

Morning Email: TERM TEDS & Dirty TEDS

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Rotate Me

| | | F.I. Futures and Cash | | | |
|-------|-----|-----------------------|------------|----------------|-------------|
| | | Last Decimal | Last 32 | Last Yield* | **MDuration |
| Blank | ZT | 102.4594 | 102.147 | 4.610 | 1.87 |
| | ZF | 105.8438 | 105.270 | 4.521 | 3.94 |
| | ZN | 108.2188 | 108.070 | 4.572 | 5.89 |
| | 2y | 99.859 | 99.2750 | 4.575 | 1.89 |
| | 5y | 99.891 | 99.2850 | 4.525 | 4.43 |
| | 10y | 99.922 | 99.2950 | 4.630 | 7.81 |

*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.EDAU07 | 94.740 | 5.260 | 80 | 0.219 | JUN | } White Pack |
| | F.EDAZ07 | 94.930 | 5.070 | 171 | 0.468 | SEP | |
| | F.EDAH08 | 95.130 | 4.870 | 262 | 0.717 | DEC | |
| | F.EDAM08 | 95.280 | 4.720 | 353 | 0.966 | MAR | } Red Pack |
| | F.EDAU08 | 95.355 | 4.645 | 444 | 1.216 | JUN | |
| | F.EDAZ08 | 95.375 | 4.625 | 535 | 1.465 | SEP | |
| | F.EDAH09 | 95.355 | 4.645 | 626 | 1.714 | DEC | |
| | F.EDAM09 | 95.330 | 4.670 | 717 | 1.964 | MAR | } Green Pack |
| | F.EDAU09 | 95.280 | 4.720 | 808 | 2.213 | JUN | |
| | F.EDAZ09 | 95.235 | 4.765 | 899 | 2.462 | SEP | |
| | F.EDAH10 | 95.175 | 4.825 | 990 | 2.712 | DEC | |
| | F.EDAM10 | 95.135 | 4.865 | 1081 | 2.961 | MAR | |

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.

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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 |

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Dirty TED: ZT vs Eurodollar Contracts

| ZT | | | |
|----------|--------------|--------------|-------------|
| | Spread Price | Spread Yield | Spread Name |
| F.EDAM07 | 7.719 | 0.65 | ZT - GE07H |
| F.EDAU07 | 7.529 | 0.46 | ZT - GE07M |
| F.EDAZ07 | 7.329 | 0.26 | ZT - GE07U |
| F.EDAH08 | 7.179 | 0.11 | ZT - GE07Z |
| F.EDAM08 | 7.104 | 0.04 | ZT - GE08H |
| F.EDAU08 | 7.084 | 0.02 | ZT - GE08M |
| F.EDAZ08 | 7.104 | 0.04 | ZT - GE08U |
| F.EDAH09 | 7.129 | 0.06 | ZT - GE08Z |
| F.EDAM09 | 7.179 | 0.11 | ZT - GE09H |
| F.EDAU09 | 7.224 | 0.16 | ZT - GE09M |
| F.EDAZ09 | 7.284 | 0.22 | ZT - GE09U |
| F.EDAH10 | 7.324 | 0.26 | ZT - GE09Z |

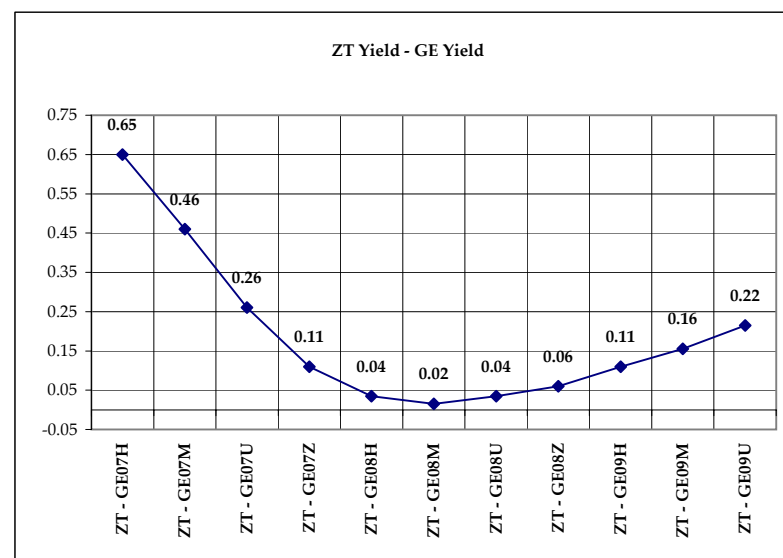
Price = Outright Decimal Price - Euro Contract Price

