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	102.3969	102.127	4.540	1.78
ZF	105.3125	105.100	4.622	3.84
ZN	107.2344	107.075	4.732	5.67
2y	100.147	100.0470	4.537	1.86
5y	100.016	100.0050	4.618	4.39
10y	99.609	99.1950	4.798	7.71

Eurodollars (ED)	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU07	94.690	5.310	39	0.106	SEP	White Pack
EDAZ07	94.945	5.055	130	0.356	DEC	
EDAH08	95.115	4.885	221	0.605	MAR	
EDAM08	95.165	4.835	312	0.854	JUN	
EDAU08	95.155	4.845	403	1.103	SEP	Red Pack
EDAZ08	95.115	4.885	494	1.353	DEC	
EDAH09	95.065	4.935	585	1.602	MAR	
EDAM09	95.005	4.995	676	1.851	JUN	
EDAU09	94.940	5.060	767	2.101	SEP	Green Pack
EDAZ09	94.880	5.120	858	2.350	DEC	
EDAH10	94.815	5.185	949	2.599	MAR	
EDAM10	94.770	5.230	1040	2.849	JUN	
EDAU10	94.670	5.330	1131	3.098	SEP	Blue Pack
EDAZ10	94.610	5.390	1222	3.347	DEC	
EDAH11	94.590	5.410	1313	3.597	MAR	
EDAM11	94.555	5.445	1404	3.846	JUN	
EDAU11	94.505	5.495	1502	4.114	SEP	Gold Pack
EDAZ11	94.460	5.540	1593	4.364	DEC	
EDAH12	94.430	5.570	1684	4.613	MAR	
EDAM12	94.395	5.605	1775	4.862	JUN	

	Last Yield	Net Yield	Last Price
Q.ED.White	5.156	5.750	9497.875
Q.ED.Red	5.045	4.750	9508.500
Q.ED.Green	5.288	3.250	9485.125
Q.ED.Blue		0.000	9462.125
Q.ED.Gold		0.000	9445.000
Q.ED.Purple		0.000	9445.000

Pack Prices

Red pack is a 2yr proxy
Gold pack is a 10 yr proxy
Red pack/Gold pack is a 2/10 proxy

Notes

Futures use CTD for Last Yield
Mduration = Modified Macaulay Duration
#VALUE! = no quote being provided by exchange.

Overview of Hedging

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

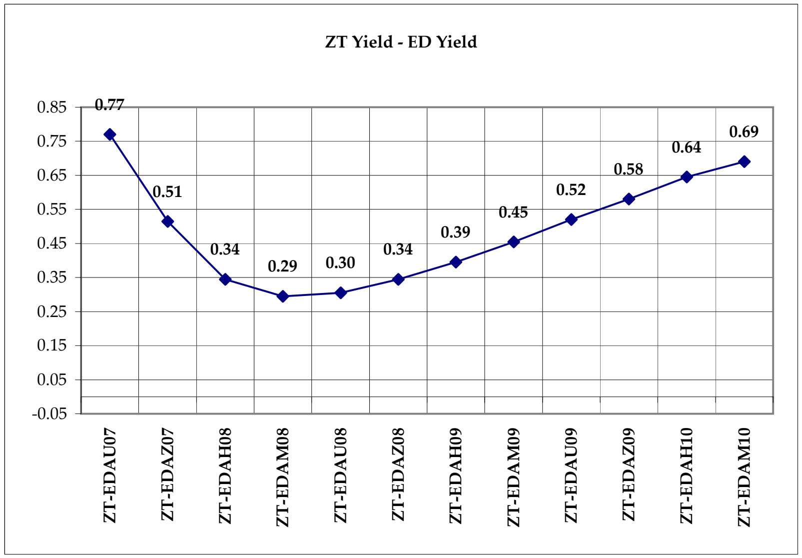
Eurodollar Color Codes for Individual Year Strips:

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

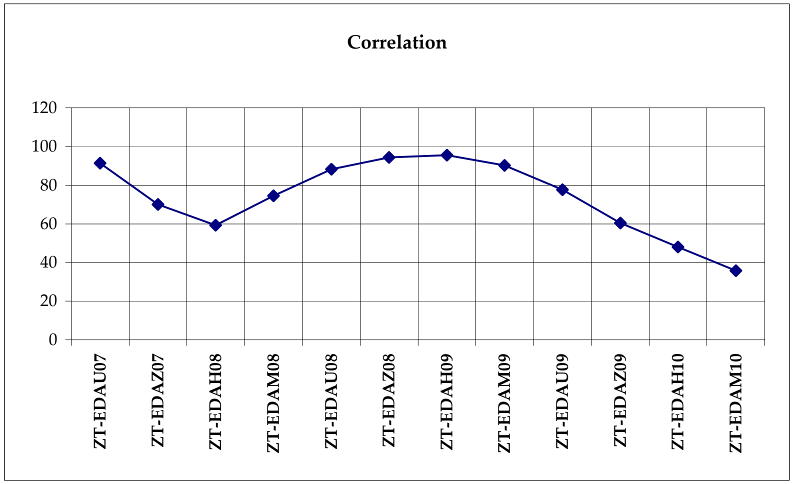
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU07	7.707	0.77	ZT-EDAU07	91.296
EDAZ07	7.452	0.51	ZT-EDAZ07	69.999
EDAH08	7.282	0.34	ZT-EDAH08	59.312
EDAM08	7.232	0.29	ZT-EDAM08	74.541
EDAU08	7.242	0.30	ZT-EDAU08	88.191
EDAZ08	7.282	0.34	ZT-EDAZ08	94.280
EDAH09	7.332	0.39	ZT-EDAH09	95.442
EDAM09	7.392	0.45	ZT-EDAM09	90.276
EDAU09	7.457	0.52	ZT-EDAU09	77.563
EDAZ09	7.517	0.58	ZT-EDAZ09	60.439
EDAH10	7.582	0.64	ZT-EDAH10	47.943
EDAM10	7.627	0.69	ZT-EDAM10	35.764

