CME Group Webcast

Practitioners' Guide to Riding the Yield Curve While the Fed Unwinds QE

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CME Group

Transcript of Chairman Bernanke's Press Conference June 19, 2013

"Although the Committee left the pace of purchases unchanged at today's meeting, **it has stated that it may vary the pace of purchases as economic conditions evolve. Any such change would reflect the incoming data and their implications for the outlook, as well as the cumulative progress made toward the Committee's objectives since the program began in September**. Going forward, the economic outcomes that the Committee sees as most likely involve continuing gains in labor markets, supported by moderate growth that picks up over the next several quarters as the near-term restraint from fiscal policy and other headwinds diminishes. **We also see inflation moving back toward our 2 percent objective over time. If the incoming data are broadly consistent with this forecast, the Committee currently anticipates that it would be appropriate to moderate the monthly pace of purchases later this year.** And if the subsequent data remain broadly aligned with our current expectations for the economy, we would continue to reduce the pace of purchases in measured steps through the first half of next year, ending purchases around midyear. In this scenario, when asset purchases ultimately come to an end, the unemployment rate would likely be in the vicinity of 7 percent, with solid economic growth supporting further job gains, a substantial improvement from the 8.1 percent unemployment rate that prevailed when the Committee announced this program. **I would like to emphasize once more the point that our policy is in no way predetermined and will depend on the incoming data and the evolution of the outlook as well as on the cumulative progress toward our objectives. If conditions improve faster than expected, the pace of asset purchases could be reduced somewhat more quickly.** If the outlook becomes less favorable, on the other hand, or if financial conditions are judged to be inconsistent with further progress in the labor markets, reductions in the pace of purchases could be delayed. Indeed, should it be needed, the Committee would be prepared to employ all of its tools, including an increase in the pace of purchases for a time, to promote a return to maximum employment in a context of price stability."

Disclaimer

Futures trading is not suitable for all investors, and involves the risk of loss. Futures are a leveraged investment, and because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money deposited for a futures position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles. And only a portion of those funds should be devoted to any one trade because they cannot expect to profit on every trade. All references to options refer to options on futures.

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How important is Economic Data when trading CME Group's UST Futures?

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Agenda

Who I am ?

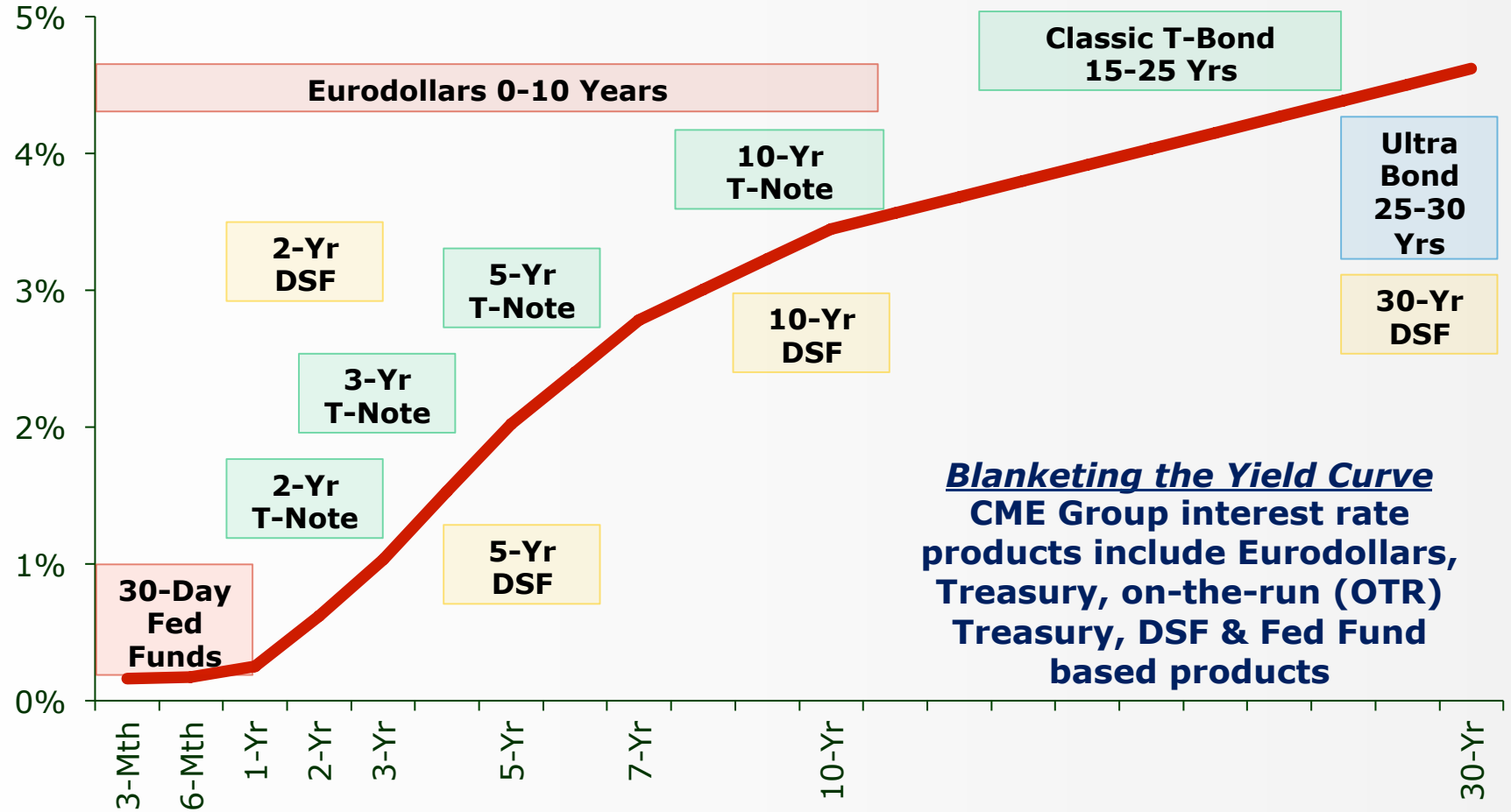
Malcolm Baker serves as Senior Director, Foreign Exchange and Interest Rate Products of CME Group, based in Singapore. He is responsible for expanding CME Group's existing FX and interest rate business and developing new opportunities across Asia.

Malcolm Baker joined CME Group in October 2012, and he has more than 25 years of experience in the global financial markets. Prior to joining CME Group, Baker was a strategist and trader at Source Capital in Zug, Switzerland. Between 2007 and 2010, Baker was an interest rate and FX trader at proprietary trading firm Jump Trading. Before that, Baker was a managing director at Curve Trader in Chicago for four years, where he was responsible for providing training and consultancy services to exchanges, hedge funds and professional trading groups.

Malcolm Baker began his career in 1989 as an off-balance-sheet trader at Bank of China in London, where he worked for more than eight years trading forward rate agreements, interest rate swaps and foreign exchange forwards for the bank's interbank and proprietary books.

- **Why Interest Rates?**
- **Finding the right home for you along the Yield Curve.**
- **Common Strategies & Terminology**
- **Lets Get Started.**

CME Interest Rate Complex Blanketing the Yield Curve



Blanketing the Yield Curve
CME Group interest rate products include Eurodollars, Treasury, on-the-run (OTR) Treasury, DSF & Fed Fund based products

(U.S. Treasury Yield Curve as of 2/1/11)

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CME Group's Eurodollar Futures

Market Development

Birth of Eurodollar or LIBOR market …

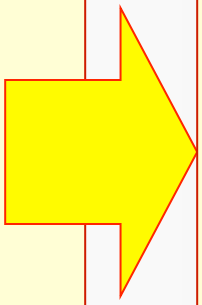
- USD denominated time deposits held in banks outside U.S.
  - **LIBOR market developed in London in 1950's and 60's because (1) Reg Q limited rates that U.S. banks could offer domestic depositors; (2) Soviets were reluctant to make deposits with U.S. banks for fear of asset seizure during cold war era**
  - **LIBOR succeeded "Prime Rate" as benchmark rate for corporate funding … corporations borrow with "floating" rate plus credit spread**
- Most active short-term interest rate futures worldwide
  - **Launched December 1981, market growth facilitated by interplay vs. interest rate swap (IRS) markets**
  - **Most active users include … bank asset/liability managers, interest rate swap dealers, proprietary traders, hedge funds**
  - **Over 95% of Eurodollar futures volume is now electronic**

Market Development

Multiple uses and users …

Users

- Commercial & investment banks
  - Swap desks, money market & repo desks, Treasury desks, mortgage desks, corporate/ credit desks, asset/liability management
- Hedge funds and Commodity Trading Advisors (CTAs)
- Proprietary traders
- Asset managers
- Mortgage servicers
- Regional banks



Uses

- Price & hedge interest rate swap (IRS) exposures
- Hedge corporate & commercial paper borrowing rates
- Manage asset/liability mismatches on balance sheet
- Adjust duration of fixed income portfolios
- Trade shape of yield curve
- Outright interest rate speculation

Eurodollar Fundamentals

Eurodollars "color-coded" …

- **Most futures trade in nearby month actively but very little in deferred months**
- **But Eurodollars often traded in "strips" extending out up to 10 years to match interest rate swaps (IRS) structures**
- **Years are "color-coded" to prevent possible confusion**

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PACK VERSUS OUTRIGHT

	ED1	ED2	ED3	ED4
	LEG1	LEG2	LEG3	LEG4
TRADE 1	1	1	1	1
TRADE 2		-4		
TRADE 3	-1	2	-1	
TRADE 4		1		-1
NET	0	0	0	0

PACK versus OUTRIGHT

- Opposite is the pack (long) versus 4th Outright (short). To exit this strategy you simply sell 1 ed1/ed4, sell 1 ed2/ed4 and sell 1 ed3/ed4.
- These are all very liquid spreads.

	ED1	ED2	ED3	ED4
	LEG1	LEG2	LEG3	LEG4
TRADE 1	1	1	1	1
TRADE 2				-4
TRADE 3	-1			1
TRADE 4		-1		1
TRADE 5			-1	1
NET	0	0	0	0

Bundle versus Pack

- As you can see you can hedge a bundle/pack quite simply through the 12 month calendars. In the example below you buy 2 yr bundle and sell 2nd pack (red). To exit you simply sell 1 unit of each the ed1/ed5, ed2/ed6, ed3/ed7 and ed4/ed8. this is a great way of managing positions.

	LEG1	LEG2	LEG3	LEG4	LEG5	LEG6	LEG7	LEG8
	ED1	ED2	ED3	ED4	ED5	ED6	ED7	ED8
TRADE	1	1	1	1	1	1	1	1
TRADE					-2	-2	-2	-2
TRADE	-1				1			
TRADE		-1				1		
TRADE			-1				1	
TRADE				-1				1
	0	0	0	0	0	0	0	0

PACK versus OUTRIGHT

- Opposite is the pack (long) versus 4th Outright (short). To exit this strategy you simply sell 1 ed1/ed4, sell 1 ed2/ed4 and sell 1 ed3/ed4.
- These are all very liquid spreads.

	ED1	ED2	ED3	ED4
	LEG1	LEG2	LEG3	LEG4
TRADE 1	1	1	1	1
TRADE 2				-4
TRADE 3	-1			1
TRADE 4		-1		1
TRADE 5			-1	1
NET	0	0	0	0

PACK versus Outright

- Opposite you have pack (long) versus 3rd outright (short). To exit you trade the following. Sell 1 ed2/ed3/ed4 butterfly. And sell 1 ed1/ ed3. all these are liquid.

	ED1	ED2	ED3	ED4
	LEG1	LEG2	LEG3	LEG4
TRADE 1	1	1	1	1
TRADE 2			-4	
TRADE 3		-1	2	-1
TRADE 4	-1		1	
TRADE 5				
NET	0	0	0	0

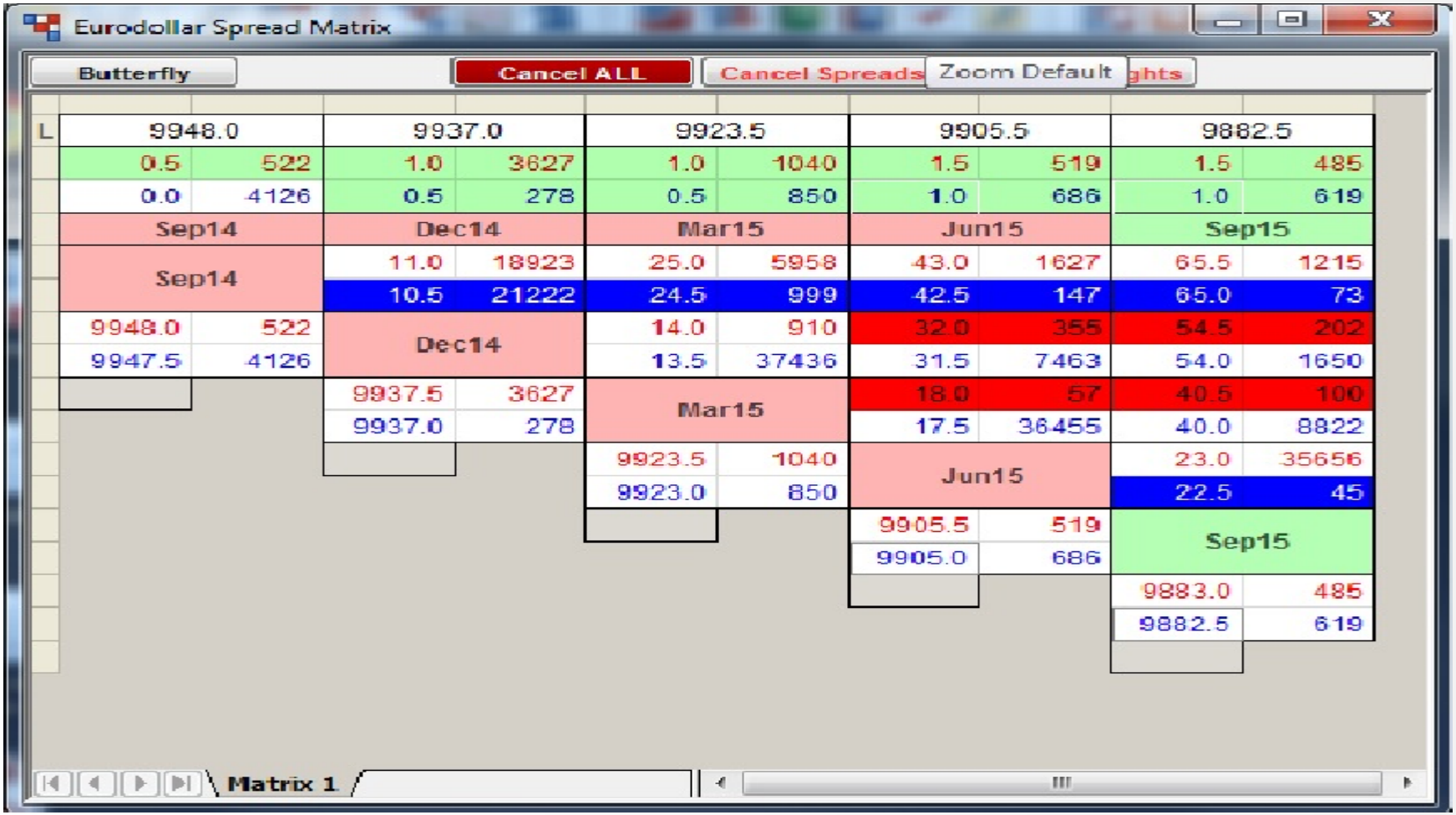
PACK versus Outright

	ED1	ED2	ED3	ED4
	LEG1	LEG2	LEG3	LEG4
TRADE 1	1	1	1	1
TRADE 2	-4			
TRADE 3	1			-1
TRADE 4	1		-1	
TRADE 5	1	-1		
NET	0	0	0	0

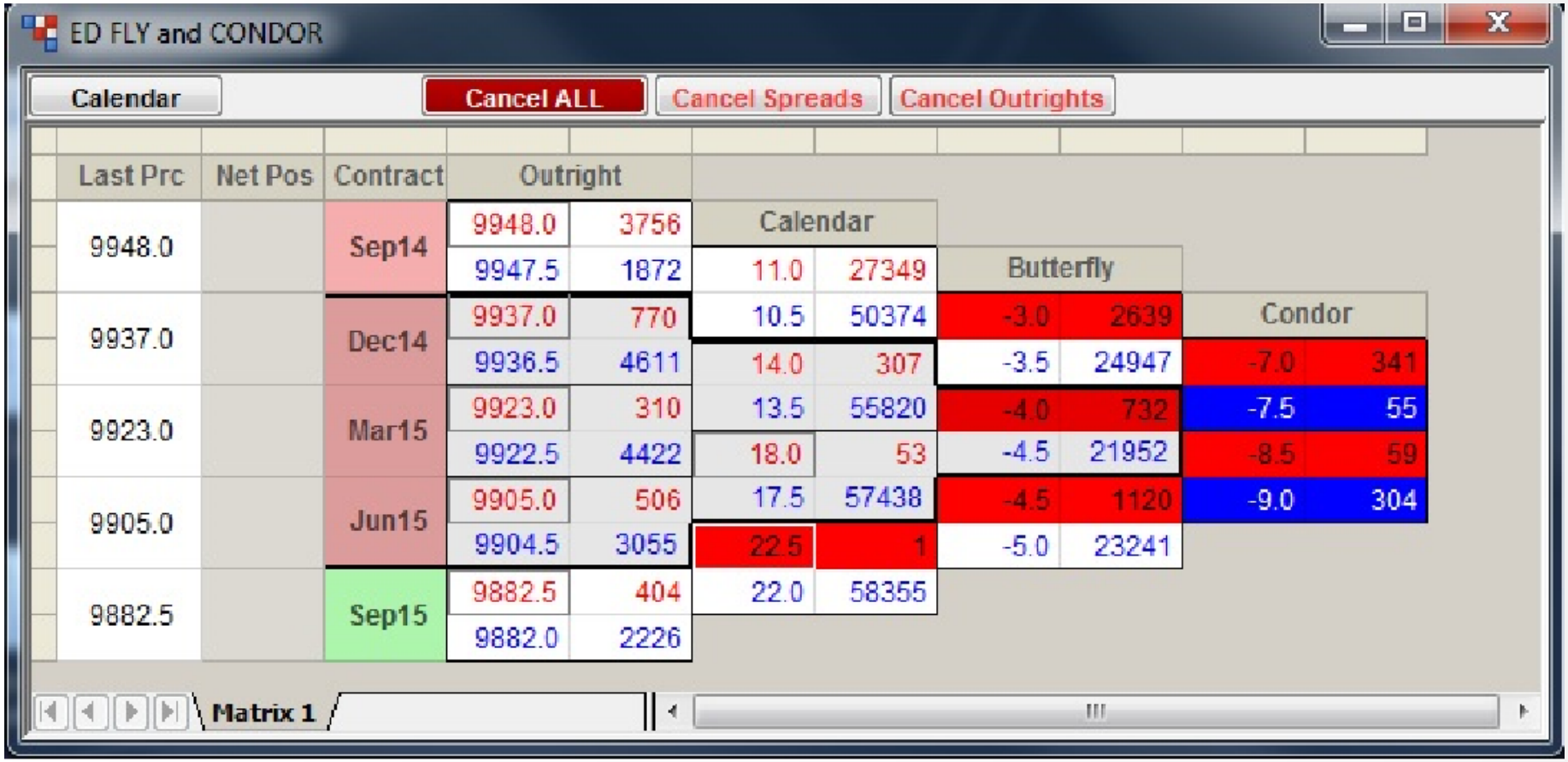
Different Spread strategies along the ED $ Curve

