

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	104.9281	104.297	3.165	1.92	
ZF	109.7188	109.230	3.501	3.96	
ZN	112.5469	112.175	3.850	5.90	
2y	100.163	100.0520	3.161	1.92	
5y	100.203	100.0650	3.581	4.47	
10y	100.656	100.2100	4.164	7.96	

Eurodollars (ED)							
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month		
EDAH08	95.690	4.310	80	0.219	MAR	} White Pack	
EDAM08	96.155	3.845	171	0.468	JUN		
EDAU08	96.395	3.605	262	0.717	SEP		
EDAZ08	96.495	3.505	353	0.966	DEC		
EDAH09	96.475	3.525	444	1.216	MAR	} Red Pack	
EDAM09	96.340	3.660	535	1.465	JUN		
EDAU09	96.175	3.825	626	1.714	SEP		
EDAZ09	96.005	3.995	717	1.964	DEC		
EDAH10	95.855	4.145	808	2.213	MAR	} Green Pack	
EDAM10	95.720	4.280	899	2.462	JUN		
EDAU10	95.580	4.420	990	2.712	SEP		
EDAZ10	95.465	4.535	1081	2.961	DEC		
EDAH11	95.310	4.690	1172	3.210	MAR	} Blue Pack	
EDAM11	95.225	4.775	1263	3.460	JUN		
EDAU11	95.155	4.845	1361	3.728	SEP		
EDAZ11	95.055	4.945	1452	3.977	DEC		
EDAH12	94.995	5.005	1543	4.227	MAR	} Gold Pack	
EDAM12	94.930	5.070	1634	4.476	JUN		
EDAU12	94.860	5.140	1725	4.725	SEP		
EDAU12	94.860	5.140	1725	4.725	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	3.907	5.625	9618.375	} Pack Prices
Q.ED.Red	3.839	7.000	9624.875	
Q.ED.Green	4.454	6.875	9565.500	
Q.ED.Blue		0.000	9517.750	
Q.ED.Gold		0.000	9488.375	

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

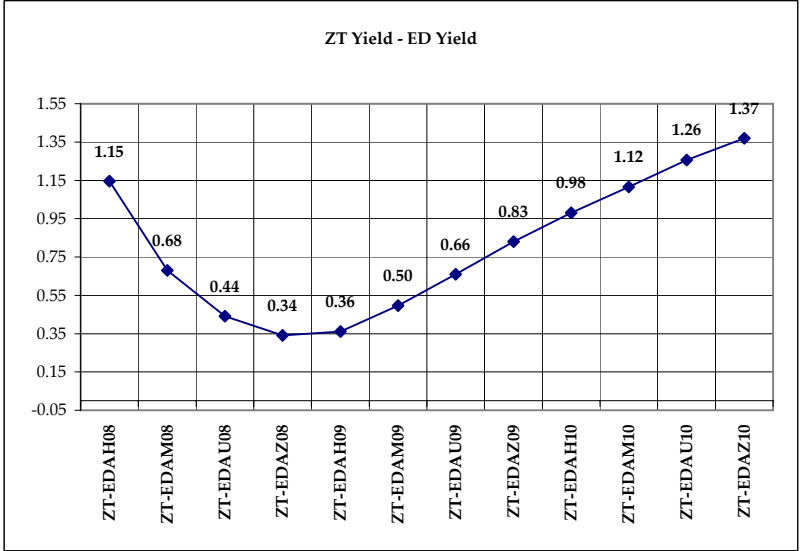
Eurodollar Color Codes for Individual Year Strips:

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

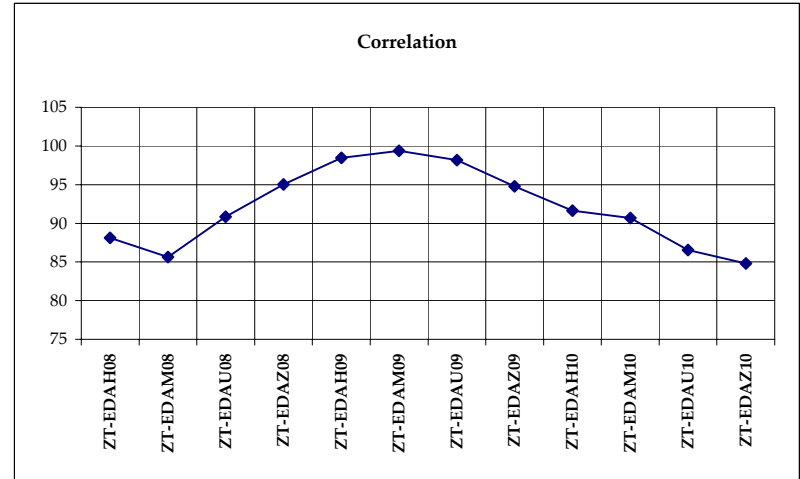
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	9.238	1.15	ZT-EDAH08	88.101
EDAM08	8.773	0.68	ZT-EDAM08	85.617
EDAU08	8.533	0.44	ZT-EDAU08	90.856
EDAZ08	8.433	0.34	ZT-EDAZ08	95.013
EDAH09	8.453	0.36	ZT-EDAH09	98.462
EDAM09	8.588	0.50	ZT-EDAM09	99.376
EDAU09	8.753	0.66	ZT-EDAU09	98.186
EDAZ09	8.923	0.83	ZT-EDAZ09	94.787
EDAH10	9.073	0.98	ZT-EDAH10	91.622
EDAM10	9.208	1.12	ZT-EDAM10	90.662
EDAU10	9.348	1.26	ZT-EDAU10	86.536
EDAZ10	9.463	1.37	ZT-EDAZ10	84.818

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	0.219	1.92	1.70	ZT-EDAH08
EDAM08	0.468	1.92	1.45	ZT-EDAM08
EDAU08	0.717	1.92	1.21	ZT-EDAU08
EDAZ08	0.966	1.92	0.96	ZT-EDAZ08
EDAH09	1.216	1.92	0.71	ZT-EDAH09
EDAM09	1.465	1.92	0.46	ZT-EDAM09
EDAU09	1.714	1.92	0.21	ZT-EDAU09
EDAZ09	1.964	1.92	(0.04)	ZT-EDAZ09
EDAH10	2.213	1.92	(0.29)	ZT-EDAH10
EDAM10	2.462	1.92	(0.54)	ZT-EDAM10
EDAU10	2.712	1.92	(0.79)	ZT-EDAU10
EDAZ10	2.961	1.92	(1.04)	ZT-EDAZ10

