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

Quotes

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F.I. Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	101.8813	101.282	4.888	1.81
ZF	104.0469	104.015	4.921	3.89
ZN	105.5781	105.185	4.964	5.71
2y	99.984	99.3150	4.874	1.94
5y	99.656	99.2100	4.952	4.34
10y	95.781	95.2500	5.045	7.74

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU07	94.660	5.340	62	0.169	SEP	White Pack
EDAZ07	94.680	5.320	153	0.419	DEC	
EDAH08	94.750	5.250	244	0.668	MAR	
EDAM08	94.800	5.200	335	0.917	JUN	
EDAU08	94.815	5.185	426	1.166	SEP	Red Pack
EDAZ08	94.800	5.200	517	1.416	DEC	
EDAH09	94.760	5.240	608	1.665	MAR	
EDAM09	94.700	5.300	699	1.914	JUN	
EDAU09	94.645	5.355	790	2.164	SEP	Green Pack
EDAZ09	94.580	5.420	881	2.413	DEC	
EDAH10	94.525	5.475	972	2.662	MAR	
EDAM10	94.490	5.510	1063	2.912	JUN	
EDAU10	94.455	5.545	1154	3.161	SEP	
EDAZ10	94.415	5.585	1245	3.410	DEC	
EDAH11	94.390	5.610	1336	3.660	MAR	
EDAM11	94.355	5.645	1427	3.909	JUN	
EDAU11	94.280	5.720	1525	4.177	SEP	
EDAZ11	94.230	5.770	1616	4.427	DEC	
EDAH12	94.230	5.770	1707	4.676	MAR	
EDAM12	94.180	5.820	1798	4.925	JUN	

	Last Yield	Net Yield	Last Price	
Q.ED.White	5.422	-1.000	9472.250	Pack Prices
Q.ED.Red	5.374	-1.250	9476.875	
Q.ED.Green	5.592	-0.875	9456.000	
Q.ED.Blue		0.000	9440.000	
Q.ED.Gold		0.000	9427.250	
Q.ED.Purple		0.000	9427.250	

Notes
Futures use CTD for Last Yield
Mduration = Modified Macaulay Duration

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

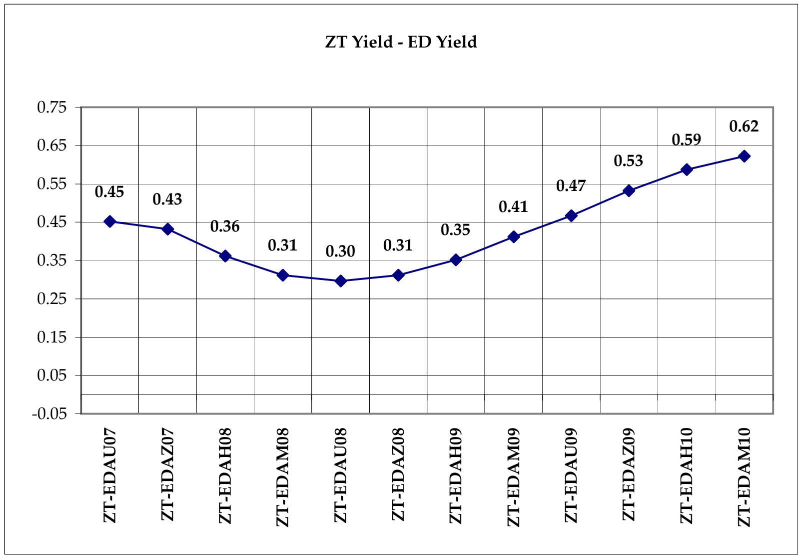
Eurodollar Color Codes for Individual Year Strips:

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

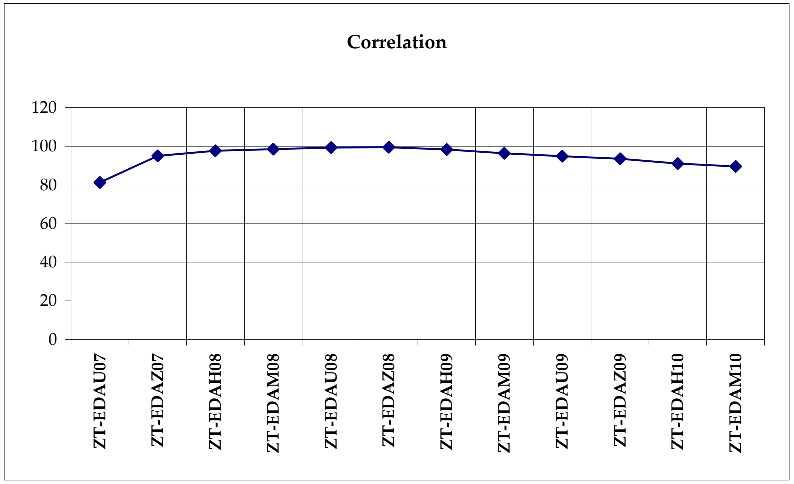
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU07	7.221	0.45	ZT-EDAU07	81.350
EDAZ07	7.201	0.43	ZT-EDAZ07	95.066
EDAH08	7.131	0.36	ZT-EDAH08	97.699
EDAM08	7.081	0.31	ZT-EDAM08	98.459
EDAU08	7.066	0.30	ZT-EDAU08	99.272
EDAZ08	7.081	0.31	ZT-EDAZ08	99.397
EDAH09	7.121	0.35	ZT-EDAH09	98.280
EDAM09	7.181	0.41	ZT-EDAM09	96.403
EDAU09	7.236	0.47	ZT-EDAU09	94.891
EDAZ09	7.301	0.53	ZT-EDAZ09	93.574
EDAH10	7.356	0.59	ZT-EDAH10	91.041
EDAM10	7.391	0.62	ZT-EDAM10	89.485

