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	107.8594	107.275	1.236	1.92
ZF	115.3281	115.105	2.076	4.08
ZN	119.7656	119.245	3.075	6.67
2y	101.375	101.1200	1.281	1.91
5y	102.428	102.1370	2.227	4.61
10y	101.359	101.1150	3.338	8.31

Eurodollars (ED)	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAH08	97.420	2.580	0	-0.001	MAR	White Pack
EDAM08	98.140	1.860	91	0.249	JUN	
EDAU08	98.245	1.755	182	0.498	SEP	
EDAZ08	98.185	1.815	273	0.747	DEC	
EDAH09	98.120	1.880	364	0.997	MAR	Red Pack
EDAM09	97.930	2.070	455	1.246	JUN	
EDAU09	97.705	2.295	546	1.495	SEP	
EDAZ09	97.435	2.565	637	1.745	DEC	
EDAH10	97.175	2.825	728	1.994	MAR	Green Pack
EDAM10	96.925	3.075	819	2.243	JUN	
EDAU10	96.685	3.315	910	2.492	SEP	
EDAZ10	96.460	3.540	1001	2.742	DEC	
EDAH11	96.280	3.720	1092	2.991	MAR	Blue Pack
EDAM11	96.110	3.890	1183	3.240	JUN	
EDAU11	95.930	4.070	1281	3.509	SEP	
EDAZ11	95.775	4.225	1372	3.758	DEC	
EDAH12	95.580	4.420	1463	4.008	MAR	Gold Pack
EDAM12	95.460	4.540	1554	4.257	JUN	
EDAU12	95.340	4.660	1645	4.506	SEP	
EDAU12	95.340	4.660	1645	4.506	SEP	

	Last Yield	Net Yield	Last Price	
Q.ED.White	2.041	17.687	9799.750	Pack Prices
Q.ED.Red	2.246	16.500	9779.750	
Q.ED.Green	1.849	19.000	9818.500	
Q.ED.Blue	4.072	10.000	9602.375	
Q.ED.Gold		0.000	9540.000	

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

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

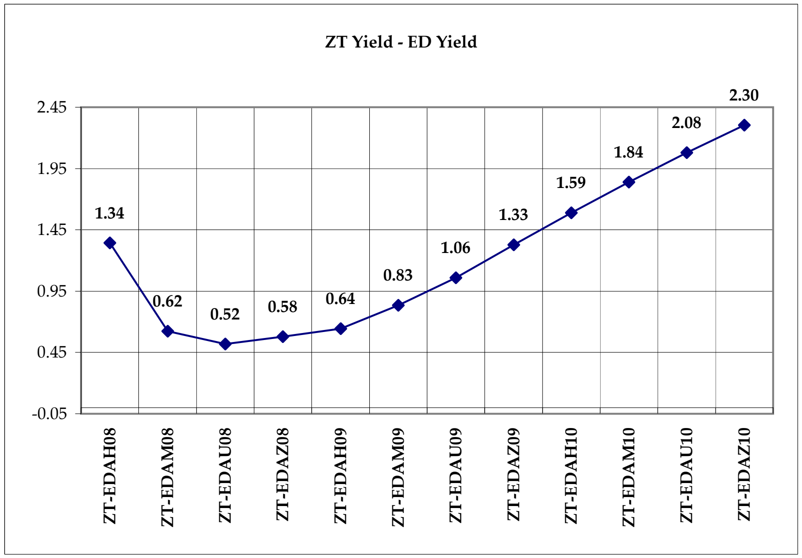
Eurodollar Color Codes for Individual Year Strips:

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

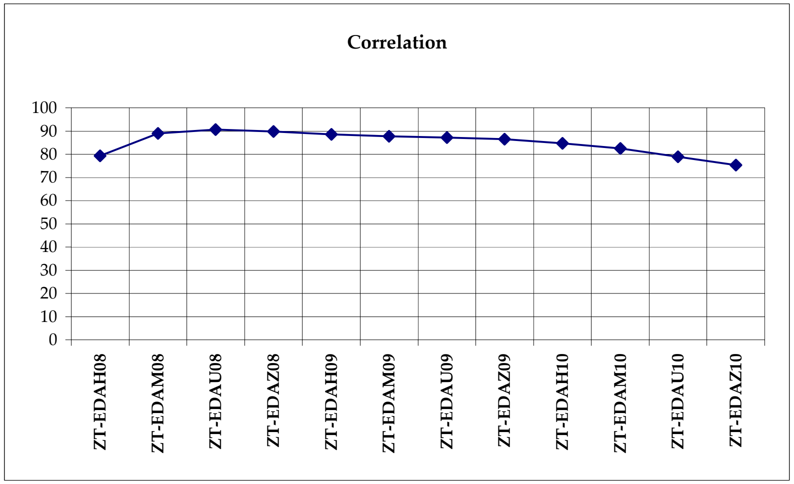
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	10.439	1.34	ZT-EDAH08	79.260
EDAM08	9.719	0.62	ZT-EDAM08	88.909
EDAU08	9.614	0.52	ZT-EDAU08	90.578
EDAZ08	9.674	0.58	ZT-EDAZ08	89.797
EDAH09	9.739	0.64	ZT-EDAH09	88.490
EDAM09	9.929	0.83	ZT-EDAM09	87.782
EDAU09	10.154	1.06	ZT-EDAU09	87.172
EDAZ09	10.424	1.33	ZT-EDAZ09	86.493
EDAH10	10.684	1.59	ZT-EDAH10	84.697
EDAM10	10.934	1.84	ZT-EDAM10	82.417
EDAU10	11.174	2.08	ZT-EDAU10	78.843
EDAZ10	11.399	2.30	ZT-EDAZ10	75.278

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	-0.001	1.92	1.92	ZT-EDAH08
EDAM08	0.249	1.92	1.67	ZT-EDAM08
EDAU08	0.498	1.92	1.43	ZT-EDAU08
EDAZ08	0.747	1.92	1.18	ZT-EDAZ08
EDAH09	0.997	1.92	0.93	ZT-EDAH09
EDAM09	1.246	1.92	0.68	ZT-EDAM09
EDAU09	1.495	1.92	0.43	ZT-EDAU09
EDAZ09	1.745	1.92	0.18	ZT-EDAZ09
EDAH10	1.994	1.92	(0.07)	ZT-EDAH10
EDAM10	2.243	1.92	(0.32)	ZT-EDAM10
EDAU10	2.492	1.92	(0.57)	ZT-EDAU10
EDAZ10	2.742	1.92	(0.82)	ZT-EDAZ10

