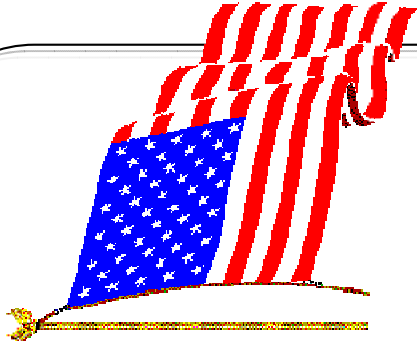


**Morning Email: TERM TEDS & Dirty TEDS**



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Rotate Me

F.I. Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	101.9453	101.3025	4.833%	1.89
ZF	104.9063	104.2900	4.714%	3.71
ZN	107.25	107.080	4.737%	5.75
Blank				
2y	100.125	100.0400	4.807%	1.77
3y	100.367	100.1175	4.738%	2.69
5y	99.617	99.1975	4.712%	4.28
10y	100.797	100.2550	4.773%	7.78

\*Futures use CTD for Last Yield

	Eurodollars (GE)				
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	
@GE06U	94.605	5.395	7	0.019	Whites
@GE06Z	94.625	5.375	98	0.268	
@GE07H	94.750	5.250	189	0.517	
@GE07M	94.885	5.115	280	0.766	Reds
@GE07U	95.000	5.000	371	1.016	
@GE07Z	95.070	4.930	462	1.265	
@GE08H	95.095	4.905	553	1.514	Greens
@GE08M	95.085	4.915	644	1.764	
@GE08U	95.065	4.935	735	2.013	
@GE08Z	95.020	4.980	826	2.262	
@GE09H	94.995	5.005	917	2.512	
@GE09M	94.955	5.045	1008	2.761	

**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](mailto:igoulding@ghco.com)

#### **Eurodollar Color Codes for Individual Year Strips:**

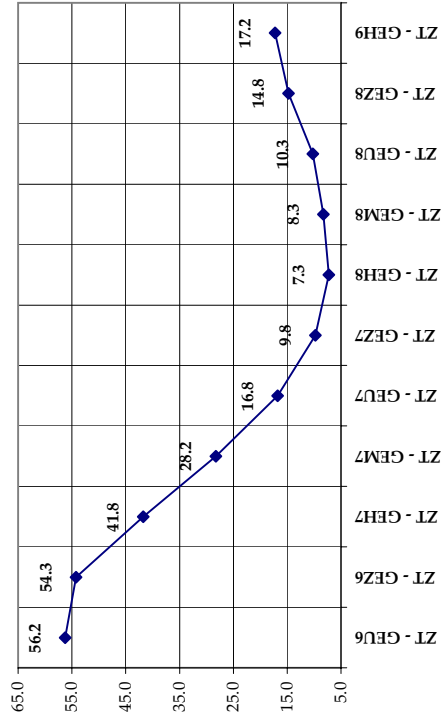
<b>Color</b>	<b>Year</b>	<b>Contracts</b>
White	One	1 – 4
Red	Two	5 – 8
Green	Three	9 – 12
Blue	Four	13 – 16
Gold	Five	17 – 20
Purple	Six	21 – 24
Orange	Seven	25 – 28
Pink	Eight	29 – 32
Silver	Nine	33 – 36
Copper	Ten	37 – 40

Dirty TED: ZT vs Eurodollar Contracts

	Spread Price	Spread Yield	Spread Name
@GE06U	7.340	56.2	ZT - GEU6
@GE06Z	7.320	54.3	ZT - GEZ6
@GE07H	7.195	41.8	ZT - GEH7
@GE07M	7.060	28.2	ZT - GEM7
@GE07U	6.945	16.8	ZT - GEU7
@GE07Z	6.875	9.8	ZT - GEZ7
@GE08H	6.850	7.3	ZT - GEH8
@GE08M	6.860	8.3	ZT - GEM8
@GE08U	6.880	10.3	ZT - GEU8
@GE08Z	6.925	14.8	ZT - GEZ8
@GE09H	6.950	17.2	ZT - GEH9

