

The Morning Email: TERM TEDS & Dirty TEDS

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Want something added? Let me know: jgoulding@ghco.com

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Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	108.8594	108.2750	0.804	1.807
ZF	117.3438	117.1100	1.770	4.003
ZN	121.2969	121.0950	2.580	5.855
2y	99.9844	99.3150	0.883	1.940
5y	99.3344	99.1070	2.016	4.710
10y	99.6094	99.1950	3.171	8.398

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	99.2300	0.770	33	0.0897	JUN	
EDAU09	99.1950	0.805	124	0.3391	SEP	White Pack
EDAZ09	98.9900	1.010	215	0.5884	DEC	
EDAH10	98.8650	1.135	306	0.8377	MAR	
EDAM10	98.6300	1.370	397	1.0870	JUN	
EDAU10	98.3750	1.625	488	1.3363	SEP	Red Pack
EDAZ10	98.0750	1.925	579	1.5856	DEC	
EDAH11	97.8200	2.180	670	1.8349	MAR	
EDAM11	97.5350	2.465	761	2.0843	JUN	
EDAU11	97.2800	2.720	859	2.3528	SEP	Green Pack
EDAZ11	97.0250	2.975	950	2.6021	DEC	
EDAH12	96.8450	3.155	1,041	2.8514	MAR	
EDAM12	96.6700	3.330	1,132	3.1007	JUN	
EDAU12	96.5350	3.465	1,223	3.3500	SEP	Blue Pack
EDAZ12	96.3950	3.605	1,314	3.5993	DEC	
EDAH13	96.3250	3.675	1,405	3.8486	MAR	
EDAM13	96.2350	3.765	1,496	4.0980	JUN	
EDAU13	96.1450	3.855	1,587	4.3473	SEP	Gold Pack
EDAZ13	96.0350	3.965	1,678	4.5966	DEC	
EDAH14	95.9800	4.020	1,769	4.8459	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	0.945	3.500	9907.00	
Red Pack	1.808	2.000	9822.50	Pack Prices
Green Pack	2.889	1.125	9717.13	
Blue Pack	-1.000		9648.38	
Gold Pack		0.000	9610.25	

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

IF : '#VALUE!', then, no quote being provided by exchange.

If color of cell is orange, it's simply a 'note' for me.

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.

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Correlations (Important)

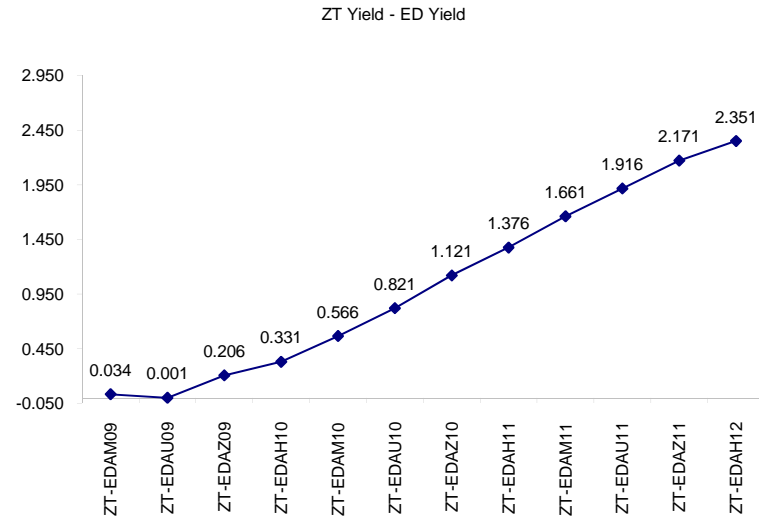
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based on yield than price.

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.63	0.034	ZT-EDAM09	46
EDAU09	9.66	0.001	ZT-EDAU09	45
EDAZ09	9.87	0.206	ZT-EDAZ09	49
EDAH10	9.99	0.331	ZT-EDAH10	59
EDAM10	10.23	0.566	ZT-EDAM10	68
EDAU10	10.48	0.821	ZT-EDAU10	75
EDAZ10	10.78	1.121	ZT-EDAZ10	81
EDAH11	11.04	1.376	ZT-EDAH11	86
EDAM11	11.32	1.661	ZT-EDAM11	89
EDAU11	11.58	1.916	ZT-EDAU11	90
EDAZ11	11.83	2.171	ZT-EDAZ11	91
EDAH12	12.01	2.351	ZT-EDAH12	89

Price = Outright Decimal Price - Euro Contract Price

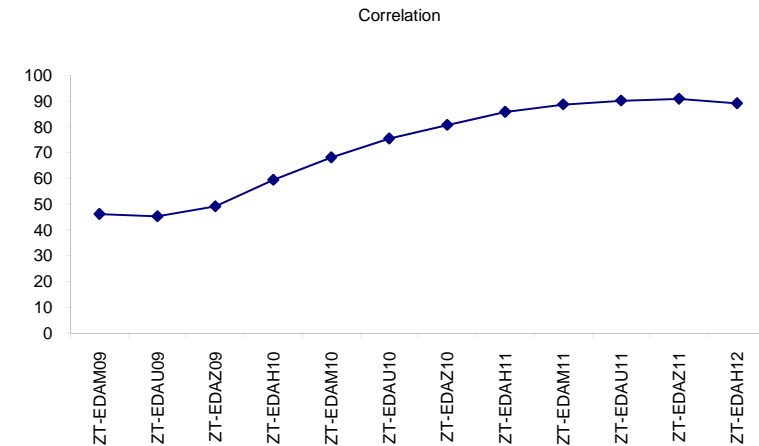
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



