

Morning Email: TERM TEDS & Dirty TEDS

Table of Contents

| | |
|-----|---------------------------------------|
| Pg1 | Overview and hedges |
| Pg2 | Dirty TED: ZT vs Eurodollar Contracts |
| Pg3 | Dirty TED: ZF vs Eurodollar Contracts |
| Pg4 | Dirty TED: ZN vs Eurodollar Contracts |
| Pg5 | TERM TED: 2y vs Eurodollar Contracts |
| Pg6 | TERM TED: 5y vs Eurodollar Contracts |
| Pg7 | TERM TED: 10y vs Eurodollar Contracts |

Rotate Me

| F.I. Futures and Cash | | | |
|-----------------------|-----------------|------------|----------------|
| | Last Decimal | Last 32 | Last Yield* |
| ZT | 102.4906 | 102.157 | 4.625 |
| ZF | 106.1250 | 106.040 | 4.444 |
| ZN | 109.1094 | 109.035 | 4.458 |
| Blank | | | |
| 2y | 99.991 | 99.3170 | 4.625 |
| 5y | 100.067 | 100.0214 | 4.452 |
| 10y | 101.070 | 101.0224 | 4.470 |

*Futures use CTD for Last Yield
 **Mduration = Modified Macaulay Duration

| Eurodollars (ED) | | | | | | |
|------------------|---------------|-------------------|-------------------|---------------------|-------|---------------|
| | Last Price | Last Imp Yield | Days til Expr. | Fraction of year | Month | |
| F.EDAZ06 | 94.645 | 5.355 | 17 | 0.046 | DEC | White Pack |
| F.EDAH07 | 94.810 | 5.190 | 108 | 0.295 | MAR | |
| F.EDAM07 | 95.015 | 4.985 | 199 | 0.545 | JUN | |
| F.EDAU07 | 95.200 | 4.800 | 290 | 0.794 | SEP | Red Pack |
| F.EDAZ07 | 95.330 | 4.670 | 381 | 1.043 | DEC | |
| F.EDAH08 | 95.405 | 4.595 | 472 | 1.292 | MAR | |
| F.EDAM08 | 95.425 | 4.575 | 563 | 1.542 | JUN | Green Pack |
| F.EDAU08 | 95.425 | 4.575 | 654 | 1.791 | SEP | |
| F.EDAZ08 | 95.410 | 4.590 | 745 | 2.040 | DEC | |
| F.EDAH09 | 95.385 | 4.615 | 836 | 2.290 | MAR | Green Pack |
| F.EDAM09 | 95.360 | 4.640 | 927 | 2.539 | JUN | |
| F.EDAU09 | 95.335 | 4.665 | 1018 | 2.788 | SEP | |

How many ways can you hedge the TED? Let me count...there's lots and lots, like:

- 1 Regression
- 2 Engineered
- 3 Strip with and without Stubs
- 4 Convexity Bias
- 5 Weighted
- 6 Unweighted
and more...

Most of us are interested in the *unweighted hedge* which is simply a curve trade hedge. There are so many ways to hedge the TED trade that I can't possibly list them all.

If you email me and ask for a specific hedge, I'll get it to you.

igoulding@ghco.com

Eurodollar Color Codes for Individual Year Strips:

| Color | Year | Contracts |
|--------------|-------------|------------------|
| White | One | 1 – 4 |
| Red | Two | 5 – 8 |
| Green | Three | 9 – 12 |
| Blue | Four | 13 – 16 |
| Gold | Five | 17 – 20 |
| Purple | Six | 21 – 24 |
| Orange | Seven | 25 – 28 |
| Pink | Eight | 29 – 32 |
| Silver | Nine | 33 – 36 |
| Copper | Ten | 37 – 40 |