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	0.169	1.81	1.64	ZT-EDAU07
EDAZ07	0.419	1.81	1.39	ZT-EDAZ07
EDAH08	0.668	1.81	1.14	ZT-EDAH08
EDAM08	0.917	1.81	0.89	ZT-EDAM08
EDAU08	1.166	1.81	0.64	ZT-EDAU08
EDAZ08	1.416	1.81	0.39	ZT-EDAZ08
EDAH09	1.665	1.81	0.14	ZT-EDAH09
EDAM09	1.914	1.81	(0.11)	ZT-EDAM09
EDAU09	2.164	1.81	(0.36)	ZT-EDAU09
EDAZ09	2.413	1.81	(0.61)	ZT-EDAZ09
EDAH10	2.662	1.81	(0.86)	ZT-EDAH10
EDAM10	2.912	1.81	(1.10)	ZT-EDAM10

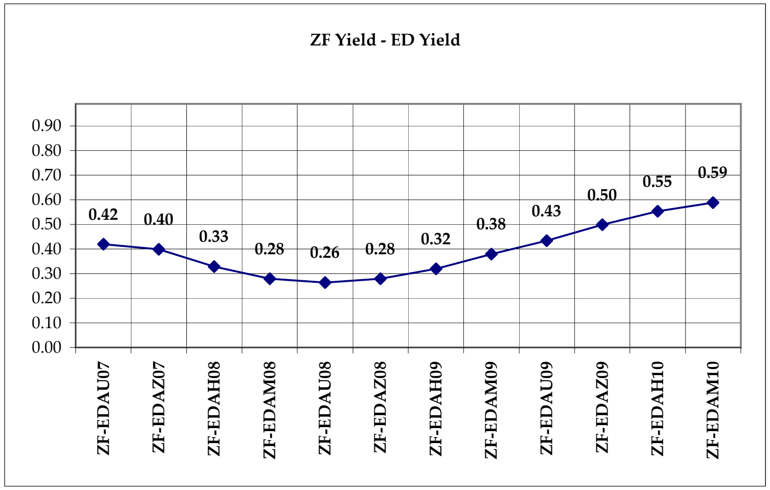
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

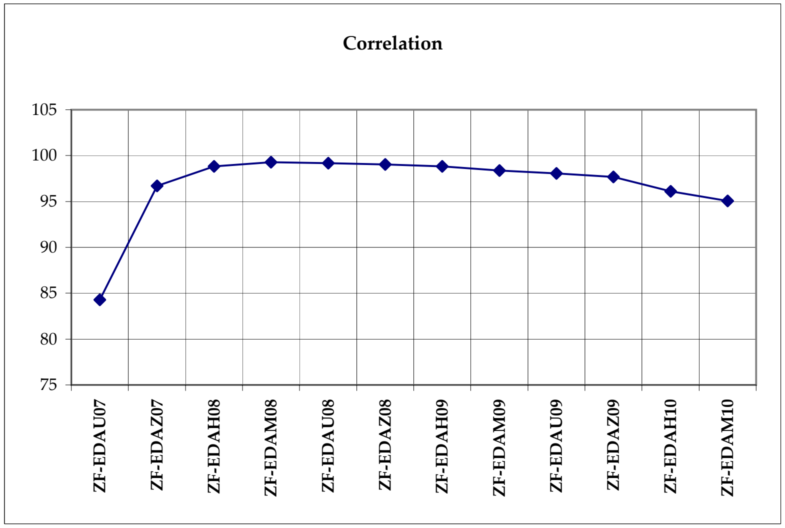
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU07	9.39	0.42	ZF-EDAU07	84.290
EDAZ07	9.37	0.40	ZF-EDAZ07	96.701
EDAH08	9.30	0.33	ZF-EDAH08	98.822
EDAM08	9.25	0.28	ZF-EDAM08	99.286
EDAU08	9.23	0.26	ZF-EDAU08	99.179
EDAZ08	9.25	0.28	ZF-EDAZ08	99.040
EDAH09	9.29	0.32	ZF-EDAH09	98.838
EDAM09	9.35	0.38	ZF-EDAM09	98.358
EDAU09	9.40	0.43	ZF-EDAU09	98.052
EDAZ09	9.47	0.50	ZF-EDAZ09	97.677
EDAH10	9.52	0.55	ZF-EDAH10	96.104
EDAM10	9.56	0.59	ZF-EDAM10	95.052

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	0.169	3.89	3.72	ZF-EDAU07
EDAZ07	0.419	3.89	3.47	ZF-EDAZ07
EDAH08	0.668	3.89	3.22	ZF-EDAH08
EDAM08	0.917	3.89	2.98	ZF-EDAM08
EDAU08	1.166	3.89	2.73	ZF-EDAU08
EDAZ08	1.416	3.89	2.48	ZF-EDAZ08
EDAH09	1.665	3.89	2.23	ZF-EDAH09
EDAM09	1.914	3.89	1.98	ZF-EDAM09
EDAU09	2.164	3.89	1.73	ZF-EDAU09
EDAZ09	2.413	3.89	1.48	ZF-EDAZ09
EDAH10	2.662	3.89	1.23	ZF-EDAH10
EDAM10	2.912	3.89	0.98	ZF-EDAM10

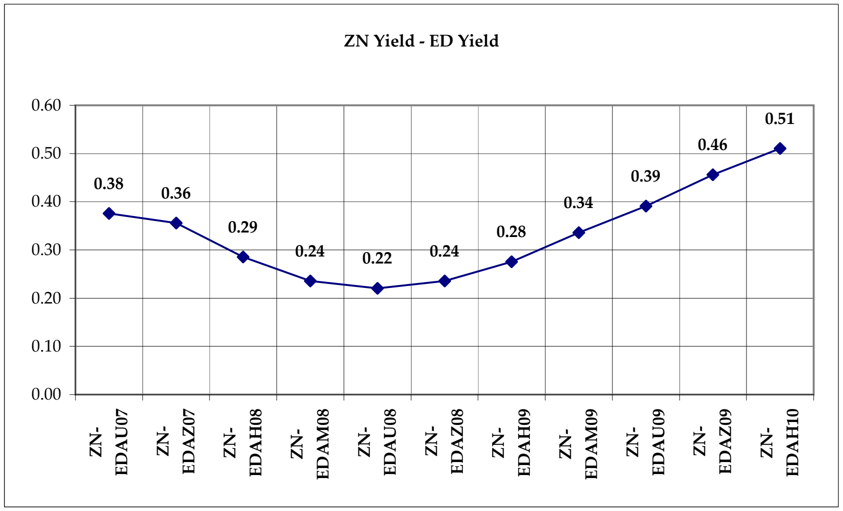
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZN vs Eurodollar Contracts

