

The Morning Email: TERM TEDS & Dirty TEDS

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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

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	106.2500	106.080	2.465	1.88	
ZF	112.6406	112.205	2.845	3.94	
ZN	116.4844	116.155	3.227	5.89	
2y	101.475	101.1520	2.467	1.88	
5y	103.203	103.0650	2.924	4.45	
10y	104.953	104.3050	3.643	7.98	

Eurodollars (ED)							
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month		
EDAH08	96.470	3.530	61	0.166	MAR	White Pack	
EDAM08	96.980	3.020	152	0.416	JUN		
EDAU08	97.175	2.825	243	0.665	SEP		
EDAZ08	97.230	2.770	334	0.914	DEC	Red Pack	
EDAH09	97.220	2.780	425	1.164	MAR		
EDAM09	97.135	2.865	516	1.413	JUN		
EDAU09	97.005	2.995	607	1.662	SEP	Green Pack	
EDAZ09	96.860	3.140	698	1.912	DEC		
EDAH10	96.715	3.285	789	2.161	MAR		
EDAM10	96.555	3.445	880	2.410	JUN	Blue Pack	
EDAU10	96.405	3.595	971	2.660	SEP		
EDAZ10	96.280	3.720	1062	2.909	DEC		
EDAH11	96.170	3.830	1153	3.158	MAR	Gold Pack	
EDAM11	96.050	3.950	1244	3.408	JUN		
EDAU11	95.865	4.135	1342	3.676	SEP		
EDAZ11	95.735	4.265	1433	3.925	DEC		
EDAH12	95.700	4.300	1524	4.175	MAR		
EDAM12	95.555	4.445	1615	4.424	JUN		
EDAU12	95.455	4.545	1706	4.673	SEP		
EDAU12	95.455	4.545	1706	4.673	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	3.102	5.500	9696.375	Pack Prices
Q.ED.Red	3.008	5.875	9705.500	
Q.ED.Green	3.592	7.625	9648.875	
Q.ED.Blue		4.250	9595.500	
Q.ED.Gold		1.000	9552.500	

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

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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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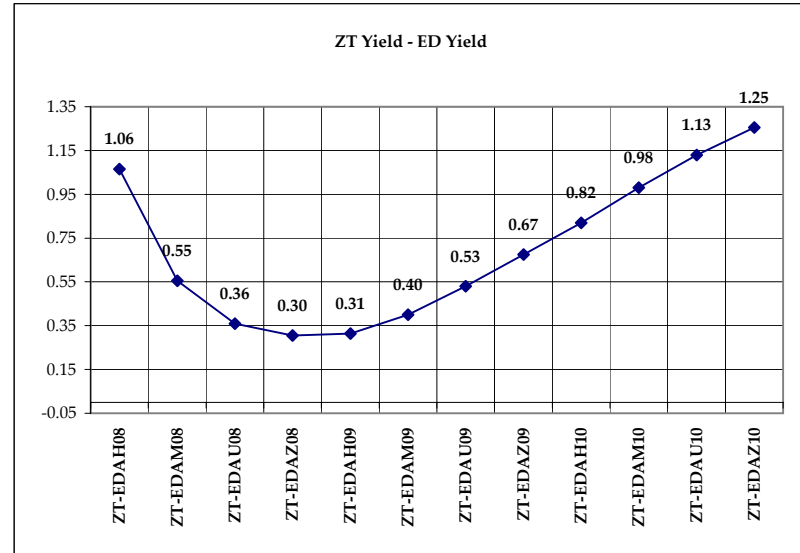
Eurodollar Color Codes for Individual Year Strips:

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

Dirty TED: ZT vs Eurodollar Contracts

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	9.780	1.06	ZT-EDAH08	95.756
EDAM08	9.270	0.55	ZT-EDAM08	97.668
EDAU08	9.075	0.36	ZT-EDAU08	98.714
EDAZ08	9.020	0.30	ZT-EDAZ08	98.757
EDAH09	9.030	0.31	ZT-EDAH09	97.820
EDAM09	9.115	0.40	ZT-EDAM09	96.872
EDAU09	9.245	0.53	ZT-EDAU09	96.069
EDAZ09	9.390	0.67	ZT-EDAZ09	95.306
EDAH10	9.535	0.82	ZT-EDAH10	94.760
EDAM10	9.695	0.98	ZT-EDAM10	94.236
EDAU10	9.845	1.13	ZT-EDAU10	93.826
EDAZ10	9.970	1.25	ZT-EDAZ10	93.549

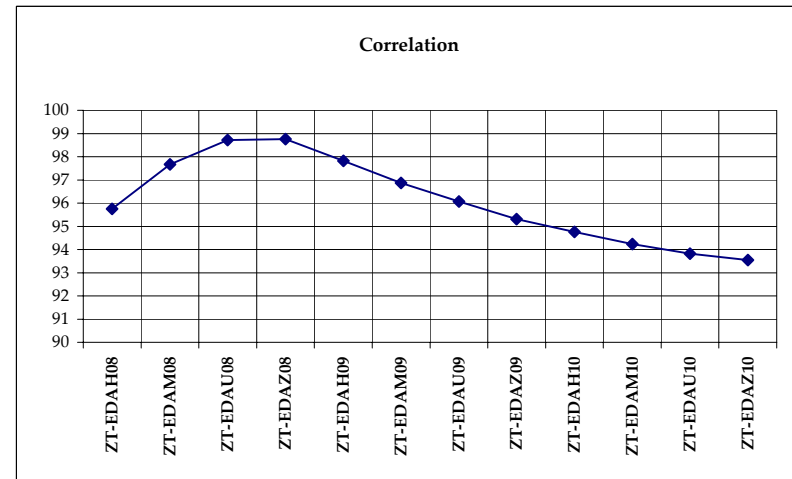
Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year