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	
EDAU07	0.106	1.78	1.67	ZT-EDAU07
EDAZ07	0.356	1.78	1.42	ZT-EDAZ07
EDAH08	0.605	1.78	1.17	ZT-EDAH08
EDAM08	0.854	1.78	0.92	ZT-EDAM08
EDAU08	1.103	1.78	0.67	ZT-EDAU08
EDAZ08	1.353	1.78	0.43	ZT-EDAZ08
EDAH09	1.602	1.78	0.18	ZT-EDAH09
EDAM09	1.851	1.78	(0.07)	ZT-EDAM09
EDAU09	2.101	1.78	(0.32)	ZT-EDAU09
EDAZ09	2.350	1.78	(0.57)	ZT-EDAZ09
EDAH10	2.599	1.78	(0.82)	ZT-EDAH10
EDAM10	2.849	1.78	(1.07)	ZT-EDAM10

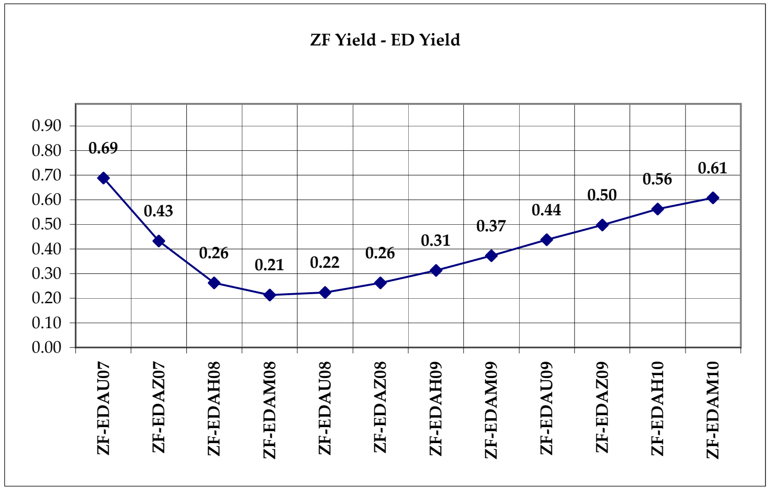
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU07	10.62	0.69	ZF-EDAU07	87.872
EDAZ07	10.37	0.43	ZF-EDAZ07	81.584
EDAH08	10.20	0.26	ZF-EDAH08	74.664
EDAM08	10.15	0.21	ZF-EDAM08	87.130
EDAU08	10.16	0.22	ZF-EDAU08	95.946
EDAZ08	10.20	0.26	ZF-EDAZ08	97.419
EDAH09	10.25	0.31	ZF-EDAH09	97.300
EDAM09	10.31	0.37	ZF-EDAM09	96.445
EDAU09	10.37	0.44	ZF-EDAU09	89.864
EDAZ09	10.43	0.50	ZF-EDAZ09	77.210
EDAH10	10.50	0.56	ZF-EDAH10	68.113
EDAM10	10.54	0.61	ZF-EDAM10	57.518

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	
EDAU07	0.106	3.84	3.73	ZF-EDAU07
EDAZ07	0.356	3.84	3.48	ZF-EDAZ07
EDAH08	0.605	3.84	3.23	ZF-EDAH08
EDAM08	0.854	3.84	2.99	ZF-EDAM08
EDAU08	1.103	3.84	2.74	ZF-EDAU08
EDAZ08	1.353	3.84	2.49	ZF-EDAZ08
EDAH09	1.602	3.84	2.24	ZF-EDAH09
EDAM09	1.851	3.84	1.99	ZF-EDAM09
EDAU09	2.101	3.84	1.74	ZF-EDAU09
EDAZ09	2.350	3.84	1.49	ZF-EDAZ09
EDAH10	2.599	3.84	1.24	ZF-EDAH10
EDAM10	2.849	3.84	0.99	ZF-EDAM10

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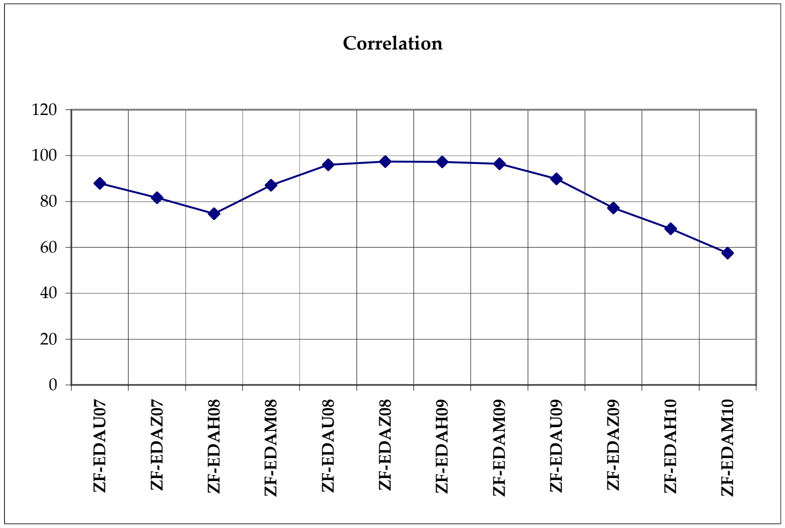

Dirty TED: ZN vs Eurodollar Contracts

	ZN			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU07	12.54	0.58	ZN-EDAU07	84.67
EDAZ07	12.29	0.32	ZN-EDAZ07	84.04
EDAH08	12.12	0.15	ZN-EDAH08	78.41
EDAM08	12.07	0.10	ZN-EDAM08	88.95
EDAU08	12.08	0.11	ZN-EDAU08	95.38
EDAZ08	12.12	0.15	ZN-EDAZ08	94.68
EDAH09	12.17	0.20	ZN-EDAH09	94.21
EDAM09	12.23	0.26	ZN-EDAM09	95.61
EDAU09	12.29	0.33	ZN-EDAU09	92.24
EDAZ09	12.35	0.39	ZN-EDAZ09	82.20
EDAH10	12.42	0.45	ZN-EDAH10	68.11
EDAM10	12.46	0.50	ZN-EDAM10	57.52