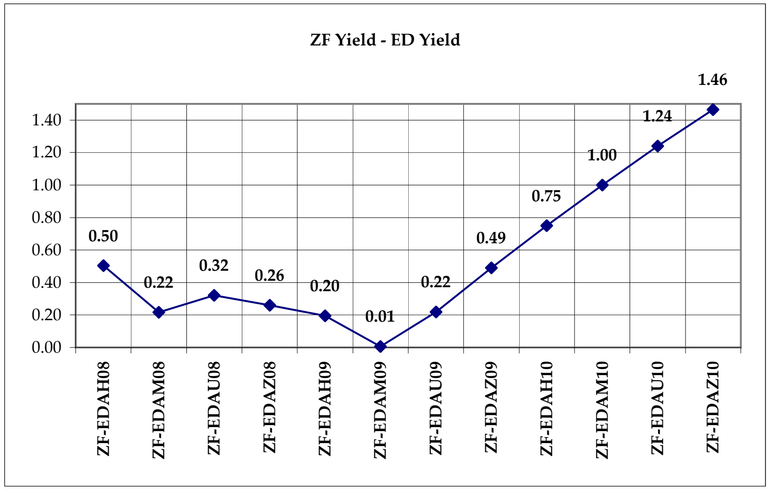
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	17.91	0.50	ZF-EDAH08	88.198
EDAM08	17.19	0.22	ZF-EDAM08	94.069
EDAU08	17.08	0.32	ZF-EDAU08	95.117
EDAZ08	17.14	0.26	ZF-EDAZ08	93.983
EDAH09	17.21	0.20	ZF-EDAH09	92.831
EDAM09	17.40	0.01	ZF-EDAM09	92.677
EDAU09	17.62	0.22	ZF-EDAU09	92.479
EDAZ09	17.89	0.49	ZF-EDAZ09	91.958
EDAH10	18.15	0.75	ZF-EDAH10	90.386
EDAM10	18.40	1.00	ZF-EDAM10	88.363
EDAU10	18.64	1.24	ZF-EDAU10	85.233
EDAZ10	18.87	1.46	ZF-EDAZ10	82.056

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	-0.001	4.08	4.08	ZF-EDAH08
EDAM08	0.249	4.08	3.83	ZF-EDAM08
EDAU08	0.498	4.08	3.58	ZF-EDAU08
EDAZ08	0.747	4.08	3.33	ZF-EDAZ08
EDAH09	0.997	4.08	3.08	ZF-EDAH09
EDAM09	1.246	4.08	2.83	ZF-EDAM09
EDAU09	1.495	4.08	2.58	ZF-EDAU09
EDAZ09	1.745	4.08	2.33	ZF-EDAZ09
EDAH10	1.994	4.08	2.09	ZF-EDAH10
EDAM10	2.243	4.08	1.84	ZF-EDAM10
EDAU10	2.492	4.08	1.59	ZF-EDAU10
EDAZ10	2.742	4.08	1.34	ZF-EDAZ10

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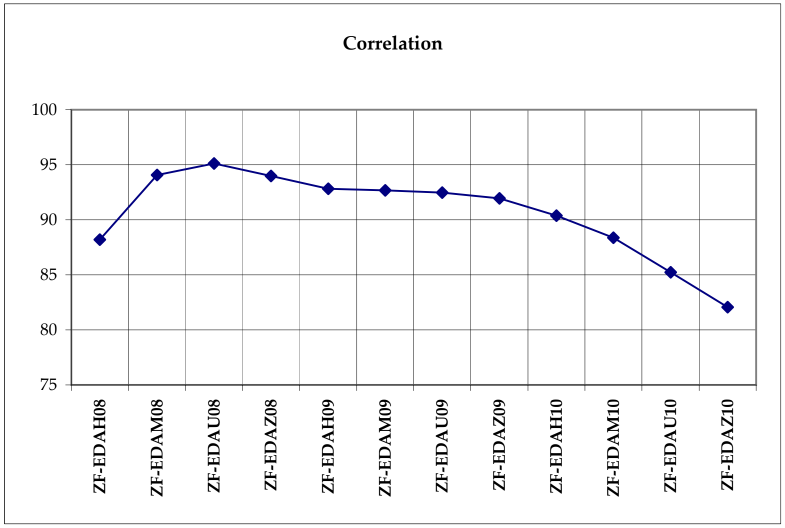

Dirty TED: ZN vs Eurodollar Contracts

	ZN			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	22.35	0.49	ZN-EDAH08	97.37
EDAM08	21.63	1.21	ZN-EDAM08	96.04
EDAU08	21.52	1.32	ZN-EDAU08	95.62
EDAZ08	21.58	1.26	ZN-EDAZ08	94.16
EDAH09	21.65	1.19	ZN-EDAH09	92.91
EDAM09	21.84	1.00	ZN-EDAM09	93.28
EDAU09	22.06	0.78	ZN-EDAU09	93.62
EDAZ09	22.33	0.51	ZN-EDAZ09	93.41
EDAH10	22.59	0.25	ZN-EDAH10	90.39
EDAM10	22.84	0.00	ZN-EDAM10	88.36
EDAU10	23.08	0.24	ZN-EDAU10	85.23
EDAZ10	23.31	0.47	ZN-EDAZ10	82.06