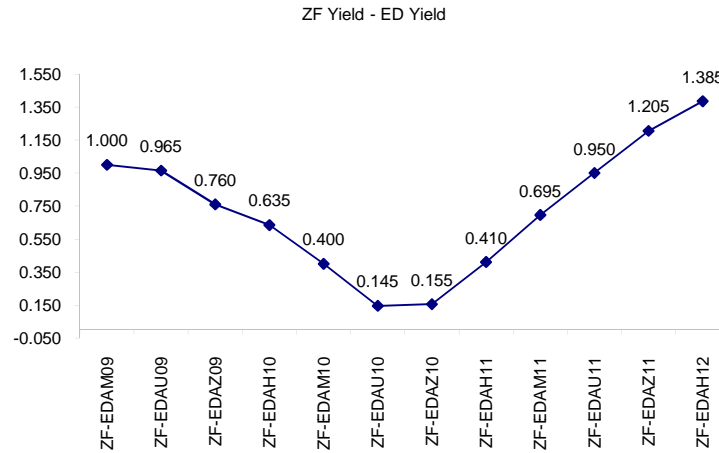
	ED Duration as Fraction of year		ZT Duration	Spread Duration	
EDAM09	0.0897	1.8069	1.7171	1.7171	ZT-EDAM09
EDAU09	0.3391	1.8069	1.4678	1.4678	ZT-EDAU09
EDAZ09	0.5884	1.8069	1.2185	1.2185	ZT-EDAZ09
EDAH10	0.8377	1.8069	0.9692	0.9692	ZT-EDAH10
EDAM10	1.0870	1.8069	0.7199	0.7199	ZT-EDAM10
EDAU10	1.3363	1.8069	0.4706	0.4706	ZT-EDAU10
EDAZ10	1.5856	1.8069	0.2212	0.2212	ZT-EDAZ10
EDAH11	1.8349	1.8069	-0.0281	-0.0281	ZT-EDAH11
EDAM11	2.0843	1.8069	-0.2774	-0.2774	ZT-EDAM11
EDAU11	2.3528	1.8069	-0.5459	-0.5459	ZT-EDAU11
EDAZ11	2.6021	1.8069	-0.7952	-0.7952	ZT-EDAZ11
EDAH12	2.8514	1.8069	-1.0445	-1.0445	ZT-EDAH12

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



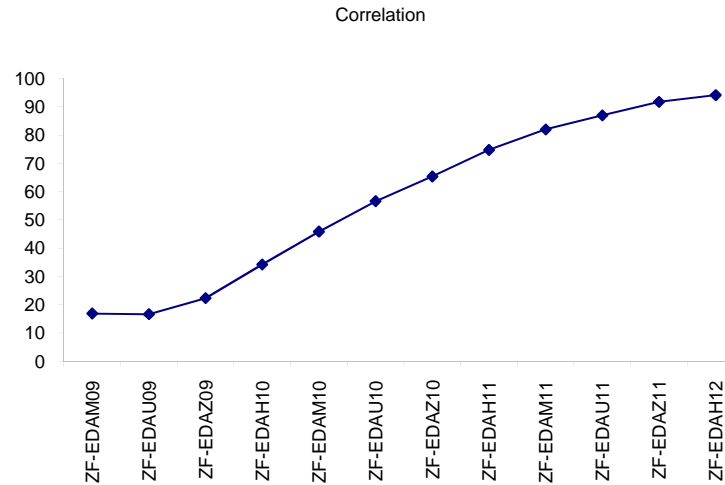
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	18.11	1.000	ZF-EDAM09	17
EDAU09	18.15	0.965	ZF-EDAU09	17
EDAZ09	18.35	0.760	ZF-EDAZ09	22
EDAH10	18.48	0.635	ZF-EDAH10	34
EDAM10	18.71	0.400	ZF-EDAM10	46
EDAU10	18.97	0.145	ZF-EDAU10	57
EDAZ10	19.27	0.155	ZF-EDAZ10	65
EDAH11	19.52	0.410	ZF-EDAH11	75
EDAM11	19.81	0.695	ZF-EDAM11	82
EDAU11	20.06	0.950	ZF-EDAU11	87
EDAZ11	20.32	1.205	ZF-EDAZ11	92
EDAH12	20.50	1.385	ZF-EDAH12	94

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



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM09	0.0897	4.0027	4.0027	3.9129	ZF-EDAM09
EDAU09	0.3391	4.0027	4.0027	3.6636	ZF-EDAU09
EDAZ09	0.5884	4.0027	4.0027	3.4143	ZF-EDAZ09
EDAH10	0.8377	4.0027	4.0027	3.1650	ZF-EDAH10
EDAM10	1.0870	4.0027	4.0027	2.9157	ZF-EDAM10
EDAU10	1.3363	4.0027	4.0027	2.6664	ZF-EDAU10
EDAZ10	1.5856	4.0027	4.0027	2.4171	ZF-EDAZ10
EDAH11	1.8349	4.0027	4.0027	2.1677	ZF-EDAH11
EDAM11	2.0843	4.0027	4.0027	1.9184	ZF-EDAM11
EDAU11	2.3528	4.0027	4.0027	1.6499	ZF-EDAU11
EDAZ11	2.6021	4.0027	4.0027	1.4006	ZF-EDAZ11
EDAH12	2.8514	4.0027	4.0027	1.1513	ZF-EDAH12