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

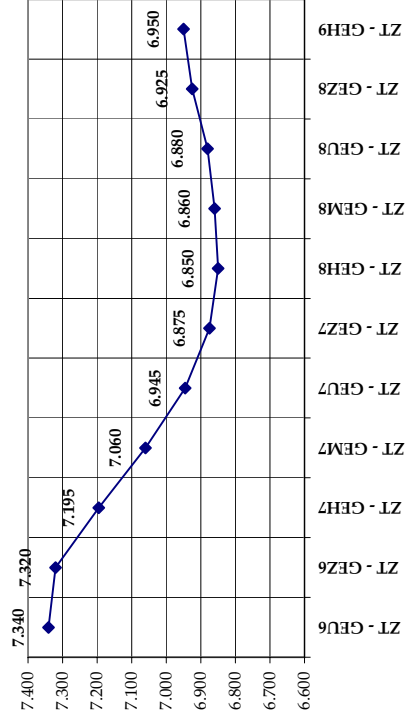


GE Duration as

GE Duration as Fraction of year	ZT Duration	Spread Duration
@GE06U	0.019	1.87
@GE06Z	0.268	1.62
@GE07H	0.517	1.37
@GE07M	0.766	1.12
@GE07U	1.016	0.87
@GE07Z	1.265	0.62
@GE08H	1.514	0.37
@GE08M	1.764	0.12
@GE08U	2.013	(0.13)
@GE08Z	2.262	(0.38)
@GE09H	2.512	(0.63)

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

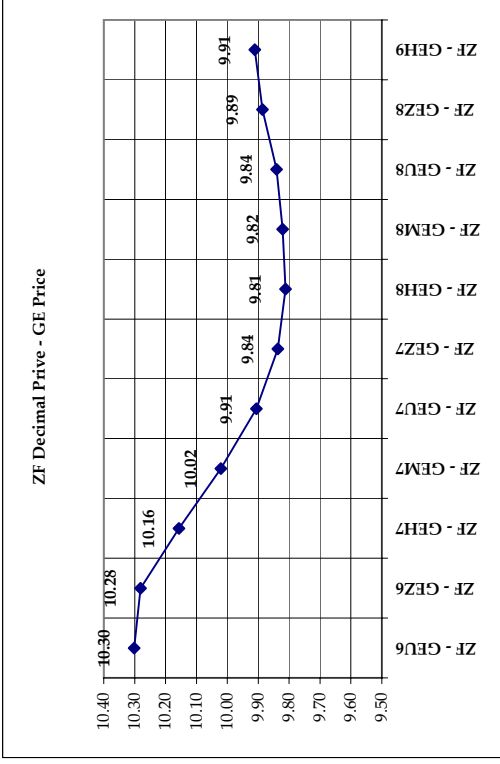
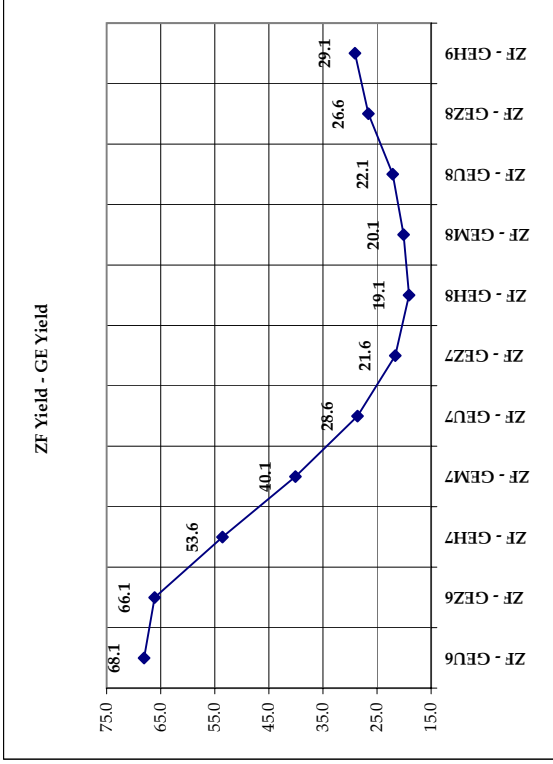
ZT Decimal Price - GE Price



