

## **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	101.8188	101.262	4.909	1.78	
ZF	104.6406	104.205	4.786	3.81	
ZN	106.8906	106.285	4.770	5.74	
Blank					
2y	99.922	99.2950	4.917	1.86	
5y	99.813	99.2600	4.791	4.38	
10y	98.625	98.2000	4.800	7.69	

\*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	94.635	5.365	41	0.112	MAR	} White Pack	
F.EDAM07	94.655	5.345	132	0.361	JUN		
F.EDAU07	94.760	5.240	223	0.610	SEP		
F.EDAZ07	94.880	5.120	314	0.860	DEC	} Red Pack	
F.EDAH08	94.960	5.040	405	1.109	MAR		
F.EDAM08	95.000	5.000	496	1.358	JUN		
F.EDAU08	95.030	4.970	587	1.608	SEP		
F.EDAZ08	95.035	4.965	678	1.857	DEC	} Green Pack	
F.EDAH09	95.035	4.965	769	2.106	MAR		
F.EDAM09	95.015	4.985	860	2.356	JUN		
F.EDAU09	94.995	5.005	951	2.605	SEP		
F.EDAZ09	94.965	5.035	1042	2.854	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)

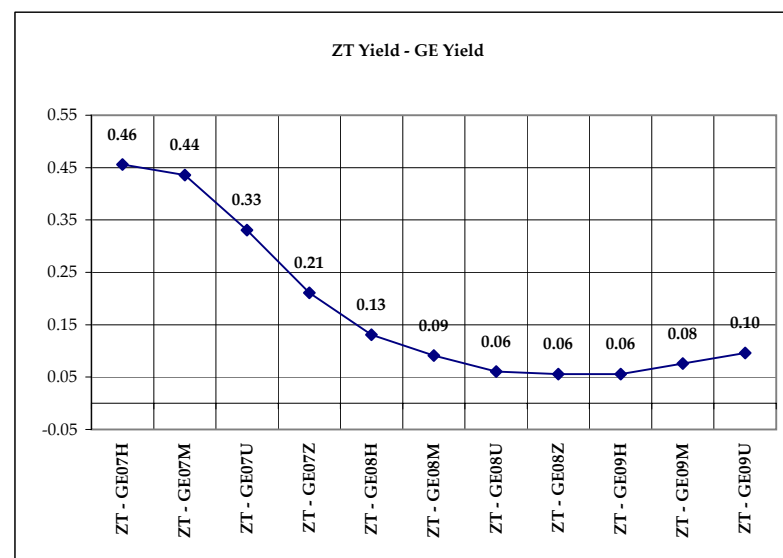
**Eurodollar Color Codes for Individual Year Strips:**

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	7.184	0.46	ZT - GE07H
F.EDAM07	7.164	0.44	ZT - GE07M
F.EDAU07	7.059	0.33	ZT - GE07U
F.EDAZ07	6.939	0.21	ZT - GE07Z
F.EDAH08	6.859	0.13	ZT - GE08H
F.EDAM08	6.819	0.09	ZT - GE08M
F.EDAU08	6.789	0.06	ZT - GE08U
F.EDAZ08	6.784	0.06	ZT - GE08Z
F.EDAH09	6.784	0.06	ZT - GE09H
F.EDAM09	6.804	0.08	ZT - GE09M
F.EDAU09	6.824	0.10	ZT - GE09U
F.EDAZ09	6.854	0.13	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	0.112	1.78	1.67
F.EDAM07	0.361	1.78	1.42
F.EDAU07	0.610	1.78	1.17
F.EDAZ07	0.860	1.78	0.92
F.EDAH08	1.109	1.78	0.67
F.EDAM08	1.358	1.78	0.42
F.EDAU08	1.608	1.78	0.18
F.EDAZ08	1.857	1.78	(0.07)
F.EDAH09	2.106	1.78	(0.32)
F.EDAM09	2.356	1.78	(0.57)
F.EDAU09	2.605	1.78	(0.82)
F.EDAZ09	2.854	1.78	(1.07)