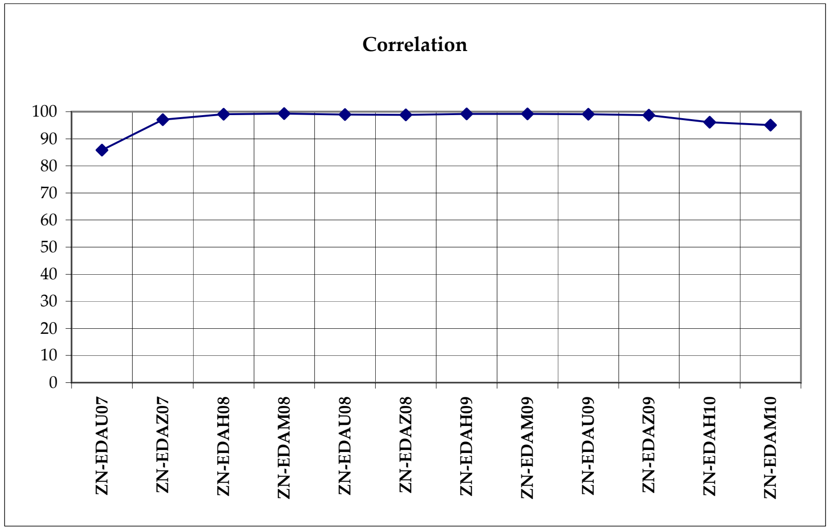
	ZN			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU07	10.92	0.38	ZN-EDAU07	85.81
EDAZ07	10.90	0.36	ZN-EDAZ07	97.03
EDAH08	10.83	0.29	ZN-EDAH08	99.03
EDAM08	10.78	0.24	ZN-EDAM08	99.27
EDAU08	10.76	0.22	ZN-EDAU08	98.95
EDAZ08	10.78	0.24	ZN-EDAZ08	98.85
EDAH09	10.82	0.28	ZN-EDAH09	99.15
EDAM09	10.88	0.34	ZN-EDAM09	99.15
EDAU09	10.93	0.39	ZN-EDAU09	99.06
EDAZ09	11.00	0.46	ZN-EDAZ09	98.68
EDAH10	11.05	0.51	ZN-EDAH10	96.10
EDAM10	11.09	0.55	ZN-EDAM10	95.05

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	
EDAU07	0.169	5.71	5.54	ZN-EDAU07
EDAZ07	0.419	5.71	5.29	ZN-EDAZ07
EDAH08	0.668	5.71	5.05	ZN-EDAH08
EDAM08	0.917	5.71	4.80	ZN-EDAM08
EDAU08	1.166	5.71	4.55	ZN-EDAU08
EDAZ08	1.416	5.71	4.30	ZN-EDAZ08
EDAH09	1.665	5.71	4.05	ZN-EDAH09
EDAM09	1.914	5.71	3.80	ZN-EDAM09
EDAU09	2.164	5.71	3.55	ZN-EDAU09
EDAZ09	2.413	5.71	3.30	ZN-EDAZ09
EDAH10	2.662	5.71	3.05	ZN-EDAH10
EDAM10	2.912	5.71	2.80	ZN-EDAM10

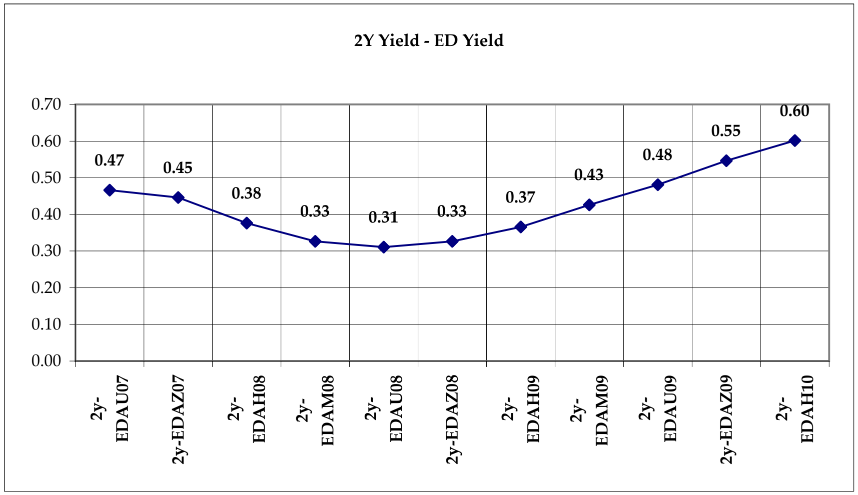
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU07	5.32	0.47	2y-EDAU07	-74.760
EDAZ07	5.30	0.45	2y-EDAZ07	-90.748
EDAH08	5.23	0.38	2y-EDAH08	-92.152
EDAM08	5.18	0.33	2y-EDAM08	-91.754
EDAU08	5.17	0.31	2y-EDAU08	-92.090
EDAZ08	5.18	0.33	2y-EDAZ08	-91.754
EDAH09	5.22	0.37	2y-EDAH09	-92.455
EDAM09	5.28	0.43	2y-EDAM09	-91.543
EDAU09	5.34	0.48	2y-EDAU09	-90.159
EDAZ09	5.40	0.55	2y-EDAZ09	-88.947
EDAH10	5.46	0.60	2y-EDAH10	-87.620
EDAM10	5.49	0.64	2y-EDAM10	-86.252

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.



