12/21/2007 5:44

# The Morning Email: Treasuries

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## Daily Yield Curve

No chart today
CQG is acting up

**30y** **10y** **5y** **2y**


Want something added? Let me know: jgoulding@ghco.com

# Important Econ Releases, Highs & Lows



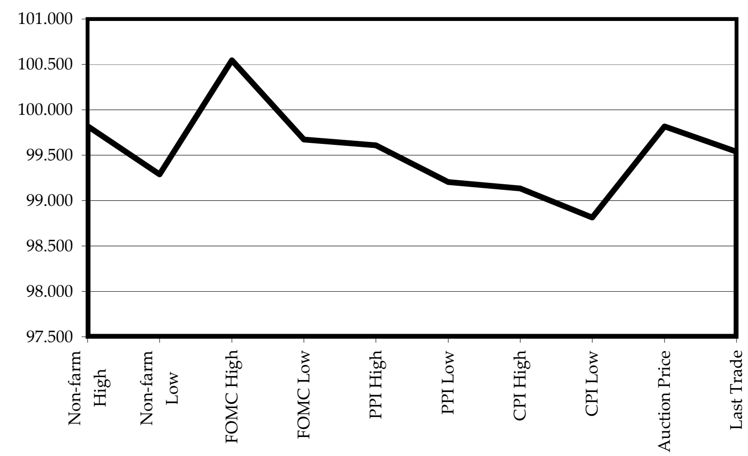
## Economic Releases - 32nds

| | 5y | 10y | ZNH8 | ZBH8 | Date |
|---|---|---|---|---|---|
| Non-farm High | 99.2625 | 101.265 | 113.090 | 116.17 | 12/7/2007 |
| Non-farm Low | 99.0925 | 100.300 | 112.120 | 115.00 | 12/7/2007 |
| FOMC High | 100.1750 | 102.040 | 113.200 | 116.16 | 12/11/2007 |
| FOMC Low | 99.2150 | 101.040 | 112.185 | 115.03 | 12/11/2007 |
| PPI High | 99.1950 | 101.070 | 112.240 | 115.13 | 12/13/2007 |
| PPI Low | 99.0650 | 100.165 | 112.085 | 114.08 | 12/13/2007 |
| CPI High | 99.0425 | 100.130 | 112.075 | 114.07 | 12/14/2007 |
| CPI Low | 98.2600 | 99.295 | 111.240 | 113.19 | 12/14/2007 |
| Auction Price | 99.2616 | 99.056 | | | |
| Last Trade | 99.1720 | 101.135 | 113.065 | 116.00 | 12/21/2007 5:44 |

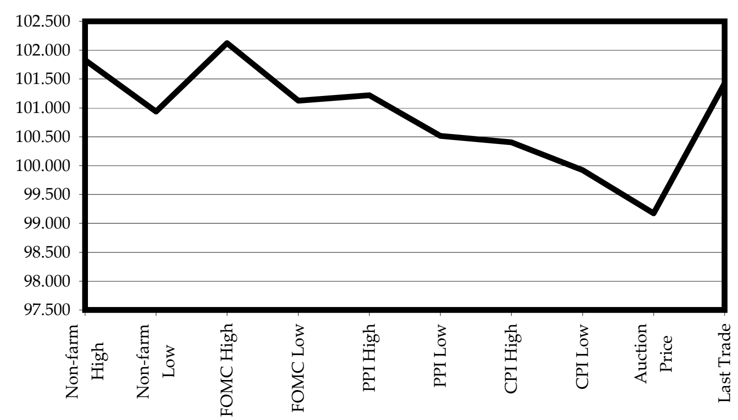
## Auctions - 32nds

| | 2 y | 5y | 10y | 30y |
|---|---|---|---|---|
| Auction Price | 99.299 | 99.262 | 99.056 | 105.103 |
| Auction Yield Stop | 3.159 | 3.415 | 4.353 | 4.666 |
| Actual Auction Date | 11/28/2007 | 11/29/2007 | 11/7/2007 | 11/8/2007 |

5y (**Decimal** )




10y (**Decimal**)