Price = Outright Decimal Price - Euro Contract Price
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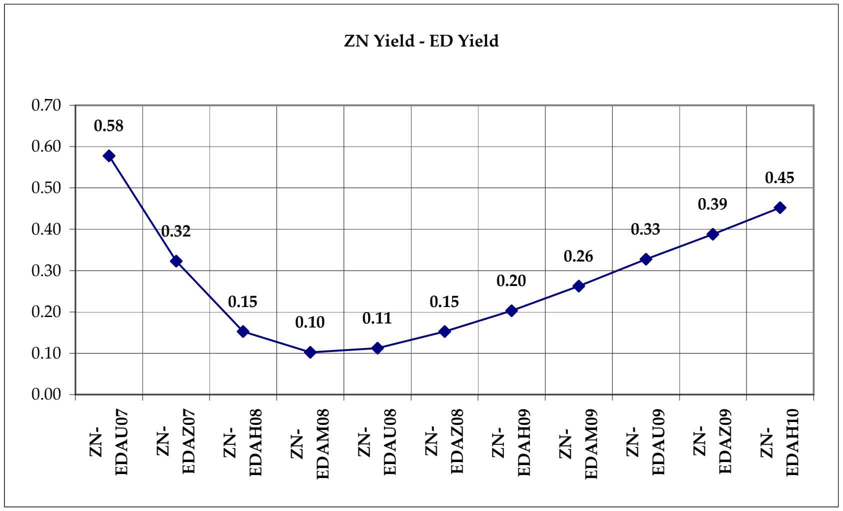
***Correlation = ED Correlation to Treasury Future over 10 days**



	GE Duration as Fraction of year	ZN Duration	Spread Duration	
EDAU07	0.106	5.67	5.56	ZN-EDAU07
EDAZ07	0.356	5.67	5.31	ZN-EDAZ07
EDAH08	0.605	5.67	5.06	ZN-EDAH08
EDAM08	0.854	5.67	4.81	ZN-EDAM08
EDAU08	1.103	5.67	4.56	ZN-EDAU08
EDAZ08	1.353	5.67	4.31	ZN-EDAZ08
EDAH09	1.602	5.67	4.06	ZN-EDAH09
EDAM09	1.851	5.67	3.82	ZN-EDAM09
EDAU09	2.101	5.67	3.57	ZN-EDAU09
EDAZ09	2.350	5.67	3.32	ZN-EDAZ09
EDAH10	2.599	5.67	3.07	ZN-EDAH10
EDAM10	2.849	5.67	2.82	ZN-EDAM10

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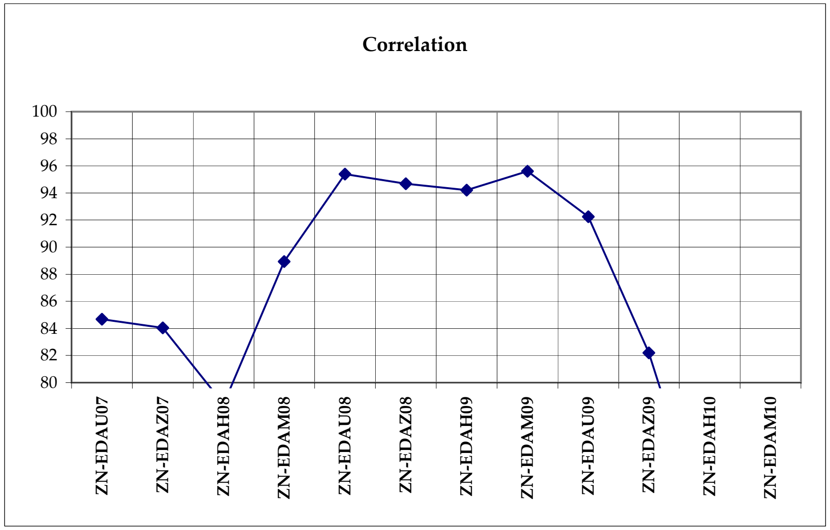

TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU07	5.46	0.77	2y-EDAU07	-73.143
EDAZ07	5.20	0.52	2y-EDAZ07	-73.537
EDAH08	5.03	0.35	2y-EDAH08	-68.687
EDAM08	4.98	0.30	2y-EDAM08	-79.499
EDAU08	4.99	0.31	2y-EDAU08	-85.460
EDAZ08	5.03	0.35	2y-EDAZ08	-79.499
EDAH09	5.08	0.40	2y-EDAH09	-84.461
EDAM09	5.14	0.46	2y-EDAM09	-84.822
EDAU09	5.21	0.52	2y-EDAU09	-79.584
EDAZ09	5.27	0.58	2y-EDAZ09	-69.195
EDAH10	5.33	0.65	2y-EDAH10	-58.438
EDAM10	5.38	0.69	2y-EDAM10	-50.628

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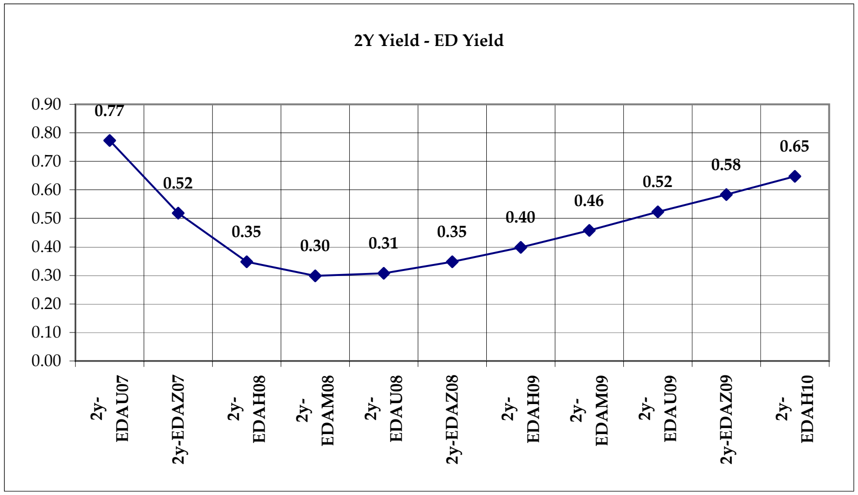
These are measuring YIELD correlations.



