# The Morning Email: Correlations & R-Squared

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One contract may be correlating with another but does that mean there's causation. You must ask, "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

**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 US Cash Treasuries (Yield) | | | | Daily Correlations US Bonds/Notes (CBOT) | | | |
|---|---|---|---|---|---|---|---|---|
| | 2yr Yield | 5yr Yield | 10yr Yield | 30yr Yield | ZT | ZF | ZN | ZB |
| 5YR BASIS | (36.2) | (55.2) | (56.0) | (37.6) | 28.7 | 43.4 | 46.0 | 36.5 |
| 10YR BASIS | (36.8) | (37.9) | (43.5) | (35.9) | 26.1 | 32.0 | 24.5 | 19.9 |
| 30YR BASIS | (52.8) | (49.9) | (57.2) | (68.2) | 48.0 | 48.6 | 46.8 | 48.7 |
| 2/10 | 44.3 | 62.6 | 61.1 | 47.9 | (41.6) | (54.7) | (62.1) | (53.3) |
| 2/5 | 56.9 | 73.4 | 69.6 | 55.0 | (56.2) | (67.2) | (73.5) | (65.3) |
| 2/30 | 22.1 | 30.5 | 35.0 | 43.4 | (20.9) | (26.6) | (34.0) | (33.2) |
| 5/10 | (61.1) | (64.6) | (57.0) | (46.1) | 65.7 | 66.0 | 66.5 | 63.5 |
| 5/30 | (48.1) | (60.6) | (53.3) | (31.1) | 48.1 | 56.5 | 58.3 | 49.6 |
| 10/30 | (36.9) | (52.9) | (46.5) | (20.5) | 34.6 | 46.3 | 48.8 | 37.9 |
| TUF1^ | 91.9 | 98.0 | 97.0 | 89.3 | (90.2) | (96.6) | (98.0) | (94.7) |

^ See notes page

| | 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 |
| 5YR BASIS | 0.13 | 0.30 | 0.31 | 0.14 | 0.08 | 0.19 | 0.21 | 0.13 |
| 10YR BASIS | 0.14 | 0.14 | 0.19 | 0.13 | 0.07 | 0.10 | 0.06 | 0.04 |
| 30YR BASIS | 0.28 | 0.25 | 0.33 | 0.47 | 0.23 | 0.24 | 0.22 | 0.24 |
| 2/10 | 0.20 | 0.39 | 0.37 | 0.23 | 0.17 | 0.30 | 0.39 | 0.28 |
| 2/5 | 0.32 | 0.54 | 0.48 | 0.30 | 0.32 | 0.45 | 0.54 | 0.43 |
| 2/30 | 0.05 | 0.09 | 0.12 | 0.19 | 0.04 | 0.07 | 0.12 | 0.11 |
| 5/10 | 0.37 | 0.42 | 0.32 | 0.21 | 0.43 | 0.44 | 0.44 | 0.40 |
| 5/30 | 0.23 | 0.37 | 0.28 | 0.10 | 0.23 | 0.32 | 0.34 | 0.25 |
| 10/30 | 0.14 | 0.28 | 0.22 | 0.04 | 0.12 | 0.21 | 0.24 | 0.14 |
| TUF1^ | 0.84 | 0.96 | 0.94 | 0.80 | 0.81 | 0.93 | 0.96 | 0.90 |