	ZT Duration	Spread Duration	
EDAH08	0.166	1.88	ZT-EDAH08
EDAM08	0.416	1.88	ZT-EDAM08
EDAU08	0.665	1.88	ZT-EDAU08
EDAZ08	0.914	1.88	ZT-EDAZ08
EDAH09	1.164	1.88	ZT-EDAH09
EDAM09	1.413	1.88	ZT-EDAM09
EDAU09	1.662	1.88	ZT-EDAU09
EDAZ09	1.912	1.88	ZT-EDAZ09
EDAH10	2.161	1.88	ZT-EDAH10
EDAM10	2.410	1.88	ZT-EDAM10
EDAU10	2.660	1.88	ZT-EDAU10
EDAZ10	2.909	1.88	ZT-EDAZ10

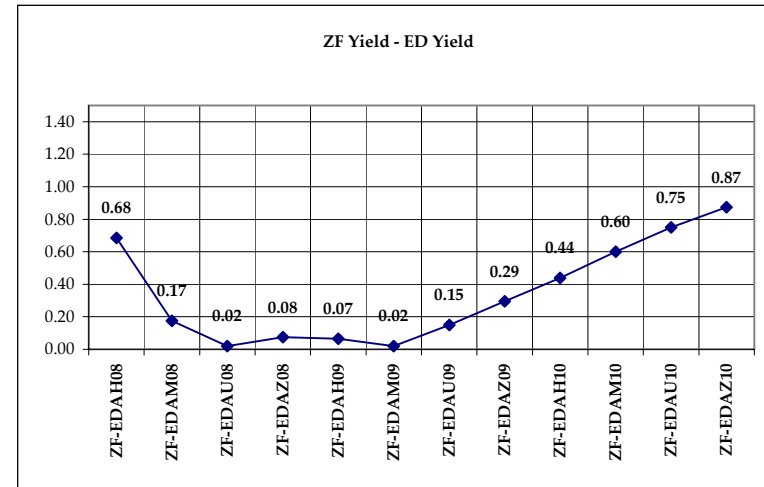
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	16.17	0.68	ZF-EDAH08	88.316
EDAM08	15.66	0.17	ZF-EDAM08	90.818
EDAU08	15.47	0.02	ZF-EDAU08	93.019
EDAZ08	15.41	0.08	ZF-EDAZ08	94.524
EDAH09	15.42	0.07	ZF-EDAH09	95.806
EDAM09	15.51	0.02	ZF-EDAM09	97.426
EDAU09	15.64	0.15	ZF-EDAU09	98.619
EDAZ09	15.78	0.29	ZF-EDAZ09	99.370
EDAH10	15.93	0.44	ZF-EDAH10	99.461
EDAM10	16.09	0.60	ZF-EDAM10	99.280
EDAU10	16.24	0.75	ZF-EDAU10	99.213
EDAZ10	16.36	0.87	ZF-EDAZ10	99.099

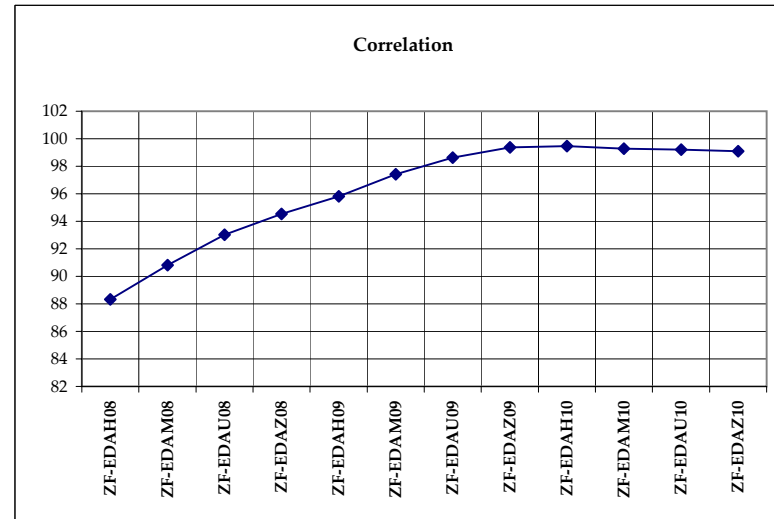
Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year

	GE Duration as Fraction of year	ZF Duration	Spread Duration	
EDAH08	0.166	3.94	3.77	ZF-EDAH08
EDAM08	0.416	3.94	3.52	ZF-EDAM08
EDAU08	0.665	3.94	3.27	ZF-EDAU08
EDAZ08	0.914	3.94	3.02	ZF-EDAZ08
EDAH09	1.164	3.94	2.77	ZF-EDAH09
EDAM09	1.413	3.94	2.52	ZF-EDAM09
EDAU09	1.662	3.94	2.27	ZF-EDAU09
EDAZ09	1.912	3.94	2.02	ZF-EDAZ09
EDAH10	2.161	3.94	1.77	ZF-EDAH10
EDAM10	2.410	3.94	1.52	ZF-EDAM10
EDAU10	2.660	3.94	1.28	ZF-EDAU10
EDAZ10	2.909	3.94	1.03	ZF-EDAZ10

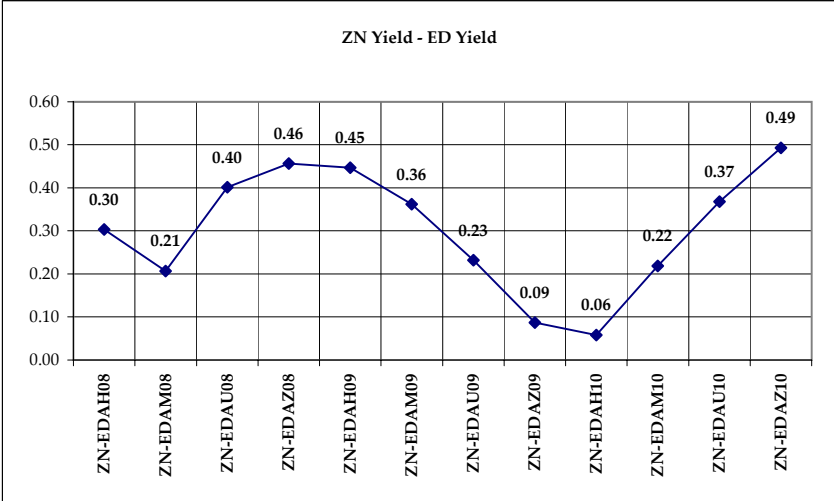
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZN vs Eurodollar Contracts