Notes: Cash and futures are adjusted for roll.
Release times are from release to 2pm cdt
{Dec07 to Mch08 Futures roll: ZF = (-12); ZN = (-25); ZB = (+1) [tics]}
r = reopen

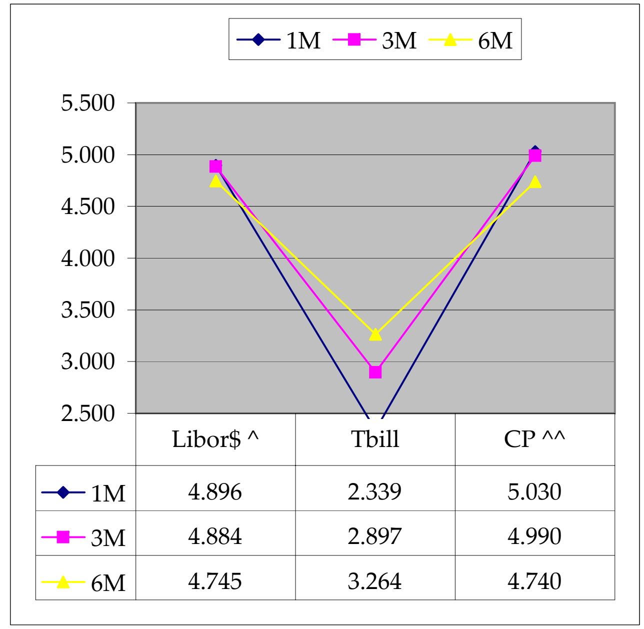
## Quotes



| | Last | Net | High | Low | Open | Volume | SYM NAME |
|---|---|---|---|---|---|---|---|
| | | | 32 nds | | | | |
| TUAH8 | 104.310 | (0.0) | 105.015 | 104.307 | 104.317 | 7,458 | 2y Fut |
| FVAH8 | 110.020 | (0.1) | 110.060 | 110.010 | 110.045 | 11,362 | 5y Fut |
| TYAH8 | 113.065 | (0.1) | 113.120 | 113.045 | 113.100 | 41,096 | 10y Fut |
| USAH8 | 116.000 | (0) | 116.090 | 115.270 | 116.070 | 13,490 | 30y Fut |
| | **Last** | **Net** | **High** | **Low** | **Open** | **Volume** | **SYM NAME** |
| BUS02P | 100.002 | (1.2) | 100.015 | 100.002 | 100.012 | na | 2y Cash |
| BUS05P | 99.172 | (2.7) | 99.200 | 99.157 | 99.185 | na | 5y Cash |
| BUS10P | 101.130 | (6.0) | 101.185 | 101.105 | 101.170 | na | 10y Cash |
| BUS30P | 108.020 | (12) | 108.130 | 107.290 | 108.050 | na | 30y Cash |
| | **Last** | **Net** | **High** | **Low** | **Open** | **Volume** | **SYM NAME** |
| BUS02Y | 3.117 | 2.90 | 3.129 | 3.087 | 3.117 | na | 2y Yield |
| BUS05Y | 3.476 | 2.30 | 3.495 | 3.453 | 3.476 | na | 5y Yield |
| BUS10Y | 4.073 | 2.20 | 4.085 | 4.045 | 4.056 | na | 10y Yield |
| BUS30Y | 4.500 | 2.30 | 4.516 | 4.468 | 4.469 | na | 30y Yield |

| | Libor$ ^ | Tbill | CP ^^ |
|---|---|---|---|
| 1M | 4.896 | 2.339 | 5.030 |
| 3M | 4.884 | 2.897 | 4.990 |
| 6M | 4.745 | 3.264 | 4.740 |
| | **TSY** | **Swap** | **ED Pks ^^^** |
| 2y | 3.120 | 82.25 | 3.743 |
| 5y | 3.477 | 77.75 | |
| 10y | 4.073 | 64.25 | |

| | Libor$ ^ | Repos |
|---|---|---|
| 0/N | 4.303 | 3.000 |
| 1week | 4.391 | 3.050 |
| 2week | 5.055 | 3.400 |




Notes

^Quoted in US Dollars

^^CP = Commercial Paper

^^^ED Pks are colored for pack identifications. Example, the red pack is a 2-yr proxy and is colored red.

