

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	104.9219	104.295	3.072	1.86	
ZF	110.1250	110.040	3.406	3.83	
ZN	113.5156	113.165	3.660	5.77	
2y	101.063	101.0200	3.052	1.77	
5y	102.178	102.0570	3.388	4.46	
10y	102.016	102.0050	4.001	8.09	

Eurodollars (ED)							
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month		
EDAZ07	95.140	4.860	26	0.071	DEC	White Pack	
EDAH08	95.735	4.265	117	0.320	MAR		
EDAM08	96.120	3.880	208	0.569	JUN		
EDAU08	96.330	3.670	299	0.819	SEP	Red Pack	
EDAZ08	96.390	3.610	390	1.068	DEC		
EDAH09	96.340	3.660	481	1.317	MAR		
EDAM09	96.215	3.785	572	1.566	JUN	Green Pack	
EDAU09	96.070	3.930	663	1.816	SEP		
EDAZ09	95.920	4.080	754	2.065	DEC		
EDAH10	95.800	4.200	845	2.314	MAR	Blue Pack	
EDAM10	95.670	4.330	936	2.564	JUN		
EDAU10	95.575	4.425	1027	2.813	SEP		
EDAZ10	95.460	4.540	1118	3.062	DEC	Gold Pack	
EDAH11	95.315	4.685	1209	3.312	MAR		
EDAM11	95.270	4.730	1300	3.561	JUN		
EDAU11	95.135	4.865	1398	3.829	SEP		
EDAZ11	95.060	4.940	1489	4.079	DEC		
EDAH12	95.000	5.000	1580	4.328	MAR		
EDAM12	94.920	5.080	1671	4.577	JUN		
EDAU12	94.860	5.140	1762	4.827	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	4.272	3.625	9583.125	Pack Prices
Q.ED.Red	3.834	7.000	9625.375	
Q.ED.Green	4.364	6.375	9574.125	
Q.ED.Blue	4.827	2.750	9529.500	
Q.ED.Gold	5.175	0.500	9496.000	

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

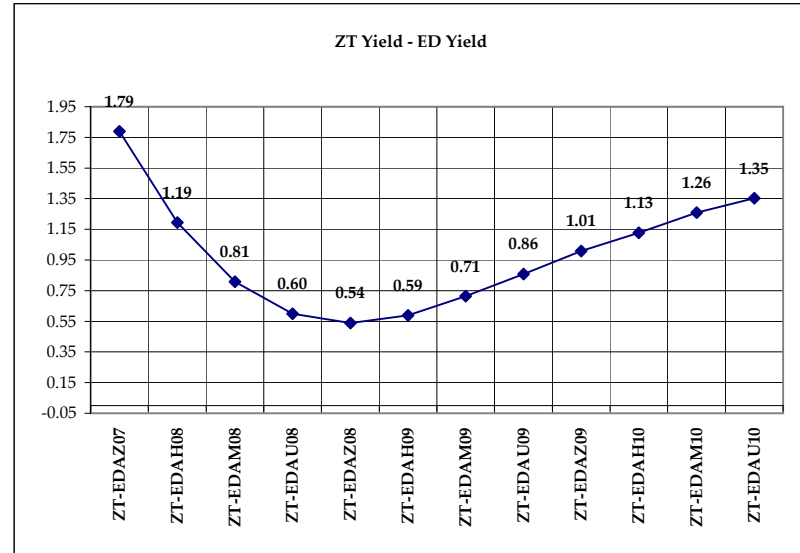
Eurodollar Color Codes for Individual Year Strips:

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)
EDAZ07	9.782	1.79	ZT-EDAZ07	-65.911
EDAH08	9.187	1.19	ZT-EDAH08	38.534
EDAM08	8.802	0.81	ZT-EDAM08	89.851
EDAU08	8.592	0.60	ZT-EDAU08	96.731
EDAZ08	8.532	0.54	ZT-EDAZ08	98.706
EDAH09	8.582	0.59	ZT-EDAH09	99.368
EDAM09	8.707	0.71	ZT-EDAM09	99.382
EDAU09	8.852	0.86	ZT-EDAU09	99.231
EDAZ09	9.002	1.01	ZT-EDAZ09	98.873
EDAH10	9.122	1.13	ZT-EDAH10	98.358
EDAM10	9.252	1.26	ZT-EDAM10	97.846
EDAU10	9.347	1.35	ZT-EDAU10	97.479

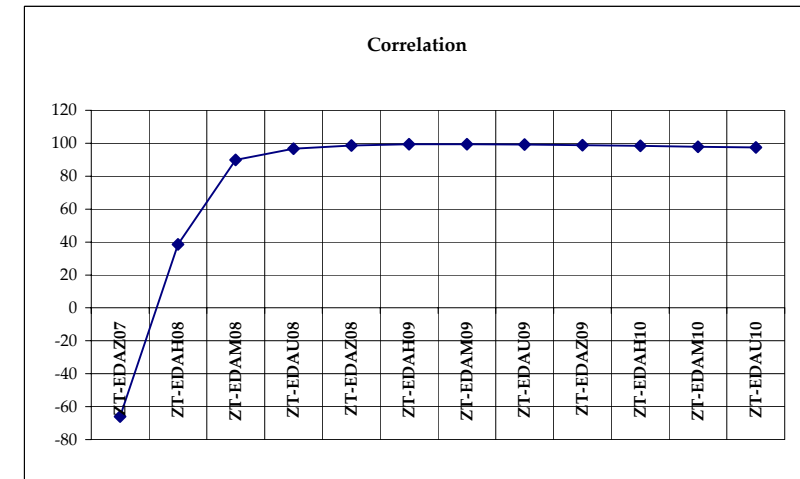
Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year

	ZT Duration	Spread Duration	
EDAZ07	0.071	1.86	ZT-EDAZ07
EDAH08	0.320	1.86	ZT-EDAH08
EDAM08	0.569	1.86	ZT-EDAM08
EDAU08	0.819	1.86	ZT-EDAU08
EDAZ08	1.068	1.86	ZT-EDAZ08
EDAH09	1.317	1.86	ZT-EDAH09
EDAM09	1.566	1.86	ZT-EDAM09
EDAU09	1.816	1.86	ZT-EDAU09
EDAZ09	2.065	1.86	(0.21) ZT-EDAZ09
EDAH10	2.314	1.86	(0.46) ZT-EDAH10
EDAM10	2.564	1.86	(0.70) ZT-EDAM10
EDAU10	2.813	1.86	(0.95) ZT-EDAU10

