

**Morning Email: TERM TEDS & Dirty TEDS**

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Rotate Me

F.I. Futures and Cash			
	Last Decimal	Last 32	Last Yield*
ZT	102.3125	102.1000	4.710%
ZF	105.6719	105.2150	4.557%
ZN	108.33	108.105	4.563%
Blank			
2y	99.938	99.3000	4.658%
3y	100.773	100.2475	4.583%
5y	100.273	100.0875	4.562%
10y	102.156	102.0500	4.600%

\*Futures use CTD for Last Yield

Eurodollars (GE)				
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year
@GE06Z	94.680	5.320	81	0.221
@GE07H	94.845	5.155	172	0.471
@GE07M	95.020	4.980	263	0.720
@GE07U	95.155	4.845	354	0.969
@GE07Z	95.240	4.760	445	1.219
@GE08H	95.270	4.730	536	1.468
@GE08M	95.260	4.740	627	1.717
@GE08U	95.240	4.760	718	1.967
@GE08Z	95.200	4.800	809	2.216
@GE09H	95.175	4.825	900	2.465
@GE09M	95.130	4.870	991	2.714
@GE09U	95.100	4.900	1082	2.964

Whites

Reds

Greens

**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:**

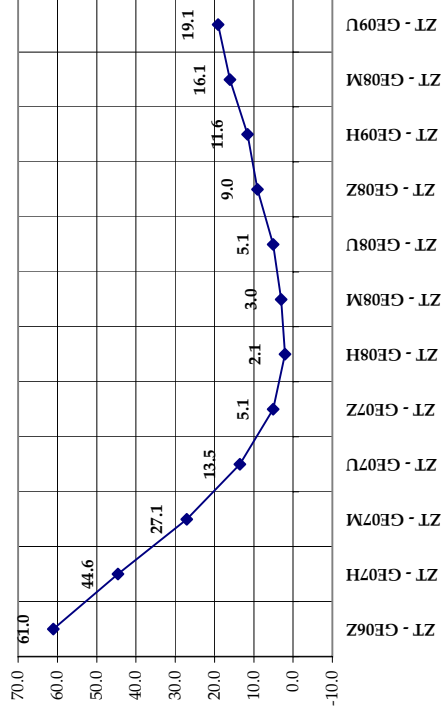
<b>Color</b>	<b>Year</b>	<b>Contracts</b>
White	One	1 – 4
Red	Two	5 – 8
Green	Three	9 – 12
Blue	Four	13 – 16
Gold	Five	17 – 20
Purple	Six	21 – 24
Orange	Seven	25 – 28
Pink	Eight	29 – 32
Silver	Nine	33 – 36
Copper	Ten	37 – 40

Dirty TED: ZT vs Eurodollar Contracts

ZT		Spread Price	Spread Yield	Spread Name
@GE06Z	7.632	61.0	ZT - GE06Z	
@GE07H	7.468	44.6	ZT - GE07H	
@GE07M	7.293	27.1	ZT - GE07M	
@GE07U	7.158	13.5	ZT - GE07U	
@GE07Z	7.073	5.1	ZT - GE07Z	
@GE08H	7.043	2.1	ZT - GE08H	
@GE08M	7.052	3.0	ZT - GE08M	
@GE08U	7.073	5.1	ZT - GE08U	
@GE08Z	7.113	9.0	ZT - GE08Z	
@GE09H	7.138	11.6	ZT - GE09H	
@GE09M	7.183	16.1	ZT - GE09M	
@GE09U	7.213	19.1	ZT - GE09U	

Last = Outright ZT Decimal Price - Euro contract Price  
 Last32 = Amount after decimal in Last column \* 32  
 Yield = ABS(ZT Proxy Yield - Implied Euro contract yield)