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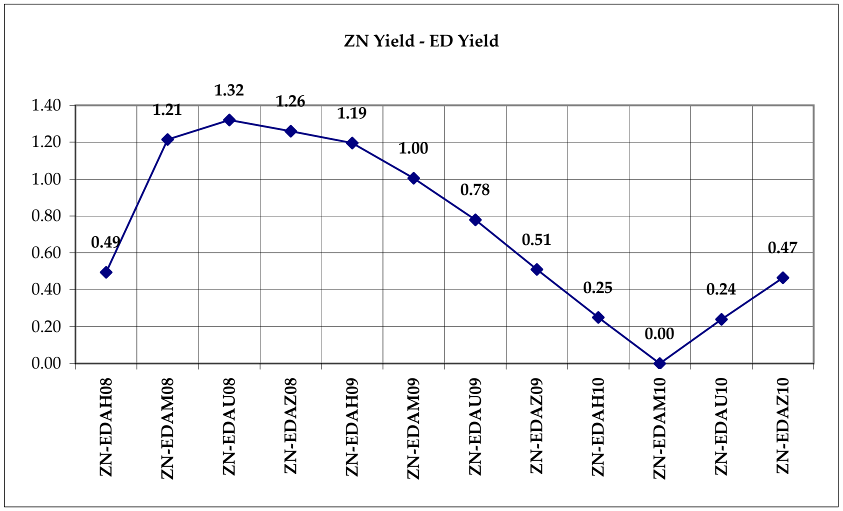

	GE Duration as Fraction of year	ZN Duration	Spread Duration	
EDAH08	-0.001	6.67	6.68	ZN-EDAH08
EDAM08	0.249	6.67	6.43	ZN-EDAM08
EDAU08	0.498	6.67	6.18	ZN-EDAU08
EDAZ08	0.747	6.67	5.93	ZN-EDAZ08
EDAH09	0.997	6.67	5.68	ZN-EDAH09
EDAM09	1.246	6.67	5.43	ZN-EDAM09
EDAU09	1.495	6.67	5.18	ZN-EDAU09
EDAZ09	1.745	6.67	4.93	ZN-EDAZ09
EDAH10	1.994	6.67	4.68	ZN-EDAH10
EDAM10	2.243	6.67	4.43	ZN-EDAM10
EDAU10	2.492	6.67	4.18	ZN-EDAU10
EDAZ10	2.742	6.67	3.93	ZN-EDAZ10

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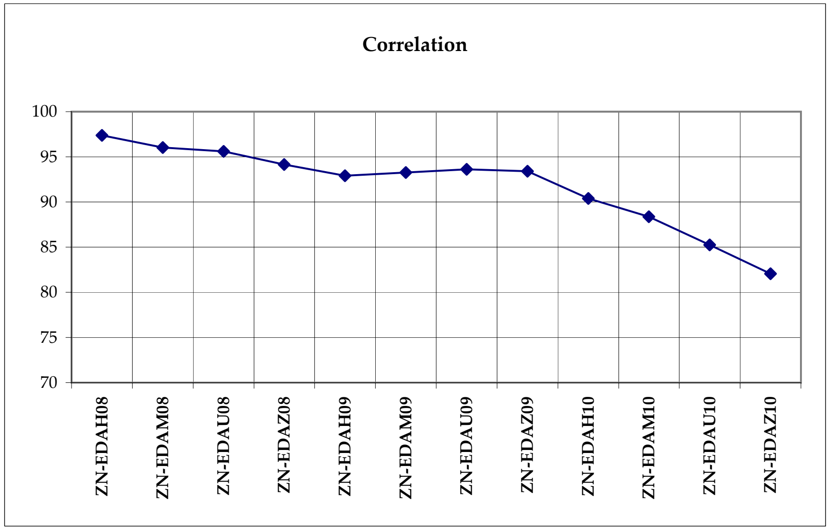

TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH08	3.96	1.30	2y-EDAH08	-75.663
EDAM08	3.24	0.58	2y-EDAM08	-83.870
EDAU08	3.13	0.47	2y-EDAU08	-84.295
EDAZ08	3.19	0.53	2y-EDAZ08	-83.870
EDAH09	3.26	0.60	2y-EDAH09	-81.772
EDAM09	3.45	0.79	2y-EDAM09	-81.599
EDAU09	3.67	1.01	2y-EDAU09	-81.635
EDAZ09	3.94	1.28	2y-EDAZ09	-80.783
EDAH10	4.20	1.54	2y-EDAH10	-78.118
EDAM10	4.45	1.79	2y-EDAM10	-74.998
EDAU10	4.69	2.03	2y-EDAU10	-70.568
EDAZ10	4.92	2.26	2y-EDAZ10	-66.339

Price = Outright Decimal Price - Euro Contract Price
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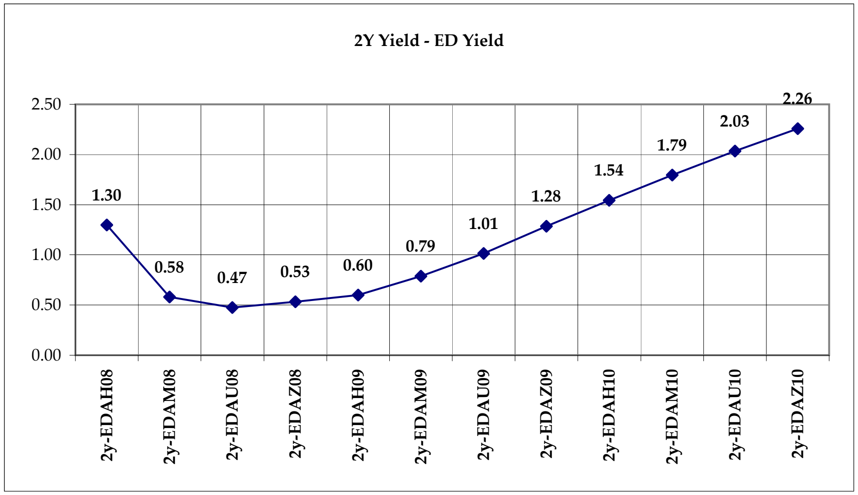