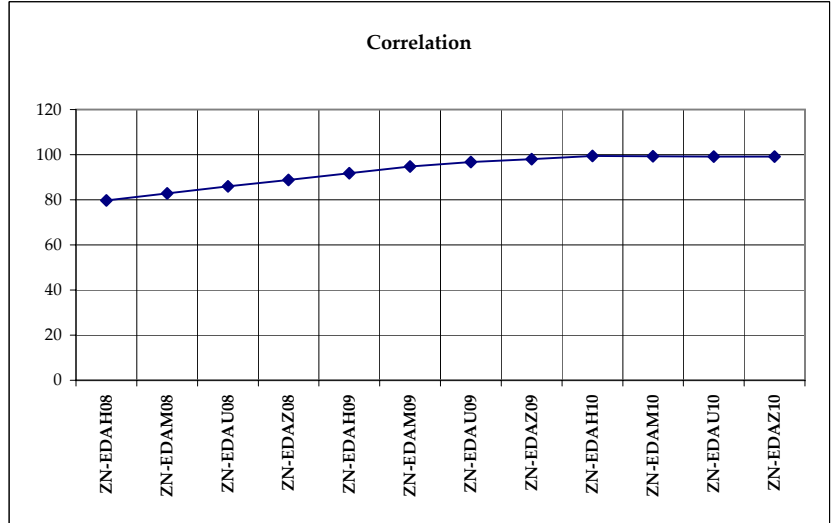
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	20.01	0.30	ZN-EDAH08	79.76
EDAM08	19.50	0.21	ZN-EDAM08	82.86
EDAU08	19.31	0.40	ZN-EDAU08	85.98
EDAZ08	19.25	0.46	ZN-EDAZ08	88.78
EDAH09	19.26	0.45	ZN-EDAH09	91.73
EDAM09	19.35	0.36	ZN-EDAM09	94.77
EDAU09	19.48	0.23	ZN-EDAU09	96.81
EDAZ09	19.62	0.09	ZN-EDAZ09	97.99
EDAH10	19.77	0.06	ZN-EDAH10	99.46
EDAM10	19.93	0.22	ZN-EDAM10	99.28
EDAU10	20.08	0.37	ZN-EDAU10	99.21
EDAZ10	20.20	0.49	ZN-EDAZ10	99.10

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	ZN Duration	Spread Duration	
EDAH08	0.166	5.89	5.73	ZN-EDAH08
EDAM08	0.416	5.89	5.48	ZN-EDAM08
EDAU08	0.665	5.89	5.23	ZN-EDAU08
EDAZ08	0.914	5.89	4.98	ZN-EDAZ08
EDAH09	1.164	5.89	4.73	ZN-EDAH09
EDAM09	1.413	5.89	4.48	ZN-EDAM09
EDAU09	1.662	5.89	4.23	ZN-EDAU09
EDAZ09	1.912	5.89	3.98	ZN-EDAZ09
EDAH10	2.161	5.89	3.73	ZN-EDAH10
EDAM10	2.410	5.89	3.48	ZN-EDAM10
EDAU10	2.660	5.89	3.23	ZN-EDAU10
EDAZ10	2.909	5.89	2.98	ZN-EDAZ10

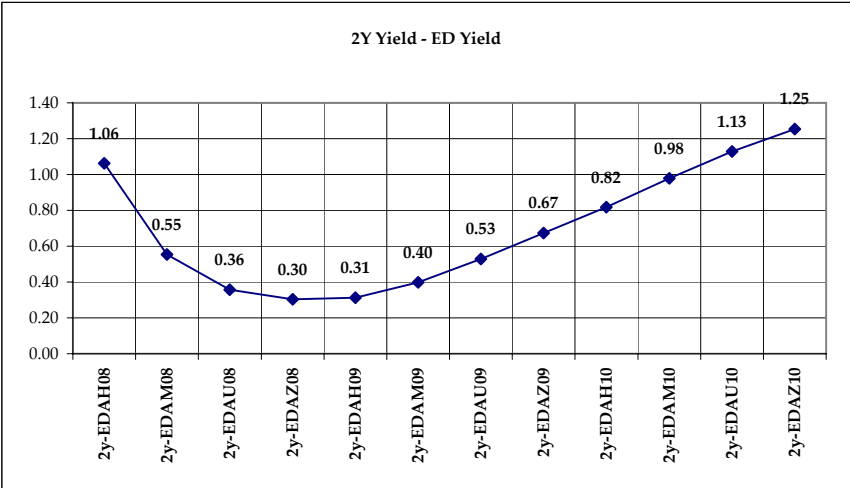
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TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	5.01	1.06	2y-EDAH08	-94.327
EDAM08	4.50	0.55	2y-EDAM08	-96.138
EDAU08	4.30	0.36	2y-EDAU08	-96.861
EDAZ08	4.25	0.30	2y-EDAZ08	-96.138
EDAH09	4.26	0.31	2y-EDAH09	-96.373
EDAM09	4.34	0.40	2y-EDAM09	-95.463
EDAU09	4.47	0.53	2y-EDAU09	-94.520
EDAZ09	4.62	0.67	2y-EDAZ09	-93.544
EDAH10	4.76	0.82	2y-EDAH10	-92.953
EDAM10	4.92	0.98	2y-EDAM10	-92.572
EDAU10	5.07	1.13	2y-EDAU10	-92.217
EDAZ10	5.20	1.25	2y-EDAZ10	-92.305

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.