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

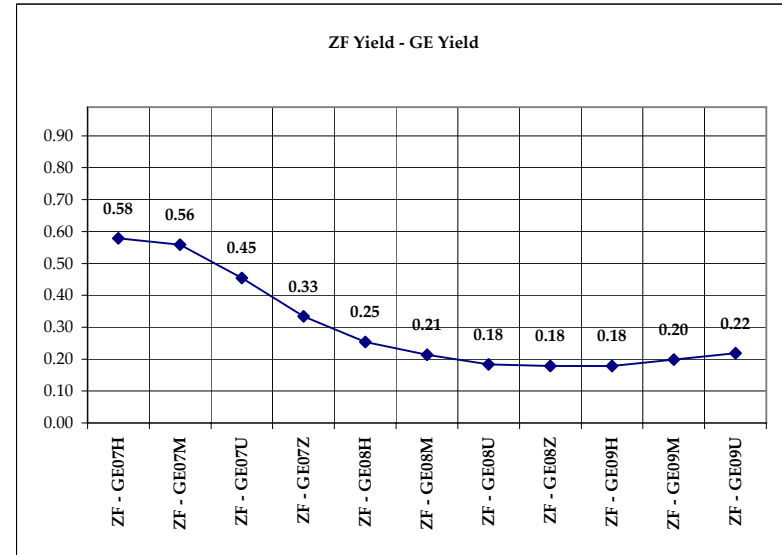
Dirty TED: ZF vs Eurodollar Contracts

ZF			
	Spread Price	Spread Yield	Spread Name
F.EDAH07	10.01	0.58	ZF - GE07H
F.EDAM07	9.99	0.56	ZF - GE07M
F.EDAU07	9.88	0.45	ZF - GE07U
F.EDAZ07	9.76	0.33	ZF - GE07Z
F.EDAH08	9.68	0.25	ZF - GE08H
F.EDAM08	9.64	0.21	ZF - GE08M
F.EDAU08	9.61	0.18	ZF - GE08U
F.EDAZ08	9.61	0.18	ZF - GE08Z
F.EDAH09	9.61	0.18	ZF - GE09H
F.EDAM09	9.63	0.20	ZF - GE09M
F.EDAU09	9.65	0.22	ZF - GE09U
F.EDAZ09	9.68	0.25	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	0.112	3.81	3.70	ZF - GE07H
F.EDAM07	0.361	3.81	3.45	ZF - GE07M
F.EDAU07	0.610	3.81	3.20	ZF - GE07U
F.EDAZ07	0.860	3.81	2.96	ZF - GE07Z
F.EDAH08	1.109	3.81	2.71	ZF - GE08H
F.EDAM08	1.358	3.81	2.46	ZF - GE08M
F.EDAU08	1.608	3.81	2.21	ZF - GE08U
F.EDAZ08	1.857	3.81	1.96	ZF - GE08Z
F.EDAH09	2.106	3.81	1.71	ZF - GE09H
F.EDAM09	2.356	3.81	1.46	ZF - GE09M
F.EDAU09	2.605	3.81	1.21	ZF - GE09U
F.EDAZ09	2.854	3.81	0.96	ZF - GE09U

