

## The Morning Email: Correlations & R-Squared

### Table of Contents

- Pg 1 US Treasuries
- Pg 2 US Treasuries & US Treasury Futures
- Pg 3 US Treasuries, US Treasury Futures, & German Futures
- Pg 4 Energy & Currencies
  
- Pg 5 Notes
- Pg 6 US Treasury Basis
- Pg 7 US Treasury Spreads
- Pg 8 Gold
- Pg 9 Currencies
  
- Pg 10 US Index Futures      **New**

One contract may be correlating with another but does that mean there's causation? Is one causing the other?

That's what the R-Squared is for. Read R-Squared as follows: let's say, CLA and DJIA have an R-Squared of 0.44. That means there's a 44% chance that one is causing the market movement of the other.

You will always see a positive number for the R-Squared. If a correlation is a (negative) number, for example, (-87.9) that means the two commodities are mirroring each other, not correlating. For example, today (which is 06/06/2007) the RBA and DJIA have a (-87.9)% correlation. The R-Squared is 0.77. Therefore the two instruments are mirroring each other 88% of the time, and there's a 77% chance that one is causing the other.

### Conditionally formatted cells:

If there's an R-Squared equal to or greater than 80%, then, the cell will turn BLUE. That tells us that there's an 80% chance that one of the instruments is causing the other to move. HOWEVER, the gold and currency pages are set to 70% or greater. Lastly, If the cell is any other color, just ignore it. Other colors are 'notes' for me. --Thanks, Jim

Want something added? Let me know: [jgoulding@ghco.com](mailto:jgoulding@ghco.com)

**Disclaimer:** All information within this newsletter is meant for internal use at GH Trader's LLC, only. All information has been recorded to the best of my ability. This material is based upon information that I consider reliable, but I do not represent that it is accurate or complete.

	Daily Correlations				Daily Correlations			
	US Cash Treasuries (Yield)			US Bonds/Notes (CBOT)				
	2yr Yield	5yr Yield	10yr Yield	30yr Yield	ZT	ZF	ZN	ZB
5YR BASIS	(46.2)	(49.8)	(35.1)	(36.5)	3.3	35.6	57.8	71.4
10YR BASIS	(40.3)	(32.5)	(47.3)	(34.7)	65.9	40.6	17.4	(13.6)
30YR BASIS	(53.2)	(50.2)	(71.0)	(81.7)	59.6	57.5	54.2	40.8
2/10	(95.1)	(93.1)	(81.5)	(52.9)	81.5	87.3	81.4	54.1
2/5	(62.4)	(51.8)	(51.7)	(30.1)	71.1	48.4	34.1	(0.4)
2/30	(95.0)	(92.9)	(82.2)	(50.6)	86.6	89.1	79.5	48.8
5/10	(92.5)	(93.7)	(79.8)	(53.1)	73.1	87.9	85.9	65.1
5/30	(94.0)	(94.0)	(81.8)	(50.7)	82.5	90.5	82.7	55.6
10/30	(89.5)	(87.5)	(78.9)	(43.1)	91.9	87.9	71.4	35.8
TUF1^	(29.6)	(33.3)	(27.1)	(43.1)	(18.5)	19.9	44.9	71.5

^ See notes page

	Daily R-Squared				Daily R-Squared			
	US Cash Treasuries (Yield)			US Bonds/Notes (CBOT)				
	2yr Yield	5yr Yield	10yr Yield	30yr Yield	ZT	ZF	ZN	ZB
5YR BASIS	0.21	0.25	0.12	0.13	0.00	0.13	0.33	0.51
10YR BASIS	0.16	0.11	0.22	0.12	0.43	0.16	0.03	0.02
30YR BASIS	0.28	0.25	0.50	0.67	0.36	0.33	0.29	0.17
2/10	0.91	0.87	0.66	0.28	0.66	0.76	0.66	0.29
2/5	0.39	0.27	0.27	0.09	0.51	0.23	0.12	0.00
2/30	0.90	0.86	0.68	0.26	0.75	0.79	0.63	0.24
5/10	0.86	0.88	0.64	0.28	0.53	0.77	0.74	0.42
5/30	0.88	0.88	0.67	0.26	0.68	0.82	0.68	0.31
10/30	0.80	0.77	0.62	0.19	0.84	0.77	0.51	0.13
TUF1^	0.09	0.11	0.07	0.19	0.03	0.04	0.20	0.51