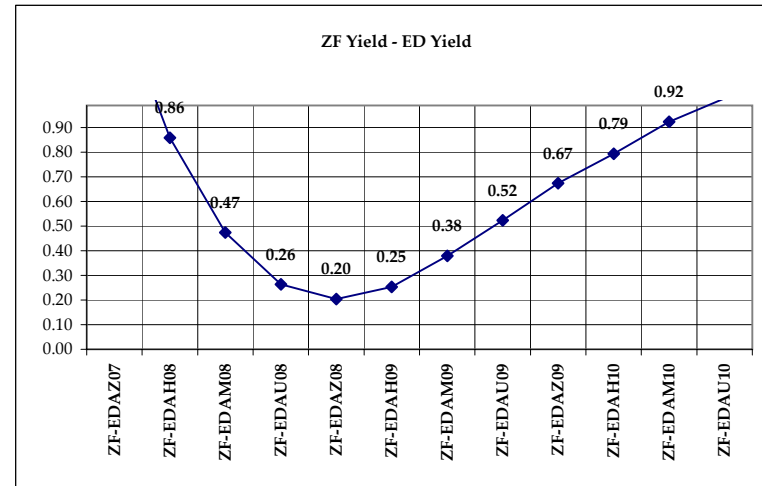
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

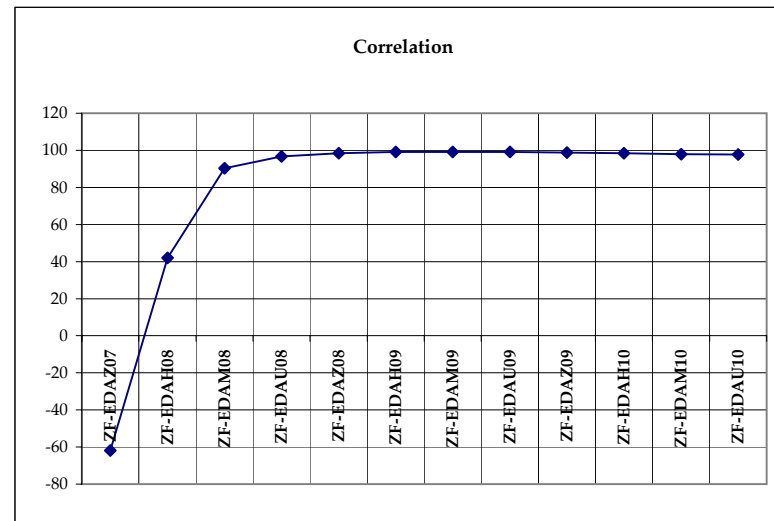
ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	14.99	1.45	ZF-EDAZ07	-61.858
EDAH08	14.39	0.86	ZF-EDAH08	41.976
EDAM08	14.01	0.47	ZF-EDAM08	90.300
EDAU08	13.80	0.26	ZF-EDAU08	96.688
EDAZ08	13.74	0.20	ZF-EDAZ08	98.407
EDAH09	13.79	0.25	ZF-EDAH09	99.059
EDAM09	13.91	0.38	ZF-EDAM09	99.194
EDAU09	14.06	0.52	ZF-EDAU09	99.074
EDAZ09	14.21	0.67	ZF-EDAZ09	98.813
EDAH10	14.33	0.79	ZF-EDAH10	98.448
EDAM10	14.46	0.92	ZF-EDAM10	97.841
EDAU10	14.55	1.02	ZF-EDAU10	97.704

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		
EDAZ07	0.071	3.83	3.76	ZF-EDAZ07
EDAH08	0.320	3.83	3.51	ZF-EDAH08
EDAM08	0.569	3.83	3.26	ZF-EDAM08
EDAU08	0.819	3.83	3.01	ZF-EDAU08
EDAZ08	1.068	3.83	2.76	ZF-EDAZ08
EDAH09	1.317	3.83	2.51	ZF-EDAH09
EDAM09	1.566	3.83	2.27	ZF-EDAM09
EDAU09	1.816	3.83	2.02	ZF-EDAU09
EDAZ09	2.065	3.83	1.77	ZF-EDAZ09
EDAH10	2.314	3.83	1.52	ZF-EDAH10
EDAM10	2.564	3.83	1.27	ZF-EDAM10
EDAU10	2.813	3.83	1.02	ZF-EDAU10

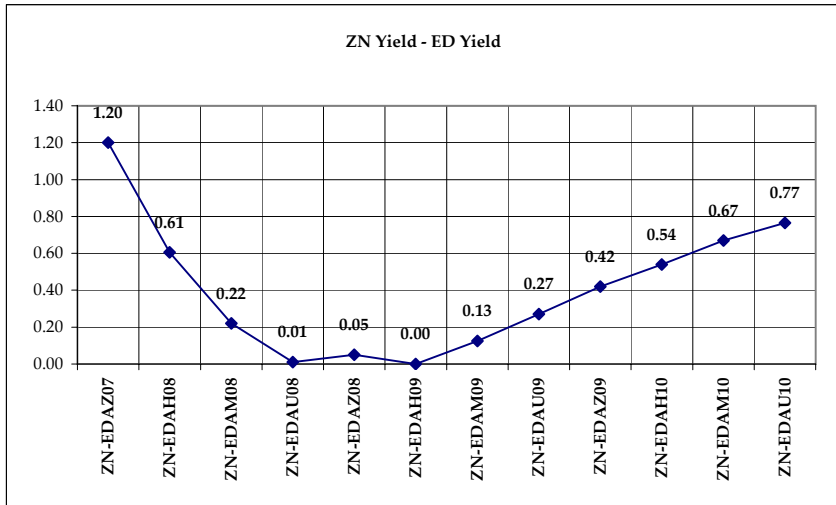
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZN vs Eurodollar Contracts