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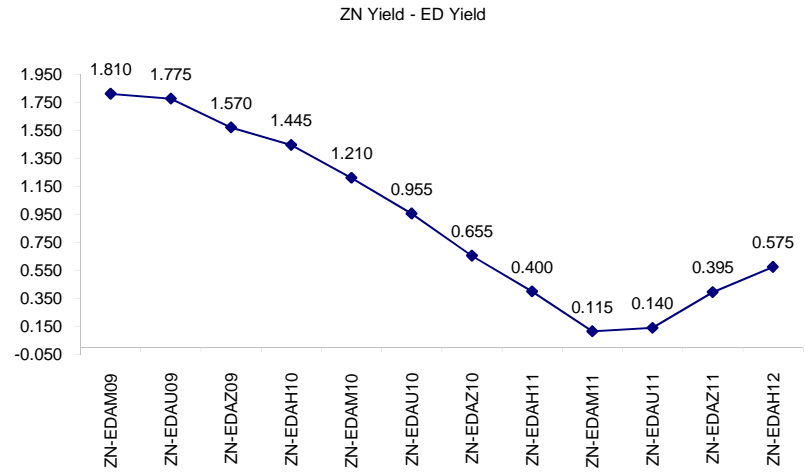


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	22.07	1.810	ZN-EDAM09	28
EDAU09	22.10	1.775	ZN-EDAU09	28
EDAZ09	22.31	1.570	ZN-EDAZ09	33
EDAH10	22.43	1.445	ZN-EDAH10	43
EDAM10	22.67	1.210	ZN-EDAM10	53
EDAU10	22.92	0.955	ZN-EDAU10	63
EDAZ10	23.22	0.655	ZN-EDAZ10	71
EDAH11	23.48	0.400	ZN-EDAH11	79
EDAM11	23.76	0.115	ZN-EDAM11	85
EDAU11	24.02	0.140	ZN-EDAU11	89
EDAZ11	24.27	0.395	ZN-EDAZ11	93
EDAH12	24.45	0.575	ZN-EDAH12	95

Price = Outright Decimal Price - Euro Contract Price

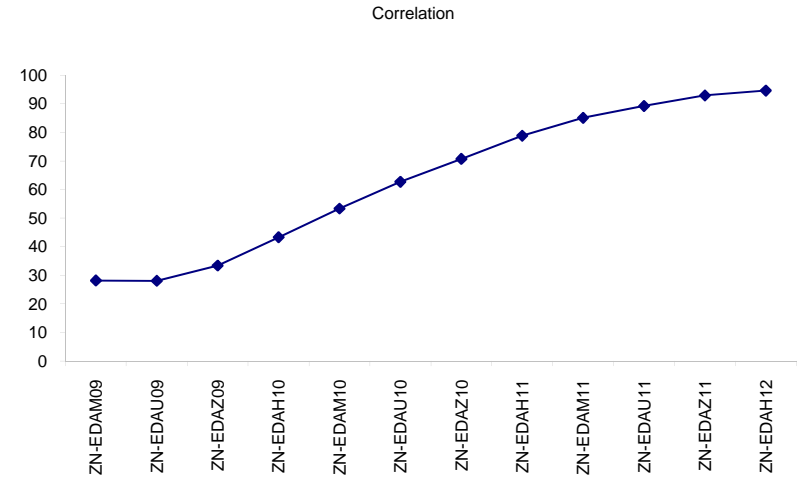
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year			
	Fraction of year	ZN Duration	Spread Duration
EDAM09	0.0897	5.8547	5.7649
EDAU09	0.3391	5.8547	5.5156
EDAZ09	0.5884	5.8547	5.2663
EDAH10	0.8377	5.8547	5.0170
EDAM10	1.0870	5.8547	4.7677
EDAU10	1.3363	5.8547	4.5184
EDAZ10	1.5856	5.8547	4.2690
EDAH11	1.8349	5.8547	4.0197
EDAM11	2.0843	5.8547	3.7704
EDAU11	2.3528	5.8547	3.5019
EDAZ11	2.6021	5.8547	3.2526
EDAH12	2.8514	5.8547	3.0033

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



	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.75	0.113	2y-EDAM09	-18
EDAU09	0.79	0.078	2y-EDAU09	-16
EDAZ09	0.99	0.127	2y-EDAZ09	-18
EDAH10	1.12	0.252	2y-EDAH10	-30
EDAM10	1.35	0.487	2y-EDAM10	-40
EDAU10	1.61	0.742	2y-EDAU10	-48
EDAZ10	1.91	1.042	2y-EDAZ10	-55
EDAH11	2.16	1.297	2y-EDAH11	-62
EDAM11	2.45	1.582	2y-EDAM11	-67
EDAU11	2.70	1.837	2y-EDAU11	-71
EDAZ11	2.96	2.092	2y-EDAZ11	-75
EDAH12	3.14	2.272	2y-EDAH12	-76

Price = Outright Decimal Price - Euro Contract Price

Yield = ABS (Proxy Yield - Implied Euro Contract yield)