^ See notes page

	Daily Correlations US Cash Treasuries (Yield)				Daily Correlations US Bonds/Notes (CBOT)				
	2yr Yield	5yr Yield	10yr Yield	30yr Yield	ZT	ZF	ZN	ZB	Exchange
2yr Yield	100.0	99.2	95.4	75.0	(87.5)	(97.1)	(92.6)	(68.4)	
5yr Yield	99.2	100.0	95.9	77.1	(84.1)	(98.2)	(95.8)	(74.9)	
10yr Yield	95.4	95.9	100.0	89.4	(85.2)	(97.5)	(94.9)	(75.9)	
30yr Yield	75.0	77.1	89.4	100.0	(58.3)	(79.3)	(87.5)	(85.5)	
ZT	(87.5)	(84.1)	(85.2)	(58.3)	100.0	89.0	72.3	34.4	
ZF	(97.1)	(98.2)	(97.5)	(79.3)	89.0	100.0	94.6	71.5	
ZN	(92.6)	(95.8)	(94.9)	(87.5)	72.3	94.6	100.0	89.2	
ZB	(68.4)	(74.9)	(75.9)	(85.5)	34.4	71.5	89.2	100.0	
emini SP	93.5	94.5	90.3	73.3	(81.7)	(93.3)	(92.5)	(70.3)	CME
Dow Futures	92.9	92.7	89.8	70.6	(87.5)	(93.1)	(88.6)	(61.5)	CME/eCbot
USDJPY	92.5	93.5	88.8	79.2	(69.1)	(88.4)	(95.5)	(83.0)	Cash Market
EURUSD	(54.5)	(45.1)	(52.7)	(41.8)	69.4	46.2	34.8	3.1	Cash Market
EURJPY	66.1	73.2	63.3	59.6	(31.8)	(67.1)	(81.8)	(87.8)	Cash Market
Crude	(17.2)	(8.7)	(4.2)	7.0	23.9	2.5	(1.7)	(23.1)	CME/NYMEX

	Daily R-Squared US Cash Treasuries (Yield)				Daily R-Squared US Bonds/Notes (CBOT)				
	2yr Yield	5yr Yield	10yr Yield	30yr Yield	ZT	ZF	ZN	ZB	
2yr Yield		0.98	0.91	0.56	0.77	0.94	0.86	0.47	
5yr Yield	0.98		0.92	0.59	0.71	0.97	0.92	0.56	
10yr Yield	0.91	0.92		0.80	0.73	0.95	0.90	0.58	
30yr Yield	0.56	0.59	0.80		0.34	0.63	0.76	0.73	
ZT	0.77	0.71	0.73	0.34		0.79	0.52	0.12	
ZF	0.94	0.97	0.95	0.63	0.79		0.90	0.51	
ZN	0.86	0.92	0.90	0.76	0.52	0.90		0.80	
ZB	0.47	0.56	0.58	0.73	0.12	0.51	0.80		
emini SP	0.87	0.89	0.81	0.54	0.67	0.87	0.86	0.49	
Dow Futures	0.86	0.86	0.81	0.50	0.77	0.87	0.79	0.38	
USDJPY	0.85	0.87	0.79	0.63	0.48	0.78	0.91	0.69	
EURUSD	0.30	0.20	0.28	0.17	0.48	0.21	0.12	0.00	
EURJPY	0.44	0.54	0.40	0.36	0.10	0.45	0.67	0.77	
Crude	0.03	0.01	0.00	0.00	0.06	0.00	0.00	0.05	