	Mar-14	Jun-14	Sep-14	Dec-14	Mar-15	Jun-15
Calendar	-1	1				
Butterfly	-1	2	-1			
Condor	-1	1	1	-1		
Double Fly	-1	3	-3	1		
1Yr vs 3m	-1	4	-4		1	
1Yr vs 3m	-1		-4	4	1	
DoubleFly Sprd	-1	4	-6	4	-1	

ED$ Outright and Calendar Matrix

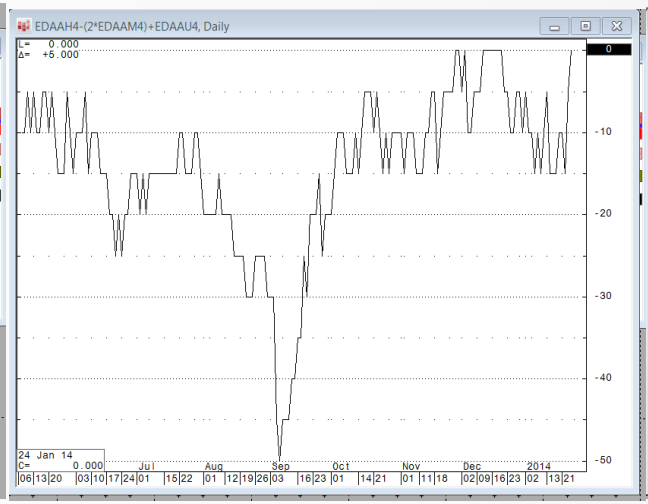


ED$ Outrights/Calendars/Flies and Condors

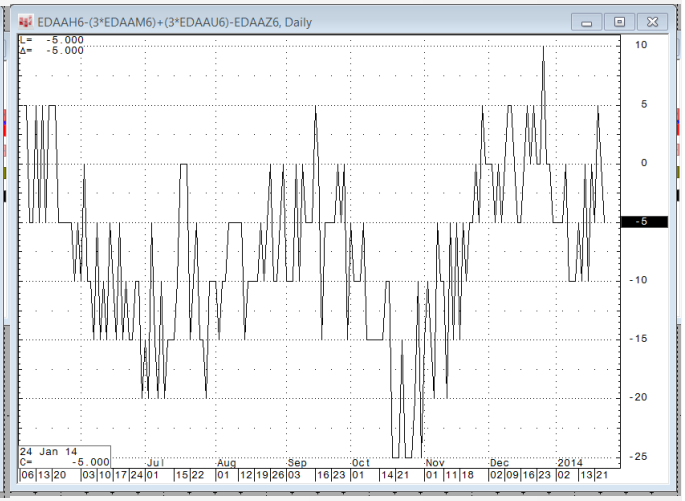


EDH4EDM4

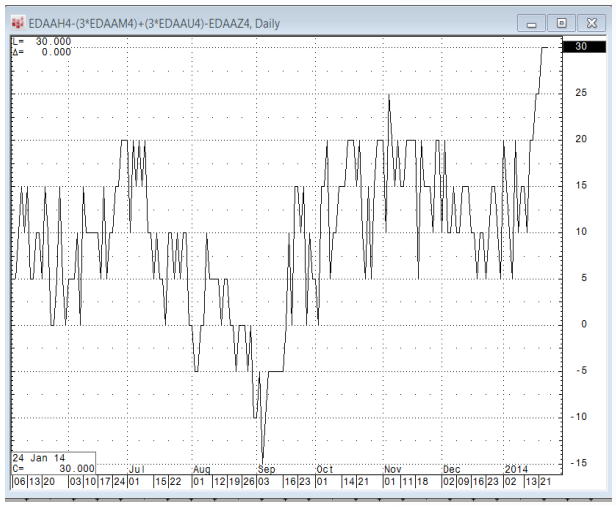
EDH4-M4-U4 BFly



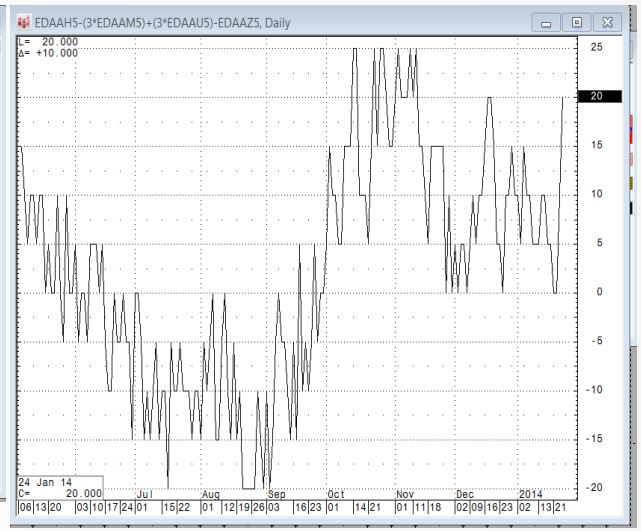
EDH6-M6-U6-Z6 DFly



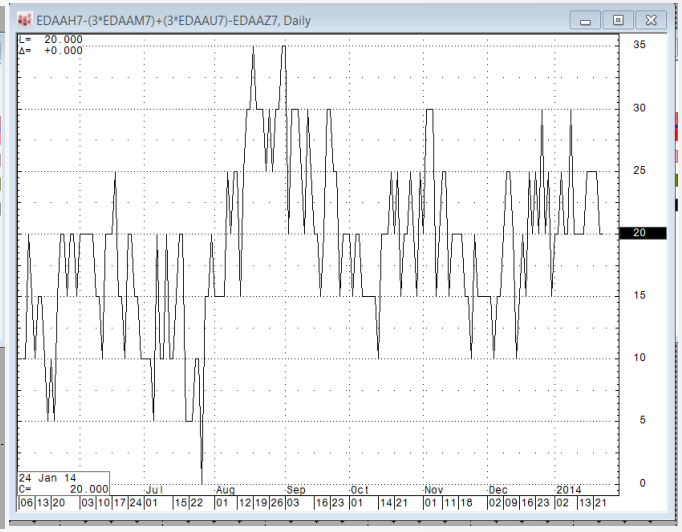
EDH4-M4-U4-Z4 DFly



EDH5-M5-U5-Z5 DFly



EDH7-M7-U7-Z7 DFly



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Relative Value ?

Potential Opportunities / Perils along the US Yield Curve

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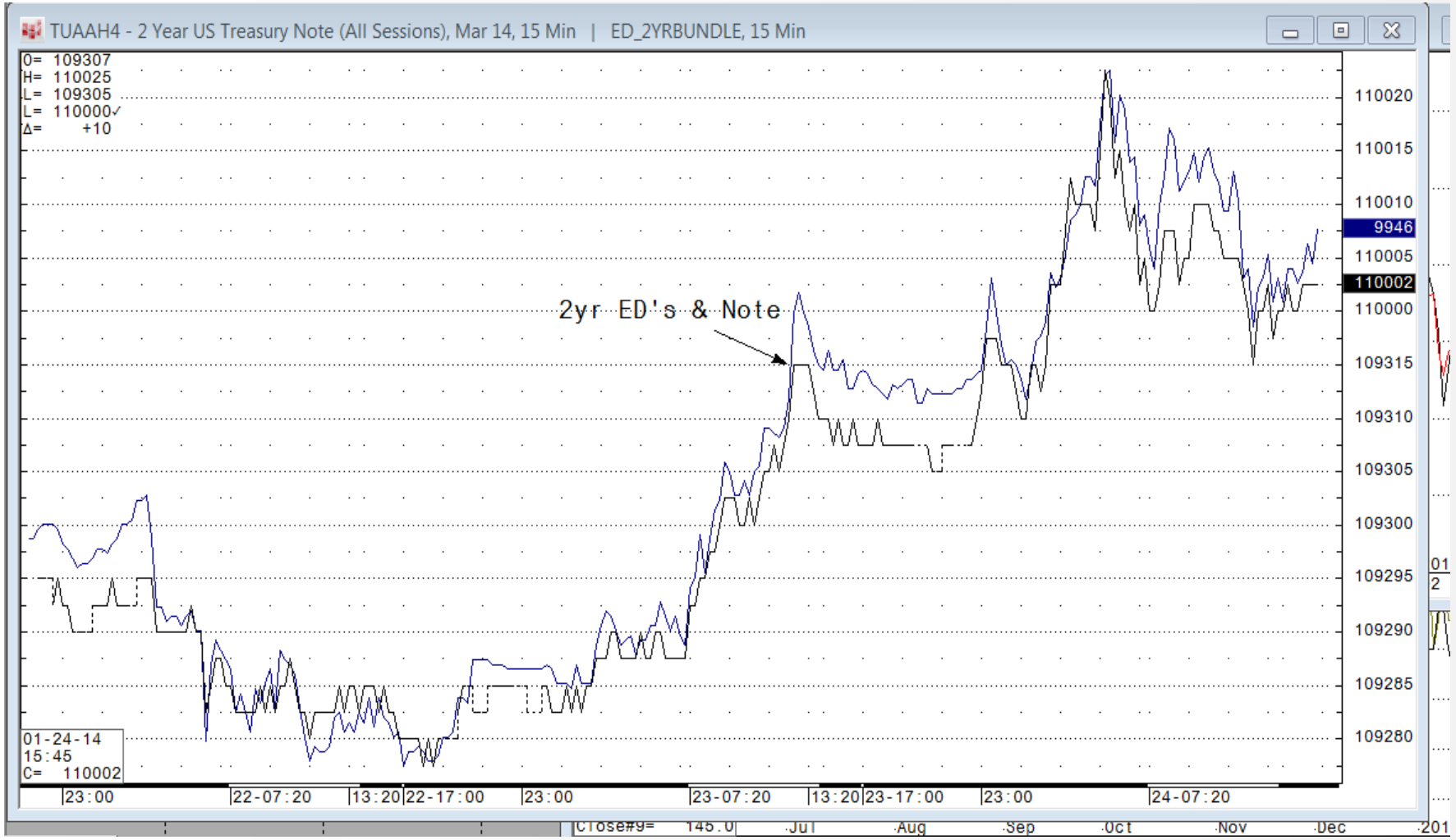
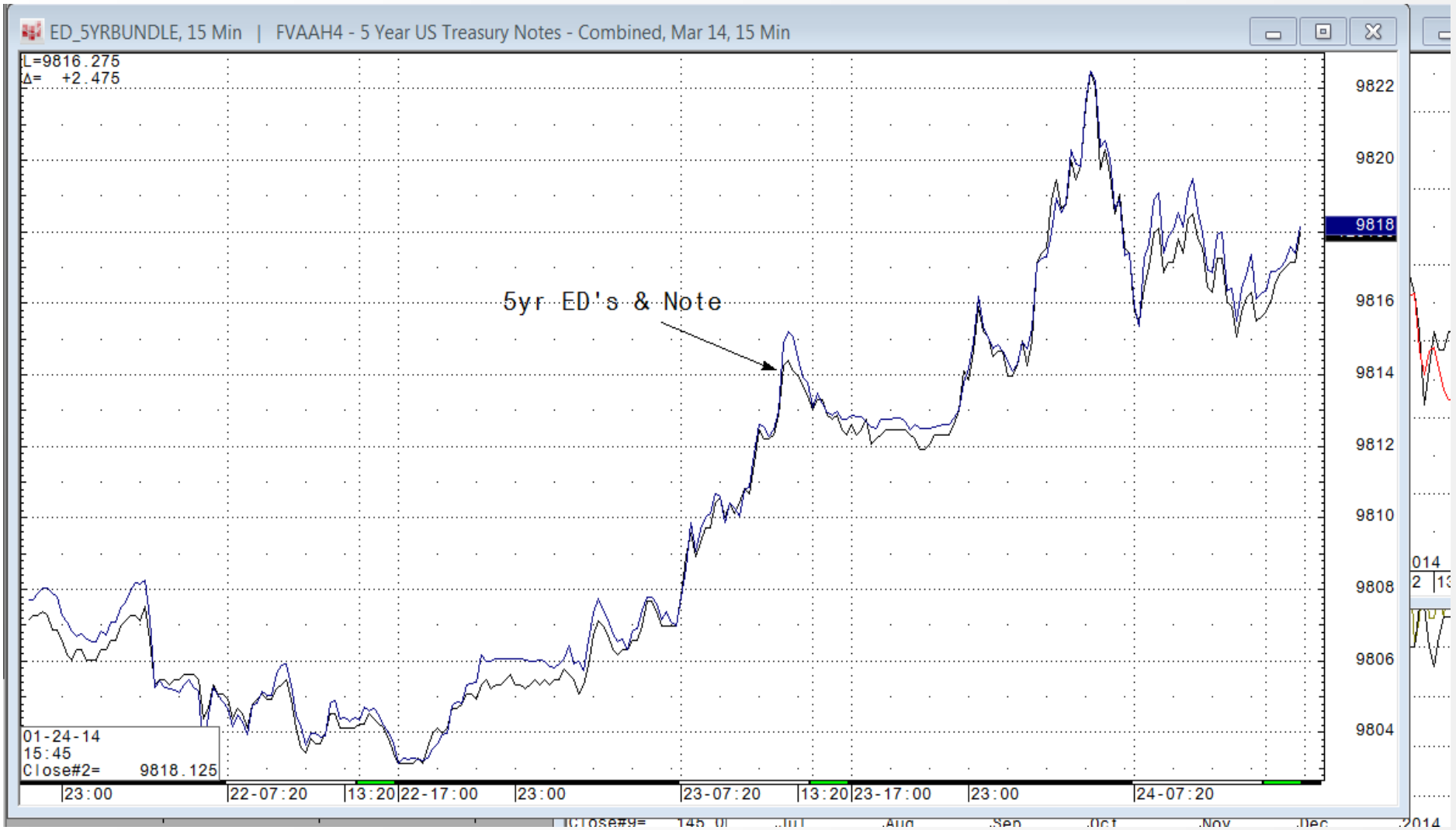
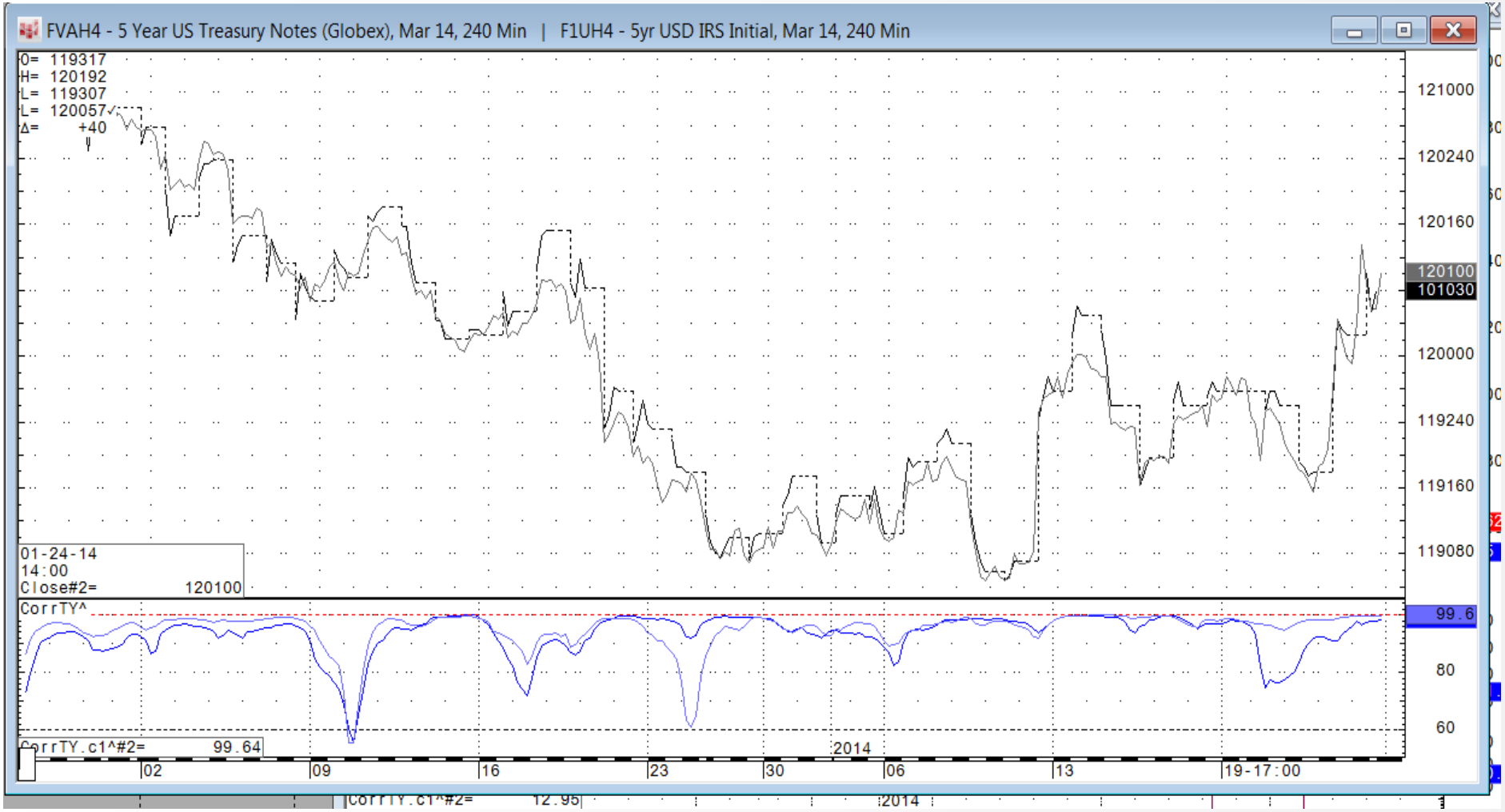
Obvious one. 2yr Note versus 2yr Bundle



