

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

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		F.I. Futures and Cash			
		Last Decimal	Last 32	Last Yield*	**MDuration
Blank	ZT	102.2563	102.082	4.675	1.89
	ZF	105.5625	105.180	4.571	3.86
	ZN	107.9063	107.290	4.619	5.82
	2y	99.709	99.2270	4.654	1.89
	5y	99.647	99.2070	4.576	4.35
	10y	99.500	99.1600	4.686	7.73

\*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.EDAM07	94.675	5.325	52	0.142	JUN	} White Pack	
F.EDAU07	94.770	5.230	143	0.391	SEP		
F.EDAZ07	94.950	5.050	234	0.640	DEC		
F.EDAH08	95.135	4.865	325	0.890	MAR	} Red Pack	
F.EDAM08	95.255	4.745	416	1.139	JUN		
F.EDAU08	95.305	4.695	507	1.388	SEP		
F.EDAZ08	95.310	4.690	598	1.638	DEC		
F.EDAH09	95.295	4.705	689	1.887	MAR	} Green Pack	
F.EDAM09	95.240	4.760	780	2.136	JUN		
F.EDAU09	95.190	4.810	871	2.386	SEP		
F.EDAZ09	95.140	4.860	962	2.635	DEC		
F.EDAH10	95.095	4.905	1053	2.884	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:**

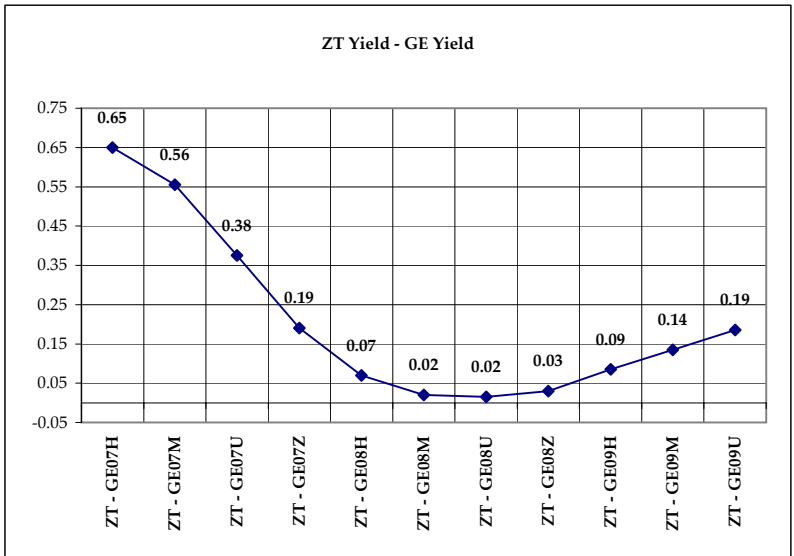
Color	Year	Contracts
White	One	1 – 4
Red	Two	5 – 8
Green	Three	9 – 12
Blue	Four	13 – 16
Gold	Five	17 – 20
Purple	Six	21 – 24
Orange	Seven	25 – 28
Pink	Eight	29 – 32
Silver	Nine	33 – 36
Copper	Ten	37 – 40

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Dirty TED: ZT vs Eurodollar Contracts