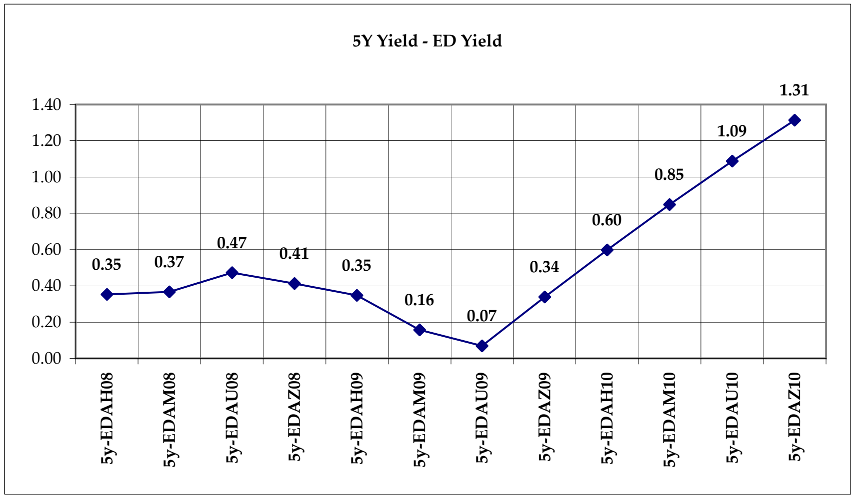
	GE Duration as Fraction of year	2Y Duration	Spread Duration	
EDAH08	-0.001	1.91	1.91	2y-EDAH08
EDAM08	0.249	1.91	1.66	2y-EDAM08
EDAU08	0.498	1.91	1.41	2y-EDAU08
EDAZ08	0.747	1.91	1.16	2y-EDAZ08
EDAH09	0.997	1.91	0.91	2y-EDAH09
EDAM09	1.246	1.91	0.66	2y-EDAM09
EDAU09	1.495	1.91	0.41	2y-EDAU09
EDAZ09	1.745	1.91	0.16	2y-EDAZ09
EDAH10	1.994	1.91	(0.08)	2y-EDAH10
EDAM10	2.243	1.91	(0.33)	2y-EDAM10
EDAU10	2.492	1.91	(0.58)	2y-EDAU10
EDAZ10	2.742	1.91	(0.83)	2y-EDAZ10

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

TERM TED: 5y vs Eurodollar Contracts

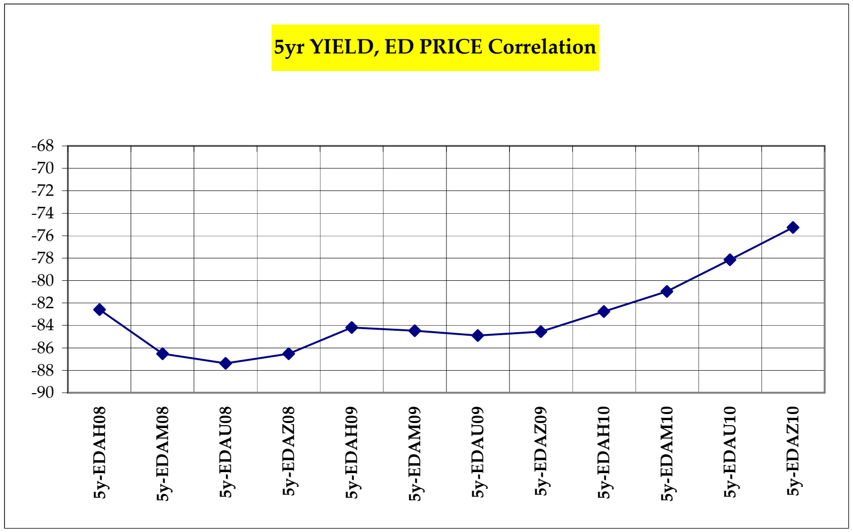
	5y			
	Spread Price	**Spread Yield**	**Spread Name**	**Correlation* (percent)**
EDAH08	5.01	0.35	5y-EDAH08	-82.586
EDAM08	4.29	0.37	5y-EDAM08	-86.523
EDAU08	4.18	0.47	5y-EDAU08	-87.387
EDAZ08	4.24	0.41	5y-EDAZ08	-86.523
EDAH09	4.31	0.35	5y-EDAH09	-84.185
EDAM09	4.50	0.16	5y-EDAM09	-84.462
EDAU09	4.72	0.07	5y-EDAU09	-84.911
EDAZ09	4.99	0.34	5y-EDAZ09	-84.569
EDAH10	5.25	0.60	5y-EDAH10	-82.759
EDAM10	5.50	0.85	5y-EDAM10	-80.966
EDAU10	5.74	1.09	5y-EDAU10	-78.134
EDAZ10	5.97	1.31	5y-EDAZ10	-75.274

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	-0.001	4.61	4.61	5y-EDAH08
EDAM08	0.249	4.61	4.36	5y-EDAM08
EDAU08	0.498	4.61	4.11	5y-EDAU08
EDAZ08	0.747	4.61	3.86	5y-EDAZ08
EDAH09	0.997	4.61	3.61	5y-EDAH09
EDAM09	1.246	4.61	3.36	5y-EDAM09
EDAU09	1.495	4.61	3.11	5y-EDAU09
EDAZ09	1.745	4.61	2.87	5y-EDAZ09
EDAH10	1.994	4.61	2.62	5y-EDAH10
EDAM10	2.243	4.61	2.37	5y-EDAM10
EDAU10	2.492	4.61	2.12	5y-EDAU10
EDAZ10	2.742	4.61	1.87	5y-EDAZ10

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)
EDAH08	5.01	0.76	10y-EDAH08	-90.765
EDAM08	4.29	1.48	10y-EDAM08	-86.276
EDAU08	4.18	1.58	10y-EDAU08	-85.595
EDAZ08	4.24	1.52	10y-EDAZ08	-86.276
EDAH09	4.31	1.46	10y-EDAH09	-81.085
EDAM09	4.50	1.27	10y-EDAM09	-81.733
EDAU09	4.72	1.04	10y-EDAU09	-82.866
EDAZ09	4.99	0.77	10y-EDAZ09	-82.913
EDAH10	5.25	0.51	10y-EDAH10	-82.008
EDAM10	5.50	0.26	10y-EDAM10	-82.113
EDAU10	5.74	0.02	10y-EDAU10	-81.805
EDAZ10	5.97	0.20	10y-EDAZ10	-80.877