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



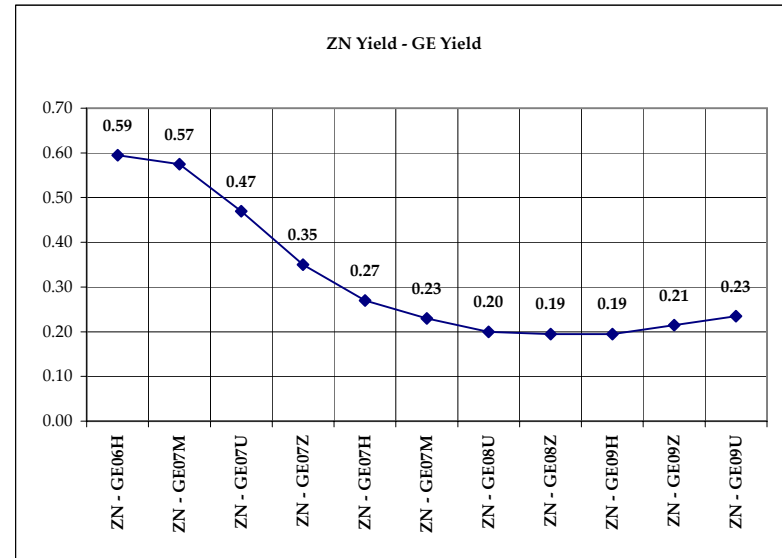
Dirty TED: ZN vs Eurodollar Contracts

ZN			
	Spread Price	Spread Yield	Spread Name
F.EDAH07	12.26	0.59	ZN - GE06H
F.EDAM07	12.24	0.57	ZN - GE07M
F.EDAU07	12.13	0.47	ZN - GE07U
F.EDAZ07	12.01	0.35	ZN - GE07Z
F.EDAH08	11.93	0.27	ZN - GE07H
F.EDAM08	11.89	0.23	ZN - GE07M
F.EDAU08	11.86	0.20	ZN - GE08U
F.EDAZ08	11.86	0.19	ZN - GE08Z
F.EDAH09	11.86	0.19	ZN - GE09H
F.EDAM09	11.88	0.21	ZN - GE09Z
F.EDAU09	11.90	0.23	ZN - GE09U
F.EDAZ09	11.93	0.26	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	0.112	5.74	5.63	ZN - GE06H
F.EDAM07	0.361	5.74	5.38	ZN - GE07M
F.EDAU07	0.610	5.74	5.13	ZN - GE07U
F.EDAZ07	0.860	5.74	4.88	ZN - GE07Z
F.EDAH08	1.109	5.74	4.63	ZN - GE07H
F.EDAM08	1.358	5.74	4.38	ZN - GE07M
F.EDAU08	1.608	5.74	4.13	ZN - GE08U
F.EDAZ08	1.857	5.74	3.89	ZN - GE08Z
F.EDAH09	2.106	5.74	3.64	ZN - GE09H
F.EDAM09	2.356	5.74	3.39	ZN - GE09Z
F.EDAU09	2.605	5.74	3.14	ZN - GE09U
F.EDAZ09	2.854	5.74	2.89	ZN - GE09U