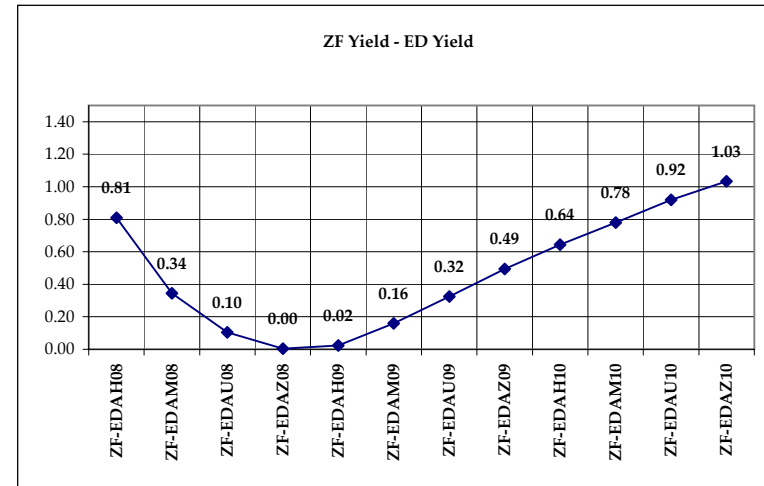
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	14.03	0.81	ZF-EDAH08	65.932
EDAM08	13.56	0.34	ZF-EDAM08	60.180
EDAU08	13.32	0.10	ZF-EDAU08	67.683
EDAZ08	13.22	0.00	ZF-EDAZ08	75.361
EDAH09	13.24	0.02	ZF-EDAH09	84.112
EDAM09	13.38	0.16	ZF-EDAM09	90.930
EDAU09	13.54	0.32	ZF-EDAU09	95.244
EDAZ09	13.71	0.49	ZF-EDAZ09	97.781
EDAH10	13.86	0.64	ZF-EDAH10	98.028
EDAM10	14.00	0.78	ZF-EDAM10	98.291
EDAU10	14.14	0.92	ZF-EDAU10	97.896
EDAZ10	14.25	1.03	ZF-EDAZ10	97.474

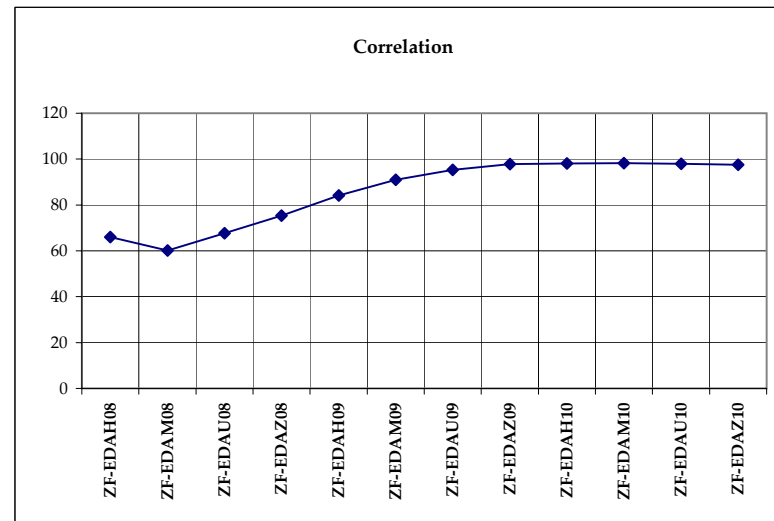
Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year

	GE Duration as Fraction of year	ZF Duration	Spread Duration	
EDAH08	0.219	3.96	3.74	ZF-EDAH08
EDAM08	0.468	3.96	3.49	ZF-EDAM08
EDAU08	0.717	3.96	3.24	ZF-EDAU08
EDAZ08	0.966	3.96	3.00	ZF-EDAZ08
EDAH09	1.216	3.96	2.75	ZF-EDAH09
EDAM09	1.465	3.96	2.50	ZF-EDAM09
EDAU09	1.714	3.96	2.25	ZF-EDAU09
EDAZ09	1.964	3.96	2.00	ZF-EDAZ09
EDAH10	2.213	3.96	1.75	ZF-EDAH10
EDAM10	2.462	3.96	1.50	ZF-EDAM10
EDAU10	2.712	3.96	1.25	ZF-EDAU10
EDAZ10	2.961	3.96	1.00	ZF-EDAZ10

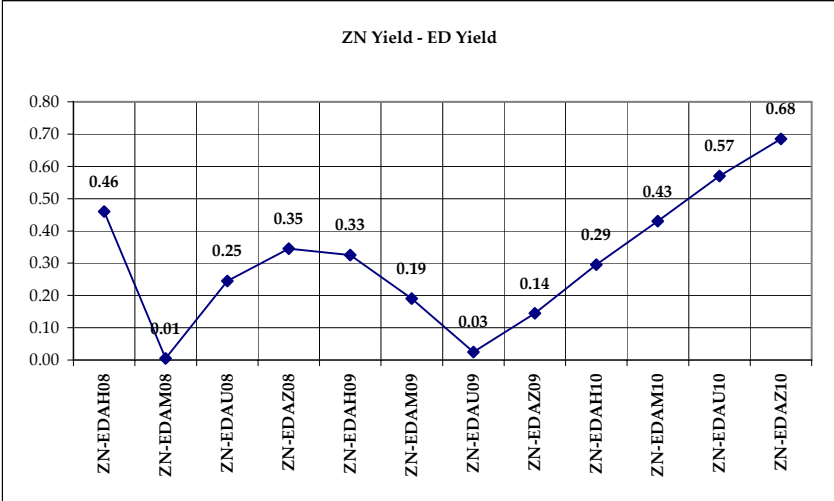
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZN vs Eurodollar Contracts