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

GE Duration as Fraction of year

| | ZT Duration | Spread Duration | |
|----------|-------------|-----------------|--------|
| F.EDAM07 | 0.219 | 1.87 | 1.65 |
| F.EDAU07 | 0.468 | 1.87 | 1.40 |
| F.EDAZ07 | 0.717 | 1.87 | 1.15 |
| F.EDAH08 | 0.966 | 1.87 | 0.90 |
| F.EDAM08 | 1.216 | 1.87 | 0.65 |
| F.EDAU08 | 1.465 | 1.87 | 0.40 |
| F.EDAZ08 | 1.714 | 1.87 | 0.15 |
| F.EDAH09 | 1.964 | 1.87 | (0.09) |
| F.EDAM09 | 2.213 | 1.87 | (0.34) |
| F.EDAU09 | 2.462 | 1.87 | (0.59) |
| F.EDAZ09 | 2.712 | 1.87 | (0.84) |
| F.EDAH10 | 2.961 | 1.87 | (1.09) |

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



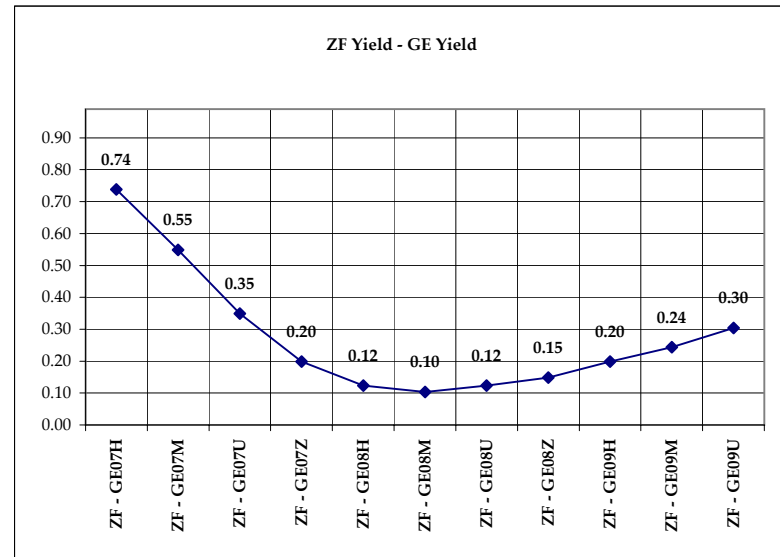
Dirty TED: ZF vs Eurodollar Contracts

| ZF | | | |
|----------|--------------|--------------|-------------|
| | Spread Price | Spread Yield | Spread Name |
| F.EDAM07 | 11.10 | 0.74 | ZF - GE07H |
| F.EDAU07 | 10.91 | 0.55 | ZF - GE07M |
| F.EDAZ07 | 10.71 | 0.35 | ZF - GE07U |
| F.EDAH08 | 10.56 | 0.20 | ZF - GE07Z |
| F.EDAM08 | 10.49 | 0.12 | ZF - GE08H |
| F.EDAU08 | 10.47 | 0.10 | ZF - GE08M |
| F.EDAZ08 | 10.49 | 0.12 | ZF - GE08U |
| F.EDAH09 | 10.51 | 0.15 | ZF - GE08Z |
| F.EDAM09 | 10.56 | 0.20 | ZF - GE09H |
| F.EDAU09 | 10.61 | 0.24 | ZF - GE09M |
| F.EDAZ09 | 10.67 | 0.30 | ZF - GE09U |
| F.EDAH10 | 10.71 | 0.34 | ZF - GE09U |