^ 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 | 96.6 | 96.4 | 95.5 | (99.0) | (98.9) | (95.9) | (95.5) | |
| 5yr Yield | 96.6 | 100.0 | 99.3 | 93.0 | (94.6) | (99.0) | (98.4) | (95.5) | |
| 10yr Yield | 96.4 | 99.3 | 100.0 | 95.1 | (93.5) | (98.2) | (97.9) | (95.7) | |
| 30yr Yield | 95.5 | 93.0 | 95.1 | 100.0 | (95.0) | (94.9) | (94.9) | (96.8) | |
| ZT | (99.0) | (94.6) | (93.5) | (95.0) | 100.0 | 98.0 | 95.4 | 96.3 | |
| ZF | (98.9) | (99.0) | (98.2) | (94.9) | 98.0 | 100.0 | 98.7 | 97.3 | |
| ZN | (95.9) | (98.4) | (97.9) | (94.9) | 95.4 | 98.7 | 100.0 | 98.8 | |
| ZB | (95.5) | (95.5) | (95.7) | (96.8) | 96.3 | 97.3 | 98.8 | 100.0 | |
| emini SP | 16.7 | 10.4 | 16.8 | 17.2 | (7.5) | (8.5) | (0.1) | 3.0 | CME |
| Dow Futures | 0.1 | (6.4) | (1.7) | (3.6) | 9.0 | 8.2 | 18.0 | 22.6 | CME/eCbot |
| USDJPY | (23.0) | (16.1) | (15.4) | (30.3) | 32.6 | 23.0 | 28.1 | 39.4 | Cash Market |
| EURUSD | (63.2) | (53.8) | (50.4) | (54.6) | 69.9 | 61.3 | 59.0 | 65.7 | Cash Market |
| EURJPY | (50.1) | (40.9) | (38.6) | (48.0) | 58.6 | 48.8 | 49.5 | 58.8 | Cash Market |
| Crude | (22.9) | (20.8) | (18.9) | (28.8) | 32.7 | 25.9 | 32.2 | 41.4 | 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 | | 0.93 | 0.93 | 0.91 | 0.98 | 0.98 | 0.92 | 0.91 |
| 5yr Yield | 0.93 | | 0.99 | 0.87 | 0.89 | 0.98 | 0.97 | 0.91 |
| 10yr Yield | 0.93 | 0.99 | | 0.90 | 0.87 | 0.96 | 0.96 | 0.92 |
| 30yr Yield | 0.91 | 0.87 | 0.90 | | 0.90 | 0.90 | 0.90 | 0.94 |
| ZT | 0.98 | 0.89 | 0.87 | 0.90 | | 0.96 | 0.91 | 0.93 |
| ZF | 0.98 | 0.98 | 0.96 | 0.90 | 0.96 | | 0.97 | 0.95 |
| ZN | 0.92 | 0.97 | 0.96 | 0.90 | 0.91 | 0.97 | | 0.98 |
| ZB | 0.91 | 0.91 | 0.92 | 0.94 | 0.93 | 0.95 | 0.98 | |
| emini SP | 0.03 | 0.01 | 0.03 | 0.03 | 0.01 | 0.01 | 0.00 | 0.00 |
| Dow Futures | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.03 | 0.05 |
| USDJPY | 0.05 | 0.03 | 0.02 | 0.09 | 0.11 | 0.05 | 0.08 | 0.15 |
| EURUSD | 0.40 | 0.29 | 0.25 | 0.30 | 0.49 | 0.38 | 0.35 | 0.43 |
| EURJPY | 0.25 | 0.17 | 0.15 | 0.23 | 0.34 | 0.24 | 0.24 | 0.35 |
| Crude | 0.05 | 0.04 | 0.04 | 0.08 | 0.11 | 0.07 | 0.10 | 0.17 |

| | | Daily Correlations US Cash Treasuries | | | Daily Correlations US Bonds/Notes (CBOT) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Symbol | 2yr | 5yr | 10yr | ZT | ZF | ZN | Symbol | | Exchange |
| Schatz(2Y) | DG | (81.15) | (79.33) | (78.67) | 81.55 | 79.53 | 80.89 | DG | Schatz(2Y) | EUREX |
| Bobl(5Y) | DL | (83.12) | (81.61) | (80.27) | 79.72 | 80.75 | 78.70 | DL | Bobl(5Y) | EUREX |
| Bund(10Y) | DB | (62.57) | (57.13) | (58.96) | 55.18 | 56.30 | 50.15 | DB | Bund(10Y) | EUREX |

| | | Daily R-Squared US Cash Treasuries | | | Daily R-Squared US Bonds/Notes (CBOT) | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Symbol | 2yr | 5yr | 10yr | ZT | ZF | ZN | Symbol | |
| Schatz(2Y) | DG | 0.66 | 0.63 | 0.62 | 0.67 | 0.63 | 0.65 | DG | Schatz(2Y) |
| Bobl(5Y) | DL | 0.69 | 0.67 | 0.64 | 0.64 | 0.65 | 0.62 | DL | Bobl(5Y) |
| Bund(10Y) | DB | 0.39 | 0.33 | 0.35 | 0.30 | 0.32 | 0.25 | DB | Bund(10Y) |

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.