ZT Yield - GE Yield

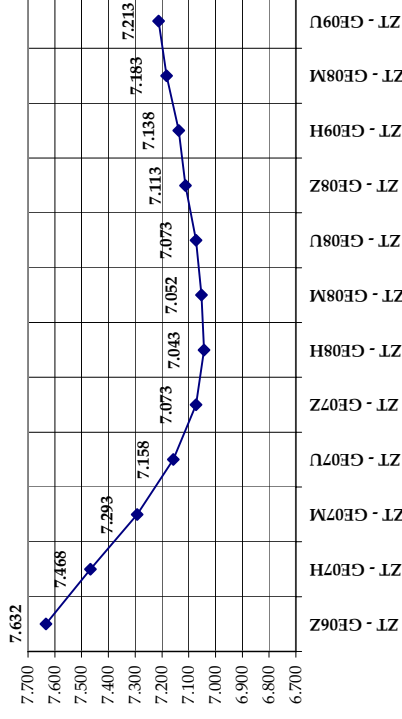


GE Duration as

GE Duration as Fraction of year	ZT Duration	Spread Duration
@GE06Z	0.221	1.87
@GE07H	0.471	1.87
@GE07M	0.720	1.87
@GE07U	0.969	1.87
@GE07Z	1.219	1.87
@GE08H	1.468	1.87
@GE08M	1.717	1.87
@GE08U	1.967	1.87
@GE08Z	2.216	1.87
@GE09H	2.465	1.87
@GE09M	2.714	1.87
@GE09U	2.964	1.87

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

ZT Decimal Price - GE Price



Dirty TED: ZF vs Eurodollar Contracts

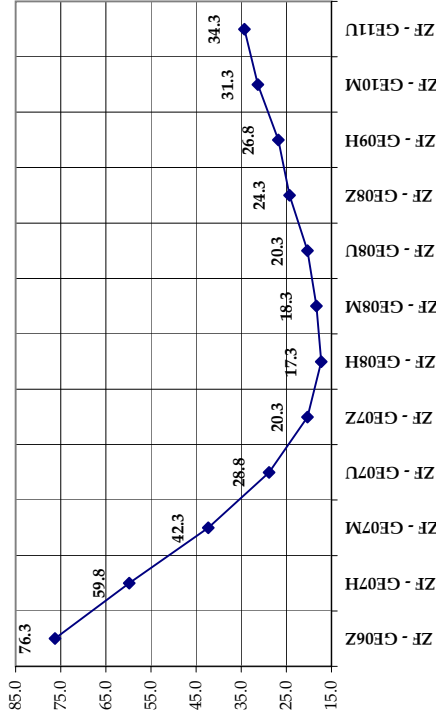
	Spread Price	Spread Yield	Spread Name
@GE06Z	10.99	76.3	ZF - GE06Z
@GE07H	10.83	59.8	ZF - GE07H
@GE07M	10.65	42.3	ZF - GE07M
@GE07U	10.52	28.8	ZF - GE07U
@GE07Z	10.43	20.3	ZF - GE07Z
@GE08H	10.40	17.3	ZF - GE08H
@GE08M	10.41	18.3	ZF - GE08M
@GE08U	10.43	20.3	ZF - GE08U
@GE08Z	10.47	24.3	ZF - GE08Z
@GE09H	10.50	26.8	ZF - GE09H
@GE09M	10.54	31.3	ZF - GE09M
@GE09U	10.57	34.3	ZF - GE09U

Last = Outright ZF Decimal Price - Euro contract Price

Last32 = Amount after decimal in Last column \* 32

Yield = ABS( ZT Proxy Yield - Implied Euro contract yield)

ZF Yield - GF Yield

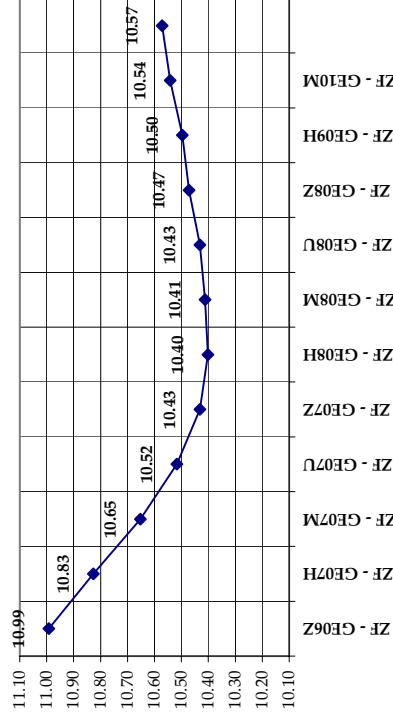


GE Duration as Fraction of year

	Fraction of year	ZF Duration	Spread Duration
@GE06Z	0.221	3.67	3.45
@GE07H	0.471	3.67	3.20
@GE07M	0.720	3.67	2.95
@GE07U	0.969	3.67	2.70
@GE07Z	1.219	3.67	2.45
@GE08H	1.468	3.67	2.20
@GE08M	1.717	3.67	1.95
@GE08U	1.967	3.67	1.70
@GE08Z	2.216	3.67	1.45
@GE09H	2.465	3.67	1.20
@GE09M	2.714	3.67	0.95
@GE09U	2.964	3.67	0.70