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.EDAM07 | 0.219 | 3.94 | 3.72 | ZF - GE07H |
| F.EDAU07 | 0.468 | 3.94 | 3.47 | ZF - GE07M |
| F.EDAZ07 | 0.717 | 3.94 | 3.22 | ZF - GE07U |
| F.EDAH08 | 0.966 | 3.94 | 2.97 | ZF - GE07Z |
| F.EDAM08 | 1.216 | 3.94 | 2.72 | ZF - GE08H |
| F.EDAU08 | 1.465 | 3.94 | 2.47 | ZF - GE08M |
| F.EDAZ08 | 1.714 | 3.94 | 2.22 | ZF - GE08U |
| F.EDAH09 | 1.964 | 3.94 | 1.97 | ZF - GE08Z |
| F.EDAM09 | 2.213 | 3.94 | 1.72 | ZF - GE09H |
| F.EDAU09 | 2.462 | 3.94 | 1.47 | ZF - GE09M |
| F.EDAZ09 | 2.712 | 3.94 | 1.22 | ZF - GE09U |
| F.EDAH10 | 2.961 | 3.94 | 0.98 | ZF - GE09U |

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



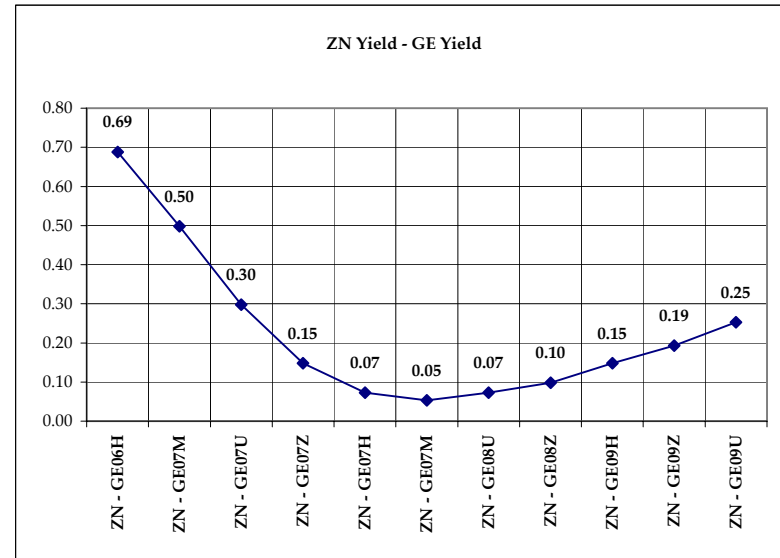
Dirty TED: ZN vs Eurodollar Contracts

| ZN | | | |
|----------|--------------|--------------|-------------|
| | Spread Price | Spread Yield | Spread Name |
| F.EDAM07 | 13.48 | 0.69 | ZN - GE06H |
| F.EDAU07 | 13.29 | 0.50 | ZN - GE07M |
| F.EDAZ07 | 13.09 | 0.30 | ZN - GE07U |
| F.EDAH08 | 12.94 | 0.15 | ZN - GE07Z |
| F.EDAM08 | 12.86 | 0.07 | ZN - GE07H |
| F.EDAU08 | 12.84 | 0.05 | ZN - GE07M |
| F.EDAZ08 | 12.86 | 0.07 | ZN - GE08U |
| F.EDAH09 | 12.89 | 0.10 | ZN - GE08Z |
| F.EDAM09 | 12.94 | 0.15 | ZN - GE09H |
| F.EDAU09 | 12.98 | 0.19 | ZN - GE09Z |
| F.EDAZ09 | 13.04 | 0.25 | ZN - GE09U |
| F.EDAH10 | 13.08 | 0.29 | 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.EDAM07 | 0.219 | 5.89 | 5.68 | ZN - GE06H |
| F.EDAU07 | 0.468 | 5.89 | 5.43 | ZN - GE07M |
| F.EDAZ07 | 0.717 | 5.89 | 5.18 | ZN - GE07U |
| F.EDAH08 | 0.966 | 5.89 | 4.93 | ZN - GE07Z |
| F.EDAM08 | 1.216 | 5.89 | 4.68 | ZN - GE07H |
| F.EDAU08 | 1.465 | 5.89 | 4.43 | ZN - GE07M |
| F.EDAZ08 | 1.714 | 5.89 | 4.18 | ZN - GE08U |
| F.EDAH09 | 1.964 | 5.89 | 3.93 | ZN - GE08Z |
| F.EDAM09 | 2.213 | 5.89 | 3.68 | ZN - GE09H |
| F.EDAU09 | 2.462 | 5.89 | 3.43 | ZN - GE09Z |
| F.EDAZ09 | 2.712 | 5.89 | 3.18 | ZN - GE09U |
| F.EDAH10 | 2.961 | 5.89 | 2.93 | ZN - GE09U |