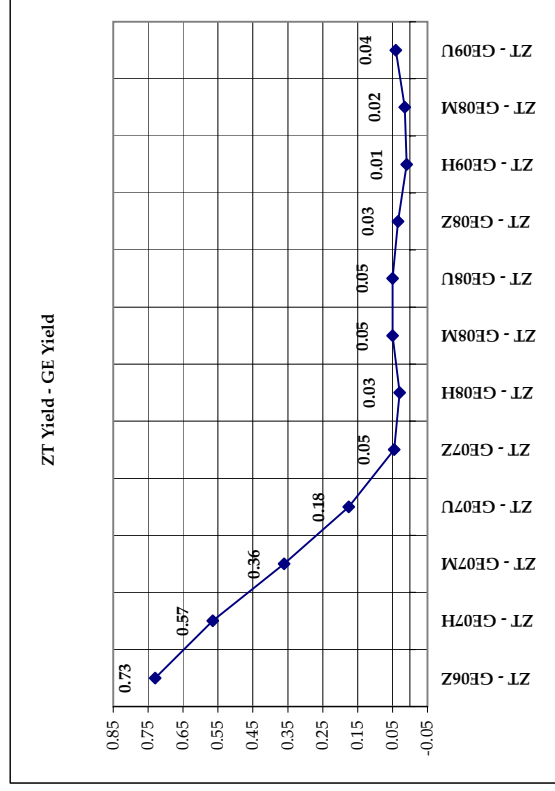
Dirty TED: ZT vs Eurodollar Contracts

ZT

| | Spread Price | Spread Yield | Spread Name |
|----------|--------------|--------------|-------------|
| F.EDAZ06 | 7.846 | 0.73 | ZT - GE06Z |
| F.EDAH07 | 7.681 | 0.57 | ZT - GE07H |
| F.EDAM07 | 7.476 | 0.36 | ZT - GE07M |
| F.EDAU07 | 7.291 | 0.18 | ZT - GE07U |
| F.EDAZ07 | 7.161 | 0.05 | ZT - GE07Z |
| F.EDAH08 | 7.086 | 0.03 | ZT - GE08H |
| F.EDAM08 | 7.066 | 0.05 | ZT - GE08M |
| F.EDAU08 | 7.066 | 0.05 | ZT - GE08U |
| F.EDAZ08 | 7.081 | 0.03 | ZT - GE08Z |
| F.EDAH09 | 7.106 | 0.01 | ZT - GE09H |
| F.EDAM09 | 7.131 | 0.02 | ZT - GE09M |
| F.EDAU09 | 7.156 | 0.04 | ZT - GE09U |

Price = Outright Decimal Price - Euro Contract Price

Yield = ABS(Proxy Yield - Implied Euro Contract yield)



GE Duration as Fraction of year

| | Duration | ZT Duration | Spread Duration |
|----------|----------|-------------|-----------------|
| F.EDAZ06 | 0.046 | 1.90 | 1.86 |
| F.EDAH07 | 0.295 | 1.90 | 1.61 |
| F.EDAM07 | 0.545 | 1.90 | 1.36 |
| F.EDAU07 | 0.794 | 1.90 | 1.11 |
| F.EDAZ07 | 1.043 | 1.90 | 0.86 |
| F.EDAH08 | 1.292 | 1.90 | 0.61 |
| F.EDAM08 | 1.542 | 1.90 | 0.36 |
| F.EDAU08 | 1.791 | 1.90 | 0.11 |
| F.EDAZ08 | 2.040 | 1.90 | (0.14) |
| F.EDAH09 | 2.290 | 1.90 | (0.39) |
| F.EDAM09 | 2.539 | 1.90 | (0.64) |
| F.EDAU09 | 2.788 | 1.90 | (0.89) |

The farther away from 0 the spread duration is the riskier the trade.

Dirty TED: ZF vs Eurodollar Contracts

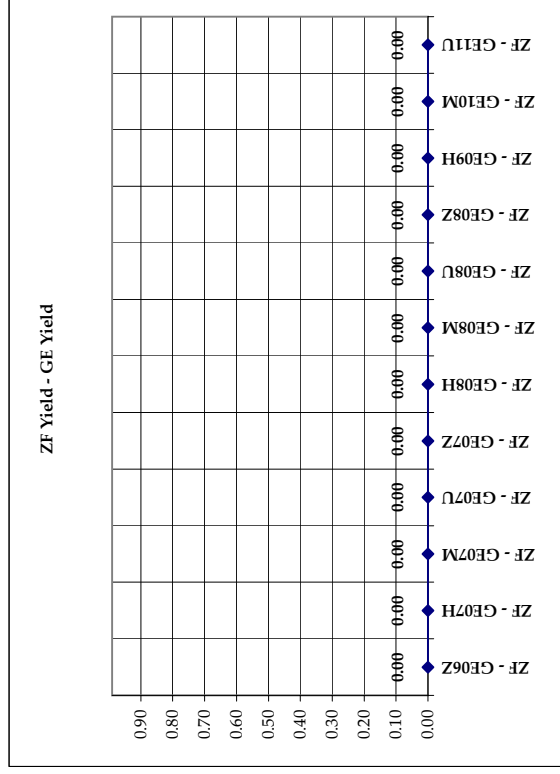
| | ZF | |
|----------|--------------|-----------------|
| | Spread Price | Spread Yield |
| | Price | Yield Name |
| F.EDAZ06 | 11.48 | 0.91 ZF - GE06Z |
| F.EDAH07 | 11.32 | 0.75 ZF - GE07H |
| F.EDAM07 | 11.11 | 0.54 ZF - GE07M |
| F.EDAU07 | 10.93 | 0.36 ZF - GE07U |
| F.EDAZ07 | 10.80 | 0.23 ZF - GE07Z |
| F.EDAH08 | 10.72 | 0.15 ZF - GE08H |
| F.EDAM08 | 10.70 | 0.13 ZF - GE08M |
| F.EDAU08 | 10.70 | 0.13 ZF - GE08U |
| F.EDAZ08 | 10.72 | 0.15 ZF - GE08Z |
| F.EDAH09 | 10.74 | 0.17 ZF - GE09H |
| F.EDAM09 | 10.77 | 0.20 ZF - GE10M |
| F.EDAU09 | 10.79 | 0.22 ZF - GE11U |