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

ZF Decimal Price - GE Price



Dirty TED: ZN vs Eurodollar Contracts

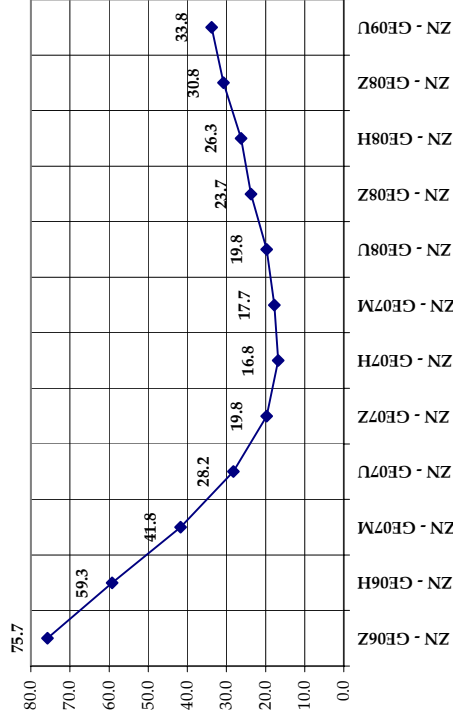
	Spread Price	ZN Yield	Spread Yield	Spread Name
@GE06Z	13.65	75.7	ZN - GE06Z	
@GE07H	13.48	59.3	ZN - GE06H	
@GE07M	13.31	41.8	ZN - GE07M	
@GE07U	13.17	28.2	ZN - GE07U	
@GE07Z	13.09	19.8	ZN - GE07Z	
@GE08H	13.06	16.8	ZN - GE07H	
@GE08M	13.07	17.7	ZN - GE07M	
@GE08U	13.09	19.8	ZN - GE08U	
@GE08Z	13.13	23.7	ZN - GE08Z	
@GE09H	13.15	26.3	ZN - GE08H	
@GE09M	13.20	30.8	ZN - GE08M	
@GE09U	13.23	33.8	ZN - GE09U	

Last = Outright ZN Decimal Price - Euro contract Price

Last32 = Amount after decimal in Last column \* 32

Yield = ABS( ZT Proxy Yield - Implied Euro contract yield)

ZN Yield - GE Yield



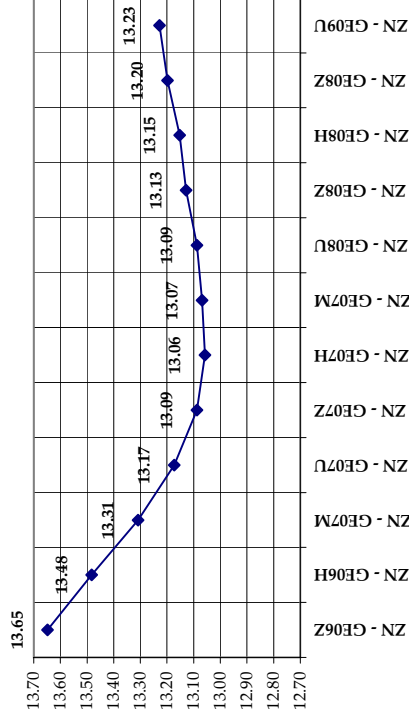
GE Duration as

Fraction of year

	GE Duration as Fraction of year	ZN Duration	Spread Duration
@GE06Z	0.221	5.72	5.49
@GE07H	0.471	5.72	5.24
@GE07M	0.720	5.72	5.00
@GE07U	0.969	5.72	4.75
@GE07Z	1.219	5.72	4.50
@GE08H	1.468	5.72	4.25
@GE08M	1.717	5.72	4.00
@GE08U	1.967	5.72	3.75
@GE08Z	2.216	5.72	3.50
@GE09H	2.465	5.72	3.25
@GE09M	2.714	5.72	3.00
@GE09U	2.964	5.72	2.75

