

## **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*	**MDuration	
ZT	102.5063	102.162	4.588	1.92	
ZF	105.7813	105.250	4.493	4.01	
ZN	108.5938	108.190	4.532	5.97	
Blank					
2y	100.266	100.0850	4.605	1.88	
5y	100.569	100.1820	4.493	4.41	
10y	100.563	100.1800	4.554	7.89	

\*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.EDAH07	94.668	5.333	17	0.046	MAR	} White Pack	
F.EDAM07	94.820	5.180	108	0.295	JUN		
F.EDAU07	95.010	4.990	199	0.545	SEP		
F.EDAZ07	95.165	4.835	290	0.794	DEC		
F.EDAH08	95.265	4.735	381	1.043	MAR	} Red Pack	
F.EDAM08	95.305	4.695	472	1.293	JUN		
F.EDAU08	95.320	4.680	563	1.542	SEP		
F.EDAZ08	95.325	4.675	654	1.791	DEC		
F.EDAH09	95.310	4.690	745	2.040	MAR	} Green Pack	
F.EDAM09	95.275	4.725	836	2.290	JUN		
F.EDAU09	95.240	4.760	927	2.539	SEP		
F.EDAZ09	95.200	4.800	1018	2.788	DEC		

**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.

[jgoulding@ghco.com](mailto:jgoulding@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.EDAH07	7.839	0.74	ZT - GE07H
F.EDAM07	7.686	0.59	ZT - GE07M
F.EDAU07	7.496	0.40	ZT - GE07U
F.EDAZ07	7.341	0.25	ZT - GE07Z
F.EDAH08	7.241	0.15	ZT - GE08H
F.EDAM08	7.201	0.11	ZT - GE08M
F.EDAU08	7.186	0.09	ZT - GE08U
F.EDAZ08	7.181	0.09	ZT - GE08Z
F.EDAH09	7.196	0.10	ZT - GE09H
F.EDAM09	7.231	0.14	ZT - GE09M
F.EDAU09	7.266	0.17	ZT - GE09U
F.EDAZ09	7.306	0.21	ZT - GE09Z

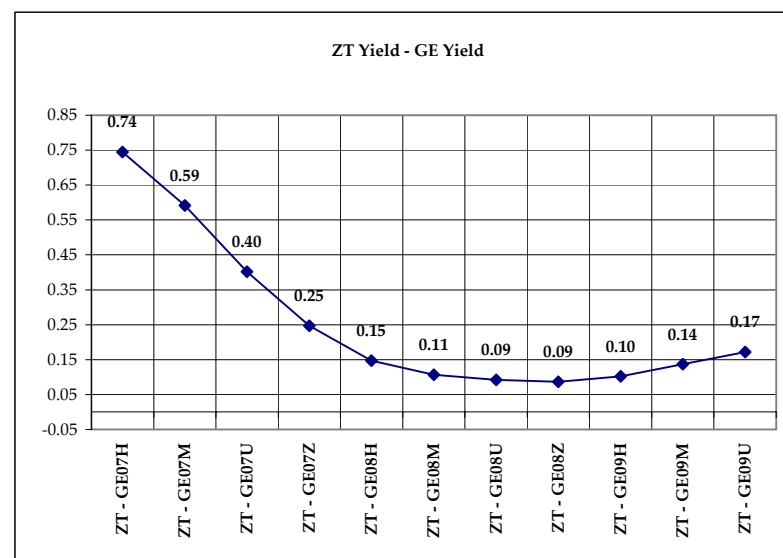
Price = Outright Decimal Price - Euro Contract Price

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

GE Duration as Fraction of year

	ZT Duration	Spread Duration	
F.EDAH07	0.046	1.92	1.87 ZT - GE07H
F.EDAM07	0.295	1.92	1.62 ZT - GE07M
F.EDAU07	0.545	1.92	1.37 ZT - GE07U
F.EDAZ07	0.794	1.92	1.12 ZT - GE07Z
F.EDAH08	1.043	1.92	0.87 ZT - GE08H
F.EDAM08	1.293	1.92	0.63 ZT - GE08M
F.EDAU08	1.542	1.92	0.38 ZT - GE08U
F.EDAZ08	1.791	1.92	0.13 ZT - GE08Z
F.EDAH09	2.040	1.92	(0.12) ZT - GE09H
F.EDAM09	2.290	1.92	(0.37) ZT - GE09M
F.EDAU09	2.539	1.92	(0.62) ZT - GE09U
F.EDAZ09	2.788	1.92	(0.87) ZT - GE09Z