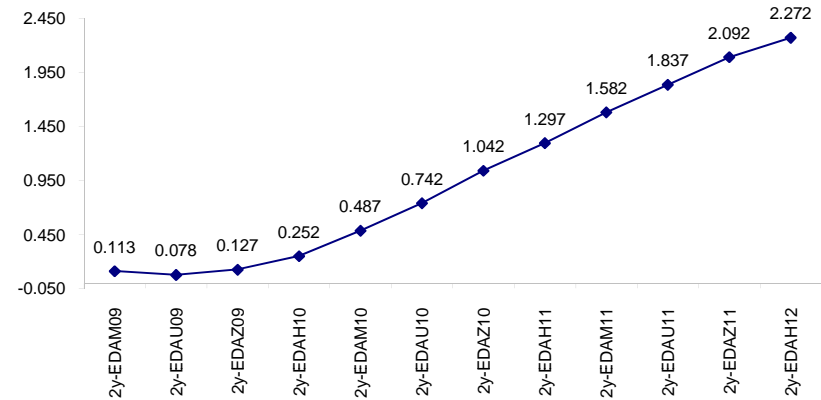
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

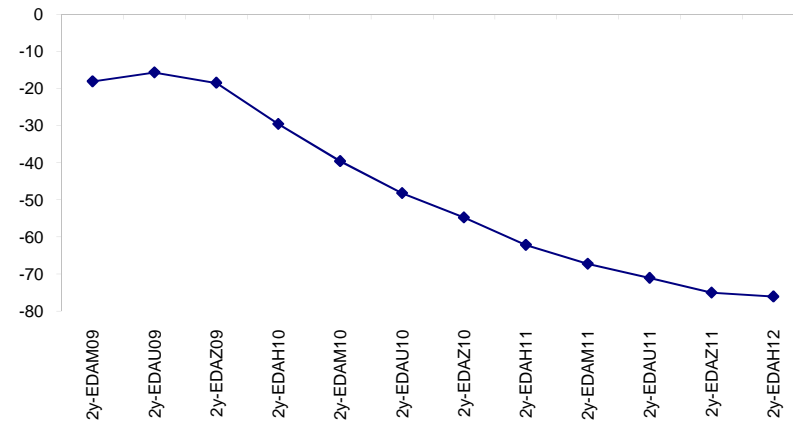
	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.0897	1.9404	1.8506	2y-EDAM09
EDAU09	0.3391	1.9404	1.6013	2y-EDAU09
EDAZ09	0.5884	1.9404	1.3520	2y-EDAZ09
EDAH10	0.8377	1.9404	1.1027	2y-EDAH10
EDAM10	1.0870	1.9404	0.8534	2y-EDAM10
EDAU10	1.3363	1.9404	0.6040	2y-EDAU10
EDAZ10	1.5856	1.9404	0.3547	2y-EDAZ10
EDAH11	1.8349	1.9404	0.1054	2y-EDAH11
EDAM11	2.0843	1.9404	-0.1439	2y-EDAM11
EDAU11	2.3528	1.9404	-0.4124	2y-EDAU11
EDAZ11	2.6021	1.9404	-0.6617	2y-EDAZ11
EDAH12	2.8514	1.9404	-0.9110	2y-EDAH12

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ZT Yield - ED Yield



Correlation



	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.10	1.246	5y-EDAM09	16
EDAU09	0.14	1.211	5y-EDAU09	18
EDAZ09	0.34	1.006	5y-EDAZ09	13
EDAH10	0.47	0.881	5y-EDAH10	1
EDAM10	0.70	0.646	5y-EDAM10	-11
EDAU10	0.96	0.391	5y-EDAU10	-23
EDAZ10	1.26	0.091	5y-EDAZ10	-33
EDAH11	1.51	0.164	5y-EDAH11	-45
EDAM11	1.80	0.449	5y-EDAM11	-55
EDAU11	2.05	0.704	5y-EDAU11	-63
EDAZ11	2.31	0.959	5y-EDAZ11	-71
EDAH12	2.49	1.139	5y-EDAH12	-78

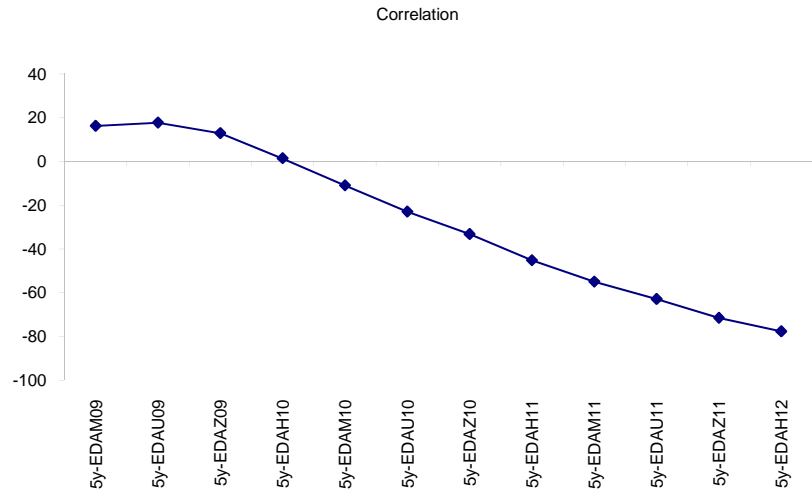
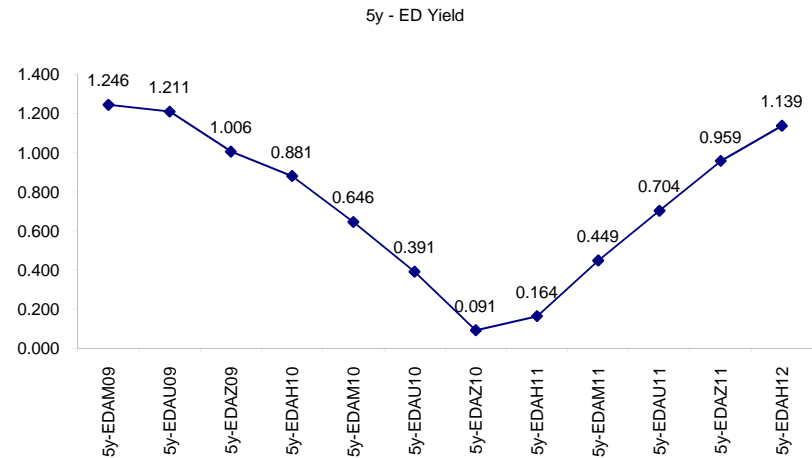
Price = Outright Decimal Price - Euro Contract Price

Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days

	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAM09	0.0897	4.7097	4.6200	5y-EDAM09	
EDAU09	0.3391	4.7097	4.3707	5y-EDAU09	
EDAZ09	0.5884	4.7097	4.1214	5y-EDAZ09	
EDAH10	0.8377	4.7097	3.8720	5y-EDAH10	
EDAM10	1.0870	4.7097	3.6227	5y-EDAM10	
EDAU10	1.3363	4.7097	3.3734	5y-EDAU10	
EDAZ10	1.5856	4.7097	3.1241	5y-EDAZ10	
EDAH11	1.8349	4.7097	2.8748	5y-EDAH11	
EDAM11	2.0843	4.7097	2.6255	5y-EDAM11	
EDAU11	2.3528	4.7097	2.3570	5y-EDAU11	
EDAZ11	2.6021	4.7097	2.1077	5y-EDAZ11	
EDAH12	2.8514	4.7097	1.8583	5y-EDAH12	

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

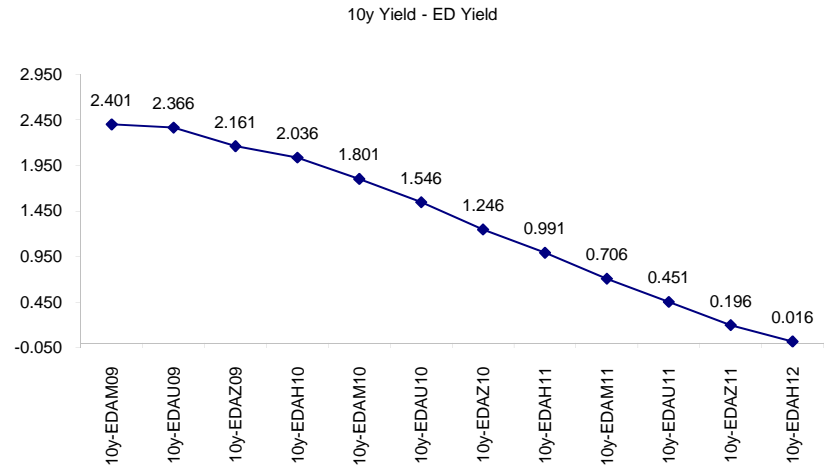


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.10	2.401	10y-EDAM09	35
EDAU09	0.14	2.366	10y-EDAU09	36
EDAZ09	0.34	2.161	10y-EDAZ09	30
EDAH10	0.47	2.036	10y-EDAH10	20
EDAM10	0.70	1.801	10y-EDAM10	8
EDAU10	0.96	1.546	10y-EDAU10	-4
EDAZ10	1.26	1.246	10y-EDAZ10	-15
EDAH11	1.51	0.991	10y-EDAH11	-28
EDAM11	1.80	0.706	10y-EDAM11	-40
EDAU11	2.05	0.451	10y-EDAU11	-49
EDAZ11	2.31	0.196	10y-EDAZ11	-60
EDAH12	2.49	0.016	10y-EDAH12	-68

Price = Outright Decimal Price - Euro Contract Price

Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		10Y Duration	Spread Duration	
EDAM09	0.0897	8.3976	8.3078	10y-EDAM09	
EDAU09	0.3391	8.3976	8.0585	10y-EDAU09	
EDAZ09	0.5884	8.3976	7.8092	10y-EDAZ09	
EDAH10	0.8377	8.3976	7.5599	10y-EDAH10	
EDAM10	1.0870	8.3976	7.3106	10y-EDAM10	
EDAU10	1.3363	8.3976	7.0613	10y-EDAU10	
EDAZ10	1.5856	8.3976	6.8120	10y-EDAZ10	
EDAH11	1.8349	8.3976	6.5626	10y-EDAH11	
EDAM11	2.0843	8.3976	6.3133	10y-EDAM11	
EDAU11	2.3528	8.3976	6.0448	10y-EDAU11	
EDAZ11	2.6021	8.3976	5.7955	10y-EDAZ11	
EDAH12	2.8514	8.3976	5.5462	10y-EDAH12	