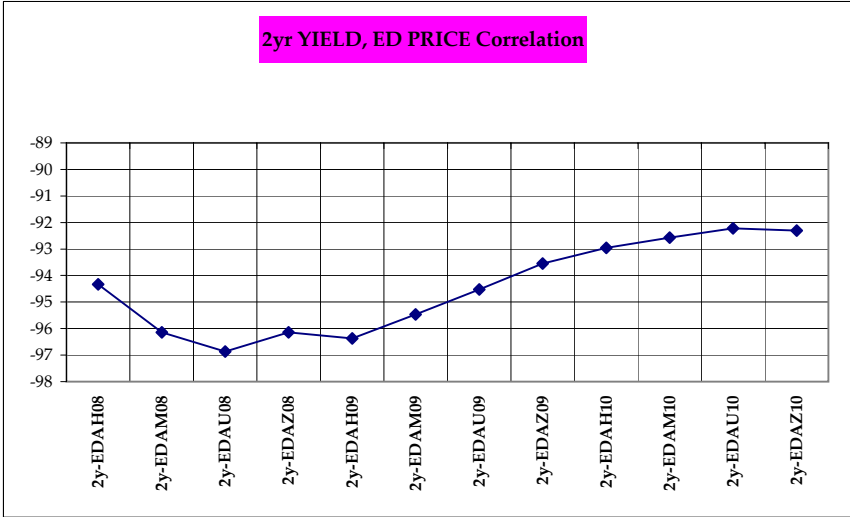


GE Duration as Fraction of year

	2Y Duration	Spread Duration	
EDAH08	0.166	1.72	2y-EDAH08
EDAM08	0.416	1.47	2y-EDAM08
EDAU08	0.665	1.22	2y-EDAU08
EDAZ08	0.914	0.97	2y-EDAZ08
EDAH09	1.164	0.72	2y-EDAH09
EDAM09	1.413	0.47	2y-EDAM09
EDAU09	1.662	0.22	2y-EDAU09
EDAZ09	1.912	(0.03)	2y-EDAZ09
EDAH10	2.161	(0.28)	2y-EDAH10
EDAM10	2.410	(0.53)	2y-EDAM10
EDAU10	2.660	(0.78)	2y-EDAU10
EDAZ10	2.909	(1.03)	2y-EDAZ10

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

2yr YIELD, ED PRICE Correlation



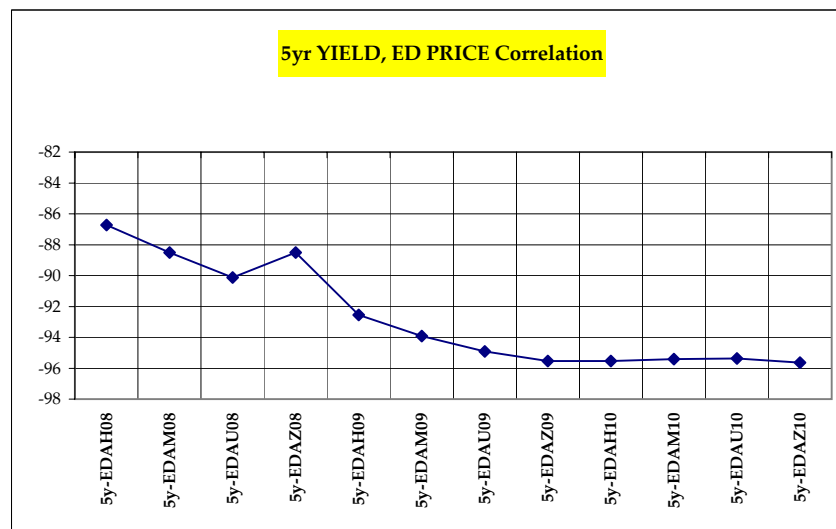
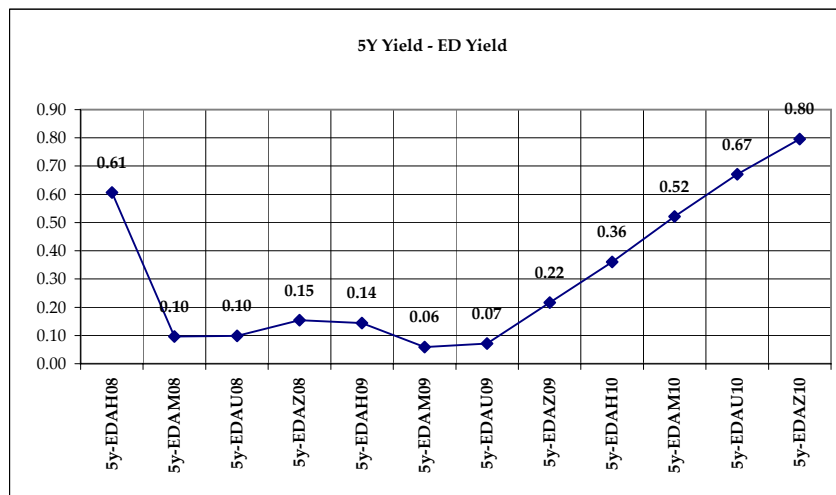
TERM TED: 5y vs Eurodollar Contracts

	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	6.73	0.61	5y-EDAH08	-86.726
EDAM08	6.22	0.10	5y-EDAM08	-88.515
EDAU08	6.03	0.10	5y-EDAU08	-90.128
EDAZ08	5.97	0.15	5y-EDAZ08	-88.515
EDAH09	5.98	0.14	5y-EDAH09	-92.547
EDAM09	6.07	0.06	5y-EDAM09	-93.910
EDAU09	6.20	0.07	5y-EDAU09	-94.914
EDAZ09	6.34	0.22	5y-EDAZ09	-95.535
EDAH10	6.49	0.36	5y-EDAH10	-95.525
EDAM10	6.65	0.52	5y-EDAM10	-95.416
EDAU10	6.80	0.67	5y-EDAU10	-95.368
EDAZ10	6.92	0.80	5y-EDAZ10	-95.643

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	0.166		4.45	4.28	5y-EDAH08
EDAM08	0.416		4.45	4.04	5y-EDAM08
EDAU08	0.665		4.45	3.79	5y-EDAU08
EDAZ08	0.914		4.45	3.54	5y-EDAZ08
EDAH09	1.164		4.45	3.29	5y-EDAH09
EDAM09	1.413		4.45	3.04	5y-EDAM09
EDAU09	1.662		4.45	2.79	5y-EDAU09
EDAZ09	1.912		4.45	2.54	5y-EDAZ09
EDAH10	2.161		4.45	2.29	5y-EDAH10
EDAM10	2.410		4.45	2.04	5y-EDAM10
EDAU10	2.660		4.45	1.79	5y-EDAU10
EDAZ10	2.909		4.45	1.54	5y-EDAZ10