# Energy & Currencies



## Energies
### Daily Correlations

| | CLA | HOA | RBA | NGA | |
|---|---|---|---|---|---|
| **CLA** | 100.0 | 93.9 | 92.1 | 71.8 | Crude Oil |
| **HOA** | 93.9 | 100.0 | 98.3 | 79.4 | Heating Oil |
| **RBA** | 92.1 | 98.3 | 100.0 | 79.6 | unleaded Gas |
| **NGA** | 71.8 | 79.4 | 79.6 | 100.0 | Nat Gas |
| **DJIA** | 75.0 | 86.5 | 85.5 | 58.6 | Dow Cash |
| **SPC5** | 41.4 | 51.1 | 60.2 | 33.2 | S&P 500 Cash |
| **EURUSD** | 77.1 | 67.9 | 64.0 | 58.8 | € / $ |
| **EURJPY** | 88.1 | 79.8 | 76.6 | 59.5 | € / ¥ |
| **USDJPY** | 90.7 | 85.1 | 83.4 | 52.9 | $ / ¥ |
| **GCA** | (19.8) | (41.2) | (46.6) | (29.3) | Gold |

## Energies
### Daily R-Squared

| | CLA | HOA | RBA | NGA | | Exchange |
|---|---|---|---|---|---|---|
| **CLA** | | 0.88 | 0.85 | 0.52 | Crude Oil | CME / Nymex |
| **HOA** | 0.88 | | 0.97 | 0.63 | Heating Oil | CME / Nymex |
| **RBA** | 0.85 | 0.97 | | 0.63 | unleaded Gas | CME / Nymex |
| **NGA** | 0.52 | 0.63 | 0.63 | | Nat Gas | CME / Nymex |
| **DJIA** | 0.56 | 0.75 | 0.73 | 0.34 | Dow Cash | NYSE (Cash) |
| **SPC5** | 0.17 | 0.26 | 0.36 | 0.11 | S&P 500 Cash | Cash |
| **EURUSD** | 0.59 | 0.46 | 0.41 | 0.35 | € / $ | Cash |
| **EURJPY** | 0.78 | 0.64 | 0.59 | 0.35 | € / ¥ | Cash |
| **USDJPY** | 0.82 | 0.72 | 0.70 | 0.28 | $ / ¥ | Cash |
| **GCA** | 0.04 | 0.17 | 0.22 | 0.09 | Gold | Comex |

## Currencies
### Daily Correlations

| | EURUSD | EURJPY | USDJPY | GBPEUR | |
|---|---|---|---|---|---|
| **EURUSD** | 100.0 | 96.1 | 77.6 | (25.9) | € / $ |
| **EURJPY** | 96.1 | 100.0 | 92.0 | (22.2) | € / ¥ |
| **USDJPY** | 77.6 | 92.0 | 100.0 | (11.8) | $ / ¥ |
| **Euro** | 99.1 | 92.2 | 67.7 | (29.8) | € |
| **Yen** | (70.7) | (88.2) | (99.3) | 11.7 | ¥ |
| **Swiss Fr** | 95.2 | 83.6 | 53.6 | (20.3) | CHF |
| **Canadain $** | 72.8 | 69.2 | 54.5 | 41.3 | C$ |

## Currencies
### Daily R-Squared

| | EURUSD | EURJPY | USDJPY | GBPEUR | | Exchange |
|---|---|---|---|---|---|---|
| **EURUSD** | | 0.92 | 0.60 | 0.07 | € / $ | Cash |
| **EURJPY** | 0.92 | | 0.85 | 0.05 | € / ¥ | Cash |
| **USDJPY** | 0.60 | 0.85 | | 0.01 | $ / ¥ | Cash |
| **Euro** | 0.98 | 0.85 | 0.46 | 0.09 | € | CME/Globex |
| **Yen** | 0.50 | 0.78 | 0.99 | 0.01 | ¥ | CME/Globex |
| **Swiss Fr** | 0.91 | 0.70 | 0.29 | 0.04 | CHF | CME/Globex |
| **Canadain $** | 0.53 | 0.48 | 0.30 | 0.17 | C$ | CME/Globex |

## Currencies
### Daily Correlations

| | Euro | Yen | Swiss Fr | Canadain $ | |
|---|---|---|---|---|---|
| **Euro** | 100.0 | (64.4) | 96.7 | 68.9 | € |
| **Yen** | (64.4) | 100.0 | (48.6) | (53.8) | ¥ |
| **Swiss Fr** | 96.7 | (48.6) | 100.0 | 68.2 | CHF |
| **Canadain $** | 68.7 | (50.5) | 68.9 | 100.0 | C$ |