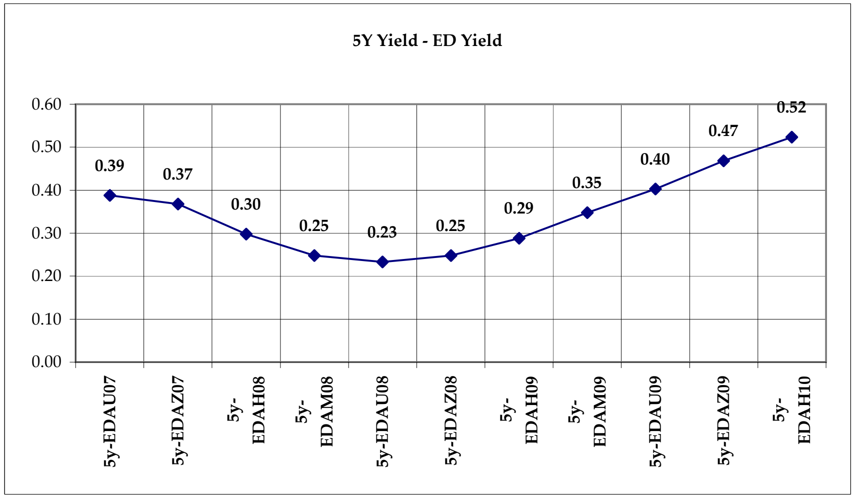
	GE Duration as Fraction of year	2Y Duration	Spread Duration	
EDAU07	0.169	1.94	1.77	2y-EDAU07
EDAZ07	0.419	1.94	1.53	2y-EDAZ07
EDAH08	0.668	1.94	1.28	2y-EDAH08
EDAM08	0.917	1.94	1.03	2y-EDAM08
EDAU08	1.166	1.94	0.78	2y-EDAU08
EDAZ08	1.416	1.94	0.53	2y-EDAZ08
EDAH09	1.665	1.94	0.28	2y-EDAH09
EDAM09	1.914	1.94	0.03	2y-EDAM09
EDAU09	2.164	1.94	(0.22)	2y-EDAU09
EDAZ09	2.413	1.94	(0.47)	2y-EDAZ09
EDAH10	2.662	1.94	(0.72)	2y-EDAH10
EDAM10	2.912	1.94	(0.97)	2y-EDAM10

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

TERM TED: 5y vs Eurodollar Contracts

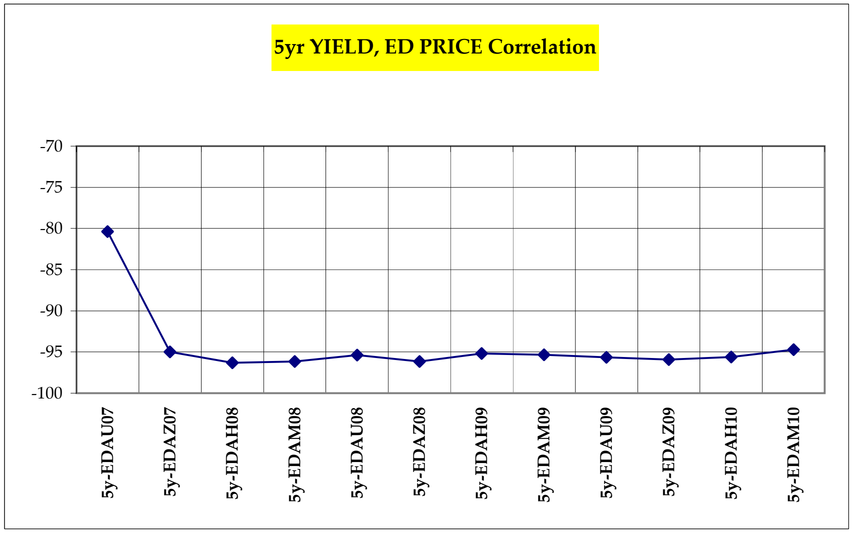
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU07	5.00	0.39	5y-EDAU07	-80.376
EDAZ07	4.98	0.37	5y-EDAZ07	-94.999
EDAH08	4.91	0.30	5y-EDAH08	-96.298
EDAM08	4.86	0.25	5y-EDAM08	-96.165
EDAU08	4.84	0.23	5y-EDAU08	-95.386
EDAZ08	4.86	0.25	5y-EDAZ08	-96.165
EDAH09	4.90	0.29	5y-EDAH09	-95.168
EDAM09	4.96	0.35	5y-EDAM09	-95.348
EDAU09	5.01	0.40	5y-EDAU09	-95.629
EDAZ09	5.08	0.47	5y-EDAZ09	-95.923
EDAH10	5.13	0.52	5y-EDAH10	-95.611
EDAM10	5.17	0.56	5y-EDAM10	-94.721

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	
EDAU07	0.169	4.34	4.17	5y-EDAU07
EDAZ07	0.419	4.34	3.92	5y-EDAZ07
EDAH08	0.668	4.34	3.67	5y-EDAH08
EDAM08	0.917	4.34	3.42	5y-EDAM08
EDAU08	1.166	4.34	3.17	5y-EDAU08
EDAZ08	1.416	4.34	2.92	5y-EDAZ08
EDAH09	1.665	4.34	2.67	5y-EDAH09
EDAM09	1.914	4.34	2.43	5y-EDAM09
EDAU09	2.164	4.34	2.18	5y-EDAU09
EDAZ09	2.413	4.34	1.93	5y-EDAZ09
EDAH10	2.662	4.34	1.68	5y-EDAH10
EDAM10	2.912	4.34	1.43	5y-EDAM10

