

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	104.9438	104.302	3.135	1.91	
ZF	110.0156	110.005	3.422	3.99	
ZN	113.0781	113.025	3.752	5.94	
2y	99.969	99.3100	3.133	1.87	
5y	99.506	99.1620	3.482	4.51	
10y	101.266	101.0850	4.091	8.00	

Eurodollars (ED)							
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month		
EDAH08	95.660	4.340	89	0.243	MAR	White Pack	
EDAM08	96.085	3.915	180	0.492	JUN		
EDAU08	96.330	3.670	271	0.742	SEP		
EDAZ08	96.430	3.570	362	0.991	DEC	Red Pack	
EDAH09	96.420	3.580	453	1.240	MAR		
EDAM09	96.310	3.690	544	1.490	JUN		
EDAU09	96.180	3.820	635	1.739	SEP	Green Pack	
EDAZ09	96.050	3.950	726	1.988	DEC		
EDAH10	95.925	4.075	817	2.238	MAR		
EDAM10	95.790	4.210	908	2.487	JUN	Blue Pack	
EDAU10	95.675	4.325	999	2.736	SEP		
EDAZ10	95.540	4.460	1090	2.986	DEC		
EDAH11	95.480	4.520	1181	3.235	MAR	Gold Pack	
EDAM11	95.365	4.635	1272	3.484	JUN		
EDAU11	95.280	4.720	1370	3.753	SEP		
EDAZ11	95.230	4.770	1461	4.002	DEC		
EDAH12	95.145	4.855	1552	4.251	MAR		
EDAM12	95.070	4.930	1643	4.501	JUN		
EDAU12	95.030	4.970	1734	4.750	SEP		
EDAU12	95.030	4.970	1734	4.750	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	3.966	1.500	9612.625	Pack Prices
Q.ED.Red	3.848	1.875	9624.000	
Q.ED.Green	4.373	1.000	9573.250	
Q.ED.Blue		0.250	9535.000	
Q.ED.Gold		0.000	9505.875	

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

12/19/2007 5:56

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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

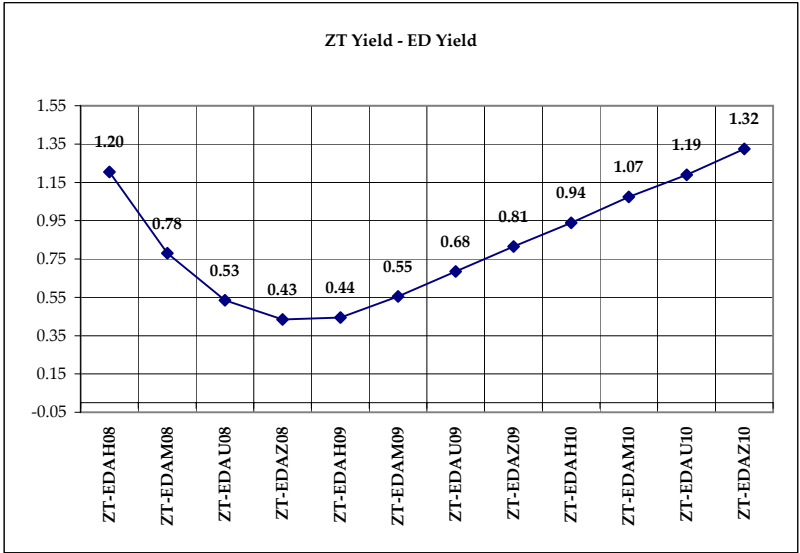
Eurodollar Color Codes for Individual Year Strips:

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	9.284	1.20	ZT-EDAH08	41.048
EDAM08	8.859	0.78	ZT-EDAM08	85.925
EDAU08	8.614	0.53	ZT-EDAU08	95.135
EDAZ08	8.514	0.43	ZT-EDAZ08	96.730
EDAH09	8.524	0.44	ZT-EDAH09	96.812
EDAM09	8.634	0.55	ZT-EDAM09	96.277
EDAU09	8.764	0.68	ZT-EDAU09	95.530
EDAZ09	8.894	0.81	ZT-EDAZ09	93.968
EDAH10	9.019	0.94	ZT-EDAH10	92.684
EDAM10	9.154	1.07	ZT-EDAM10	91.615
EDAU10	9.269	1.19	ZT-EDAU10	90.840
EDAZ10	9.404	1.32	ZT-EDAZ10	89.713

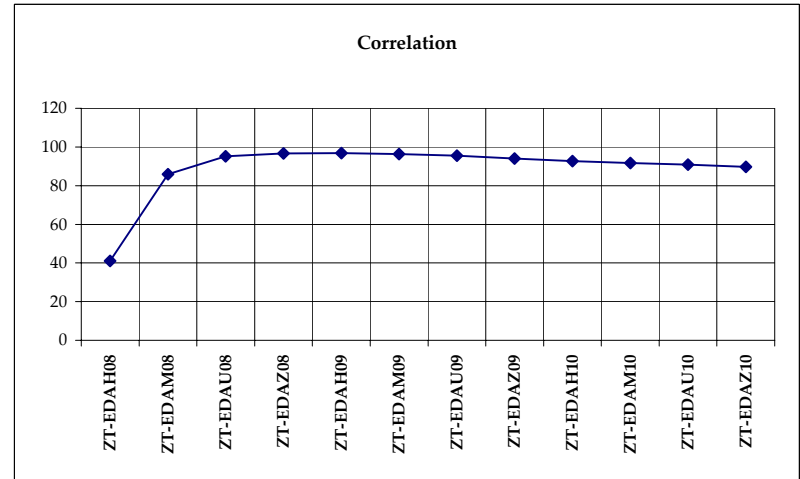
Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year

	ZT Duration	Spread Duration	
EDAH08	0.243	1.91	ZT-EDAH08
EDAM08	0.492	1.91	ZT-EDAM08
EDAU08	0.742	1.91	ZT-EDAU08
EDAZ08	0.991	1.91	ZT-EDAZ08
EDAH09	1.240	1.91	ZT-EDAH09
EDAM09	1.490	1.91	ZT-EDAM09
EDAU09	1.739	1.91	ZT-EDAU09
EDAZ09	1.988	1.91	ZT-EDAZ09
EDAH10	2.238	1.91	ZT-EDAH10
EDAM10	2.487	1.91	ZT-EDAM10
EDAU10	2.736	1.91	ZT-EDAU10
EDAZ10	2.986	1.91	ZT-EDAZ10