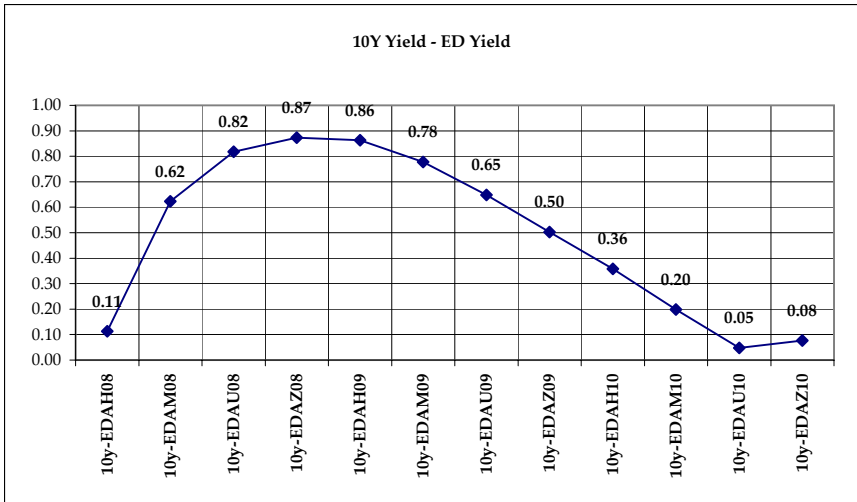
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 10y vs Eurodollar Contracts

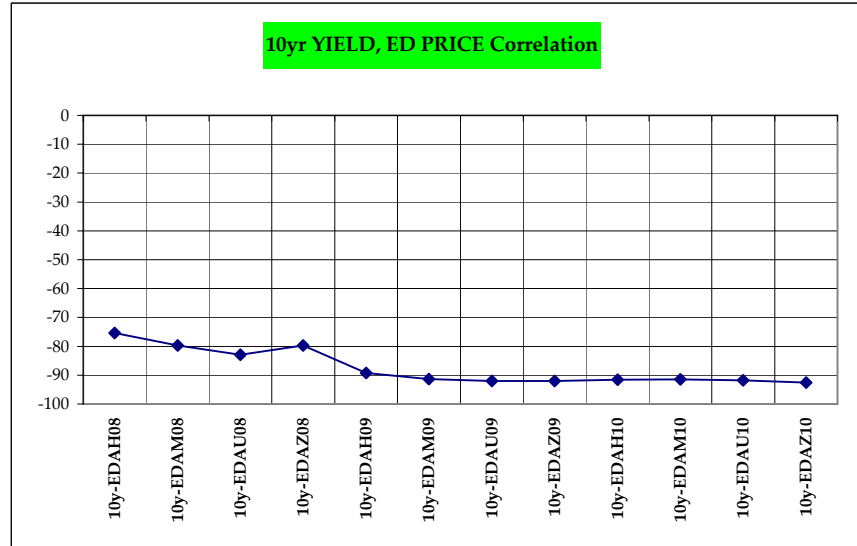
	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	6.73	0.11	10y-EDAH08	-75.430
EDAM08	6.22	0.62	10y-EDAM08	-79.671
EDAU08	6.03	0.82	10y-EDAU08	-82.877
EDAZ08	5.97	0.87	10y-EDAZ08	-89.239
EDAH09	5.98	0.86	10y-EDAH09	-91.239
EDAM09	6.07	0.78	10y-EDAM09	-91.391
EDAU09	6.20	0.65	10y-EDAU09	-92.048
EDAZ09	6.34	0.50	10y-EDAZ09	-91.976
EDAH10	6.49	0.36	10y-EDAH10	-91.525
EDAM10	6.65	0.20	10y-EDAM10	-91.437
EDAU10	6.80	0.05	10y-EDAU10	-91.825
EDAZ10	6.92	0.08	10y-EDAZ10	-92.621

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.