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



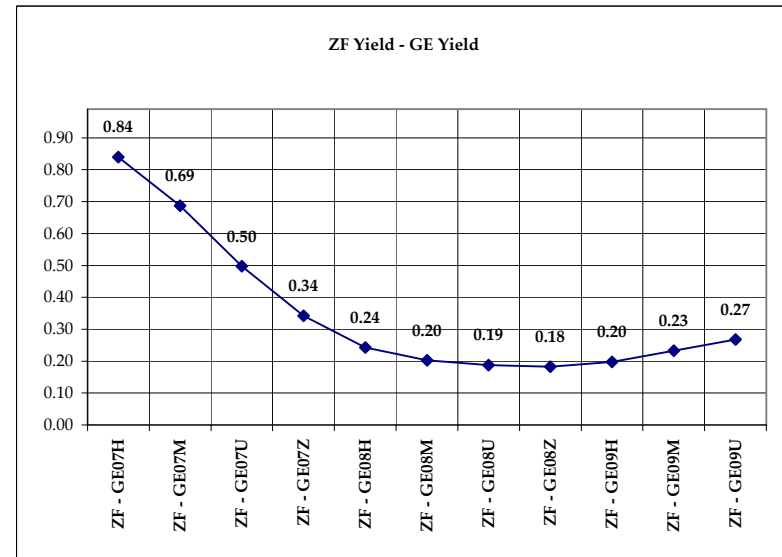
Dirty TED: ZF vs Eurodollar Contracts

ZF			
	Spread Price	Spread Yield	Spread Name
F.EDAH07	11.11	0.84	ZF - GE07H
F.EDAM07	10.96	0.69	ZF - GE07M
F.EDAU07	10.77	0.50	ZF - GE07U
F.EDAZ07	10.62	0.34	ZF - GE07Z
F.EDAH08	10.52	0.24	ZF - GE08H
F.EDAM08	10.48	0.20	ZF - GE08M
F.EDAU08	10.46	0.19	ZF - GE08U
F.EDAZ08	10.46	0.18	ZF - GE08Z
F.EDAH09	10.47	0.20	ZF - GE09H
F.EDAM09	10.51	0.23	ZF - GE09M
F.EDAU09	10.54	0.27	ZF - GE09U
F.EDAZ09	10.58	0.31	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.EDAH07	0.046	4.01	3.97	ZF - GE07H
F.EDAM07	0.295	4.01	3.72	ZF - GE07M
F.EDAU07	0.545	4.01	3.47	ZF - GE07U
F.EDAZ07	0.794	4.01	3.22	ZF - GE07Z
F.EDAH08	1.043	4.01	2.97	ZF - GE08H
F.EDAM08	1.293	4.01	2.72	ZF - GE08M
F.EDAU08	1.542	4.01	2.47	ZF - GE08U
F.EDAZ08	1.791	4.01	2.22	ZF - GE08Z
F.EDAH09	2.040	4.01	1.97	ZF - GE09H
F.EDAM09	2.290	4.01	1.72	ZF - GE09M
F.EDAU09	2.539	4.01	1.47	ZF - GE09U
F.EDAZ09	2.788	4.01	1.22	ZF - GE09U