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

ZN Decimal Price - GE Price



TERM TED: 2y vs Eurodollar Contracts

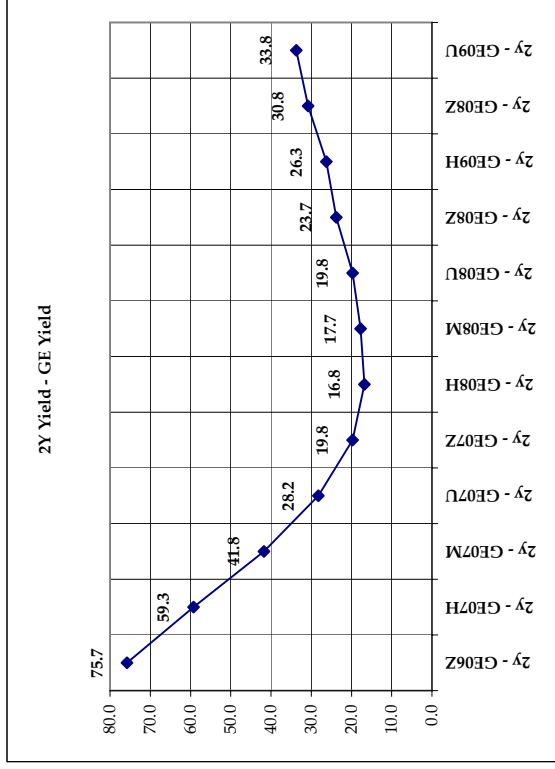
2y

Spread Price	Spread Yield	Spread Name
5.26	75.7	2y - GE06Z
5.09	59.3	2y - GE07H
4.92	41.8	2y - GE07M
4.78	28.2	2y - GE07U
4.70	19.8	2y - GE07Z
4.67	16.8	2y - GE08H
4.68	17.7	2y - GE08M
4.70	19.8	2y - GE08U
4.74	23.7	2y - GE08Z
4.76	26.3	2y - GE09H
4.81	30.8	2y - GE09M
4.84	33.8	2y - GE09U

Last = Outright 2y Decimal Price - Euro contract Price

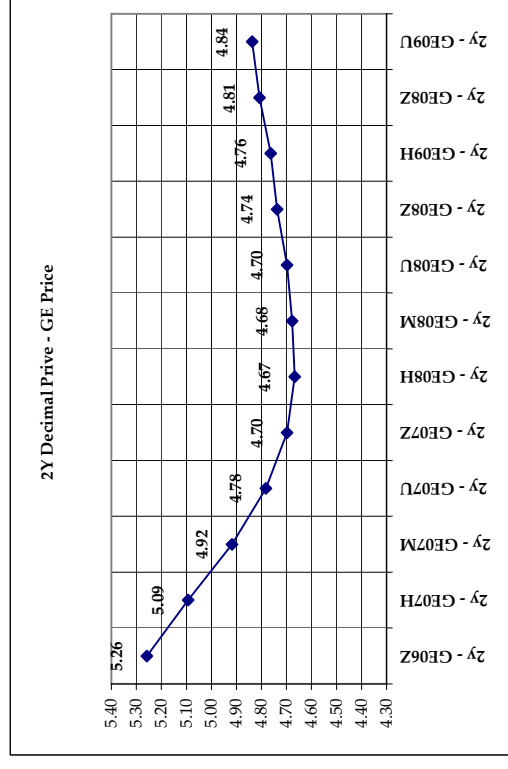
Last32 = Amount after decimal in Last column \* 32

Yield = ABS( ZT Proxy Yield - Implied Euro contract yield)



GE Duration as Fraction of year	2Y Duration	Spread Duration
0.221	1.72	1.50
0.471	1.72	1.25
0.720	1.72	1.00
0.969	1.72	0.76
1.219	1.72	0.51
1.468	1.72	0.26
1.717	1.72	0.01
1.967	1.72	(0.24)
2.216	1.72	(0.49)
2.465	1.72	(0.74)
2.714	1.72	(0.99)
2.964	1.72	(1.24)