Lastly, SYM = Symbol

Stone & McCarthy RESEARCH ASSOCIATES

MarketNews international

**[ All Times Eastern unless otherwise marked ]**

**Yesterday:**

15:20 12/20 **US TSYS/RECAP:** Tsys end off Thu high amid 1) quiet pre-holiday action after 2) earlier safe-haven buying due to insurer/CDO exposure worries. Traders said 3) year-end buying by some pension funds stepped up, with P-STRIPS buying Thu, Wed. 4) Servicers received in 7-15Y US swaps and to lesser extent, 20Y swaps; also receiving to extend duration as gamma bid. 5) Tsys rallied in morning after MBIA shrs -30% on the day, earlier, after MBIA said it has some $8.1B in CDOs of multi sector high-grade collateral 6)STRIPS buyers surfaced. 7) T-bills saw good morning buying amid risk-aversion mood into year-end, while also was buy-and-hold type buying in 5Ys, Street buying in intermediates, bank buying in 2Ys; lvrgd accts did light 10Y selling. 8) Tsys aided too as 10Y swaps drew brisk a.m. receivg; 9) Stocks indexes mildly higher; 11) Fed:CP -$54.7b SA in Dec 19 week; includes -$62.3b in ABCP. 12) Next: Fri: 10am ET results of second TAF; 10am ET Dec. Univ of Mich. consumer sent, and 10:30am ET Tsy annt on next wk's 4wk bill, 2Y,5Y auction size.

15:18 12/20 **US SWAPS:** Spds widen in late trade amid more write downs and as Fitch places MBIA on rating watch negativew on CDO and RMBS review. Earlier, servicer-tied receiving from yesterday saw followthrough as Tsys rallied with the biggest receiving flow in 7s-15s and to a smaller extent in 20s. Better flow was reported in the overnight session, specifically during the Asian session with "aggressive" paying in 10s reported.

According to GovPX:

| Time (ET) | 2Y Swap/Mid | 5Y Swap/Mid | 10Y Swap/Mid | 30Y Swap/Mid |
|---|---|---|---|---|
| Close | +1.00/83.75 | -0.25/78.25 | +0.75/64.50 | +0.50/56.50 |
| 1:10 | +0.25/83.00 | -1.25/77.25 | -0.75/63.00 | -1.25/54.75 |
| 11:40 | +0.00/82.75 | -1.75/76.75 | -1.50/62.25 | -1.75/54.25 |
| 10:10 | +0.75/83.50 | -1.25/77.25 | -0.75/63.00 | -0.75/55.25 |
| 9:00 | -0.50/82.25 | -0.50/78.00 | +0.25/64.00 | +0.00/56.00 |
| Thu Open | -1.50/81.25 | -0.75/77.75 | +0.25/64.00 | +0.00/56.00 |
| Wed 3:00 | -2.75/82.75 | -3.00/78.50 | +0.00/64.00 | +1.25/56.00 |

(cont)

**Overnight:**

06:32 12/21 **TSYS SUMMARY:** U.S. Treasuries are trading lower on Friday, taking cue from bounce in stocks, albeit in thin volume session. US Treasuries traded lower in the Tokyo session after sharp rise in Japanese Government Bond yields as Nikkei-225 index surged 1.5% and in the wake of disappointing Y1.7tln 2-year #264 JGB auction, which was covered 2.37 times vs 3.05 previous. Bond prices continued to edge lower in the London session in line with weakness in German Bunds. However, volumes were extremely thin, with liquidity limited ahead of the holiday season, with Japan's financial markets closed on Monday to observe the Emperor's Birthday holiday, and little is expected to happen on Tuesday since most markets will be closed to observe Christmas Day. To add to the volatility, today is also "quadruple witching" in the US, which is the simultaneous expiry of stock index futures and options and individual stock futures and options. Focus now turns to the results of U.S. Federal Reserve's $20bln 28-day second TAF at 1500GMT.