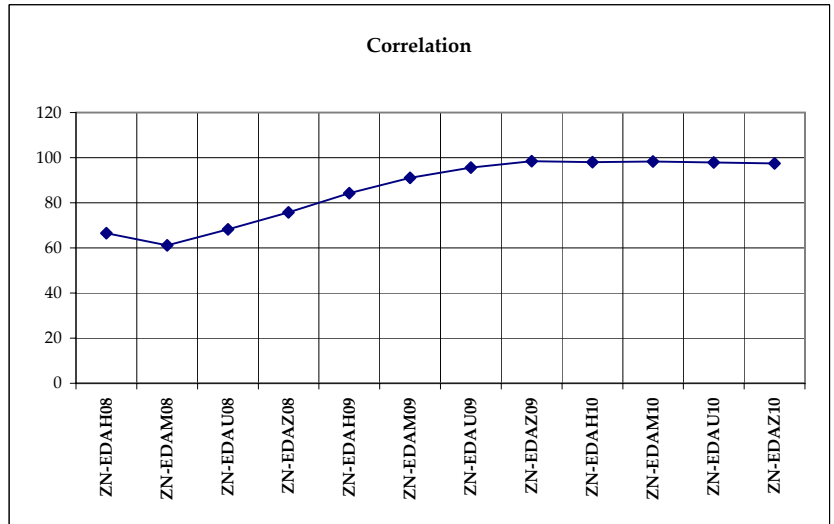
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	16.86	0.46	ZN-EDAH08	66.48
EDAM08	16.39	0.01	ZN-EDAM08	61.13
EDAU08	16.15	0.25	ZN-EDAU08	68.21
EDAZ08	16.05	0.35	ZN-EDAZ08	75.70
EDAH09	16.07	0.33	ZN-EDAH09	84.20
EDAM09	16.21	0.19	ZN-EDAM09	91.03
EDAU09	16.37	0.03	ZN-EDAU09	95.59
EDAZ09	16.54	0.14	ZN-EDAZ09	98.44
EDAH10	16.69	0.29	ZN-EDAH10	98.03
EDAM10	16.83	0.43	ZN-EDAM10	98.29
EDAU10	16.97	0.57	ZN-EDAU10	97.90
EDAZ10	17.08	0.68	ZN-EDAZ10	97.47

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	0.219	5.90	5.68	ZN-EDAH08
EDAM08	0.468	5.90	5.43	ZN-EDAM08
EDAU08	0.717	5.90	5.18	ZN-EDAU08
EDAZ08	0.966	5.90	4.93	ZN-EDAZ08
EDAH09	1.216	5.90	4.68	ZN-EDAH09
EDAM09	1.465	5.90	4.44	ZN-EDAM09
EDAU09	1.714	5.90	4.19	ZN-EDAU09
EDAZ09	1.964	5.90	3.94	ZN-EDAZ09
EDAH10	2.213	5.90	3.69	ZN-EDAH10
EDAM10	2.462	5.90	3.44	ZN-EDAM10
EDAU10	2.712	5.90	3.19	ZN-EDAU10
EDAZ10	2.961	5.90	2.94	ZN-EDAZ10

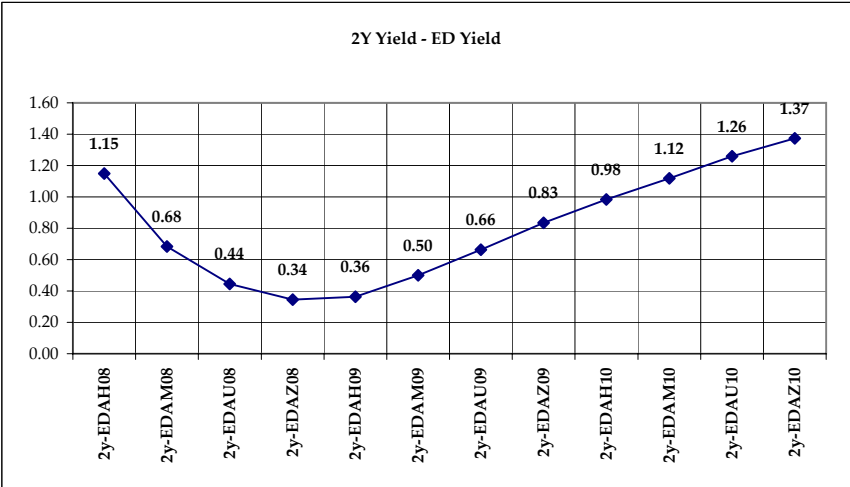
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	4.47	1.15	2y-EDAH08	-68.809
EDAM08	4.01	0.68	2y-EDAM08	-65.786
EDAU08	3.77	0.44	2y-EDAU08	-72.049
EDAZ08	3.67	0.34	2y-EDAZ08	-65.786
EDAH09	3.69	0.36	2y-EDAH09	-85.725
EDAM09	3.82	0.50	2y-EDAM09	-90.087
EDAU09	3.99	0.66	2y-EDAU09	-92.284
EDAZ09	4.16	0.83	2y-EDAZ09	-93.022
EDAH10	4.31	0.98	2y-EDAH10	-91.859
EDAM10	4.44	1.12	2y-EDAM10	-91.343
EDAU10	4.58	1.26	2y-EDAU10	-89.396
EDAZ10	4.70	1.37	2y-EDAZ10	-88.544

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.