	Symbol	Daily Correlations			Daily Correlations			Symbol	Exchange
		US Cash Treasuries	US Bonds/Notes (CBOT)	ZT	ZF	ZN			
Schatz(2Y)	DG	(80.03)	(89.18)	(92.11)	71.52	91.09	94.54	DG	EUREX
Bobl(5Y)	DL	(80.70)	(90.47)	(93.78)	71.91	93.01	96.61	DL	EUREX
Bund(10Y)	DB	(69.55)	(81.87)	(88.34)	56.97	85.92	92.70	DB	EUREX

	Symbol	Daily R-Squared			Daily R-Squared			Symbol	Exchange
		US Cash Treasuries	US Bonds/Notes (CBOT)	ZT	ZF	ZN			
Schatz(2Y)	DG	0.64	0.80	0.85	0.51	0.83	0.89	DG	EUREX
Bobl(5Y)	DL	0.65	0.82	0.88	0.52	0.87	0.93	DL	EUREX
Bund(10Y)	DB	0.48	0.67	0.78	0.32	0.74	0.86	DB	EUREX

How does this work on the ROLL? Formula's track the highest volume individual contract. For example, if we are rolling from Dec 2007 to March 2007, for the eCBOT, then, the day up to the 'top step change' Dec07 will be the highest volume traded contract. On the day of the switch, Mch08 will be the highest volume traded contract.

The formula will mix Dec07 and Mch08 until we've reached the 10th day of the change over. We always roll on the last trading day of the month. In this case it would be November 30th. So, by the tenth trading day of December the formula will have tracked the Mch08 contract entirely.

However, it doesn't matter. All that I'm concerned with is the highest volume contract and that's what the formulas track.

Furthermore, it works the same way for the Bund, Bobl, and Schatz; whatever contract is the highest volume contract, that's the contract the formula will take its data from.

Energies				
Daily Correlations				
	CLA	HOA	RBA	NGA
CLA	100.0	93.5	79.2	4.7
HOA	93.5	100.0	61.2	20.4
RBA	79.2	61.2	100.0	(14.5)
NGA	4.7	20.4	(14.5)	100.0
DJIA	(37.1)	(49.2)	11.3	(61.2)
SPC5	(25.3)	(39.3)	21.7	(20.4)
EURUSD	67.6	61.1	47.1	48.4
EURJPY	20.7	16.9	55.4	(12.8)
USDJPY	(20.4)	(19.9)	23.3	(39.4)
GCA	47.9	36.7	11.1	1.6
				Gold

Energies					
Daily R-Squared					
	CLA	HOA	RBA	NGA	Exchange
CLA			0.87	0.63	Crude Oil
HOA	0.87			0.37	Heating Oil
RBA	0.63		0.37		unleaded Gas
NGA	0.00		0.04	0.02	Nat Gas
DJIA	0.14		0.24	0.01	Dow Cash
SPC5	0.06		0.15	0.05	S&P 500 Cash
EURUSD	0.46		0.37	0.22	€/\$
EURJPY	0.04		0.03	0.31	€/¥
USDJPY	0.04		0.04	0.05	\$/¥
GCA	0.23		0.13	0.01	Gold

Currencies				
Daily Correlations				
	EURUSD	EURJPY	USDJPY	GBPEUR
EURUSD	100.0	17.5	(41.8)	(72.0)
EURJPY	17.5	100.0	82.1	(29.1)
USDJPY	(41.8)	82.1	100.0	14.4
Euro	98.4	26.8	(32.2)	(75.1)
Yen	41.7	(81.9)	(99.8)	(16.7)
Swiss Fr	92.7	(14.6)	(67.2)	(66.1)
Canadian \$	(6.7)	58.5	57.5	40.2
				CHF