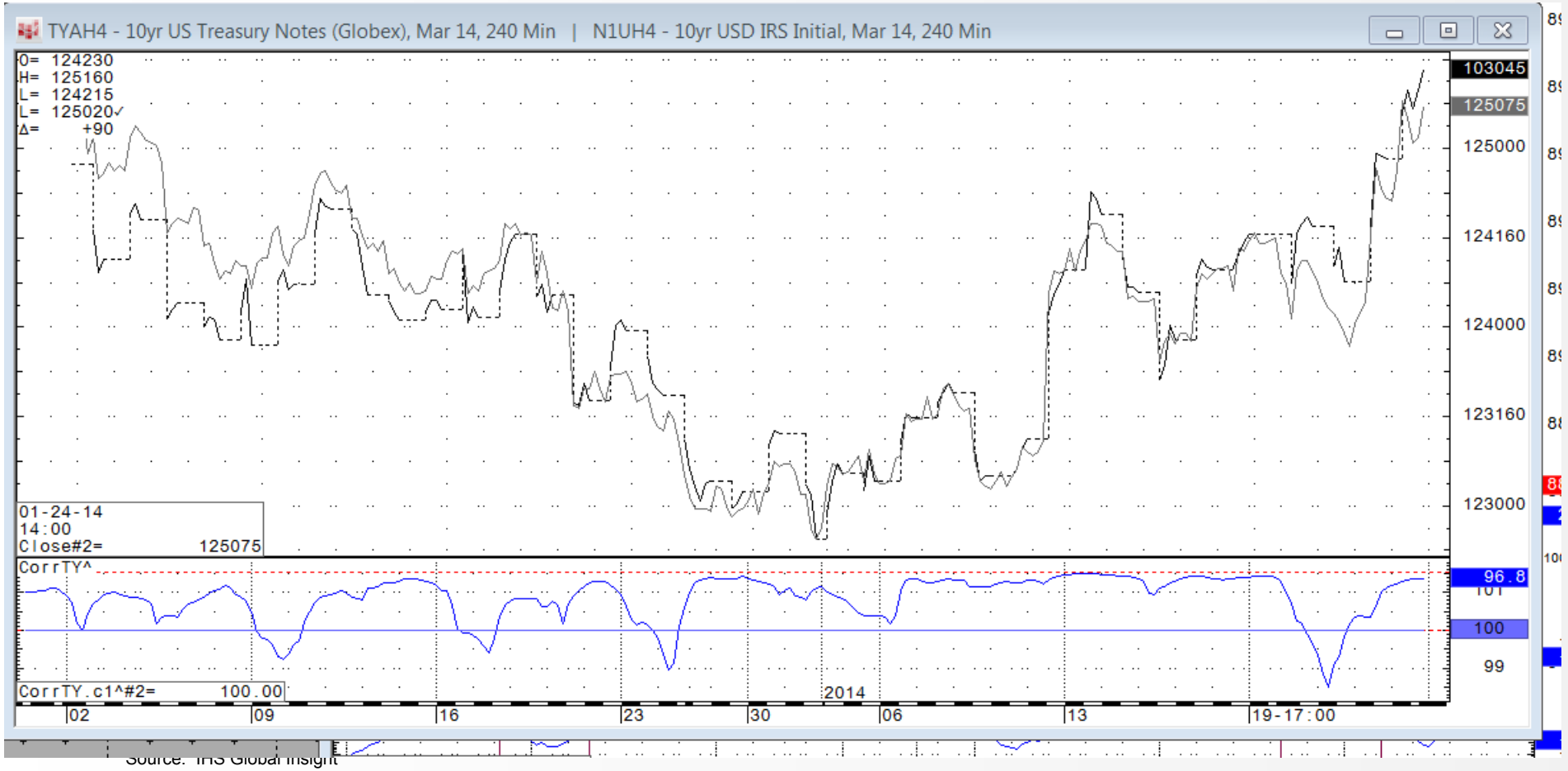
Obvious one. UST 5yr Note Future versus 5yr Bundle



Obvious one. 5yr UST and 5yr DSF



Obvious one. 10yr UST and 10yr DSF



Source: IHS Global Insight

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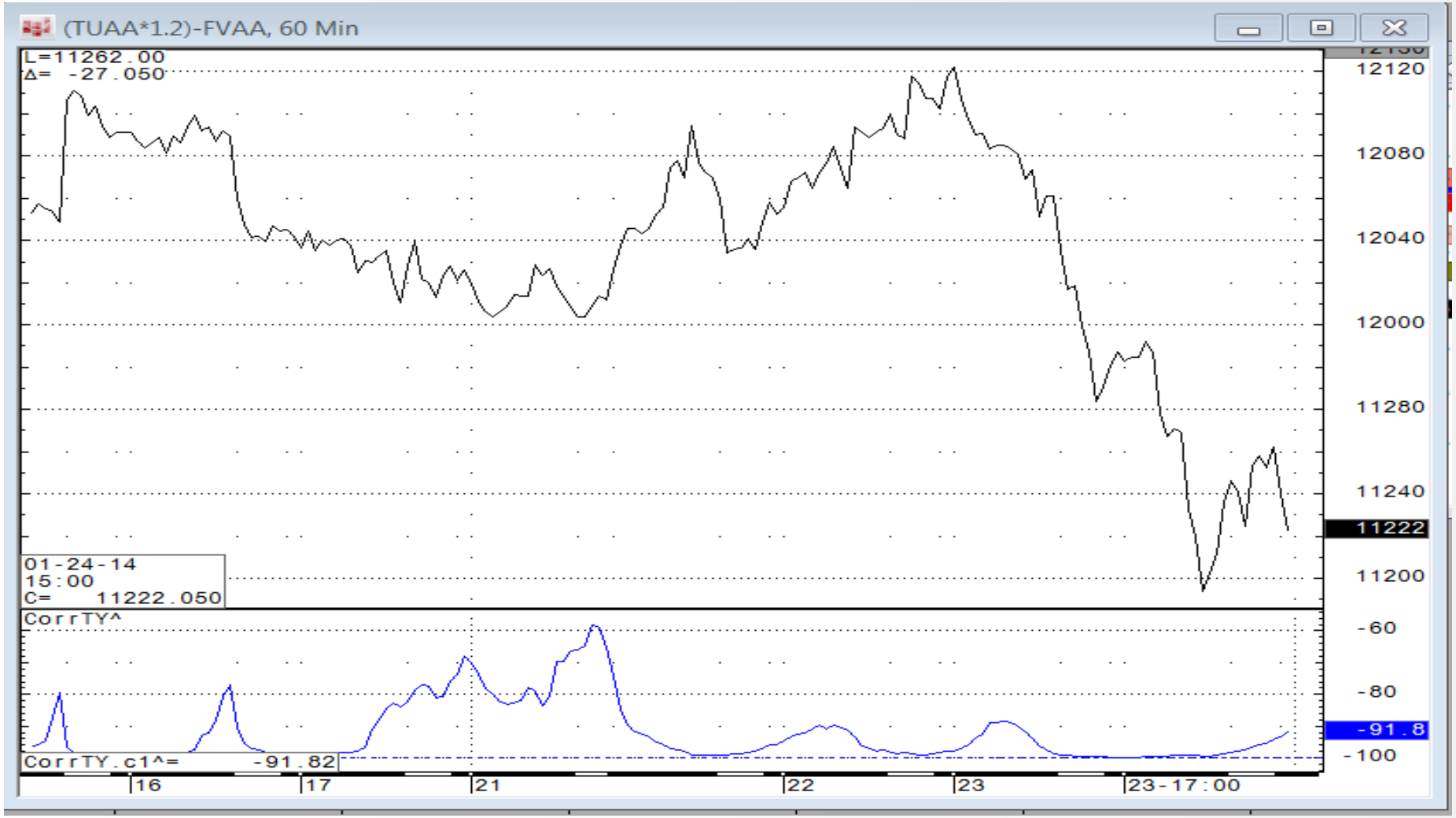
Obvious one. UST 2yr/5yr Spread correlation to 10yr



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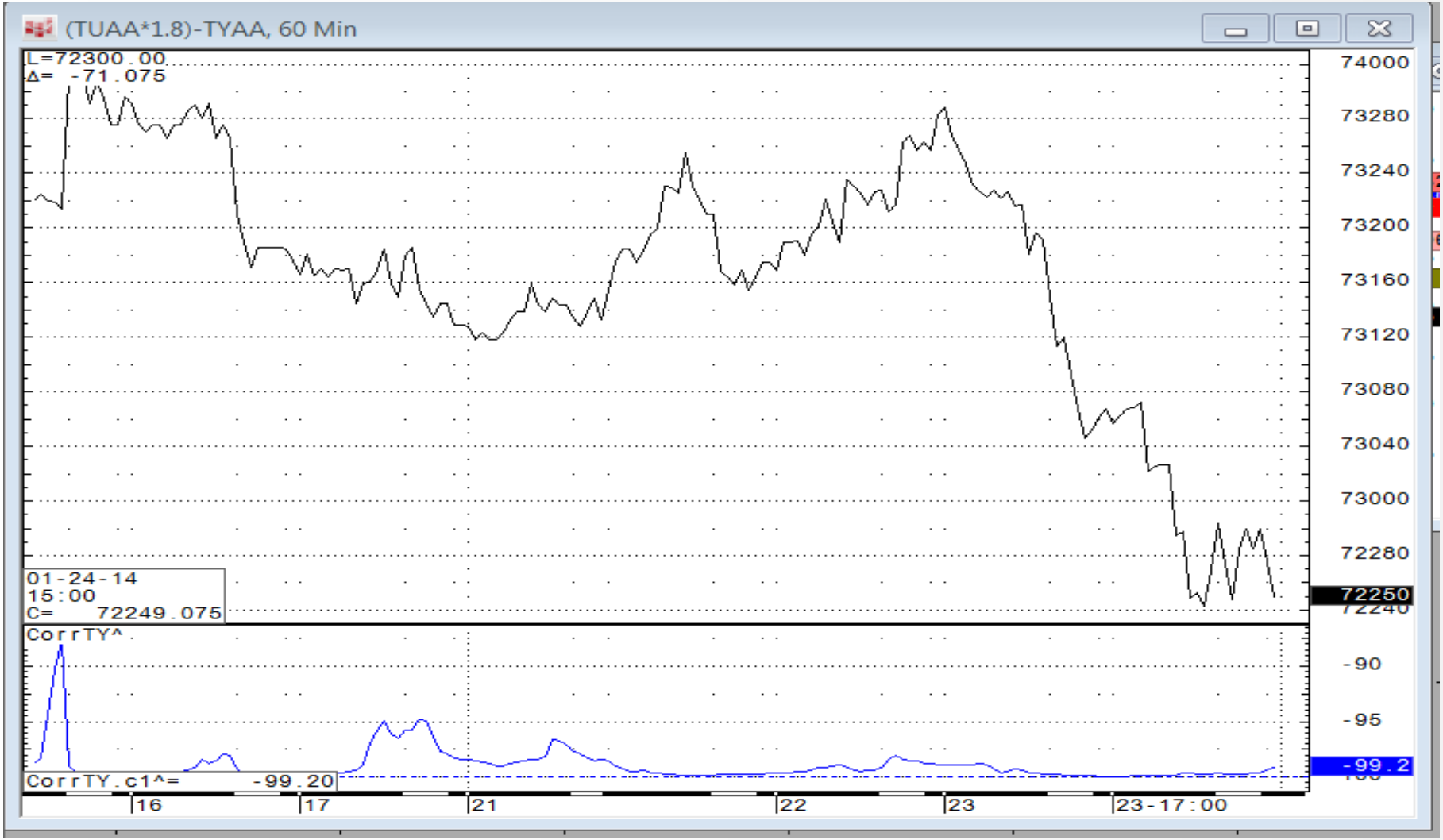
Obvious one. UST 2yr/10yr Spread correlation to 10yr



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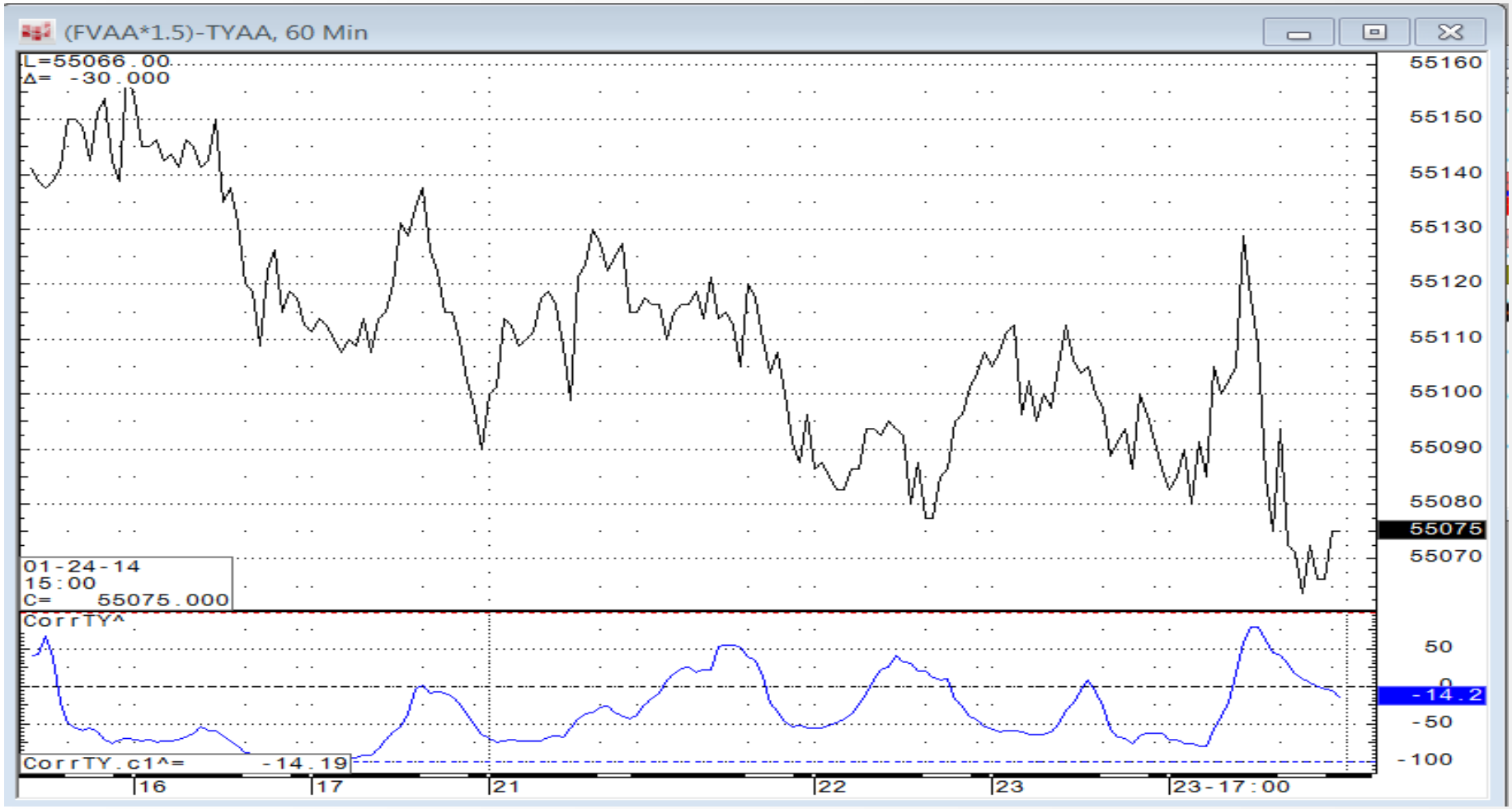
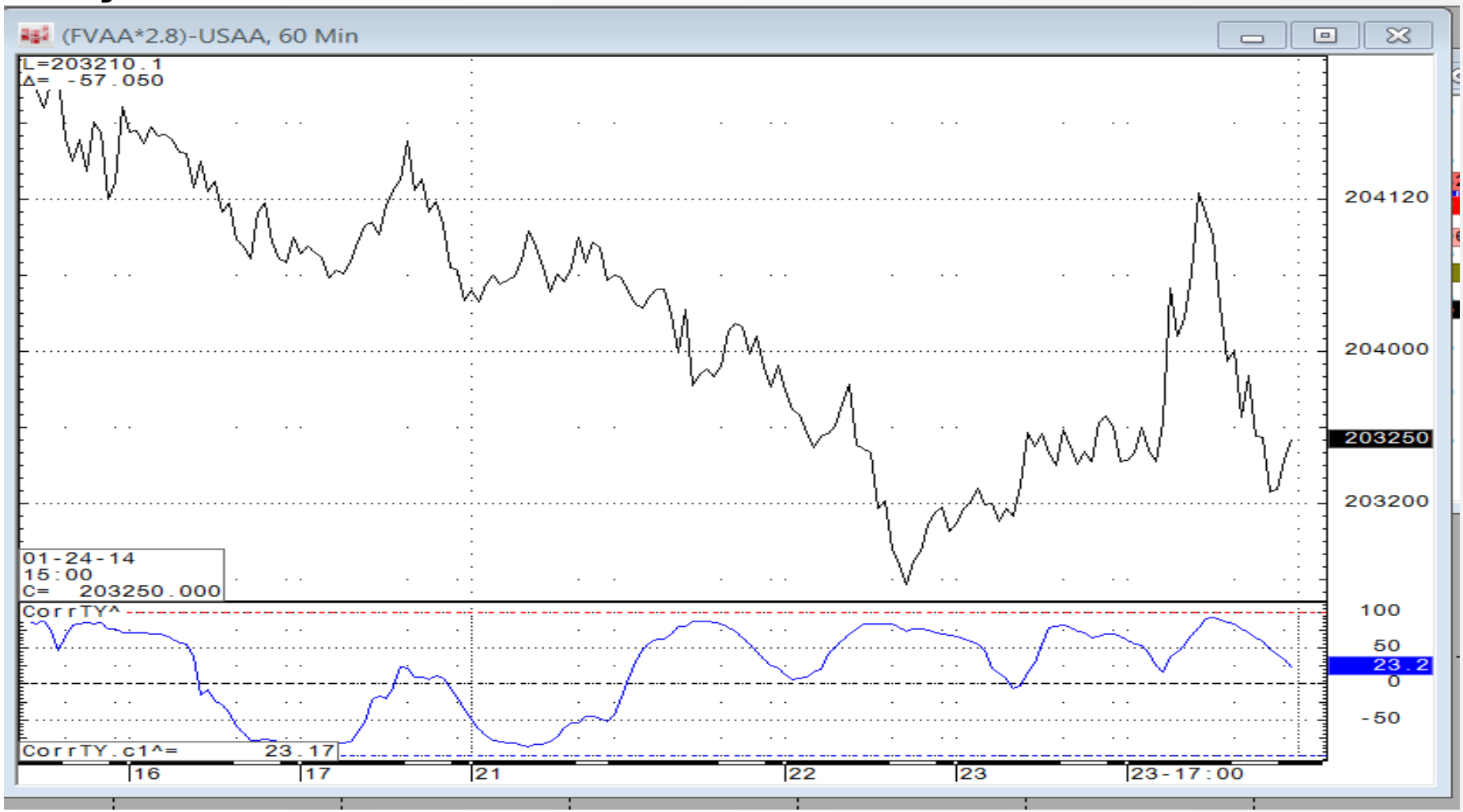
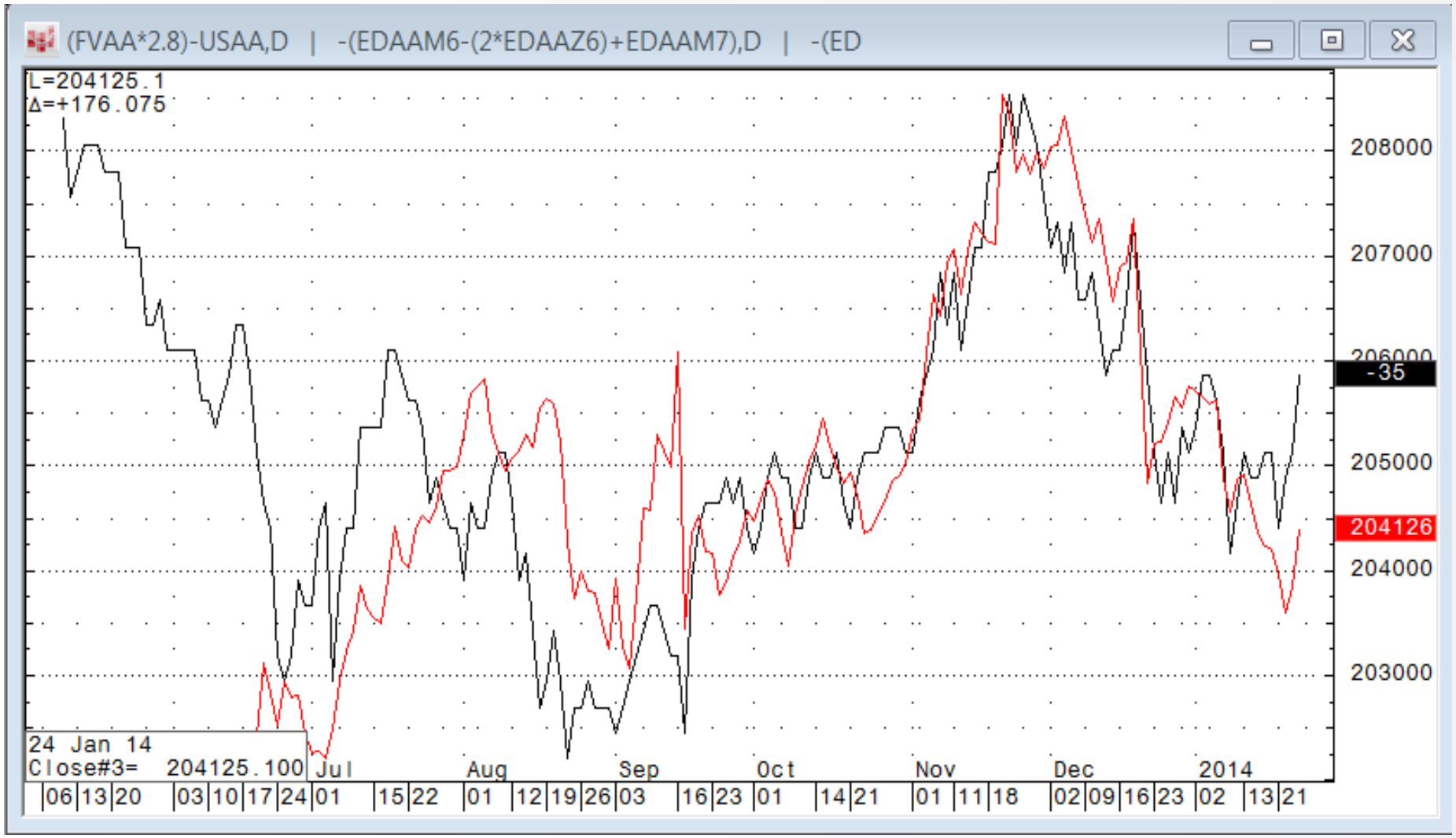
Not so obvious one. UST 5yr/10yr Spread correlation to 10yr