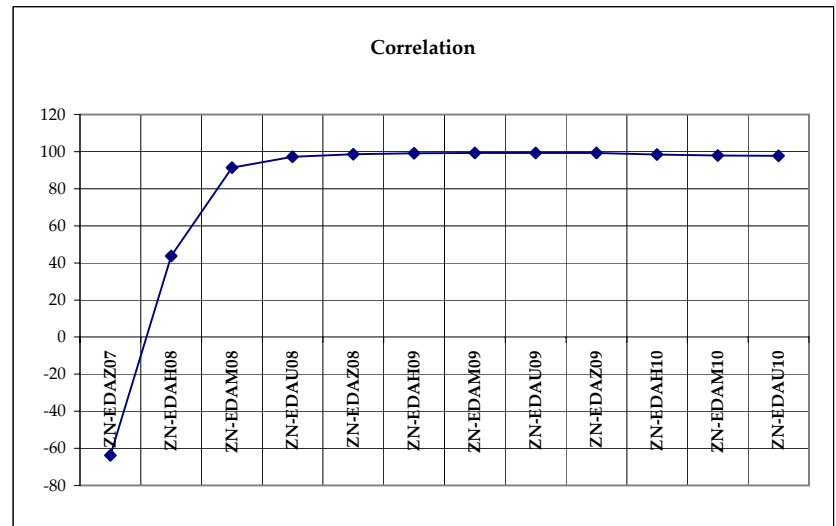
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	18.38	1.20	ZN-EDAZ07	-63.79
EDAH08	17.78	0.61	ZN-EDAH08	43.81
EDAM08	17.40	0.22	ZN-EDAM08	91.38
EDAU08	17.19	0.01	ZN-EDAU08	97.25
EDAZ08	17.13	0.05	ZN-EDAZ08	98.59
EDAH09	17.18	0.00	ZN-EDAH09	99.05
EDAM09	17.30	0.13	ZN-EDAM09	99.22
EDAU09	17.45	0.27	ZN-EDAU09	99.32
EDAZ09	17.60	0.42	ZN-EDAZ09	99.33
EDAH10	17.72	0.54	ZN-EDAH10	98.45
EDAM10	17.85	0.67	ZN-EDAM10	97.84
EDAU10	17.94	0.77	ZN-EDAU10	97.70

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	
EDAZ07	0.071	5.77	5.70	ZN-EDAZ07
EDAH08	0.320	5.77	5.45	ZN-EDAH08
EDAM08	0.569	5.77	5.20	ZN-EDAM08
EDAU08	0.819	5.77	4.95	ZN-EDAU08
EDAZ08	1.068	5.77	4.70	ZN-EDAZ08
EDAH09	1.317	5.77	4.45	ZN-EDAH09
EDAM09	1.566	5.77	4.21	ZN-EDAM09
EDAU09	1.816	5.77	3.96	ZN-EDAU09
EDAZ09	2.065	5.77	3.71	ZN-EDAZ09
EDAH10	2.314	5.77	3.46	ZN-EDAH10
EDAM10	2.564	5.77	3.21	ZN-EDAM10
EDAU10	2.813	5.77	2.96	ZN-EDAU10

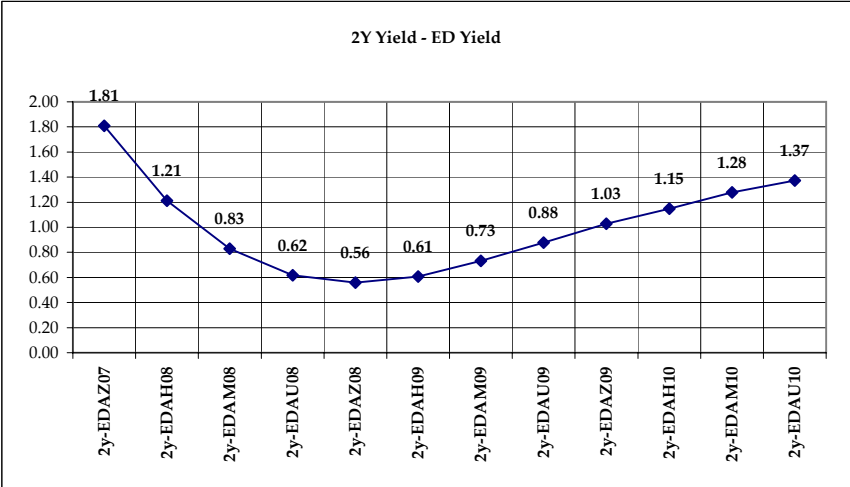
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	5.92	1.81	2y-EDAZ07	66.257
EDAH08	5.33	1.21	2y-EDAH08	-37.683
EDAM08	4.94	0.83	2y-EDAM08	-87.932
EDAU08	4.73	0.62	2y-EDAU08	-94.886
EDAZ08	4.67	0.56	2y-EDAZ08	-87.932
EDAH09	4.72	0.61	2y-EDAH09	-97.755
EDAM09	4.85	0.73	2y-EDAM09	-98.068
EDAU09	4.99	0.88	2y-EDAU09	-97.975
EDAZ09	5.14	1.03	2y-EDAZ09	-97.671
EDAH10	5.26	1.15	2y-EDAH10	-97.366
EDAM10	5.39	1.28	2y-EDAM10	-96.804
EDAU10	5.49	1.37	2y-EDAU10	-96.883

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.