Price = Outright Decimal Price - Euro Contract Price

Yield = ABS(Proxy Yield - Implied Euro Contract yield)

| GE Duration as Fraction of year | ZF | |
|---------------------------------|----------|-----------------|
| | Duration | Spread Duration |
| F.EDAZ06 | 0.046 | 3.95 ZF - GE06Z |
| F.EDAH07 | 0.295 | 3.70 ZF - GE07H |
| F.EDAM07 | 0.545 | 3.45 ZF - GE07M |
| F.EDAU07 | 0.794 | 3.21 ZF - GE07U |
| F.EDAZ07 | 1.043 | 2.96 ZF - GE07Z |
| F.EDAH08 | 1.292 | 2.71 ZF - GE08H |
| F.EDAM08 | 1.542 | 2.46 ZF - GE08M |
| F.EDAU08 | 1.791 | 2.21 ZF - GE08U |
| F.EDAZ08 | 2.040 | 1.96 ZF - GE08Z |
| F.EDAH09 | 2.290 | 1.71 ZF - GE09H |
| F.EDAM09 | 2.539 | 1.46 ZF - GE10M |
| F.EDAU09 | 2.788 | 1.21 ZF - GE11U |

The farther away from 0 the spread duration is the riskier the trade.

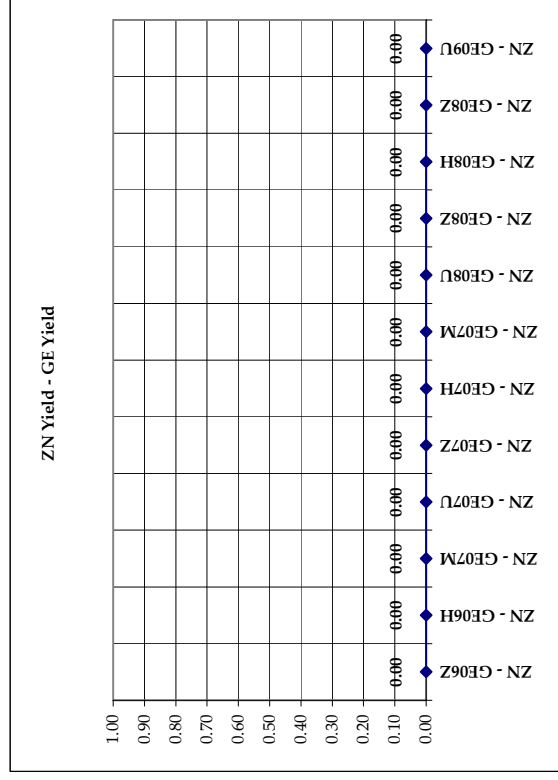


Dirty TED: ZN vs Eurodollar Contracts

| | Spread Price | ZN Yield | Spread Yield | Spread Name |
|----------|--------------|----------|--------------|-------------|
| F.EDAZ06 | 14.46 | 0.90 | 0.90 | ZN - GE06Z |
| F.EDAH07 | 14.30 | 0.73 | 0.73 | ZN - GE06H |
| F.EDAM07 | 14.09 | 0.53 | 0.53 | ZN - GE07M |
| F.EDAU07 | 13.91 | 0.34 | 0.34 | ZN - GE07U |
| F.EDAZ07 | 13.78 | 0.21 | 0.21 | ZN - GE07Z |
| F.EDAH08 | 13.70 | 0.14 | 0.14 | ZN - GE07H |
| F.EDAM08 | 13.68 | 0.12 | 0.12 | ZN - GE07M |
| F.EDAU08 | 13.68 | 0.12 | 0.12 | ZN - GE08U |
| F.EDAZ08 | 13.70 | 0.13 | 0.13 | ZN - GE08Z |
| F.EDAH09 | 13.72 | 0.16 | 0.16 | ZN - GE08H |
| F.EDAM09 | 13.75 | 0.18 | 0.18 | ZN - GE08M |
| F.EDAU09 | 13.77 | 0.21 | 0.21 | ZN - GE09U |