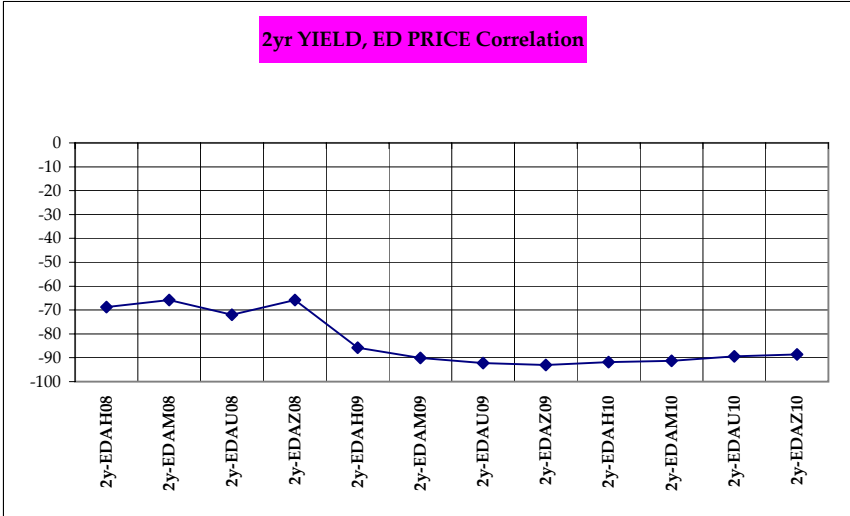


GE Duration as Fraction of year

	2Y Duration	Spread Duration	
EDAH08	0.219	1.92	2y-EDAH08
EDAM08	0.468	1.92	2y-EDAM08
EDAU08	0.717	1.92	2y-EDAU08
EDAZ08	0.966	1.92	2y-EDAZ08
EDAH09	1.216	1.92	2y-EDAH09
EDAM09	1.465	1.92	2y-EDAM09
EDAU09	1.714	1.92	2y-EDAU09
EDAZ09	1.964	1.92	2y-EDAZ09
EDAH10	2.213	1.92	2y-EDAH10
EDAM10	2.462	1.92	2y-EDAM10
EDAU10	2.712	1.92	2y-EDAU10
EDAZ10	2.961	1.92	2y-EDAZ10

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

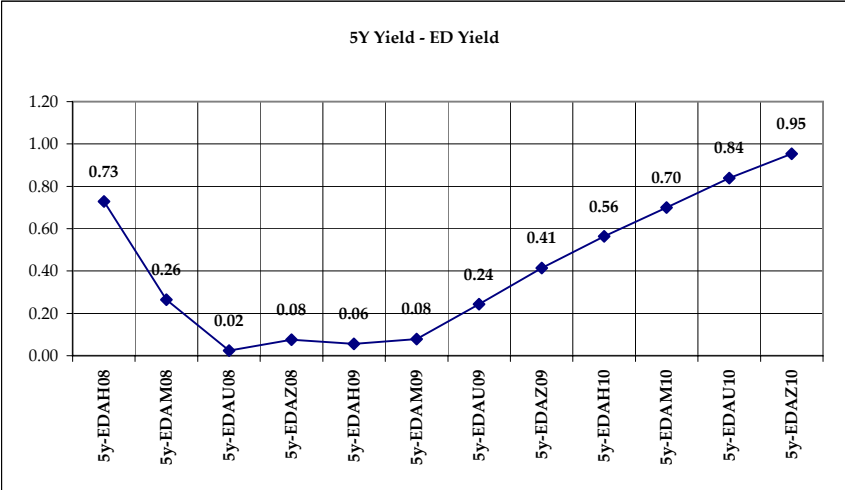
2yr YIELD, ED PRICE Correlation



TERM TED: 5y vs Eurodollar Contracts

	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	4.51	0.73	5y-EDAH08	-39.498
EDAM08	4.05	0.26	5y-EDAM08	-33.185
EDAU08	3.81	0.02	5y-EDAU08	-41.424
EDAZ08	3.71	0.08	5y-EDAZ08	-33.185
EDAH09	3.73	0.06	5y-EDAH09	-62.749
EDAM09	3.86	0.08	5y-EDAM09	-72.690
EDAU09	4.03	0.24	5y-EDAU09	-80.226
EDAZ09	4.20	0.41	5y-EDAZ09	-86.912
EDAH10	4.35	0.56	5y-EDAH10	-89.516
EDAM10	4.48	0.70	5y-EDAM10	-90.503
EDAU10	4.62	0.84	5y-EDAU10	-92.794
EDAZ10	4.74	0.95	5y-EDAZ10	-93.440

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.

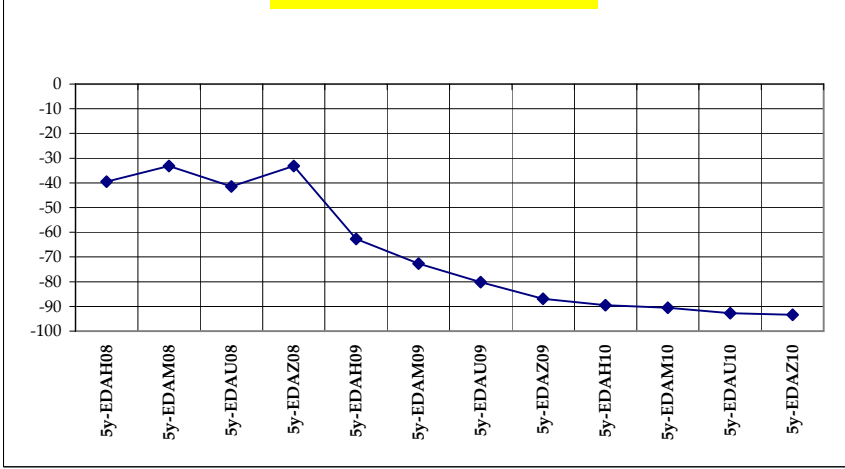


GE Duration as Fraction of year

	5Y Duration	Spread Duration	
EDAH08	0.219	4.47	5y-EDAH08
EDAM08	0.468	4.47	5y-EDAM08
EDAU08	0.717	4.47	5y-EDAU08
EDAZ08	0.966	4.47	5y-EDAZ08
EDAH09	1.216	4.47	5y-EDAH09
EDAM09	1.465	4.47	5y-EDAM09
EDAU09	1.714	4.47	5y-EDAU09
EDAZ09	1.964	4.47	5y-EDAZ09
EDAH10	2.213	4.47	5y-EDAH10
EDAM10	2.462	4.47	5y-EDAM10
EDAU10	2.712	4.47	5y-EDAU10
EDAZ10	2.961	4.47	5y-EDAZ10

