

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	104.9688	104.310	3.105	1.90	
ZF	110.0625	110.020	3.437	3.98	
ZN	113.2031	113.065	3.733	5.93	
2y	100.006	100.0020	3.117	1.86	
5y	99.538	99.1720	3.477	4.50	
10y	101.406	101.1300	4.072	7.99	

Eurodollars (ED)							
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month		
EDAH08	95.670	4.330	87	0.238	MAR	} White Pack	
EDAM08	96.165	3.835	178	0.487	JUN		
EDAU08	96.425	3.575	269	0.736	SEP		
EDAZ08	96.540	3.460	360	0.986	DEC		
EDAH09	96.530	3.470	451	1.235	MAR	} Red Pack	
EDAM09	96.420	3.580	542	1.484	JUN		
EDAU09	96.280	3.720	633	1.734	SEP		
EDAZ09	96.140	3.860	724	1.983	DEC		
EDAH10	96.010	3.990	815	2.232	MAR	} Green Pack	
EDAM10	95.870	4.130	906	2.482	JUN		
EDAU10	95.735	4.265	997	2.731	SEP		
EDAZ10	95.625	4.375	1088	2.980	DEC		
EDAH11	95.545	4.455	1179	3.229	MAR	} Blue Pack	
EDAM11	95.460	4.540	1270	3.479	JUN		
EDAU11	95.415	4.585	1368	3.747	SEP		
EDAZ11	95.285	4.715	1459	3.997	DEC		
EDAH12	95.245	4.755	1550	4.246	MAR	} Gold Pack	
EDAM12	95.175	4.825	1641	4.495	JUN		
EDAU12	95.110	4.890	1732	4.745	SEP		
EDAU12	95.110	4.890	1732	4.745	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	3.890	-3.500	9620.000	} Pack Prices
Q.ED.Red	3.743	-4.250	9634.250	
Q.ED.Green	4.293	-4.625	9581.000	
Q.ED.Blue		-1.000	9544.000	
Q.ED.Gold		0.000	9514.500	

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.

jgoulding@ghco.com

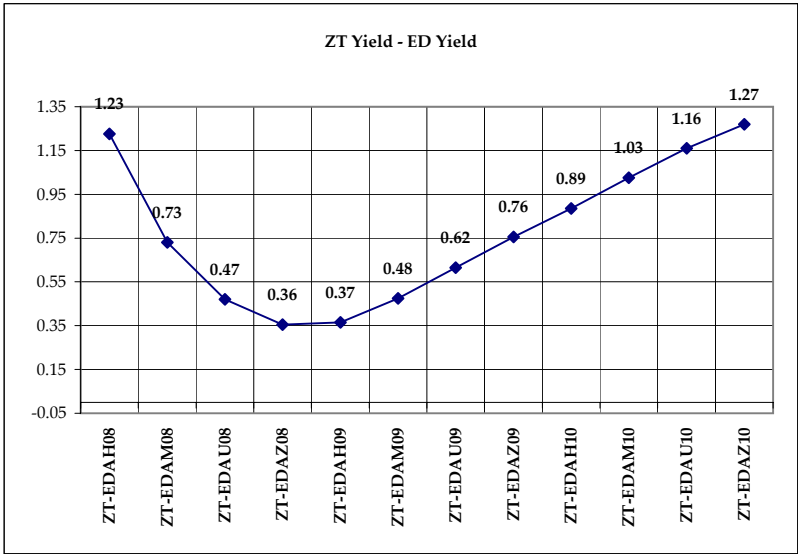
Eurodollar Color Codes for Individual Year Strips:

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

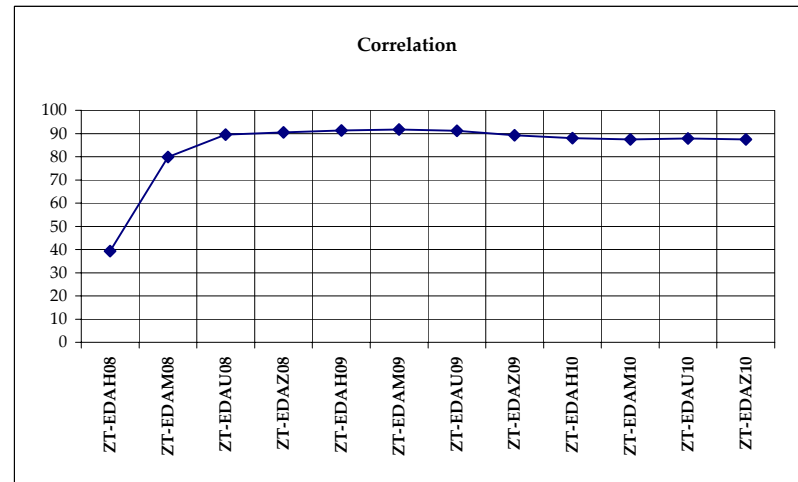
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	9.299	1.23	ZT-EDAH08	39.324
EDAM08	8.804	0.73	ZT-EDAM08	79.899
EDAU08	8.544	0.47	ZT-EDAU08	89.525
EDAZ08	8.429	0.36	ZT-EDAZ08	90.493
EDAH09	8.439	0.37	ZT-EDAH09	91.326
EDAM09	8.549	0.48	ZT-EDAM09	91.759
EDAU09	8.689	0.62	ZT-EDAU09	91.157
EDAZ09	8.829	0.76	ZT-EDAZ09	89.208
EDAH10	8.959	0.89	ZT-EDAH10	87.959
EDAM10	9.099	1.03	ZT-EDAM10	87.449
EDAU10	9.234	1.16	ZT-EDAU10	87.905
EDAZ10	9.344	1.27	ZT-EDAZ10	87.486