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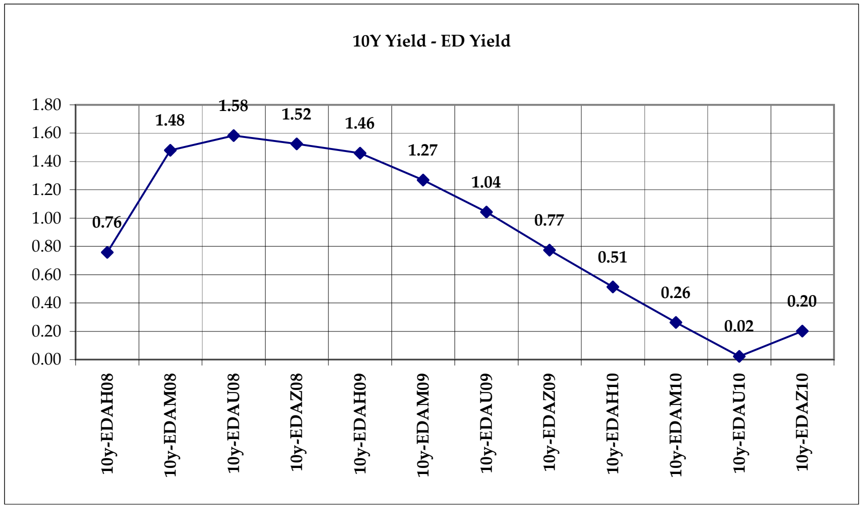
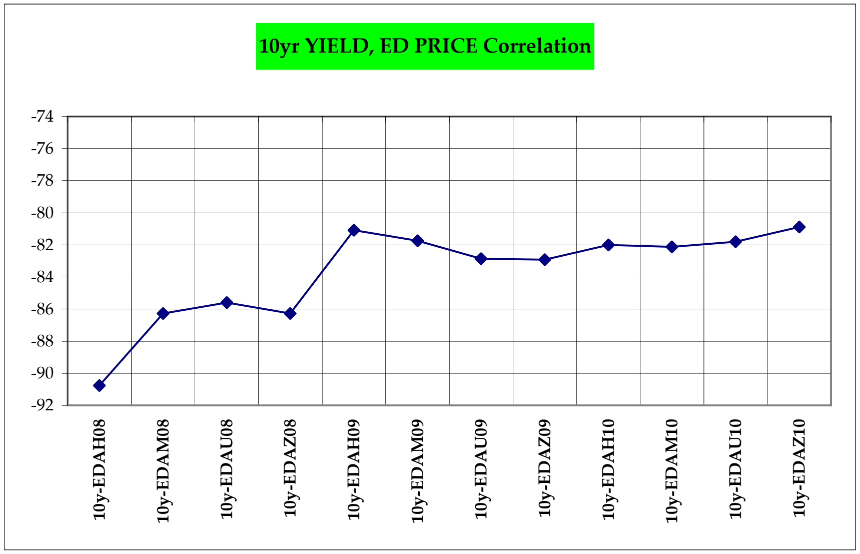


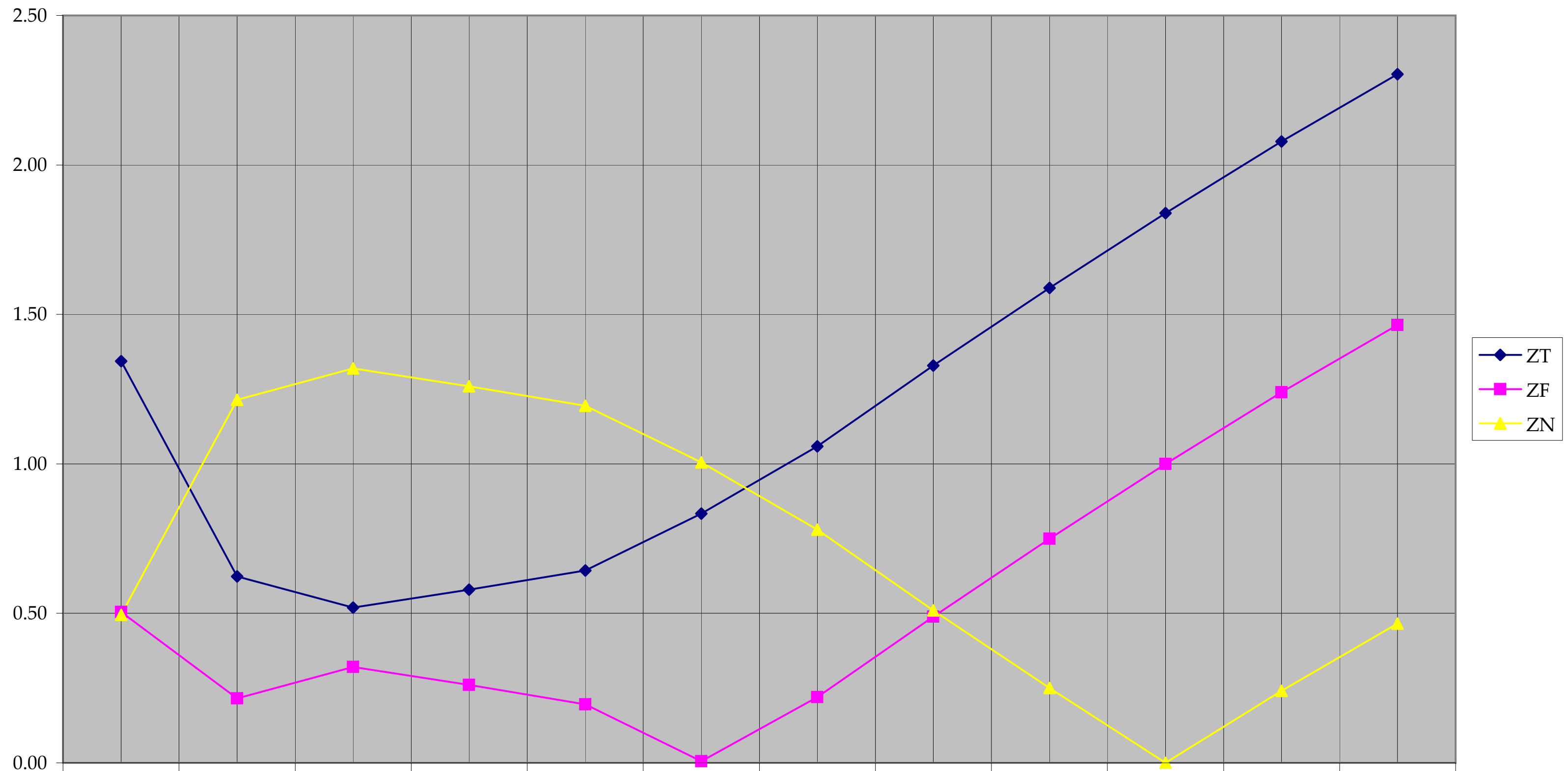
	GE Duration as Fraction of year	10Y Duration	Spread Duration	
EDAH08	-0.001	8.31	8.31	10y-EDAH08
EDAM08	0.249	8.31	8.06	10y-EDAM08
EDAU08	0.498	8.31	7.81	10y-EDAU08
EDAZ08	0.747	8.31	7.56	10y-EDAZ08
EDAH09	0.997	8.31	7.31	10y-EDAH09
EDAM09	1.246	8.31	7.06	10y-EDAM09
EDAU09	1.495	8.31	6.81	10y-EDAU09
EDAZ09	1.745	8.31	6.56	10y-EDAZ09
EDAH10	1.994	8.31	6.31	10y-EDAH10
EDAM10	2.243	8.31	6.07	10y-EDAM10
EDAU10	2.492	8.31	5.82	10y-EDAU10
EDAZ10	2.742	8.31	5.57	10y-EDAZ10