**Dirty TED: ZF vs Eurodollar Contracts**

	ZF	
	Spread Price	Spread Yield
	Price	Name
@GE06U	10.30	ZF - GEU6
@GE06Z	10.28	ZF - GEZ6
@GE07H	10.16	ZF - GEH7
@GE07M	10.02	ZF - GEM7
@GE07U	9.91	ZF - GEU7
@GE07Z	9.84	ZF - GEZ7
@GE08H	9.81	ZF - GEH8
@GE08M	9.82	ZF - GEM8
@GE08U	9.84	ZF - GEU8
@GE08Z	9.89	ZF - GEZ8
@GE09H	9.91	ZF - GEH9

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)



	GE Duration as		ZF		Spread	
	Fraction of year	Duration	Duration	Duration		
@GE06U	0.019	3.71	3.71	3.69	ZF - GEU6	
@GE06Z	0.268	3.71	3.71	3.44	ZF - GEZ6	
@GE07H	0.517	3.71	3.71	3.19	ZF - GEH7	
@GE07M	0.766	3.71	3.71	2.94	ZF - GEM7	
@GE07U	1.016	3.71	3.71	2.69	ZF - GEU7	
@GE07Z	1.265	3.71	3.71	2.44	ZF - GEZ7	
@GE08H	1.514	3.71	3.71	2.19	ZF - GEH8	
@GE08M	1.764	3.71	3.71	1.94	ZF - GEM8	
@GE08U	2.013	3.71	3.71	1.70	ZF - GEU8	
@GE08Z	2.262	3.71	3.71	1.45	ZF - GEZ8	
@GE09H	2.512	3.71	3.71	1.20	ZF - GEH9	

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

**Dirty TED: ZN vs Eurodollar Contracts**

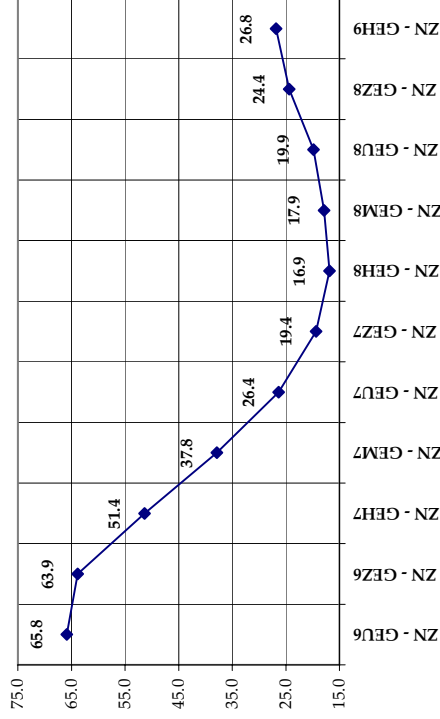
	Spread Price	ZN Yield	Spread Yield	Spread Name
@GE06U	12.65	65.8	65.8	ZN - GEU6
@GE06Z	12.63	63.9	63.9	ZN - GEZ6
@GE07H	12.50	51.4	51.4	ZN - GEH7
@GE07M	12.37	37.8	37.8	ZN - GEM7
@GE07U	12.25	26.4	26.4	ZN - GEU7
@GE07Z	12.18	19.4	19.4	ZN - GEZ7
@GE08H	12.16	16.9	16.9	ZN - GEH8
@GE08M	12.17	17.9	17.9	ZN - GEM8
@GE08U	12.19	19.9	19.9	ZN - GEU8
@GE08Z	12.23	24.4	24.4	ZN - GEZ8
@GE09H	12.26	26.8	26.8	ZN - GEH9

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

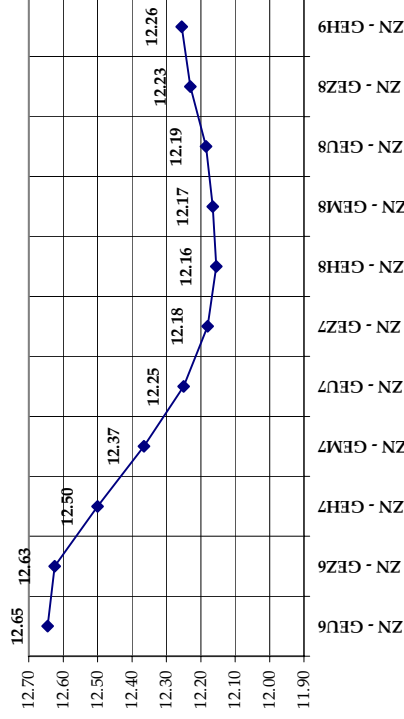


GE Duration as Fraction of year

	GE Duration as Fraction of year	ZN Duration	Spread Duration
@GE06U	0.019	5.75	5.73
@GE06Z	0.268	5.75	5.48
@GE07H	0.517	5.75	5.23
@GE07M	0.766	5.75	4.98
@GE07U	1.016	5.75	4.73
@GE07Z	1.265	5.75	4.49
@GE08H	1.514	5.75	4.24
@GE08M	1.764	5.75	3.99
@GE08U	2.013	5.75	3.74
@GE08Z	2.262	5.75	3.49
@GE09H	2.512	5.75	3.24