MarketNews international

08:30 12/20 US DATA: Q3 GDP revision is +4.9%, same as prior; consumption was rev up and inventories revised lower for a more favorable mix that put real final sales +4.0%. Prices: core PCE px +2.0% (rev up 0.2 pt due to banking services gains in new Fed data) vs +1.4% in Q2, but GDP core prices were lower at +1.7%. Corp profits pre-tax are now -$51.8b as financial & mfg profits fell. There is nothing to trade on unless one wants to worry about price revs. Q4 growth is clearly weakening.

| [GDP Compnts: | Q2 | Q3 Adv | Q3 prelim | Q3 Final] |
|---|---|---|---|---|
| Real GDP | +3.8% | +3.9% | +4.9% | +4.9% |
| Final Sales | +3.6% | +3.5% | +3.9% | +4.0% |
| PCE | +1.4% | +3.0% | +2.7% | +2.8% |
| Nonres FixInvest | +11.0% | +7.9% | +9.4% | +9.3% |
| Net Exports | add 1.32 | add 0.93 | add 1.37 | add 1.38 |
| Chg Pvt Invty | add 0.22 | add 0.36 | add 0.98 | add 0.89 |

12:22 12/20 **US DATA REACT:** Steve Wood of Insight Economics says "Manufacturing activity of mid-Atlantic based businesses contracted in December according to the headline figure but grew moderately according to the details. Demand for manufactured products improved as did shipments. Orders backlogs are shrinking and should put downward pressure on production over the next several months. Price pressures eased but remain high along with more expensive energy products. Combined with the Empire State Manufacturing Survey that was reported earlier suggests that the national ISM Manufacturing figure to be released on January 2
will be little changed from its recent weak reading." Analyst Tony Crescenzi of Miller, Tabak calls the Philly data worrisome and consistent with recession.

# Duration, DV01s, Curve Spreads, CF



| | M Duration | DV01 32 | DV01 $ | DV01 Box | CF |
|---|---|---|---|---|---|
| 30y | 15.68 | 5.51 | $1,721 | 11.01 | n/a |
| 10y | 7.99 | 2.61 | $814 | 5.21 | n/a |
| 5y | 4.50 | 1.44 | $450 | 5.76 | n/a |
| 2y | 1.86 | 0.60 | $186 | 2.39 | n/a |
| ZB | 10.28 | 3.90 | $122 | 3.90 | 0.8633 |
| ZN | 5.93 | 2.17 | $68 | 4.33 | 0.8747 |
| ZF | 3.98 | 1.41 | $44 | 2.82 | 0.9159 |
| ZT | 1.90 | 0.64 | $20 | 2.55 | 0.9486 |

**Yield Curve Spreads**

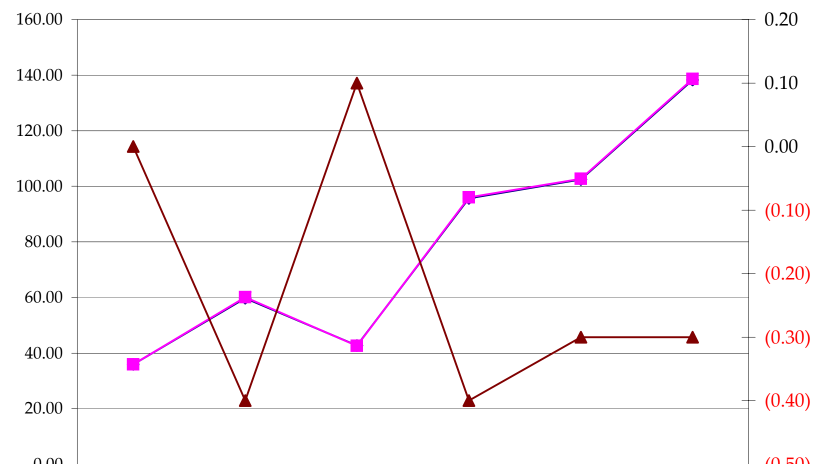
| | Last | 2pm close | Diff |
|---|---|---|---|
| 2/5 | 35.90 | 35.90 | 0.00 |
| 5/10 | 59.70 | 60.10 | (0.40) |
| 10/30 | 42.70 | 42.60 | 0.10 |
| 2/10 | 95.60 | 96.00 | (0.40) |
| 5/30 | 102.40 | 102.70 | (0.30) |
| 2/30 | 138.30 | 138.60 | (0.30) |

DV01 32, said differently, is "how many TICS are in a basis point?".