Price = Outright Decimal Price - Euro Contract Price

Yield = ABS(Proxy Yield - Implied Euro Contract yield)



| GE Duration as Fraction of year | ZN Duration | Spread Duration |
|---------------------------------|-------------|-----------------|
| F.EDAZ06 | 0.046 | 5.89 |
| F.EDAH07 | 0.295 | 5.64 |
| F.EDAM07 | 0.545 | 5.39 |
| F.EDAU07 | 0.794 | 5.14 |
| F.EDAZ07 | 1.043 | 4.89 |
| F.EDAH08 | 1.292 | 4.64 |
| F.EDAM08 | 1.542 | 4.39 |
| F.EDAU08 | 1.791 | 4.15 |
| F.EDAZ08 | 2.040 | 3.90 |
| F.EDAH09 | 2.290 | 3.65 |
| F.EDAM09 | 2.539 | 3.40 |
| F.EDAU09 | 2.788 | 3.15 |

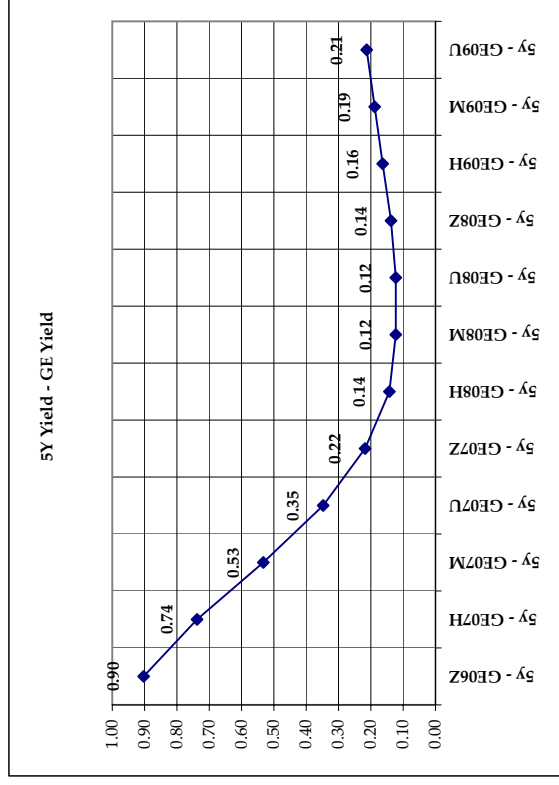
The farther away from 0 the spread duration is the riskier the trade.

TERM TED: 5y vs Eurodollar Contracts

| | Spread Price | 5y Spread Yield | Spread Name |
|----------|--------------|-----------------|-------------|
| F.EDAZ06 | 5.42 | 0.90 | 5y - GE06Z |
| F.EDAH07 | 5.26 | 0.74 | 5y - GE07H |
| F.EDAM07 | 5.05 | 0.53 | 5y - GE07M |
| F.EDAU07 | 4.87 | 0.35 | 5y - GE07U |
| F.EDAZ07 | 4.74 | 0.22 | 5y - GE07Z |
| F.EDAH08 | 4.66 | 0.14 | 5y - GE08H |
| F.EDAM08 | 4.64 | 0.12 | 5y - GE08M |
| F.EDAU08 | 4.64 | 0.12 | 5y - GE08U |
| F.EDAZ08 | 4.66 | 0.14 | 5y - GE08Z |
| F.EDAH09 | 4.68 | 0.16 | 5y - GE09H |
| F.EDAM09 | 4.71 | 0.19 | 5y - GE09M |
| F.EDAU09 | 4.73 | 0.21 | 5y - GE09U |

Price = Outright Decimal Price - Euro Contract Price

Yield = ABS(Cash Yield - Implied Euro Contract yield)



| GE Duration as Fraction of year | 5Y Duration | Spread Duration |
|---------------------------------|-------------|-----------------|
| F.EDAZ06 | 0.046 | 3.95 |
| F.EDAH07 | 0.295 | 3.70 |
| F.EDAM07 | 0.545 | 3.45 |
| F.EDAU07 | 0.794 | 3.21 |
| F.EDAZ07 | 1.043 | 2.96 |
| F.EDAH08 | 1.292 | 2.71 |
| F.EDAM08 | 1.542 | 2.46 |
| F.EDAU08 | 1.791 | 2.21 |
| F.EDAZ08 | 2.040 | 1.96 |
| F.EDAH09 | 2.290 | 1.71 |
| F.EDAM09 | 2.539 | 1.46 |
| F.EDAU09 | 2.788 | 1.21 |