ZT			
	Spread Price	Spread Yield	Spread Name
F.EDAM07	7.581	0.65	ZT - GE07H
F.EDAU07	7.486	0.56	ZT - GE07M
F.EDAZ07	7.306	0.38	ZT - GE07U
F.EDAH08	7.121	0.19	ZT - GE07Z
F.EDAM08	7.001	0.07	ZT - GE08H
F.EDAU08	6.951	0.02	ZT - GE08M
F.EDAZ08	6.946	0.02	ZT - GE08U
F.EDAH09	6.961	0.03	ZT - GE08Z
F.EDAM09	7.016	0.09	ZT - GE09H
F.EDAU09	7.066	0.14	ZT - GE09M
F.EDAZ09	7.116	0.19	ZT - GE09U
F.EDAH10	7.161	0.23	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	0.142	1.75	ZT - GE07H
F.EDAU07	0.391	1.50	ZT - GE07M
F.EDAZ07	0.640	1.25	ZT - GE07U
F.EDAH08	0.890	1.00	ZT - GE07Z
F.EDAM08	1.139	0.75	ZT - GE08H
F.EDAU08	1.388	0.50	ZT - GE08M
F.EDAZ08	1.638	0.25	ZT - GE08U
F.EDAH09	1.887	0.00	ZT - GE08Z
F.EDAM09	2.136	(0.25)	ZT - GE09H
F.EDAU09	2.386	(0.49)	ZT - GE09M
F.EDAZ09	2.635	(0.74)	ZT - GE09U
F.EDAH10	2.884	(0.99)	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.EDAM07	10.89	0.75	ZF - GE07H
F.EDAU07	10.79	0.66	ZF - GE07M
F.EDAZ07	10.61	0.48	ZF - GE07U
F.EDAH08	10.43	0.29	ZF - GE07Z
F.EDAM08	10.31	0.17	ZF - GE08H
F.EDAU08	10.26	0.12	ZF - GE08M
F.EDAZ08	10.25	0.12	ZF - GE08U
F.EDAH09	10.27	0.13	ZF - GE08Z
F.EDAM09	10.32	0.19	ZF - GE09H
F.EDAU09	10.37	0.24	ZF - GE09M
F.EDAZ09	10.42	0.29	ZF - GE09U
F.EDAH10	10.47	0.33	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	0.142	3.86	3.72	ZF - GE07H
F.EDAU07	0.391	3.86	3.47	ZF - GE07M
F.EDAZ07	0.640	3.86	3.22	ZF - GE07U
F.EDAH08	0.890	3.86	2.97	ZF - GE07Z
F.EDAM08	1.139	3.86	2.72	ZF - GE08H
F.EDAU08	1.388	3.86	2.47	ZF - GE08M
F.EDAZ08	1.638	3.86	2.22	ZF - GE08U
F.EDAH09	1.887	3.86	1.97	ZF - GE08Z
F.EDAM09	2.136	3.86	1.72	ZF - GE09H
F.EDAU09	2.386	3.86	1.47	ZF - GE09M
F.EDAZ09	2.635	3.86	1.23	ZF - GE09U
F.EDAH10	2.884	3.86	0.98	ZF - GE09U

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

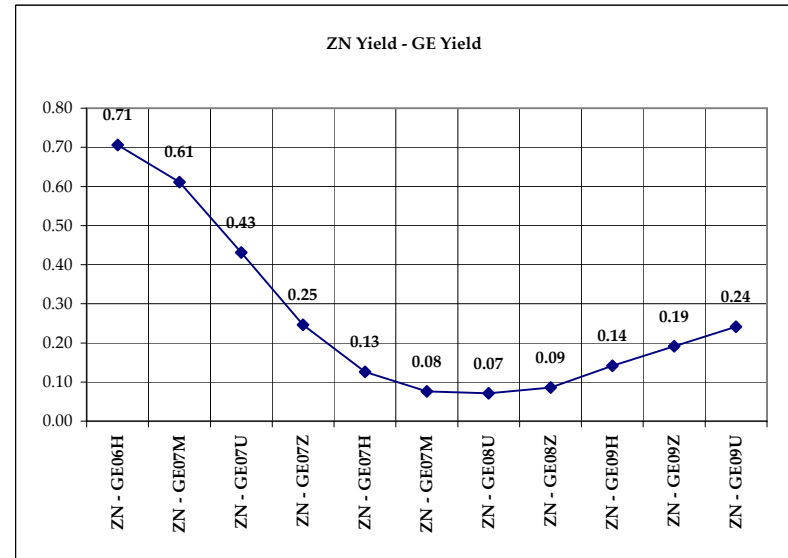
Dirty TED: ZN vs Eurodollar Contracts

ZN			
	Spread Price	Spread Yield	Spread Name
F.EDAM07	13.23	0.71	ZN - GE06H
F.EDAU07	13.14	0.61	ZN - GE07M
F.EDAZ07	12.96	0.43	ZN - GE07U
F.EDAH08	12.77	0.25	ZN - GE07Z
F.EDAM08	12.65	0.13	ZN - GE07H
F.EDAU08	12.60	0.08	ZN - GE07M
F.EDAZ08	12.60	0.07	ZN - GE08U
F.EDAH09	12.61	0.09	ZN - GE08Z
F.EDAM09	12.67	0.14	ZN - GE09H
F.EDAU09	12.72	0.19	ZN - GE09Z
F.EDAZ09	12.77	0.24	ZN - GE09U
F.EDAH10	12.81	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	0.142	5.82	5.67	ZN - GE06H
F.EDAU07	0.391	5.82	5.43	ZN - GE07M
F.EDAZ07	0.640	5.82	5.18	ZN - GE07U
F.EDAH08	0.890	5.82	4.93	ZN - GE07Z
F.EDAM08	1.139	5.82	4.68	ZN - GE07H
F.EDAU08	1.388	5.82	4.43	ZN - GE07M
F.EDAZ08	1.638	5.82	4.18	ZN - GE08U
F.EDAH09	1.887	5.82	3.93	ZN - GE08Z
F.EDAM09	2.136	5.82	3.68	ZN - GE09H
F.EDAU09	2.386	5.82	3.43	ZN - GE09Z
F.EDAZ09	2.635	5.82	3.18	ZN - GE09U
F.EDAH10	2.884	5.82	2.93	ZN - GE09U