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



TERM TED: 2y vs Eurodollar Contracts

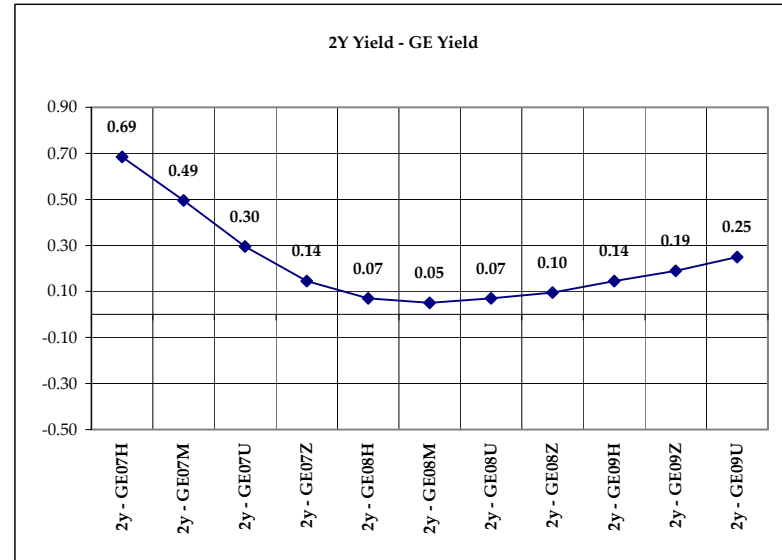
| 2y | | | |
|----------|--------------|--------------|-------------|
| | Spread Price | Spread Yield | Spread Name |
| F.EDAM07 | 5.12 | 0.69 | 2y - GE07H |
| F.EDAU07 | 4.93 | 0.49 | 2y - GE07M |
| F.EDAZ07 | 4.73 | 0.30 | 2y - GE07U |
| F.EDAH08 | 4.58 | 0.14 | 2y - GE07Z |
| F.EDAM08 | 4.50 | 0.07 | 2y - GE08H |
| F.EDAU08 | 4.48 | 0.05 | 2y - GE08M |
| F.EDAZ08 | 4.50 | 0.07 | 2y - GE08U |
| F.EDAH09 | 4.53 | 0.10 | 2y - GE08Z |
| F.EDAM09 | 4.58 | 0.14 | 2y - GE09H |
| F.EDAU09 | 4.62 | 0.19 | 2y - GE09Z |
| F.EDAZ09 | 4.68 | 0.25 | 2y - GE09U |
| F.EDAH10 | 4.72 | 0.29 | 2y - GE09U |

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Cash Yield - Implied Euro Contract yield)

GE Duration as Fraction of year

| | 2Y Duration | Spread Duration | |
|----------|-------------|-----------------|------------|
| F.EDAM07 | 0.219 | 1.89 | 2y - GE07H |
| F.EDAU07 | 0.468 | 1.89 | 2y - GE07M |
| F.EDAZ07 | 0.717 | 1.89 | 2y - GE07U |
| F.EDAH08 | 0.966 | 1.89 | 2y - GE07Z |
| F.EDAM08 | 1.216 | 1.89 | 2y - GE08H |
| F.EDAU08 | 1.465 | 1.89 | 2y - GE08M |
| F.EDAZ08 | 1.714 | 1.89 | 2y - GE08U |
| F.EDAH09 | 1.964 | 1.89 | 2y - GE08Z |
| F.EDAM09 | 2.213 | 1.89 | 2y - GE09H |
| F.EDAU09 | 2.462 | 1.89 | 2y - GE09Z |
| F.EDAZ09 | 2.712 | 1.89 | 2y - GE09U |
| F.EDAH10 | 2.961 | 1.89 | 2y - GE09U |