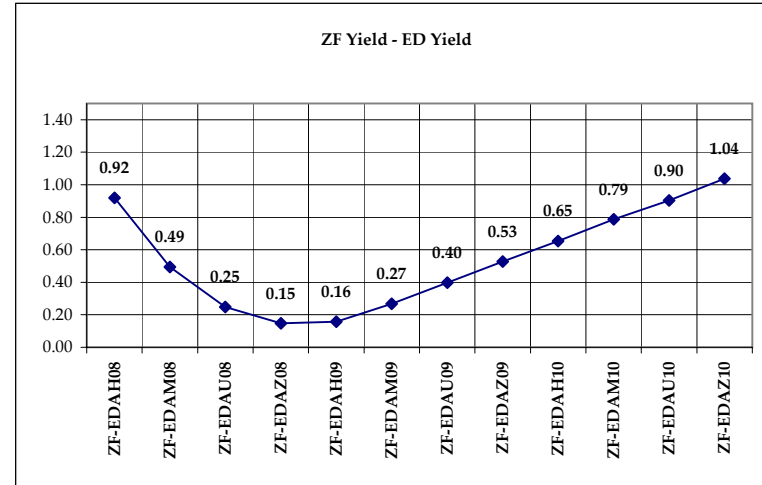
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

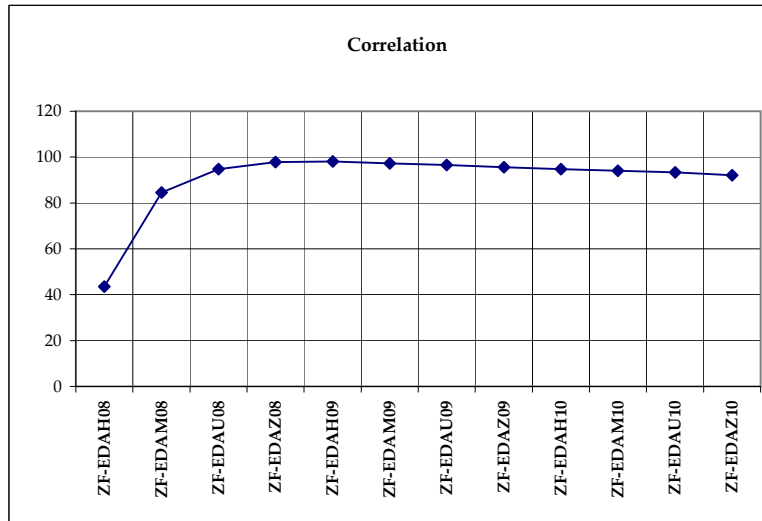
ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	14.36	0.92	ZF-EDAH08	43.480
EDAM08	13.93	0.49	ZF-EDAM08	84.505
EDAU08	13.69	0.25	ZF-EDAU08	94.743
EDAZ08	13.59	0.15	ZF-EDAZ08	97.777
EDAH09	13.60	0.16	ZF-EDAH09	98.072
EDAM09	13.71	0.27	ZF-EDAM09	97.228
EDAU09	13.84	0.40	ZF-EDAU09	96.593
EDAZ09	13.97	0.53	ZF-EDAZ09	95.644
EDAH10	14.09	0.65	ZF-EDAH10	94.805
EDAM10	14.23	0.79	ZF-EDAM10	94.067
EDAU10	14.34	0.90	ZF-EDAU10	93.287
EDAZ10	14.48	1.04	ZF-EDAZ10	92.081

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	0.243	3.99	3.75	ZF-EDAH08
EDAM08	0.492	3.99	3.50	ZF-EDAM08
EDAU08	0.742	3.99	3.25	ZF-EDAU08
EDAZ08	0.991	3.99	3.00	ZF-EDAZ08
EDAH09	1.240	3.99	2.75	ZF-EDAH09
EDAM09	1.490	3.99	2.50	ZF-EDAM09
EDAU09	1.739	3.99	2.25	ZF-EDAU09
EDAZ09	1.988	3.99	2.01	ZF-EDAZ09
EDAH10	2.238	3.99	1.76	ZF-EDAH10
EDAM10	2.487	3.99	1.51	ZF-EDAM10
EDAU10	2.736	3.99	1.26	ZF-EDAU10
EDAZ10	2.986	3.99	1.01	ZF-EDAZ10

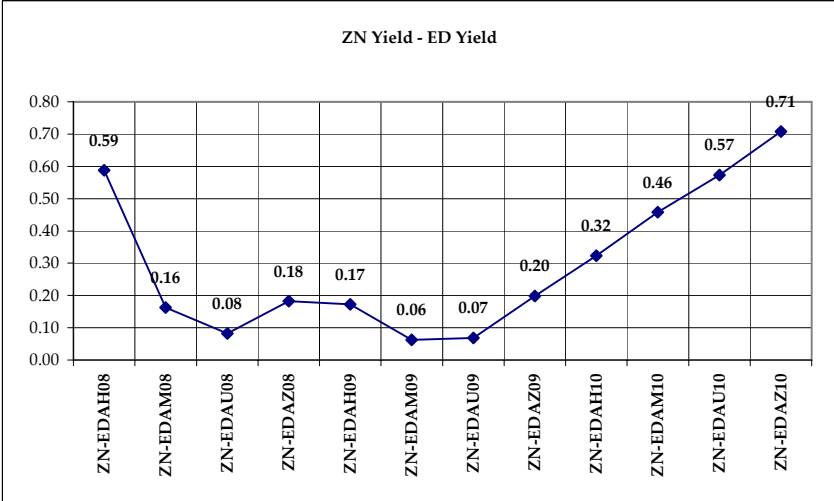
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZN vs Eurodollar Contracts