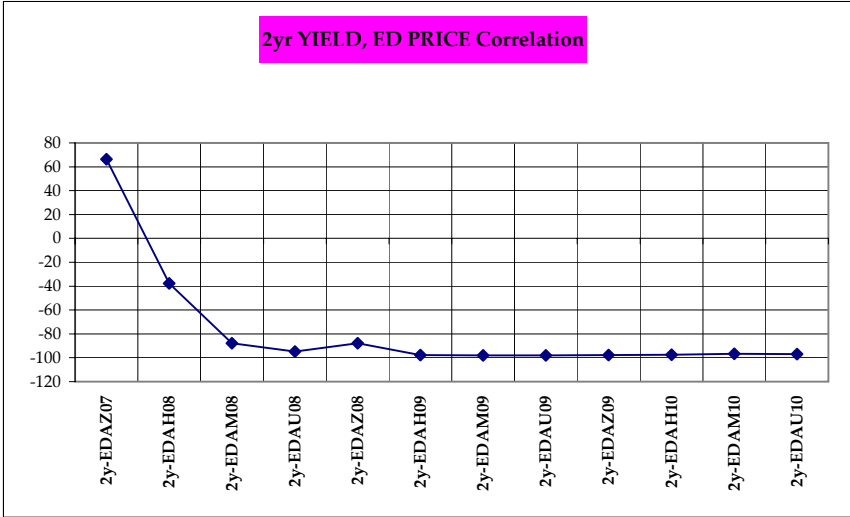


GE Duration as Fraction of year

	2Y Duration	Spread Duration	
EDAZ07	0.071	1.77	2y-EDAZ07
EDAH08	0.320	1.77	2y-EDAH08
EDAM08	0.569	1.77	2y-EDAM08
EDAU08	0.819	1.77	2y-EDAU08
EDAZ08	1.068	1.77	2y-EDAZ08
EDAH09	1.317	1.77	2y-EDAH09
EDAM09	1.566	1.77	2y-EDAM09
EDAU09	1.816	1.77	2y-EDAU09
EDAZ09	2.065	1.77	2y-EDAZ09
EDAH10	2.314	1.77	2y-EDAH10
EDAM10	2.564	1.77	2y-EDAM10
EDAU10	2.813	1.77	2y-EDAU10

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

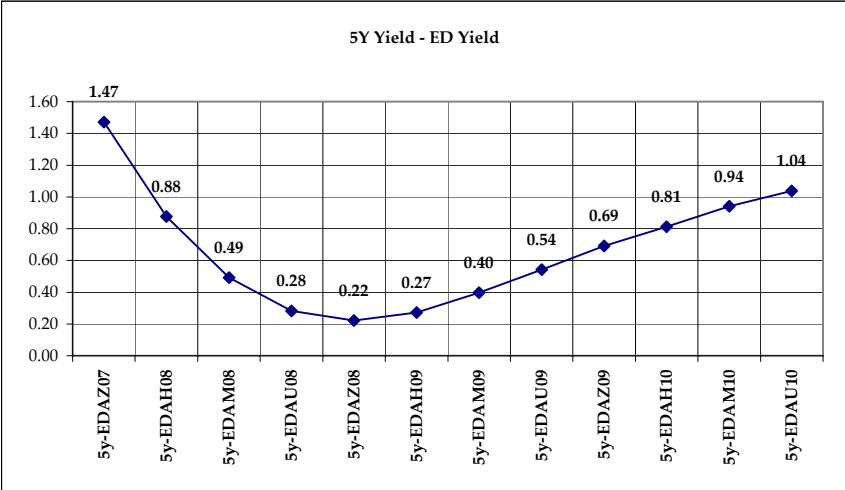
2yr YIELD, ED PRICE Correlation



TERM TED: 5y vs Eurodollar Contracts

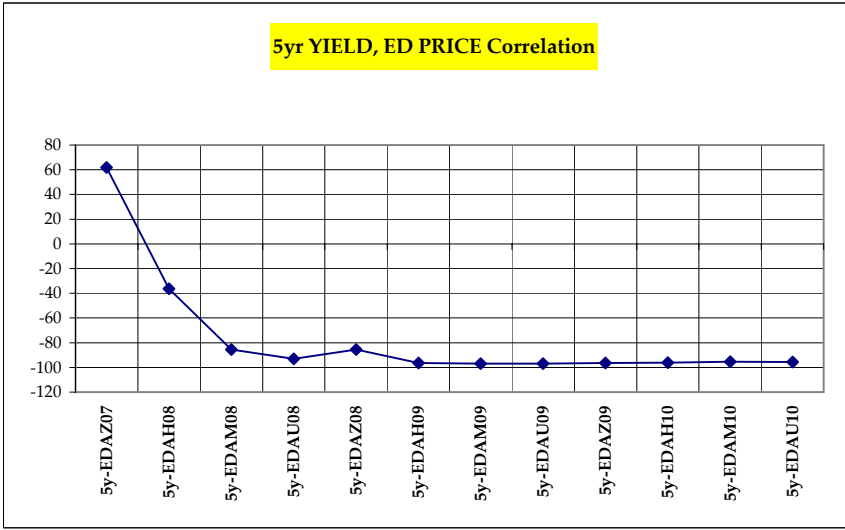
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	7.04	1.47	5y-EDAZ07	61.925
EDAH08	6.44	0.88	5y-EDAH08	-36.244
EDAM08	6.06	0.49	5y-EDAM08	-85.585
EDAU08	5.85	0.28	5y-EDAU08	-93.003
EDAZ08	5.79	0.22	5y-EDAZ08	-85.585
EDAH09	5.84	0.27	5y-EDAH09	-96.520
EDAM09	5.96	0.40	5y-EDAM09	-97.045
EDAU09	6.11	0.54	5y-EDAU09	-96.942
EDAZ09	6.26	0.69	5y-EDAZ09	-96.528
EDAH10	6.38	0.81	5y-EDAH10	-96.274
EDAM10	6.51	0.94	5y-EDAM10	-95.395
EDAU10	6.60	1.04	5y-EDAU10	-95.638

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	
EDAZ07	0.071	4.46	4.39	5y-EDAZ07
EDAH08	0.320	4.46	4.14	5y-EDAH08
EDAM08	0.569	4.46	3.89	5y-EDAM08
EDAU08	0.819	4.46	3.64	5y-EDAU08
EDAZ08	1.068	4.46	3.39	5y-EDAZ08
EDAH09	1.317	4.46	3.15	5y-EDAH09
EDAM09	1.566	4.46	2.90	5y-EDAM09
EDAU09	1.816	4.46	2.65	5y-EDAU09
EDAZ09	2.065	4.46	2.40	5y-EDAZ09
EDAH10	2.314	4.46	2.15	5y-EDAH10
EDAM10	2.564	4.46	1.90	5y-EDAM10
EDAU10	2.813	4.46	1.65	5y-EDAU10