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	0.238	1.90	1.66	ZT-EDAH08
EDAM08	0.487	1.90	1.41	ZT-EDAM08
EDAU08	0.736	1.90	1.16	ZT-EDAU08
EDAZ08	0.986	1.90	0.91	ZT-EDAZ08
EDAH09	1.235	1.90	0.66	ZT-EDAH09
EDAM09	1.484	1.90	0.41	ZT-EDAM09
EDAU09	1.734	1.90	0.16	ZT-EDAU09
EDAZ09	1.983	1.90	(0.09)	ZT-EDAZ09
EDAH10	2.232	1.90	(0.34)	ZT-EDAH10
EDAM10	2.482	1.90	(0.59)	ZT-EDAM10
EDAU10	2.731	1.90	(0.84)	ZT-EDAU10
EDAZ10	2.980	1.90	(1.08)	ZT-EDAZ10

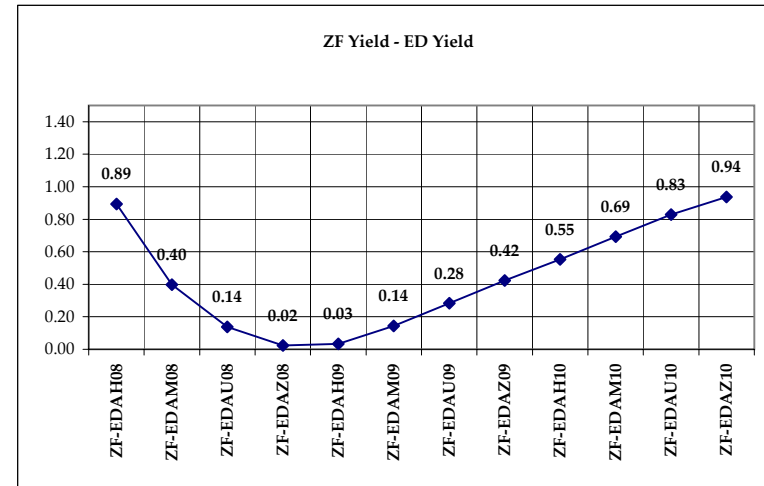
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	14.39	0.89	ZF-EDAH08	44.397
EDAM08	13.90	0.40	ZF-EDAM08	81.324
EDAU08	13.64	0.14	ZF-EDAU08	90.770
EDAZ08	13.52	0.02	ZF-EDAZ08	92.536
EDAH09	13.53	0.03	ZF-EDAH09	93.662
EDAM09	13.64	0.14	ZF-EDAM09	93.990
EDAU09	13.78	0.28	ZF-EDAU09	93.566
EDAZ09	13.92	0.42	ZF-EDAZ09	92.114
EDAH10	14.05	0.55	ZF-EDAH10	91.188
EDAM10	14.19	0.69	ZF-EDAM10	90.930
EDAU10	14.33	0.83	ZF-EDAU10	91.636
EDAZ10	14.44	0.94	ZF-EDAZ10	91.298

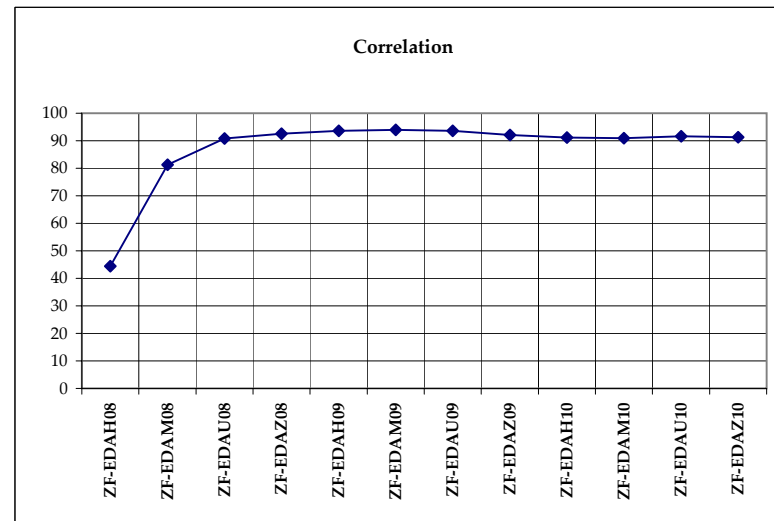
Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year

	ZF Duration	Spread Duration	
EDAH08	0.238	3.98	ZF-EDAH08
EDAM08	0.487	3.98	ZF-EDAM08
EDAU08	0.736	3.98	ZF-EDAU08
EDAZ08	0.986	3.98	ZF-EDAZ08
EDAH09	1.235	3.98	ZF-EDAH09
EDAM09	1.484	3.98	ZF-EDAM09
EDAU09	1.734	3.98	ZF-EDAU09
EDAZ09	1.983	3.98	ZF-EDAZ09
EDAH10	2.232	3.98	ZF-EDAH10
EDAM10	2.482	3.98	ZF-EDAM10
EDAU10	2.731	3.98	ZF-EDAU10
EDAZ10	2.980	3.98	ZF-EDAZ10

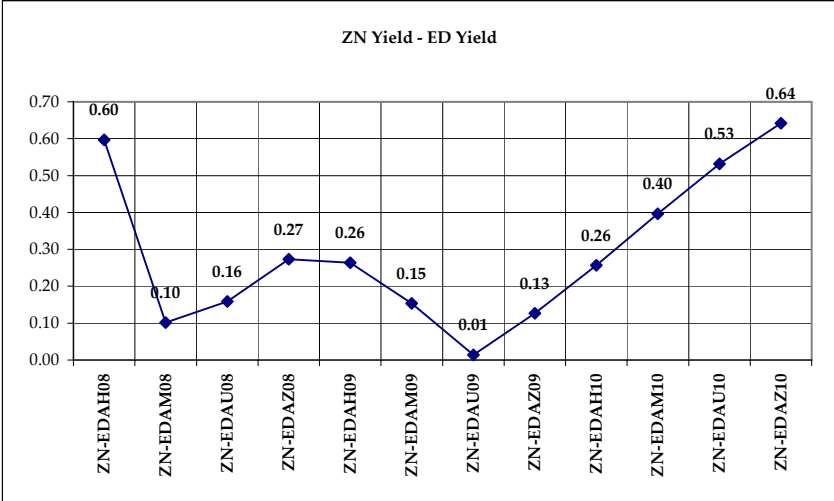
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZN vs Eurodollar Contracts