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



Dirty TED Curve

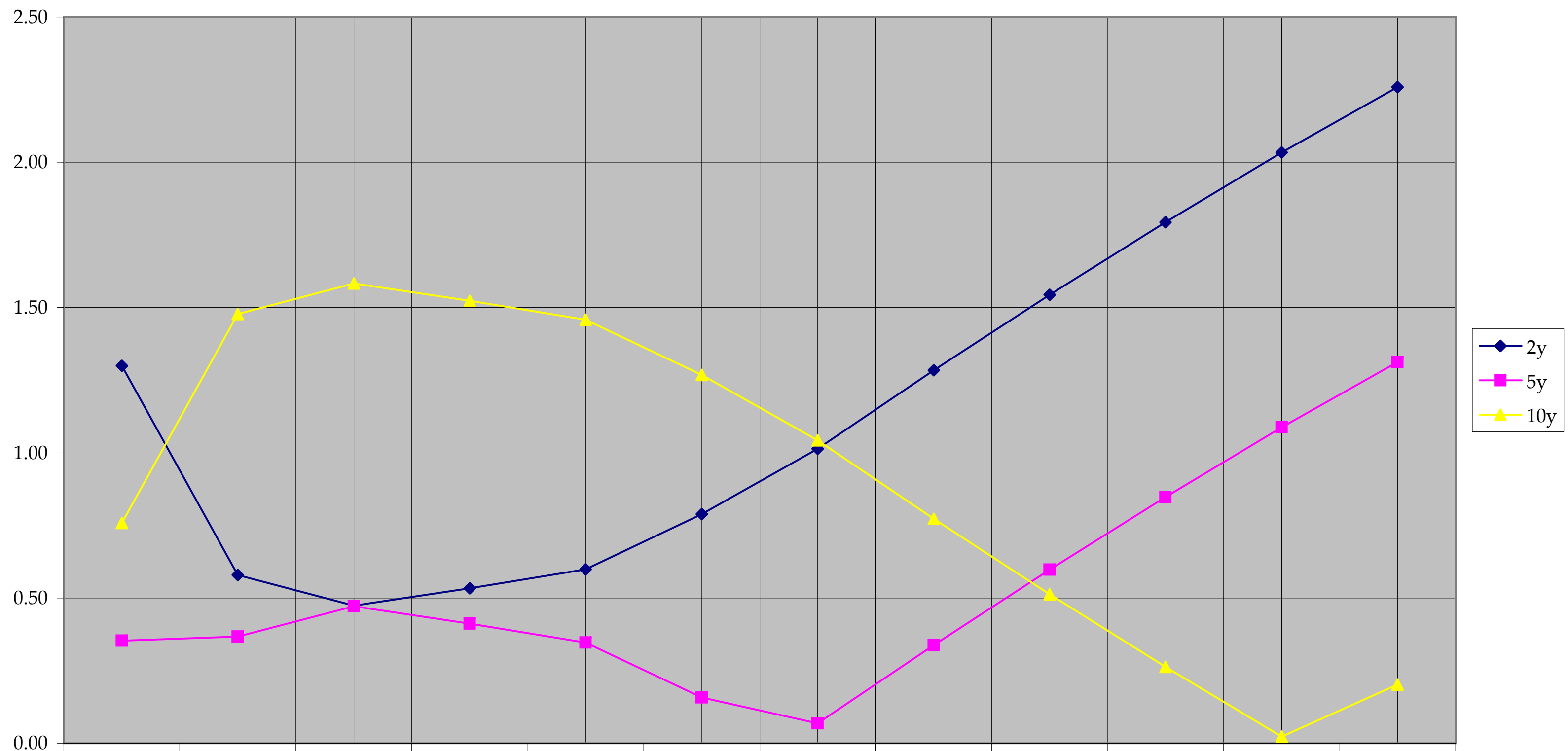
Chart values show the differences between ED contract and Treasury Futures conctract. Those values can be seen in the table at the bottom of the chart.
Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10	EDAU10	EDAZ10
ZT	1.34	0.62	0.52	0.58	0.64	0.83	1.06	1.33	1.59	1.84	2.08	2.30
ZF	0.50	0.22	0.32	0.26	0.20	0.01	0.22	0.49	0.75	1.00	1.24	1.46
ZN	0.49	1.21	1.32	1.26	1.19	1.00	0.78	0.51	0.25	0.00	0.24	0.47