	GE Duration as Fraction of year	2Y Duration	Spread Duration	
EDAU07	0.106	1.86	1.76	2y-EDAU07
EDAZ07	0.356	1.86	1.51	2y-EDAZ07
EDAH08	0.605	1.86	1.26	2y-EDAH08
EDAM08	0.854	1.86	1.01	2y-EDAM08
EDAU08	1.103	1.86	0.76	2y-EDAU08
EDAZ08	1.353	1.86	0.51	2y-EDAZ08
EDAH09	1.602	1.86	0.26	2y-EDAH09
EDAM09	1.851	1.86	0.01	2y-EDAM09
EDAU09	2.101	1.86	(0.24)	2y-EDAU09
EDAZ09	2.350	1.86	(0.49)	2y-EDAZ09
EDAH10	2.599	1.86	(0.74)	2y-EDAH10
EDAM10	2.849	1.86	(0.98)	2y-EDAM10

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

TERM TED: 5y vs Eurodollar Contracts

	5y			
	Spread Price	**Spread Yield**	**Spread Name**	**Correlation* (percent)**
EDAU07	5.33	0.69	5y-EDAU07	-77.704
EDAZ07	5.07	0.44	5y-EDAZ07	-68.173
EDAH08	4.90	0.27	5y-EDAH08	-62.057
EDAM08	4.85	0.22	5y-EDAM08	-76.654
EDAU08	4.86	0.23	5y-EDAU08	-86.881
EDAZ08	4.90	0.27	5y-EDAZ08	-76.654
EDAH09	4.95	0.32	5y-EDAH09	-89.971
EDAM09	5.01	0.38	5y-EDAM09	-88.552
EDAU09	5.08	0.44	5y-EDAU09	-80.406
EDAZ09	5.14	0.50	5y-EDAZ09	-66.682
EDAH10	5.20	0.57	5y-EDAH10	-55.816
EDAM10	5.25	0.61	5y-EDAM10	-46.122

Price = Outright Decimal Price - Euro Contract Price
Yield = ABS(Proxy Yield - Implied Euro Contract yield)
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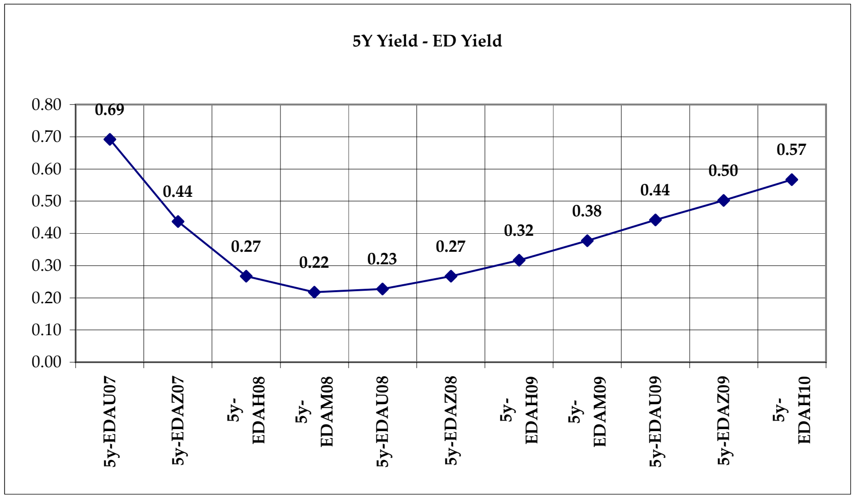
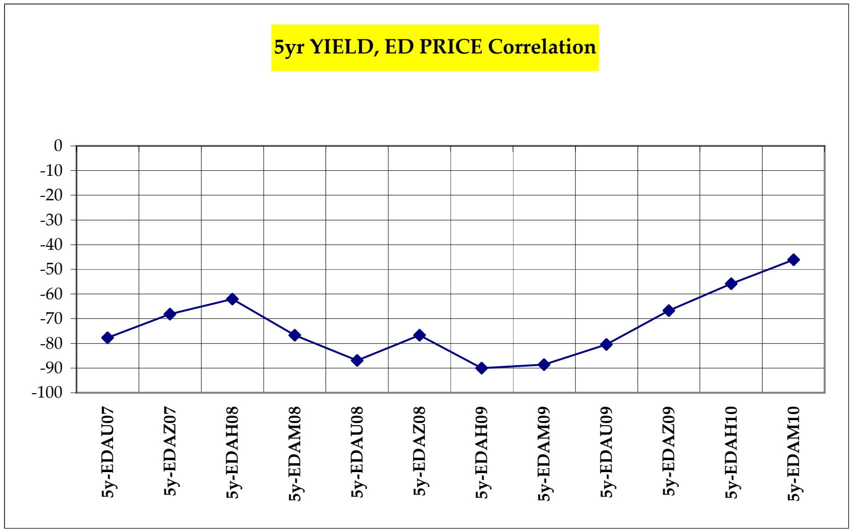


	GE Duration as Fraction of year	5Y Duration	Spread Duration	
EDAU07	0.106	4.39	4.29	5y-EDAU07
EDAZ07	0.356	4.39	4.04	5y-EDAZ07
EDAH08	0.605	4.39	3.79	5y-EDAH08
EDAM08	0.854	4.39	3.54	5y-EDAM08
EDAU08	1.103	4.39	3.29	5y-EDAU08
EDAZ08	1.353	4.39	3.04	5y-EDAZ08
EDAH09	1.602	4.39	2.79	5y-EDAH09
EDAM09	1.851	4.39	2.54	5y-EDAM09
EDAU09	2.101	4.39	2.29	5y-EDAU09
EDAZ09	2.350	4.39	2.04	5y-EDAZ09
EDAH10	2.599	4.39	1.79	5y-EDAH10
EDAM10	2.849	4.39	1.54	5y-EDAM10

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)
EDAU07	5.33	0.51	10y-EDAU07	-84.673
EDAZ07	5.07	0.26	10y-EDAZ07	-71.431
EDAH08	4.90	0.09	10y-EDAH08	-62.662
EDAM08	4.85	0.04	10y-EDAM08	-76.485
EDAU08	4.86	0.05	10y-EDAU08	-87.384
EDAZ08	4.90	0.09	10y-EDAZ08	-76.485
EDAH09	4.95	0.14	10y-EDAH09	-91.205
EDAM09	5.01	0.20	10y-EDAM09	-89.920
EDAU09	5.08	0.26	10y-EDAU09	-81.719
EDAZ09	5.14	0.32	10y-EDAZ09	-67.777
EDAH10	5.20	0.39	10y-EDAH10	-57.644
EDAM10	5.25	0.43	10y-EDAM10	-47.446