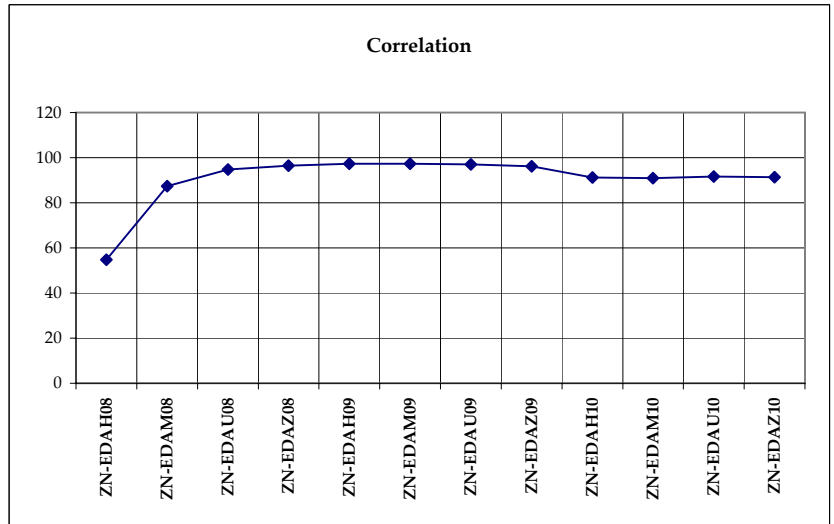
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	17.53	0.60	ZN-EDAH08	54.77
EDAM08	17.04	0.10	ZN-EDAM08	87.41
EDAU08	16.78	0.16	ZN-EDAU08	94.80
EDAZ08	16.66	0.27	ZN-EDAZ08	96.43
EDAH09	16.67	0.26	ZN-EDAH09	97.26
EDAM09	16.78	0.15	ZN-EDAM09	97.35
EDAU09	16.92	0.01	ZN-EDAU09	97.07
EDAZ09	17.06	0.13	ZN-EDAZ09	96.16
EDAH10	17.19	0.26	ZN-EDAH10	91.19
EDAM10	17.33	0.40	ZN-EDAM10	90.93
EDAU10	17.47	0.53	ZN-EDAU10	91.64
EDAZ10	17.58	0.64	ZN-EDAZ10	91.30

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	0.238	5.93	5.69	ZN-EDAH08
EDAM08	0.487	5.93	5.44	ZN-EDAM08
EDAU08	0.736	5.93	5.19	ZN-EDAU08
EDAZ08	0.986	5.93	4.94	ZN-EDAZ08
EDAH09	1.235	5.93	4.69	ZN-EDAH09
EDAM09	1.484	5.93	4.44	ZN-EDAM09
EDAU09	1.734	5.93	4.19	ZN-EDAU09
EDAZ09	1.983	5.93	3.94	ZN-EDAZ09
EDAH10	2.232	5.93	3.69	ZN-EDAH10
EDAM10	2.482	5.93	3.44	ZN-EDAM10
EDAU10	2.731	5.93	3.20	ZN-EDAU10
EDAZ10	2.980	5.93	2.95	ZN-EDAZ10

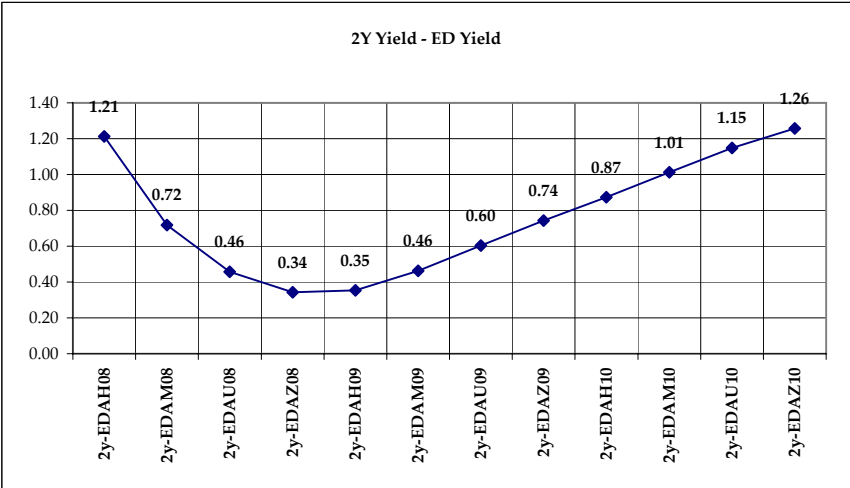
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	4.34	1.21	2y-EDAH08	-0.988
EDAM08	3.84	0.72	2y-EDAM08	-48.249
EDAU08	3.58	0.46	2y-EDAU08	-64.387
EDAZ08	3.47	0.34	2y-EDAZ08	-48.249
EDAH09	3.48	0.35	2y-EDAH09	-69.755
EDAM09	3.59	0.46	2y-EDAM09	-70.008
EDAU09	3.73	0.60	2y-EDAU09	-68.712
EDAZ09	3.87	0.74	2y-EDAZ09	-65.430
EDAH10	4.00	0.87	2y-EDAH10	-63.404
EDAM10	4.14	1.01	2y-EDAM10	-62.800
EDAU10	4.27	1.15	2y-EDAU10	-63.220
EDAZ10	4.38	1.26	2y-EDAZ10	-62.454

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.

