



2/10/2009 5:50

## The Morning Email: Treasuries

### Table of Contents

- Pg 1** Important Econ Releases, Highs & Lows
  
- Pg 2** Quotes
  
- Pg 3** Duration, DV01s, CFs
  
- Pg 4** Hedge Ratio's
  
- Pg 5** Treasury Closes: 2pm CT vs this Morning
  
- Pg 6** Cash Duration Matrix
  
- Pg 7** Tic for Tic & Box for Box Matrix
  
- Pg 8** Key Money Rate, Spreads, Swaps, Packs
  
- Pg 9** Libor, Fed Funds (OIS), Repo, SONIA & EONIA Rates

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.

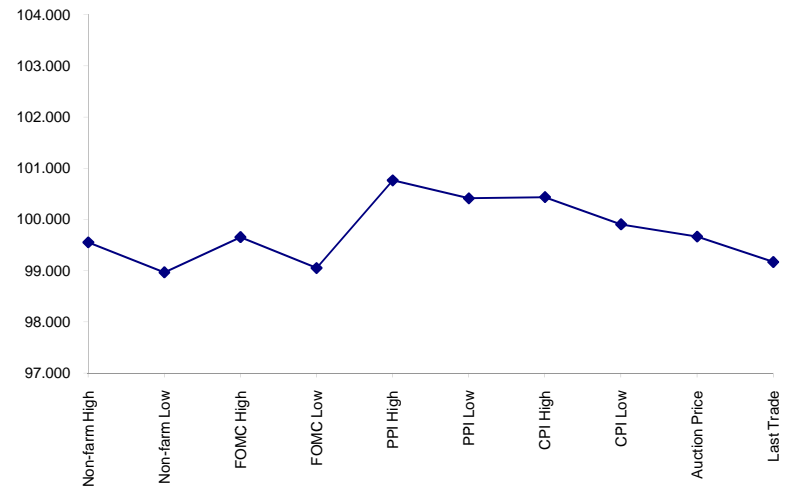
**Economic Releases (32nds)**

|               | 5y       | 10y     | ZNZ8    | ZBZ8    | Date      |
|---------------|----------|---------|---------|---------|-----------|
| Non-farm High | 99.1775  | 107.140 | 122.180 | 127.040 | 2/6/2009  |
| Non-farm Low  | 98.3100  | 106.095 | 121.185 | 125.165 | 2/6/2009  |
| FOMC High     | 99.2100  | 110.255 | 124.290 | 131.155 | 1/28/2009 |
| FOMC Low      | 99.0175  | 109.110 | 123.245 | 129.085 | 1/28/2009 |
| PPI High      | 100.2450 | 113.315 | 127.130 | 137.220 | 1/15/2009 |
| PPI Low       | 100.1325 | 113.095 | 126.230 | 136.085 | 1/15/2009 |
| CPI High      | 100.1400 | 113.030 | 126.160 | 136.270 | 1/16/2009 |
| CPI Low       | 99.2900  | 111.235 | 125.130 | 134.015 | 1/16/2009 |
| Auction Price | 99.2135  | 99.233  | 0.000   |         |           |
| Last Trade    | 99.0550  | 106.250 | 122.025 | 126.170 | 2/10/2009 |

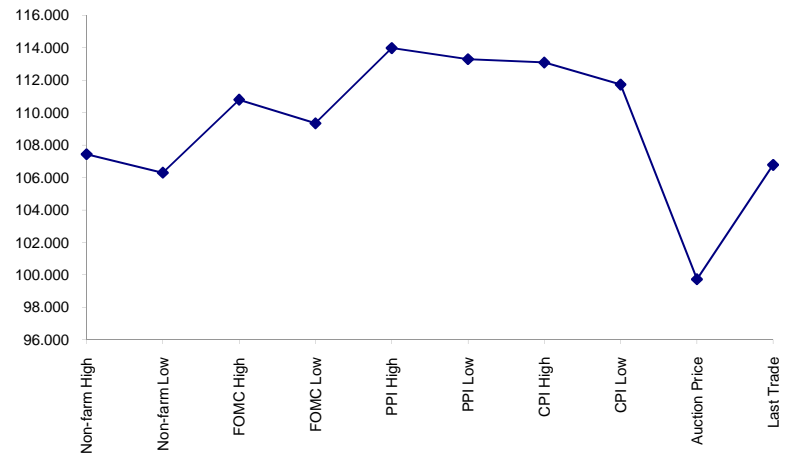
**Auctions - 32nds**

|                     | 2 y       | 3 y      | 5y        | 10y        | 30y      |
|---------------------|-----------|----------|-----------|------------|----------|
| Auction Price       | 0.000     | 99.249   | 99.213    | 99.233     | 98.074   |
| Auction Yield Stop  | 0.925     | 1.200    | 1.820     | 3.783      | 4.609    |
| Auction Price Stop  | 0.000     | 99.249   | 99.213    | 99.233     | 98.074   |
| Actual Auction Date | 1/27/2009 | 1/7/2009 | 1/29/2009 | 11/12/2008 | 8/7/2008 |