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



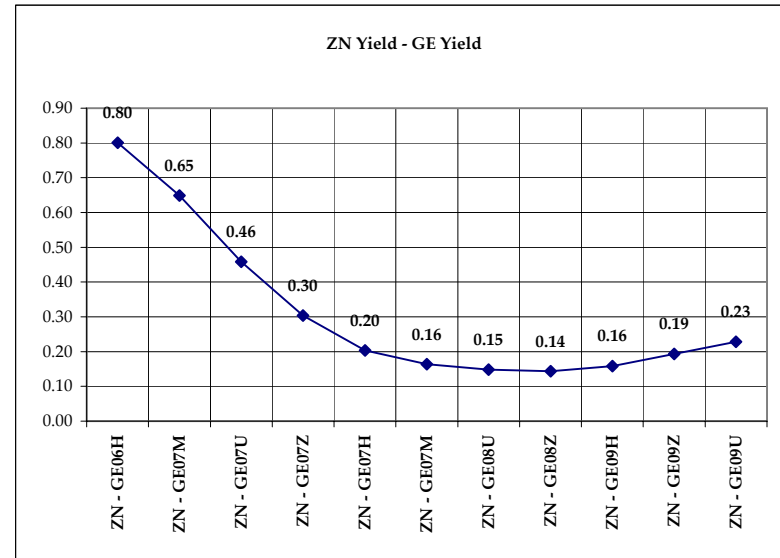
Dirty TED: ZN vs Eurodollar Contracts

ZN			
	Spread Price	Spread Yield	Spread Name
F.EDAH07	13.93	0.80	ZN - GE06H
F.EDAM07	13.77	0.65	ZN - GE07M
F.EDAU07	13.58	0.46	ZN - GE07U
F.EDAZ07	13.43	0.30	ZN - GE07Z
F.EDAH08	13.33	0.20	ZN - GE07H
F.EDAM08	13.29	0.16	ZN - GE07M
F.EDAU08	13.27	0.15	ZN - GE08U
F.EDAZ08	13.27	0.14	ZN - GE08Z
F.EDAH09	13.28	0.16	ZN - GE09H
F.EDAM09	13.32	0.19	ZN - GE09Z
F.EDAU09	13.35	0.23	ZN - GE09U
F.EDAZ09	13.39	0.27	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.EDAH07	0.046	5.97	5.93	ZN - GE06H
F.EDAM07	0.295	5.97	5.68	ZN - GE07M
F.EDAU07	0.545	5.97	5.43	ZN - GE07U
F.EDAZ07	0.794	5.97	5.18	ZN - GE07Z
F.EDAH08	1.043	5.97	4.93	ZN - GE07H
F.EDAM08	1.293	5.97	4.68	ZN - GE07M
F.EDAU08	1.542	5.97	4.43	ZN - GE08U
F.EDAZ08	1.791	5.97	4.18	ZN - GE08Z
F.EDAH09	2.040	5.97	3.93	ZN - GE09H
F.EDAM09	2.290	5.97	3.68	ZN - GE09Z
F.EDAU09	2.539	5.97	3.43	ZN - GE09U
F.EDAZ09	2.788	5.97	3.18	ZN - GE09U

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



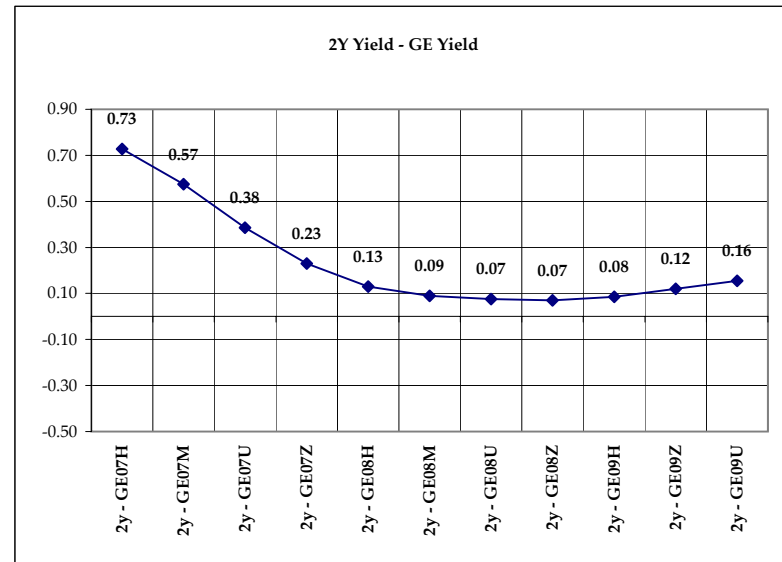
**TERM TED: 2y vs Eurodollar Contracts**