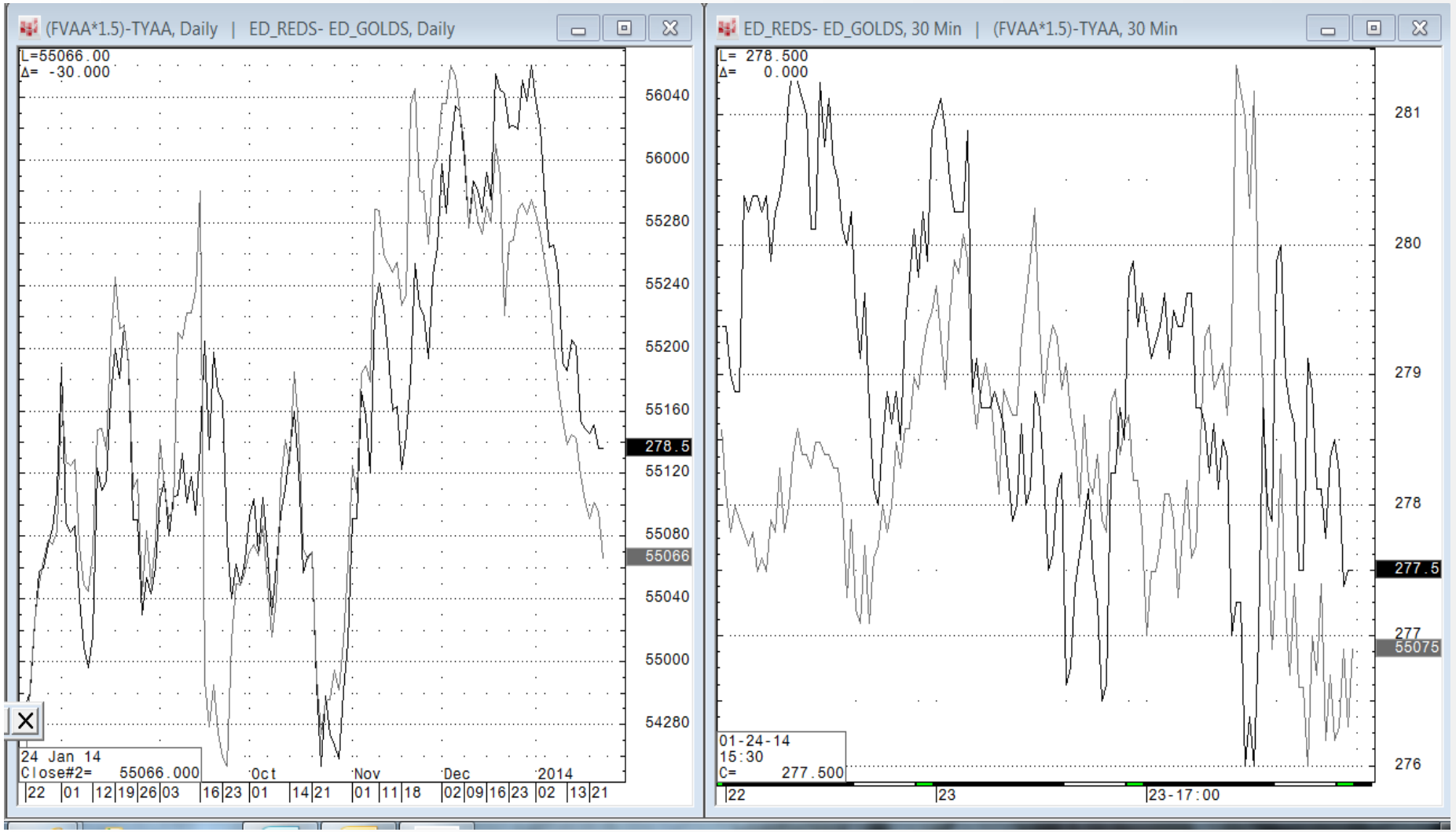
Not so obvious one. UST 5yr/30yr Spread correlation to 10yr



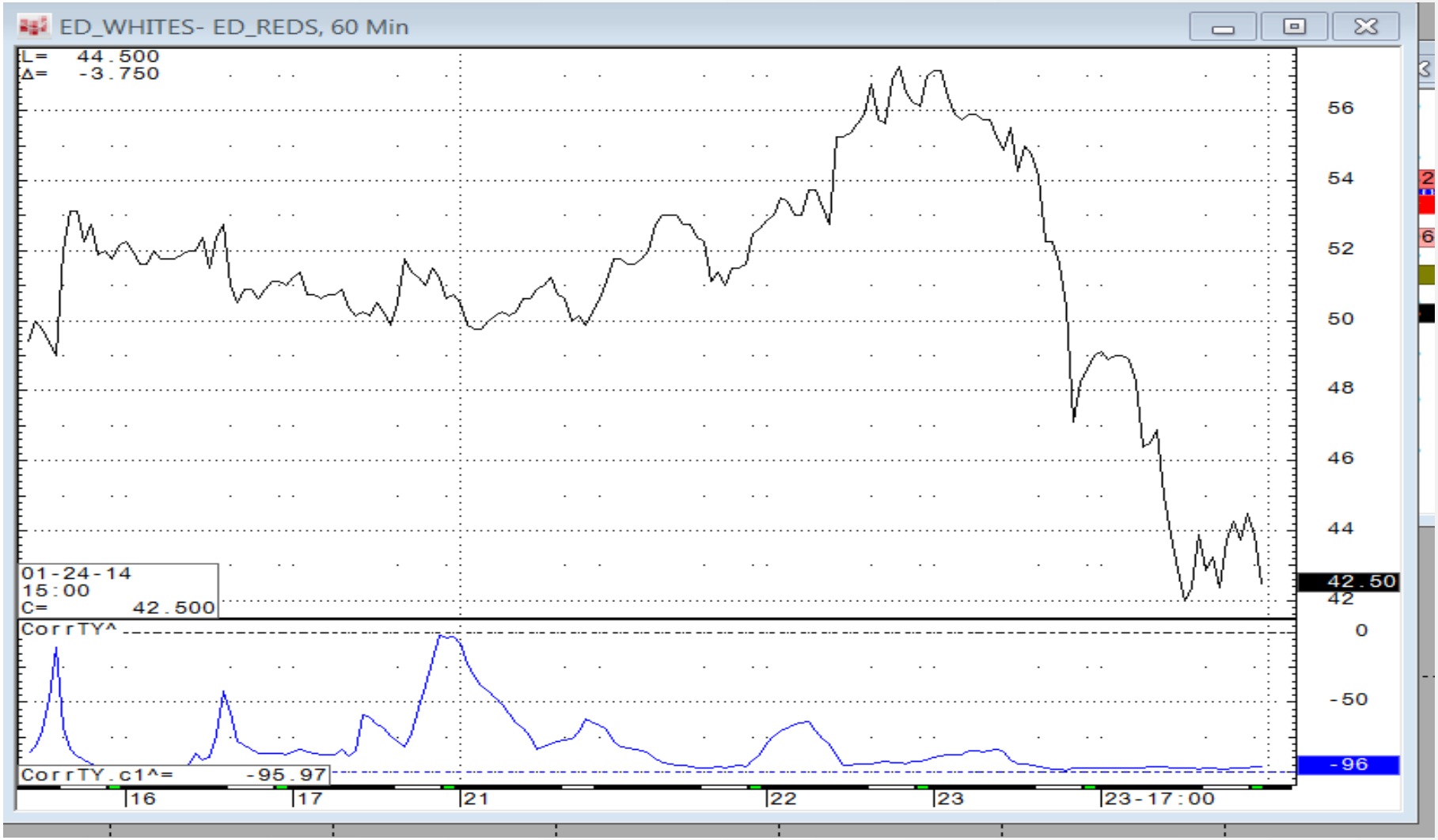
UST 5/30s Futures Spread overlaying the EDM6/Z6/M7



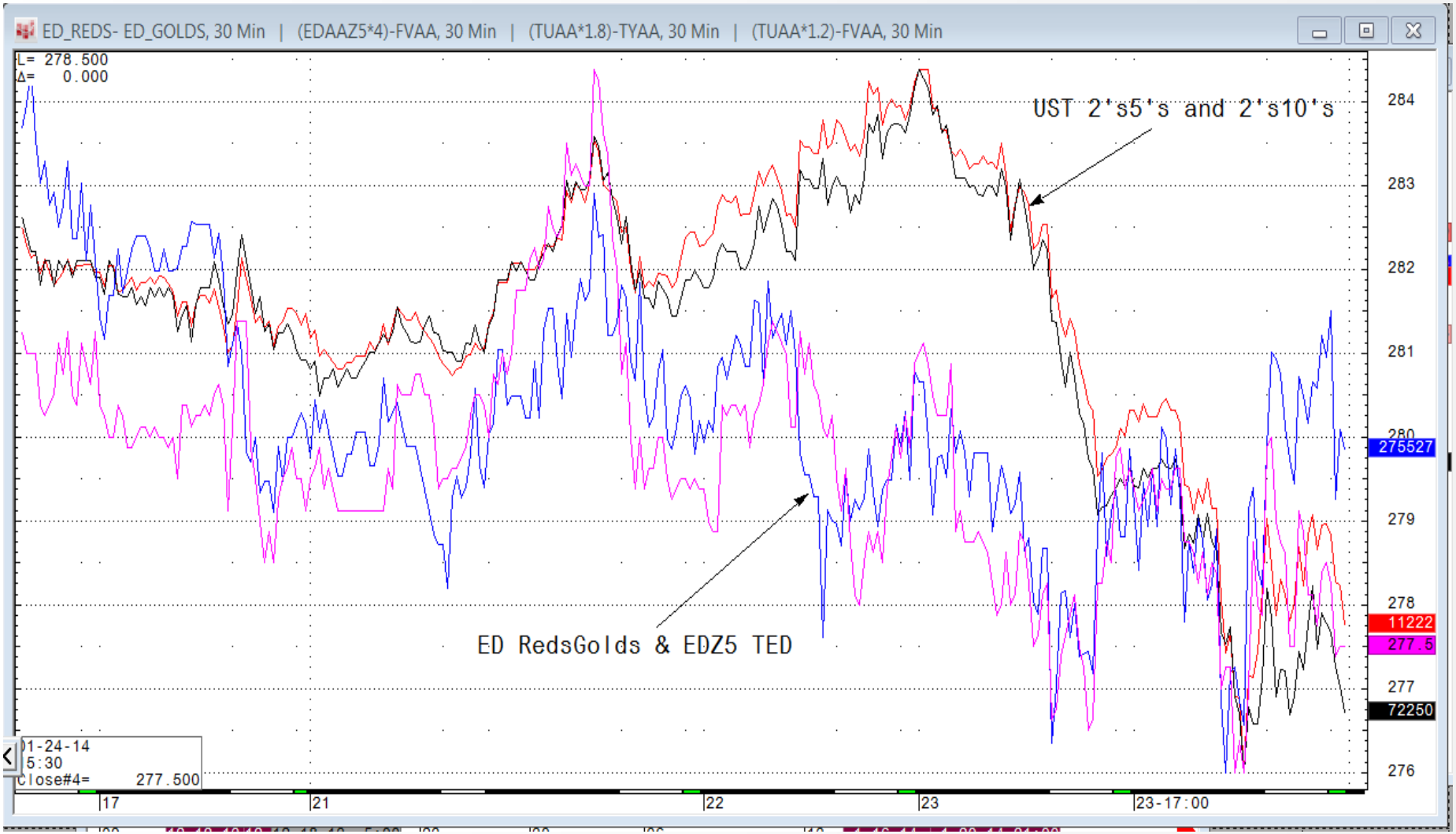
UST 5/10s Overlaying ED Reds/Golds



ED Whites / reds Correlation to UST 10yr Futures



Correlations/RVs across Teds and USTs



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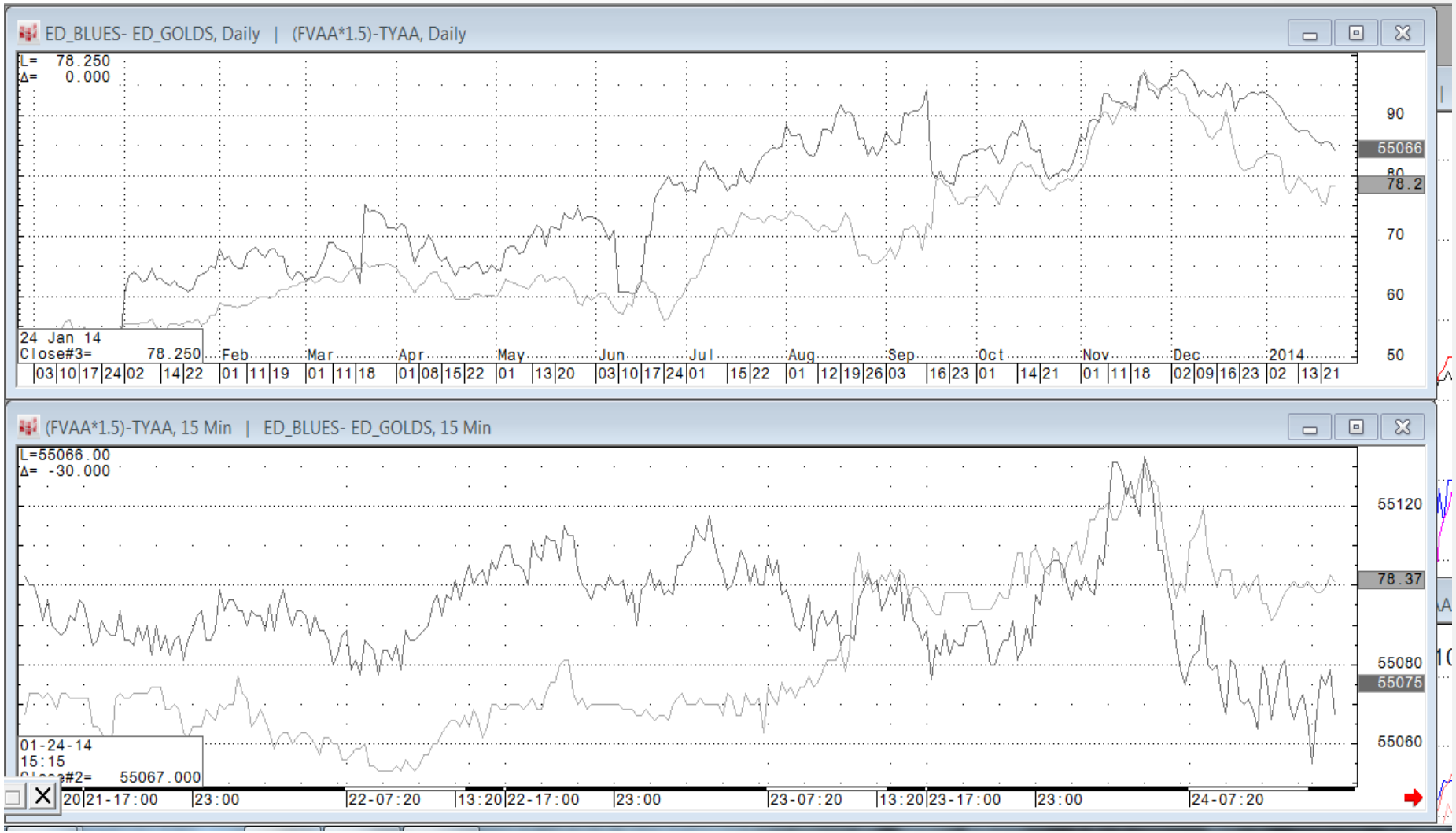
UST 5s/10s Overlay ED Blues / Golds