5y (Decimal)



10y (Decimal)



**Notes:**

- 1) Cash and futures are adjusted for roll.
- 2) Release times are from release to 2pm cdt
- 3) {Dec08 to Mch09 Futures roll: ZF = (91); ZN = (70); ZB = (32) [tics]}
- 4)\*CPI was same as FOMC day

## Quotes

|        |          | 32 nds  |          |          |          |        |           |
|--------|----------|---------|----------|----------|----------|--------|-----------|
|        | Last     | Net     | High     | Low      | Open     | Volume | Sym Name  |
| TUAH9  | 108.2500 | 0.032   | 108.2500 | 108.2250 | 108.2350 | 9,034  | 2y Fut    |
| FVAH9  | 117.2700 | 0.092   | 117.2820 | 117.1900 | 117.1970 | 21,234 | 5y Fut    |
| TYAH9  | 122.0250 | 0.165   | 122.0500 | 121.1900 | 121.2250 | 78,280 | 10y Fut   |
| USAH9  | 126.1700 | 0.275   | 126.2000 | 125.3000 | 126.0250 | 12,736 | 30y Fut   |
|        | Last     | Net     | High     | Low      | Open     | Volume | Sym Name  |
| BUS02P | 99.2500  | 1.500   | 99.2520  | 99.2270  | 99.2350  | na     | 2y Cash   |
| BUS03P | 99.0520  | 3.500   | 99.0550  | 99.0200  | 99.0320  | na     | 3y Cash   |
| BUS05P | 99.0550  | 6.700   | 99.0650  | 99.0050  | 99.0070  | na     | 5y Cash   |
| BUS10P | 106.2500 | 12.500  | 106.2650 | 106.1200 | 106.1800 | na     | 10y Cash  |
| BUS30P | 115.2450 | 11.500  | 115.2600 | 114.3100 | 115.0100 | na     | 30y Cash  |
|        | Last     | Net     | High     | Low      | Open     | Volume | Sym Name  |
| BUS02Y | 0.988    | (2.000) | 1.028    | 0.984    | 0.996    | na     | 2y Yield  |
| BUS03Y | 1.418    | (3.300) | 1.470    | 1.404    | 1.465    | na     | 3y Yield  |
| BUS05Y | 1.922    | (3.700) | 1.969    | 1.916    | 1.974    | na     | 5y Yield  |
| BUS10Y | 2.945    | (4.500) | 2.993    | 2.939    | 3.004    | na     | 10y Yield |
| BUS30Y | 3.621    | (2.900) | 3.686    | 3.599    | 3.660    | na     | 30y Yield |

|            | M Duration | DV01 32 | DV01 \$ | DV01 Box | CF     |            |
|------------|------------|---------|---------|----------|--------|------------|
| <b>30y</b> | 17.00      | 6.59    | \$2,059 | 13.18    | n/a    | <b>30y</b> |
| <b>10y</b> | 8.13       | 2.90    | \$906   | 5.80     | n/a    | <b>10y</b> |
| <b>5y</b>  | 4.73       | 1.54    | \$480   | 6.14     | n/a    | <b>5y</b>  |
| <b>3y</b>  | 2.68       | 0.88    | \$276   | 3.53     | n/a    | <b>3y</b>  |
| <b>2y</b>  | 1.95       | 0.63    | \$196   | 2.51     | n/a    | <b>2y</b>  |
| <b>ZB</b>  | 10.33      | 4.48    | \$140   | 4.48     | 0.7950 | <b>ZB</b>  |
| <b>ZN</b>  | 6.16       | 2.56    | \$80    | 5.12     | 0.8357 | <b>ZN</b>  |
| <b>ZF</b>  | 3.98       | 1.57    | \$49    | 3.14     | 0.8239 | <b>ZF</b>  |
| <b>ZT</b>  | 1.86       | 0.66    | \$21    | 2.63     | 0.9122 | <b>ZT</b>  |

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

Example, If **ZN** moves 1~basis point, then, it's moved 2.51 tics (Today, 12/01/08, the value in the box is 2.51).