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

ZN Decimal Price - GE Price

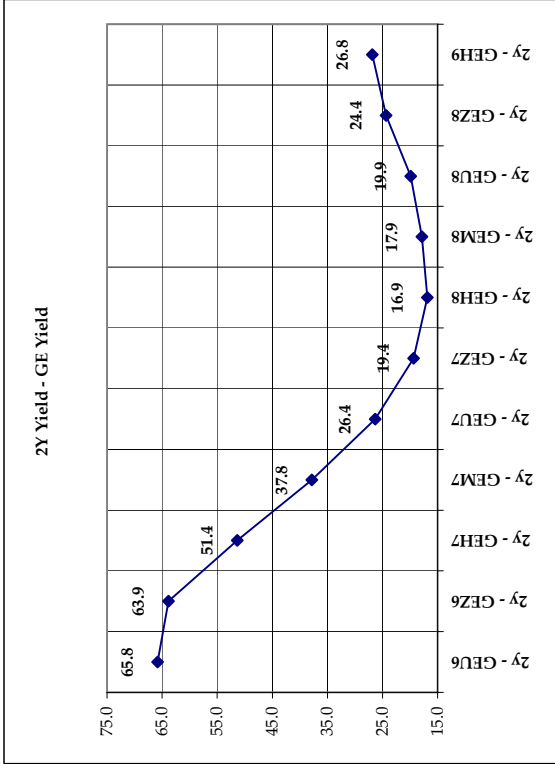


**TERM TED: 2y vs Eurodollar Contracts**

**2y**

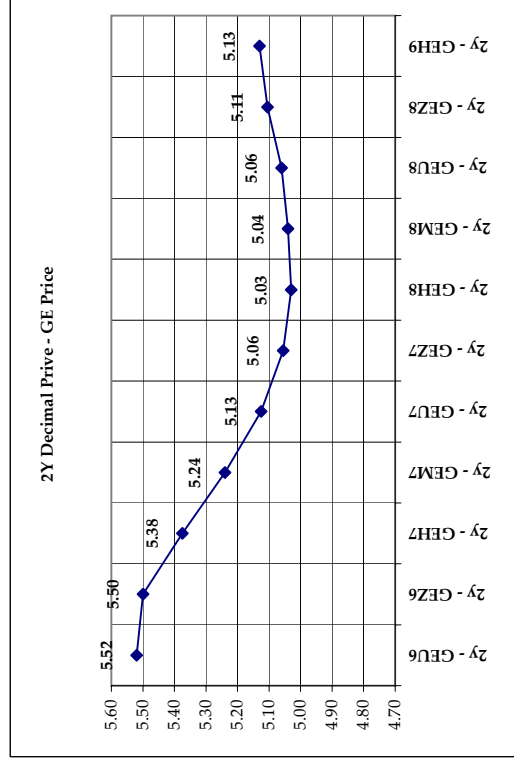
	Spread Price	Spread Yield	Spread Name
@GE06U	5.52	65.8	2y - GEU6
@GE06Z	5.50	63.9	2y - GEZ6
@GE07H	5.38	51.4	2y - GEH7
@GE07M	5.24	37.8	2y - GEM7
@GE07U	5.13	26.4	2y - GEU7
@GE07Z	5.06	19.4	2y - GEZ7
@GE08H	5.03	16.9	2y - GEH8
@GE08M	5.04	17.9	2y - GEM8
@GE08J	5.06	19.9	2y - GEU8
@GE08Z	5.11	24.4	2y - GEZ8
@GE09H	5.13	26.8	2y - GEH9