## Currencies
### Daily R-Squared

| | Euro | Yen | Swiss Fr | Canadain $ | | Exchange |
|---|---|---|---|---|---|---|
| **Euro** | | 0.42 | 0.94 | 0.47 | € | CME/Globex |
| **Yen** | 0.42 | | 0.24 | 0.29 | ¥ | CME/Globex |
| **Swiss Fr** | 0.94 | 0.24 | | 0.46 | CHF | CME/Globex |
| **Canadain $** | 0.47 | 0.26 | 0.47 | | C$ | CME/Globex |

Notes:
EURUSD, EURJPY, USDJPY, & USDGBP are all cash market products.
Euro, Yen, Swiss Fr, Canandian $, & 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 treasuries to help with quick visual interpretation.

# US Treasury Basis



**Daily Correlations**
**Treasury Basis^**

| | 5YR BASIS | 10YR BASIS | 30YR BASIS | q |
|---|---|---|---|---|
| emini SP | (25.4) | (84.9) | (64.8) | |
| 5$ Dow Futures | (16.4) | (75.9) | (47.2) | |
| USDJPY | (35.6) | (48.5) | (10.4) | |
| EURUSD | (20.0) | (18.4) | (6.6) | |
| EURJPY | (28.7) | (32.5) | (8.1) | |
| Crude | (23.1) | (48.3) | (16.0) | |
| TUF1^ | (54.6) | (26.8) | (41.6) | 4 |
| 2/10 | (78.1) | (14.2) | (26.4) | 45 |
| 2/5 | (71.1) | (4.8) | (14.2) | 47 |
| 2/30 | (46.4) | (17.8) | (66.1) | 46 |
| 5/10 | 18.1 | (21.5) | (23.8) | 48 |
| 5/30 | 47.0 | (7.1) | (30.2) | 49 |
| 10/30 | 57.7 | 1.1 | (30.7) | 44 |
| ZT | 28.7 | 26.1 | 28.7 | |
| ZF | 43.4 | 32.0 | 43.4 | |
| ZN | 46.0 | 24.5 | 46.0 | |
| ZB | 36.5 | 19.9 | 36.5 | |

**Daily R-Squared**
**Treasury Basis**

| | 5YR BASIS | 10YR BASIS | 30YR BASIS | Exchange |
|---|---|---|---|---|
| emini SP | 0.06 | 0.72 | 0.42 | Globex |
| 5$ Dow Futures | 0.03 | 0.58 | 0.22 | Globex |
| USDJPY | 0.13 | 0.23 | 0.01 | Cash |
| EURUSD | 0.04 | 0.03 | 0.00 | Cash |
| EURJPY | 0.08 | 0.11 | 0.01 | Cash |
| Crude | 0.05 | 0.23 | 0.03 | CME / NYMEX |
| TUF1^ | 0.30 | 0.07 | 0.17 | CME / NYMEX |
| 2/10 | 0.61 | 0.02 | 0.07 | BrokerTec |
| 2/5 | 0.51 | 0.00 | 0.02 | BrokerTec |
| 2/30 | 0.22 | 0.03 | 0.44 | BrokerTec |
| 5/10 | 0.03 | 0.05 | 0.06 | BrokerTec |
| 5/30 | 0.22 | 0.00 | 0.09 | BrokerTec |
| 10/30 | 0.33 | 0.00 | 0.09 | BrokerTec |
| ZT | 0.08 | 0.07 | 0.08 | Globex |
| ZF | 0.19 | 0.10 | 0.19 | Globex |
| ZN | 0.21 | 0.06 | 0.21 | Globex |
| ZB | 0.13 | 0.04 | 0.13 | 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 | | 95.2 | 66.5 | (36.1) | (59.9) | (66.8) | 28.2 | 4.9 | 70.1 | 73.7 | 48.2 |
| 2/5 | 95.2 | | 47.0 | (62.8) | (78.8) | (80.0) | 43.5 | 15.6 | 80.2 | 78.4 | 61.0 |
| 2/30 | 66.5 | 47.0 | | 26.2 | 17.3 | 11.1 | 21.7 | 21.7 | 34.4 | 52.5 | 31.6 |
| 5/10 | (36.1) | (62.8) | 26.2 | | 88.3 | 74.1 | (61.3) | (35.3) | (66.5) | (51.8) | (63.3) |
| 5/30 | (59.9) | (78.8) | 17.3 | 88.3 | | 97.0 | (33.4) | (2.3) | (65.5) | (50.9) | (45.9) |
| 10/30 | (66.8) | (80.0) | 11.1 | 74.1 | 97.0 | | (15.9) | 15.1 | (59.1) | (45.8) | (32.7) |
| NOB1^ | 28.2 | 43.5 | 21.7 | (61.3) | (33.4) | (15.9) | | | | | |
| NOB2^ | 4.9 | 15.6 | 21.7 | (35.3) | (2.3) | 15.1 | | | | | |
| TUF^ | 70.1 | 80.2 | 34.4 | (66.5) | (65.5) | (59.1) | | | | | |
| FYT1^ | 73.7 | 78.4 | 52.5 | (51.8) | (50.9) | (45.8) | | | | | |
| FYT2^ | 48.2 | 61.0 | 31.6 | (63.3) | (45.9) | (32.7) | | | | | |