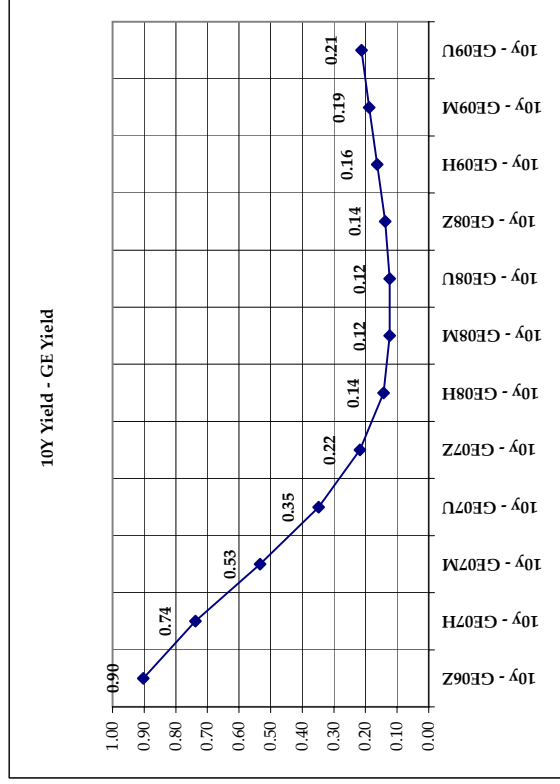
The farther away from 0 the spread duration is the riskier the trade.

TERM TED: 10y vs Eurodollar Contracts

| | | 10y | |
|----------|--------|--------|-------------|
| Spread | Spread | Spread | Spread |
| Price | Yield | Yield | Name |
| F.EDAZ06 | 5.42 | 0.90 | 10y - GE06Z |
| F.EDAH07 | 5.26 | 0.74 | 10y - GE07H |
| F.EDAM07 | 5.05 | 0.53 | 10y - GE07M |
| F.EDAU07 | 4.87 | 0.35 | 10y - GE07U |
| F.EDAZ07 | 4.74 | 0.22 | 10y - GE07Z |
| F.EDAH08 | 4.66 | 0.14 | 10y - GE08H |
| F.EDAM08 | 4.64 | 0.12 | 10y - GE08M |
| F.EDAU08 | 4.64 | 0.12 | 10y - GE08U |
| F.EDAZ08 | 4.66 | 0.14 | 10y - GE08Z |
| F.EDAH09 | 4.68 | 0.16 | 10y - GE09H |
| F.EDAM09 | 4.71 | 0.19 | 10y - GE09M |
| F.EDAU09 | 4.73 | 0.21 | 10y - GE09U |

Price = Outright Decimal Price - Euro Contract Price

Yield = ABS(Cash Yield - Implied Euro Contract yield)



| GE Duration as | | 10Y | | Spread | |
|----------------|----------|----------|----------|-------------|----------|
| Fraction | Duration | Duration | Duration | Duration | Duration |
| of year | of year | of year | of year | of year | of year |
| F.EDAZ06 | 0.046 | 7.90 | 7.86 | 10y - GE06Z | 7.86 |
| F.EDAH07 | 0.295 | 7.90 | 7.61 | 10y - GE07H | 7.61 |
| F.EDAM07 | 0.545 | 7.90 | 7.36 | 10y - GE07M | 7.36 |
| F.EDAU07 | 0.794 | 7.90 | 7.11 | 10y - GE07U | 7.11 |
| F.EDAZ07 | 1.043 | 7.90 | 6.86 | 10y - GE07Z | 6.86 |
| F.EDAH08 | 1.292 | 7.90 | 6.61 | 10y - GE08H | 6.61 |
| F.EDAM08 | 1.542 | 7.90 | 6.36 | 10y - GE08M | 6.36 |
| F.EDAU08 | 1.791 | 7.90 | 6.11 | 10y - GE08U | 6.11 |
| F.EDAZ08 | 2.040 | 7.90 | 5.86 | 10y - GE08Z | 5.86 |
| F.EDAH09 | 2.290 | 7.90 | 5.61 | 10y - GE09H | 5.61 |
| F.EDAM09 | 2.539 | 7.90 | 5.36 | 10y - GE09M | 5.36 |
| F.EDAU09 | 2.788 | 7.90 | 5.11 | 10y - GE09U | 5.11 |

The farther away from 0 the spread duration is the riskier the trade.