

## The Morning Email: TERM TEDS & Dirty TEDS

### Table of Contents

<b>PgA</b>	Quotes	<b>Pg9</b>	2y Basis TED Curve
<b>Pg1</b>	Dirty TED: ZT vs Eurodollar Contracts	<b>Pg10</b>	5y Basis TED Curve
<b>Pg2</b>	Dirty TED: ZF vs Eurodollar Contracts	<b>Pg11</b>	10y Basis TED Curve
<b>Pg3</b>	Dirty TED: ZN vs Eurodollar Contracts	<b>Pg12</b>	Packs
<b>Pg4</b>	TERM TED: 2y vs Eurodollar Contracts		
<b>Pg5</b>	TERM TED: 5y vs Eurodollar Contracts		
<b>Pg6</b>	TERM TED: 10y vs Eurodollar Contracts		
<b>Pg7</b>	Dirty TED Curve		
<b>Pg8</b>	TED Curve		

**Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days.**

Want something added? Let me know: [jgoulding@ghco.com](mailto:jgoulding@ghco.com)

**Disclaimer:** All information within this newsletter is meant for internal use at GH Trader's LLC, only. All information has been recorded to the best of my ability. This material is based upon information that I consider reliable, but I do not represent that it is accurate or complete.

**Quotes**

F.I. Futures and Cash					
	Last Decimal	Last 32	Last Yield*	MDuration	
ZT	107.5063	107.162	1.598	1.92	
ZF	114.2031	114.065	2.397	4.10	
ZN	117.2031	117.065	3.008	6.06	
2y	100.741	100.2370	1.615	1.94	
5y	101.250	101.0800	2.481	4.64	
10y	99.688	99.2200	3.535	8.32	

Eurodollars (ED)							
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month		
EDAH08	97.143	2.858	13	0.035	MAR	} White Pack	
EDAM08	97.605	2.395	104	0.284	JUN		
EDAU08	97.755	2.245	195	0.534	SEP		
EDAZ08	97.770	2.230	286	0.783	DEC	} Red Pack	
EDAH09	97.720	2.280	377	1.032	MAR		
EDAM09	97.590	2.410	468	1.282	JUN		
EDAU09	97.400	2.600	559	1.531	SEP		
EDAZ09	97.165	2.835	650	1.780	DEC	} Green Pack	
EDAH10	96.945	3.055	741	2.029	MAR		
EDAM10	96.705	3.295	832	2.279	JUN		
EDAU10	96.500	3.500	923	2.528	SEP		
EDAZ10	96.295	3.705	1014	2.777	DEC	} Blue Pack	
EDAH11	96.130	3.870	1105	3.027	MAR		
EDAM11	95.965	4.035	1196	3.276	JUN		
EDAU11	95.810	4.190	1294	3.545	SEP		
EDAZ11	95.655	4.345	1385	3.794	DEC	} Gold Pack	
EDAH12	95.540	4.460	1476	4.043	MAR		
EDAM12	95.375	4.625	1567	4.292	JUN		
EDAU12	95.285	4.715	1658	4.542	SEP		
EDAU12	95.285	4.715	1658	4.542	SEP		

Notes

Futures use CTD for Last Yield

Mduration = Modified Macaulay Duration

#VALUE! = no quote being provided by exchange.

	Last Yield	Net Yield	Last Price	
Q.ED.White	2.481	-0.125	9756.813	} Pack Prices
Q.ED.Red	2.583	-0.375	9746.875	
Q.ED.Green	3.465	1.000	9661.125	
Q.ED.Blue	4.210	0.125	9589.000	
Q.ED.Gold		0.000	9535.750	

Red pack is a 2yr proxy  
 Gold pack is a 10yr proxy  
 Red /Gold is a 2/10 proxy  
 Blue pack is a 5yr proxy  
 Blue/Gold is a 5/10 proxy

## Overview of Hedging

3/4/2008 5:45

Page A

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)

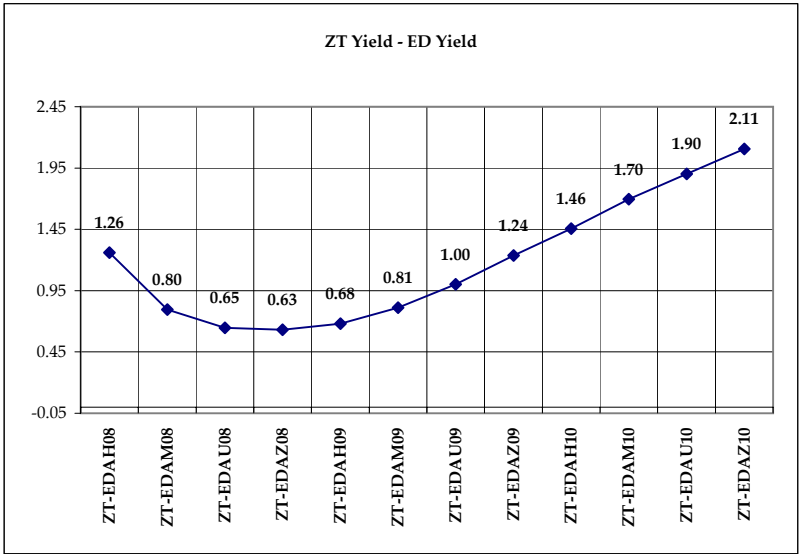
### Eurodollar Color Codes for Individual Year Strips:

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

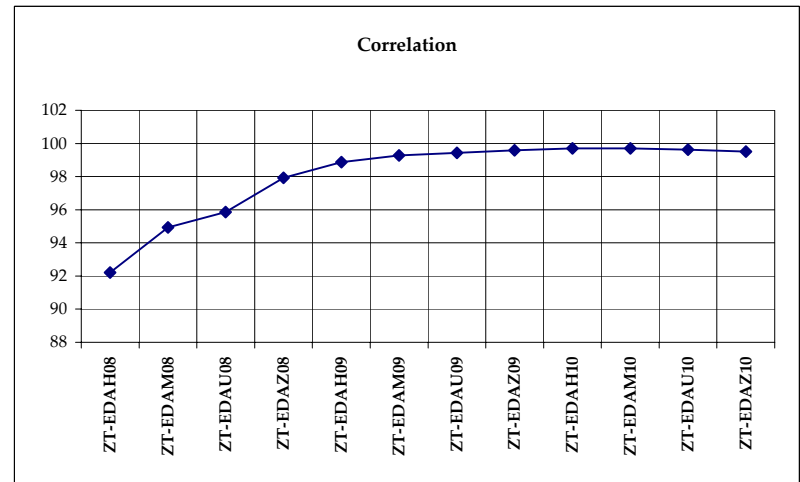
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	10.364	1.26	ZT-EDAH08	92.202
EDAM08	9.901	0.80	ZT-EDAM08	94.930
EDAU08	9.751	0.65	ZT-EDAU08	95.867
EDAZ08	9.736	0.63	ZT-EDAZ08	97.925
EDAH09	9.786	0.68	ZT-EDAH09	98.872
EDAM09	9.916	0.81	ZT-EDAM09	99.278
EDAU09	10.106	1.00	ZT-EDAU09	99.432
EDAZ09	10.341	1.24	ZT-EDAZ09	99.594
EDAH10	10.561	1.46	ZT-EDAH10	99.704
EDAM10	10.801	1.70	ZT-EDAM10	99.693
EDAU10	11.006	1.90	ZT-EDAU10	99.633
EDAZ10	11.211	2.11	ZT-EDAZ10	99.517

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year				
	ZT Duration	Spread Duration		
EDAH08	0.035	1.92	1.88	ZT-EDAH08
EDAM08	0.284	1.92	1.63	ZT-EDAM08
EDAU08	0.534	1.92	1.39	ZT-EDAU08
EDAZ08	0.783	1.92	1.14	ZT-EDAZ08
EDAH09	1.032	1.92	0.89	ZT-EDAH09
EDAM09	1.282	1.92	0.64	ZT-EDAM09
EDAU09	1.531	1.92	0.39	ZT-EDAU09
EDAZ09	1.780	1.92	0.14	ZT-EDAZ09
EDAH10	2.029	1.92	(0.11)	ZT-EDAH10
EDAM10	2.279	1.92	(0.36)	ZT-EDAM10
EDAU10	2.528	1.92	(0.61)	ZT-EDAU10
EDAZ10	2.777	1.92	(0.86)	ZT-EDAZ10

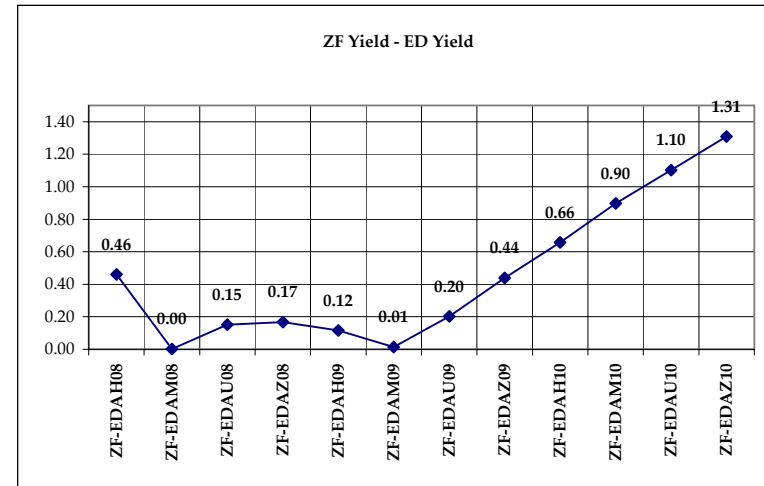
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	17.06	0.46	ZF-EDAH08	92.630
EDAM08	16.60	0.00	ZF-EDAM08	95.243
EDAU08	16.45	0.15	ZF-EDAU08	96.283
EDAZ08	16.43	0.17	ZF-EDAZ08	98.150
EDAH09	16.48	0.12	ZF-EDAH09	98.912
EDAM09	16.61	0.01	ZF-EDAM09	99.107
EDAU09	16.80	0.20	ZF-EDAU09	99.101
EDAZ09	17.04	0.44	ZF-EDAZ09	99.288
EDAH10	17.26	0.66	ZF-EDAH10	99.480
EDAM10	17.50	0.90	ZF-EDAM10	99.637
EDAU10	17.70	1.10	ZF-EDAU10	99.642
EDAZ10	17.91	1.31	ZF-EDAZ10	99.684

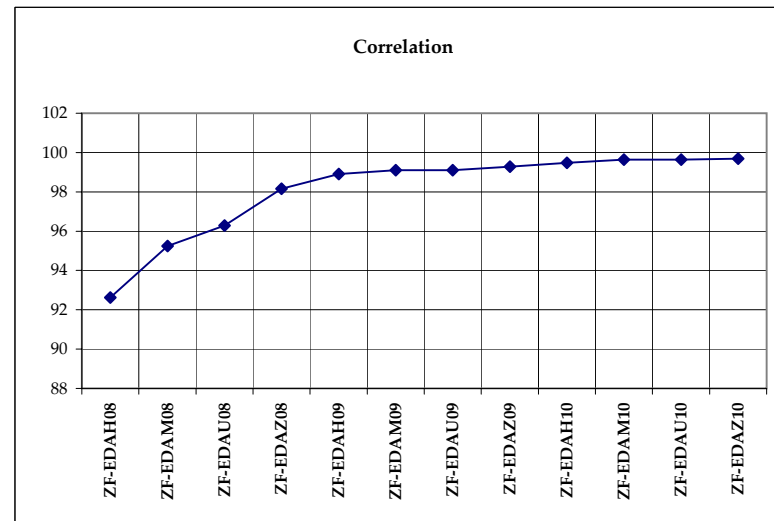
Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year

	GE Duration as Fraction of year	ZF Duration	Spread Duration	
EDAH08	0.035	4.10	4.07	ZF-EDAH08
EDAM08	0.284	4.10	3.82	ZF-EDAM08
EDAU08	0.534	4.10	3.57	ZF-EDAU08
EDAZ08	0.783	4.10	3.32	ZF-EDAZ08
EDAH09	1.032	4.10	3.07	ZF-EDAH09
EDAM09	1.282	4.10	2.82	ZF-EDAM09
EDAU09	1.531	4.10	2.57	ZF-EDAU09
EDAZ09	1.780	4.10	2.32	ZF-EDAZ09
EDAH10	2.029	4.10	2.08	ZF-EDAH10
EDAM10	2.279	4.10	1.83	ZF-EDAM10
EDAU10	2.528	4.10	1.58	ZF-EDAU10
EDAZ10	2.777	4.10	1.33	ZF-EDAZ10