## 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 | | 0.91 | 0.44 | 0.13 | 0.36 | 0.45 | 0.08 | 0.00 | 0.49 | 0.54 | 0.23 |
| 2/5 | 0.91 | | 0.22 | 0.39 | 0.62 | 0.64 | 0.19 | 0.02 | 0.64 | 0.62 | 0.37 |
| 2/30 | 0.44 | 0.22 | | 0.07 | 0.03 | 0.01 | 0.05 | 0.05 | 0.12 | 0.28 | 0.10 |
| 5/10 | 0.13 | 0.39 | 0.07 | | 0.78 | 0.55 | 0.38 | 0.12 | 0.44 | 0.27 | 0.40 |
| 5/30 | 0.36 | 0.62 | 0.03 | 0.78 | | 0.94 | 0.11 | 0.00 | 0.43 | 0.26 | 0.21 |
| 10/30 | 0.45 | 0.64 | 0.01 | 0.55 | 0.94 | | 0.03 | 0.02 | 0.35 | 0.21 | 0.11 |
| NOB1^ | 0.08 | 0.19 | 0.05 | 0.38 | 0.11 | 0.03 | | | | | |
| NOB2^ | 0.00 | 0.02 | 0.05 | 0.12 | 0.00 | 0.02 | | | | | |
| TUF^ | 0.49 | 0.64 | 0.12 | 0.44 | 0.43 | 0.35 | | | | | |
| FYT1^ | 0.54 | 0.62 | 0.28 | 0.27 | 0.26 | 0.21 | | | | | |
| FYT2^ | 0.23 | 0.37 | 0.10 | 0.40 | 0.21 | 0.11 | | | | | |

^ See notes page

# Gold



**Daily Correlations**

| Symbol | GC | Exchange |
|---|---|---|
| emini SP | (66.6) | Globex |
| 5$ Dow Futures | (61.5) | Globex |
| WTI Crude | (19.8) | Glbx / Nymx |
| Brent Crude | (28.9) | ICE |
| USDJPY | (13.2) | Cash |
| EURUSD | 33.8 | Cash |
| EURJPY | 16.0 | Cash |
| Euro | 38.3 | Globex |
| Yen | 17.3 | Globex |
| Swiss Fr | 48.6 | Globex |
| Canadain $ | (16.3) | Globex |
| 2yr Yield | (47.4) | Broker Tec |
| 5yr Yield | (32.0) | Broker Tec |
| 10yr Yield | (35.1) | Broker Tec |
| 30yr Yield | (35.8) | Broker Tec |
| ZT | 42.7 | Globex |
| ZF | 36.2 | Globex |
| ZN | 23.9 | Globex |
| ZB | 25.8 | Globex |