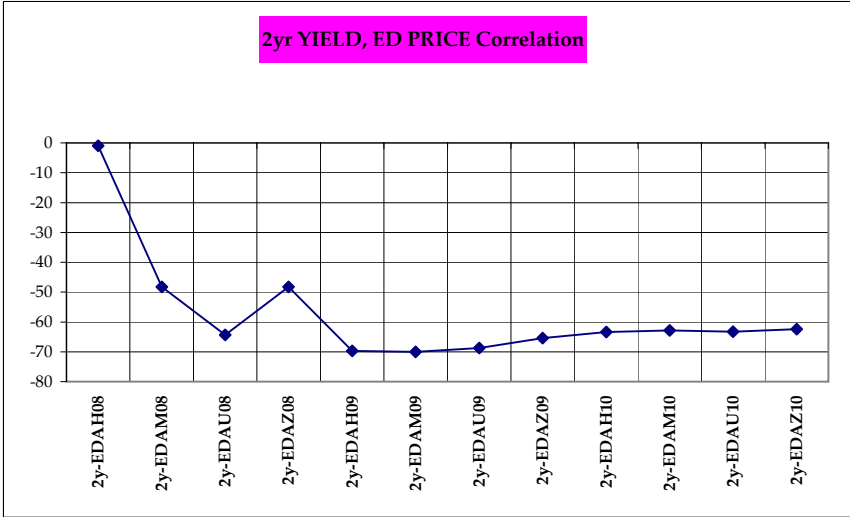


GE Duration as Fraction of year

	2Y Duration	Spread Duration	
EDAH08	0.238	1.86	2y-EDAH08
EDAM08	0.487	1.86	2y-EDAM08
EDAU08	0.736	1.86	2y-EDAU08
EDAZ08	0.986	1.86	2y-EDAZ08
EDAH09	1.235	1.86	2y-EDAH09
EDAM09	1.484	1.86	2y-EDAM09
EDAU09	1.734	1.86	2y-EDAU09
EDAZ09	1.983	1.86	2y-EDAZ09
EDAH10	2.232	1.86	2y-EDAH10
EDAM10	2.482	1.86	2y-EDAM10
EDAU10	2.731	1.86	2y-EDAU10
EDAZ10	2.980	1.86	2y-EDAZ10

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

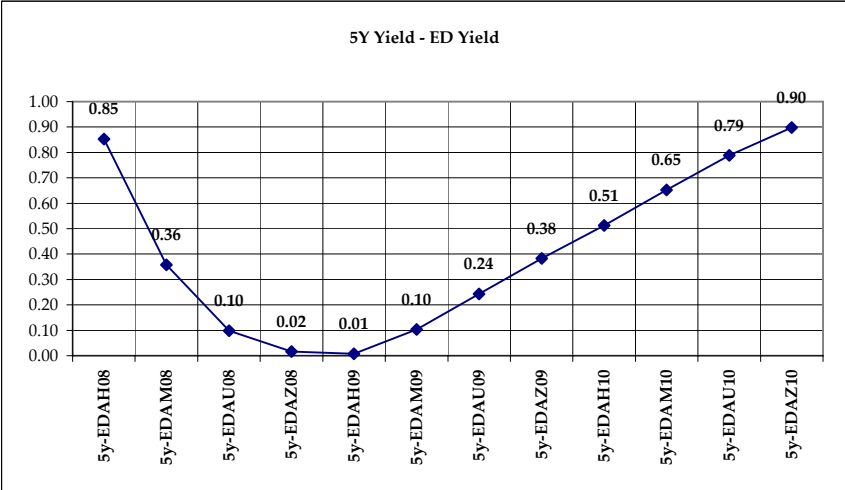
2yr YIELD, ED PRICE Correlation



TERM TED: 5y vs Eurodollar Contracts

5y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	3.87	0.85	5y-EDAH08	-9.997
EDAM08	3.37	0.36	5y-EDAM08	-52.192
EDAU08	3.11	0.10	5y-EDAU08	-67.516
EDAZ08	3.00	0.02	5y-EDAZ08	-52.192
EDAH09	3.01	0.01	5y-EDAH09	-73.632
EDAM09	3.12	0.10	5y-EDAM09	-74.109
EDAU09	3.26	0.24	5y-EDAU09	-73.212
EDAZ09	3.40	0.38	5y-EDAZ09	-70.690
EDAH10	3.53	0.51	5y-EDAH10	-69.188
EDAM10	3.67	0.65	5y-EDAM10	-69.085
EDAU10	3.80	0.79	5y-EDAU10	-70.199
EDAZ10	3.91	0.90	5y-EDAZ10	-69.660

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.

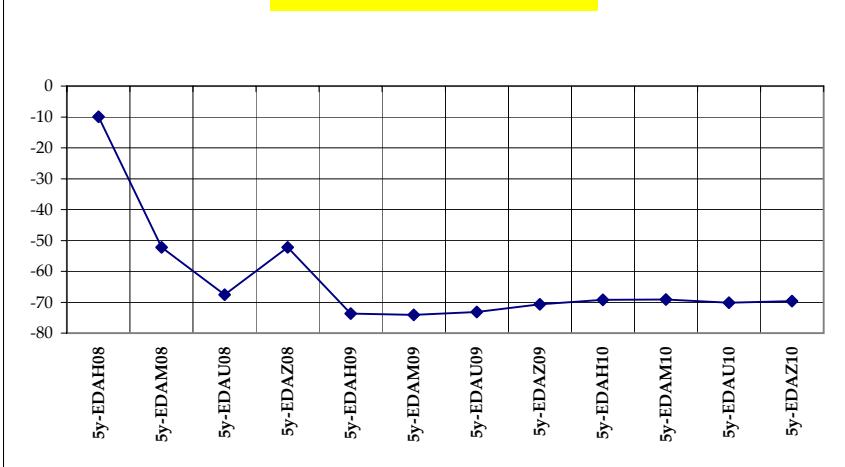


GE Duration as Fraction of year

	5Y Duration	Spread Duration	
EDAH08	0.238	4.50	4.26 5y-EDAH08
EDAM08	0.487	4.50	4.01 5y-EDAM08
EDAU08	0.736	4.50	3.76 5y-EDAU08
EDAZ08	0.986	4.50	3.51 5y-EDAZ08
EDAH09	1.235	4.50	3.26 5y-EDAH09
EDAM09	1.484	4.50	3.01 5y-EDAM09
EDAU09	1.734	4.50	2.76 5y-EDAU09
EDAZ09	1.983	4.50	2.51 5y-EDAZ09
EDAH10	2.232	4.50	2.27 5y-EDAH10
EDAM10	2.482	4.50	2.02 5y-EDAM10
EDAU10	2.731	4.50	1.77 5y-EDAU10
EDAZ10	2.980	4.50	1.52 5y-EDAZ10