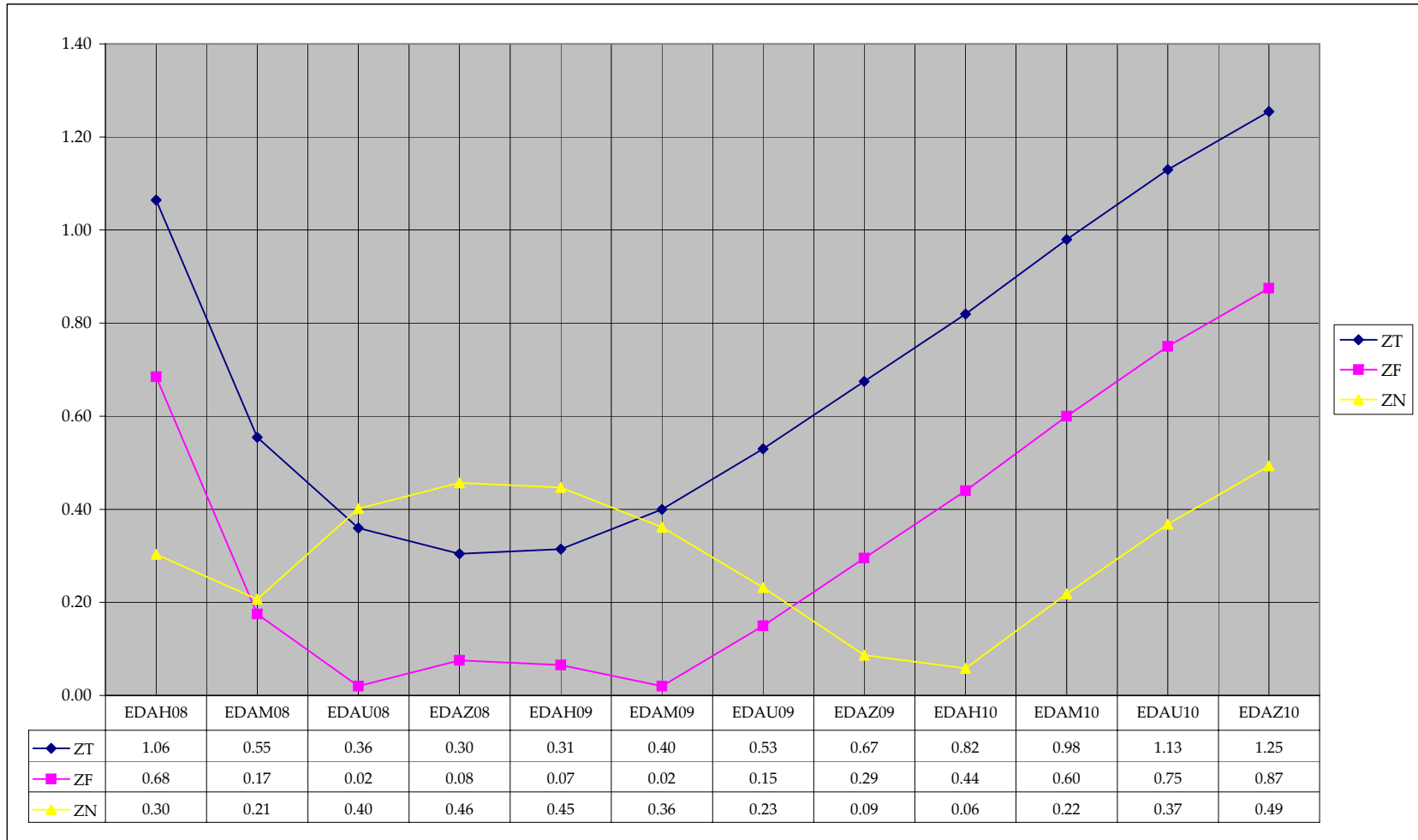
	GE Duration as Fraction of year	10Y Duration	Spread Duration	
EDAH08	0.166	7.98	7.82	10y-EDAH08
EDAM08	0.416	7.98	7.57	10y-EDAM08
EDAU08	0.665	7.98	7.32	10y-EDAU08
EDAZ08	0.914	7.98	7.07	10y-EDAZ08
EDAH09	1.164	7.98	6.82	10y-EDAH09
EDAM09	1.413	7.98	6.57	10y-EDAM09
EDAU09	1.662	7.98	6.32	10y-EDAU09
EDAZ09	1.912	7.98	6.07	10y-EDAZ09
EDAH10	2.161	7.98	5.82	10y-EDAH10
EDAM10	2.410	7.98	5.57	10y-EDAM10
EDAU10	2.660	7.98	5.32	10y-EDAU10
EDAZ10	2.909	7.98	5.07	10y-EDAZ10

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



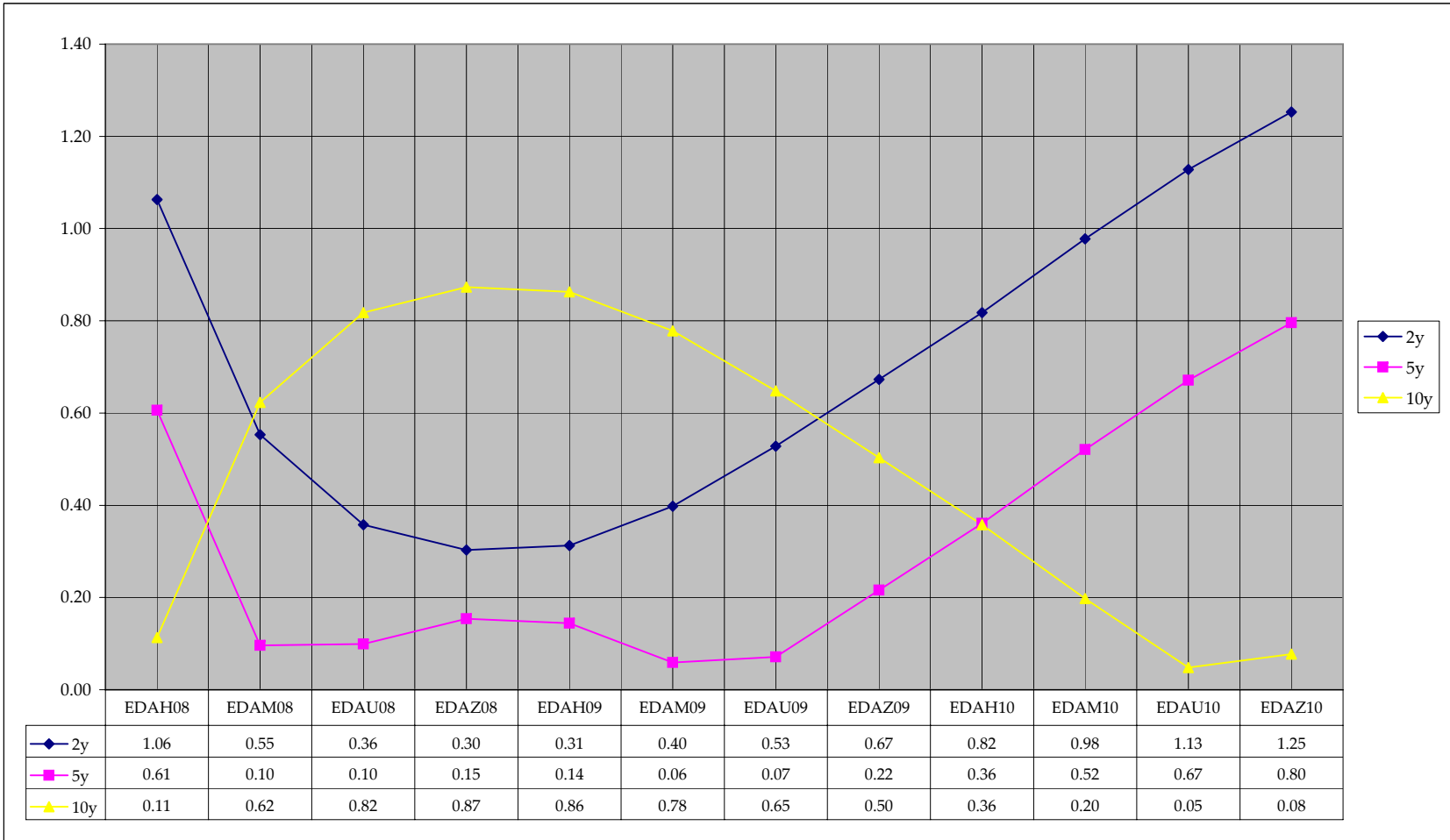
Dirty TED Curve

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.