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

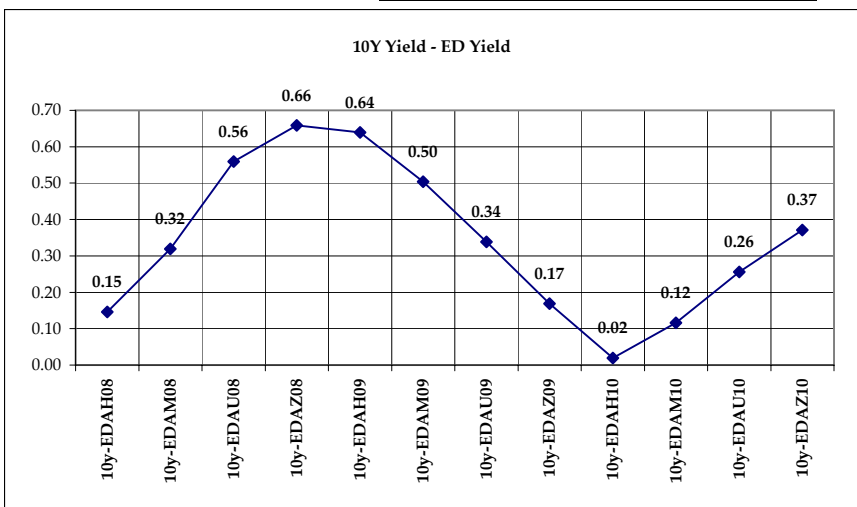
5yr YIELD, ED PRICE Correlation



TERM TED: 10y vs Eurodollar Contracts

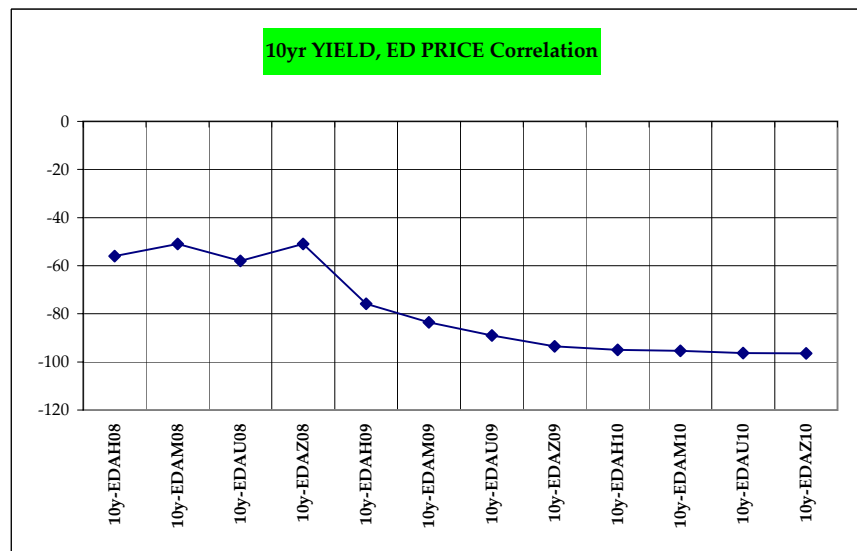
	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	4.51	0.15	10y-EDAH08	-56.015
EDAM08	4.05	0.32	10y-EDAM08	-51.011
EDAU08	3.81	0.56	10y-EDAU08	-58.067
EDAZ08	3.71	0.66	10y-EDAZ08	-51.011
EDAH09	3.73	0.64	10y-EDAH09	-75.828
EDAM09	3.86	0.50	10y-EDAM09	-83.508
EDAU09	4.03	0.34	10y-EDAU09	-89.018
EDAZ09	4.20	0.17	10y-EDAZ09	-93.557
EDAH10	4.35	0.02	10y-EDAH10	-94.987
EDAM10	4.48	0.12	10y-EDAM10	-95.338
EDAU10	4.62	0.26	10y-EDAU10	-96.281
EDAZ10	4.74	0.37	10y-EDAZ10	-96.448

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	0.219	7.96	7.75	10y-EDAH08
EDAM08	0.468	7.96	7.50	10y-EDAM08
EDAU08	0.717	7.96	7.25	10y-EDAU08
EDAZ08	0.966	7.96	7.00	10y-EDAZ08
EDAH09	1.216	7.96	6.75	10y-EDAH09
EDAM09	1.465	7.96	6.50	10y-EDAM09
EDAU09	1.714	7.96	6.25	10y-EDAU09
EDAZ09	1.964	7.96	6.00	10y-EDAZ09
EDAH10	2.213	7.96	5.75	10y-EDAH10
EDAM10	2.462	7.96	5.50	10y-EDAM10
EDAU10	2.712	7.96	5.25	10y-EDAU10
EDAZ10	2.961	7.96	5.00	10y-EDAZ10