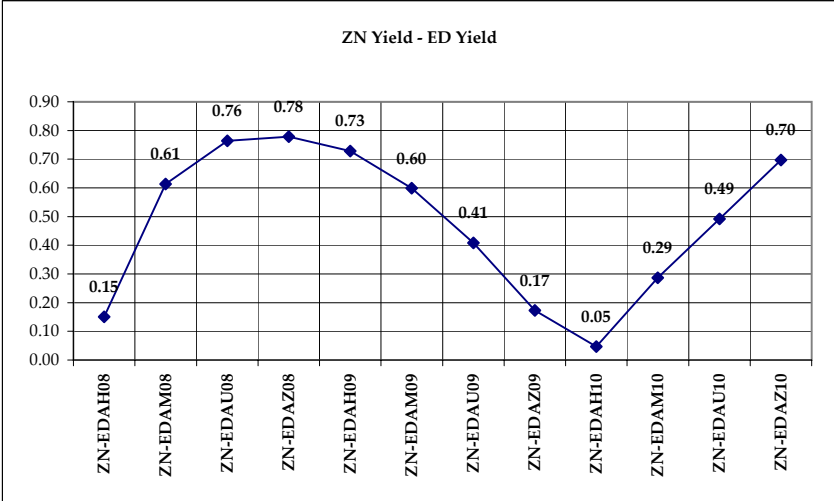
The farther away from 0 the spread duration is the riskier the trade.



**Dirty TED: ZN vs Eurodollar Contracts**

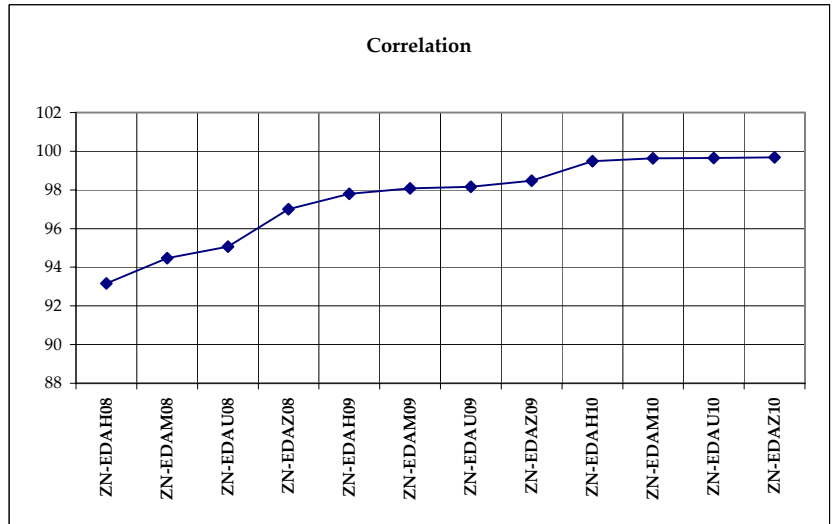
<b>ZN</b>				
	<b>Spread Price</b>	<b>Spread Yield</b>	<b>Spread Name</b>	<b>Correlation* (percent)</b>
EDAH08	20.06	0.15	ZN-EDAH08	93.16
EDAM08	19.60	0.61	ZN-EDAM08	94.47
EDAU08	19.45	0.76	ZN-EDAU08	95.06
EDAZ08	19.43	0.78	ZN-EDAZ08	97.00
EDAH09	19.48	0.73	ZN-EDAH09	97.80
EDAM09	19.61	0.60	ZN-EDAM09	98.08
EDAU09	19.80	0.41	ZN-EDAU09	98.15
EDAZ09	20.04	0.17	ZN-EDAZ09	98.48
EDAH10	20.26	0.05	ZN-EDAH10	99.48
EDAM10	20.50	0.29	ZN-EDAM10	99.64
EDAU10	20.70	0.49	ZN-EDAU10	99.64
EDAZ10	20.91	0.70	ZN-EDAZ10	99.68

**Price** = Outright Decimal Price - Euro Contract Price  
**Yield** = ABS(Proxy Yield - Implied Euro Contract yield)  
**\*Correlation** = ED Correlation to Treasury Future over 10 days



	<b>GE Duration as Fraction of year</b>	<b>ZN Duration</b>	<b>Spread Duration</b>	
EDAH08	0.035	6.06	6.03	ZN-EDAH08
EDAM08	0.284	6.06	5.78	ZN-EDAM08
EDAU08	0.534	6.06	5.53	ZN-EDAU08
EDAZ08	0.783	6.06	5.28	ZN-EDAZ08
EDAH09	1.032	6.06	5.03	ZN-EDAH09
EDAM09	1.282	6.06	4.78	ZN-EDAM09
EDAU09	1.531	6.06	4.53	ZN-EDAU09
EDAZ09	1.780	6.06	4.28	ZN-EDAZ09
EDAH10	2.029	6.06	4.03	ZN-EDAH10
EDAM10	2.279	6.06	3.78	ZN-EDAM10
EDAU10	2.528	6.06	3.53	ZN-EDAU10
EDAZ10	2.777	6.06	3.28	ZN-EDAZ10

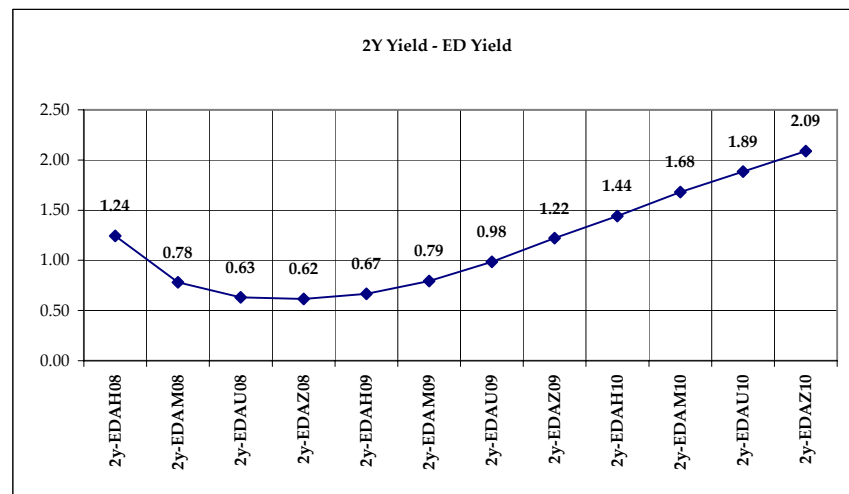
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	3.60	1.24	2y-EDAH08	-93.844
EDAM08	3.14	0.78	2y-EDAM08	-97.301
EDAU08	2.99	0.63	2y-EDAU08	-98.109
EDAZ08	2.97	0.62	2y-EDAZ08	-97.301
EDAH09	3.02	0.67	2y-EDAH09	-99.402
EDAM09	3.15	0.79	2y-EDAM09	-99.353
EDAU09	3.34	0.98	2y-EDAU09	-99.252
EDAZ09	3.58	1.22	2y-EDAZ09	-99.253
EDAH10	3.80	1.44	2y-EDAH10	-99.249
EDAM10	4.04	1.68	2y-EDAM10	-99.398
EDAU10	4.24	1.89	2y-EDAU10	-99.435
EDAZ10	4.45	2.09	2y-EDAZ10	-99.537

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days.  
 These are measuring YIELD correlations.