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UST 2s/10s overlaying ED Greens/Blues/Golds

RV. UST 5's & 10's Overlay the 2yr & 5yr US Credit Sprd

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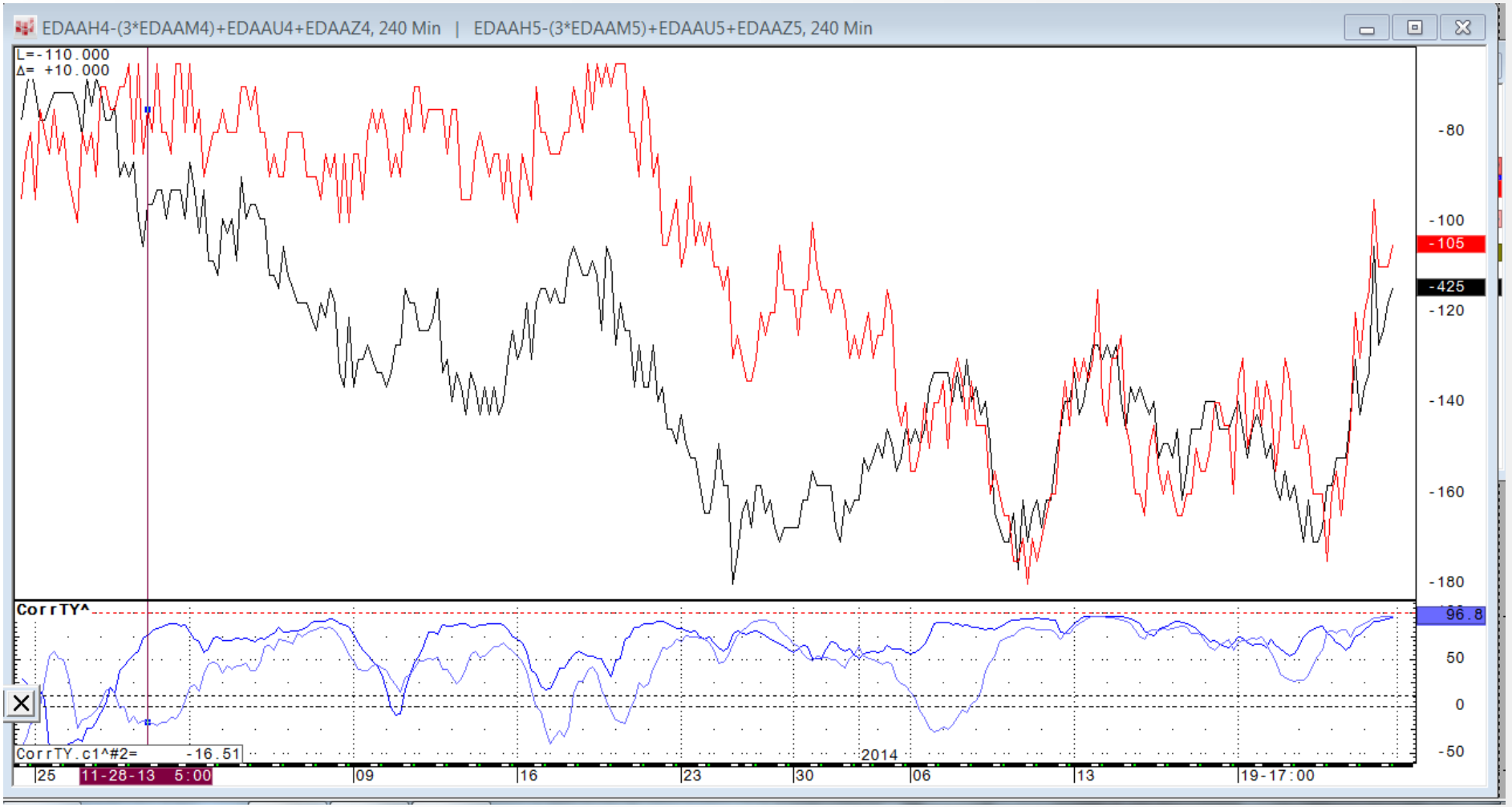
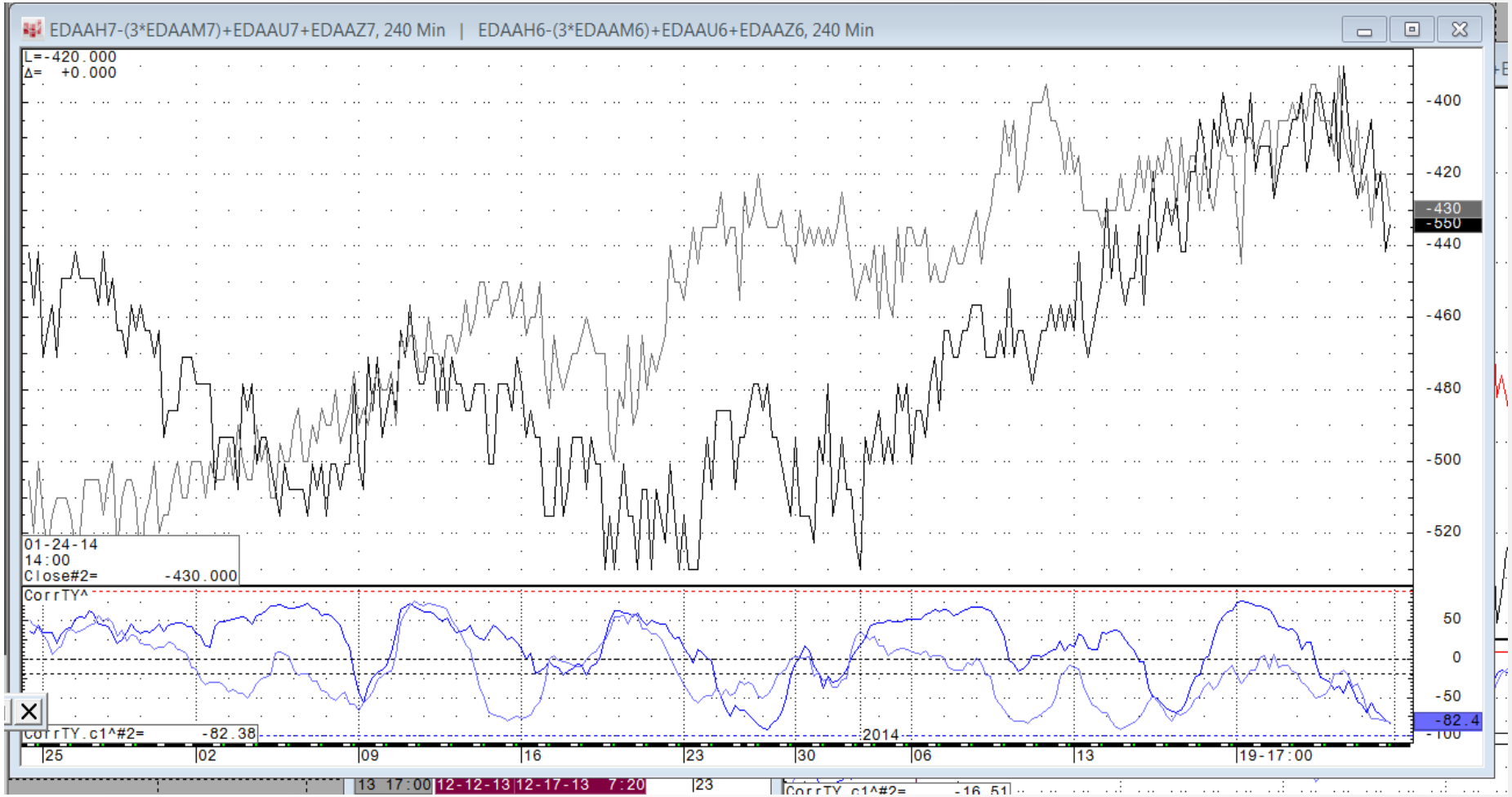
RV. 5yr DSF – Equal strip of ED Futures

RV. 5yr DSF – ED Strip overlaying 5 yr US Credit Sprd

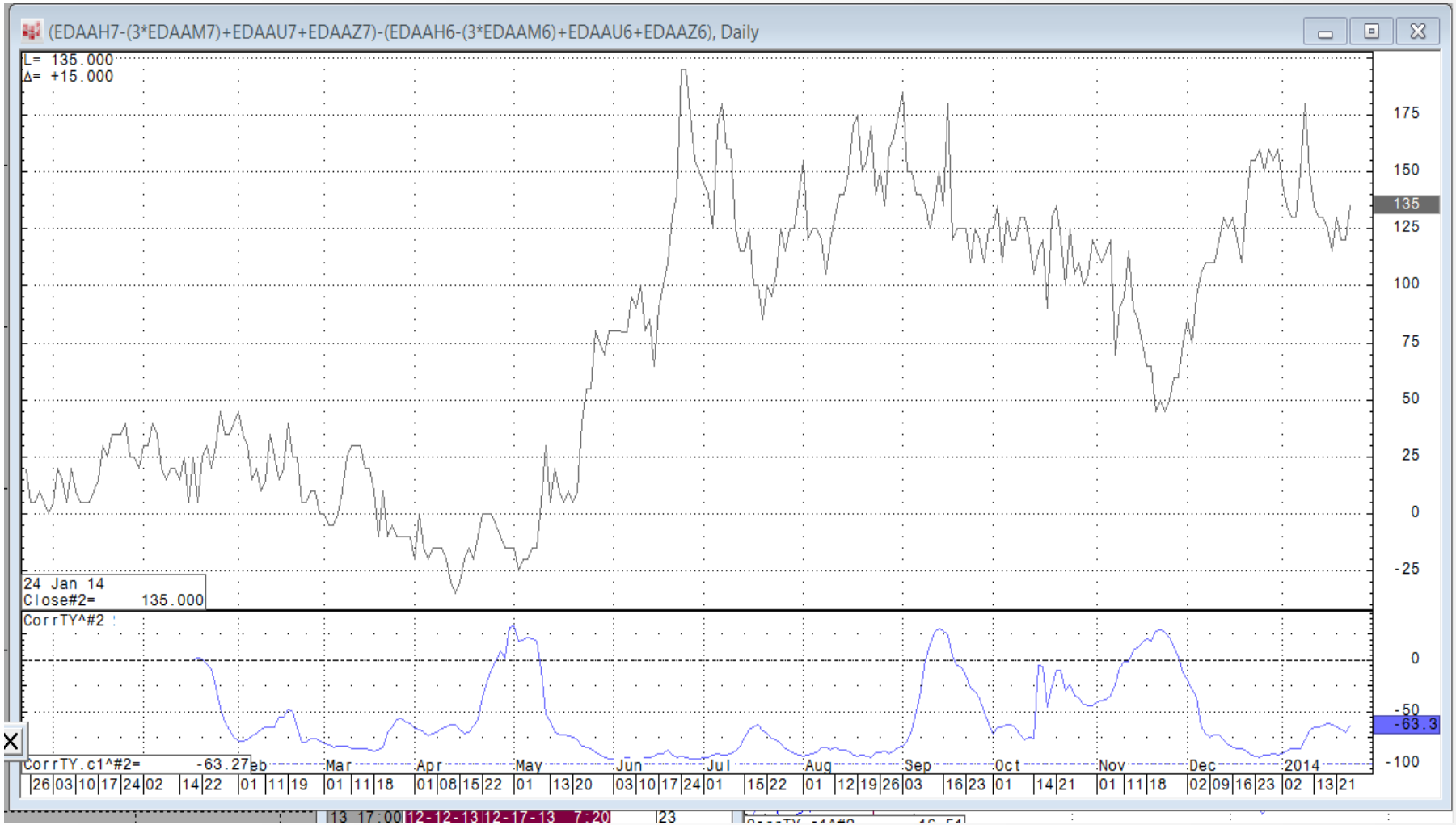
RV. EDH4 1*4*1*1 Fly overlaying EDH5 1*4*1*1



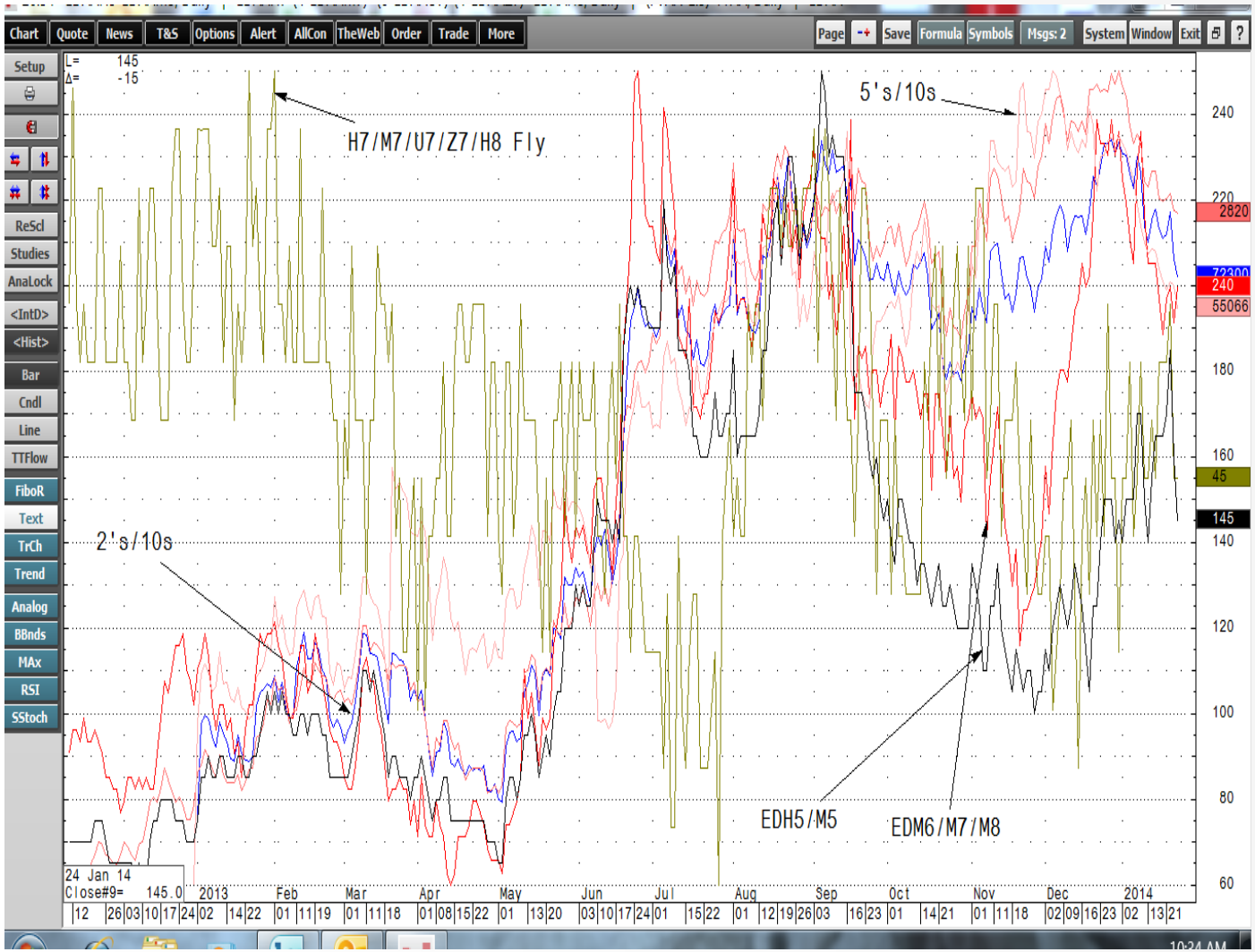
RV. EDH6 1*4*1*1 Fly overlaying EDH7 1*4*1*1



RV. EDH6 1*4*1*1 Fly - EDH7 1*4*1*1 as Actual spread



Multi Product / Spread 2013 RV's



What Makes TEDs Move

Volatility in the Large
Volatility in the Small

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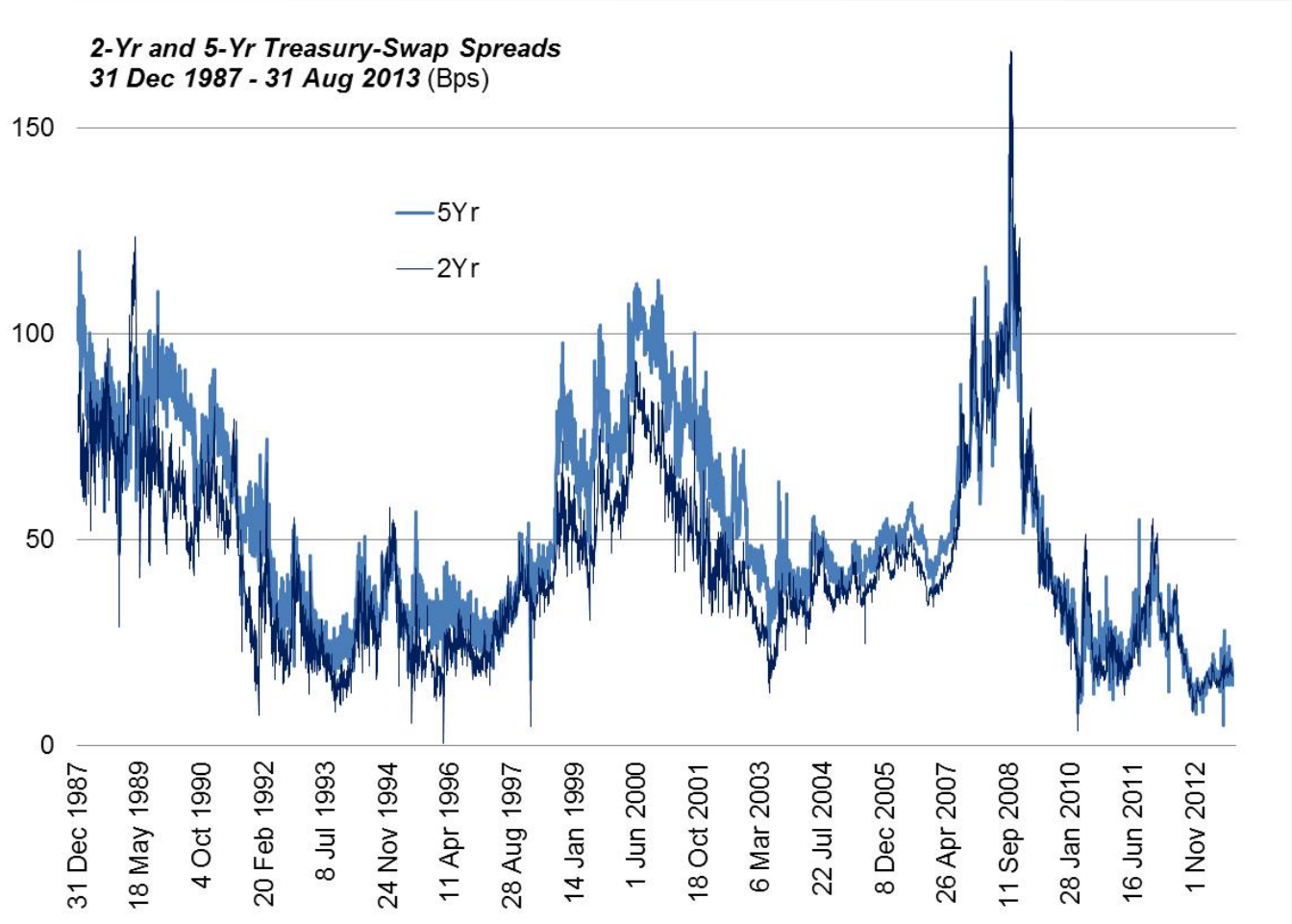
Volatility in the Large