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

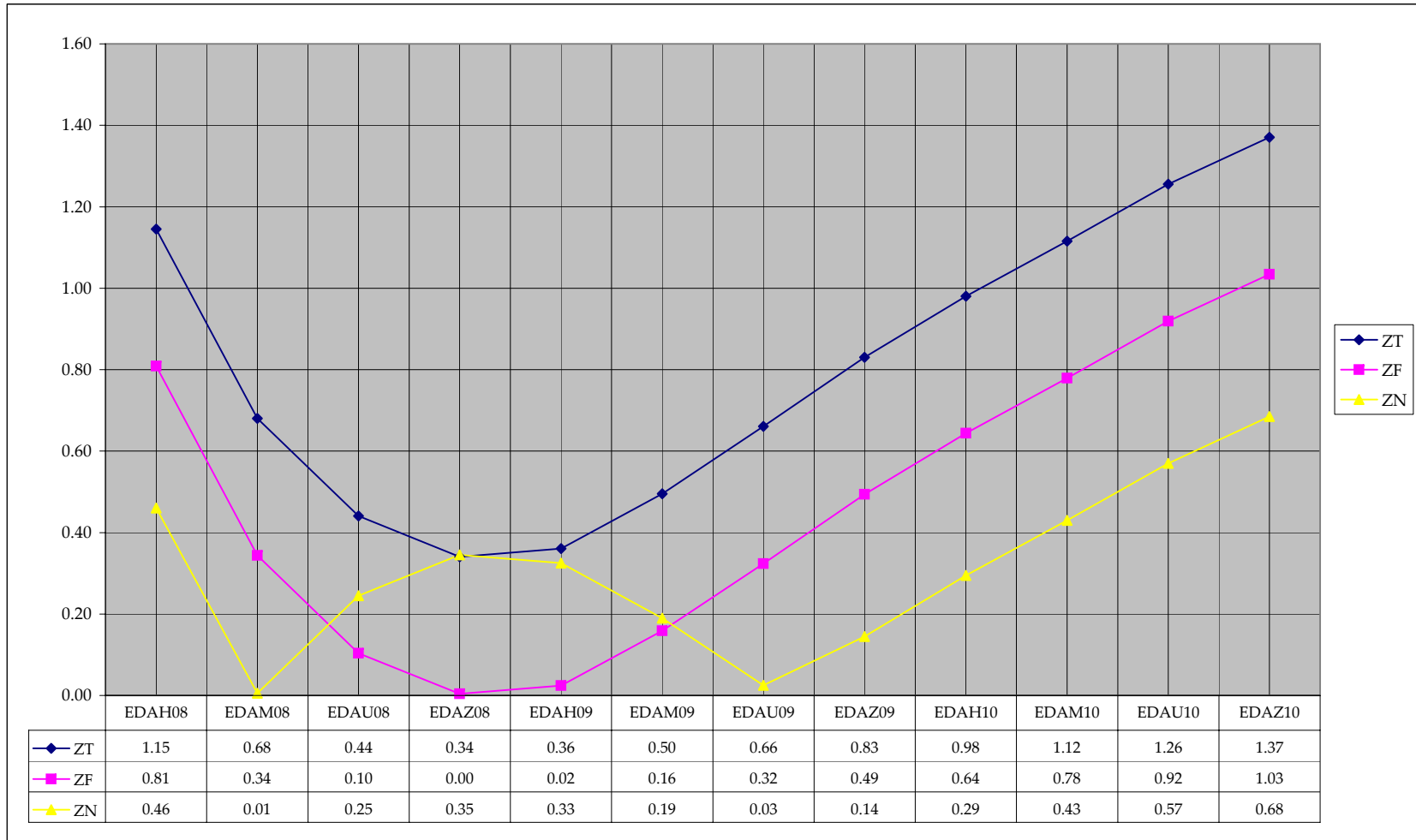


Dirty TED Curve

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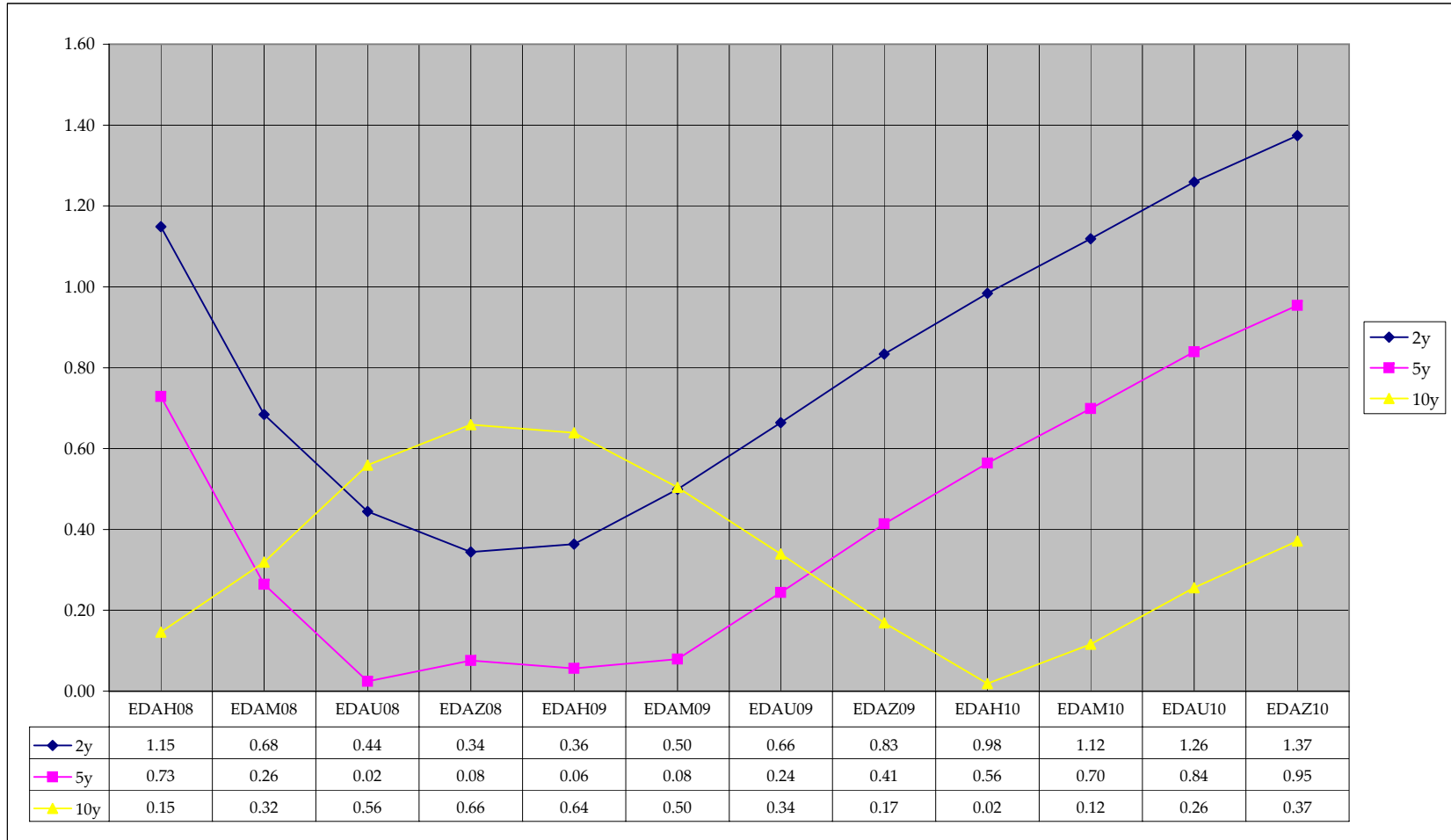
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Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis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