Currencies					
Daily R-Squared					
	EURUSD	EURJPY	USDJPY	GBPEUR	Exchange
EURUSD		0.03	0.17	0.52	€/\$
EURJPY	0.03		0.67	0.08	€/¥
USDJPY	0.17		0.67	0.02	\$/¥
Euro	0.97		0.07	0.10	€
Yen	0.17		0.67	1.00	¥
Swiss Fr	0.86		0.02	0.45	CHF
Canadian \$	0.00		0.34	0.33	C\$

Currencies				
Daily Correlations				
	Euro	Yen	Swiss Fr	Canadian \$
Euro	100.0	32.7	90.7	0.3
Yen	32.7	100.0	67.8	(58.4)
Swiss Fr	90.7	67.8	100.0	(29.5)
Canadian \$	(1.3)	(59.3)	(30.9)	100.0
				CHF

Currencies					
Daily R-Squared					
	Euro	Yen	Swiss Fr	Canadian \$	Exchange
Euro		0.11	0.82	0.00	€
Yen	0.11		0.46	0.34	¥
Swiss Fr	0.82		0.46		CHF
Canadian \$	0.00		0.35	0.10	C\$

## Notes:

EURUSD, EURJPY, USDJPY, & USDGBP are all cash market products.  
 Euro, Yen, Swiss Fr, Canadian \$, & BP are all CME products.

- 1) ALL Correlations are based on 10 day historical
- 2) CQG quotes prices in 32nds. That means you won't see "\*32" on the end of my equations. I don't need to multiply by 32 to see the correct quote.

**TUF1** = Cash2yr Yield - 5 Year Futures

CQG Equation = SHARESCALE(BUSP02-(FVA?\*.5),INTEGER1)\*32? Where FVA? is the 5yr electronic lead month futures contract.

**FYT1** = (FV\*1.5)-TY)

CQG Equation = ((FVA?\*1.5)-TYA?)

Where: FV = 5 yr electronic futures; TY = 10 yr electronic futures

**FYT2** = ((5 yr cash - (TY\*.7))

CQG Equation ((BUS05P-(TYA\*.7))

Where: 5 yr cash = OTR; TY = 10 yr electronic futures

**NOB1** = (10 yr cash - (US\*.7))

CQG Equation = (BUS10P-(USA\*.7))

Where: US = 30 yr electronic futures; 10 yr cash = OTR

**NOB2** = (TY-(US\*.7))

CQG Equation = (TYA-(USA\*.7))

Where: TY = 10 yr electronic futures; US = 30 yr electronic futures

**BASIS** is conversion factor.

Basis = Cash Price - (Futures Price \* Conversion Factor)

## FAQ

**Q:** Why do I have a column titled 'q' in certain places?

**A:** Those are q formulas I use within CQG. CQG is the engine behind my morning emails. They provide the quotes, I provide the formulas.

**Q:** Why are certain cells colored?

**A:** They help me identify what formula's need to be changed by hand and which are automated. There are over 9,000 formula's working behind the scenes to deliver the morning emails. I need some kind of system assist me in identifying certain formula's that need to be adjusted on new issues, rolls etc. I also use a color pattern for the treasures to help with quick visual interpretation.

**US Treasury Basis**

Daily Correlations			
Treasury Basis^			
	5YR BASIS	10YR BASIS	30YR BASIS
emini SP	(47.7)	(26.5)	(51.2)
5\$ Dow Futures	(36.8)	(36.6)	(56.2)
USDJPY	(68.6)	(12.5)	(46.7)
EURUSD	(5.5)	72.3	68.9
EURJPY	(77.3)	31.8	(7.4)
Crude	9.8	25.1	16.2
TUF1^	85.4	(42.4)	(1.6)
2/10	53.2	29.2	29.9
2/5	4.5	70.2	48.9
2/30	43.1	36.1	30.9
5/10	62.3	10.6	18.9
5/30	47.9	25.4	24.2
10/30	20.7	47.8	31.1
ZT	3.3	65.9	3.3
ZF	35.6	40.6	35.6
ZN	57.8	17.4	57.8
ZB	71.4	(13.6)	71.4