Source: IHS Global Insight

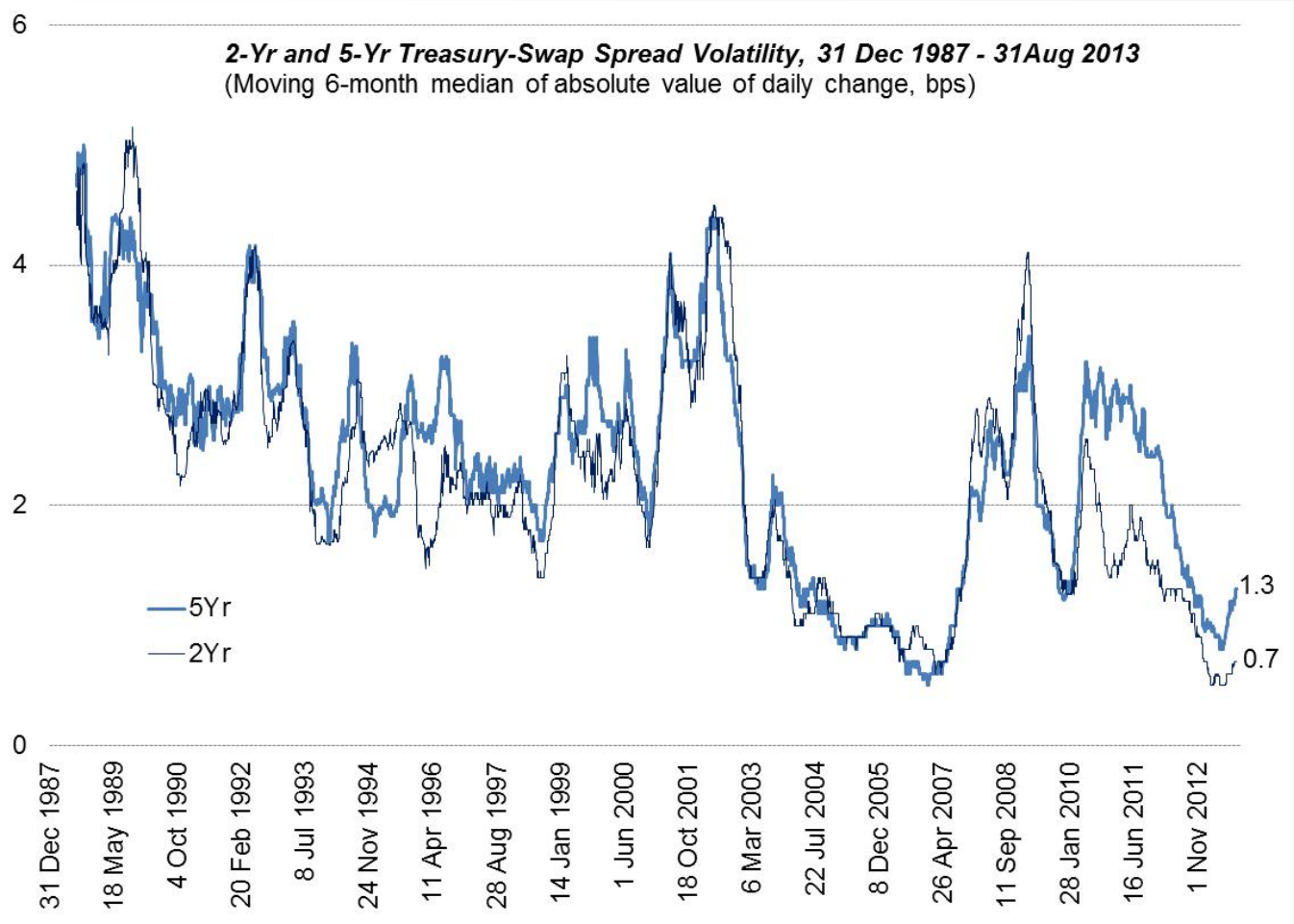
At low frequencies, pro-cyclical measure of commercial bank credit-spread exposure.

Leading indicator of real economic cyclicality.

TED widens in late stages of business cycle expansions, and narrows in business cycle downturns.

Where business cycle downturn is preceded by financial upheaval, TED's cyclical peak tends to coincide with the upheaval (eg., US equity market crash of 1987, US equity market "tech wreck" of 2000, US banking crisis of 2008).

Volatility in the Large



Source: IHS Global Insight, CME Group calculations

As Libor-reference interest rate swap market has matured, TED volatility has trended lower.

In terms of median of absolute daily changes in TED spread:

1988-2000 –
2.7 bps for 5-yr
2.5 bps for 2-yr

2001-present –
1.7 bps for 5-yr
1.4 bps for 2-yr

Preliminaries: GE Leg -- Analytical or Empirical?

Analytical TEDs
Popular in the 1990s, especially among strategic users.

* Use term structure of GE futures rates to construct term structure of Libor-basis discount factors.
* Use Libor-basis discount factors to value Treasury security cash flows as if it were a Eurobond.
* For each GE futures contract, perturb that segment of term structure of Libor-basis discount factors to find PV01.
* Result: GE combination that mimics synthetic Eurobond with cash flows identical to Treasury security.

Pro: Synthetic Eurobond structure can be expressed in terms of notional yield comparable to Treasury yield.
Con: GE combination is rigid. Requires great care and effort to enter and exit.

Empirical TEDs
Pioneered by government securities dealers and interest rate swap dealers for tactical use.

TED = Forward 3-month Libor associated with an arbitrarily chosen GE contract of combination of GE contracts (stack, pack, bundle)
minus
Forward-starting Treasury note yield.

Pro: Agnostic, tractable, easy to trade.
Con: Lacks yield that is directly comparable to Treasury yield.

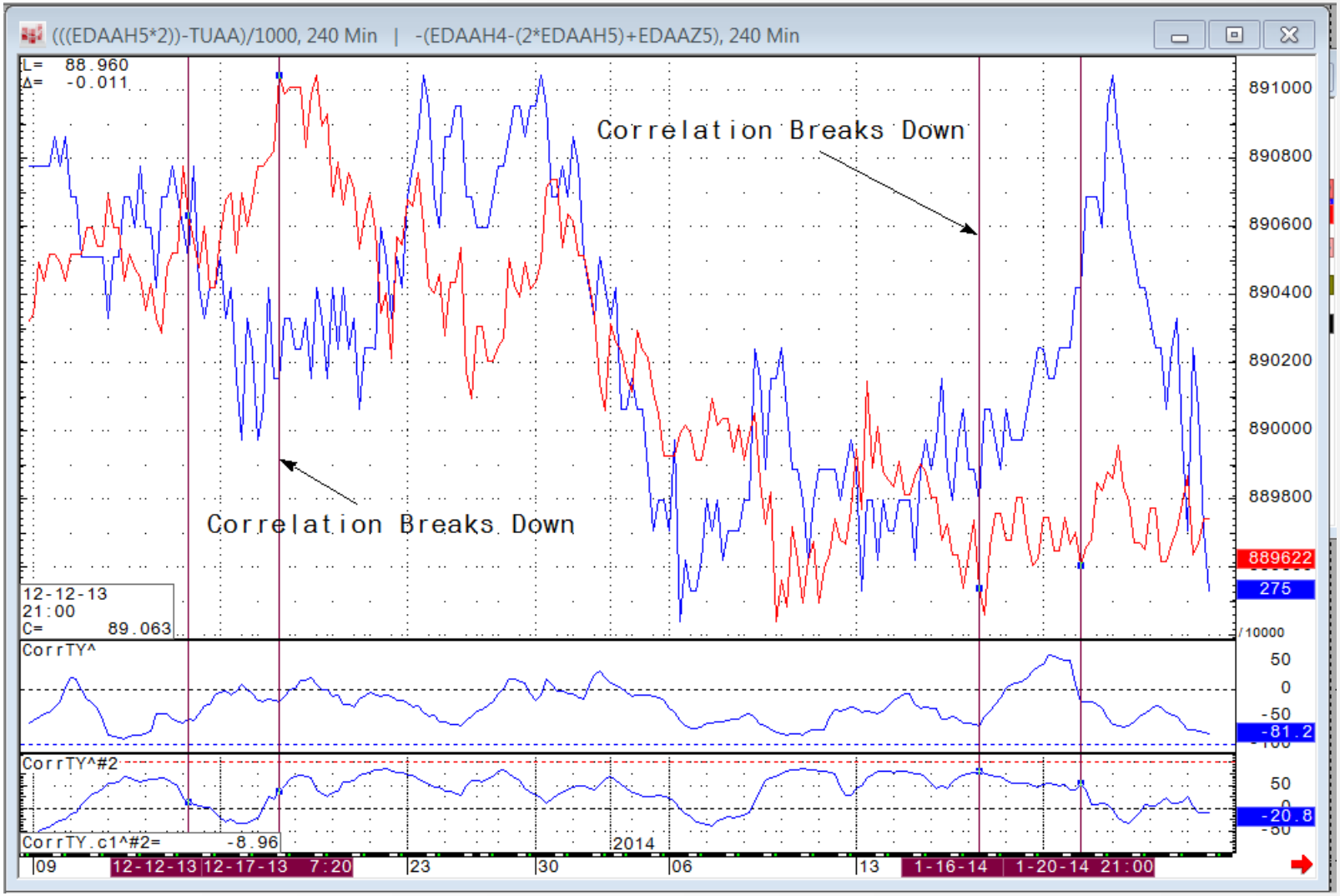
Preliminaries: GE Leg -- Analytical or Empirical?

Example: On 23 Aug 2013, which GE, and how many, to spread v 1,000 ZTU3?

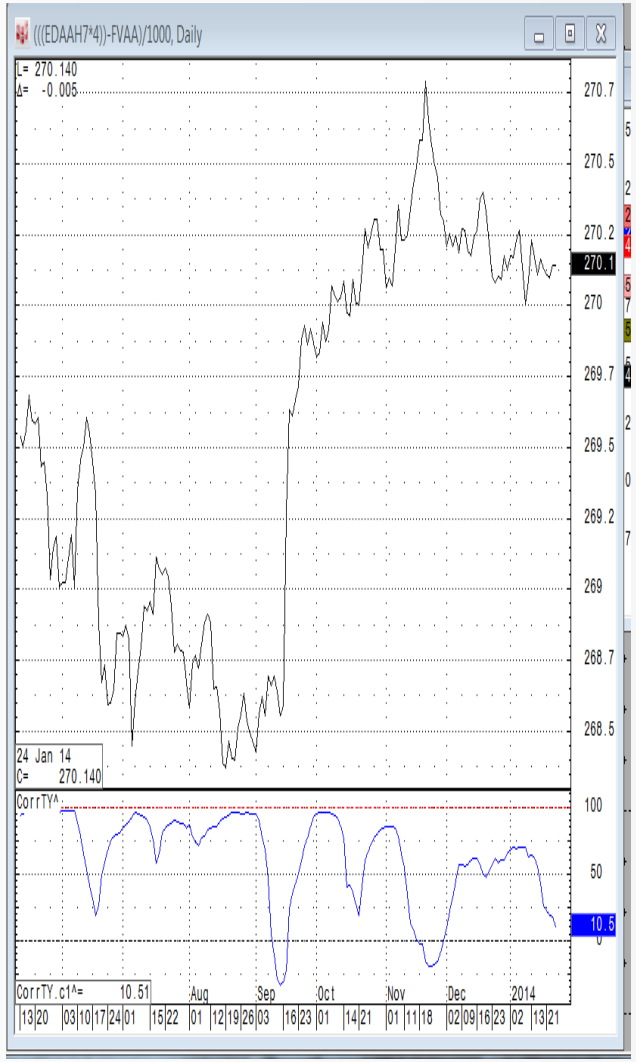
Delivery Month		Analytical Synthetic Eurobond	Semi-Analytical "Lemon" TED	Empirical Stack	Empirical Pack	Empirical Bundle
U13		184				189
Z13	Whites	219				189
H14	Whites	218				189
M14	Whites	217	838			189
U14	Reds	216	676	1,513	378	189
Z14	Reds	215			378	189
H15	Reds	213			378	189
M15		31			378	189
Total		1,513	1,513	1,513	1,512	1,512

Source: Our thanks to Bill Campbell for suggesting inclusion of the "Lemon" TED.

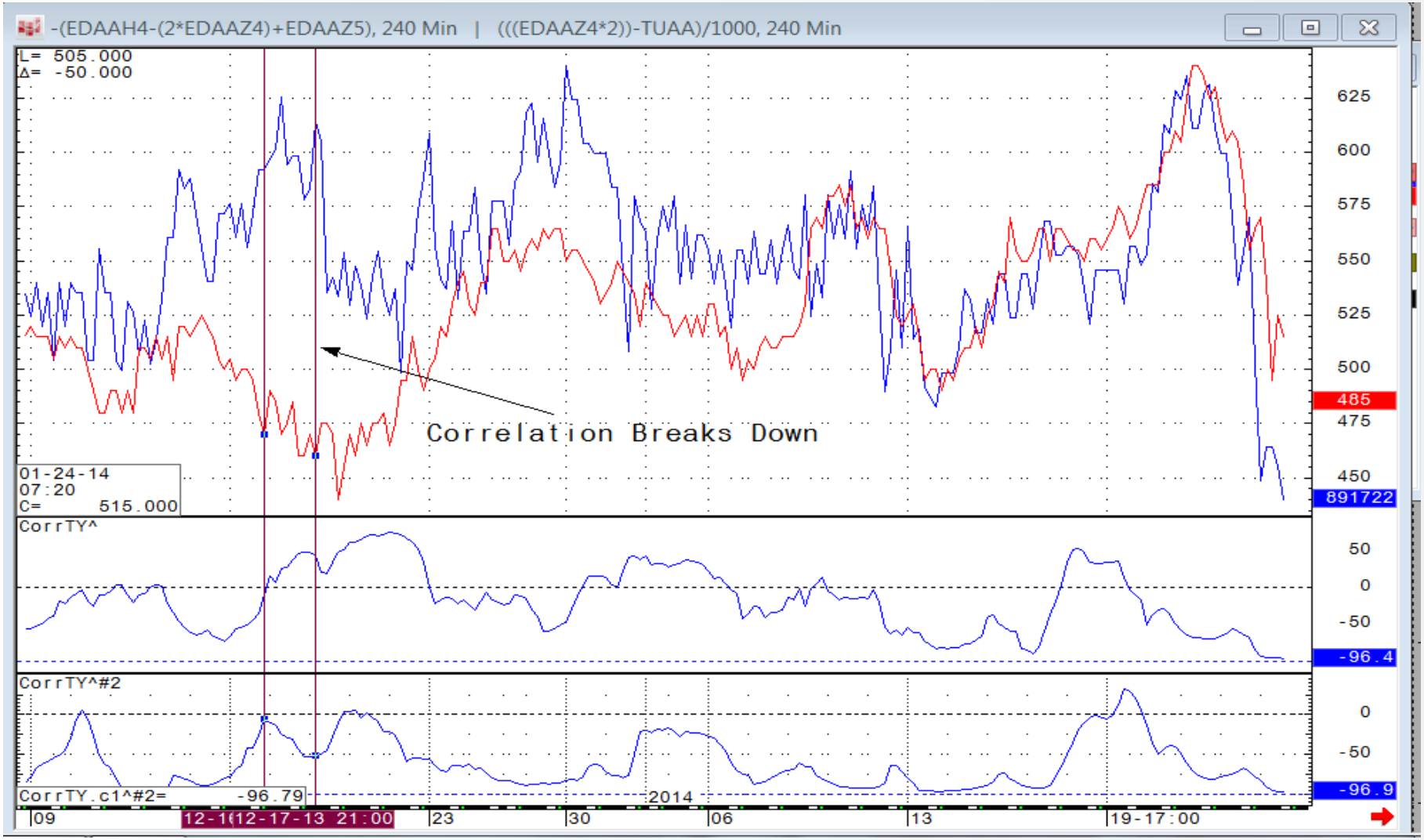
Why Does the EDH5-TU correlate to the H4/H5/Z5 ?



US ‘Dirty’ TEDs. EDH6, EDH7 and EDH8 Versus the UST 5yr Future

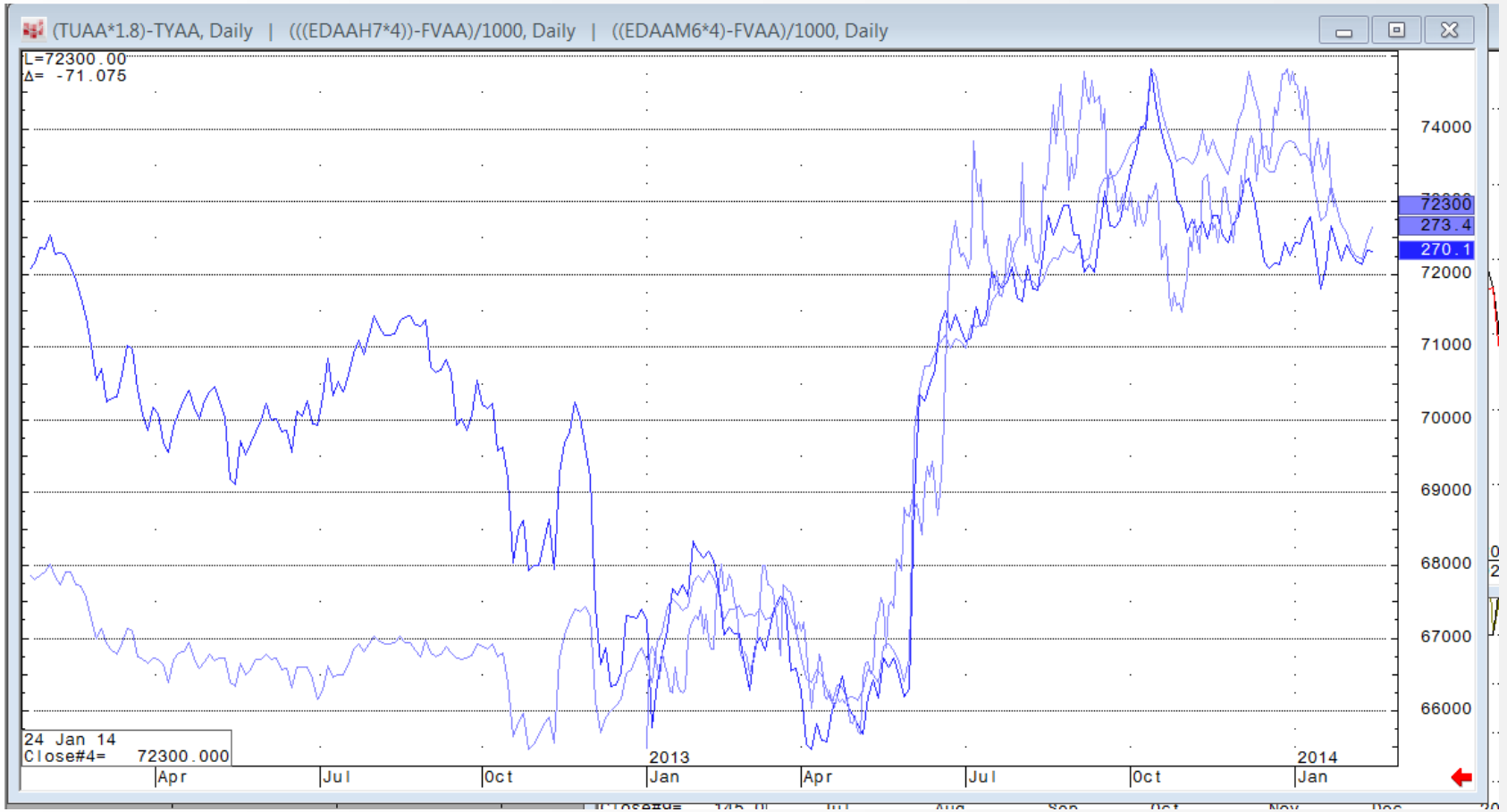


US ‘Dirty’ TEDs. 2yr UST Future – EDZ4



How the Curve plays a crucial part if you choose a Dirty TED ?