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		
@GE06U	0.019	1.77	1.75	2y - GEU6
@GE06Z	0.268	1.77	1.50	2y - GEZ6
@GE07H	0.517	1.77	1.25	2y - GEH7
@GE07M	0.766	1.77	1.00	2y - GEM7
@GE07U	1.016	1.77	0.75	2y - GEU7
@GE07Z	1.265	1.77	0.50	2y - GEZ7
@GE08H	1.514	1.77	0.25	2y - GEH8
@GE08M	1.764	1.77	0.00	2y - GEM8
@GE08U	2.013	1.77	(0.24)	2y - GEU8
@GE08Z	2.262	1.77	(0.49)	2y - GEZ8
@GE09H	2.512	1.77	(0.74)	2y - GEH9

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

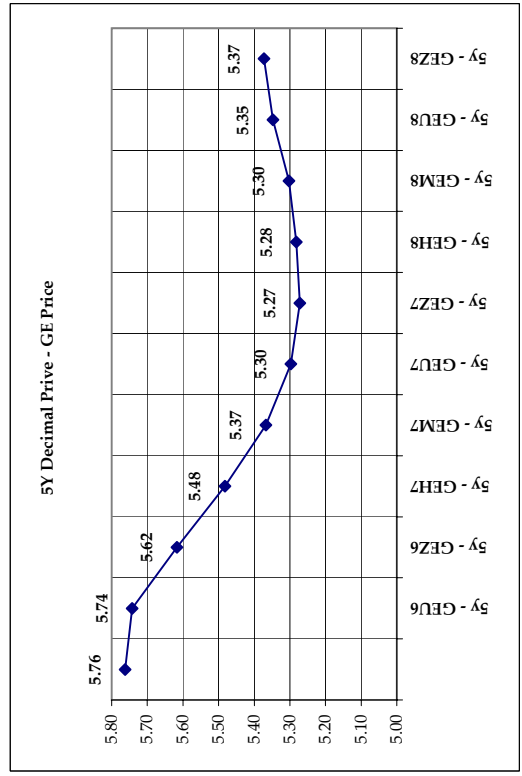
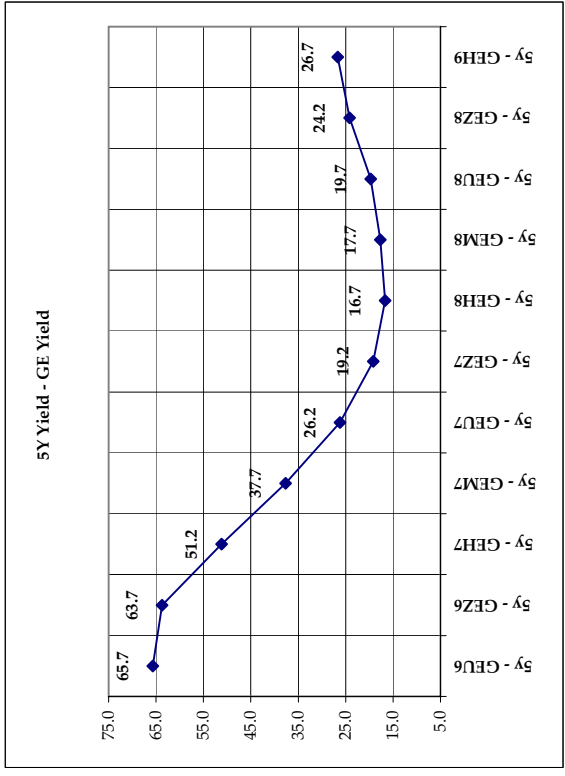


**TERM TED: 5y vs Eurodollar Contracts**

**5y**

	Spread Price	Spread Yield	Spread Name
@GE06U	5.76	65.7	5y - GEU6
@GE06Z	5.74	63.7	5y - GEZ6
@GE07H	5.62	51.2	5y - GEH7
@GE07M	5.48	37.7	5y - GEM7
@GE07U	5.37	26.2	5y - GEU7
@GE07Z	5.30	19.2	5y - GEZ7
@GE08H	5.27	16.7	5y - GEH8
@GE08M	5.28	17.7	5y - GEM8
@GE08J	5.30	19.7	5y - GEU8
@GE08Z	5.35	24.2	5y - GEZ8
@GE09H	5.37	26.7	5y - GEH9

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)