Example, If **ZN** moves 1~basis point, then, it's moved 2.08 tics (Today, 10/25/07, the value in the box is 2.08).

Since ZN trades in half tics, then, 4.17 boxes = 1 basis point in ZN. (Again, today, 10/25/07, the value in the box is 4.17). Of course the values will be different as you look at this. But, they won't be that much different. So, I think you can get the idea I'm trying to get across.

**Curve Spreads vs 2pm close**




| | 2/5 | 5/10 | 10/30 | 2/10 | 5/30 | 2/30 |
|---|---|---|---|---|---|---|
| Last | 35.90 | 59.70 | 42.70 | 95.60 | 102.40 | 138.30 |
| 2 PM Close | 35.90 | 60.10 | 42.60 | 96.00 | 102.70 | 138.60 |
| Diff | 0.00 | (0.40) | 0.10 | (0.40) | (0.30) | (0.30) |

## Notes

CF = Conversion Factor

MDuration = Modified Macaulay Duration

MDuration & DV01s for Futures are based on proxy issue (CTD)

DV01 Box = Dollar Value of 1 basis point move per Box

## Hedge Ratio's



### US Financial Futures / Eurex Bond

| | ZB | ZN | ZF | ZT |
|---|---|---|---|---|
| Bund (H) | 0.980 | 1.700 | 2.700 | 2.900 |
| Bobl (H) | 0.530 | 0.960 | 1.500 | 1.570 |
| Shatz (H) | 0.210 | 0.380 | 0.580 | 0.630 |

### US Financial Futures

| | ZB | ZN | ZF | ZT |
|---|---|---|---|---|
| ZB | | 1.800 | 2.763 | 3.057 |
| ZN | 0.555 | | 1.535 | 1.698 |
| ZF | 0.362 | 0.652 | | 1.106 |
| ZT | 0.327 | 0.589 | 0.904 | |

### Eurex Bonds

| | Bund (H) | Bobl (H) | Shatz (H) |
|---|---|---|---|
| Bund (H) | 1.0 | 1.7 | 3.4 |
| Bobl (H) | 0.6 | 1.0 | 2.0 |
| Shatz (H) | 0.3 | 0.5 | 1.0 |

### US Treasuries v US Financial Futures

| | 2y | 5y | 10y | 30y |
|---|---|---|---|---|
| ZB | 1.53 | 3.69 | 6.69 | 14.12 |
| ZN | 2.75 | 6.65 | 12.03 | 25.42 |
| ZF | 4.23 | 10.20 | 18.47 | 39.02 |
| ZT | 4.68 | 11.29 | 20.44 | 43.17 |

### US Treasuries v Eurex Bonds

| | 2y | 5y | 10y | 30y |
|---|---|---|---|---|
| Bund (H) | 1.7 | 3.9 | 7.1 | 14.3 |
| Bobl (H) | 3.1 | 7.1 | 12.8 | 25.8 |
| Shatz (H) | 7.8 | 15.9 | 28.8 | 58.1 |

### US Treasuries

| | 2y | 5y | 10y | 30y |
|---|---|---|---|---|
| 2y | | 2.414 | 4.370 | 9.233 |
| 5y | 0.414 | | 1.810 | 3.824 |
| 10y | 0.229 | 0.552 | | 2.113 |
| 30y | 0.108 | 0.261 | 0.473 | |

Note: Any ratio with the Bund, Bobl, or Shatz is from Bloomberg. So, the Bloomberg hedge ratios, in this spreadsheet, are static. Meaning, I only update them once in a while but always on rolls. My hedge ratio's are live, meaning, they're updated in real-time.