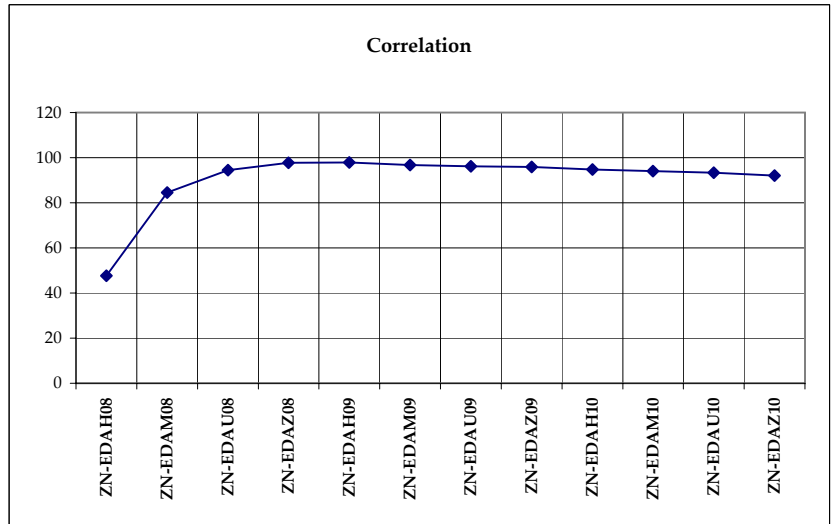
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	17.42	0.59	ZN-EDAH08	47.72
EDAM08	16.99	0.16	ZN-EDAM08	84.60
EDAU08	16.75	0.08	ZN-EDAU08	94.42
EDAZ08	16.65	0.18	ZN-EDAZ08	97.73
EDAH09	16.66	0.17	ZN-EDAH09	97.80
EDAM09	16.77	0.06	ZN-EDAM09	96.71
EDAU09	16.90	0.07	ZN-EDAU09	96.23
EDAZ09	17.03	0.20	ZN-EDAZ09	95.85
EDAH10	17.15	0.32	ZN-EDAH10	94.81
EDAM10	17.29	0.46	ZN-EDAM10	94.07
EDAU10	17.40	0.57	ZN-EDAU10	93.29
EDAZ10	17.54	0.71	ZN-EDAZ10	92.08

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	0.243	5.94	5.69	ZN-EDAH08
EDAM08	0.492	5.94	5.44	ZN-EDAM08
EDAU08	0.742	5.94	5.19	ZN-EDAU08
EDAZ08	0.991	5.94	4.94	ZN-EDAZ08
EDAH09	1.240	5.94	4.70	ZN-EDAH09
EDAM09	1.490	5.94	4.45	ZN-EDAM09
EDAU09	1.739	5.94	4.20	ZN-EDAU09
EDAZ09	1.988	5.94	3.95	ZN-EDAZ09
EDAH10	2.238	5.94	3.70	ZN-EDAH10
EDAM10	2.487	5.94	3.45	ZN-EDAM10
EDAU10	2.736	5.94	3.20	ZN-EDAU10
EDAZ10	2.986	5.94	2.95	ZN-EDAZ10

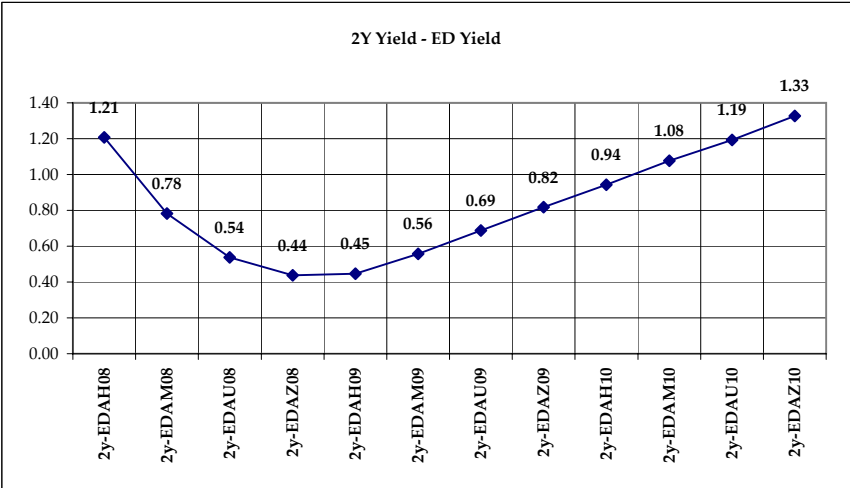
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	4.31	1.21	2y-EDAH08	-12.702
EDAM08	3.88	0.78	2y-EDAM08	-65.859
EDAU08	3.64	0.54	2y-EDAU08	-80.200
EDAZ08	3.54	0.44	2y-EDAZ08	-65.859
EDAH09	3.55	0.45	2y-EDAH09	-85.660
EDAM09	3.66	0.56	2y-EDAM09	-84.710
EDAU09	3.79	0.69	2y-EDAU09	-83.079
EDAZ09	3.92	0.82	2y-EDAZ09	-79.994
EDAH10	4.04	0.94	2y-EDAH10	-77.653
EDAM10	4.18	1.08	2y-EDAM10	-76.024
EDAU10	4.29	1.19	2y-EDAU10	-75.009
EDAZ10	4.43	1.33	2y-EDAZ10	-74.575

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.