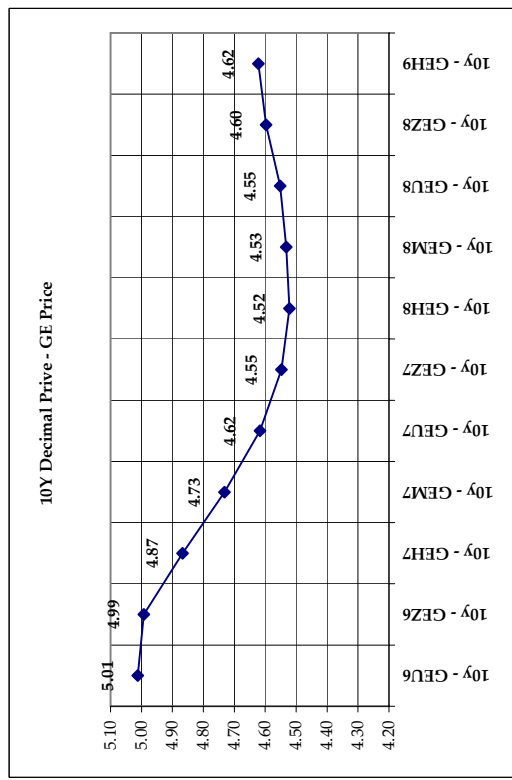
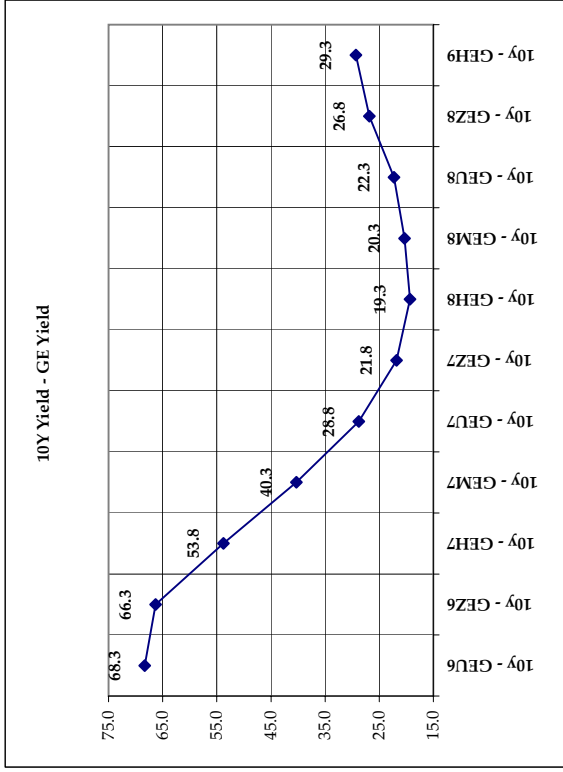
GE Duration as Fraction of year	5Y Duration	Spread Duration
@GE06U	0.019	4.26
@GE06Z	0.268	4.01
@GE07H	0.517	3.76
@GE07M	0.766	3.51
@GE07U	1.016	3.27
@GE07Z	1.265	3.02
@GE08H	1.514	2.77
@GE08M	1.764	2.52
@GE08U	2.013	2.27
@GE08Z	2.262	2.02
@GE09H	2.512	1.77

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

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

	Spread Price	10y Spread Yield	10y Spread Name
@GE06U	5.01	68.3	10y - GEU6
@GE06Z	4.99	66.3	10y - GEZ6
@GE07H	4.87	53.8	10y - GEH7
@GE07M	4.73	40.3	10y - GEM7
@GE07U	4.62	28.8	10y - GEU7
@GE07Z	4.55	21.8	10y - GEZ7
@GE08H	4.52	19.3	10y - GEH8
@GE08M	4.53	20.3	10y - GEM8
@GE08J	4.55	22.3	10y - GEU8
@GE08Z	4.60	26.8	10y - GEZ8
@GE09H	4.62	29.3	10y - GEH9

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
@GE06U	0.019	7.76
@GE06Z	0.268	7.51
@GE07H	0.517	7.26
@GE07M	0.766	7.01
@GE07U	1.016	6.76
@GE07Z	1.265	6.51
@GE08H	1.514	6.27
@GE08M	1.764	6.02
@GE08U	2.013	5.77
@GE08Z	2.262	5.52
@GE09H	2.512	5.27

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