## Closes: 2pm CST vs this Morning



| | Cpn | Mty | Close 32 | Close | Last | Diff | Basis Close | Basis Last | Roll |
|---|---|---|---|---|---|---|---|---|---|
| 2y | 3.125 | 11/30/09 | 100.0375 | 3.062 | 3.117 | 0.055 | | | |
| 5y | 3.375 | 11/30/12 | 99.2525 | 3.421 | 3.476 | 0.055 | -46.75 | -40.60 | |
| 10y | 4.250 | 11/17/17 | 101.270 | 4.022 | 4.073 | 0.051 | 81.65 | 76.90 | |
| 30y | 5.000 | 5/15/37 | 109.00 | 4.448 | 4.500 | 0.052 | 267.89 | 250.93 | |

| | Close 32 | Last |
|---|---|---|
| FVAH8 | 110.175 | 110.020 |
| TYAH8 | 113.165 | 113.065 |
| USAH8 | 116.18 | 116.000 |

| | | Roll |
|---|---|---|
| | TUAR1 | -1.2 |
| | FVAR1 | 8.5 |
| Expired | TYAR1 | **27.2** |
| Expired | USAR1 | **21.7** |

These are the 1/4 tic spreads. They are quoted in tics.
.2 = 1/4
.5 = 1/2
.7 = 3/4

**Curve Spreads**

| | Close bps | Last bps |
|---|---|---|
| 2/5 | 35.9 | 35.9 |
| 5/10 | 60.1 | 59.7 |
| 10/30 | 42.6 | 42.7 |
| 2/10 | 96.0 | 95.6 |
| 5/30 | 102.7 | 102.4 |
| 2/30 | 138.6 | 138.3 |


| | 2y | 5y | 10y | 30y |
|---|---|---|---|---|
| 2pm Cls | 3.062 | 3.421 | 4.022 | 4.448 |
| Last | 3.117 | 3.476 | 4.073 | 4.500 |
| Diff | 0.055 | 0.055 | 0.051 | 0.052 |

Notes:
Basis = (Cash Decimal - (Futures Decimal * CF))*32
MDuration for Curve Spreads:
Longer duration minus shorter duration
32 = price is quoted in 32nds

# Cash Duration Matrix



| Cash Duration Matrix | | | | |
|---|---|---|---|---|
| | 2 | 5 | 10 | 30 |
| 2 | **100%** | | | |
| 5 | 41% | **100%** | | |
| 10 | 23% | 56% | **100%** | |
| 30 | 12% | 29% | 51% | **135%** |
| **Cash Matrix [DV01 x Duration]** | | | | |
| | 2 | 5 | 10 | 30 |
| 2 | **$186** | | | |
| 5 | $186 | **$450** | | |
| 10 | $189 | $458 | **$814** | |
| 30 | $204 | $494 | $878 | **$1,721** |
| **Cash Matrix [DV01 over / (under) valued]** | | | | |
| | 2 | 5 | 10 | 30 |
| 2 | | | | |
| 5 | $0 | | | |
| 10 | ($3) | ($8) | | |
| 30 | ($18) | ($44) | ($63) | |
| **Cash Matrix [DV01 over / (under) as %]** | | | | |
| | 2 | 5 | 10 | 30 |
| 2 | | | | |
| 5 | 0.18% | | | |
| 10 | -1.64% | -1.82% | | |
| 30 | -8.70% | -8.87% | -7.19% | |

**What is this? (1):**
2yr cash has X% duration of 5yr cash .

**What is this? (2):**
-2yr cash has DV01 of $202
-Multiply the 2yr DV01 by the percent duration to come up with what the 2yrs DV01 SHOULD be compared to the 5yr.

**What is this? (3):**
-Now you can see the over/under value, based on the DV01, from contract to contract. In this example we are looking at the 2yr compared to the 5yr.

Or you can look at the over/under value as a percentage instead of dollar terms.