Price = Outright Decimal Price - Euro Contract Price
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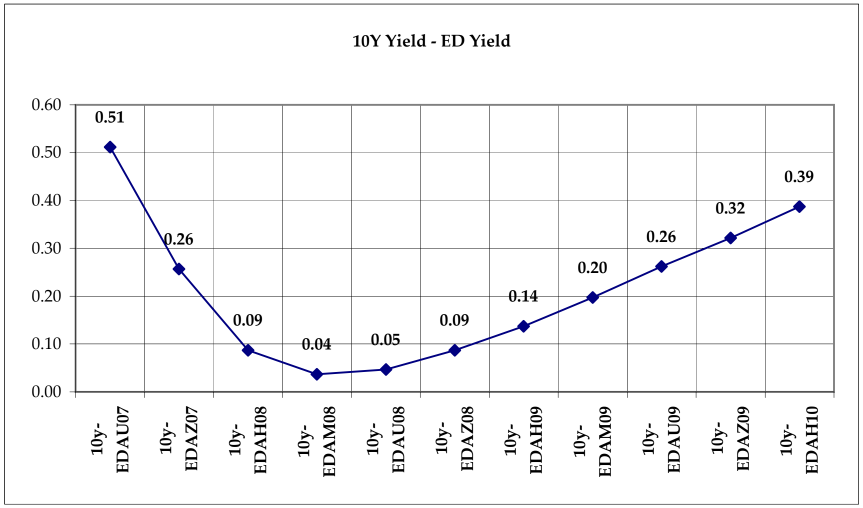
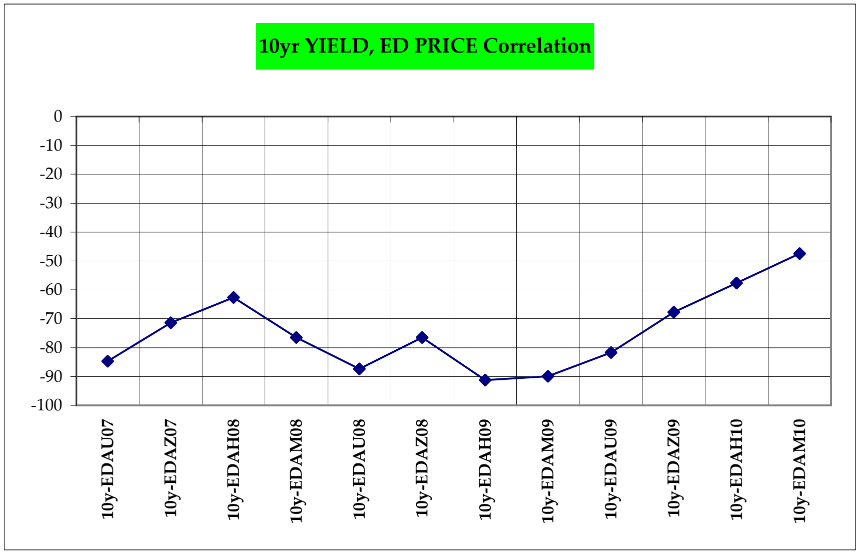


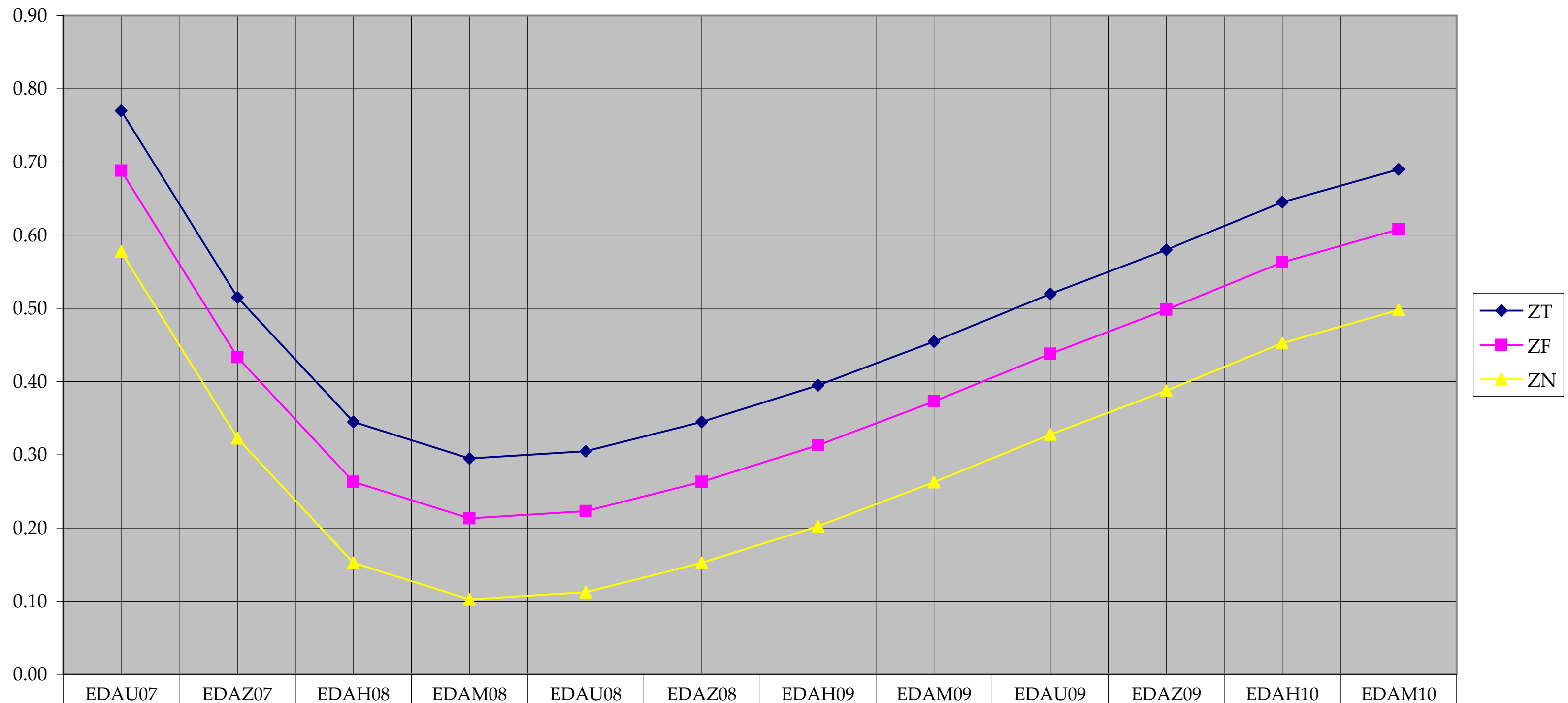
	GE Duration as Fraction of year	10Y Duration	Spread Duration	
EDAU07	0.106	7.71	7.61	10y-EDAU07
EDAZ07	0.356	7.71	7.36	10y-EDAZ07
EDAH08	0.605	7.71	7.11	10y-EDAH08
EDAM08	0.854	7.71	6.86	10y-EDAM08
EDAU08	1.103	7.71	6.61	10y-EDAU08
EDAZ08	1.353	7.71	6.36	10y-EDAZ08
EDAH09	1.602	7.71	6.11	10y-EDAH09
EDAM09	1.851	7.71	5.86	10y-EDAM09
EDAU09	2.101	7.71	5.61	10y-EDAU09
EDAZ09	2.350	7.71	5.36	10y-EDAZ09
EDAH10	2.599	7.71	5.11	10y-EDAH10
EDAM10	2.849	7.71	4.86	10y-EDAM10