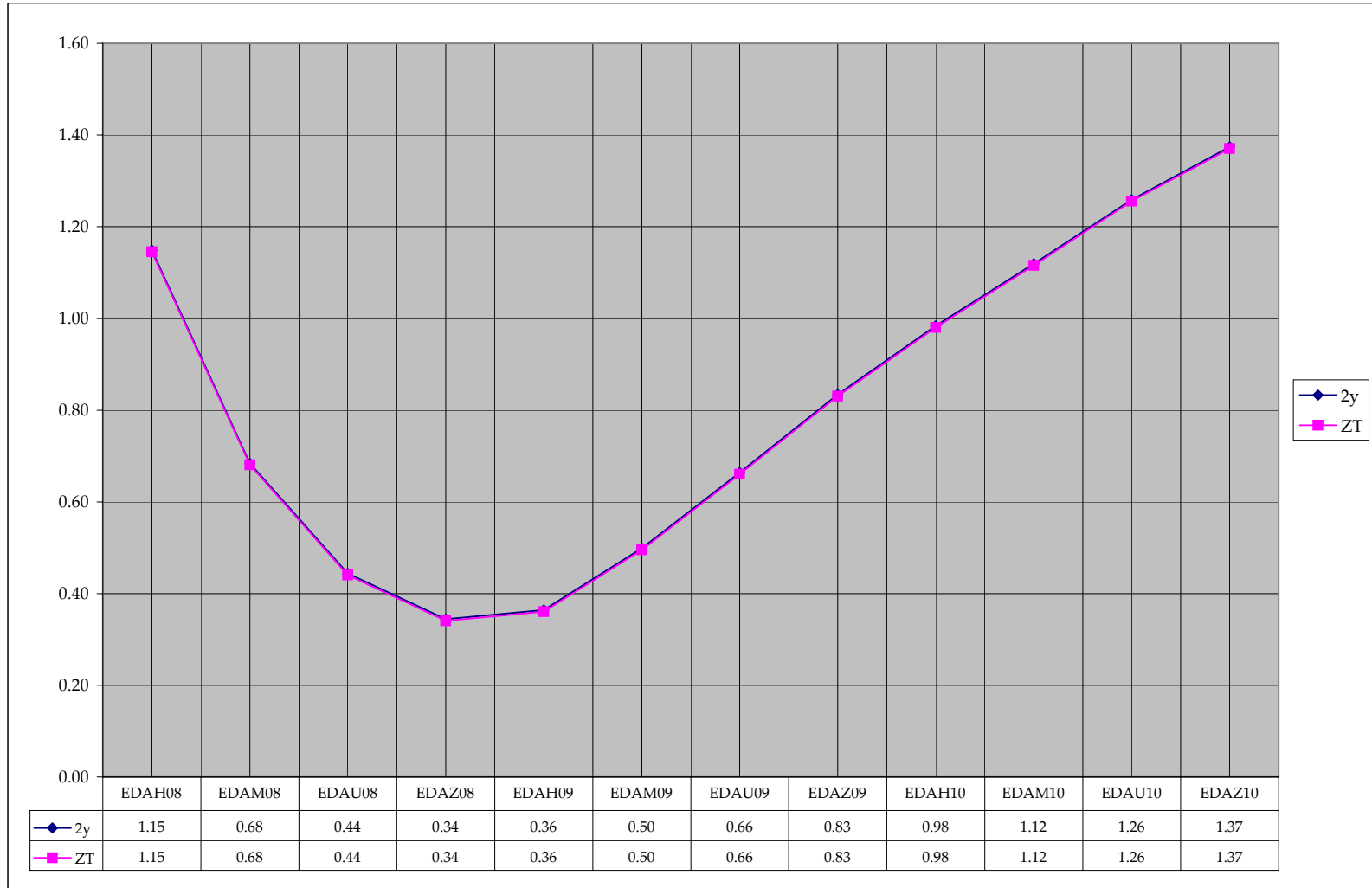


TED Curve

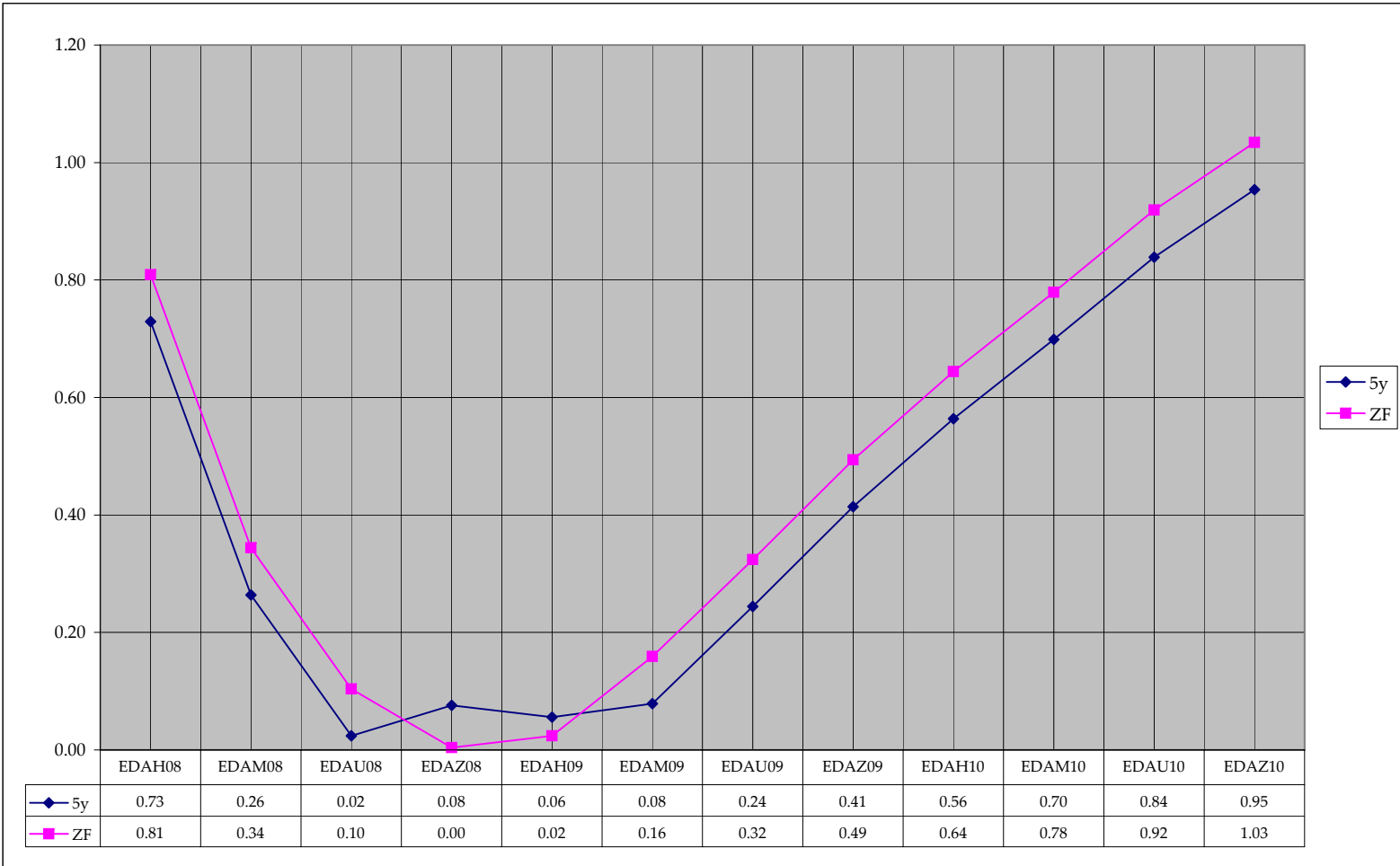
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