Since ZN trades in half tics, then, 5.03 boxes = 1 basis point in ZN. (Again, today, 12/01/08, the value in the box is 5.03). 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.

#### 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

## US Financial Futures

|    | ZB    | ZN    | ZF    | ZT    |
|----|-------|-------|-------|-------|
| ZB |       | 1.750 | 2.851 | 3.410 |
| ZN | 0.571 |       | 1.629 | 1.948 |
| ZF | 0.351 | 0.614 |       | 1.196 |
| ZT | 0.293 | 0.513 | 0.836 |       |

## US Treasuries vs US Financial Futures

|    | 2y   | 3y   | 5y    | 10y   |
|----|------|------|-------|-------|
| ZB | 1.40 | 2.00 | 3.43  | 6.47  |
| ZN | 2.46 | 3.50 | 6.00  | 11.33 |
| ZF | 4.00 | 5.70 | 9.78  | 18.46 |
| ZT | 4.78 | 6.82 | 11.69 | 22.08 |

## US Treasuries

|     | 2y    | 3y    | 5y    | 10y   |
|-----|-------|-------|-------|-------|
| 2y  |       | 1.426 | 2.445 | 4.615 |
| 3y  | 0.416 |       | 1.738 | 3.281 |
| 5y  | 0.409 | 0.583 |       | 1.888 |
| 10y | 0.217 | 0.309 | 0.530 |       |

Note: If you are looking at a matrix with Eurex products then those ratios are pulled from Bloomberg and are static. Meaning, I only update them once in a while but always on rolls. I calculate the other matrixes, with US products, everyday