q

Daily R-Squared			
Treasury Basis			
	5YR BASIS	10YR BASIS	30YR BASIS Exchange
emini SP	0.23	0.07	0.26 Globex
5\$ Dow Futures	0.14	0.13	0.32 Globex
USDJPY	0.47	0.02	0.22 Cash
EURUSD	0.00	0.52	0.48 Cash
EURJPY	0.60	0.10	0.01 Cash
Crude	0.01	0.06	0.03 CME / NYMEX
TUF1^	0.73	0.18	0.00 CME / NYMEX
2/10	0.28	0.09	0.09 BrokerTec
2/5	0.00	0.49	0.24 BrokerTec
2/30	0.19	0.13	0.10 BrokerTec
5/10	0.39	0.01	0.04 BrokerTec
5/30	0.23	0.06	0.06 BrokerTec
10/30	0.04	0.23	0.10 BrokerTec
ZT	0.00	0.43	0.00 Globex
ZF	0.13	0.16	0.13 Globex
ZN	0.33	0.03	0.33 Globex
ZB	0.51	0.02	0.51 Globex

^See "Notes Page"

**Daily Correlations**  
**US Cash Treasuries Spreads (Yield)**

Symbol	2/10	2/5	2/30	5/10	5/30	10/30	NOB1^	NOB2^	TUF^	FYT1^	FYT2^
2/10		67.2	99.1	96.6	97.5	91.7	57.5	86.5	29.3	32.1	58.3
2/5	67.2		67.1	45.9	53.9	62.9	80.6	72.2	(5.6)	50.3	10.4
2/30	99.1	67.1		95.6	98.6	96.3	64.8	90.8	18.3	43.4	48.8
5/10	96.6	45.9	95.6		98.3	88.1	41.0	78.7	37.2	21.0	66.4
5/30	97.5	53.9	98.6	98.3		95.3	55.6	87.0	22.0	38.1	53.0
10/30	91.7	62.9	96.3	88.1	95.3		75.5	94.1	(4.4)	63.3	27.2
NOB1^	57.5	80.6	64.8	41.0	55.6	75.5					
NOB2^	86.5	72.2	90.8	78.7	87.0	94.1					
TUF^	29.3	(5.6)	18.3	37.2	22.0	(4.4)					
FYT1^	32.1	50.3	43.4	21.0	38.1	63.3					
FYT2^	58.3	10.4	48.8	66.4	53.0	27.2					

**Daily R-Squared**  
**US Cash Treasuries Spreads (Yield)**

Symbol	2/10	2/5	2/30	5/10	5/30	10/30	NOB1^	NOB2^	TUF^	FYT1^	FYT2^
2/10		0.45	0.98	0.93	0.95	0.84	0.33	0.75	0.09	0.10	0.34
2/5	0.45		0.45	0.21	0.29	0.40	0.65	0.52	0.00	0.25	0.01
2/30	0.98	0.45		0.91	0.97	0.93	0.42	0.82	0.03	0.19	0.24
5/10	0.93	0.21	0.91		0.97	0.78	0.17	0.62	0.14	0.04	0.44
5/30	0.95	0.29	0.97	0.97		0.91	0.31	0.76	0.05	0.15	0.28
10/30	0.84	0.40	0.93	0.78	0.91		0.57	0.89	0.00	0.40	0.07
NOB1^	0.33	0.65	0.42	0.17	0.31	0.57					
NOB2^	0.75	0.52	0.82	0.62	0.76	0.89					
TUF^	0.09	0.00	0.03	0.14	0.05	0.00					
FYT1^	0.10	0.25	0.19	0.04	0.15	0.40					
FYT2^	0.34	0.01	0.24	0.44	0.28	0.07					