# Tic for Tic & Box for Box Matrix



## Tic for Tic Matrix

| | 2y | 5y | 10y | 30y |
|---|---|---|---|---|
| ZT | 0.94 | 2.26 | 4.09 | 8.63 |
| ZF | 0.42 | 1.02 | 1.85 | 3.90 |
| ZN | 0.28 | 0.66 | 1.20 | 2.54 |
| ZB | 0.15 | 0.37 | 0.67 | 1.41 |

| | 2y | 5y | 10y | 30y |
|---|---|---|---|---|
| 2y | 1.00 | 2.41 | 4.37 | 9.23 |
| 5y | 0.41 | 1.00 | 1.81 | 3.82 |
| 10y | 0.23 | 0.55 | 1.00 | 2.11 |
| 30y | 0.11 | 0.26 | 0.47 | 1.00 |

| | ZT | ZF | ZN | ZB |
|---|---|---|---|---|
| ZT | 1.00 | 2.21 | 3.40 | 6.11 |
| ZF | 0.45 | 1.00 | 1.53 | 2.76 |
| ZN | 0.29 | 0.65 | 1.00 | 1.80 |
| ZB | 0.16 | 0.36 | 0.56 | 1.00 |

## Box for Box Matrix

| | 2y | 5y | 10y | 30y |
|---|---|---|---|---|
| ZT | 0.94 | 2.26 | 8.17 | 17.27 |
| ZF | 0.42 | 2.04 | 3.69 | 7.80 |
| ZN | 0.55 | 1.33 | 1.20 | 2.54 |
| ZB | 0.61 | 1.48 | 1.34 | 2.82 |

| | 2y | 5y | 10y | 30y |
|---|---|---|---|---|
| 2y | | 2.41 | 2.19 | 4.62 |
| 5y | 0.41 | | 0.45 | 1.91 |
| 10y | 0.46 | 2.21 | | 2.11 |
| 30y | 0.22 | 0.52 | 0.47 | |

| | 2y | 5y | 10y | 30y |
|---|---|---|---|---|
| ZT | | 2.21 | 6.79 | 24.45 |
| ZF | 0.45 | | 1.53 | 5.53 |
| ZN | 0.15 | 0.65 | | 3.60 |
| ZB | 0.04 | 0.18 | 0.28 | |

## Valuing the Basis

**This page is based on the work of Galen Burghardt.**



| | Basis | | Delivery Basket | | | Futures Price | |
|---|---|---|---|---|---|---|---|
| | **Bullish** | **Bearish** | **DC^** | **HDB** | **LDB** | **Up** | **Down** |
| Repo in GC | | x | | | | | |
| Repo on Special | x | | Steepen | | | | |
| Repo Rate Down | x | | Flatten | | | | x |
| Repo Rate Up | | x | | | | x | |
| Fed buys back issue | x | | Flatten | Deliver | Deliver | | |
| Fed stops selling issue | x | | Flatten | Deliver | Deliver | | |
| Volitility Up (in general) | x | | | | | | x |
| Volitility Down (in general) | | x | | | | x | |
| Volatility Up, PS | | x | | | | x | |
| Volatility Down, NPS | x | | | | | | x |
| Volatility Down, PS | | x | | | | x | |
| Volatility Up, NPS | x | | | | | | x |
| Fed Raising Rates | | | Flattens | Deliver | Deliver | | |
| Cost-to-Carry up | | x | | | | | |
| Cost-to-Carry down | x | | | | | | |
| Market Rallying | x | | | | | | |
| Market Breaking | | x | | | | | |
| BNOC is Negative | | x | | | | | |
| BNOC is Positive | x | | | | | | |
| Curve Steepening (in general) | x | | | | | | |
| Curve Flattening (in general) | | x | | | | | |
| Curve Parallel (in general) | | x | | | | | |

<u>What affects the basis?</u>

changes in rp rates
changes in the slope of the yc and dc
changes in yield spreads
changes in yield volatility
carry convergence

Please see the morning email "US Deliverable Basket" for charts of the Deliverables.

If you're long the basis and the markets going up but the basis is barely going up, then check to see if there's a parallel shift going on in the curve.

Long basis and a parallel shift lowers the value of being long the basis. You won't make as much as you thought. You might even lose money.

**<u>Notes:</u>**

^ DC = Delivery Curve. See morning email, US Deliverable Basket for full basket.
PS = Parallel Shift
NPS = Non-Parallel Shift.
BNOC = Basis Net of Change

yc = yield curve
HDB = High Duration Bond/Note
LDB = Low Duration Bond/Note