**Daily R-Squared**

| Symbol | GC | Exchange |
|---|---|---|
| emini SP | 0.44 | Globex |
| $ Dow Futures | 0.38 | Globex |
| WTI Crude | 0.04 | Glbx / Nymx |
| Brent Crude | 0.08 | ICE |
| USDJPY | 0.02 | Cash |
| EURUSD | 0.11 | Cash |
| EURJPY | 0.03 | Cash |
| Euro | 0.15 | Globex |
| Yen | 0.03 | Globex |
| Swiss Fr | 0.24 | Globex |
| Canadain $ | 0.03 | Globex |
| 2yr Yield | 0.22 | Broker Tec |
| 5yr Yield | 0.10 | Broker Tec |
| 10yr Yield | 0.12 | Broker Tec |
| 30yr Yield | 0.13 | Broker Tec |
| ZT | 0.18 | Globex |
| ZF | 0.13 | Globex |
| ZN | 0.06 | Globex |
| ZB | 0.07 | Globex |

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

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

# Currencies



## Daily Correlations

| Symbol | USDJPY | EURUSD | EURJPY | Euro | Yen | Swiss Fr | Canadian $ | Exchange |
|---|---|---|---|---|---|---|---|---|
| USDJPY | | 77.6 | 92.0 | 67.7 | (99.3) | 53.6 | 54.5 | Cash |
| EURUSD | 77.6 | | 96.1 | 99.1 | (70.7) | 95.2 | 72.8 | Cash |
| EURJPY | 92.0 | 96.1 | | 92.2 | (88.2) | 83.6 | 69.2 | Cash |
| Euro | 67.7 | 99.1 | 92.2 | | (64.4) | 96.7 | 68.7 | Globex |
| Yen | (99.3) | (70.7) | (88.2) | (64.4) | | (48.6) | (50.5) | Globex |
| Swiss Fr | 53.6 | 95.2 | 83.6 | 96.7 | (48.6) | | 68.9 | Globex |
| Canadain $ | 54.5 | 72.8 | 69.2 | 68.7 | (50.5) | 68.9 | | Globex |
| emini SP | 63.3 | 33.9 | 48.7 | 26.2 | (67.4) | 13.0 | 57.6 | Globex |
| 5$ Dow Futures | 76.3 | 45.0 | 61.5 | 36.3 | (78.2) | 23.9 | 67.5 | Globex |
| WTI Crude | 90.7 | 77.1 | 88.1 | 73.6 | (89.6) | 59.1 | 68.4 | Glbx / Nymx |
| Brent Crude | 93.0 | 71.8 | 93.0 | 66.1 | (91.8) | 52.2 | 71.5 | ICE |
| 2yr Yield | (23.0) | (63.2) | (50.1) | (63.6) | 13.5 | (78.2) | (58.1) | BTEC |
| 5yr Yield | (16.1) | (53.8) | (40.9) | (53.2) | 6.7 | (69.2) | (66.4) | BTEC |
| 10yr Yield | (15.4) | (50.4) | (38.6) | (49.7) | 5.6 | (65.8) | (60.4) | BTEC |
| 30yr Yield | (30.3) | (54.6) | (48.0) | (54.1) | 19.9 | (67.2) | (51.1) | BTEC |
| ZT | 32.6 | 69.9 | 58.6 | 70.2 | (23.2) | 82.6 | 63.2 | Globex |
| ZF | 23.0 | 61.3 | 48.8 | 61.2 | (13.5) | 75.8 | 66.0 | Globex |
| ZN | 28.1 | 59.0 | 49.5 | 57.5 | (18.5) | 70.6 | 70.9 | Globex |
| ZB | 39.4 | 65.7 | 58.8 | 63.9 | (29.8) | 75.0 | 69.7 | Globex |