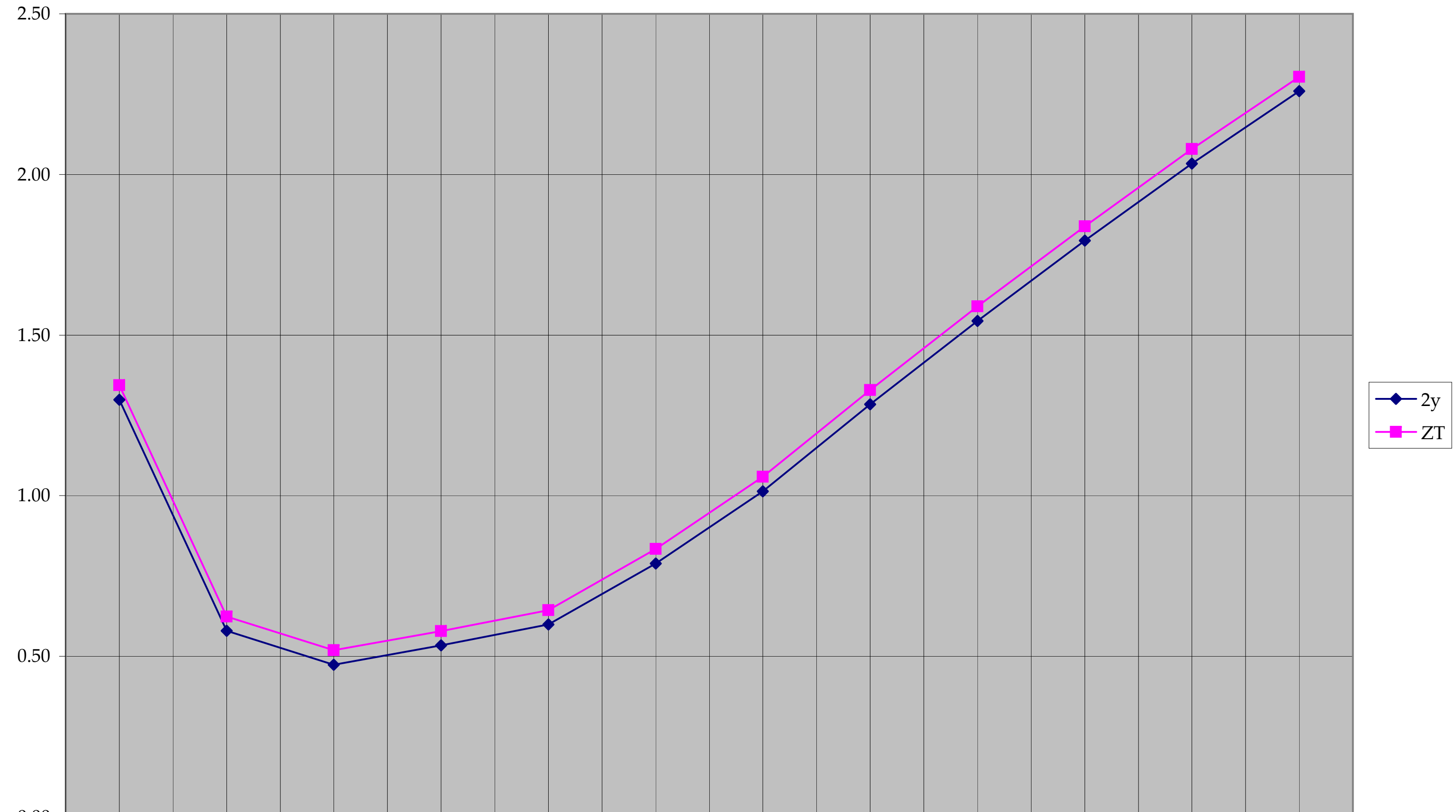
TED Curve

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.



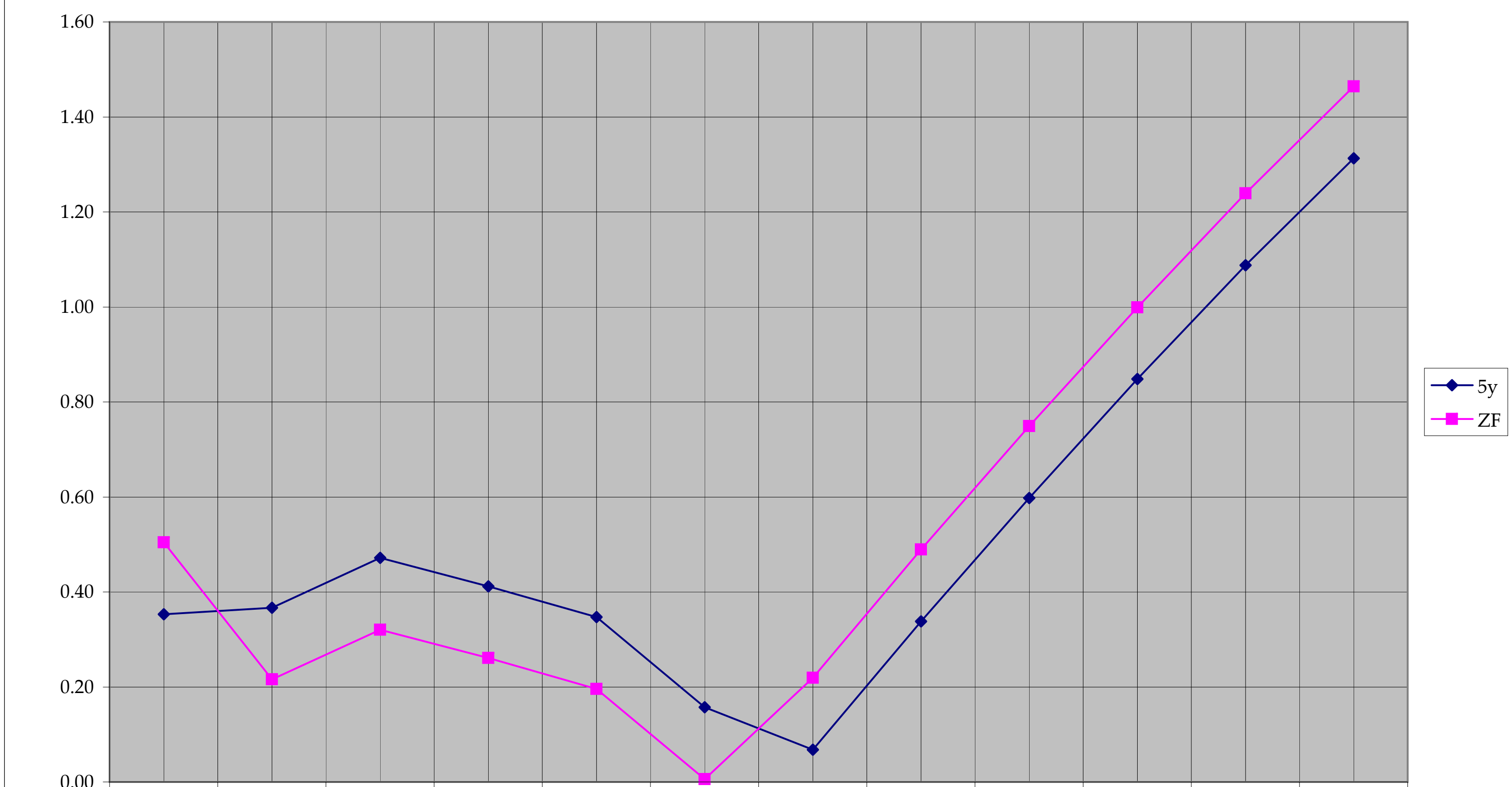
	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10	EDAU10	EDAZ10
2y	1.30	0.58	0.47	0.53	0.60	0.79	1.01	1.28	1.54	1.79	2.03	2.26
5y	0.35	0.37	0.47	0.41	0.35	0.16	0.07	0.34	0.60	0.85	1.09	1.31
10y	0.76	1.48	1.58	1.52	1.46	1.27	1.04	0.77	0.51	0.26	0.02	0.20