	2y		
	Spread Price	Spread Yield	Spread Name
F.EDAH07	5.60	0.73	2y - GE07H
F.EDAM07	5.45	0.57	2y - GE07M
F.EDAU07	5.26	0.38	2y - GE07U
F.EDAZ07	5.10	0.23	2y - GE07Z
F.EDAH08	5.00	0.13	2y - GE08H
F.EDAM08	4.96	0.09	2y - GE08M
F.EDAU08	4.95	0.07	2y - GE08U
F.EDAZ08	4.94	0.07	2y - GE08Z
F.EDAH09	4.96	0.08	2y - GE09H
F.EDAM09	4.99	0.12	2y - GE09Z
F.EDAU09	5.03	0.16	2y - GE09U
F.EDAZ09	5.07	0.19	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.EDAH07	0.046	1.88	1.83	2y - GE07H
F.EDAM07	0.295	1.88	1.58	2y - GE07M
F.EDAU07	0.545	1.88	1.33	2y - GE07U
F.EDAZ07	0.794	1.88	1.08	2y - GE07Z
F.EDAH08	1.043	1.88	0.83	2y - GE08H
F.EDAM08	1.293	1.88	0.58	2y - GE08M
F.EDAU08	1.542	1.88	0.33	2y - GE08U
F.EDAZ08	1.791	1.88	0.08	2y - GE08Z
F.EDAH09	2.040	1.88	(0.16)	2y - GE09H
F.EDAM09	2.290	1.88	(0.41)	2y - GE09Z
F.EDAU09	2.539	1.88	(0.66)	2y - GE09U
F.EDAZ09	2.788	1.88	(0.91)	2y - GE09U

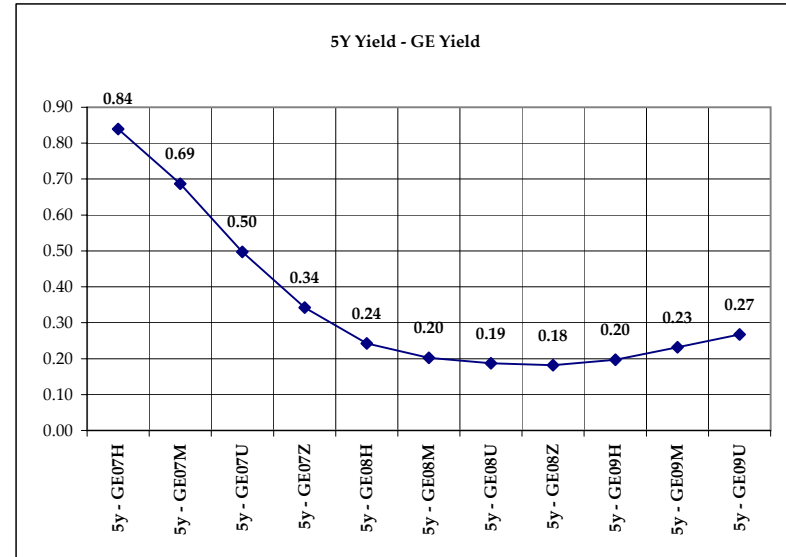
The farther away from 0 the spread duration is the riskier the trade.



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

5y			
	Spread Price	Spread Yield	Spread Name
F.EDAH07	5.90	0.84	5y - GE07H
F.EDAM07	5.75	0.69	5y - GE07M
F.EDAU07	5.56	0.50	5y - GE07U
F.EDAZ07	5.40	0.34	5y - GE07Z
F.EDAH08	5.30	0.24	5y - GE08H
F.EDAM08	5.26	0.20	5y - GE08M
F.EDAU08	5.25	0.19	5y - GE08U
F.EDAZ08	5.24	0.18	5y - GE08Z
F.EDAH09	5.26	0.20	5y - GE09H
F.EDAM09	5.29	0.23	5y - GE09M
F.EDAU09	5.33	0.27	5y - GE09U
F.EDAZ09	5.37	0.31	5y - GE09U