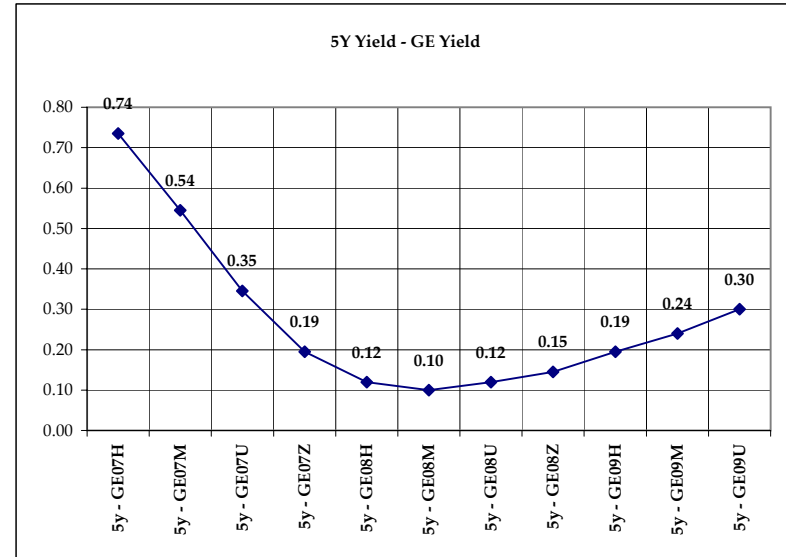
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 5y vs Eurodollar Contracts

| 5y | | | |
|----------|--------------|--------------|-------------|
| | Spread Price | Spread Yield | Spread Name |
| F.EDAM07 | 5.15 | 0.74 | 5y - GE07H |
| F.EDAU07 | 4.96 | 0.54 | 5y - GE07M |
| F.EDAZ07 | 4.76 | 0.35 | 5y - GE07U |
| F.EDAH08 | 4.61 | 0.19 | 5y - GE07Z |
| F.EDAM08 | 4.54 | 0.12 | 5y - GE08H |
| F.EDAU08 | 4.52 | 0.10 | 5y - GE08M |
| F.EDAZ08 | 4.54 | 0.12 | 5y - GE08U |
| F.EDAH09 | 4.56 | 0.15 | 5y - GE08Z |
| F.EDAM09 | 4.61 | 0.19 | 5y - GE09H |
| F.EDAU09 | 4.66 | 0.24 | 5y - GE09M |
| F.EDAZ09 | 4.72 | 0.30 | 5y - GE09U |
| F.EDAH10 | 4.76 | 0.34 | 5y - GE09U |

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Cash Yield - Implied Euro Contract yield)