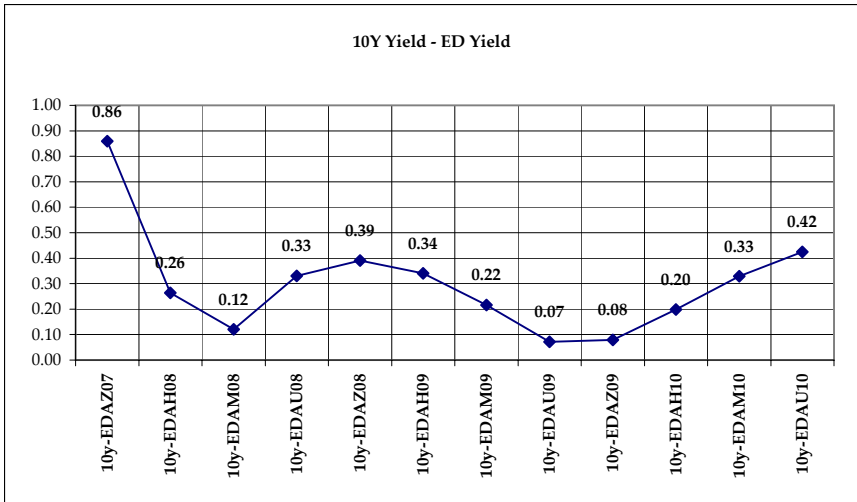
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 10y vs Eurodollar Contracts

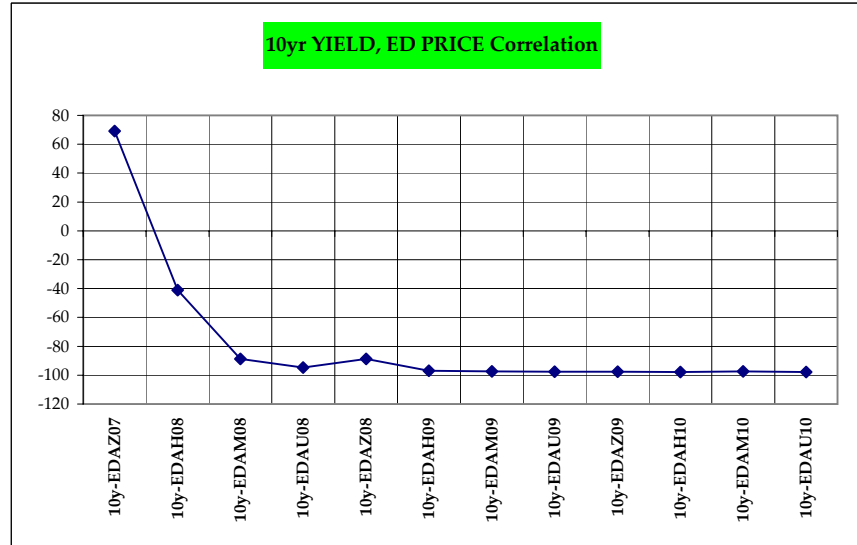
	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	7.04	0.86	10y-EDAZ07	69.055
EDAH08	6.44	0.26	10y-EDAH08	-41.033
EDAM08	6.06	0.12	10y-EDAM08	-88.644
EDAU08	5.85	0.33	10y-EDAU08	-94.653
EDAZ08	5.79	0.39	10y-EDAZ08	-88.644
EDAH09	5.84	0.34	10y-EDAH09	-96.859
EDAM09	5.96	0.22	10y-EDAM09	-97.359
EDAU09	6.11	0.07	10y-EDAU09	-97.528
EDAZ09	6.26	0.08	10y-EDAZ09	-97.589
EDAH10	6.38	0.20	10y-EDAH10	-97.753
EDAM10	6.51	0.33	10y-EDAM10	-97.428
EDAU10	6.60	0.42	10y-EDAU10	-97.848

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.