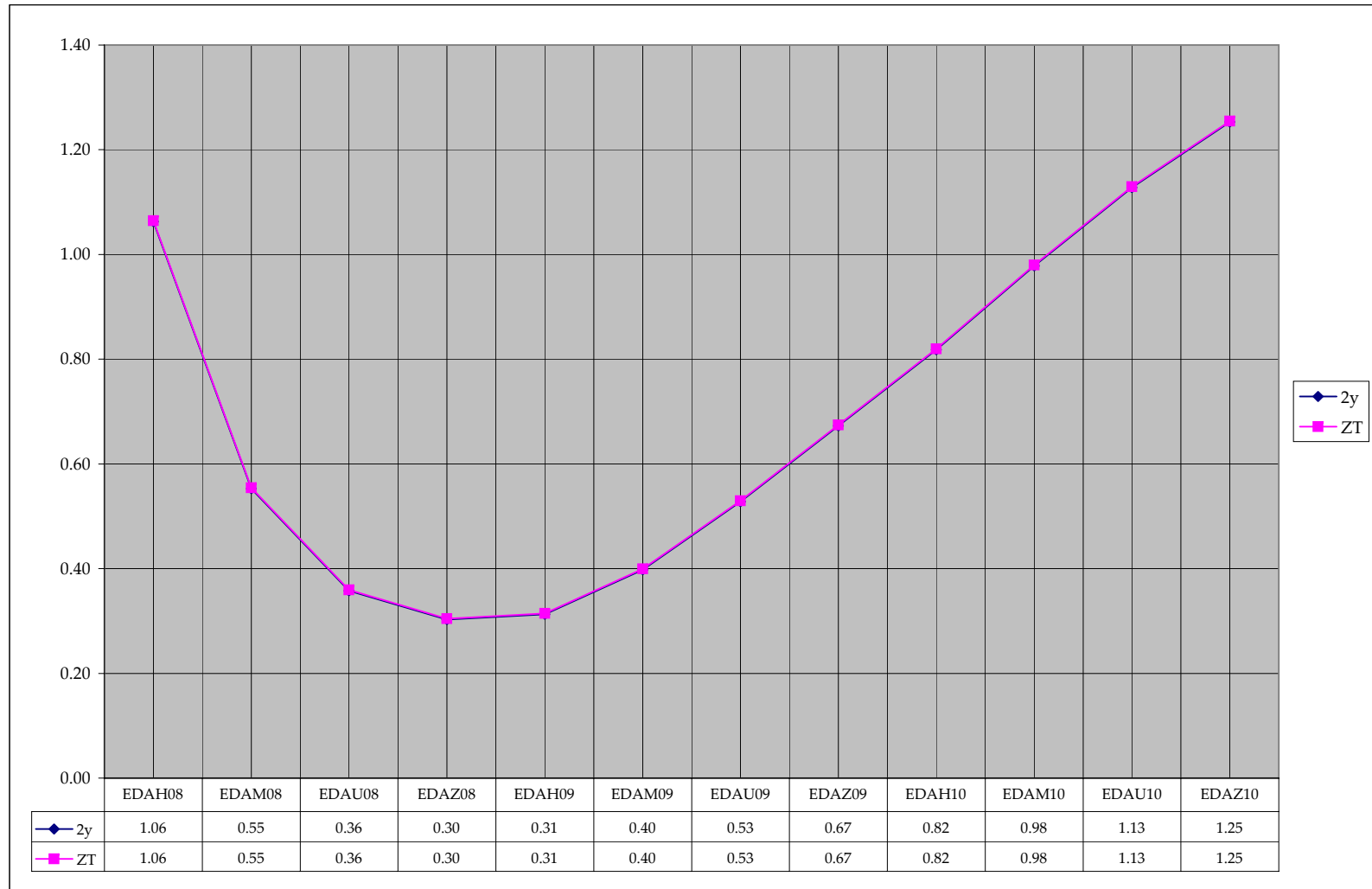


TED Curve

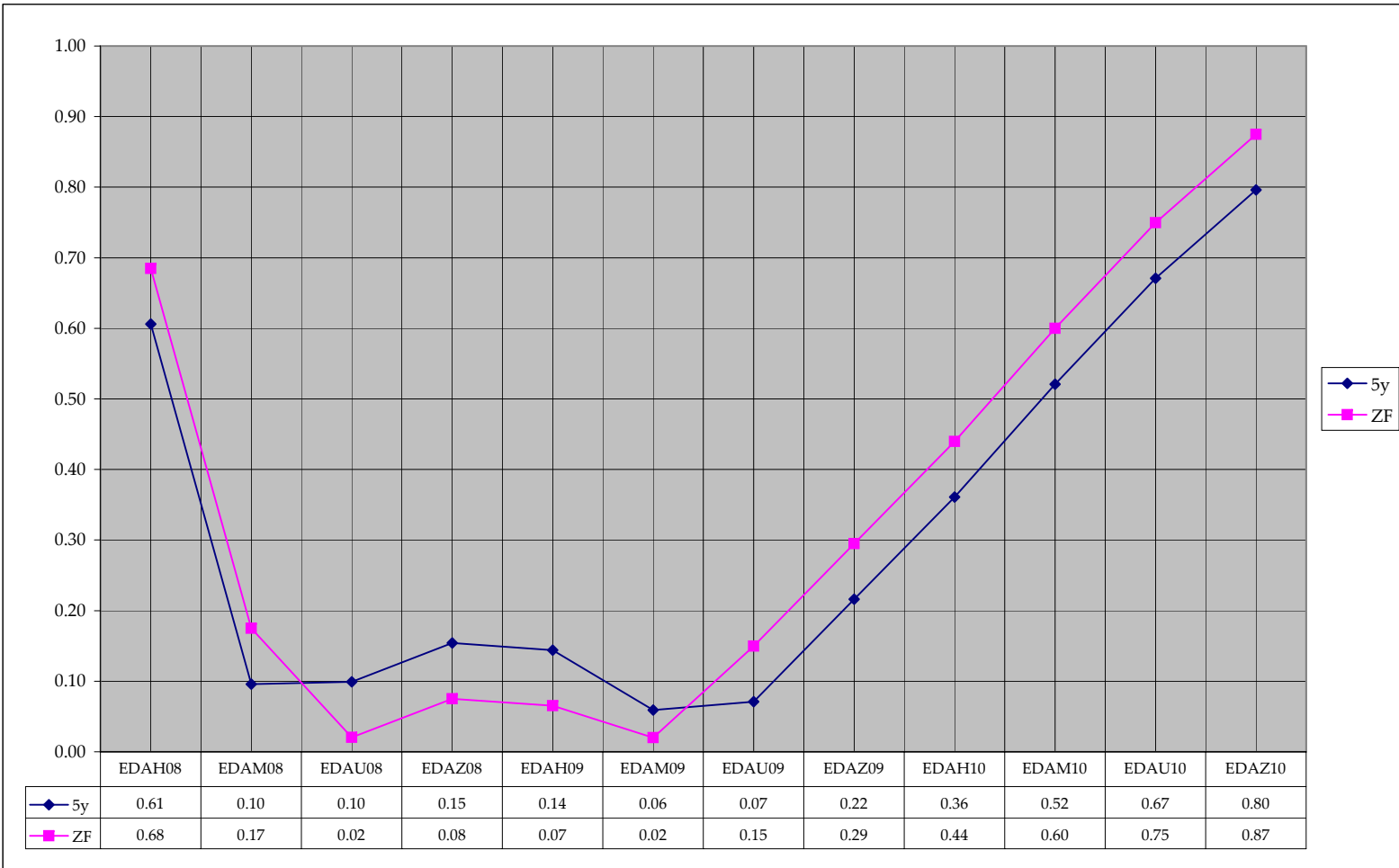
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