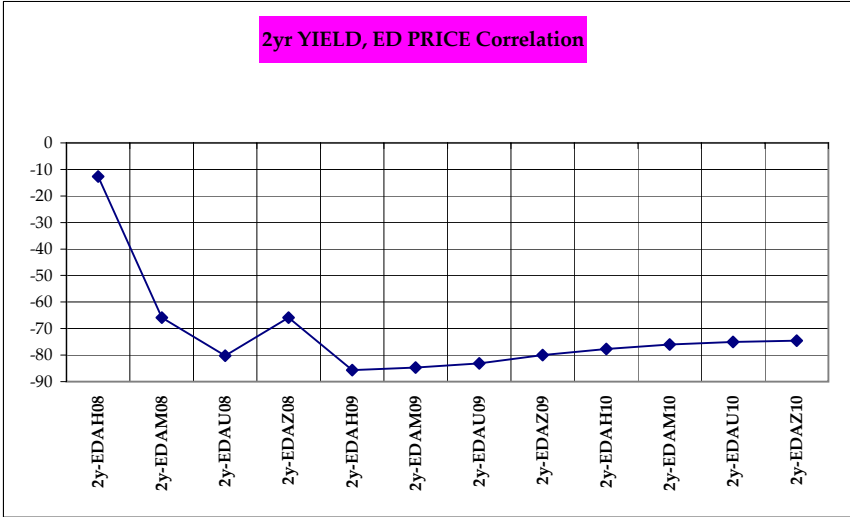


GE Duration as Fraction of year

	2Y Duration	Spread Duration	
EDAH08	0.243	1.87	2y-EDAH08
EDAM08	0.492	1.87	2y-EDAM08
EDAU08	0.742	1.87	2y-EDAU08
EDAZ08	0.991	1.87	2y-EDAZ08
EDAH09	1.240	1.87	2y-EDAH09
EDAM09	1.490	1.87	2y-EDAM09
EDAU09	1.739	1.87	2y-EDAU09
EDAZ09	1.988	1.87	2y-EDAZ09
EDAH10	2.238	1.87	2y-EDAH10
EDAM10	2.487	1.87	2y-EDAM10
EDAU10	2.736	1.87	2y-EDAU10
EDAZ10	2.986	1.87	2y-EDAZ10

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

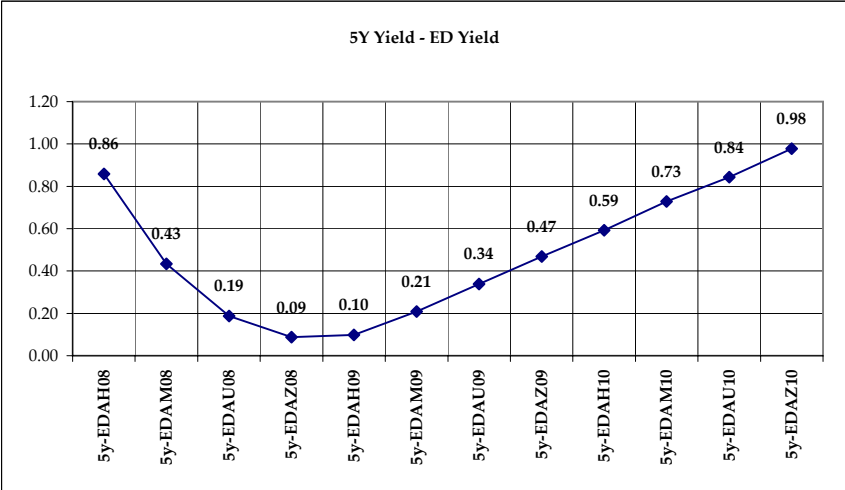
2yr YIELD, ED PRICE Correlation



TERM TED: 5y vs Eurodollar Contracts

5y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	3.85	0.86	5y-EDAH08	-22.688
EDAM08	3.42	0.43	5y-EDAM08	-69.754
EDAU08	3.18	0.19	5y-EDAU08	-84.123
EDAZ08	3.08	0.09	5y-EDAZ08	-69.754
EDAH09	3.09	0.10	5y-EDAH09	-90.769
EDAM09	3.20	0.21	5y-EDAM09	-89.651
EDAU09	3.33	0.34	5y-EDAU09	-88.401
EDAZ09	3.46	0.47	5y-EDAZ09	-86.448
EDAH10	3.58	0.59	5y-EDAH10	-84.965
EDAM10	3.72	0.73	5y-EDAM10	-83.911
EDAU10	3.83	0.84	5y-EDAU10	-82.981
EDAZ10	3.97	0.98	5y-EDAZ10	-82.651

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
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 These are measuring YIELD correlations.

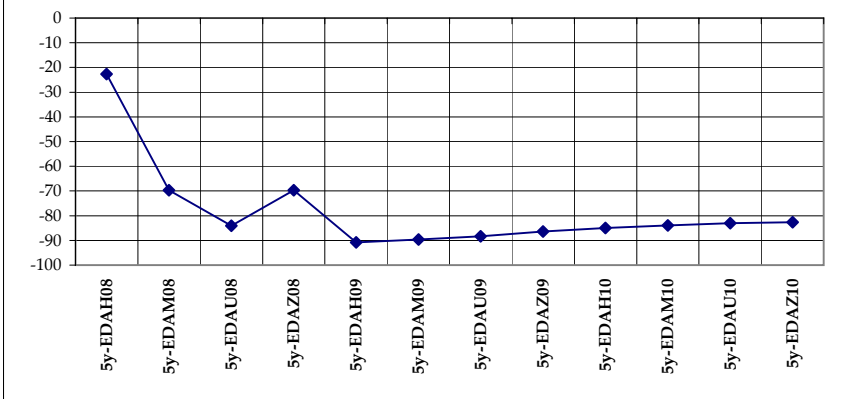


GE Duration as Fraction of year

	5Y Duration	Spread Duration	
EDAH08	0.243	4.51	4.27 5y-EDAH08
EDAM08	0.492	4.51	4.02 5y-EDAM08
EDAU08	0.742	4.51	3.77 5y-EDAU08
EDAZ08	0.991	4.51	3.52 5y-EDAZ08
EDAH09	1.240	4.51	3.27 5y-EDAH09
EDAM09	1.490	4.51	3.02 5y-EDAM09
EDAU09	1.739	4.51	2.77 5y-EDAU09
EDAZ09	1.988	4.51	2.52 5y-EDAZ09
EDAH10	2.238	4.51	2.27 5y-EDAH10
EDAM10	2.487	4.51	2.02 5y-EDAM10
EDAU10	2.736	4.51	1.77 5y-EDAU10
EDAZ10	2.986	4.51	1.52 5y-EDAZ10