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



Dirty TED Curve

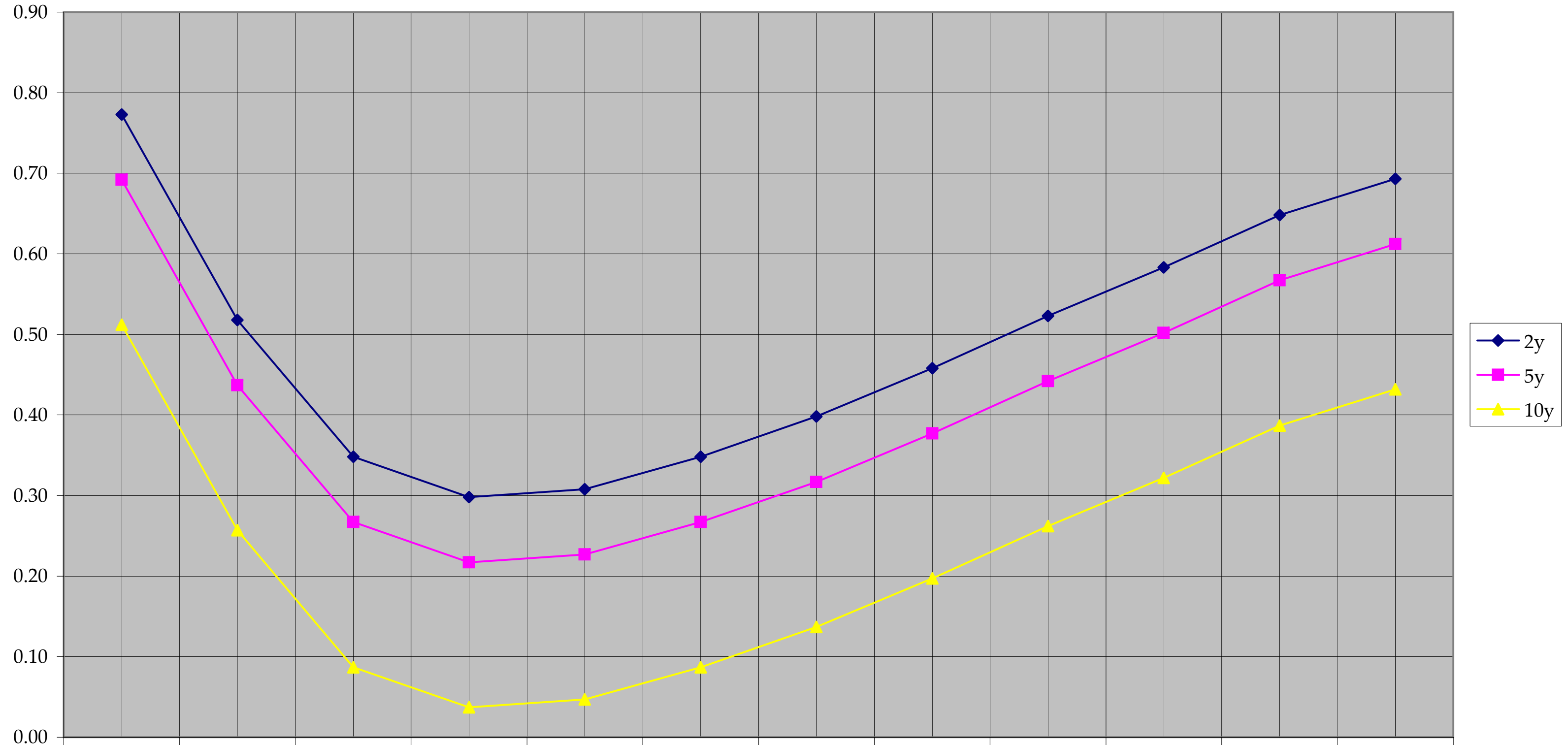
Chart values show the differences between ED contract and Treasury Futures conctract. Those values can be seen in the table at the bottom of the chart.
Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10
ZT	0.77	0.51	0.34	0.29	0.30	0.34	0.39	0.45	0.52	0.58	0.64	0.69
ZF	0.69	0.43	0.26	0.21	0.22	0.26	0.31	0.37	0.44	0.50	0.56	0.61
ZN	0.58	0.32	0.15	0.10	0.11	0.15	0.20	0.26	0.33	0.39	0.45	0.50