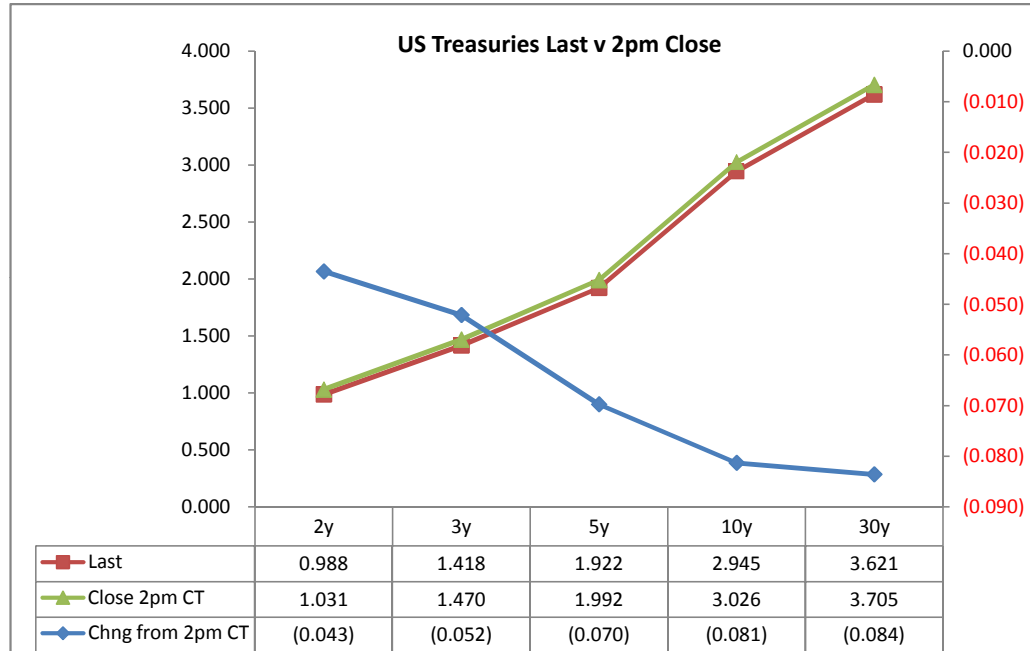
Treasury Closes: 2pm CT vs this Morning

|     | Cpn   | Mty      | Close 32 | Close | Last  | Chng<br>from 2pm | Basis  |        | Cash<br>Roll | Futures<br>Roll | Close 32 | Last    |       |
|-----|-------|----------|----------|-------|-------|------------------|--------|--------|--------------|-----------------|----------|---------|-------|
|     |       |          |          |       |       |                  | Close  | Last   |              |                 |          |         |       |
| 2y  | 0.875 | 1/31/11  | 99.2225  | 1.031 | 0.988 | (0.043)          | 17.62  | 17.63  |              |                 | 108.2200 | 108.25  | TUAH9 |
| 3y  | 1.125 | 1/15/12  | 99.0050  | 1.470 | 1.418 | (0.052)          |        |        |              |                 |          |         |       |
| 5y  | 1.750 | 1/31/13  | 98.2750  | 1.992 | 1.922 | (0.070)          | 64.19  | 66.57  |              |                 | 117.1775 | 117.27  | FVAH9 |
| 10y | 3.750 | 11/15/18 | 106.0250 | 3.026 | 2.945 | (0.081)          | 143.63 | 152.34 | 5.75         |                 | 121.1800 | 122.025 | TYAH9 |
| 30y | 4.500 | 5/15/38  | 114.0400 | 3.705 | 3.621 | (0.084)          | 454.91 | 485.55 | 0 / .25      |                 | 125.2150 | 126.17  | USAH9 |

| Curve Spreads |           |          |                      |
|---------------|-----------|----------|----------------------|
|               | Close bps |          | Chng from<br>2pm CIs |
|               | Last bps  | Last bps |                      |
| 2/3           | 43.9      | 43.0     | (0.9)                |
| 2/5           | 96.1      | 93.5     | (2.6)                |
| 3/5           | 52.2      | 50.4     | (1.8)                |
| 2/10          | 199.5     | 195.7    | (3.8)                |
| 3/10          | 155.6     | 152.7    | (2.9)                |
| 5/10          | 103.4     | 102.2    | (1.2)                |
| 2/30          | 267.4     | 263.4    | (4.0)                |
| 3/30          | 223.5     | 220.3    | (3.2)                |
| 5/30          | 171.3     | 169.9    | (1.4)                |
| 10/30         | 67.9      | 67.7     | (0.2)                |

O/N News:

-



|           | Last   | Chng on Day |
|-----------|--------|-------------|
| Emini SP  | 856.25 | (8.75)      |
| Crude Oil | 40.73  | 1.17        |
| Gold      | 896.50 | 3.70        |
| EURUSD    | 129.75 | (0.30)      |
| USDJPY    | 91.22  | (0.25)      |

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

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

**Cash Duration Matrix**

|    | 2    | 5    | 10   | 30   |
|----|------|------|------|------|
| 2  | 100% | 0%   |      |      |
| 5  | 41%  | 100% |      |      |
| 10 | 24%  | 58%  | 100% | 0%   |
| 30 | 11%  | 28%  | 48%  | 100% |

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

**Cash Matrix [DV01 x Duration]**

|    | 2     | 5     | 10    | 30      |
|----|-------|-------|-------|---------|
| 2  | \$188 |       |       |         |
| 5  | \$197 | \$480 |       |         |
| 10 | \$217 | \$527 | \$906 |         |
| 30 | \$236 | \$573 | \$984 | \$2,059 |

**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.

**Cash Matrix [DV01 over / (under) valued]**

|    | 2      | 5      | 10     | 30      |
|----|--------|--------|--------|---------|
| 2  | \$188  |        |        |         |
| 5  | (\$9)  | \$480  |        |         |
| 10 | (\$29) | (\$47) | \$906  |         |
| 30 | (\$48) | (\$93) | (\$79) | \$2,059 |

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

**Cash Matrix [DV01 over / (under) as %]**

|    | 2      | 5      | 10    | 30   |
|----|--------|--------|-------|------|
| 2  | 0.0%   |        |       |      |
| 5  | -4.8%  | 0.0%   |       |      |
| 10 | -13.4% | -9.0%  | 0.0%  |      |
| 30 | -20.3% | -16.3% | -8.0% | 0.0% |

## Tic for Tic Matrix

|    | 2y   | 5y   | 10y  | 30y  |
|----|------|------|------|------|
| ZT | 0.87 | 2.23 | 4.21 | 9.57 |
| ZF | 0.38 | 0.98 | 1.85 | 4.19 |
| ZN | 0.24 | 0.60 | 1.13 | 2.58 |
| ZB | 0.13 | 0.34 | 0.65 | 1.47 |

|     | 2y   | 5y   | 10y  | 30y   |
|-----|------|------|------|-------|
| 2y  |      | 2.55 | 4.82 | 10.95 |
| 5y  | 0.39 |      | 1.89 | 4.29  |
| 10y | 0.21 | 0.53 |      | 2.27  |
| 30y | 0.09 | 0.23 | 0.44 |       |

|    | ZT   | ZF   | ZN   | ZB   |
|----|------|------|------|------|
| ZT |      | 2.28 | 3.72 | 6.50 |
| ZF | 0.44 |      | 1.63 | 2.85 |
| ZN | 0.27 | 0.61 |      | 1.75 |
| ZB | 0.15 | 0.35 | 0.57 |      |