## Daily R-Squared

| Symbol | USDJPY | EURUSD | EURJPY | Euro | Yen | Swiss Fr | Canadian $ |
|---|---|---|---|---|---|---|---|
| USDJPY | | 0.60 | 0.85 | 0.46 | 0.99 | 0.29 | 0.30 |
| EURUSD | 0.60 | | 0.92 | 0.98 | 0.50 | 0.91 | 0.53 |
| EURJPY | 0.85 | 0.92 | | 0.85 | 0.78 | 0.70 | 0.48 |
| Euro | 0.46 | 0.98 | 0.85 | | 0.42 | 0.94 | 0.47 |
| Yen | 0.99 | 0.50 | 0.78 | 0.42 | | 0.24 | 0.26 |
| Swiss Fr | 0.29 | 0.91 | 0.70 | 0.94 | 0.24 | | 0.47 |
| Canadain $ | 0.30 | 0.53 | 0.48 | 0.47 | 0.26 | 0.47 | |
| emini SP | 0.40 | 0.11 | 0.24 | 0.07 | 0.45 | 0.02 | 0.33 |
| 5$ Dow Futures | 0.58 | 0.20 | 0.38 | 0.13 | 0.61 | 0.06 | 0.46 |
| WTI Crude | 0.82 | 0.59 | 0.78 | 0.54 | 0.80 | 0.35 | 0.47 |
| Brent Crude | 0.86 | 0.52 | 0.86 | 0.44 | 0.84 | 0.27 | 0.51 |
| 2yr Yield | 0.05 | 0.40 | 0.25 | 0.40 | 0.02 | 0.61 | 0.34 |
| 5yr Yield | 0.03 | 0.29 | 0.17 | 0.28 | 0.00 | 0.48 | 0.44 |
| 10yr Yield | 0.02 | 0.25 | 0.15 | 0.25 | 0.00 | 0.43 | 0.37 |
| 30yr Yield | 0.09 | 0.30 | 0.23 | 0.29 | 0.04 | 0.45 | 0.26 |
| ZT | 0.11 | 0.49 | 0.34 | 0.49 | 0.05 | 0.68 | 0.40 |
| ZF | 0.05 | 0.38 | 0.24 | 0.37 | 0.02 | 0.57 | 0.44 |
| ZN | 0.08 | 0.35 | 0.24 | 0.33 | 0.03 | 0.50 | 0.50 |
| ZB | 0.15 | 0.43 | 0.35 | 0.41 | 0.09 | 0.56 | 0.49 |

If there's an R-Squared greater than 70%, the cell will automatically highlight to blue.

| q | |
|---|---|
| 6 | **5YR BASIS** |
| 2 | **10YR BASIS** |
| 9 | **30YR BASIS** |
| 45 | **2/10** |
| 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^ |

This page contains notes for me.

# US Index Futures



**Daily Correlations**

| | Globex Emini SP | Globex 5$ Dow Futrs | Exchange |
|---|---|---|---|
| USDJPY | 63.3 | 76.3 | Cash |
| EURUSD | 33.9 | 45.0 | Cash |
| EURJPY | 48.7 | 61.5 | Cash |
| Euro | 26.2 | 36.3 | Globex |
| Yen | (67.4) | (78.2) | Globex |
| Swiss Fr | 13.0 | 23.9 | Globex |
| Canadain $ | 57.6 | 67.5 | Globex |
| WTI Crude | 61.1 | 73.8 | Glbx / Nymx |
| Brent Crude | 68.6 | 82.2 | ICE |
| 2yr Yield | 16.7 | 0.1 | BTEC |
| 5yr Yield | 10.4 | (6.4) | BTEC |
| 10yr Yield | 16.8 | (1.7) | BTEC |
| 30yr Yield | 17.2 | (3.6) | BTEC |
| ZT | (7.5) | 9.0 | Globex |
| ZF | (8.5) | 8.2 | Globex |
| ZN | (0.1) | 18.0 | Globex |
| ZB | 3.0 | 22.6 | Globex |
| GC | (66.6) | (61.5) | Glbx / Comex |

**R-Squared**

| | Globex Emini SP | Globex 5$ Dow Futrs | Exchange |
|---|---|---|---|
| USDJPY | 0.40 | 0.58 | Cash |
| EURUSD | 0.11 | 0.20 | Cash |
| EURJPY | 0.24 | 0.38 | Cash |
| Euro | 0.07 | 0.13 | Globex |
| Yen | 0.45 | 0.61 | Globex |
| Swiss Fr | 0.02 | 0.06 | Globex |
| Canadain $ | 0.33 | 0.46 | Globex |
| WTI Crude | 0.37 | 0.54 | Glbx / Nymx |
| Brent Crude | 0.47 | 0.68 | ICE |
| 2yr Yield | 0.03 | 0.00 | BTEC |
| 5yr Yield | 0.01 | 0.00 | BTEC |
| 10yr Yield | 0.03 | 0.00 | BTEC |
| 30yr Yield | 0.03 | 0.00 | BTEC |
| ZT | 0.01 | 0.01 | Globex |
| ZF | 0.01 | 0.01 | Globex |
| ZN | 0.00 | 0.03 | Globex |
| ZB | 0.00 | 0.05 | Globex |
| GC | 0.44 | 0.38 | Glbx / Comex |