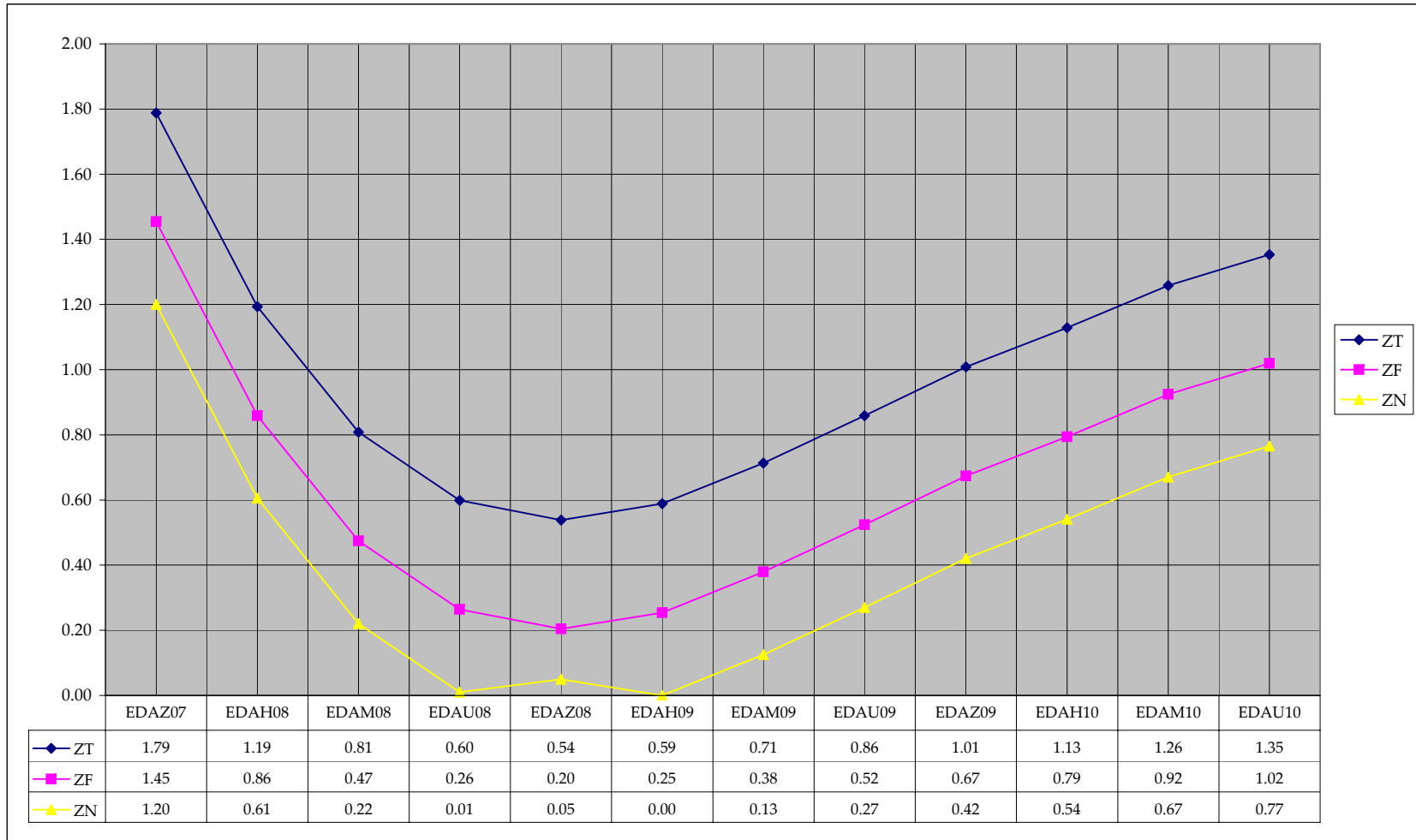
	GE Duration as Fraction of year	10Y Duration	Spread Duration	
EDAZ07	0.071	8.09	8.02	10y-EDAZ07
EDAH08	0.320	8.09	7.77	10y-EDAH08
EDAM08	0.569	8.09	7.52	10y-EDAM08
EDAU08	0.819	8.09	7.27	10y-EDAU08
EDAZ08	1.068	8.09	7.02	10y-EDAZ08
EDAH09	1.317	8.09	6.77	10y-EDAH09
EDAM09	1.566	8.09	6.52	10y-EDAM09
EDAU09	1.816	8.09	6.27	10y-EDAU09
EDAZ09	2.065	8.09	6.02	10y-EDAZ09
EDAH10	2.314	8.09	5.78	10y-EDAH10
EDAM10	2.564	8.09	5.53	10y-EDAM10
EDAU10	2.813	8.09	5.28	10y-EDAU10

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



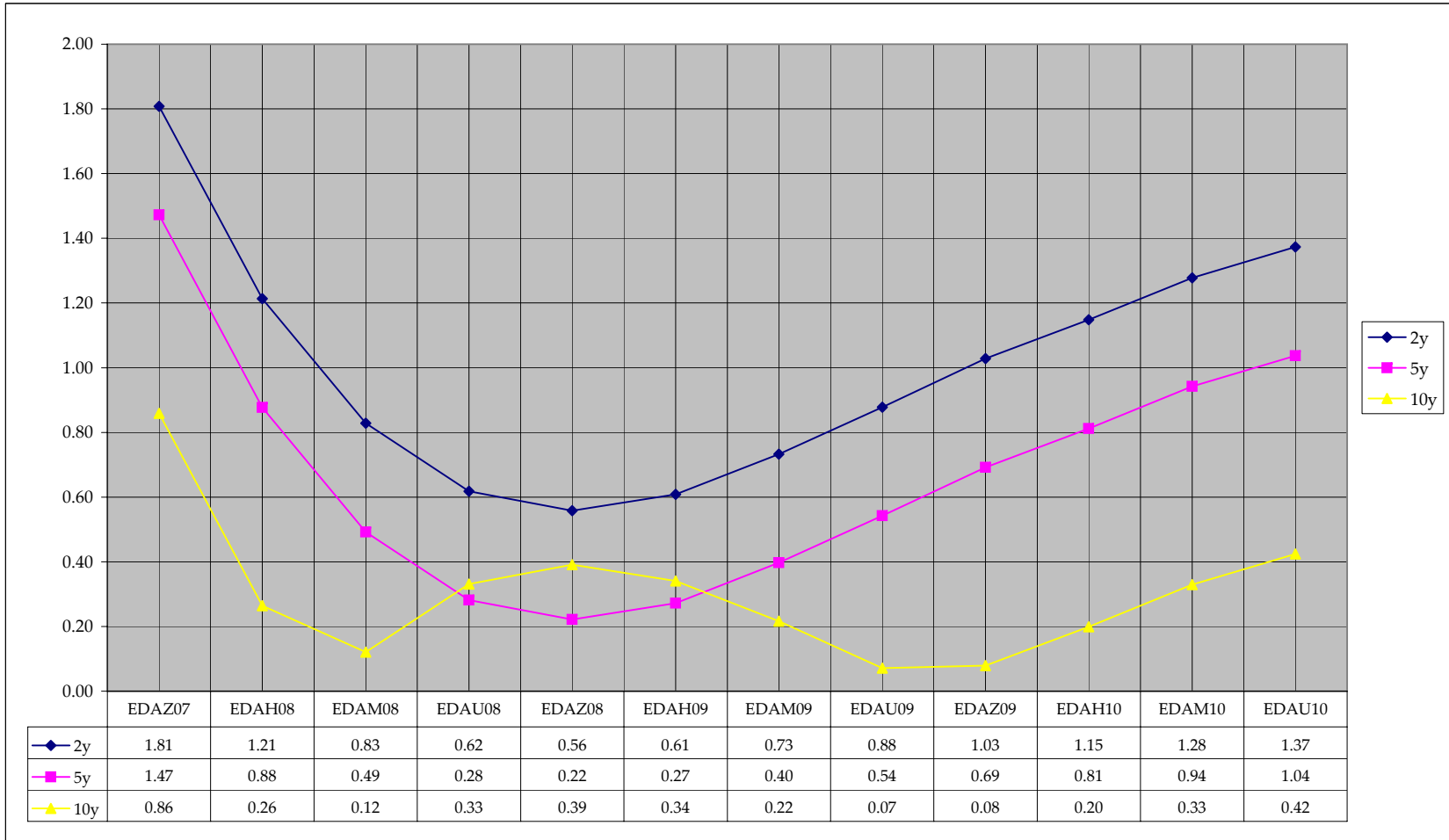
Dirty TED Curve

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.