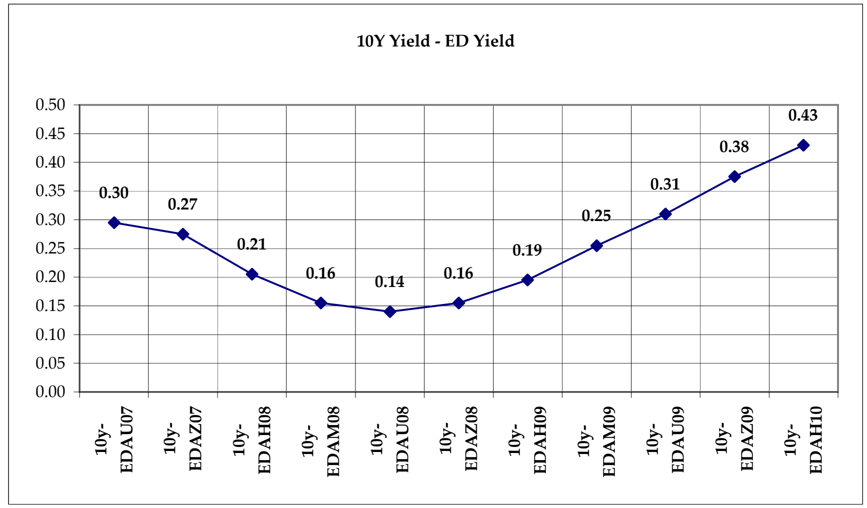
The farther away from 0 the spread duration is
the riskier the trade.



TERM TED: 10y vs Eurodollar Contracts

	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU07	5.00	0.30	10y-EDAU07	-79.322
EDAZ07	4.98	0.27	10y-EDAZ07	-95.139
EDAH08	4.91	0.21	10y-EDAH08	-96.611
EDAM08	4.86	0.16	10y-EDAM08	-96.181
EDAU08	4.84	0.14	10y-EDAU08	-95.564
EDAZ08	4.86	0.16	10y-EDAZ08	-96.181
EDAH09	4.90	0.19	10y-EDAH09	-96.083
EDAM09	4.96	0.25	10y-EDAM09	-96.586
EDAU09	5.01	0.31	10y-EDAU09	-96.933
EDAZ09	5.08	0.38	10y-EDAZ09	-96.846
EDAH10	5.13	0.43	10y-EDAH10	-95.852
EDAM10	5.17	0.47	10y-EDAM10	-95.101

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.

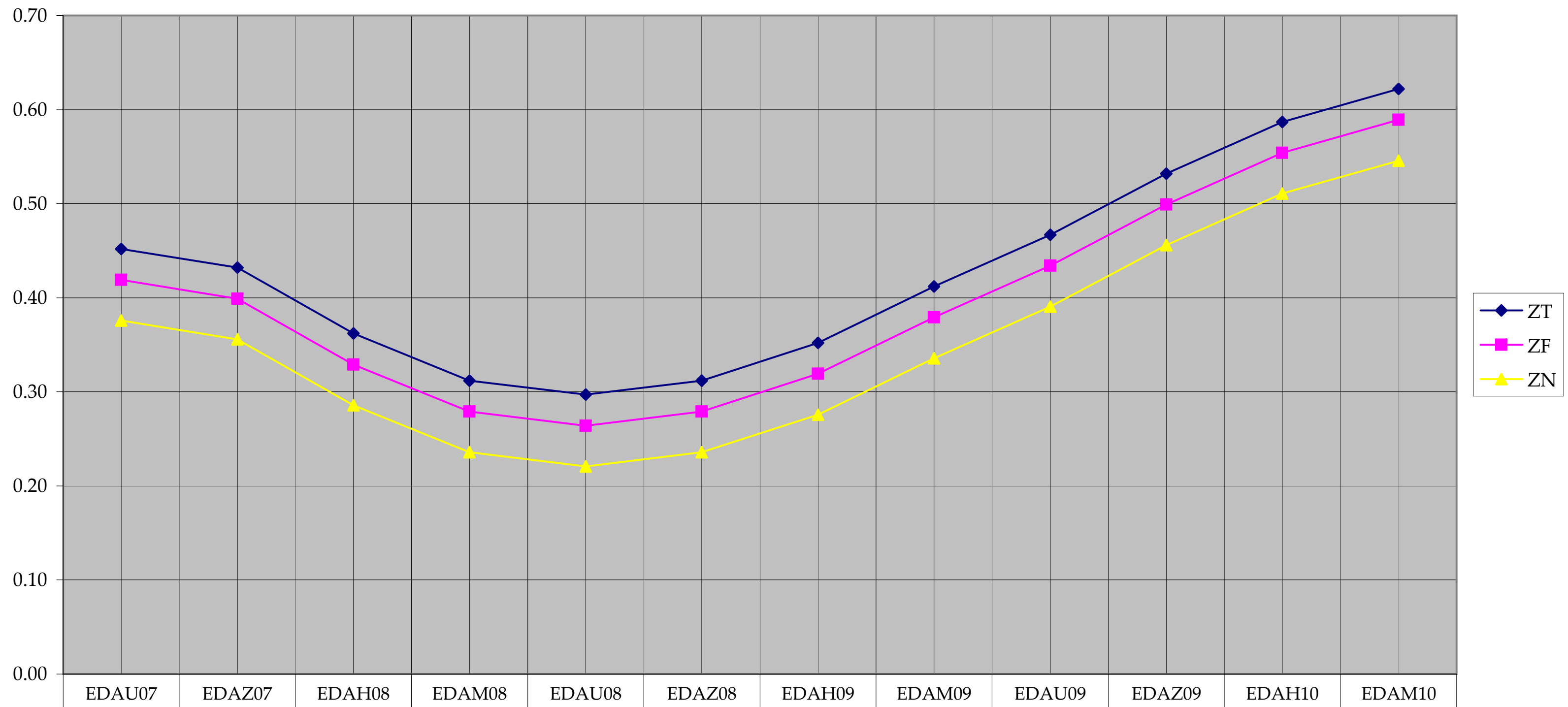


	GE Duration as Fraction of year	10Y Duration	Spread Duration	
EDAU07	0.169	7.74	7.57	10y-EDAU07
EDAZ07	0.419	7.74	7.33	10y-EDAZ07
EDAH08	0.668	7.74	7.08	10y-EDAH08
EDAM08	0.917	7.74	6.83	10y-EDAM08
EDAU08	1.166	7.74	6.58	10y-EDAU08
EDAZ08	1.416	7.74	6.33	10y-EDAZ08
EDAH09	1.665	7.74	6.08	10y-EDAH09
EDAM09	1.914	7.74	5.83	10y-EDAM09
EDAU09	2.164	7.74	5.58	10y-EDAU09
EDAZ09	2.413	7.74	5.33	10y-EDAZ09
EDAH10	2.662	7.74	5.08	10y-EDAH10
EDAM10	2.912	7.74	4.83	10y-EDAM10