^ See notes page

Daily Correlations		
Symbol	GC	YG
emini SP	(74.6)	(74.6)
5\$ Dow Futures	(69.3)	(69.4)
WTI Crude	47.9	48.0
Brent Crude	37.6	37.8
USDJPY	(85.4)	(85.4)
EURUSD	42.7	43.1
EURJPY	(65.3)	(65.0)
Euro	34.6	35.1
Yen	84.0	84.0
Swiss Fr	61.9	62.3
Canadian \$	(14.4)	(14.3)
2yr Yield	(65.4)	(65.5)
5yr Yield	(65.3)	(65.4)
10yr Yield	(59.9)	(60.0)
30yr Yield	(61.8)	(61.8)
ZT	36.8	37.3
ZF	55.6	55.8
ZN	72.2	72.3
ZB	70.2	70.0

Daily R-Squared		
Symbol	GC	YG
emini SP	0.56	0.56
5\$ Dow Futures	0.48	4.82
WTI Crude	0.23	0.23
Brent Crude	0.14	0.14
USDJPY	0.73	0.73
EURUSD	0.18	0.19
EURJPY	0.43	0.42
Euro	0.12	0.12
Yen	0.71	0.71
Swiss Fr	0.38	0.39
Canadian \$	0.02	0.02
2yr Yield	0.43	0.43
5yr Yield	0.43	0.43
10yr Yield	0.36	0.36
30yr Yield	0.38	0.38
ZT	0.14	0.14
ZF	0.31	0.31
ZN	0.52	0.52
ZB	0.49	0.49

Note: YG old ecbot gold, now on CME (used to be eCbot). GC is Globex/Nymex Gold.

This matrix is set-up to have the cells automatically highlight themselves if there's an R-Squared greater than 70%.

Daily Correlations								
Symbol	USDJPY	EURUSD	EURJPY	Euro	Yen	Swiss Fr	Canadian \$	
USDJPY		(41.8)		82.1	(32.2)	(99.8)	(67.2)	57.5
EURUSD	(41.8)			17.5	98.4	41.7	92.7	(6.7)
EURJPY	82.1	17.5		26.8	(81.9)	(14.6)	58.5	Cash
Euro	(32.2)	98.4	26.8		32.7	90.7	(1.3)	Globex
Yen	(99.8)	41.7	(81.9)	32.7		67.8	(59.3)	Globex
Swiss Fr	(67.2)	92.7	(14.6)	90.7	67.8		(30.9)	Globex
Canadian \$	57.5	(6.7)	58.5	(1.3)	(59.3)	(30.9)		Globex
emini SP	94.2	(47.8)	72.3	(42.0)	(95.6)	(73.0)	59.8	Globex
5\$ Dow Futures	89.8	(56.9)	61.9	(52.2)	(91.5)	(79.1)	58.1	Globex
WTI Crude	(20.4)	67.6	20.7	69.4	19.4	60.2	30.2	Gibx / Nymex
Brent Crude	(7.1)	70.2	(7.1)	72.5	29.7	65.2	40.8	ICE
2yr Yield	92.5	(54.5)	66.1	(48.1)	(93.4)	(78.1)	72.0	BTEC
5yr Yield	93.5	(45.1)	73.2	(38.6)	(94.8)	(71.5)	74.9	BTEC
10yr Yield	88.8	(52.7)	63.3	(45.4)	(90.4)	(72.6)	65.5	BTEC
30yr Yield	79.2	(41.8)	59.6	(31.4)	(80.2)	(54.9)	40.2	BTEC
ZT	(69.1)	69.4	(31.8)	67.4	70.7	82.3	(62.7)	Globex
ZF	(88.4)	46.2	(67.1)	40.5	90.3	70.3	(75.7)	Globex
ZN	(95.5)	34.8	(81.8)	26.0	96.6	61.3	(67.5)	Globex
ZB	(83.0)	3.1	(87.8)	(7.7)	83.5	28.8	(50.3)	Globex