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

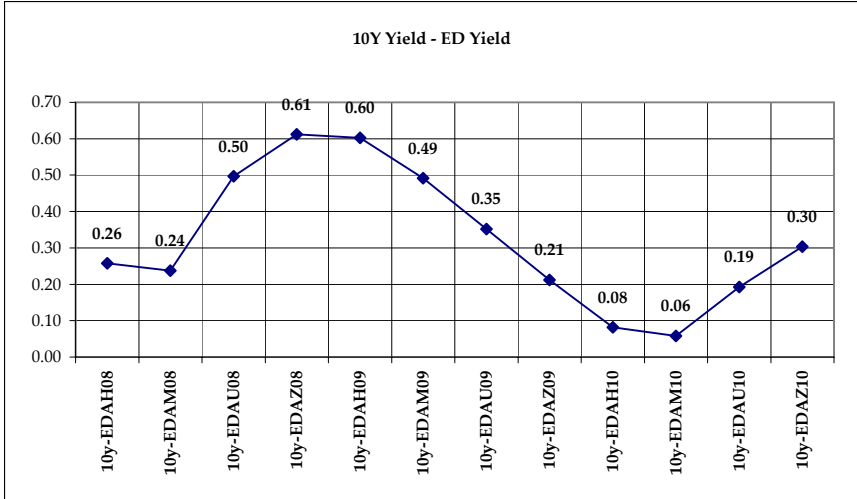
5yr YIELD, ED PRICE Correlation



TERM TED: 10y vs Eurodollar Contracts

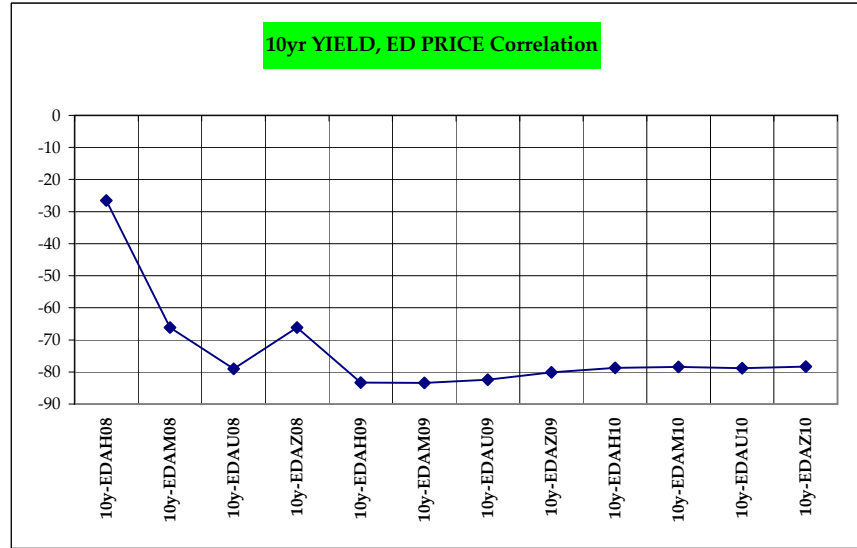
	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	3.87	0.26	10y-EDAH08	-26.534
EDAM08	3.37	0.24	10y-EDAM08	-66.176
EDAU08	3.11	0.50	10y-EDAU08	-79.038
EDAZ08	3.00	0.61	10y-EDAZ08	-66.176
EDAH09	3.01	0.60	10y-EDAH09	-83.289
EDAM09	3.12	0.49	10y-EDAM09	-83.389
EDAU09	3.26	0.35	10y-EDAU09	-82.396
EDAZ09	3.40	0.21	10y-EDAZ09	-80.097
EDAH10	3.53	0.08	10y-EDAH10	-78.723
EDAM10	3.67	0.06	10y-EDAM10	-78.438
EDAU10	3.80	0.19	10y-EDAU10	-78.864
EDAZ10	3.91	0.30	10y-EDAZ10	-78.320

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	0.238	7.99	7.76	10y-EDAH08
EDAM08	0.487	7.99	7.51	10y-EDAM08
EDAU08	0.736	7.99	7.26	10y-EDAU08
EDAZ08	0.986	7.99	7.01	10y-EDAZ08
EDAH09	1.235	7.99	6.76	10y-EDAH09
EDAM09	1.484	7.99	6.51	10y-EDAM09
EDAU09	1.734	7.99	6.26	10y-EDAU09
EDAZ09	1.983	7.99	6.01	10y-EDAZ09
EDAH10	2.232	7.99	5.76	10y-EDAH10
EDAM10	2.482	7.99	5.51	10y-EDAM10
EDAU10	2.731	7.99	5.26	10y-EDAU10
EDAZ10	2.980	7.99	5.01	10y-EDAZ10