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



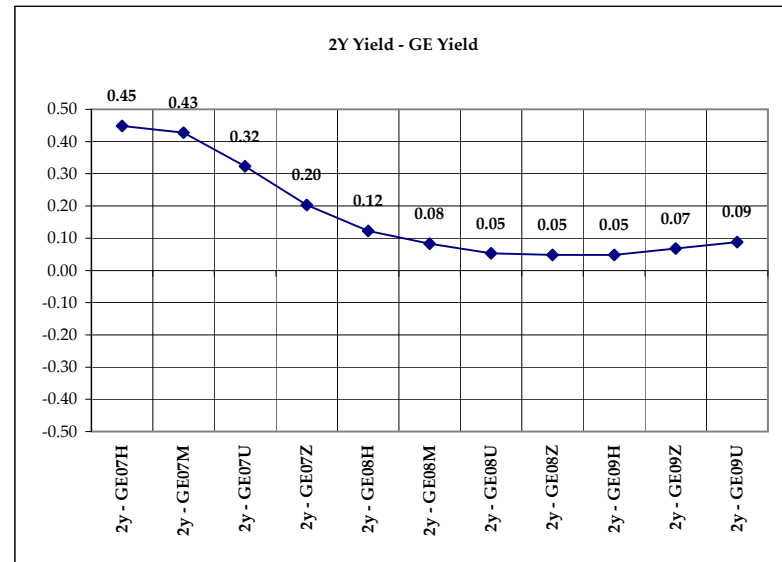
TERM TED: 2y vs Eurodollar Contracts

2y			
	Spread Price	Spread Yield	Spread Name
F.EDAH07	5.29	0.45	2y - GE07H
F.EDAM07	5.27	0.43	2y - GE07M
F.EDAU07	5.16	0.32	2y - GE07U
F.EDAZ07	5.04	0.20	2y - GE07Z
F.EDAH08	4.96	0.12	2y - GE08H
F.EDAM08	4.92	0.08	2y - GE08M
F.EDAU08	4.89	0.05	2y - GE08U
F.EDAZ08	4.89	0.05	2y - GE08Z
F.EDAH09	4.89	0.05	2y - GE09H
F.EDAM09	4.91	0.07	2y - GE09Z
F.EDAU09	4.93	0.09	2y - GE09U
F.EDAZ09	4.96	0.12	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	0.112	1.86	1.75	2y - GE07H
F.EDAM07	0.361	1.86	1.50	2y - GE07M
F.EDAU07	0.610	1.86	1.25	2y - GE07U
F.EDAZ07	0.860	1.86	1.00	2y - GE07Z
F.EDAH08	1.109	1.86	0.76	2y - GE08H
F.EDAM08	1.358	1.86	0.51	2y - GE08M
F.EDAU08	1.608	1.86	0.26	2y - GE08U
F.EDAZ08	1.857	1.86	0.01	2y - GE08Z
F.EDAH09	2.106	1.86	(0.24)	2y - GE09H
F.EDAM09	2.356	1.86	(0.49)	2y - GE09Z
F.EDAU09	2.605	1.86	(0.74)	2y - GE09U
F.EDAZ09	2.854	1.86	(0.99)	2y - GE09U

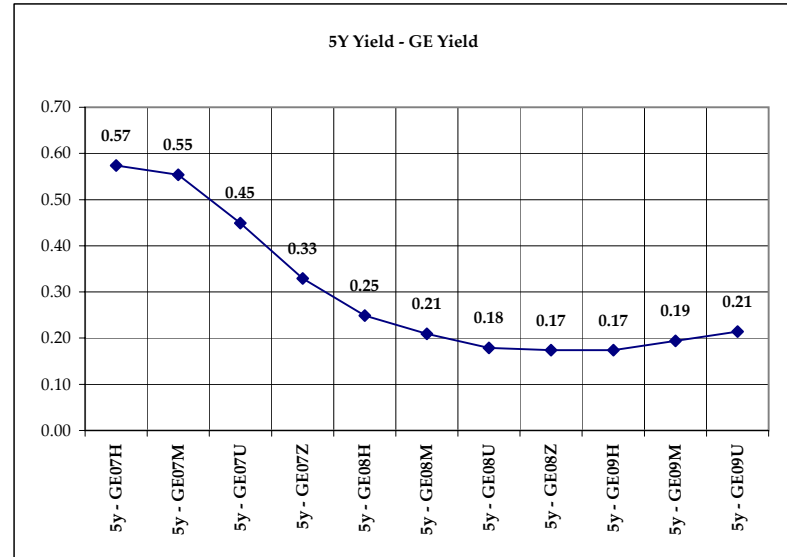
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 5y vs Eurodollar Contracts

5y			
	Spread Price	Spread Yield	Spread Name
F.EDAH07	5.18	0.57	5y - GE07H
F.EDAM07	5.16	0.55	5y - GE07M
F.EDAU07	5.05	0.45	5y - GE07U
F.EDAZ07	4.93	0.33	5y - GE07Z
F.EDAH08	4.85	0.25	5y - GE08H
F.EDAM08	4.81	0.21	5y - GE08M
F.EDAU08	4.78	0.18	5y - GE08U
F.EDAZ08	4.78	0.17	5y - GE08Z
F.EDAH09	4.78	0.17	5y - GE09H
F.EDAM09	4.80	0.19	5y - GE09M
F.EDAU09	4.82	0.21	5y - GE09U
F.EDAZ09	4.85	0.24	5y - GE09U