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

5yr YIELD, ED PRICE Correlation



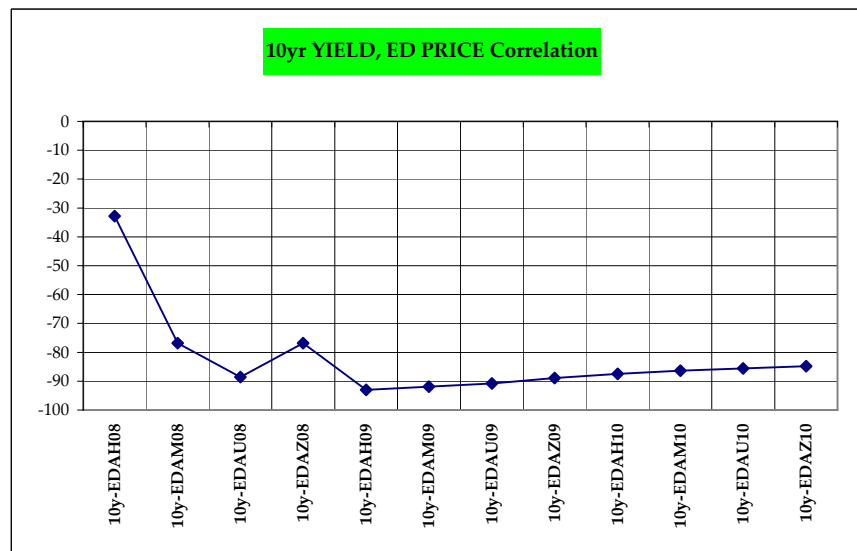
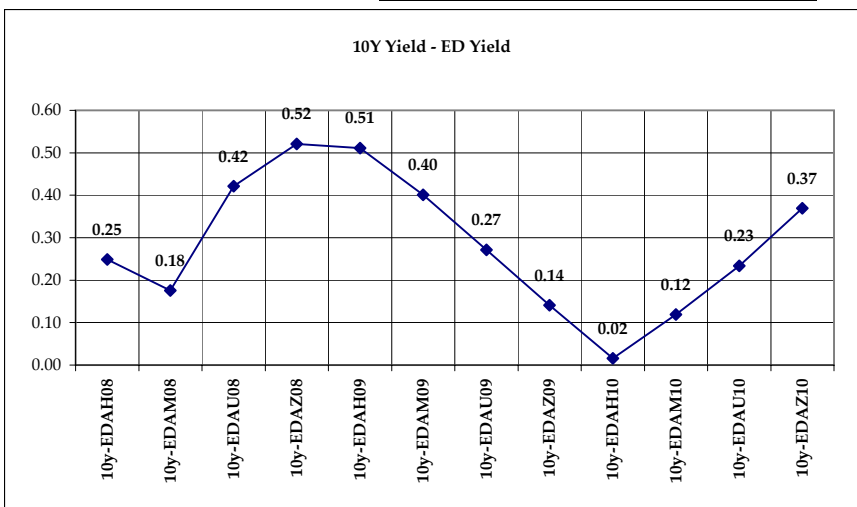
TERM TED: 10y vs Eurodollar Contracts

	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	3.85	0.25	10y-EDAH08	-32.861
EDAM08	3.42	0.18	10y-EDAM08	-76.788
EDAU08	3.18	0.42	10y-EDAU08	-88.560
EDAZ08	3.08	0.52	10y-EDAZ08	-76.788
EDAH09	3.09	0.51	10y-EDAH09	-93.062
EDAM09	3.20	0.40	10y-EDAM09	-91.944
EDAU09	3.33	0.27	10y-EDAU09	-90.746
EDAZ09	3.46	0.14	10y-EDAZ09	-88.910
EDAH10	3.58	0.02	10y-EDAH10	-87.471
EDAM10	3.72	0.12	10y-EDAM10	-86.391
EDAU10	3.83	0.23	10y-EDAU10	-85.573
EDAZ10	3.97	0.37	10y-EDAZ10	-84.790

Price = Outright Decimal Price - Euro Contract Price
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 These are measuring YIELD correlations.

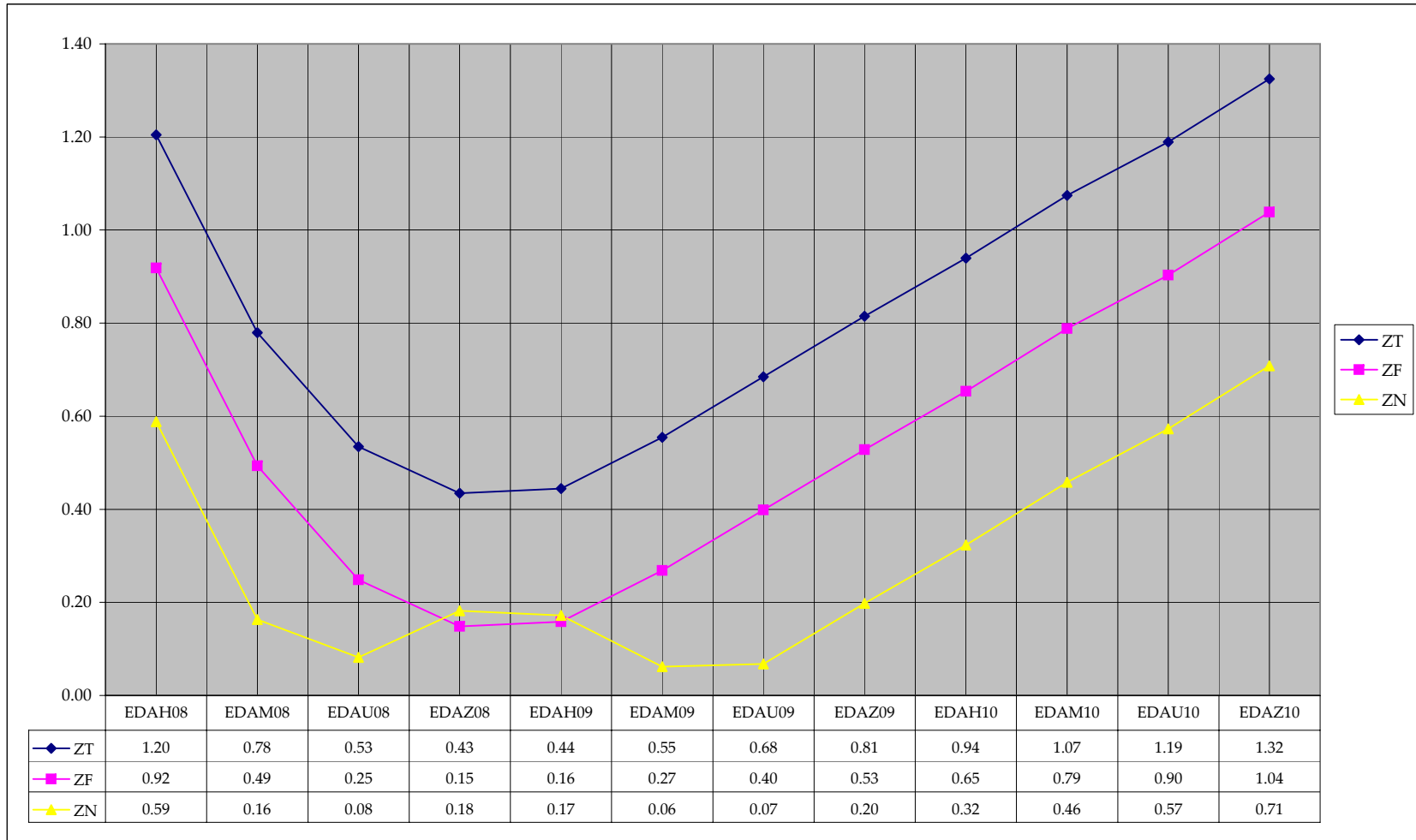
	GE Duration as Fraction of year	10Y Duration	Spread Duration	
EDAH08	0.243	8.00	7.76	10y-EDAH08
EDAM08	0.492	8.00	7.51	10y-EDAM08
EDAU08	0.742	8.00	7.26	10y-EDAU08
EDAZ08	0.991	8.00	7.01	10y-EDAZ08
EDAH09	1.240	8.00	6.76	10y-EDAH09
EDAM09	1.490	8.00	6.51	10y-EDAM09
EDAU09	1.739	8.00	6.26	10y-EDAU09
EDAZ09	1.988	8.00	6.01	10y-EDAZ09
EDAH10	2.238	8.00	5.77	10y-EDAH10
EDAM10	2.487	8.00	5.52	10y-EDAM10
EDAU10	2.736	8.00	5.27	10y-EDAU10
EDAZ10	2.986	8.00	5.02	10y-EDAZ10