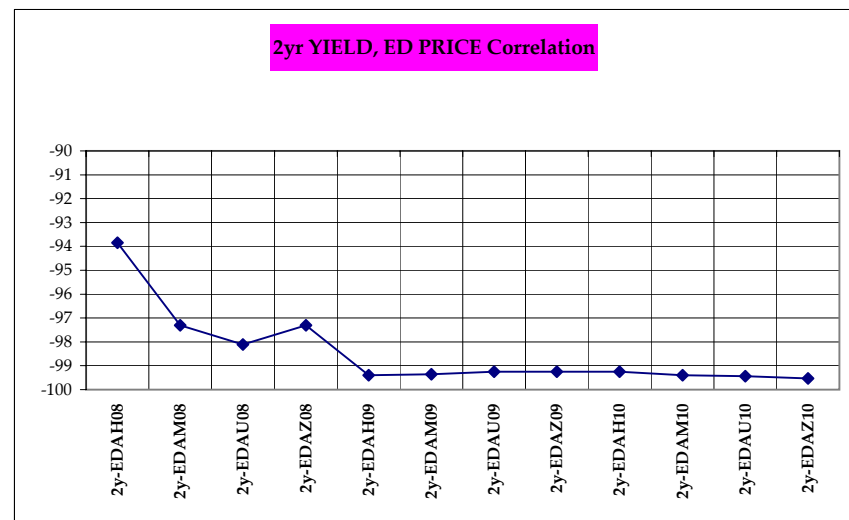


GE Duration as Fraction of year

	2Y Duration	Spread Duration	
EDAH08	0.035	1.94	2y-EDAH08
EDAM08	0.284	1.94	2y-EDAM08
EDAU08	0.534	1.94	2y-EDAU08
EDAZ08	0.783	1.94	2y-EDAZ08
EDAH09	1.032	1.94	2y-EDAH09
EDAM09	1.282	1.94	2y-EDAM09
EDAU09	1.531	1.94	2y-EDAU09
EDAZ09	1.780	1.94	2y-EDAZ09
EDAH10	2.029	1.94	2y-EDAH10
EDAM10	2.279	1.94	2y-EDAM10
EDAU10	2.528	1.94	2y-EDAU10
EDAZ10	2.777	1.94	2y-EDAZ10

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

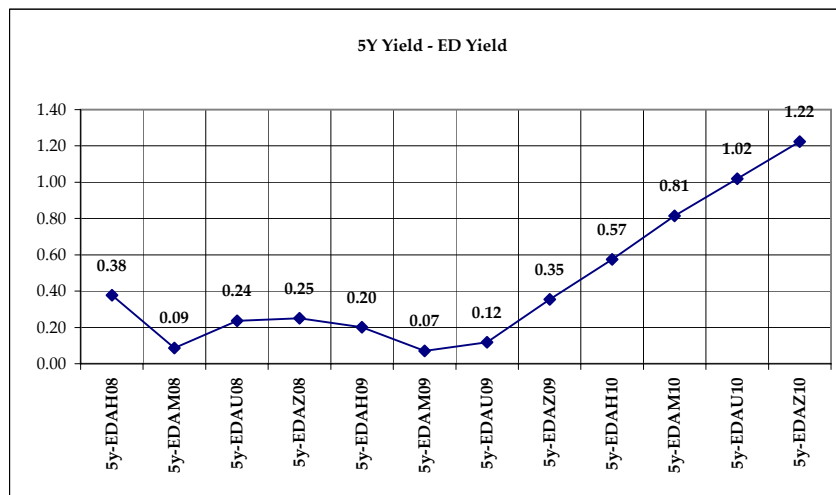
2yr YIELD, ED PRICE Correlation



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

	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	4.11	0.38	5y-EDAH08	-93.609
EDAM08	3.65	0.09	5y-EDAM08	-95.645
EDAU08	3.50	0.24	5y-EDAU08	-96.285
EDAZ08	3.48	0.25	5y-EDAZ08	-95.645
EDAH09	3.53	0.20	5y-EDAH09	-98.096
EDAM09	3.66	0.07	5y-EDAM09	-98.115
EDAU09	3.85	0.12	5y-EDAU09	-98.038
EDAZ09	4.08	0.35	5y-EDAZ09	-98.236
EDAH10	4.30	0.57	5y-EDAH10	-98.457
EDAM10	4.55	0.81	5y-EDAM10	-98.793
EDAU10	4.75	1.02	5y-EDAU10	-98.995
EDAZ10	4.96	1.22	5y-EDAZ10	-99.223

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days  
 These are measuring YIELD correlations.