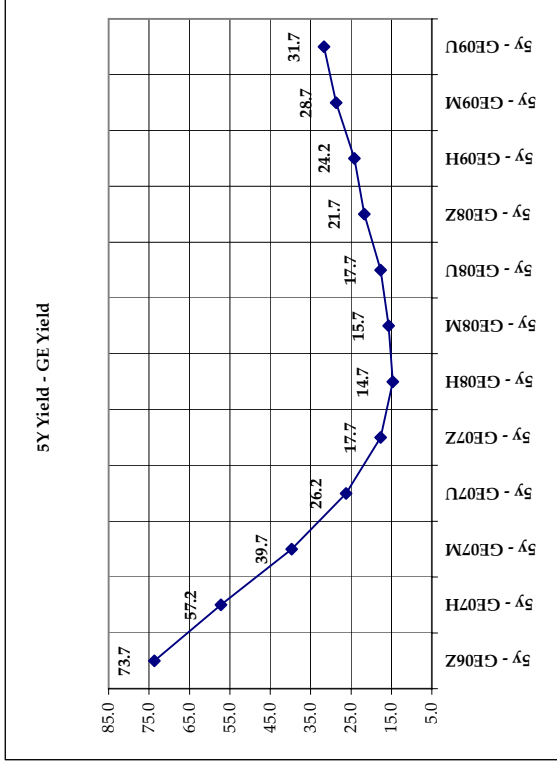
The farther away from 0 the spread duration is the riskier the trade.



**TERM TED: 5y vs Eurodollar Contracts**

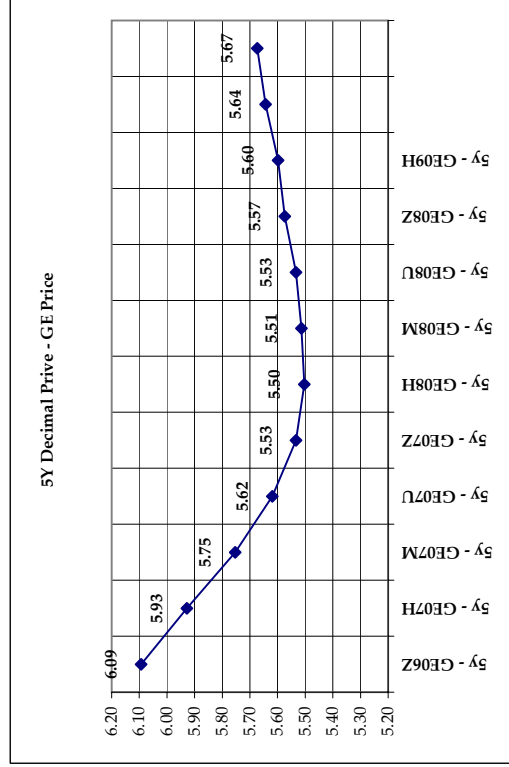
	Spread Price	Spread Yield	Spread Name
@GE06Z	6.09	73.7	5y - GE06Z
@GE07H	5.93	57.2	5y - GE07H
@GE07M	5.75	39.7	5y - GE07M
@GE07U	5.62	26.2	5y - GE07U
@GE07Z	5.53	17.7	5y - GE07Z
@GE08H	5.50	14.7	5y - GE08H
@GE08M	5.51	15.7	5y - GE08M
@GE08U	5.53	17.7	5y - GE08U
@GE08Z	5.57	21.7	5y - GE08Z
@GE09H	5.60	24.2	5y - GE09H
@GE09M	5.64	28.7	5y - GE09M
@GE09U	5.67	31.7	5y - GE09U

Last = Outright 5y Decimal Price - Euro contract Price  
 Last32 = Amount after decimal in Last column \* 32  
 Yield = ABS(ZT Proxy Yield - Implied Euro contract yield)



GE Duration as Fraction of year	5Y Duration	Spread Duration
@GE06Z	0.221	4.02
@GE07H	0.471	3.77
@GE07M	0.720	3.52
@GE07U	0.969	3.27
@GE07Z	1.219	3.02
@GE08H	1.468	2.77
@GE08M	1.717	2.52
@GE08U	1.967	2.27
@GE08Z	2.216	2.03
@GE09H	2.465	1.78
@GE09M	2.714	1.53
@GE09U	2.964	1.28