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



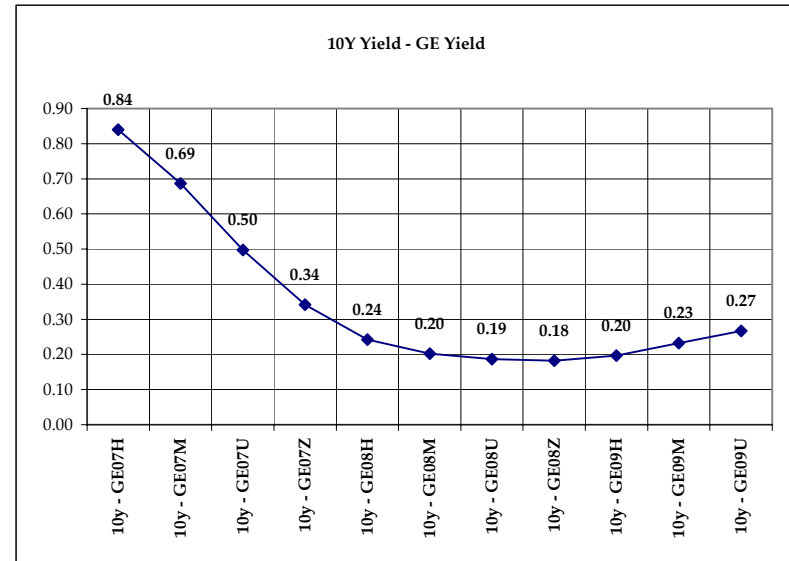
	GE Duration as Fraction of year	5Y Duration	Spread Duration	
F.EDAH07	0.046	4.41	4.36	5y - GE07H
F.EDAM07	0.295	4.41	4.11	5y - GE07M
F.EDAU07	0.545	4.41	3.87	5y - GE07U
F.EDAZ07	0.794	4.41	3.62	5y - GE07Z
F.EDAH08	1.043	4.41	3.37	5y - GE08H
F.EDAM08	1.293	4.41	3.12	5y - GE08M
F.EDAU08	1.542	4.41	2.87	5y - GE08U
F.EDAZ08	1.791	4.41	2.62	5y - GE08Z
F.EDAH09	2.040	4.41	2.37	5y - GE09H
F.EDAM09	2.290	4.41	2.12	5y - GE09M
F.EDAU09	2.539	4.41	1.87	5y - GE09U
F.EDAZ09	2.788	4.41	1.62	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.EDAH07	5.90	0.84	10y - GE07H
F.EDAM07	5.75	0.69	10y - GE07M
F.EDAU07	5.56	0.50	10y - GE07U
F.EDAZ07	5.40	0.34	10y - GE07Z
F.EDAH08	5.30	0.24	10y - GE08H
F.EDAM08	5.26	0.20	10y - GE08M
F.EDAU08	5.25	0.19	10y - GE08U
F.EDAZ08	5.24	0.18	10y - GE08Z
F.EDAH09	5.26	0.20	10y - GE09H
F.EDAM09	5.29	0.23	10y - GE09M
F.EDAU09	5.33	0.27	10y - GE09U
F.EDAZ09	5.37	0.31	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.EDAH07	0.046	7.89	7.85	10y - GE07H
F.EDAM07	0.295	7.89	7.60	10y - GE07M
F.EDAU07	0.545	7.89	7.35	10y - GE07U
F.EDAZ07	0.794	7.89	7.10	10y - GE07Z
F.EDAH08	1.043	7.89	6.85	10y - GE08H
F.EDAM08	1.293	7.89	6.60	10y - GE08M
F.EDAU08	1.542	7.89	6.35	10y - GE08U
F.EDAZ08	1.791	7.89	6.10	10y - GE08Z
F.EDAH09	2.040	7.89	5.85	10y - GE09H
F.EDAM09	2.290	7.89	5.61	10y - GE09M
F.EDAU09	2.539	7.89	5.36	10y - GE09U
F.EDAZ09	2.788	7.89	5.11	10y - GE09U

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