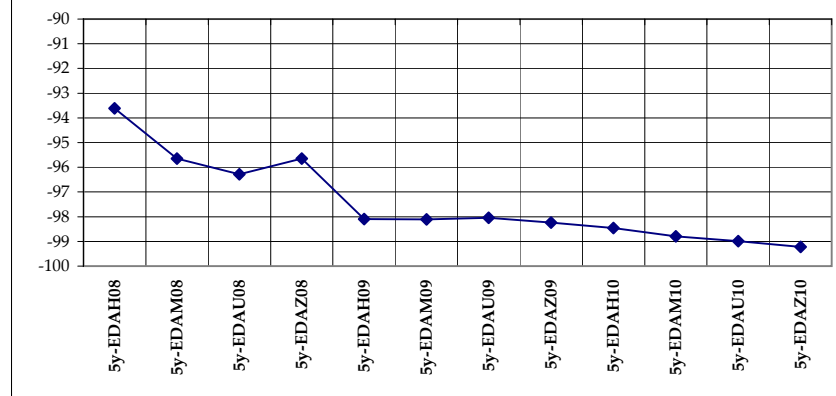


**GE Duration as Fraction of year**

	5Y Duration	Spread Duration	
EDAH08	0.035	4.64	5y-EDAH08
EDAM08	0.284	4.64	5y-EDAM08
EDAU08	0.534	4.64	5y-EDAU08
EDAZ08	0.783	4.64	5y-EDAZ08
EDAH09	1.032	4.64	5y-EDAH09
EDAM09	1.282	4.64	5y-EDAM09
EDAU09	1.531	4.64	5y-EDAU09
EDAZ09	1.780	4.64	5y-EDAZ09
EDAH10	2.029	4.64	5y-EDAH10
EDAM10	2.279	4.64	5y-EDAM10
EDAU10	2.528	4.64	5y-EDAU10
EDAZ10	2.777	4.64	5y-EDAZ10

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

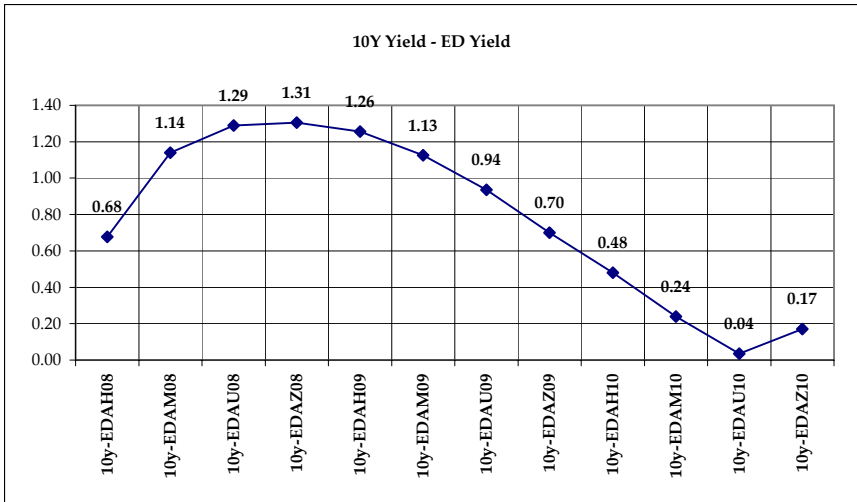
**5yr YIELD, ED PRICE Correlation**



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

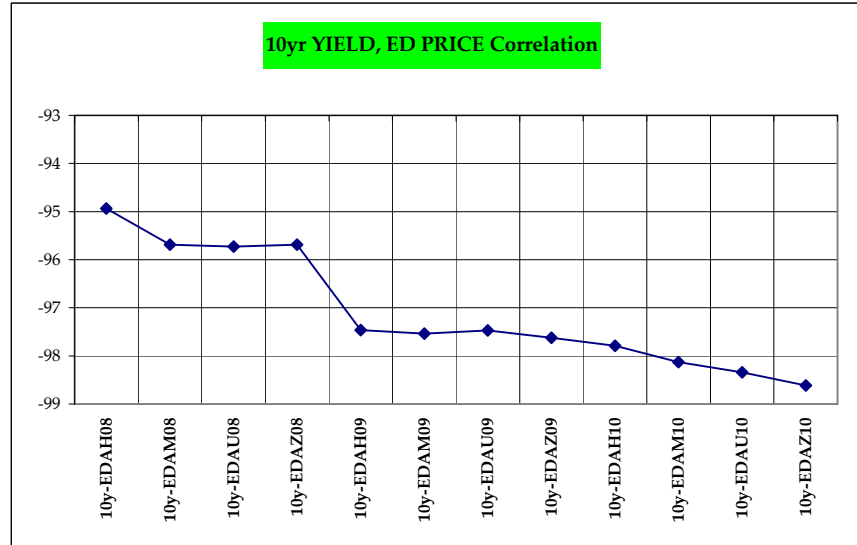
	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	4.11	0.68	10y-EDAH08	-94.938
EDAM08	3.65	1.14	10y-EDAM08	-95.686
EDAU08	3.50	1.29	10y-EDAU08	-95.725
EDAZ08	3.48	1.31	10y-EDAZ08	-95.686
EDAH09	3.53	1.26	10y-EDAH09	-97.465
EDAM09	3.66	1.13	10y-EDAM09	-97.537
EDAU09	3.85	0.94	10y-EDAU09	-97.469
EDAZ09	4.08	0.70	10y-EDAZ09	-97.625
EDAH10	4.30	0.48	10y-EDAH10	-97.788
EDAM10	4.55	0.24	10y-EDAM10	-98.126
EDAU10	4.75	0.04	10y-EDAU10	-98.338
EDAZ10	4.96	0.17	10y-EDAZ10	-98.617

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days  
 These are measuring YIELD correlations.



	GE Duration as Fraction of year	10Y Duration	Spread Duration	
EDAH08	0.035	8.32	8.29	10y-EDAH08
EDAM08	0.284	8.32	8.04	10y-EDAM08
EDAU08	0.534	8.32	7.79	10y-EDAU08
EDAZ08	0.783	8.32	7.54	10y-EDAZ08
EDAH09	1.032	8.32	7.29	10y-EDAH09
EDAM09	1.282	8.32	7.04	10y-EDAM09
EDAU09	1.531	8.32	6.79	10y-EDAU09
EDAZ09	1.780	8.32	6.54	10y-EDAZ09
EDAH10	2.029	8.32	6.29	10y-EDAH10
EDAM10	2.279	8.32	6.04	10y-EDAM10
EDAU10	2.528	8.32	5.79	10y-EDAU10
EDAZ10	2.777	8.32	5.54	10y-EDAZ10