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

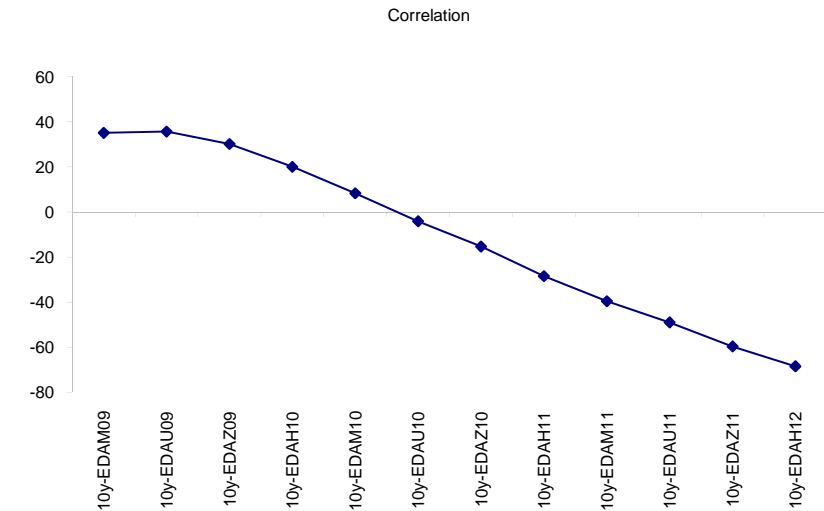


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