## Box for Box Matrix

|    | 2y   | 5y   | 10y  | 30y   |
|----|------|------|------|-------|
| ZT | 0.87 | 2.23 | 8.42 | 19.14 |
| ZF | 0.38 | 0.98 | 3.69 | 8.39  |
| ZN | 0.47 | 1.20 | 1.13 | 2.58  |
| ZB | 0.54 | 0.69 | 1.29 | 1.47  |

|     | 2y   | 5y   | 10y  | 30y  |
|-----|------|------|------|------|
| 2y  |      | 2.55 | 2.41 | 5.48 |
| 5y  | 0.39 |      | 0.47 | 2.15 |
| 10y | 0.41 | 2.12 |      | 2.27 |
| 30y | 0.18 | 0.47 | 0.44 |      |

|    | ZT   | ZF   | ZN   | ZB    |
|----|------|------|------|-------|
| ZT |      | 2.28 | 7.43 | 13.01 |
| ZF | 0.44 |      | 1.63 | 5.70  |
| ZN | 0.13 | 0.61 |      | 1.75  |
| ZB | 0.08 | 0.18 | 0.57 |       |



|       | Libor\$ <sup>1</sup> | Repo Rt <sup>6</sup> |
|-------|----------------------|----------------------|
| 0/N   | 0.305                | #VALUE!              |
| 1week | 0.356                | #VALUE!              |
| 2week | 0.403                | #VALUE!              |

|    | Libor\$ <sup>1</sup> | Tbill | CP <sup>2</sup> |
|----|----------------------|-------|-----------------|
| 1M | 0.447                | 0.218 | 0.650           |
| 3M | 1.222                | 0.319 | 1.200           |
| 6M | 1.686                | 0.454 | 1.730           |

|     | TSY   | Swp   | Swp Rate <sup>5</sup> | ED Pks <sup>3</sup> | TSY - ED Pk <sup>4</sup> |
|-----|-------|-------|-----------------------|---------------------|--------------------------|
| 2y  | 0.988 | 60.25 | 1.59                  | 2.037               | 1.049                    |
| 5y  | 1.922 | 63.50 | 2.56                  | 3.490               | 1.567                    |
| 10y | 2.945 | 23.50 | 3.18                  | #VALUE!             | #VALUE!                  |

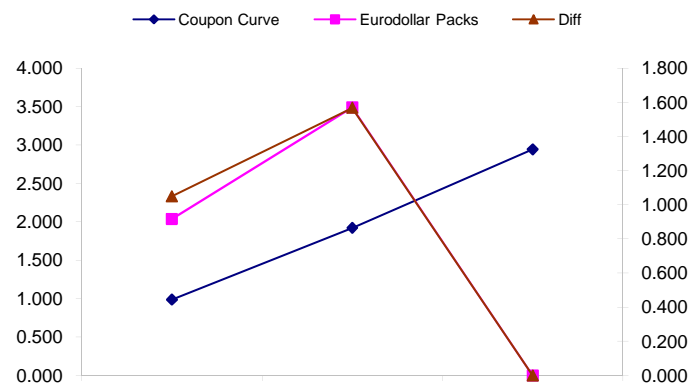
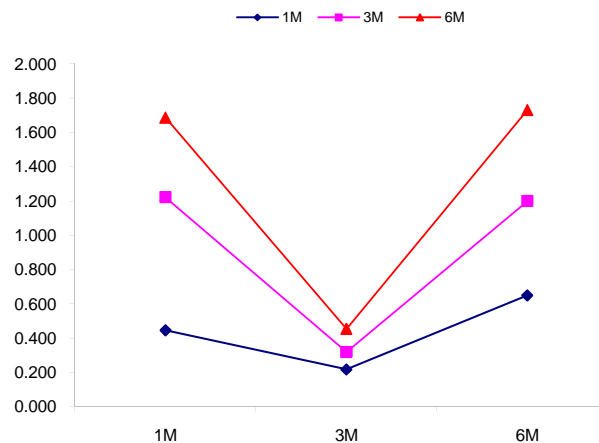
| <u>2/5</u>  | <u>Rd/Blu Pk</u>  | <u>Diff</u> |
|-------------|-------------------|-------------|
| 93.5        | 145.3             | 51.8        |
| <u>2/10</u> | <u>Rd/Gld Pk</u>  | <u>Diff</u> |
| 195.7       | #VALUE!           | #VALUE!     |
| <u>5/10</u> | <u>Blu/Gld Pk</u> | <u>Diff</u> |
| 102.2       | #VALUE!           | #VALUE!     |

