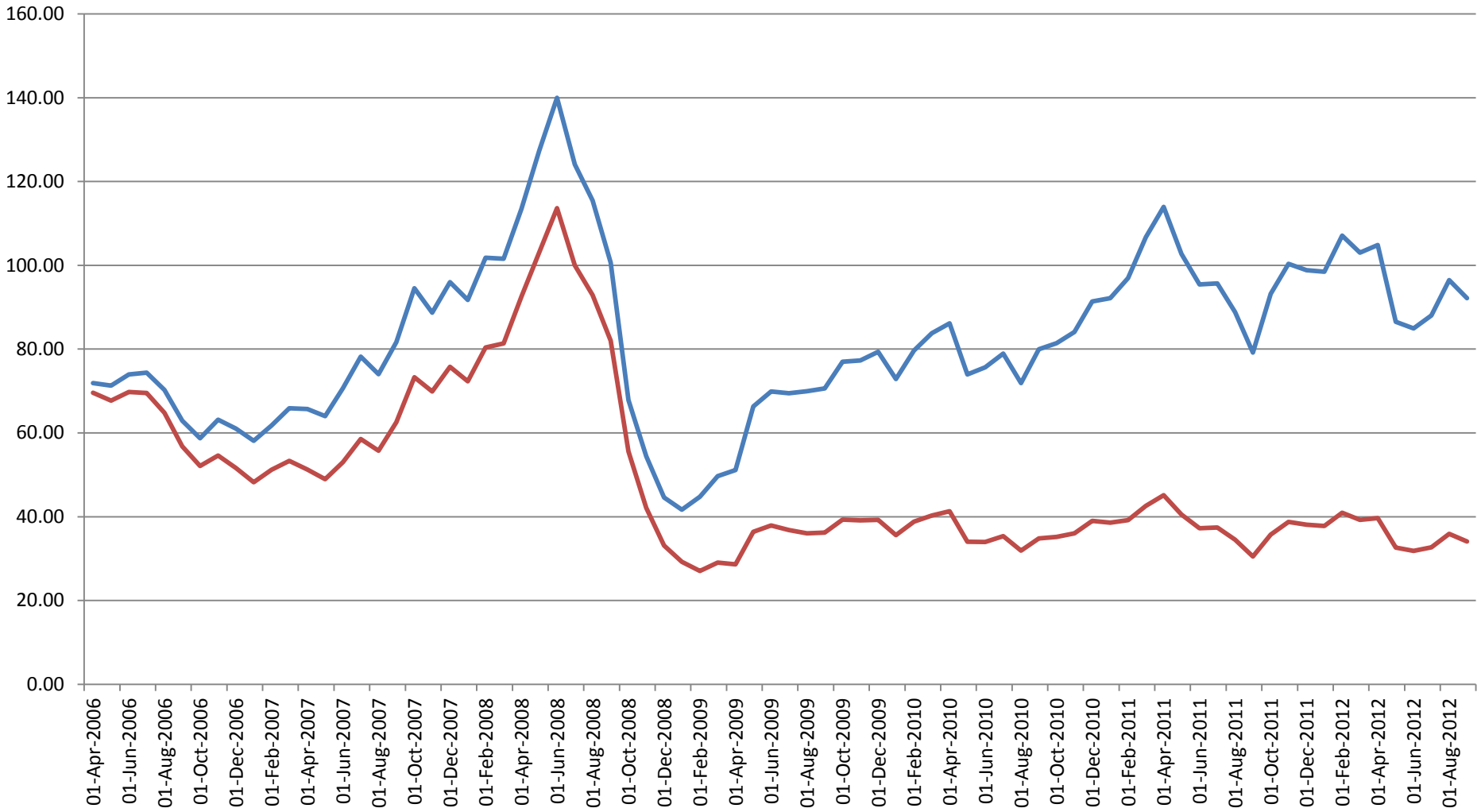


Comments - 3

- Market resiliency, Table 5, is computed for 5-second interval “to increase the effective sample size”
- For the second-month contracts the sample size is bigger overall. May be, as a robustness, estimate it for 1-minute intervals?
- For 5-sec intervals the markets are not very resilient – is there any evidence of “flash” trading?

Comments - 4

- Strategic trading surrounding the ETFs rolls: the results show that strategy ST3, trading with-before, against-during and against-after ETF roll is the most profitable. Is it possible to have event-time accounts strategies percentage distributions? For example, out of all accounts, how many follow ST3 strategy – would it tell you the type of the marginal trader?



Comments – 5

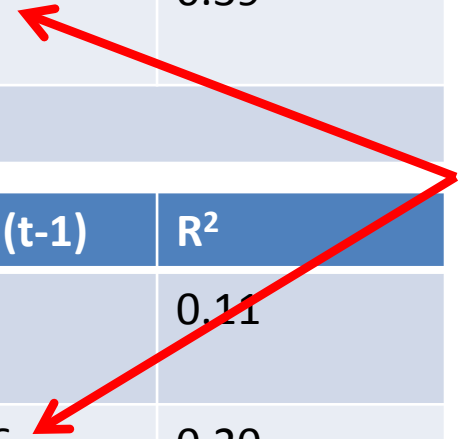
- Why the crude oil futures price and the price of USO differ so much?
- Cost of rolling – acknowledged very well in the paper
- This costs might be time-varying, and there is a regime switch after February 2009
- May be price pressure in the stock market – short/long positions in USO

Intercept	MKT	SMB	HML	UMD	R ²
-0.009 [0.97]	1.031 [5.67]				0.31
-0.008 [0.93]	1.373 [6.44]	-0.677 [1.36]	-0.062 [0.22]	0.460 [2.53]	0.39

Data: May 2006 to June 2012, White (1980) std errors

Intercept	MKT(t-1)	SMB (t-1)	HML (t-1)	UMD (t-1)	R ²
-0.008 [0.68]	0.607 [2.27]				0.11
-0.009 [0.87]	0.541 [1.79]	-0.298 [0.60]	-0.640 [1.27]	-0.556 [2.90]	0.20

Data: May 2006 to June 2012, White (1980) std errors



Intercept	MKT	SMB	HML	UMD	R ²
-0.012 [1.09]	1.041 [5.29]				0.31
-0.014 [1.60]	1.518 [6.07]	-0.719 [1.25]	-0.653 [2.07]	0.215 [1.52]	0.39
Data: January 2009 to June 2012, White (1980) std errors , 42 obs					

Intercept	MKT(t-1)	SMB (t-1)	HML (t-1)	UMD (t-1)	R ²
0.0003 [0.02]	0.183 [0.62]				0.01
-0.004 [0.31]	-0.146 [0.52]	0.071 [0.12]	-0.064 [0.14]	-0.669 [3.80]	0.24
Data: January 2009 to June 2012, White (1980) std errors					