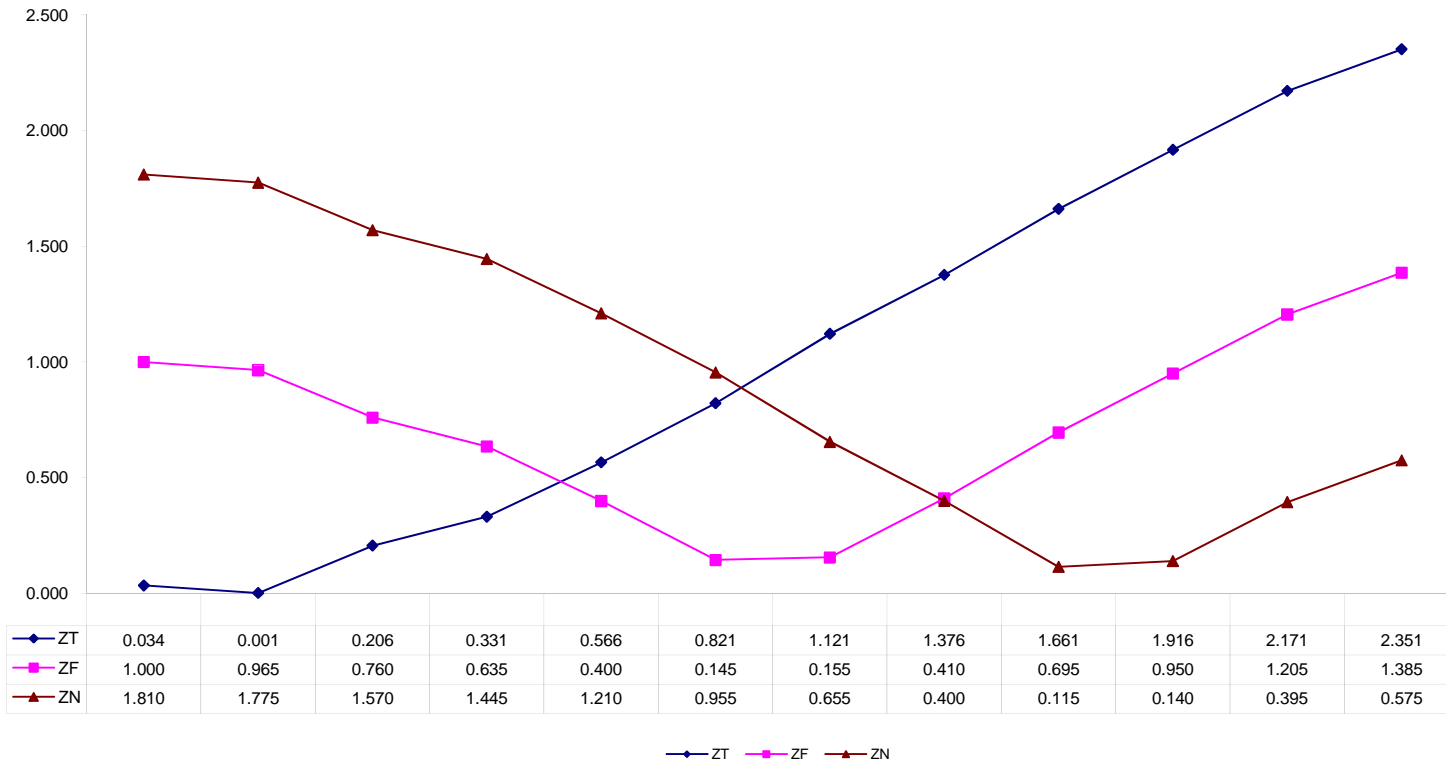
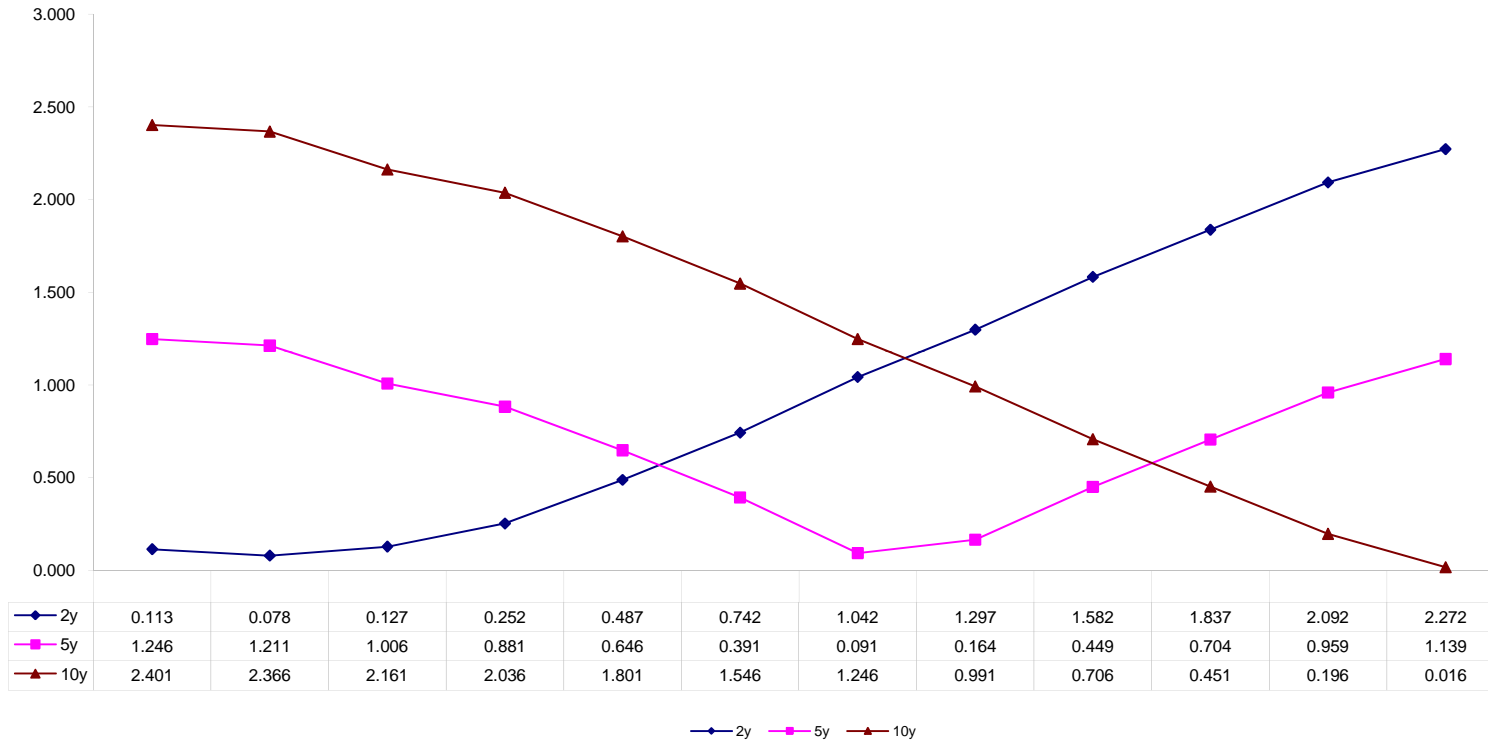
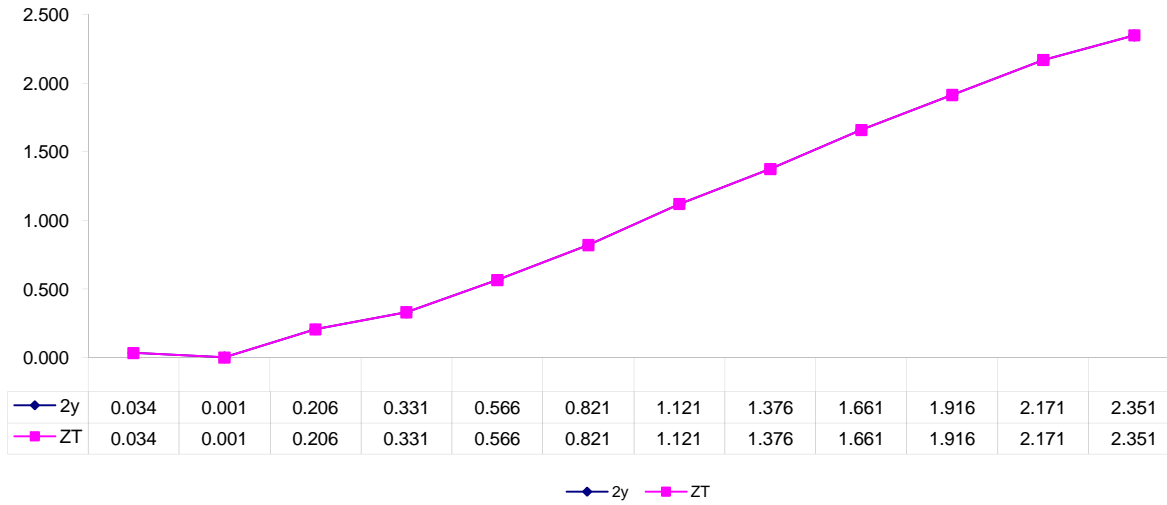
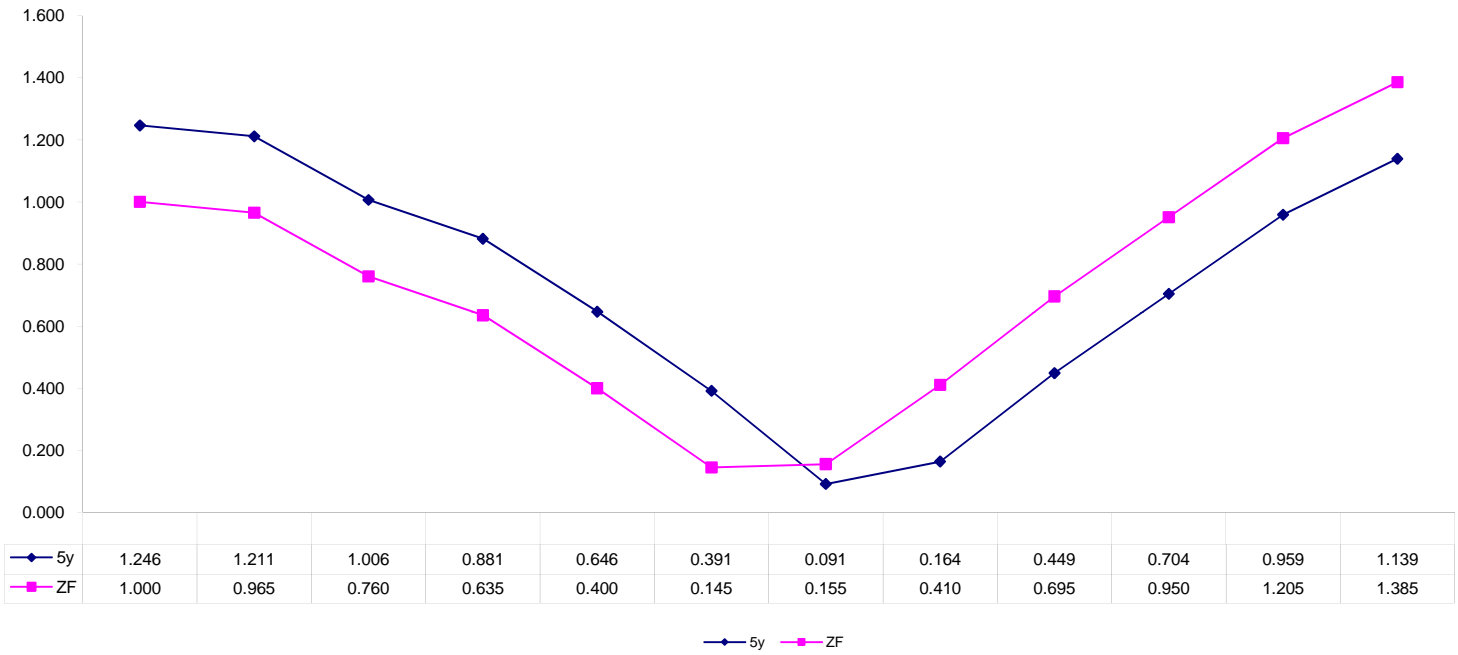