Each Spread shows similar characteristics yet have subtle well defined Risk profiles



What is a Dirty Spread ?

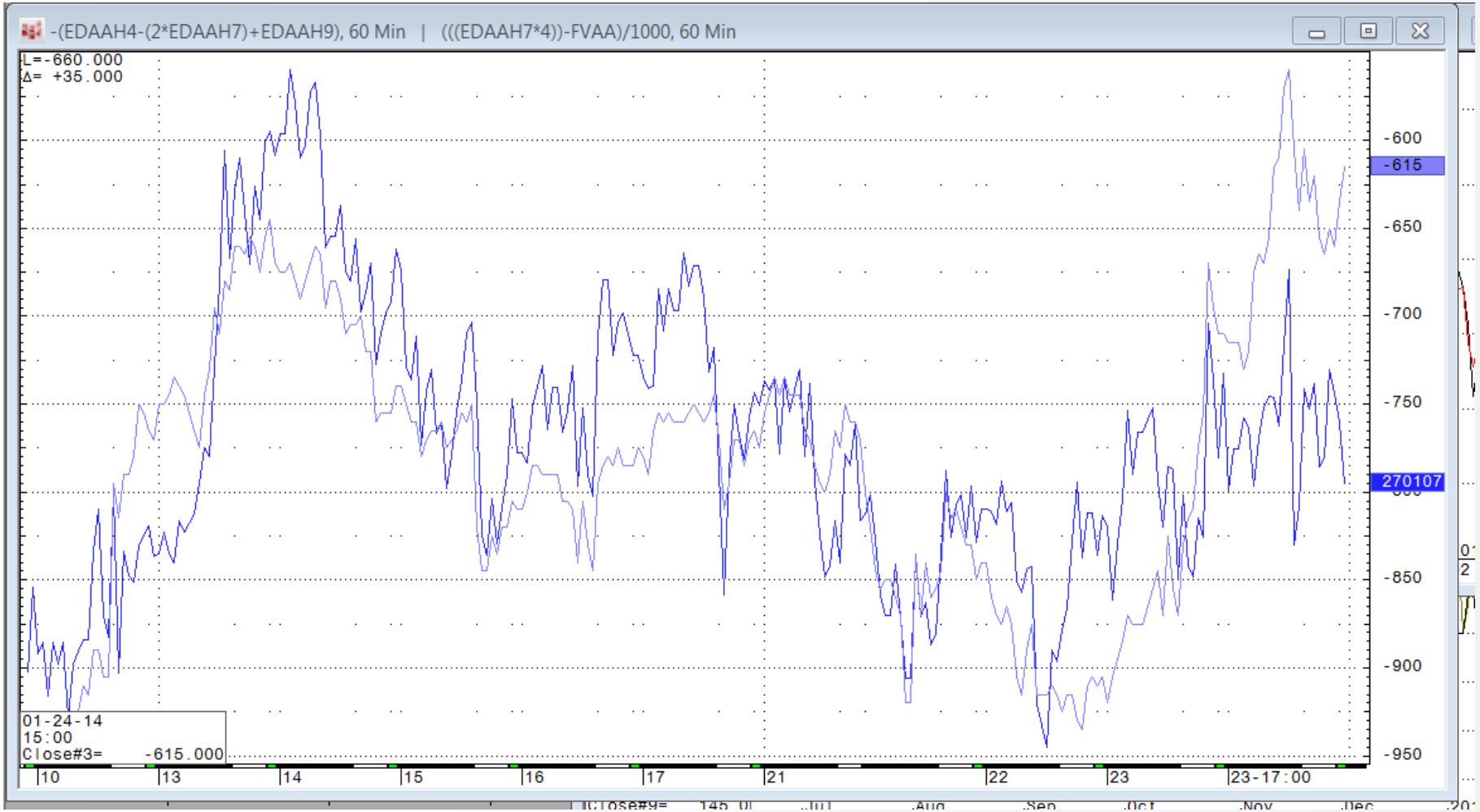
Advantages and Disadvantages of the Dirty Spread

	Change on Day	Term Ted	Curve Ted	Synthetic	
Sep-13	0.50	10		-10	Synthetic 5yr UST 21 ED$ Contracts
Dec-13	1.00	10		-10	
Mar-14	1.50	10		-10	
Jun-14	1.50	10		-10	
Sep-14	2.00	10		-10	
Dec-14	2.00	10		-10	
Mar-15	2.50	10		-10	
Jun-15	3.50	10	210	200	
Sep-15	4.00	10		-10	
Dec-15	4.50	10		-10	
Mar-16	5.50	10		-10	
Jun-16	6.50	10		-10	
Sep-16	6.50	10		-10	
Dec-16	6.50	10		-10	
Mar-17	8.50	10		-10	
Jun-17	9.00	10		-10	
Sep-17	9.50	10		-10	

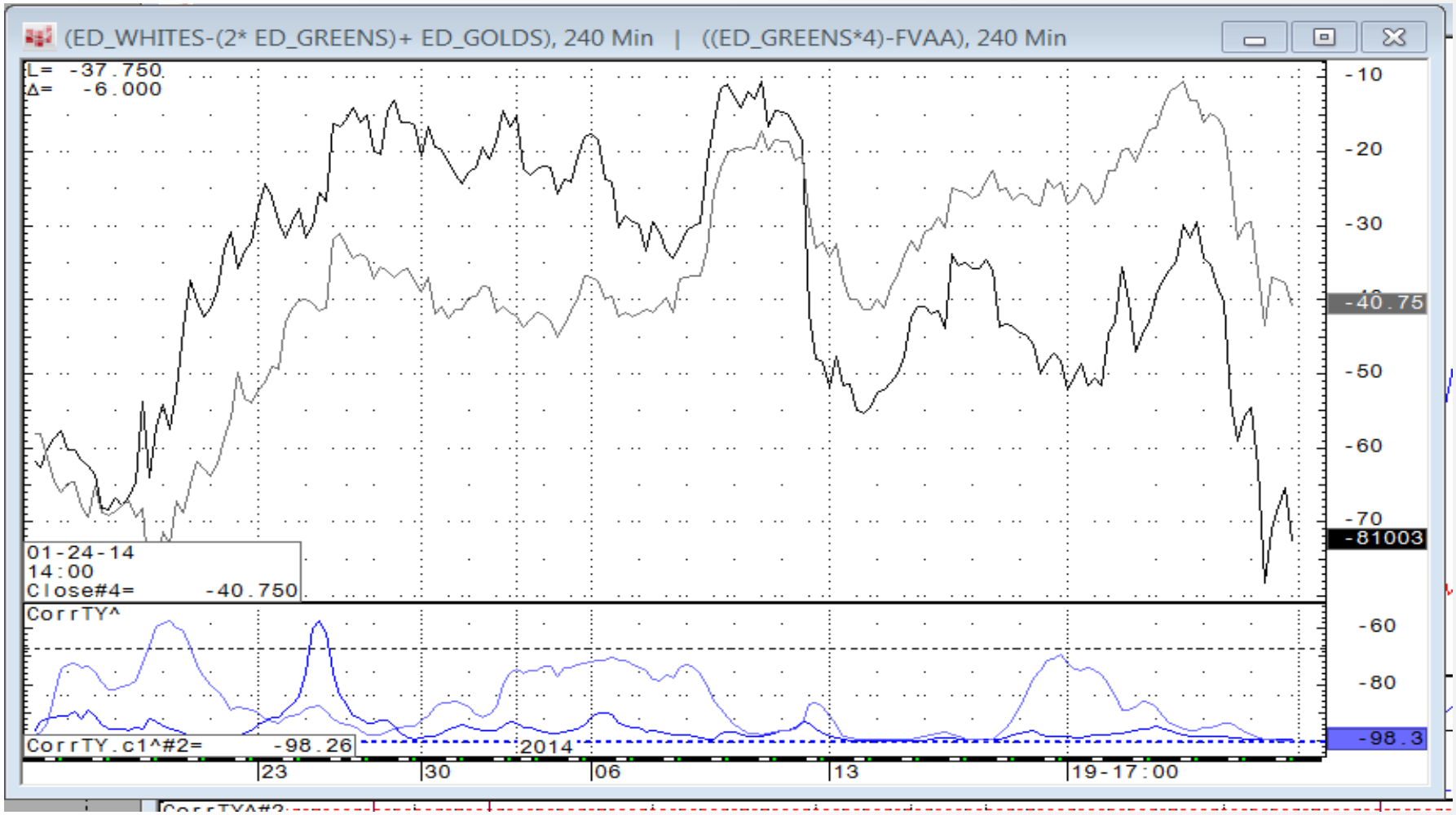
	Term Ted	**5yr UST**	**ED$**		
		-126	**long 210**	**10 lots in each month**	**Less Basis Risk**
	Curve Ted	**5yr UST**	**ED$**		
		-126	**long 210**	**210 lots in one month**	**Theo Fly Sep13/Jun15/Sep17**

Why a ‘Dirty’ TED Spread ?

EDH4/EDH7/EDH9 overlaying EDH7/UST 5 yr Future



US ‘Dirty’ TED. ED Green Pack – UST 5yr Future overlaying ED White Pack/Green Pack/Gold Pack



Be Prepared Plan your strategy, Markets can provide rich opportunity to those who plan. And Remember the Markets can remain Irrational a lot longer than we can remain solvent.

spread	Monetary Policy bias Hiking	Direction following Strong/Bearish outright data.		Generic	Current
GE1/GE4		BUY		GE1	EDU8
(or any part of)				GE2	EDZ8
				GE3	EDH9
GE4/GE7		SELL		GE4	EDM9
(or any part of)				GE5	EDU9
				GE6	EDZ9
GE1/GE2/GE3/GE4		BUY		GE7	EDH10
(condor +1/-1/-1+1)				GE8	EDM10
				GE9	EDU10
GE1/GE2/GE3		BUY		GE10	EDZ10
(fly ie +1/-2/+1)				GE11	EDH11
				GE12	EDM11
GE2/GE3/GE4		BUY			
GE3/GE4/GE5		BUY			
GE4/GE5/GE6	Will roll up curve.	SELL ON RALLIES, GOOD RANGE			
GE5/GE6/GE7		SELL ON RALLIES, GOOD RANGE			
GE6/GE7/GE8		SELL ON RALLIES			
GE7/GE8/GE9		SELL ON RALLIES			
GE8/GE9/GE10		SELL ON RALLIES			
GE1/GE5/GE9		BUY			
GE5/GE9/GE13		SELL ON RALLIES			
2'S/5'S		BUY			
2'S/10'S	If 5/10's turn bullish	RANGE BOUND			
	buy aggresively				
5'S/10'S		SELL ON RALLIES, RANGE BOUND			
5'S/30'S		SELL ON RALLIES, RANGE BOUND			
10'S/30'S		SELL ON RALLIES, RANGE BOUND			

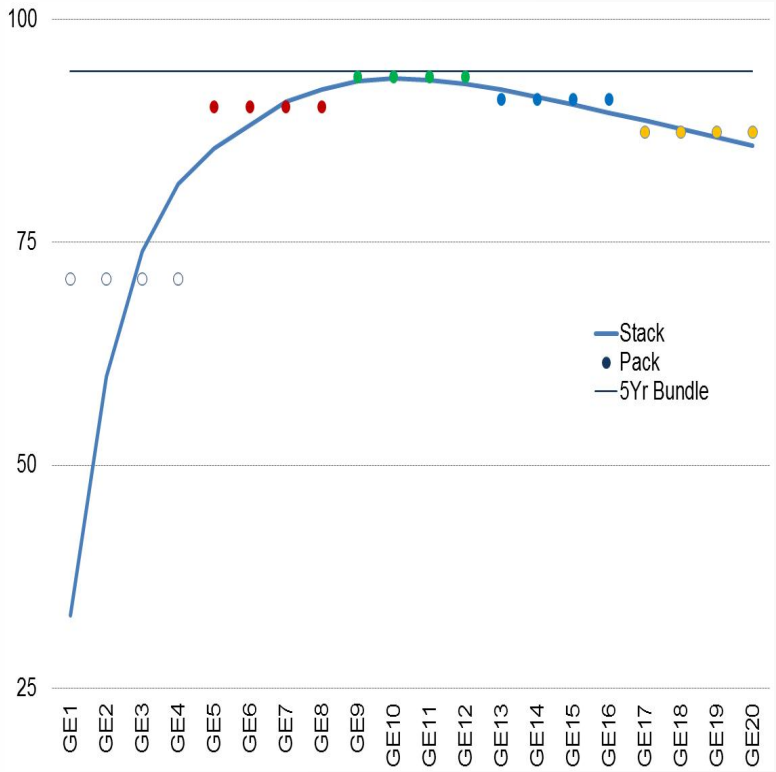
Empirical TEDs

Empirical TEDs: Correlation Surface for ZF

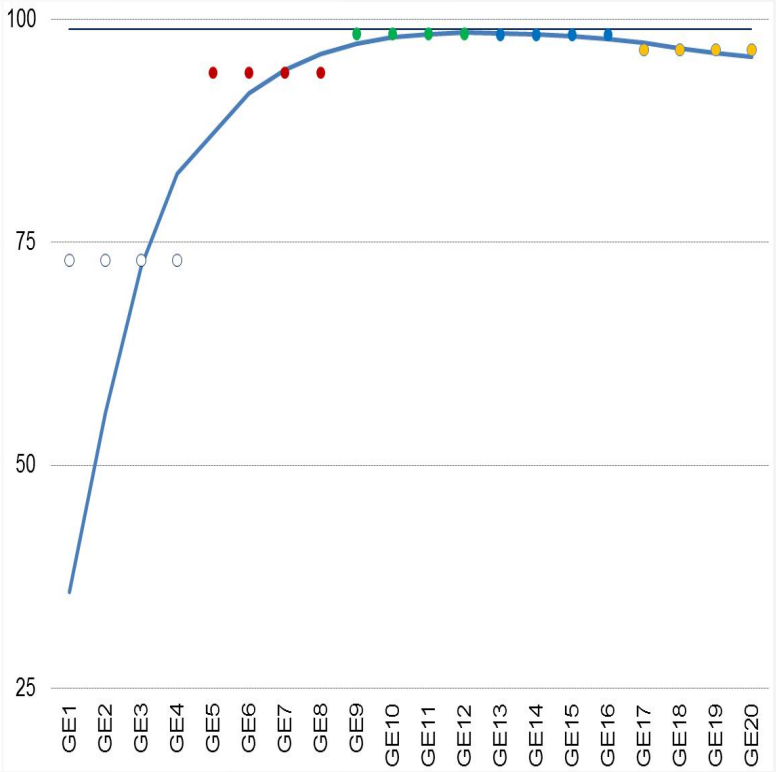
Establish how various GE contracts or contract structures correlate with Treasury exposure. Then pick spots on the correlation surface that suit your purposes.

Correlations of daily price changes – Front ZF v GE

In the long run: 28 Aug 2003-2013



…and lately: 30 May – 28 Aug 2013

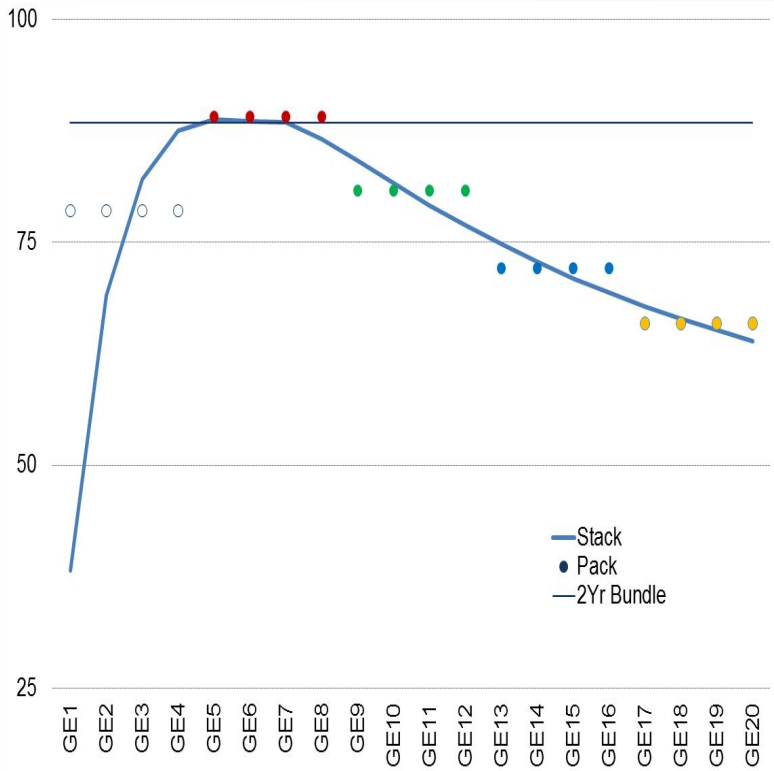


Source: IHS Global Insight, CME Group calculations

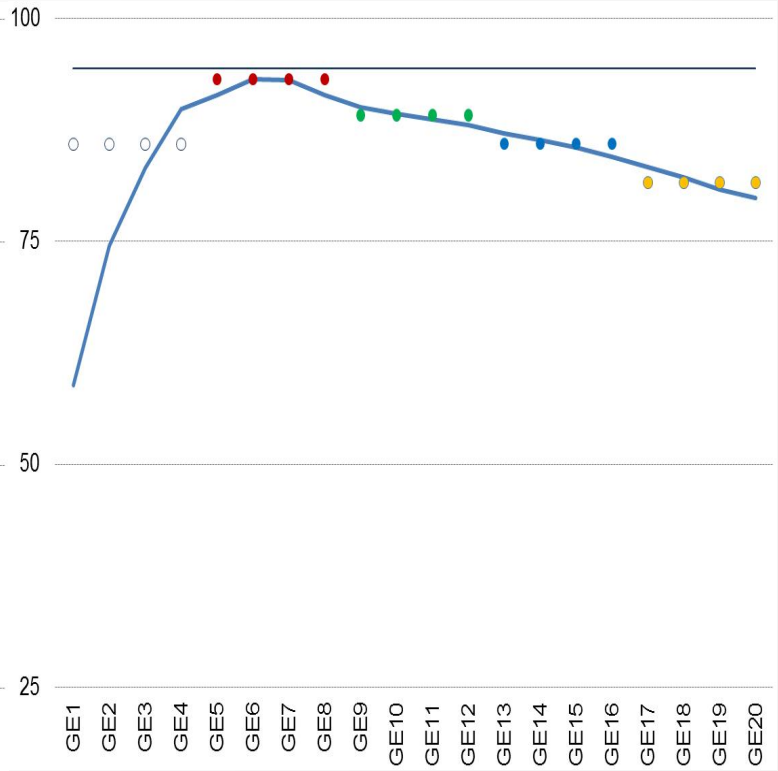
Empirical TEDs: Correlation Surface for ZT

Correlations of daily price changes – Front ZT v GE

In the long run: 28 Aug 2003-2013



…and lately: 30 May – 28 Aug 2013



Source: IHS Global Insight, CME Group calculations

Empirical TEDs: Correlation Surface High Points

Let "long term" = 28 Aug 2003-2013.