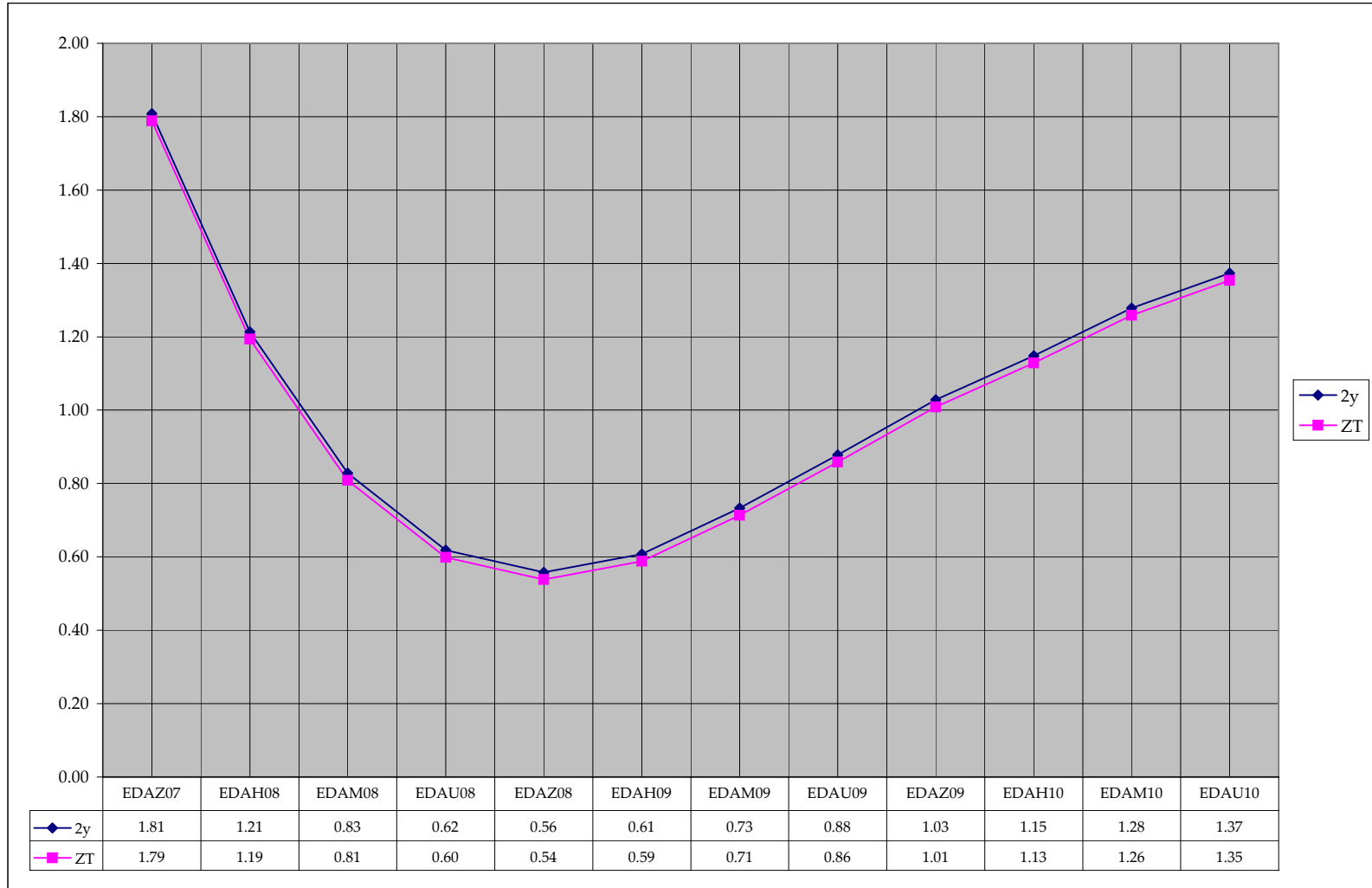


TED Curve

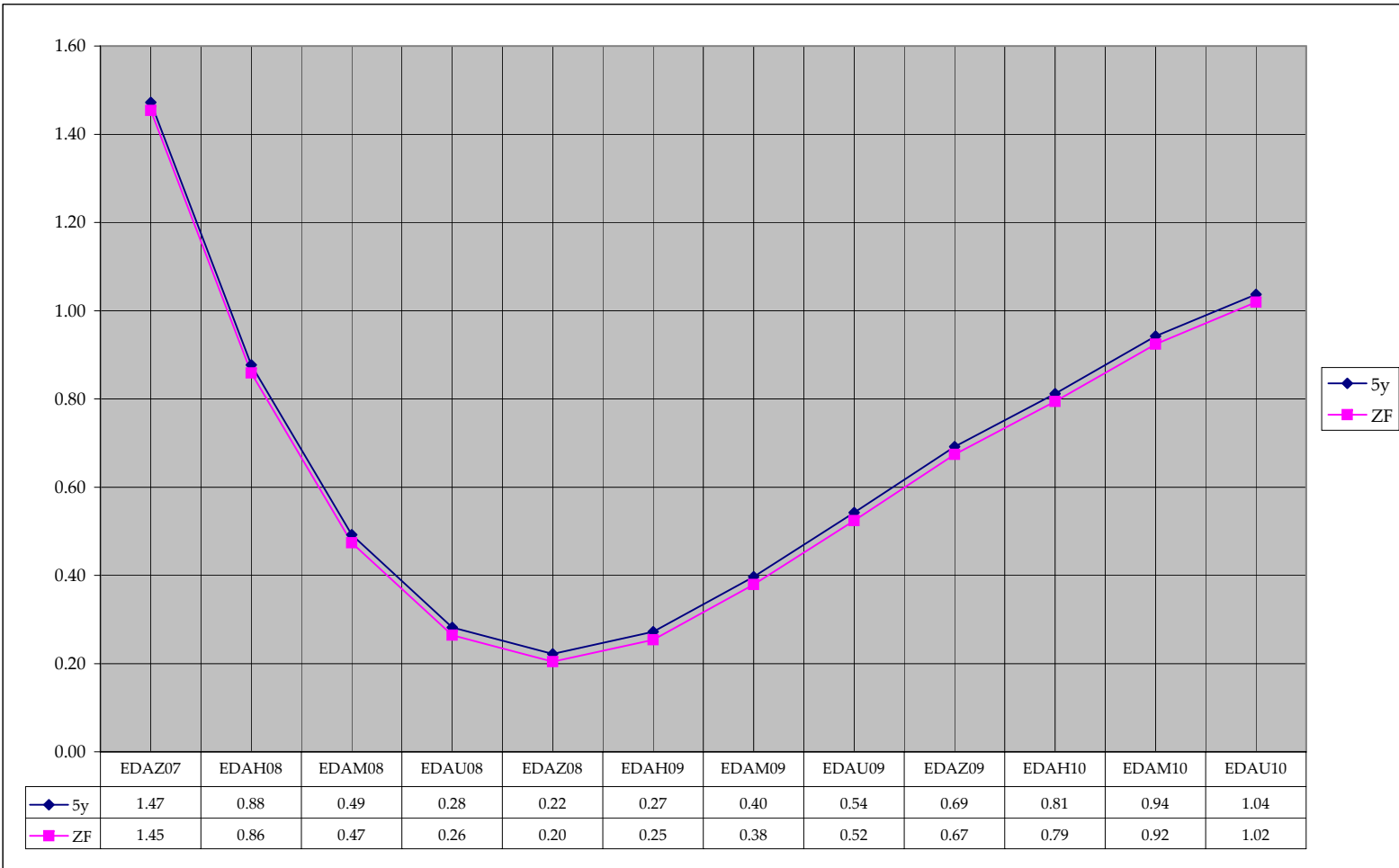
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