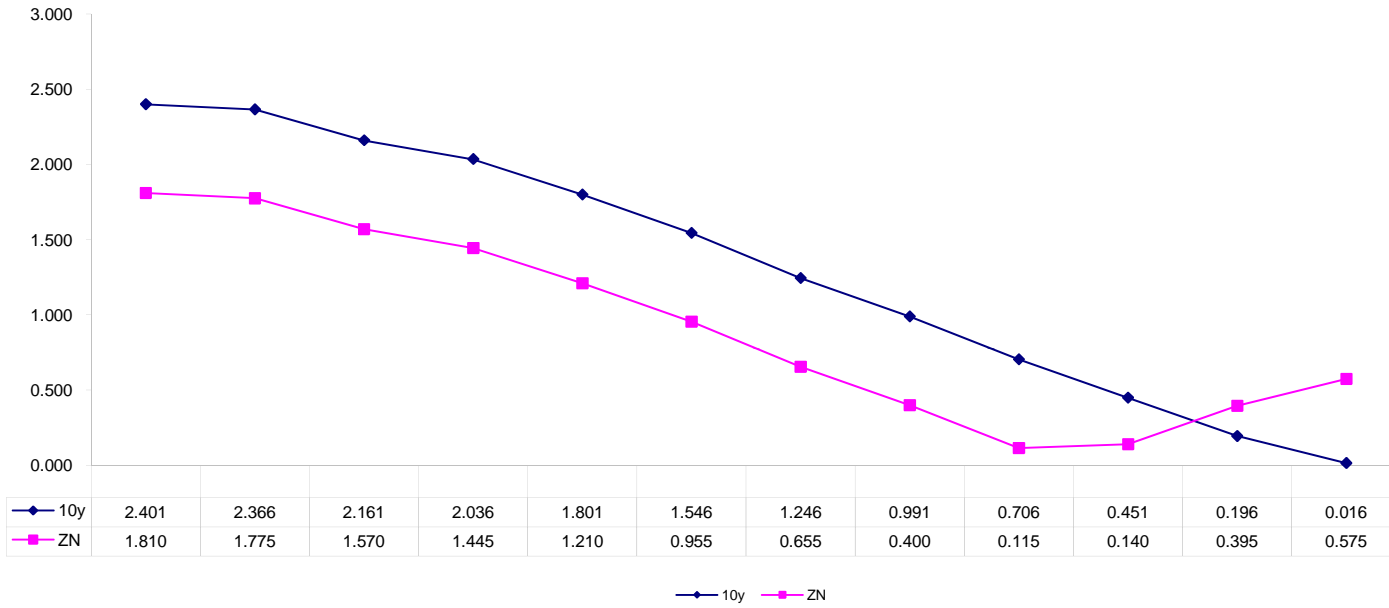
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	0.945	3.500	9907.0000
Red Pack	1.808	2.000	9822.5000
Green Pack	2.889	1.125	9717.1250
Blue Pack	-1.000		9648.3750
Gold Pack		0.000	9610.2500