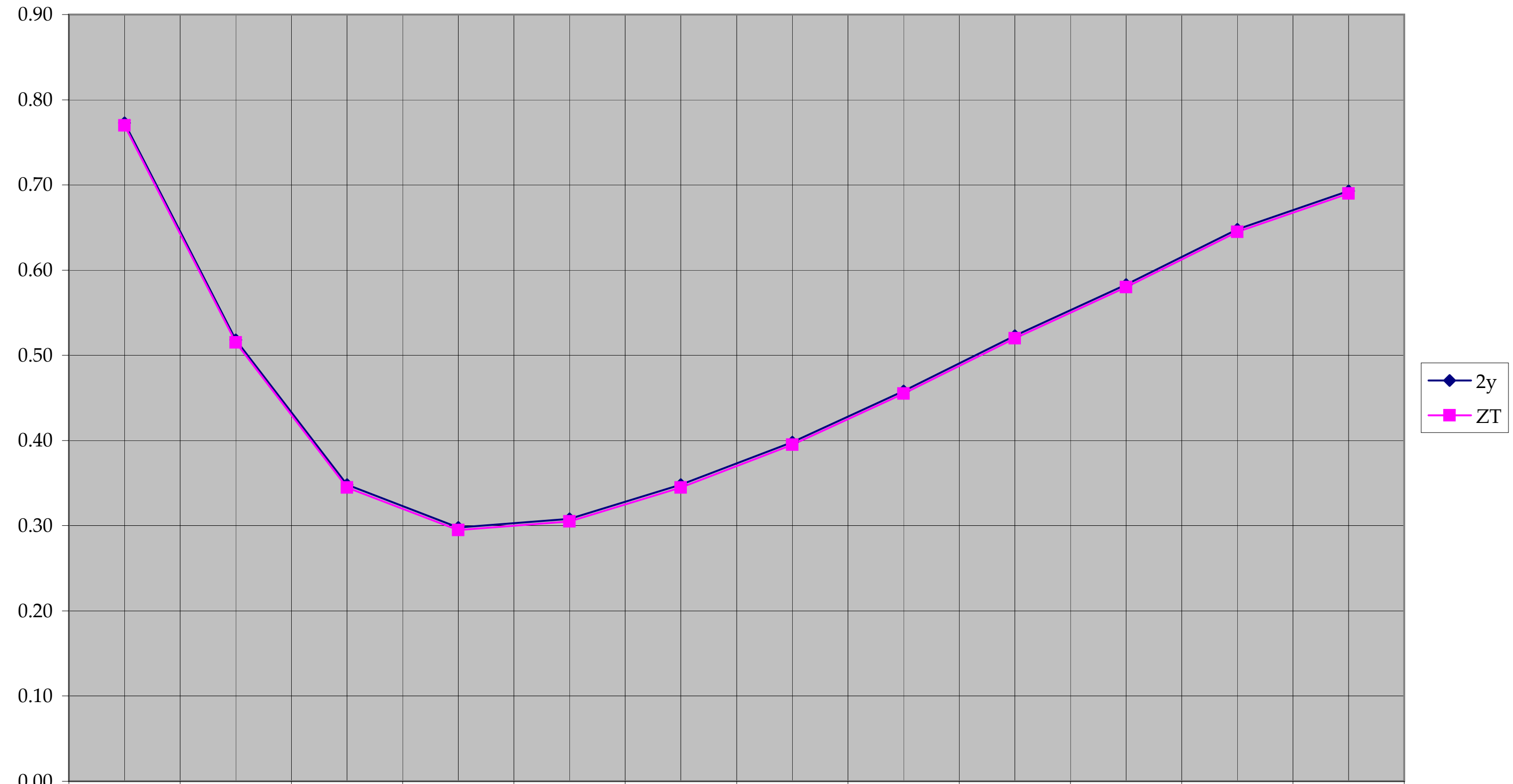
TED Curve

Chart values show the differences between ED contract and Treasury Cash conctract. 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.



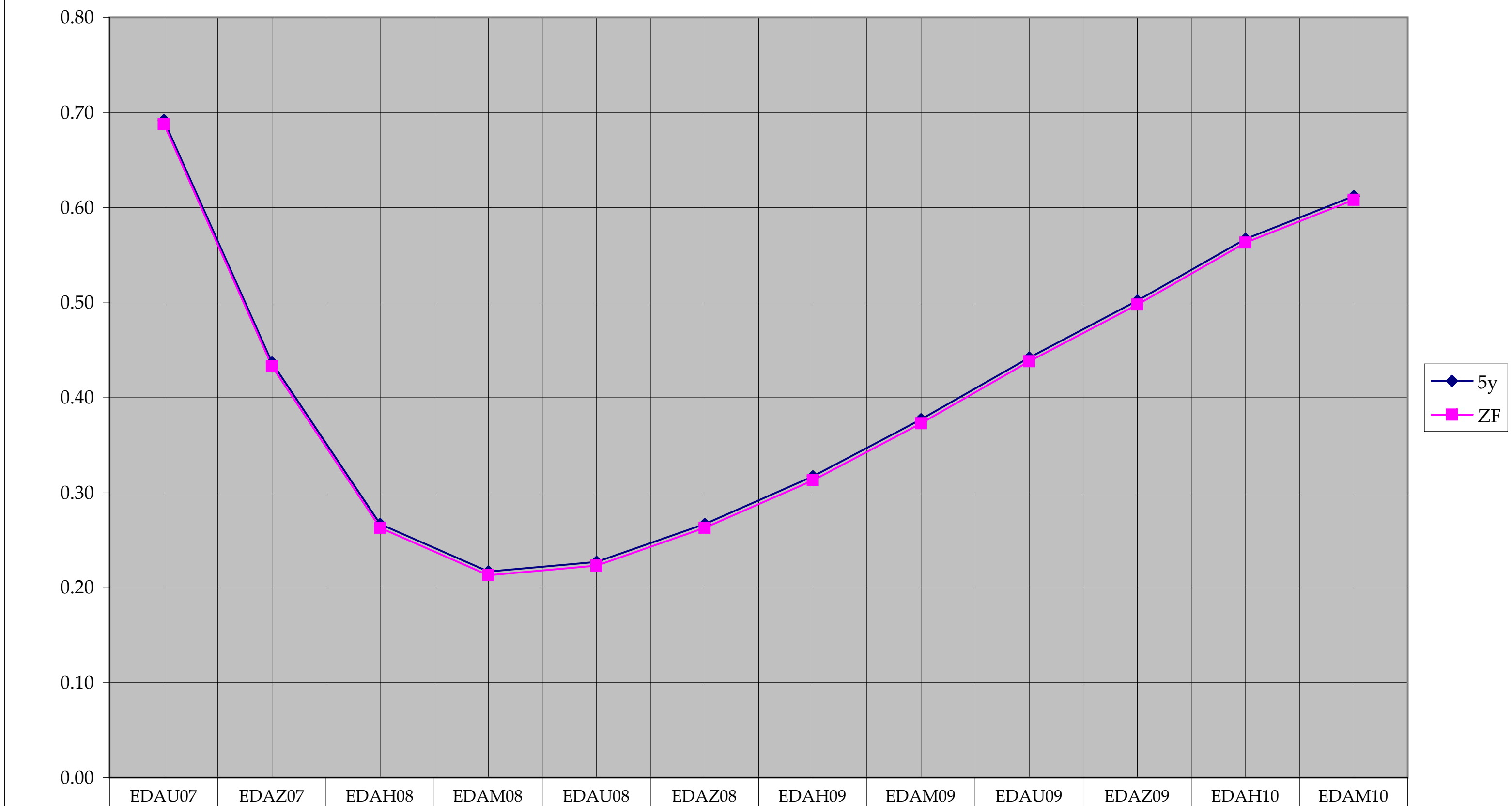
	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10
2y	0.77	0.52	0.35	0.30	0.31	0.35	0.40	0.46	0.52	0.58	0.65	0.69
5y	0.69	0.44	0.27	0.22	0.23	0.27	0.32	0.38	0.44	0.50	0.57	0.61
10y	0.51	0.26	0.09	0.04	0.05	0.09	0.14	0.20	0.26	0.32	0.39	0.43