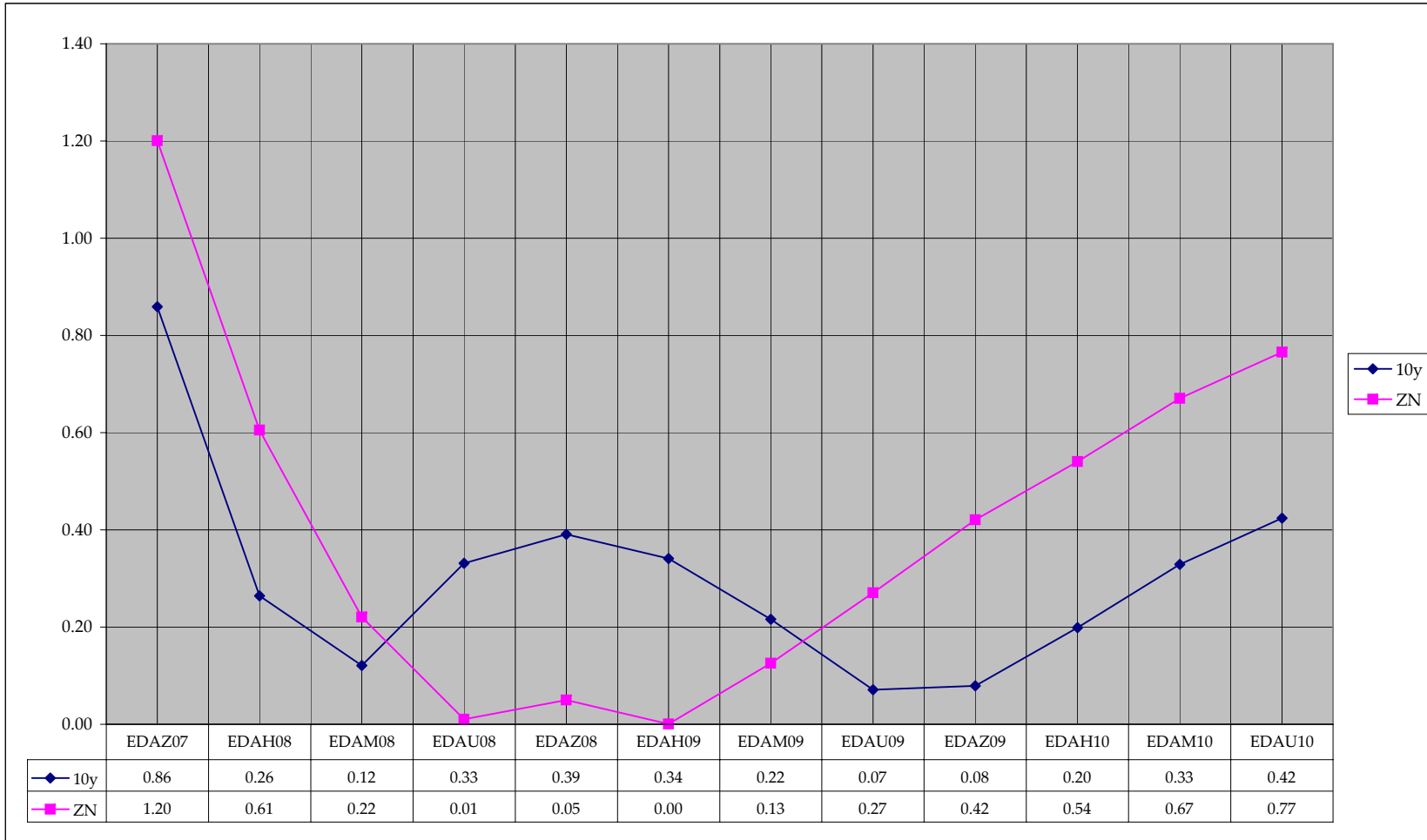
2y Basis TED Curve



5y Basis TED Curve



10y Basis TED Curve



Packs

	last Yield	Net Last Yield	Last Price
Q.ED.White	4.272	3.625	9583.125
Q.ED.Red	3.834	7.000	9625.375
Q.ED.Green	4.364	6.375	9574.125
Q.ED.Blue	4.827	2.750	9529.500
Q.ED.Gold	5.175	0.500	9496.000