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



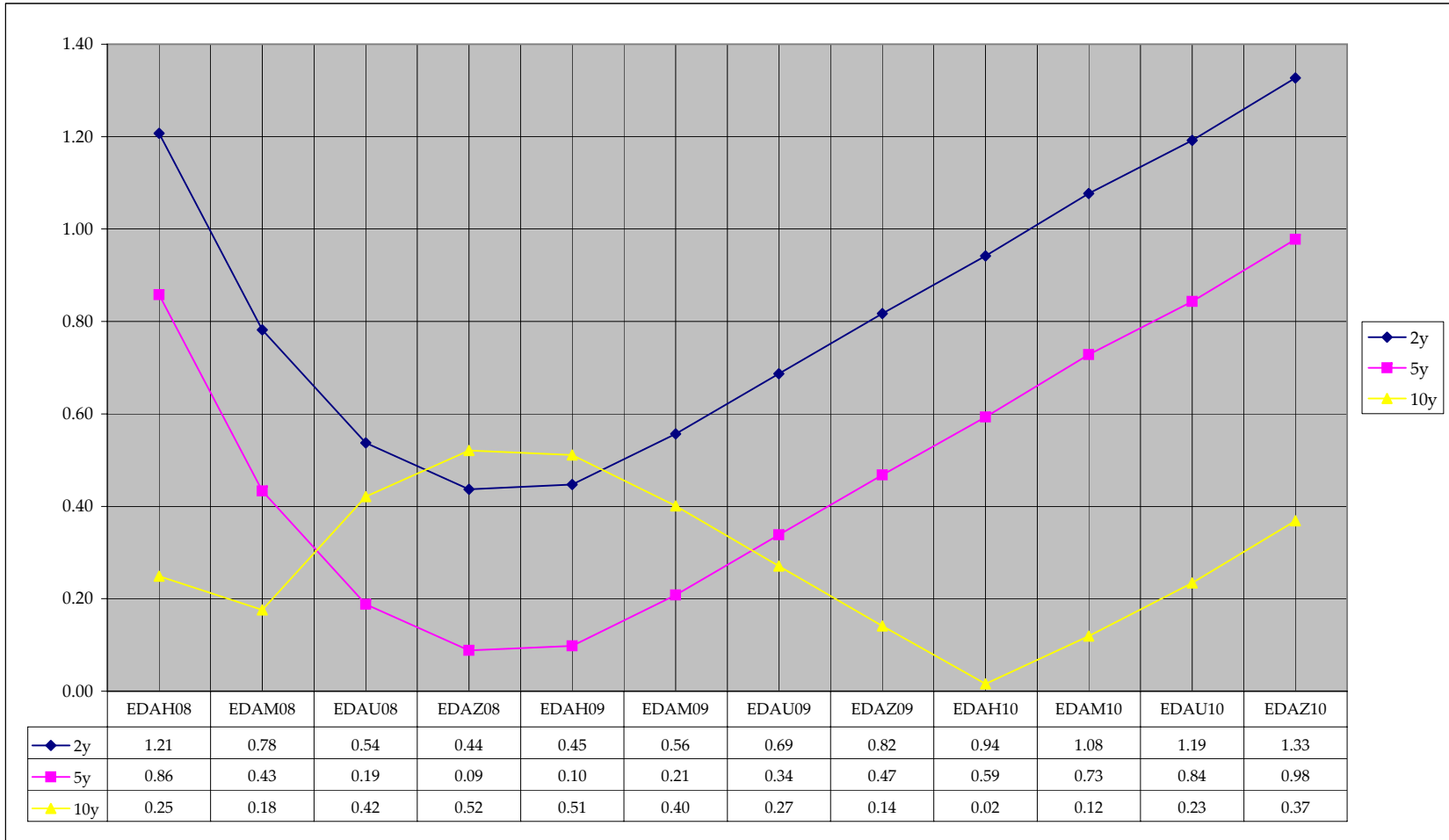
Dirty TED Curve

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.