Red pack / Blue pack is a 2/5 proxy  
 Red pack / Gold pack is a 2/10 proxy  
 Blue pack / Gold pack is a 5/10 proxy

"Swap spreads are essentially a measure of the difference between buying a safe government bond and making a riskier loan to a bank"  
 --WSJ

**Notes:**

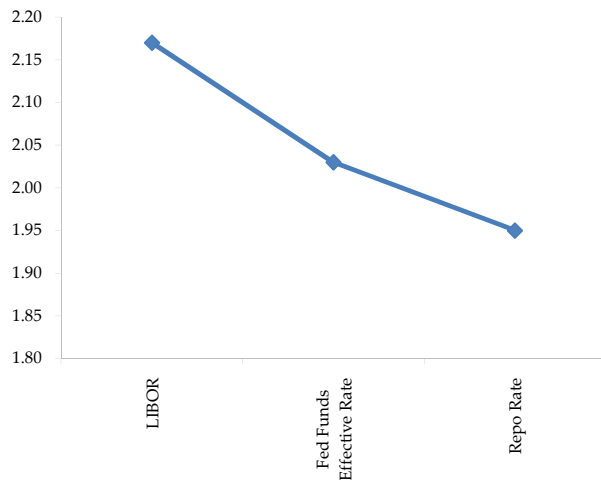
- 1) Quoted in US Dollars
- 2) CP = Commercial Paper
- 3) ED Pks are colored for pack identifications. Example, the red pack is a 2-yr proxy and is colored red.
- 4) TSY yield minus ED Pk yield
- 5) Swap divided by 100 + TSY yield gives swap rate in basis points.
- 6) Repo Rt quotes is for overnight General Collateral



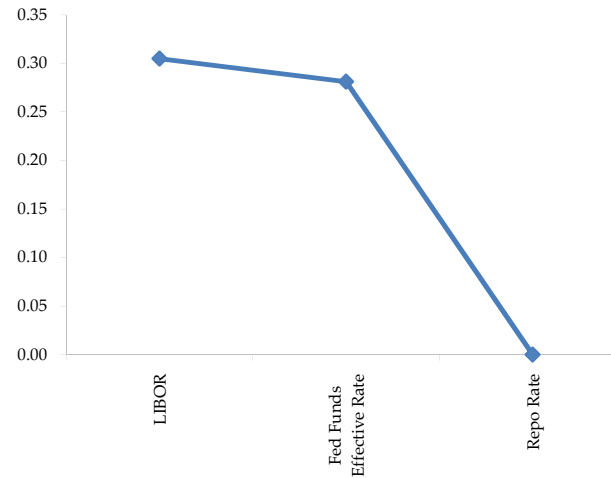
|           | Last    | Chng     | Term      | Asset Type               |
|-----------|---------|----------|-----------|--------------------------|
| USDLIBON  | 0.305   | (0.0025) | Overnight | LIBOR                    |
| TUSFFRON  | 0.281   | 0.0312   | Overnight | Fed Funds Effective Rate |
| TUSRPOON  | #VALUE! | #VALUE!  | Overnight | Repo Rate                |
| TEONIA01M | 1.259   | 0.0180   | 1 month   | Euribor OIS Rate         |
| TEONIA03M | 1.050   | 0.0230   | 3 month   | Euribor OIS Rate         |
| TSONIA01M | 0.799   | (0.0070) | 1 month   | Sterling OIS Rate        |
| TSONIA03M | 0.696   | (0.0120) | 3 month   | Sterling OIS Rate        |
| TUSOIS01M | 0.245   | (0.0040) | 1 month   | USD OIS Rate             |
| TUSOIS03M | 0.273   | 0.0000   | 3 month   | USD OIS Rate             |

Example, below

Overnight Rates -EXAMPLE



Overnight Rates



A 'normal' lending curve looks like the chart to the left. That is, the Libor should be a bit higher than Fed Funds Effective rate (FFER), and the FFER should be a bit higher than the Repo Rate.

The best time to view this page is on the closing email I send in the afternoon. The Fed Funds effective rate and the repo rate rarely update until after I send the morning email.