Let "short term" = 30 May – 28 Aug 2013.

	Stacks		*Packs*		*Bundles*	
			Front ZF			
Long Term	2nd Green	93.4	Green	93.5	5-Year	94.2
Short Term	4th Green	98.6	Green	98.4	5-Year	98.8
			Front ZT			
Long Term	1st Red	88.7	Red	89.1	2-Year	88.4
Short Term	2nd Red	93.1	Red	93.2	2-Year	94.3

Managing the Trade: What's the Right Framework?

Price Spreads

Not recommended. Easy to compute, messy to interpret:

GE leg is a forward interest rate.
Treasury leg is a forward asset price.

Interest Rate Spreads

Reasonably easy to compute, especially for tactical trading purposes. Simple to interpret:

TED spread = GE contract interest rate (ie, forward-starting Libor)
minus
Forward-starting yield on cheapest-to-deliver (CTD) Treasury note, as implied by Treasury futures delivery invoice price

DV01-weighted TED ➲ DV01 of interest rate spread is immediately evident.

23 Aug 2013 Examples:
For 500 ZFU3 v 979 GEU5, 1 bp change in spread = $24,485
For 1,000 ZTU3 v 1,513 GEU4, 1 bp change in spread = $37,820

Implementing Interest Rate Spreads

TED Spread **=** ***GE contract interest rate***
minus
Forward-starting yield on CTD Treasury note
as implied by Treasury futures delivery invoice price

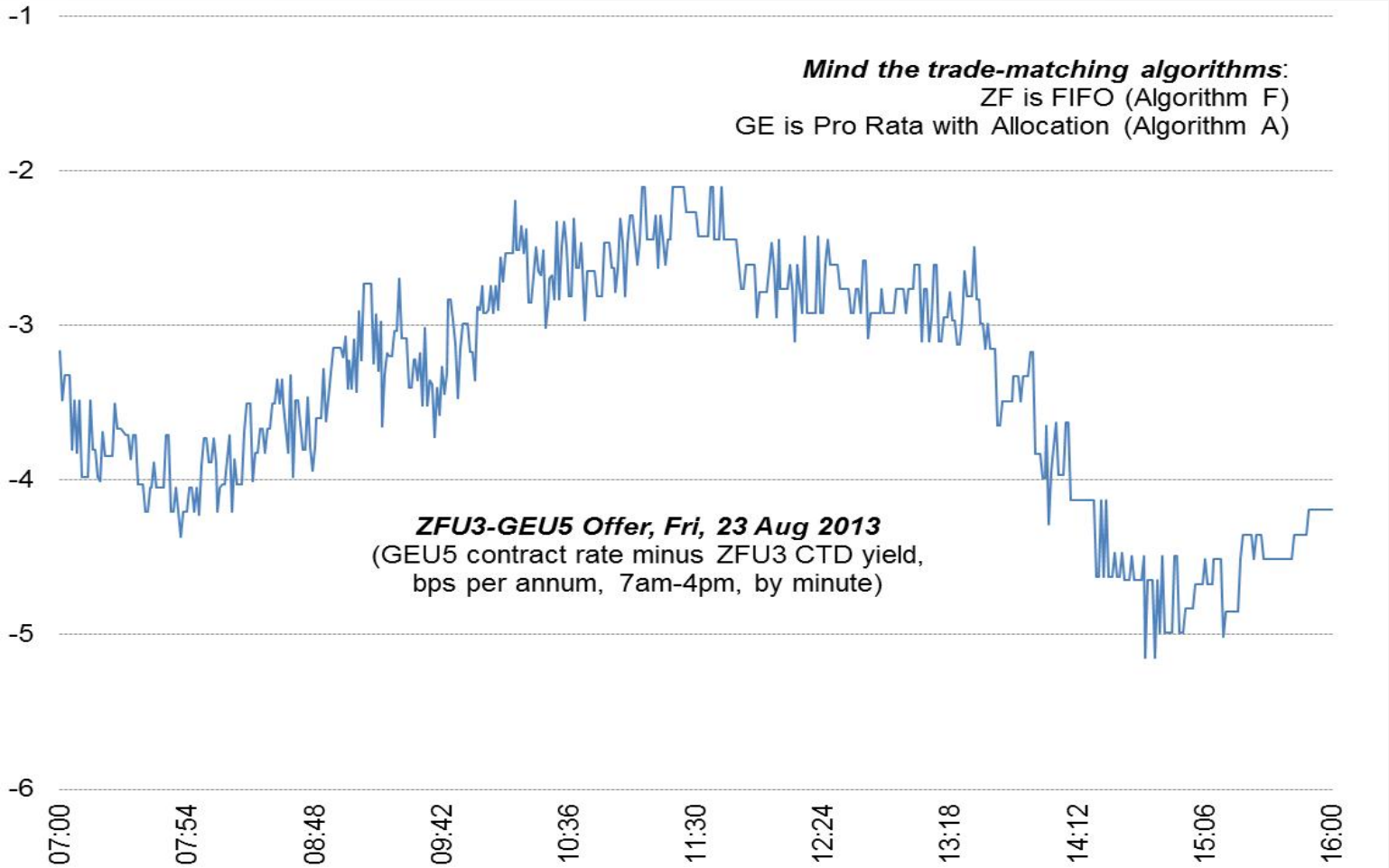
What's the GE contract interest rate?
100 minus GE price

What determines the Treasury yield?
Treasury futures invoice price for future delivery = (Futures price x CTD conversion factor) plus Basis Guesstimate

Basis Guesstimate = CTD basis (in futures numeraire) from previous night's close

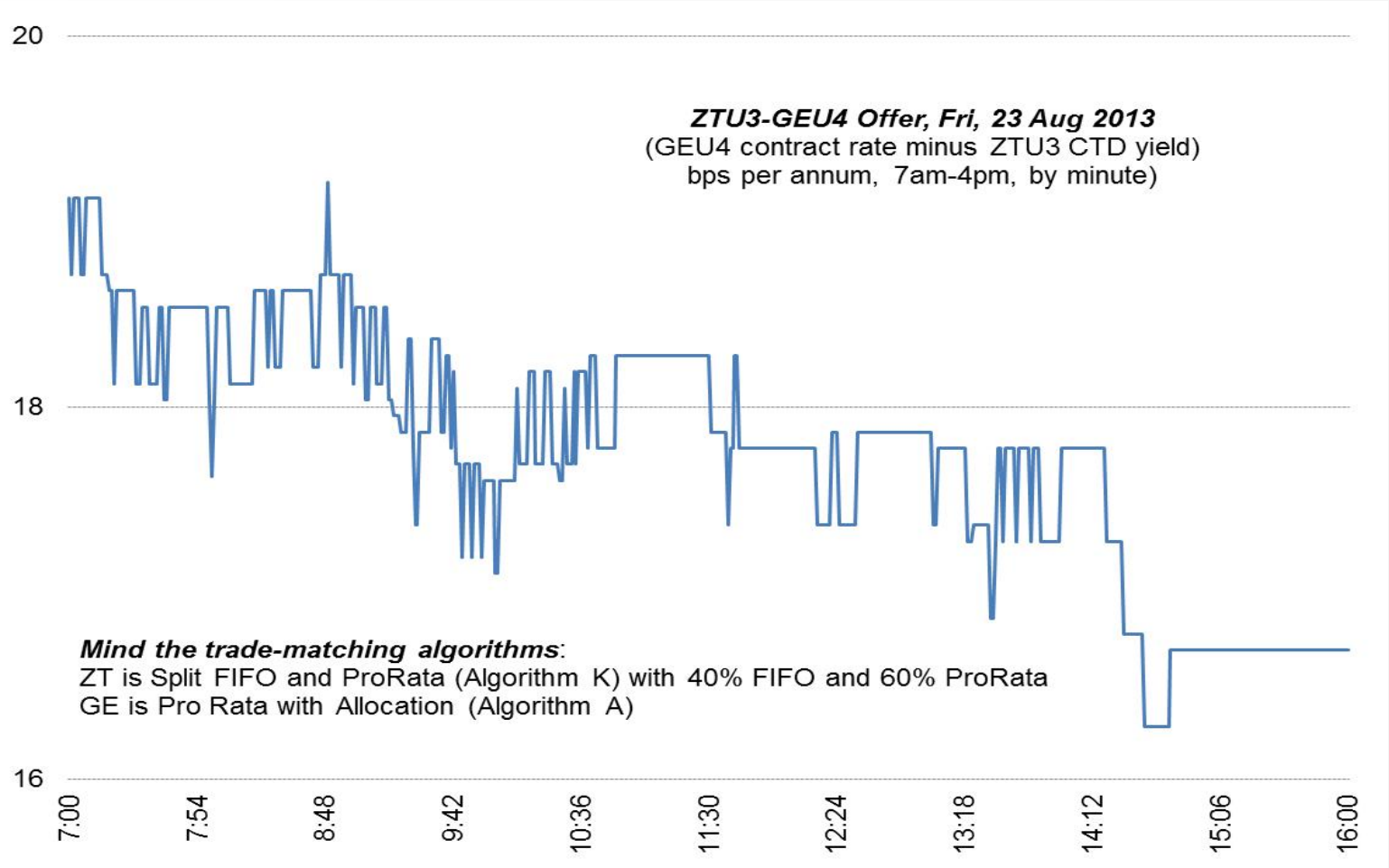
- Forward price of CTD issue = Spot (t+1) price minus Carry to forward settlement date
  (Carry = Accrued coupon interest minus repo financing cost)
- Forward yield of CTD issue

Example: 500 ZFU3 v 979 GEU5 on 23 Aug 2013



Source: CME Group

Example: 1,000 ZTU3 v 1,513 GEU4 on 23 Aug 2013



Source: CME Group

Initial Margins and Margin Offsets

500 ZFU3 v 979 GEU5

ZF Initial Margin = $990	$495,000 = 500 x $990
1st Green GE Initial Margin = $600	$587,400 = 979 x $600
Position Initial Margin w/out Margin Offsets	$1,082,400
70% Margin Offset: (1 x ZF) v (2 x 1st Green GE)	$657 = 0.30 x (1 x $990 + 2 x $600)
Position = 490 MO Units + 10 1st Green GE	
Initial Margin with Margin Offsets	$327,930 = (490 x $657) + (10 x $600)

1,000 ZTU3 v 1,513 GEU4

ZT Initial Margin = $275	$275,000 = 1,000 x $275
1st Red GE Initial Margin = $451	$682,363 = 1,513 x $451
Position Initial Margin w/out Margin Offsets	$957,363
50% Margin Offset: (2 x ZT) v (3 x 1st Red GE)	$951.50 = 0.50 x (2 x $275 + 3 x $451)
Position = 500 MO Units + 13 1st Green GE	
Initial Margin with Margin Offsets	$481,613 = (500 x $951.50) + (13 x $451)

Source: Examples are hypothetical, and are based on CME Clearing performance bond and cross-margin settings as of 25 September 2013.

Resources

Bloomberg LP
Cheapest-to-Deliver Function -- *(BBG Futures Contract Code) <COMDTY> DLV <GO>*

Burghardt, Galen
The Eurodollar Futures and Options Handbook, McGraw-Hill, 2003

Burghardt, Galen, et al
The Treasury Bond Basis, 3rd Edition, McGraw-Hill, 2005

CME Clearing
Margins -- *http://www.cmegroup.com/clearing/margins/#e=all&a=all&p=all*

CME Group
Eurodollar Futures: The Basics
http://www.cmegroup.com/trading/interest-rates/files/eurodollar-futures-the-basics.pdf

CME Group
Globex Trade Match Algorithms
http://www.cmegroup.com/confluence/display/EPICSANDBOX/GCC+Product+Reference+Sheet
http://www.cmegroup.com/confluence/display/EPICSANDBOX/Matching+Algorithms

CQG Integrated Client
http://www.cqg.com/Products/CQG-Integrated-Client.aspx
http://www.cqg.com/Electronic-Trading/Features/Spread-Trading-in-CQG.aspx

Trading Technologies Autospreader®
https://www.tradingtechnologies.com/en/products/trading-analytics/xtrader/autospreader/

US Department of the Treasury
31 CFR Part 356, Sale and Issue of Marketable Book-Entry Treasury Bills, Notes, and Bonds, Appendix B
http://www.law.cornell.edu/cfr/text/31/356

Economic Release Impact on the Yield Curve

CME Group

How impactful are the Core US Economic Data on the US Interest Rate Markets ?

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US Consumer Confidence, US ISM and US GDP's impacts on UST 2/10s Futures Curve

How impactful are the Core US Economic Data on the US Interest Rate Markets ?

CME Group

How impactful are the Core US Economic Data on the US Interest Rate Markets ?

Line 22. US NFP Actual Misses Expected by Significant amount.

	Date Time	C	A	M	R	Event	Period	Surv(M)	Actual	Prior	Revised
21)	01/10 13:30	CA				Unemployment Rate	Dec	6.9%	7.2%	6.9%	--
22)	01/10 13:30	US				Change in Nonfarm Payrolls	Dec	197K	74K	203K	241K
23)	01/10 13:30	CA				Net Change in Employment	Dec	14.1K	-45.9K	21.6K	--
24)	01/10 13:30	US				Two-Month Payroll Net Revi...	Dec	--	38K	--	--
25)	01/10 13:30	CA				Full Time Employment Change	Dec	--	-60.0	1.4	--
26)	01/10 13:30	US				Change in Private Payrolls	Dec	200K	87K	196K	226K
27)	01/10 13:30	CA				Part Time Employment Cha...	Dec	--	14.2	20.0	--
28)	01/10 13:30	US				Change in Manufact. Payrolls	Dec	15K	9K	27K	31K

How impactful are the Core US Economic Data on the US Interest Rate Markets ?

10 UST Future Price Action Following Much Weaker than expected US NFP Data

How impactful are the Core US Economic Data on the US Interest Rate Markets ?

10 UST Future Price Action Following Much Weaker than expected US NFP Data

How impactful are the Core US Economic Data on the US Interest Rate Markets ?

UST 2/5/10s Butterfly Price Action Following Much Weaker than expected US NFP Data

How impactful are the Core US Economic Data on the US Interest Rate Markets ?

UST 5/30s Spread Price Action Following Much Weaker than expected US NFP Data

Current DV01 Ratios For UST Futures

CME Group

Resource. Current DV01 Ratios

	2yr	3yr	5yr	7yr	10yr	30yr	ZT	ZF	ZN	ZB
1 mil	2yr	1.531	2.466	3.368	4.479	9.618	4.579	3.755	2.448	1.308
	1 mil	3yr	1.611	2.200	2.926	6.283	7.010	5.749	3.747	2.002
Basis		1 mil	5yr	1.366	1.817	3.901	11.291	9.259	6.035	3.225
			1 mil	7yr	1.330	2.856	15.423	12.648	8.244	4.405
Fut/FUT			$	1 mil	10yr	2.147	20.512	16.821	10.964	5.859
		ZT	15.6250		1 mil	30yr	44.046	36.120	23.544	12.580
cash/cash		ZF	7.8125			1mil	ZT	1.219	1.871	3.501
		ZN	15.6250					ZF	1.534	2.871
Fut/cash		ZB	31.2500						ZN	1.871
		2y	78.1250							ZB
		3y	78.1250							
		5y	78.1250							
		7y	156.2500							
		10y	156.2500							
		30y	156.2500							

DV01's	Dv01's
2yr	1.913
3yr	2.928
5yr	4.716
7yr	6.442
10yr	8.568
30yr	18.397
ZT	4.177
ZF	5.093
ZN	7.814
ZB	14.624

Resource. CQG Q Formula Spread Codes

NOB					
Q1	10_30.NOB.Futures	TYA-SHARESCALE(USA*.571,TYA)			
Q2	10_30.NOB.Cash	BUSP10-SHARESCALE(BUSP30*.418,BUSP10)			
Q3	10_30.NOB.Swap	TUS30AY-TUS10AY			
Q17	CashNOBvsFutNOB	Q2-Q1			
FIT					
Q3	5_10.FIT.Futures	FVA-SHARESCALE(TYA*.621,FVA)			
Q4	5_10.FIT.Cash	BUSP05-SHARESCALE(BUSP10*.545,BUSP05)			
Q12	5_10.FIT.SWAP	TUS10AY-TUS05AY			
Q16	CashFITvsFutFIT	Q4-Q3			
TUF					
Q5	2_5.TUF.Futures	TUA-SHARESCALE(FVA*.82,TUA)			
Q6	2_5.TUF.Cash	BUSP02-SHARESCALE(BUSP05*.41,BUSP02)			
Q13	2_5.TUF.SWAP	TUS05AY-TUS02AY			
Q18	CashTUFvsFutTUF	Q6-Q5			
TUT					
Q7	2_10.TUT.Futures	TUA-SHARESCALE(TYA*.51,TUA)			
Q8	2_10.TUT.Cash	BUSP02-SHARESCALE(BUSP10*.222,BUSP02)			
Q14	2_10.TUT.SWAP	TUS10AY-TUS02AY			
Q19	CashTUTvsFutTUT	Q8-Q7			
FOB					
Q9	5_30.FOB.Futures	FVA-SHARESCALE(USA*.35,FVA)			
Q10	5_30.FOB.Cash	BUSP05-SHARESCALE(BUSP30*.23,BUSP05)			
Q15	5_30.FOB.SWAP	TUS30AY-TUS05AY			
Q20	CashFOBvsFutFOB	Q10-Q9			

For More Information

To learn more about Interest Rate Futures, visit cmegroup.com or contact a member of our product team:

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