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

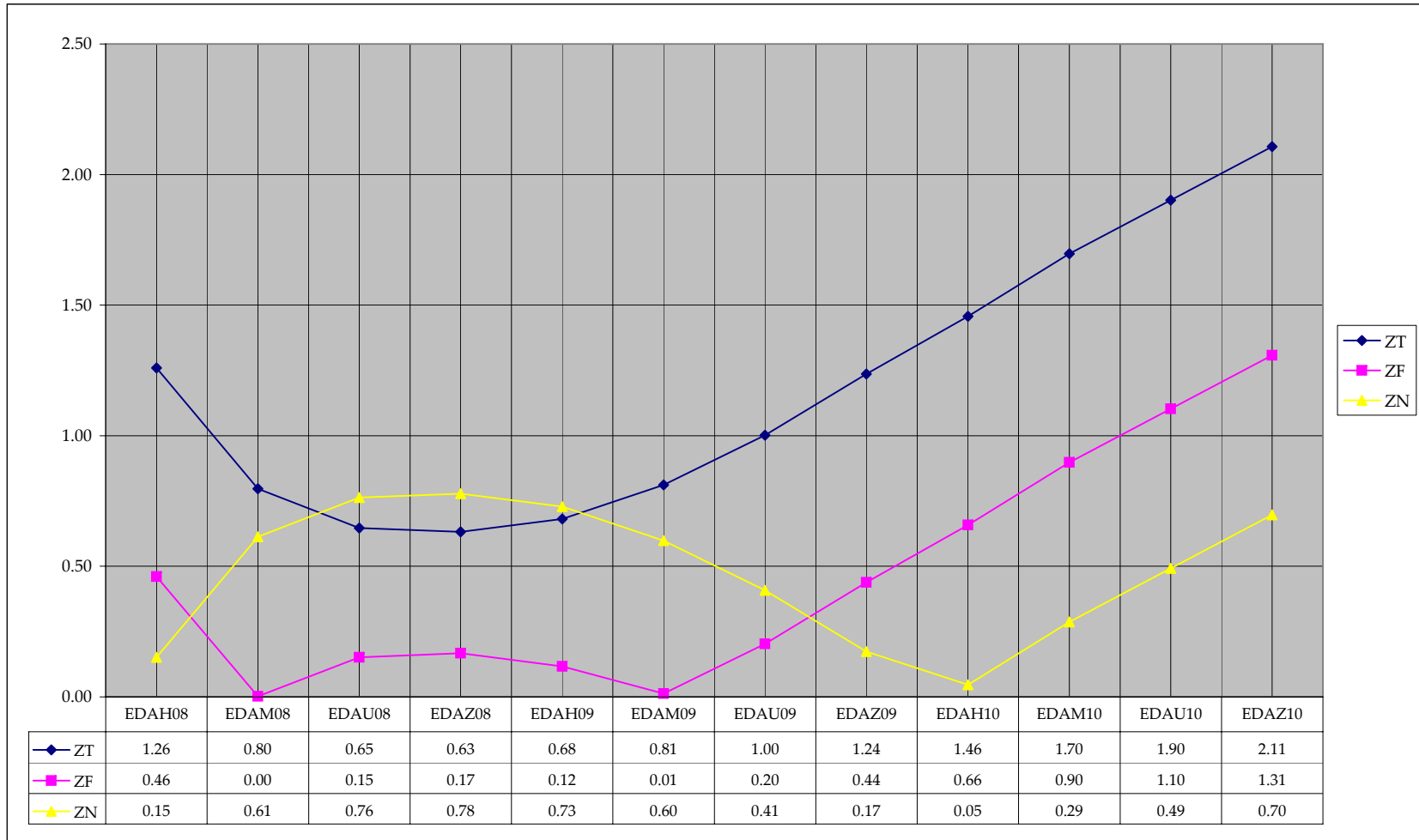


### Dirty TED Curve

3/4/2008 5:45

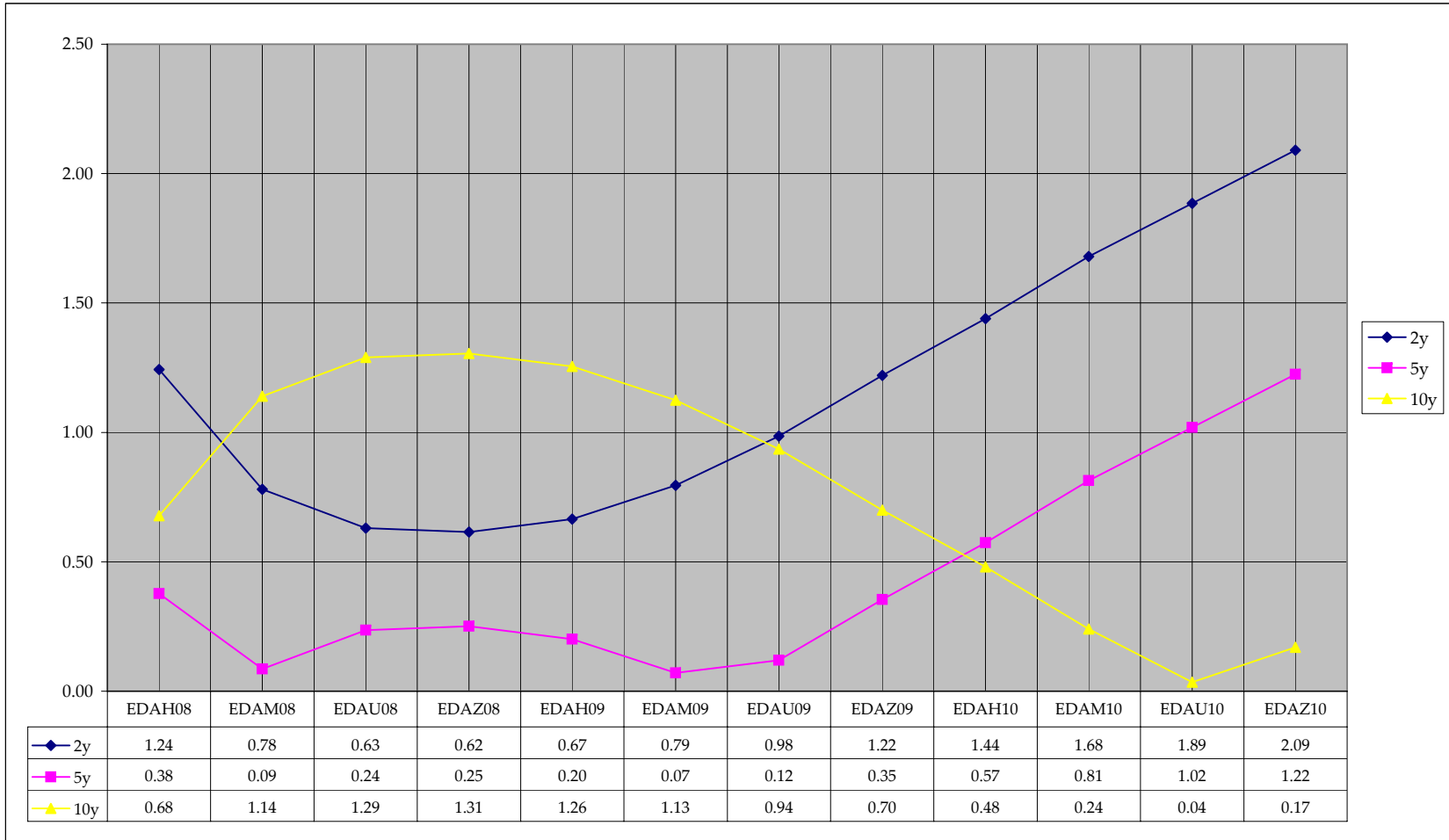
Page 7

Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