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

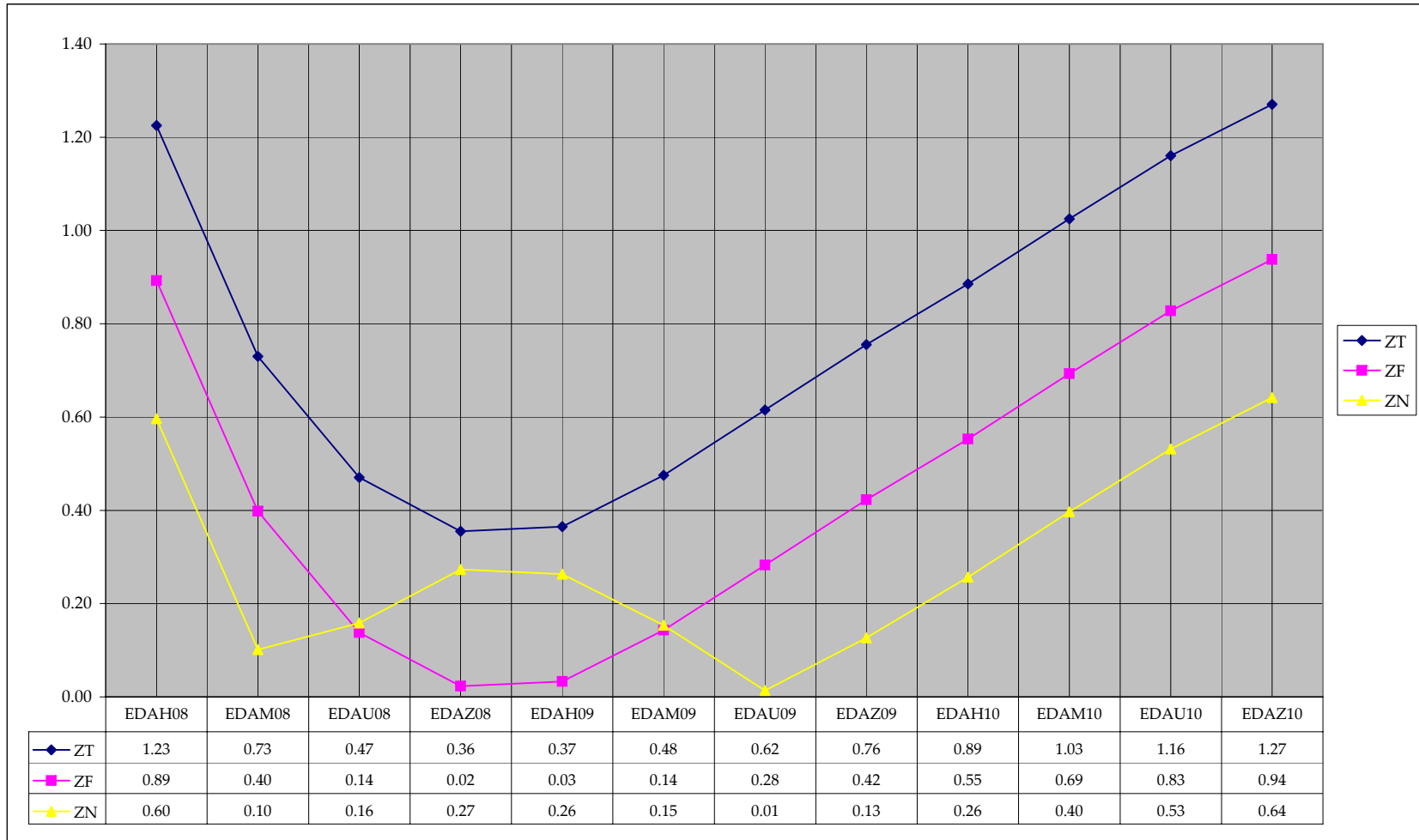


Dirty TED Curve

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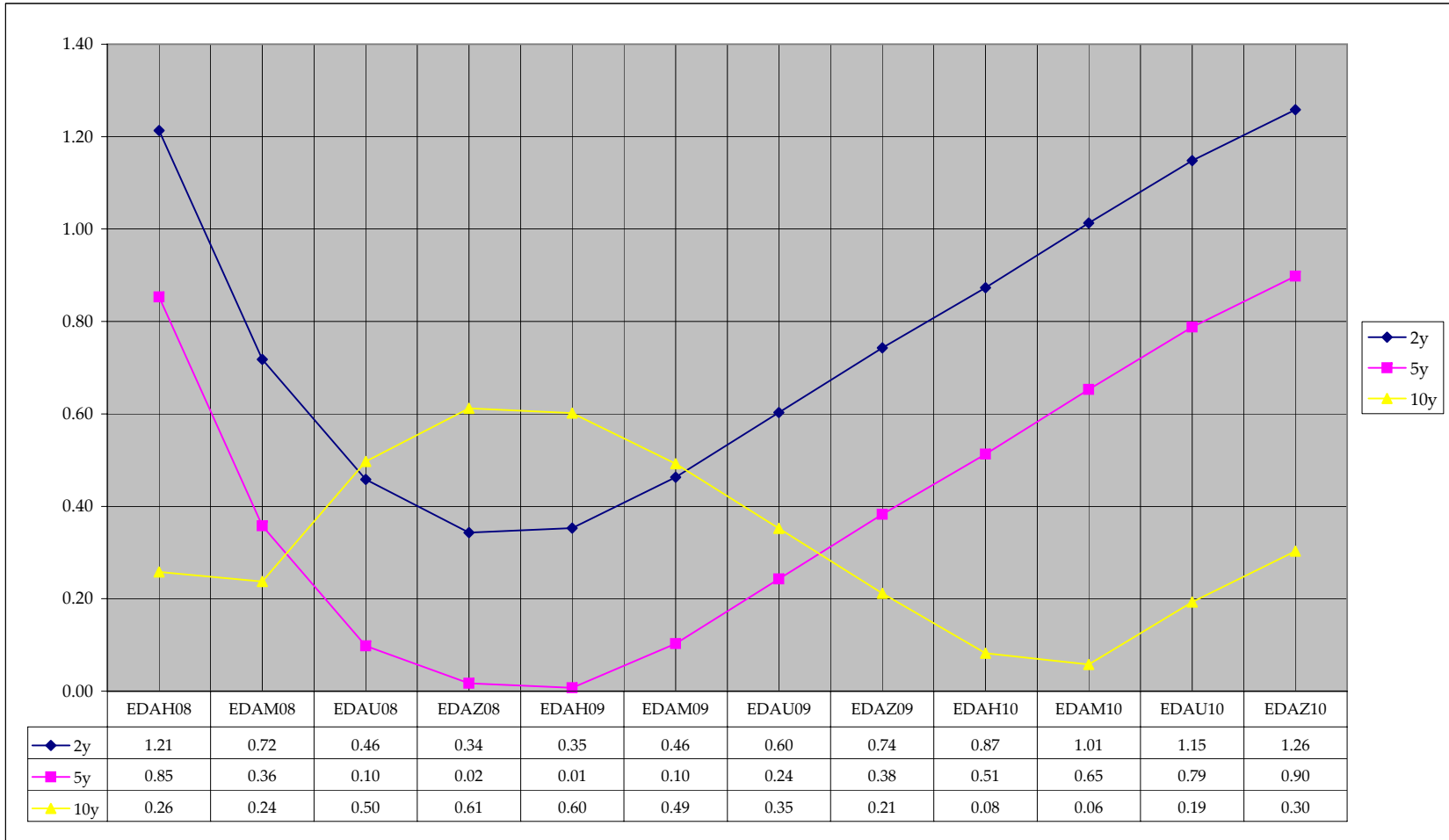
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Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis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