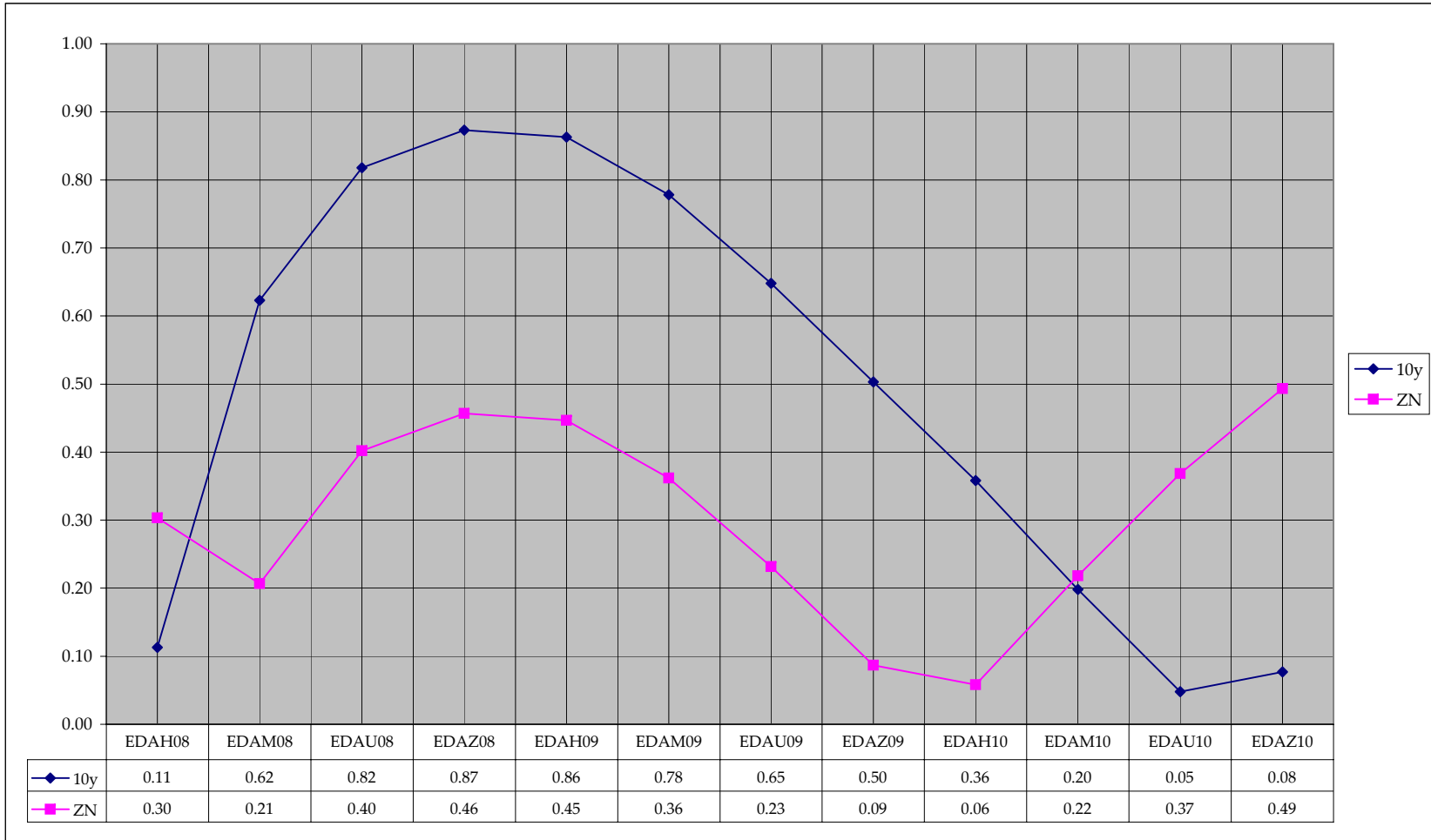
2y Basis TED Curve



5y Basis TED Curve



10y Basis TED Curve



Packs

	last Yield	Net Last Yield	Last Price
Q.ED.White	3.102	5.500	9696.375
Q.ED.Red	3.008	5.875	9705.500
Q.ED.Green	3.592	7.625	9648.875
Q.ED.Blue	4.250		9595.500
Q.ED.Gold		1.000	9552.500