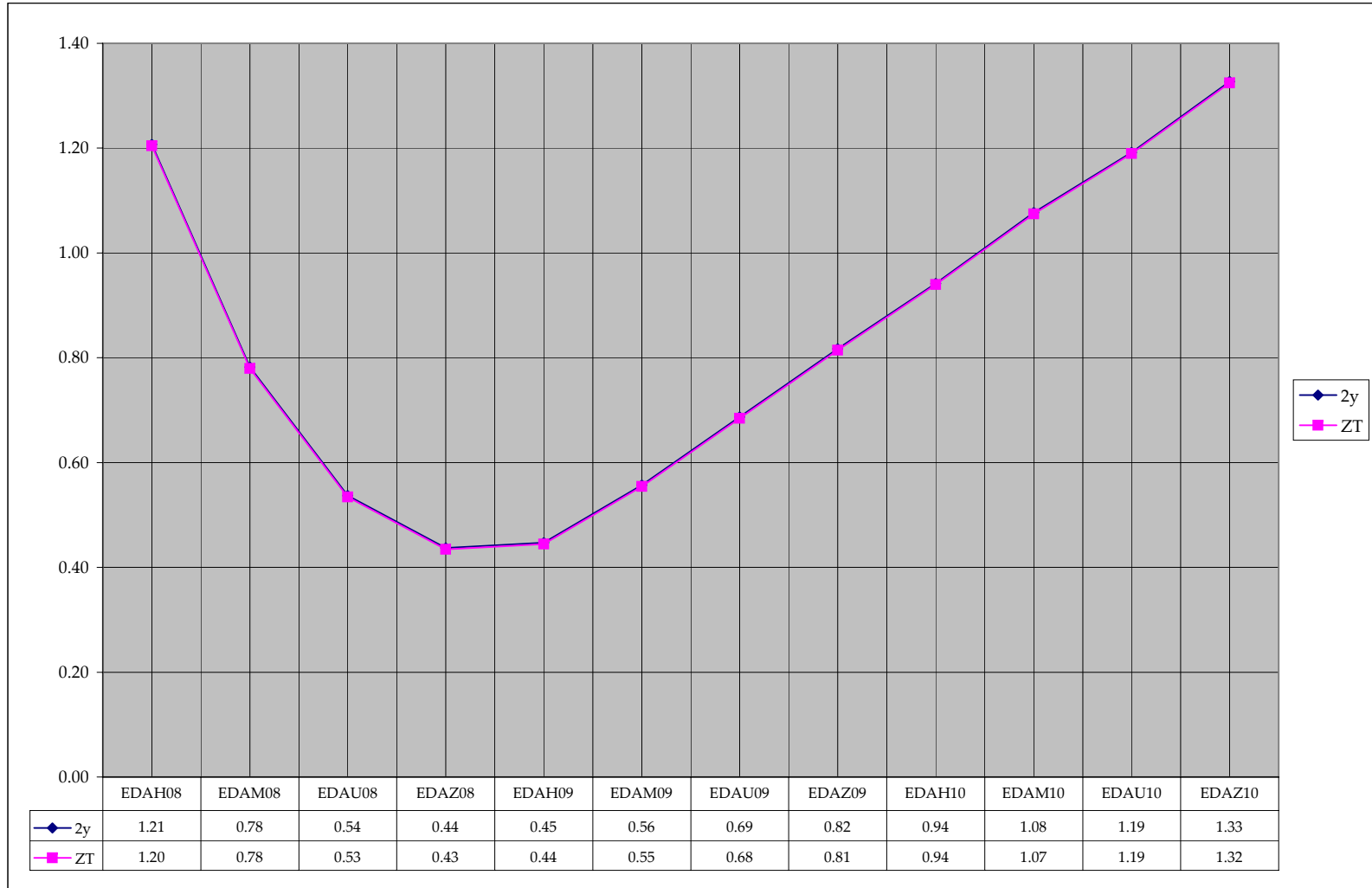


TED Curve

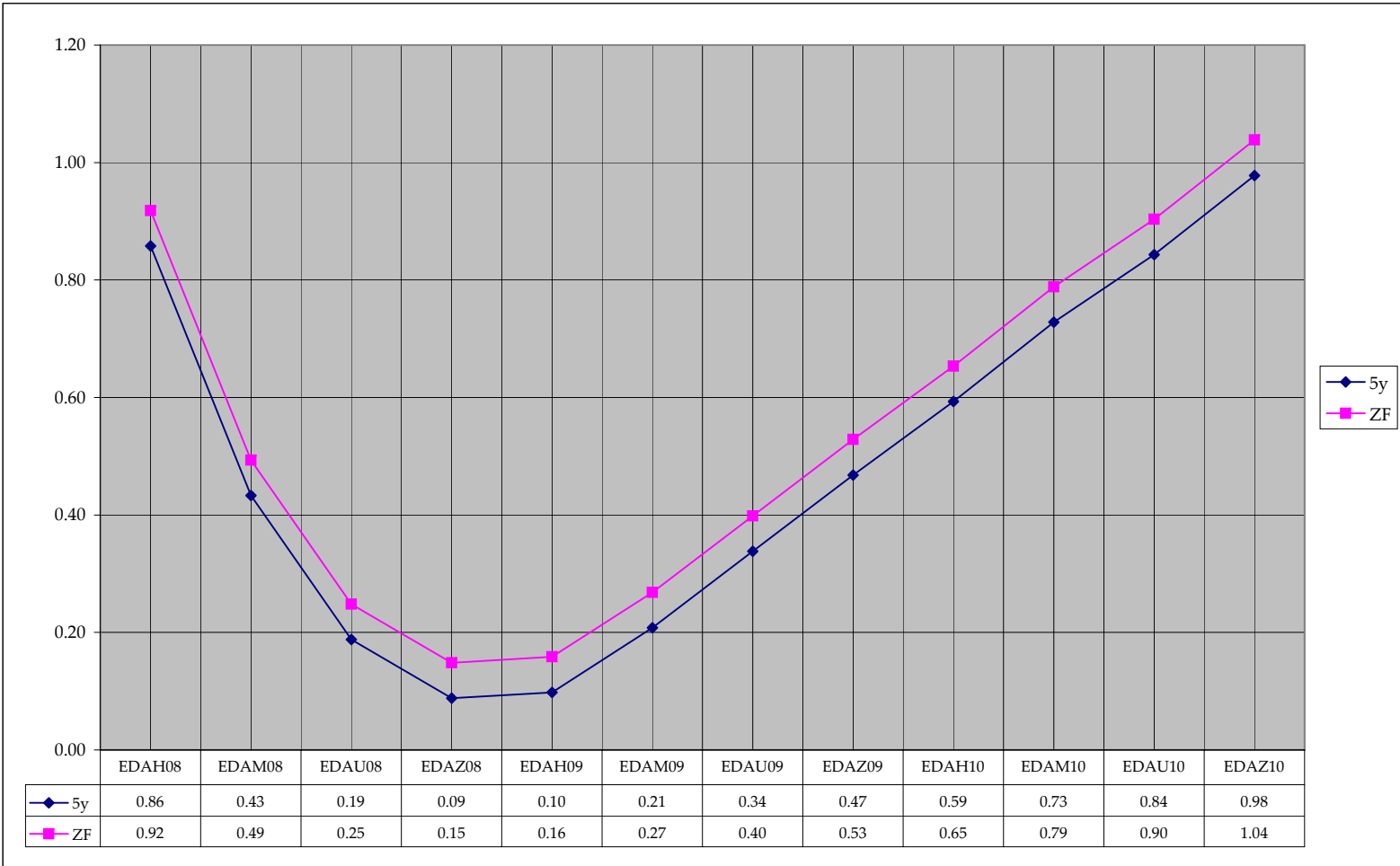
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