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

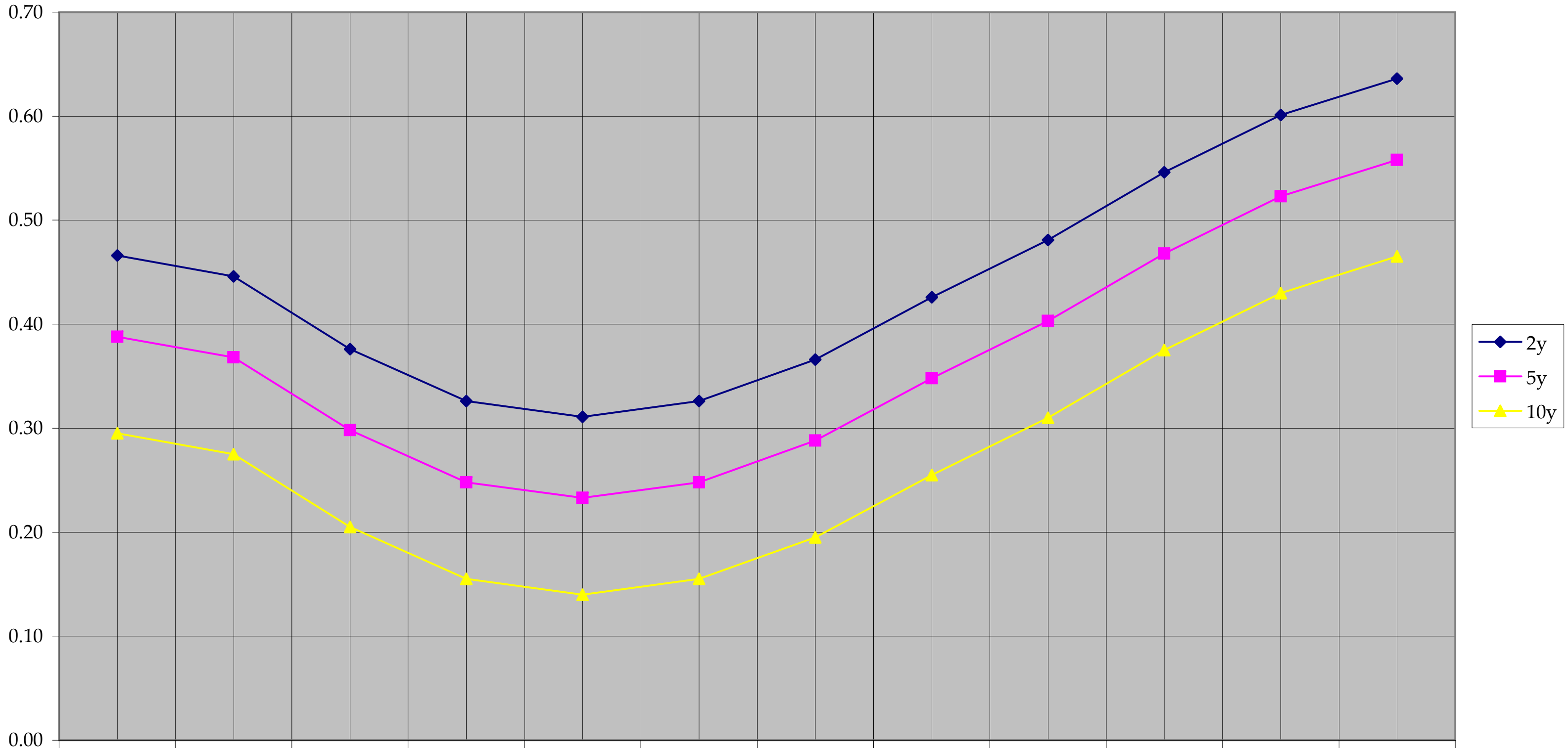
Dirty TED Curve

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.