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



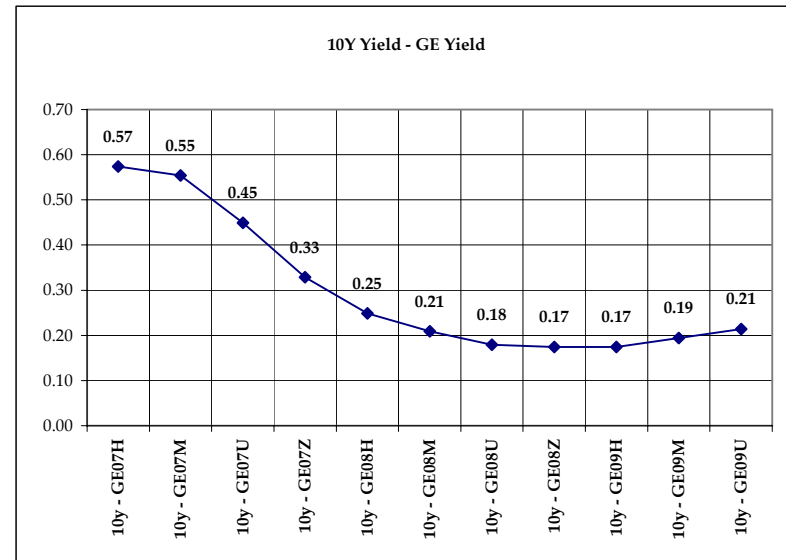
	GE Duration as Fraction of year	5Y Duration	Spread Duration	
F.EDAH07	0.112	4.38	4.27	5y - GE07H
F.EDAM07	0.361	4.38	4.02	5y - GE07M
F.EDAU07	0.610	4.38	3.77	5y - GE07U
F.EDAZ07	0.860	4.38	3.52	5y - GE07Z
F.EDAH08	1.109	4.38	3.28	5y - GE08H
F.EDAM08	1.358	4.38	3.03	5y - GE08M
F.EDAU08	1.608	4.38	2.78	5y - GE08U
F.EDAZ08	1.857	4.38	2.53	5y - GE08Z
F.EDAH09	2.106	4.38	2.28	5y - GE09H
F.EDAM09	2.356	4.38	2.03	5y - GE09M
F.EDAU09	2.605	4.38	1.78	5y - GE09U
F.EDAZ09	2.854	4.38	1.53	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	5.18	0.57	10y - GE07H
F.EDAM07	5.16	0.55	10y - GE07M
F.EDAU07	5.05	0.45	10y - GE07U
F.EDAZ07	4.93	0.33	10y - GE07Z
F.EDAH08	4.85	0.25	10y - GE08H
F.EDAM08	4.81	0.21	10y - GE08M
F.EDAU08	4.78	0.18	10y - GE08U
F.EDAZ08	4.78	0.17	10y - GE08Z
F.EDAH09	4.78	0.17	10y - GE09H
F.EDAM09	4.80	0.19	10y - GE09M
F.EDAU09	4.82	0.21	10y - GE09U
F.EDAZ09	4.85	0.24	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	0.112	7.69	7.57	10y - GE07H
F.EDAM07	0.361	7.69	7.32	10y - GE07M
F.EDAU07	0.610	7.69	7.08	10y - GE07U
F.EDAZ07	0.860	7.69	6.83	10y - GE07Z
F.EDAH08	1.109	7.69	6.58	10y - GE08H
F.EDAM08	1.358	7.69	6.33	10y - GE08M
F.EDAU08	1.608	7.69	6.08	10y - GE08U
F.EDAZ08	1.857	7.69	5.83	10y - GE08Z
F.EDAH09	2.106	7.69	5.58	10y - GE09H
F.EDAM09	2.356	7.69	5.33	10y - GE09M
F.EDAU09	2.605	7.69	5.08	10y - GE09U
F.EDAZ09	2.854	7.69	4.83	10y - GE09U

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