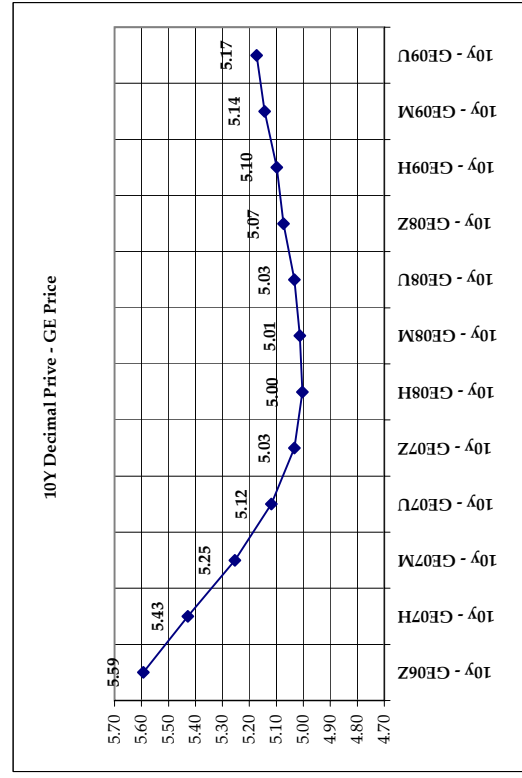
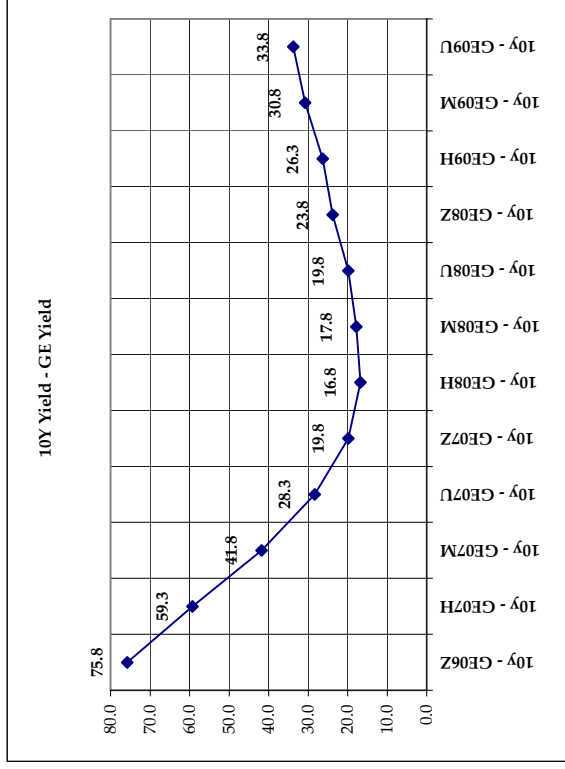
The farther away from 0 the spread duration is the riskier the trade.



**TERM TED: 10y vs Eurodollar Contracts**

	Spread Price	Spread Yield	10y Spread	10y Yield	Spread Name
@GE06Z	5.59	75.8	10y - GE06Z	75.8	
@GE07H	5.43	59.3	10y - GE07H	59.3	
@GE07M	5.25	41.8	10y - GE07M	41.8	
@GE07U	5.12	28.3	10y - GE07U	28.3	
@GE07Z	5.03	19.8	10y - GE07Z	19.8	
@GE08H	5.00	16.8	10y - GE08H	16.8	
@GE08M	5.01	17.8	10y - GE08M	17.8	
@GE08U	5.03	19.8	10y - GE08U	19.8	
@GE08Z	5.07	23.8	10y - GE08Z	23.8	
@GE09H	5.10	26.3	10y - GE09H	26.3	
@GE09M	5.14	30.8	10y - GE09M	30.8	
@GE09U	5.17	33.8	10y - GE09U	33.8	

Last = Outright 10y Decimal Price - Euro contract Price  
 Last32 = Amount after decimal in Last column \* 32  
 Yield = ABS(ZT Proxy Yield - Implied Euro contract yield)



GE Duration as Fraction of year	10Y Duration	Spread Duration
@GE06Z	0.221	7.54
@GE07H	0.471	7.29
@GE07M	0.720	7.04
@GE07U	0.969	6.79
@GE07Z	1.219	6.54
@GE08H	1.468	6.29
@GE08M	1.717	6.04
@GE08U	1.967	5.79
@GE08Z	2.216	5.54
@GE09H	2.465	5.29
@GE09M	2.714	5.04
@GE09U	2.964	4.79

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