Daily R-Squared							
Symbol	USDJPY	EURUSD	EURJPY	Euro	Yen	Swiss Fr	Canadian \$
USDJPY		0.17	0.67	0.10	1.00	0.45	0.33
EURUSD	0.17		0.03	0.97	0.17	0.86	0.00
EURJPY	0.67	0.03		0.07	0.67	0.02	0.34
Euro	0.10	0.97	0.07		0.11	0.82	0.00
Yen	1.00	0.17	0.67	0.11		0.46	0.35
Swiss Fr	0.45	0.86	0.02	0.82	0.46		0.10
Canadian \$	0.33	0.00	0.34	0.00	0.35	0.10	
emini SP	0.89	0.23	0.52	0.18	0.91	0.53	0.36
5\$ Dow Futures	0.81	0.32	0.38	0.27	0.84	0.63	0.34
WTI Crude	0.04	0.46	0.04	0.48	0.04	0.36	0.09
Brent Crude	0.01	0.49	0.01	0.53	0.09	0.43	0.17
2yr Yield	0.85	0.30	0.44	0.23	0.87	0.61	0.52
5yr Yield	0.87	0.20	0.54	0.15	0.90	0.51	0.56
10yr Yield	0.79	0.28	0.40	0.21	0.82	0.53	0.43
30yr Yield	0.63	0.17	0.36	0.10	0.64	0.30	0.16
ZT	0.48	0.48	0.10	0.45	0.50	0.68	0.39
ZF	0.78	0.21	0.45	0.16	0.82	0.49	0.57
ZN	0.91	0.12	0.67	0.07	0.93	0.38	0.46
ZB	0.69	0.00	0.77	0.01	0.70	0.08	0.25

This matrix is set-up to have the cells automatically highlight themselves if there's an R-Squared greater than 70%.

q  
6      **5YR BASIS**  
2      **10YR BASIS**  
9      **30YR BASIS**  
45     2/10      This page contains notes for me.  
47     2/5  
46     2/30  
48     5/10  
49     5/30  
44     10/30  
4      TUF1^  
50     FYT1^  
3      FYT2^  
1      NOB1^  
33     NOB2^

**US Index Futures****Daily Correlations**

	Globex Emini SP	Globex 5\$ Dow Futrs	Exchange
USDJPY	94.2	89.8	Cash
EURUSD	(47.8)	(56.9)	Cash
EURJPY	72.3	61.9	Cash
Euro	(42.0)	(52.2)	Globex
Yen	(95.6)	(91.5)	Globex
Swiss Fr	(73.0)	(79.1)	Globex
Canadian \$	59.8	58.1	Globex
WTI Crude	(27.2)	(32.6)	Glbx / Nymx
Brent Crude	(11.8)	(18.3)	ICE
2yr Yield	93.5	92.9	BTEC
5yr Yield	94.5	92.7	BTEC
10yr Yield	90.3	89.8	BTEC
30yr Yield	73.3	70.6	BTEC
ZT	(81.7)	(87.5)	Globex
ZF	(93.3)	(93.1)	Globex
ZN	(92.5)	(88.6)	Globex
ZB	(70.3)	(61.5)	Globex
GC	(74.6)	(69.3)	Glbx / Nymx
YG	(74.6)	(69.4)	Globex

**R-Squared**

	Globex Emini SP	Globex 5\$ Dow Futrs	Exchange
USDJPY	0.89	0.81	Cash
EURUSD	0.23	0.32	Cash
EURJPY	0.52	0.38	Cash
Euro	0.18	0.27	Globex
Yen	0.91	0.84	Globex
Swiss Fr	0.53	0.63	Globex
Canadian \$	0.36	0.34	Globex
WTI Crude	0.07	0.11	Glbx / Nymx
Brent Crude	0.01	0.03	ICE
2yr Yield	0.87	0.86	BTEC
5yr Yield	0.89	0.86	BTEC
10yr Yield	0.81	0.81	BTEC
30yr Yield	0.54	0.50	BTEC
ZT	0.67	0.77	Globex
ZF	0.87	0.87	Globex
ZN	0.86	0.79	Globex
ZB	0.49	0.38	Globex
GC	0.56	0.48	Glbx / Nymx
YG	0.56	0.48	Globex