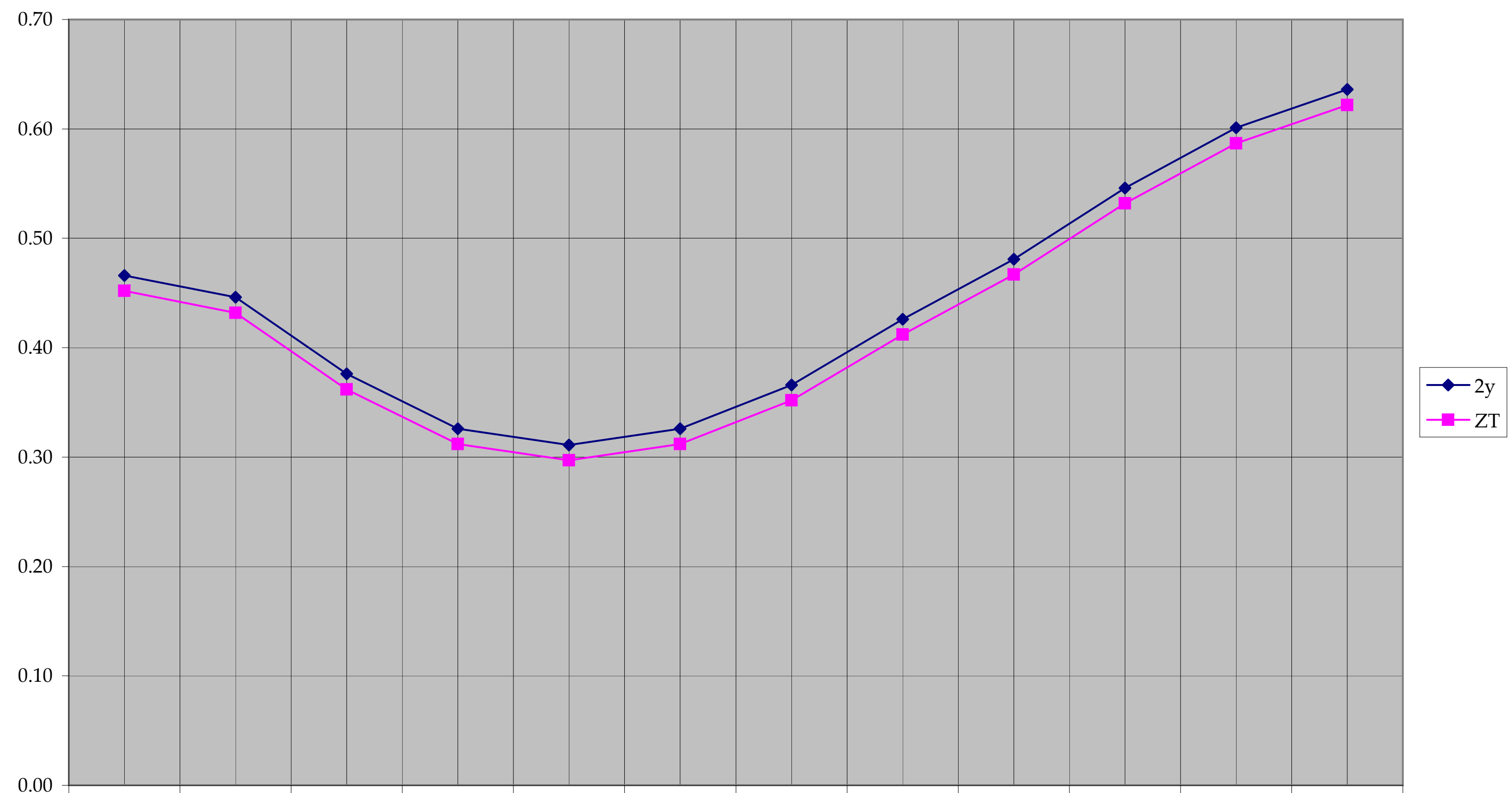
	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10
ZT	0.45	0.43	0.36	0.31	0.30	0.31	0.35	0.41	0.47	0.53	0.59	0.62
ZF	0.42	0.40	0.33	0.28	0.26	0.28	0.32	0.38	0.43	0.50	0.55	0.59
ZN	0.38	0.36	0.29	0.24	0.22	0.24	0.28	0.34	0.39	0.46	0.51	0.55

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.



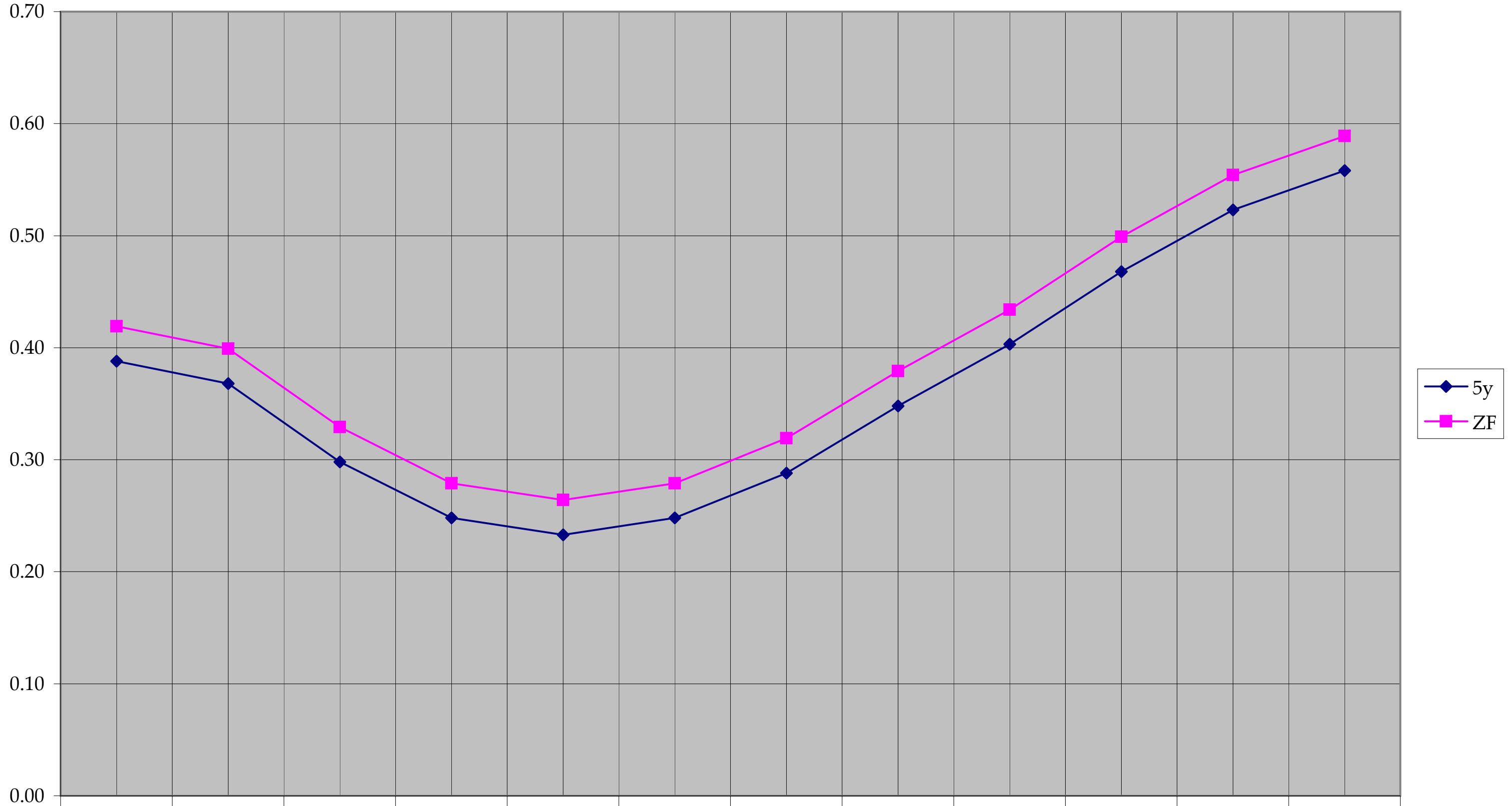
	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10
2y	0.47	0.45	0.38	0.33	0.31	0.33	0.37	0.43	0.48	0.55	0.60	0.64
5y	0.39	0.37	0.30	0.25	0.23	0.25	0.29	0.35	0.40	0.47	0.52	0.56
10y	0.30	0.27	0.21	0.16	0.14	0.16	0.19	0.25	0.31	0.38	0.43	0.47