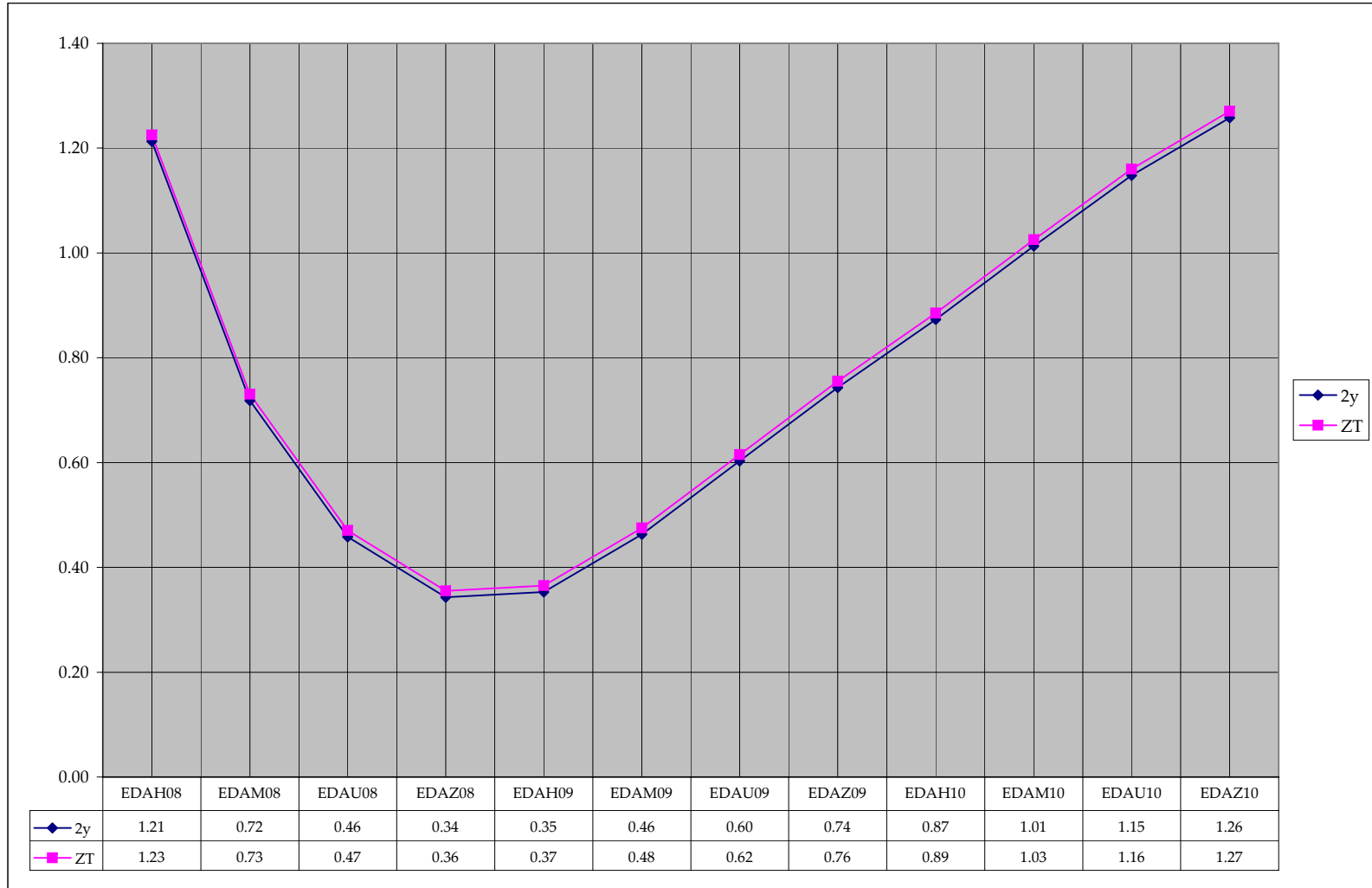


TED Curve

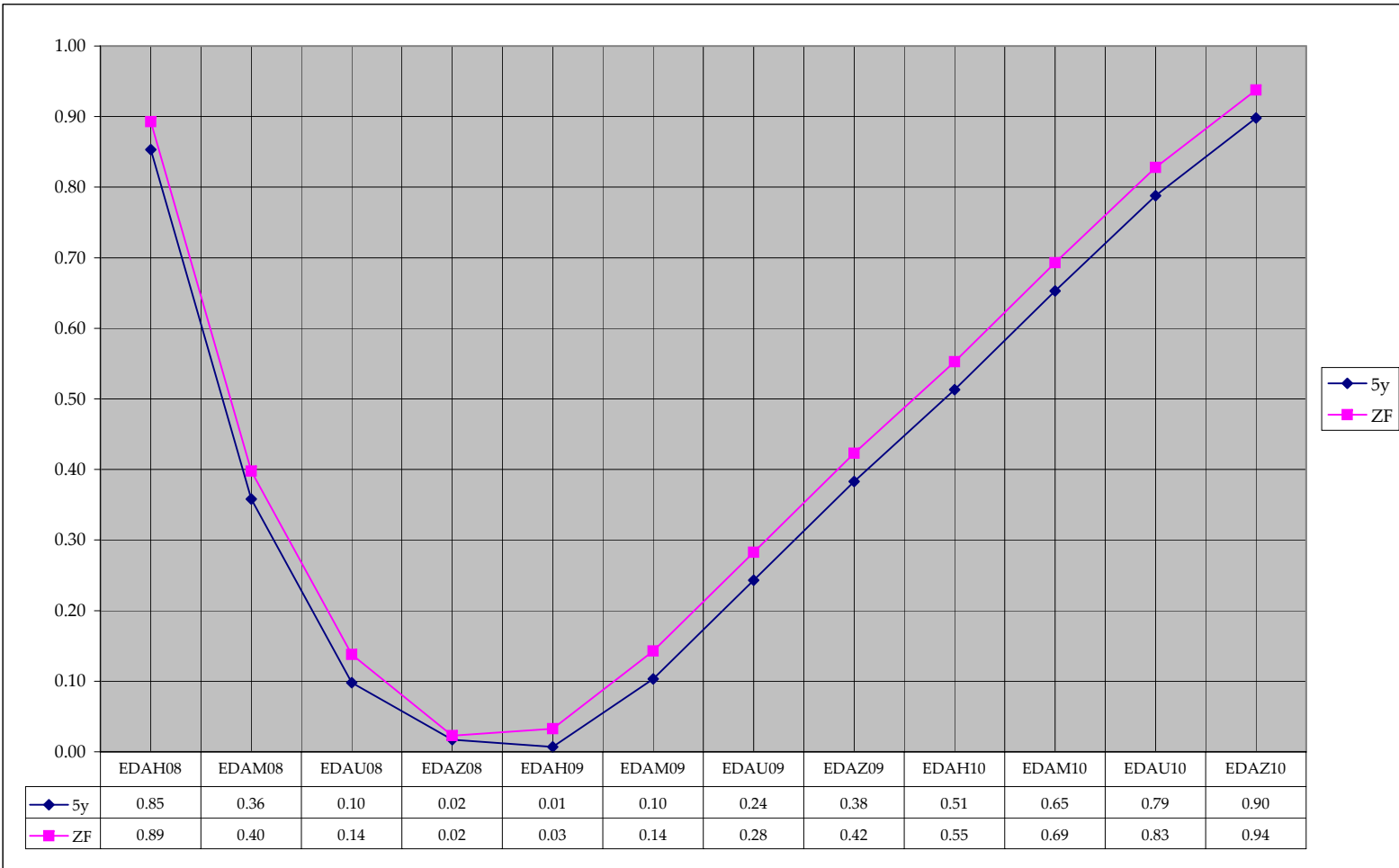
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