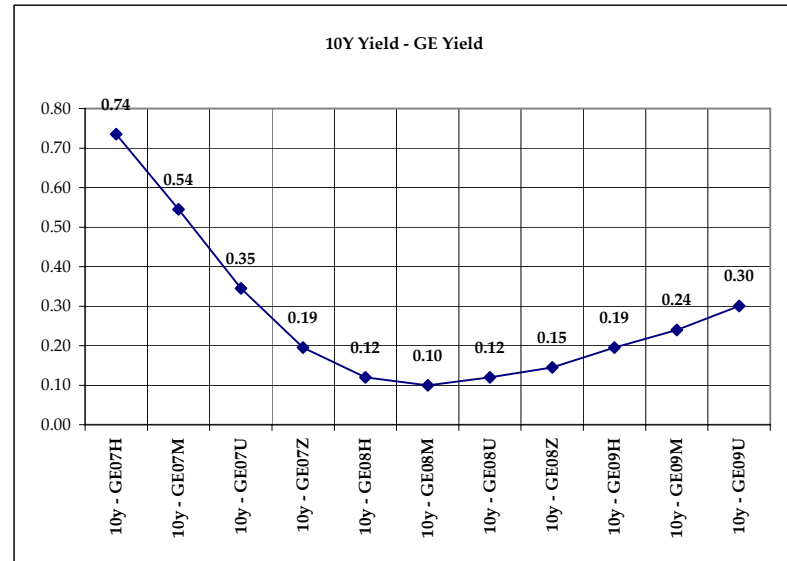
| | GE Duration as Fraction of year | 5Y Duration | Spread Duration | |
|----------|---------------------------------|-------------|-----------------|------------|
| F.EDAM07 | 0.219 | 4.43 | 4.21 | 5y - GE07H |
| F.EDAU07 | 0.468 | 4.43 | 3.96 | 5y - GE07M |
| F.EDAZ07 | 0.717 | 4.43 | 3.71 | 5y - GE07U |
| F.EDAH08 | 0.966 | 4.43 | 3.46 | 5y - GE07Z |
| F.EDAM08 | 1.216 | 4.43 | 3.21 | 5y - GE08H |
| F.EDAU08 | 1.465 | 4.43 | 2.96 | 5y - GE08M |
| F.EDAZ08 | 1.714 | 4.43 | 2.71 | 5y - GE08U |
| F.EDAH09 | 1.964 | 4.43 | 2.46 | 5y - GE08Z |
| F.EDAM09 | 2.213 | 4.43 | 2.21 | 5y - GE09H |
| F.EDAU09 | 2.462 | 4.43 | 1.96 | 5y - GE09M |
| F.EDAZ09 | 2.712 | 4.43 | 1.72 | 5y - GE09U |
| F.EDAH10 | 2.961 | 4.43 | 1.47 | 5y - GE09U |

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

TERM TED: 10y vs Eurodollar Contracts

| | 10y | | |
|----------|--------------|--------------|-------------|
| | Spread Price | Spread Yield | Spread Name |
| F.EDAM07 | 5.15 | 0.74 | 10y - GE07H |
| F.EDAU07 | 4.96 | 0.54 | 10y - GE07M |
| F.EDAZ07 | 4.76 | 0.35 | 10y - GE07U |
| F.EDAH08 | 4.61 | 0.19 | 10y - GE07Z |
| F.EDAM08 | 4.54 | 0.12 | 10y - GE08H |
| F.EDAU08 | 4.52 | 0.10 | 10y - GE08M |
| F.EDAZ08 | 4.54 | 0.12 | 10y - GE08U |
| F.EDAH09 | 4.56 | 0.15 | 10y - GE08Z |
| F.EDAM09 | 4.61 | 0.19 | 10y - GE09H |
| F.EDAU09 | 4.66 | 0.24 | 10y - GE09M |
| F.EDAZ09 | 4.72 | 0.30 | 10y - GE09U |
| F.EDAH10 | 4.76 | 0.34 | 10y - GE09U |

Price = Outright Decimal Price - Euro Contract Price
Yield = ABS(Cash Yield - Implied Euro Contract yield)



| | GE Duration as Fraction of year | 10Y Duration | Spread Duration | |
|----------|---------------------------------|--------------|-----------------|-------------|
| F.EDAM07 | 0.219 | 7.81 | 7.59 | 10y - GE07H |
| F.EDAU07 | 0.468 | 7.81 | 7.34 | 10y - GE07M |
| F.EDAZ07 | 0.717 | 7.81 | 7.09 | 10y - GE07U |
| F.EDAH08 | 0.966 | 7.81 | 6.84 | 10y - GE07Z |
| F.EDAM08 | 1.216 | 7.81 | 6.59 | 10y - GE08H |
| F.EDAU08 | 1.465 | 7.81 | 6.34 | 10y - GE08M |
| F.EDAZ08 | 1.714 | 7.81 | 6.09 | 10y - GE08U |
| F.EDAH09 | 1.964 | 7.81 | 5.85 | 10y - GE08Z |
| F.EDAM09 | 2.213 | 7.81 | 5.60 | 10y - GE09H |
| F.EDAU09 | 2.462 | 7.81 | 5.35 | 10y - GE09M |
| F.EDAZ09 | 2.712 | 7.81 | 5.10 | 10y - GE09U |
| F.EDAH10 | 2.961 | 7.81 | 4.85 | 10y - GE09U |

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