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



TERM TED: 2y vs Eurodollar Contracts

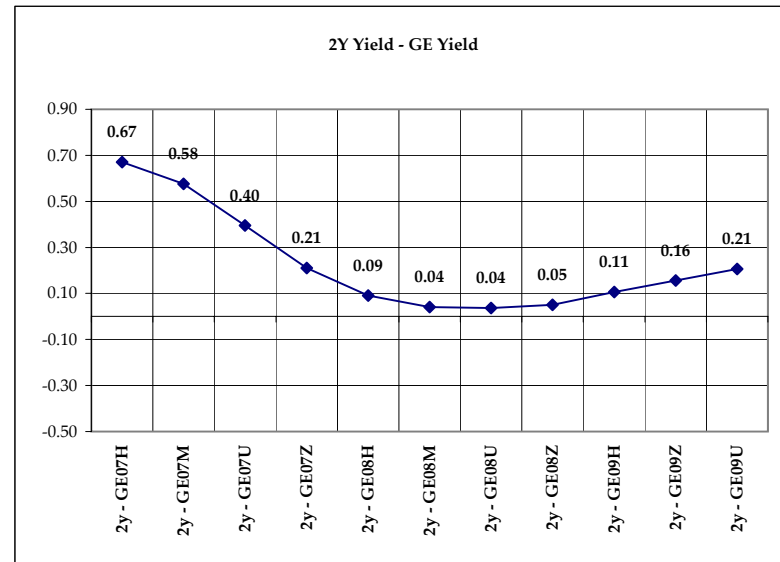
	2y		
	Spread Price	Spread Yield	Spread Name
F.EDAM07	5.03	0.67	2y - GE07H
F.EDAU07	4.94	0.58	2y - GE07M
F.EDAZ07	4.76	0.40	2y - GE07U
F.EDAH08	4.57	0.21	2y - GE07Z
F.EDAM08	4.45	0.09	2y - GE08H
F.EDAU08	4.40	0.04	2y - GE08M
F.EDAZ08	4.40	0.04	2y - GE08U
F.EDAH09	4.41	0.05	2y - GE08Z
F.EDAM09	4.47	0.11	2y - GE09H
F.EDAU09	4.52	0.16	2y - GE09Z
F.EDAZ09	4.57	0.21	2y - GE09U
F.EDAH10	4.61	0.25	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	0.142	1.75	2y - GE07H
F.EDAU07	0.391	1.50	2y - GE07M
F.EDAZ07	0.640	1.25	2y - GE07U
F.EDAH08	0.890	1.00	2y - GE07Z
F.EDAM08	1.139	0.75	2y - GE08H
F.EDAU08	1.388	0.50	2y - GE08M
F.EDAZ08	1.638	0.25	2y - GE08U
F.EDAH09	1.887	0.00	2y - GE08Z
F.EDAM09	2.136	(0.25)	2y - GE09H
F.EDAU09	2.386	(0.49)	2y - GE09Z
F.EDAZ09	2.635	(0.74)	2y - GE09U
F.EDAH10	2.884	(0.99)	2y - GE09U

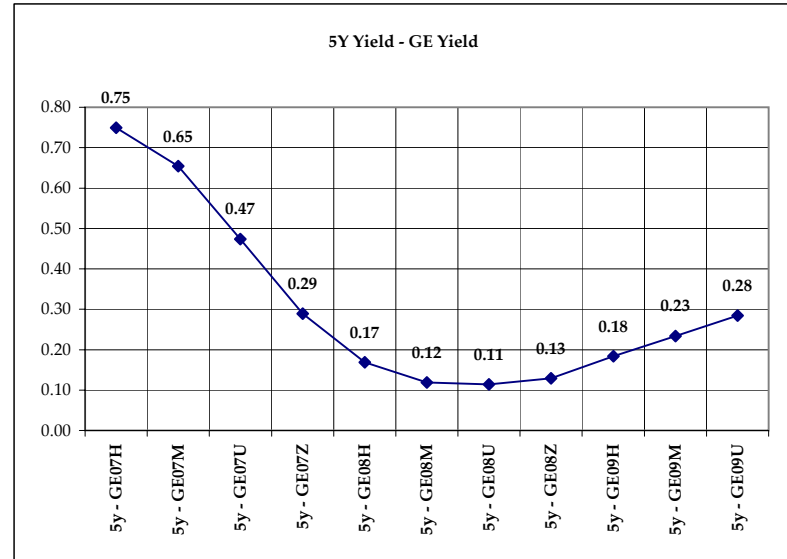
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 5y vs Eurodollar Contracts