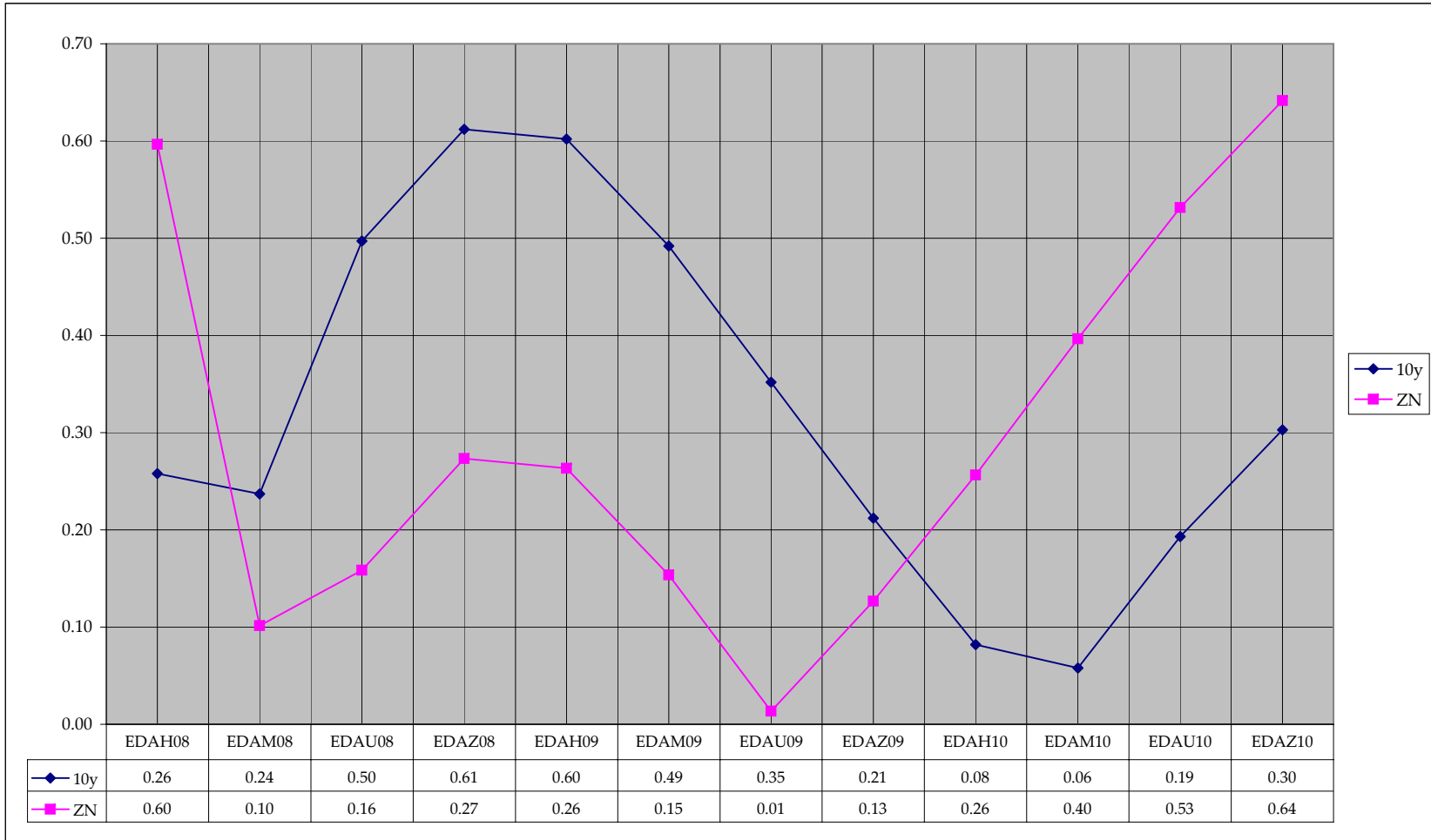
2y Basis TED Curve



5y Basis TED Curve



10y Basis TED Curve



Packs

	last Yield	Net Last Yield	Last Price
Q.ED.White	3.890	-3.500	9620.000
Q.ED.Red	3.743	-4.250	9634.250
Q.ED.Green	4.293	-4.625	9581.000
Q.ED.Blue		-1.000	9544.000
Q.ED.Gold		0.000	9514.500