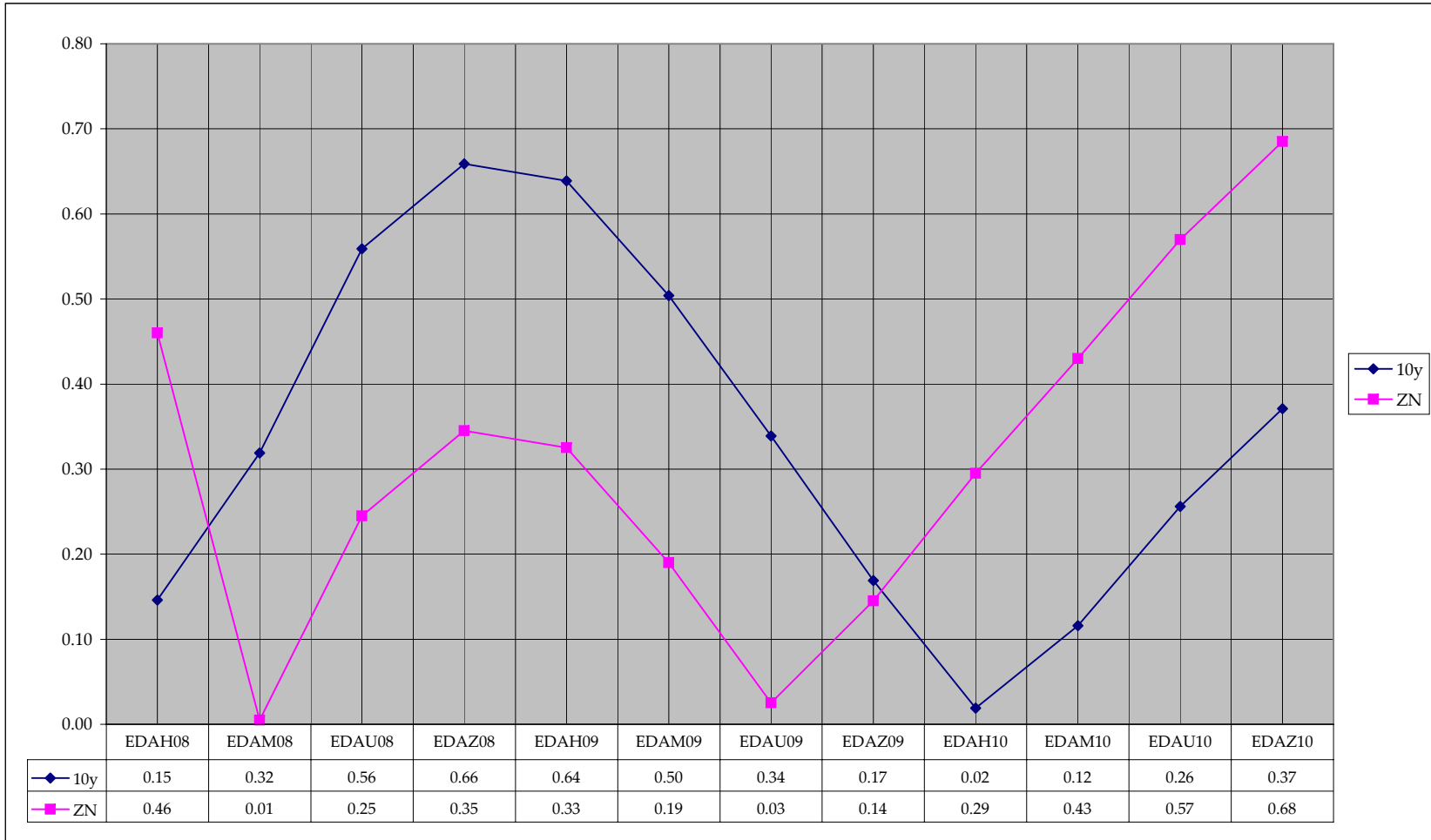
2y Basis TED Curve



5y Basis TED Curve



10y Basis TED Curve



Packs

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	last Yield	Net Last Yield	Last Price
Q.ED.White	3.907	5.625	9618.375
Q.ED.Red	3.839	7.000	9624.875
Q.ED.Green	4.454	6.875	9565.500
Q.ED.Blue	0.000	0.000	9517.750
Q.ED.Gold	0.000	0.000	9488.375