5y			
	Spread Price	Spread Yield	Spread Name
F.EDAM07	4.97	0.75	5y - GE07H
F.EDAU07	4.88	0.65	5y - GE07M
F.EDAZ07	4.70	0.47	5y - GE07U
F.EDAH08	4.51	0.29	5y - GE07Z
F.EDAM08	4.39	0.17	5y - GE08H
F.EDAU08	4.34	0.12	5y - GE08M
F.EDAZ08	4.34	0.11	5y - GE08U
F.EDAH09	4.35	0.13	5y - GE08Z
F.EDAM09	4.41	0.18	5y - GE09H
F.EDAU09	4.46	0.23	5y - GE09M
F.EDAZ09	4.51	0.28	5y - GE09U
F.EDAH10	4.55	0.33	5y - GE09U

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



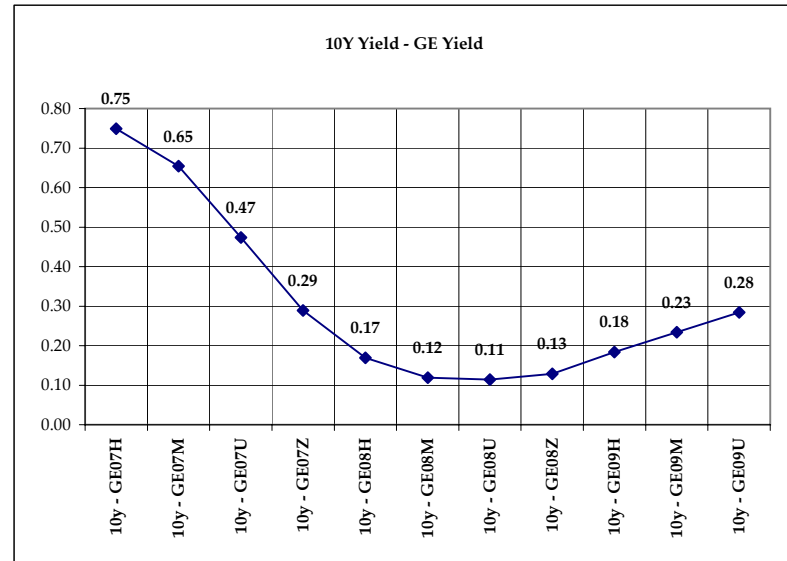
	GE Duration as Fraction of year	5Y Duration	Spread Duration	
F.EDAM07	0.142	4.35	4.21	5y - GE07H
F.EDAU07	0.391	4.35	3.96	5y - GE07M
F.EDAZ07	0.640	4.35	3.71	5y - GE07U
F.EDAH08	0.890	4.35	3.46	5y - GE07Z
F.EDAM08	1.139	4.35	3.21	5y - GE08H
F.EDAU08	1.388	4.35	2.96	5y - GE08M
F.EDAZ08	1.638	4.35	2.71	5y - GE08U
F.EDAH09	1.887	4.35	2.46	5y - GE08Z
F.EDAM09	2.136	4.35	2.21	5y - GE09H
F.EDAU09	2.386	4.35	1.96	5y - GE09M
F.EDAZ09	2.635	4.35	1.72	5y - GE09U
F.EDAH10	2.884	4.35	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	4.97	0.75	10y - GE07H
F.EDAU07	4.88	0.65	10y - GE07M
F.EDAZ07	4.70	0.47	10y - GE07U
F.EDAH08	4.51	0.29	10y - GE07Z
F.EDAM08	4.39	0.17	10y - GE08H
F.EDAU08	4.34	0.12	10y - GE08M
F.EDAZ08	4.34	0.11	10y - GE08U
F.EDAH09	4.35	0.13	10y - GE08Z
F.EDAM09	4.41	0.18	10y - GE09H
F.EDAU09	4.46	0.23	10y - GE09M
F.EDAZ09	4.51	0.28	10y - GE09U
F.EDAH10	4.55	0.33	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	0.142	7.73	7.58	10y - GE07H
F.EDAU07	0.391	7.73	7.34	10y - GE07M
F.EDAZ07	0.640	7.73	7.09	10y - GE07U
F.EDAH08	0.890	7.73	6.84	10y - GE07Z
F.EDAM08	1.139	7.73	6.59	10y - GE08H
F.EDAU08	1.388	7.73	6.34	10y - GE08M
F.EDAZ08	1.638	7.73	6.09	10y - GE08U
F.EDAH09	1.887	7.73	5.84	10y - GE08Z
F.EDAM09	2.136	7.73	5.59	10y - GE09H
F.EDAU09	2.386	7.73	5.34	10y - GE09M
F.EDAZ09	2.635	7.73	5.09	10y - GE09U
F.EDAH10	2.884	7.73	4.84	10y - GE09U

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