2y Basis TED Curve



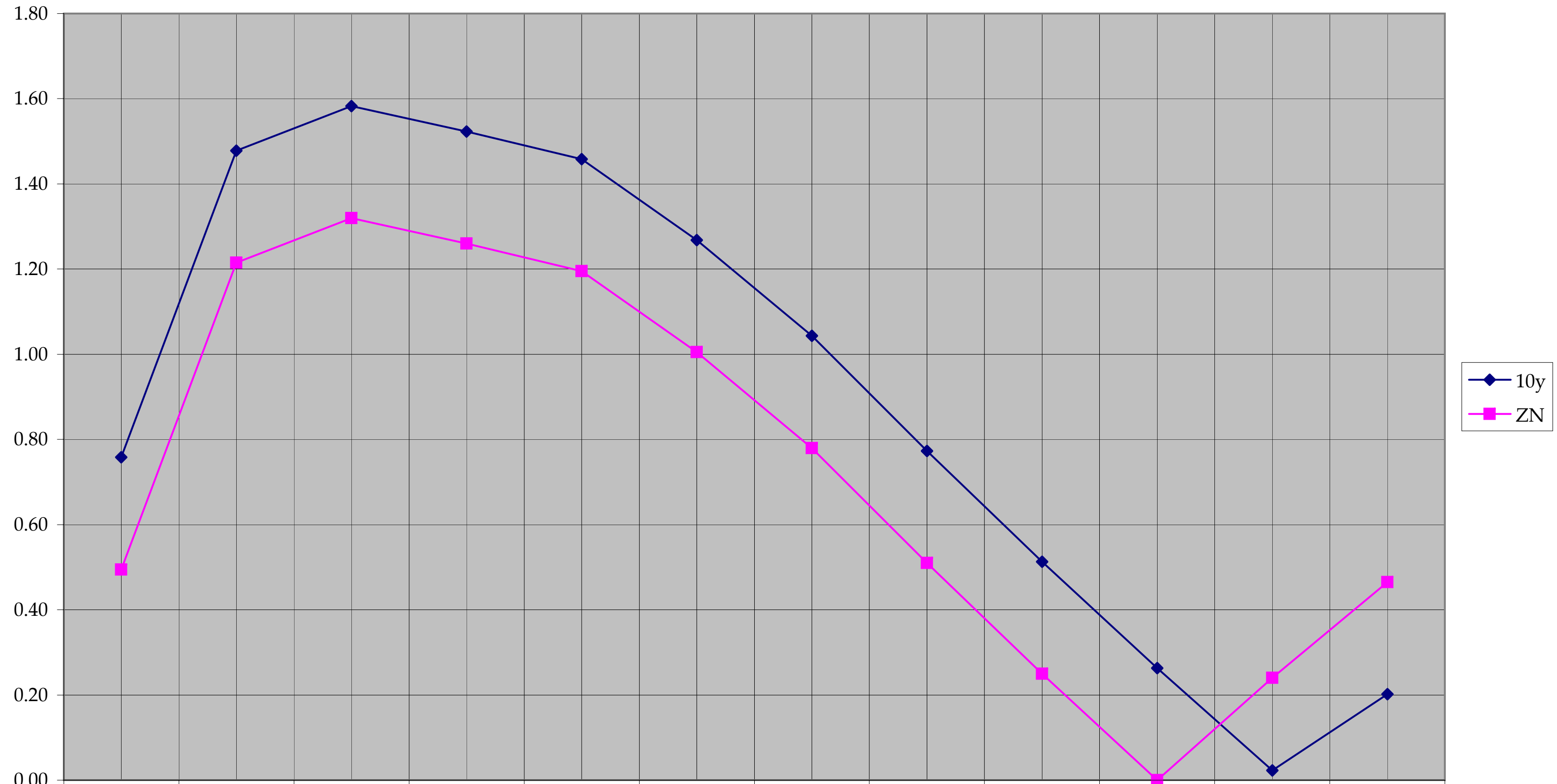
	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10	EDAU10	EDAZ10
2y	1.30	0.58	0.47	0.53	0.60	0.79	1.01	1.28	1.54	1.79	2.03	2.26
ZT	1.34	0.62	0.52	0.58	0.64	0.83	1.06	1.33	1.59	1.84	2.08	2.30

5y Basis TED Curve



	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10	EDAU10	EDAZ10
5y	0.35	0.37	0.47	0.41	0.35	0.16	0.07	0.34	0.60	0.85	1.09	1.31
ZF	0.50	0.22	0.32	0.26	0.20	0.01	0.22	0.49	0.75	1.00	1.24	1.46

10y Basis TED Curve



	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10	EDAU10	EDAZ10
10y	0.76	1.48	1.58	1.52	1.46	1.27	1.04	0.77	0.51	0.26	0.02	0.20
ZN	0.49	1.21	1.32	1.26	1.19	1.00	0.78	0.51	0.25	0.00	0.24	0.47

Packs

	last Yield	Net Last Yield	Last Price
Q.ED.White	2.041	17.687	9799.750
Q.ED.Red	2.246	16.500	9779.750
Q.ED.Green	1.849	19.000	9818.500
Q.ED.Blue	4.072	10.000	9602.375
Q.ED.Gold		0.000	9540.000