2y Basis TED Curve



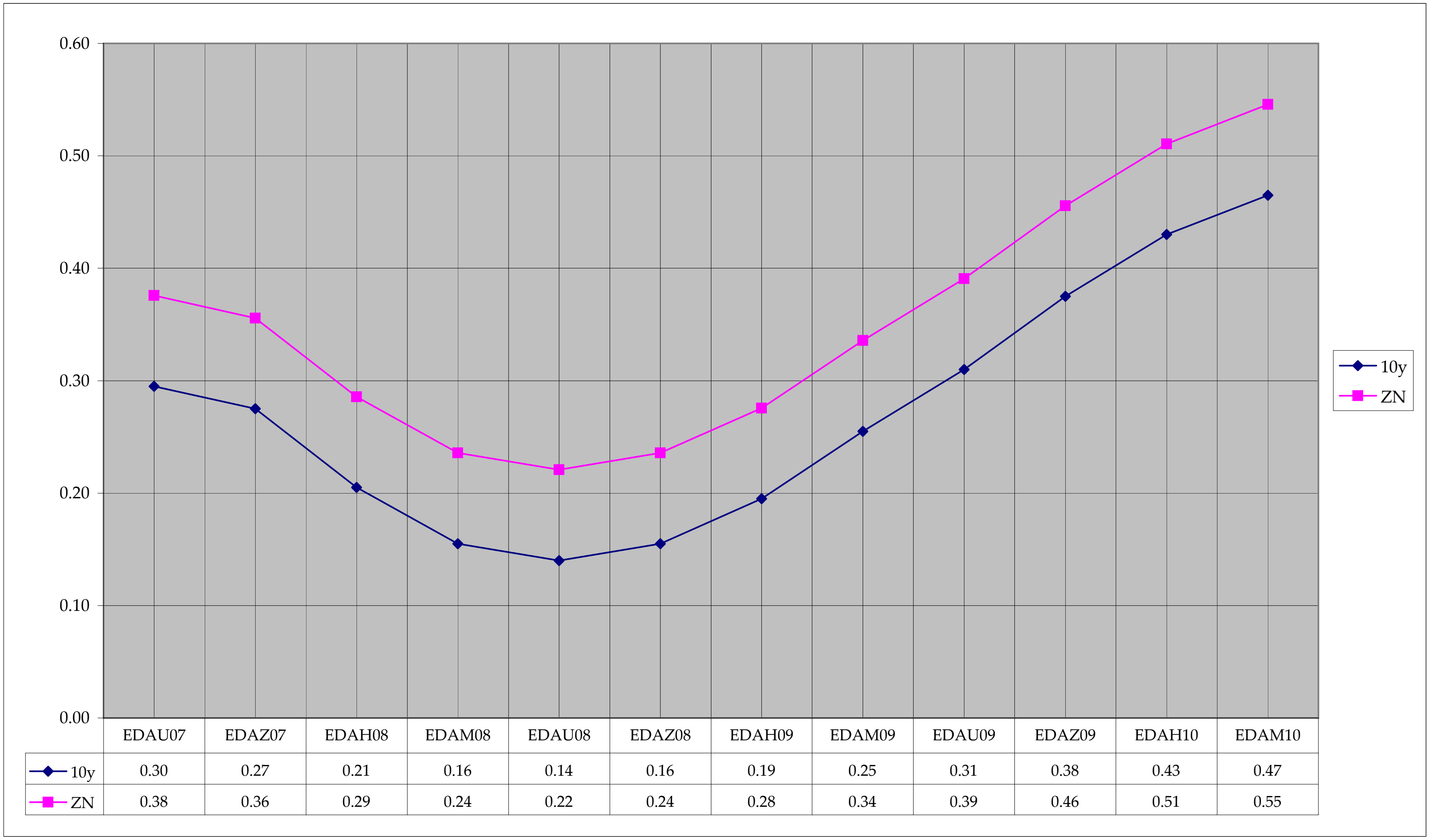
	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10
2y	0.47	0.45	0.38	0.33	0.31	0.33	0.37	0.43	0.48	0.55	0.60	0.64
ZT	0.45	0.43	0.36	0.31	0.30	0.31	0.35	0.41	0.47	0.53	0.59	0.62

5y Basis TED Curve



	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10
5y	0.39	0.37	0.30	0.25	0.23	0.25	0.29	0.35	0.40	0.47	0.52	0.56
ZF	0.42	0.40	0.33	0.28	0.26	0.28	0.32	0.38	0.43	0.50	0.55	0.59

10y Basis TED Curve



Packs

	last Yield	Net Last Yield	Last Price
Q.ED.White	5.422	-1.000	9472.250
Q.ED.Red	5.374	-1.250	9476.875
Q.ED.Green	5.592	-0.875	9456.000
Q.ED.Blue		0.000	9440.000
Q.ED.Gold		0.000	9427.250
Q.ED.Purple		0.000	9427.250