2y Basis TED Curve



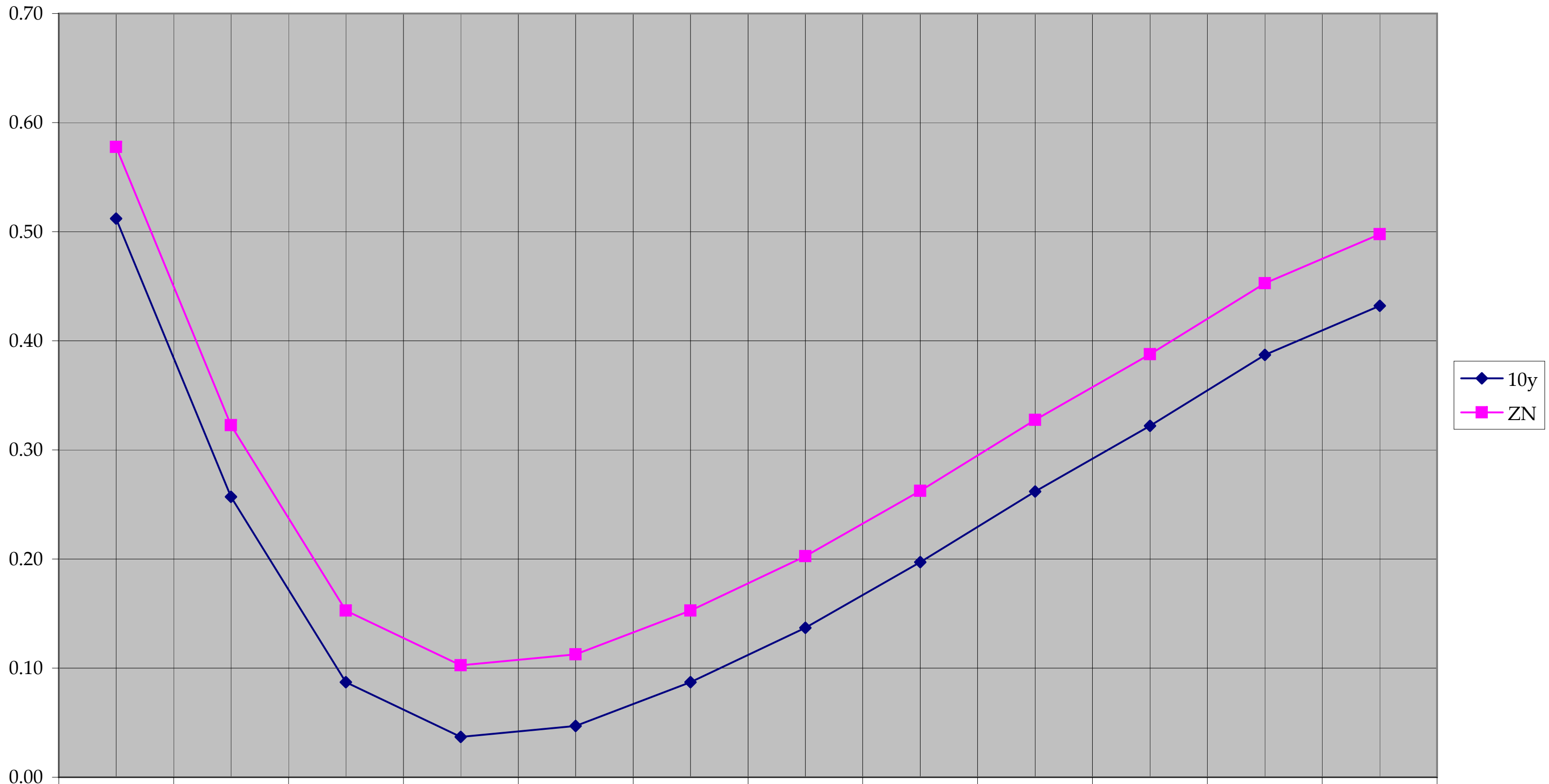
	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10
2y	0.77	0.52	0.35	0.30	0.31	0.35	0.40	0.46	0.52	0.58	0.65	0.69
ZT	0.77	0.51	0.34	0.29	0.30	0.34	0.39	0.45	0.52	0.58	0.64	0.69

5y Basis TED Curve



	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10
5y	0.69	0.44	0.27	0.22	0.23	0.27	0.32	0.38	0.44	0.50	0.57	0.61
ZF	0.69	0.43	0.26	0.21	0.22	0.26	0.31	0.37	0.44	0.50	0.56	0.61

10y Basis TED Curve



	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10
10y	0.51	0.26	0.09	0.04	0.05	0.09	0.14	0.20	0.26	0.32	0.39	0.43
ZN	0.58	0.32	0.15	0.10	0.11	0.15	0.20	0.26	0.33	0.39	0.45	0.50

Packs

	last Yield	Net Last Yield	Last Price
Q.ED.White	5.156	5.750	9497.875
Q.ED.Red	5.045	4.750	9508.500
Q.ED.Green	5.288	3.250	9485.125
Q.ED.Blue		0.000	9462.125
Q.ED.Gold		0.000	9445.000
Q.ED.Purple		0.000	9445.000