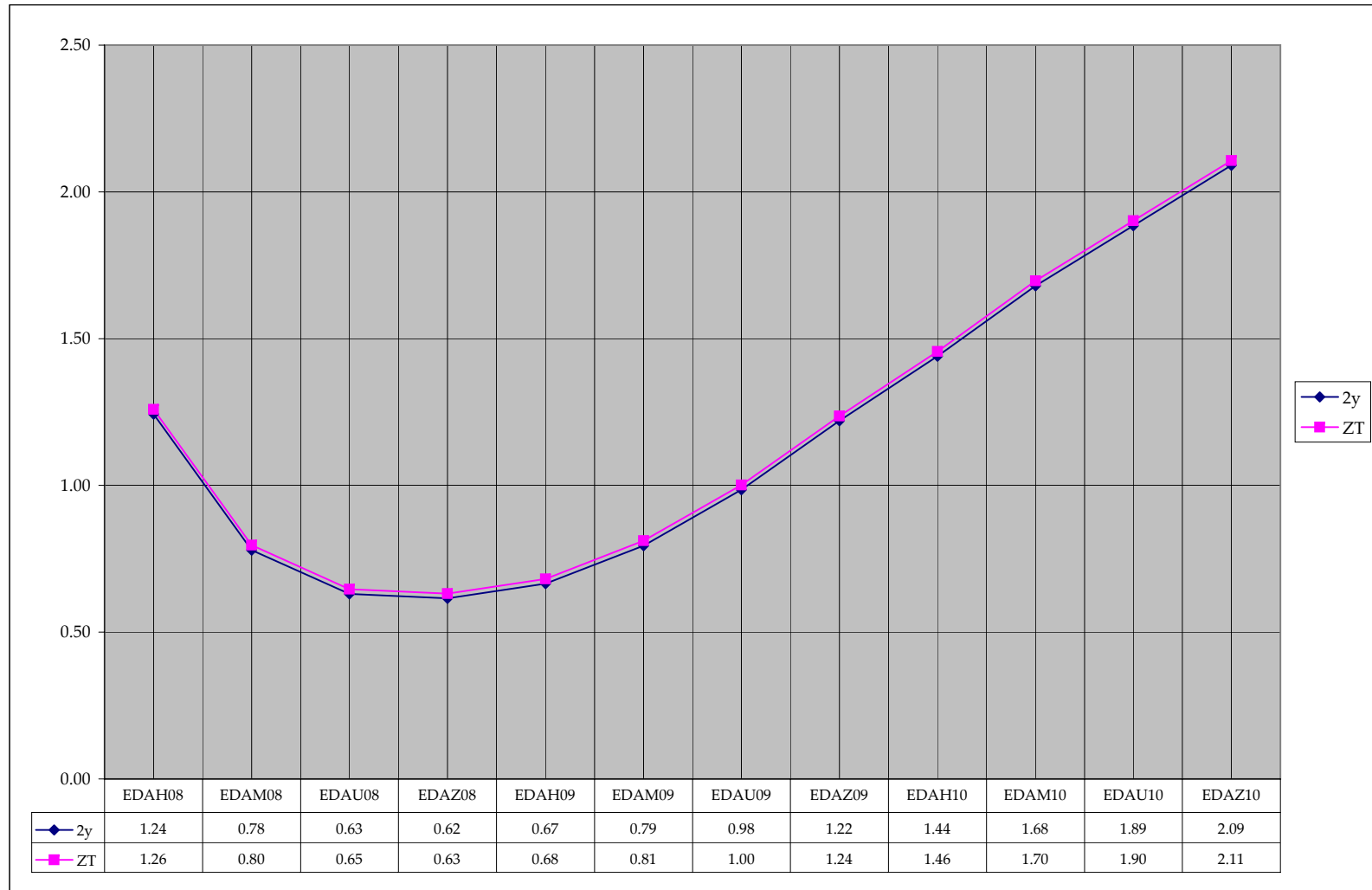


TED Curve

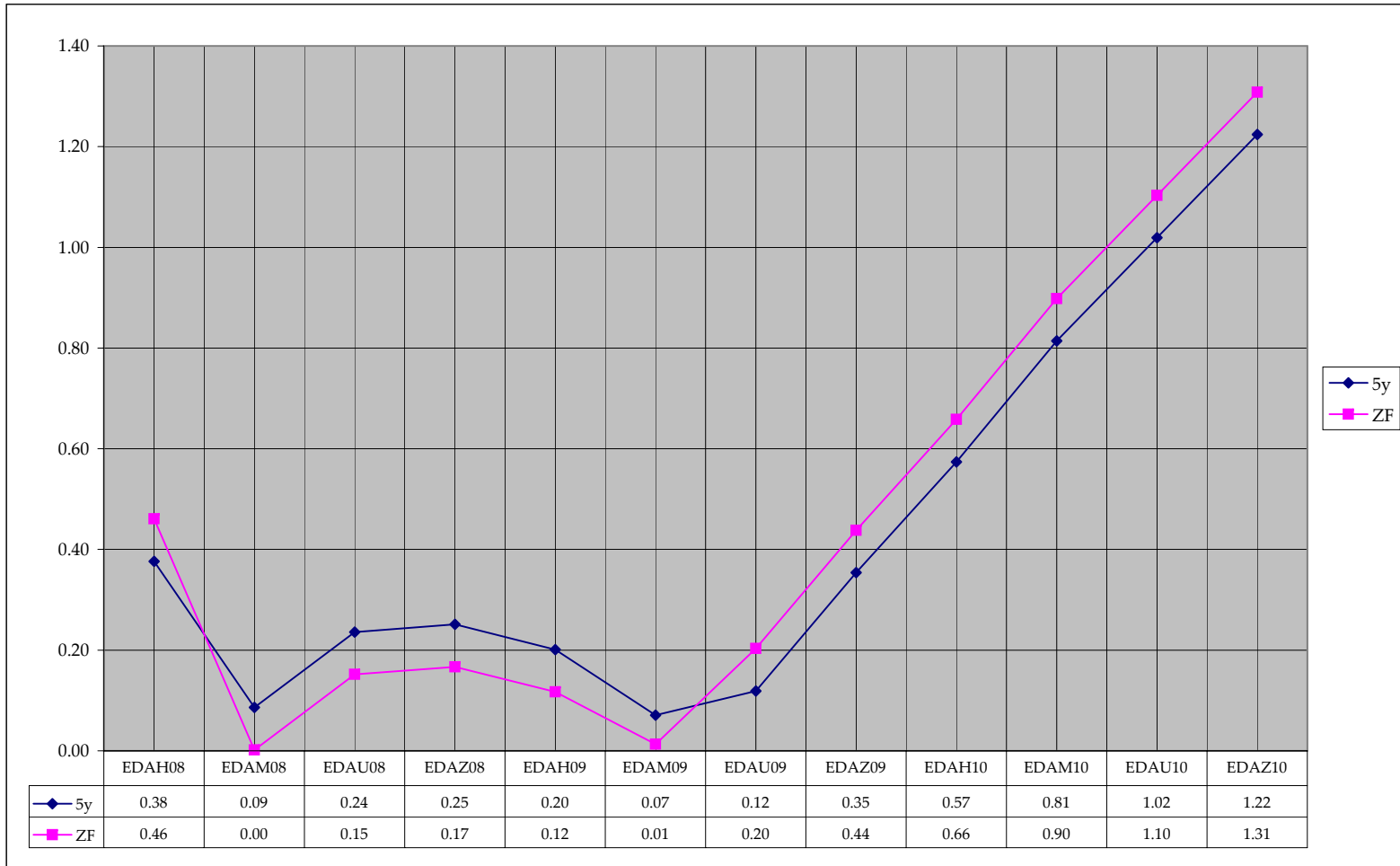
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



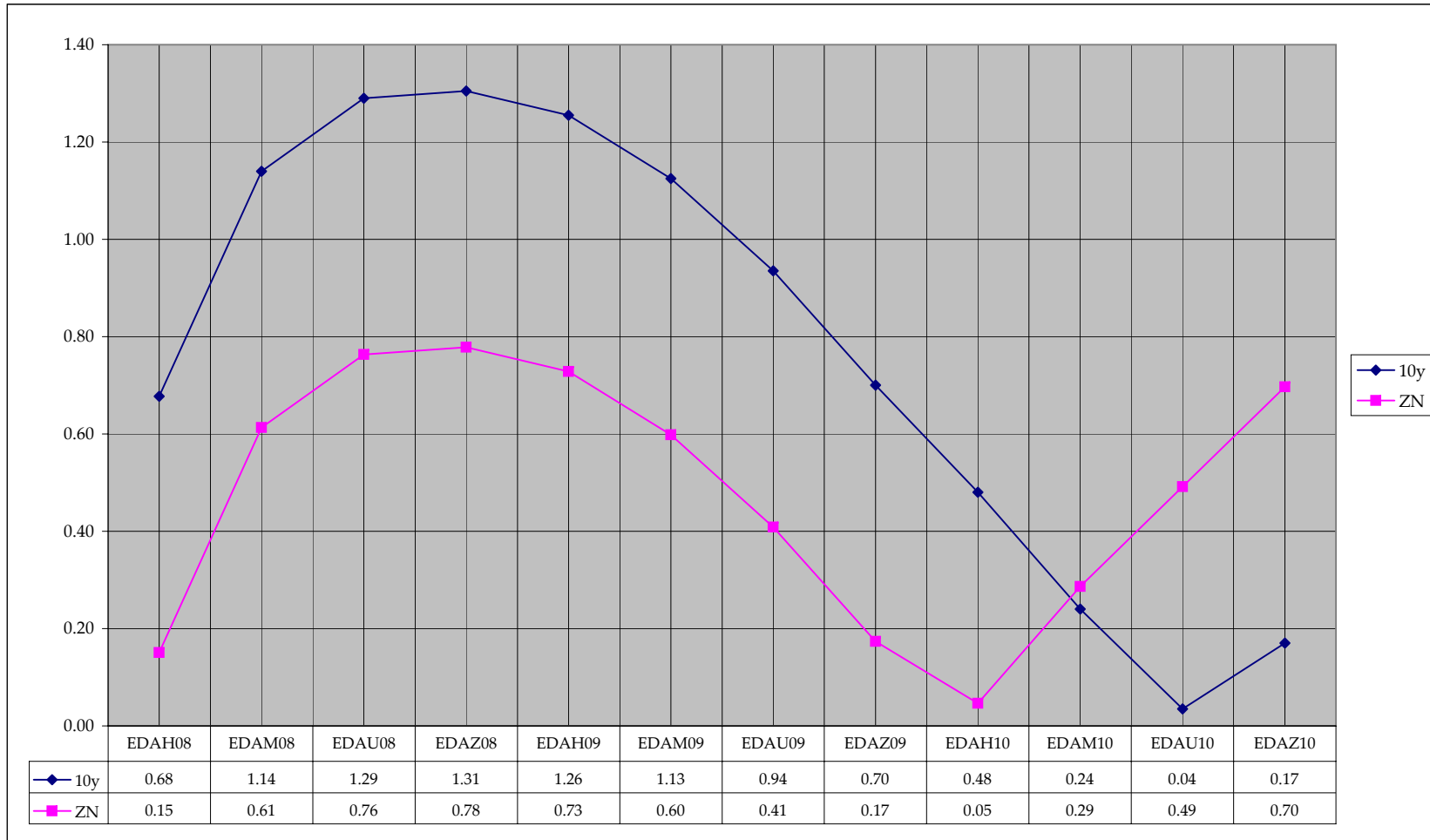
## 2y Basis TED Curve



## 5y Basis TED Curve



## 10y Basis TED Curve



# Packs

3/4/2008 5:45

Page 12

	last Yield	Net Last Yield	Last Price
Q.ED.White	2.481	-0.125	9756.813
Q.ED.Red	2.583	-0.375	9746.875
Q.ED.Green	3.465	1.000	9661.125
Q.ED.Blue	4.210	0.125	9589.000
Q.ED.Gold		0.000	9535.750