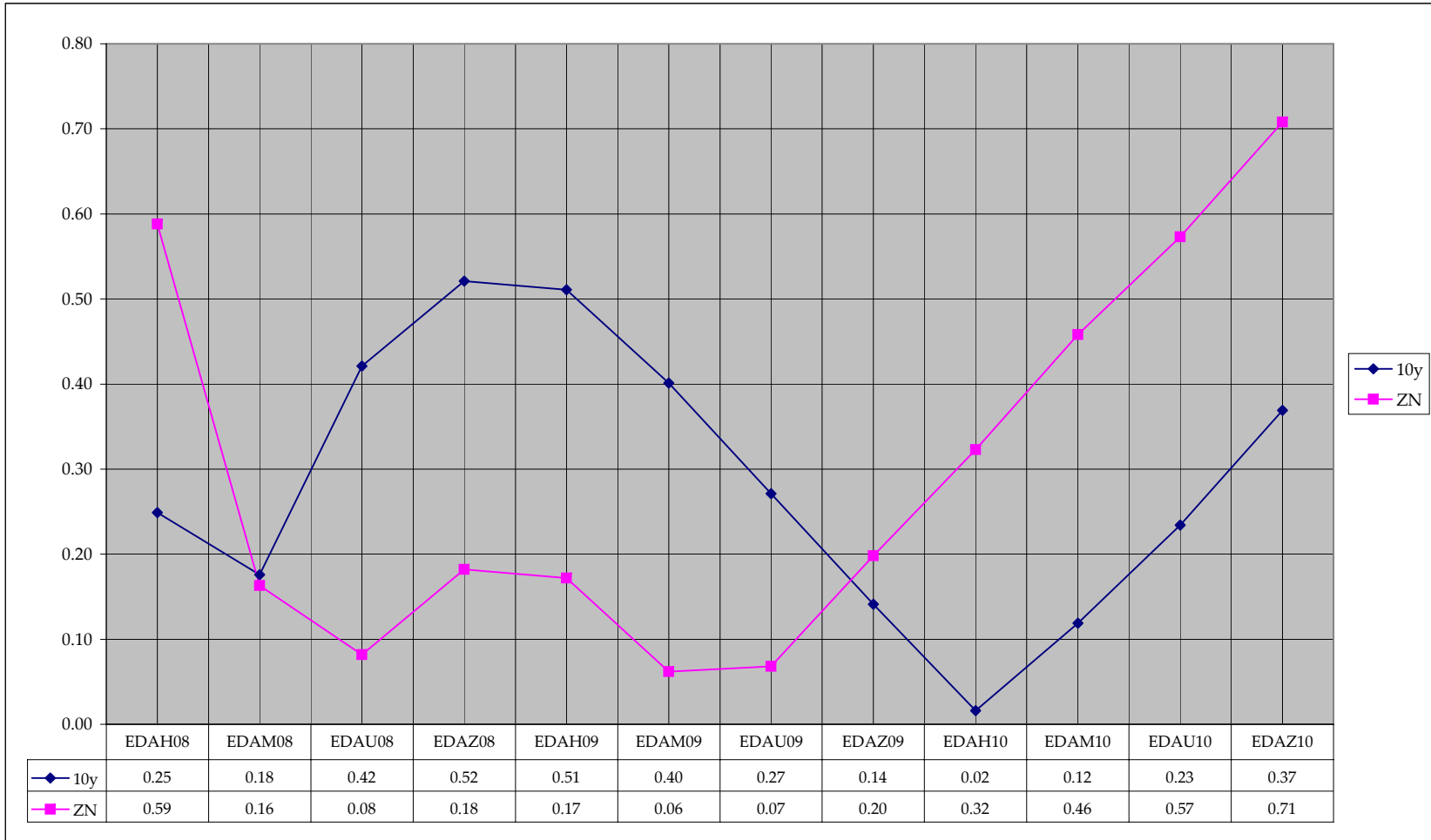
2y Basis TED Curve



5y Basis TED Curve



10y Basis TED Curve



Packs

	last Yield	Net Last Yield	Last Price
Q.ED.White	3.966	1.500	9612.625
Q.ED.Red	3.848	1.875	9624.000
Q.ED.Green	4.373	1.000	9573.250
Q.ED.Blue	0.250		9535.000
Q.ED.Gold		0.000	9505.875

