

The Morning Email: TERM TEDS & Dirty TEDS

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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.

Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	108.8594	108.2750	0.836	1.788
ZF	116.9844	116.3150	1.868	3.981
ZN	120.5313	120.1700	2.697	5.958
2y	99.9688	99.3100	0.891	1.921
5y	98.8813	98.2820	2.114	4.688
10y	98.9219	98.2950	3.252	8.502

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	99.3250	0.675	26	0.0706	JUN	
EDAU09	99.3000	0.700	117	0.3199	SEP	White Pack
EDAZ09	99.1200	0.880	208	0.5692	DEC	Pack
EDAH10	98.9750	1.025	299	0.8185	MAR	
EDAM10	98.7100	1.290	390	1.0678	JUN	
EDAU10	98.4150	1.585	481	1.3171	SEP	Red Pack
EDAZ10	98.0700	1.930	572	1.5665	DEC	Pack
EDAH11	97.7700	2.230	663	1.8158	MAR	
EDAM11	97.4500	2.550	754	2.0651	JUN	
EDAU11	97.1700	2.830	852	2.3336	SEP	Green Pack
EDAZ11	96.9150	3.085	943	2.5829	DEC	Pack
EDAH12	96.7500	3.250	1,034	2.8322	MAR	
EDAM12	96.5900	3.410	1,125	3.0815	JUN	
EDAU12	96.4650	3.535	1,216	3.3308	SEP	Blue Pack
EDAZ12	96.3250	3.675	1,307	3.5802	DEC	Pack
EDAH13	96.2550	3.745	1,398	3.8295	MAR	
EDAM13	96.1500	3.850	1,489	4.0788	JUN	
EDAU13	96.0600	3.940	1,580	4.3281	SEP	Gold Pack
EDAZ13	95.9500	4.050	1,671	4.5774	DEC	Pack
EDAH14	95.8950	4.105	1,762	4.8267	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	0.833	4.688	9918.00	
Red Pack	1.791	0.250	9824.13	Pack Prices
Green Pack	2.992	-2.250	9707.13	
Blue Pack	3.674	-3.000	9640.88	
Gold Pack	4.082	-4.500	9601.38	

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)

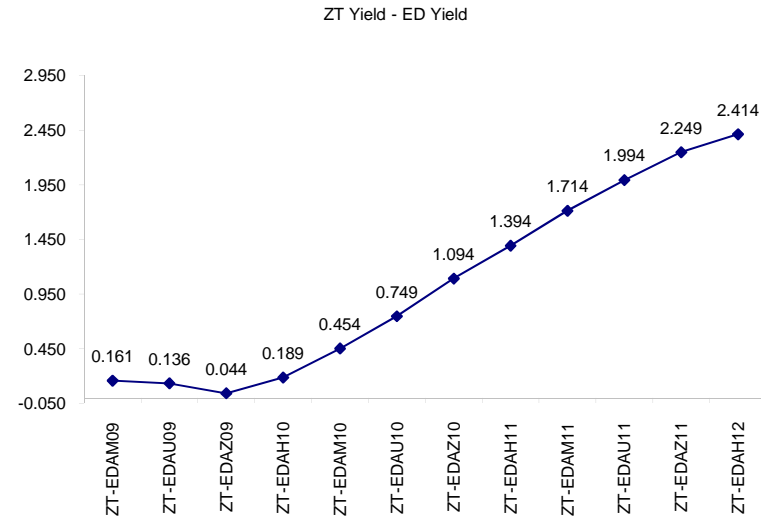
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.53	0.161	ZT-EDAM09	66
EDAU09	9.56	0.136	ZT-EDAU09	67
EDAZ09	9.74	0.044	ZT-EDAZ09	72
EDAH10	9.88	0.189	ZT-EDAH10	82
EDAM10	10.15	0.454	ZT-EDAM10	90
EDAU10	10.44	0.749	ZT-EDAU10	95
EDAZ10	10.79	1.094	ZT-EDAZ10	97
EDAH11	11.09	1.394	ZT-EDAH11	96
EDAM11	11.41	1.714	ZT-EDAM11	93
EDAU11	11.69	1.994	ZT-EDAU11	90
EDAZ11	11.94	2.249	ZT-EDAZ11	89
EDAH12	12.11	2.414	ZT-EDAH12	87

Price = Outright Decimal Price - Euro Contract Price

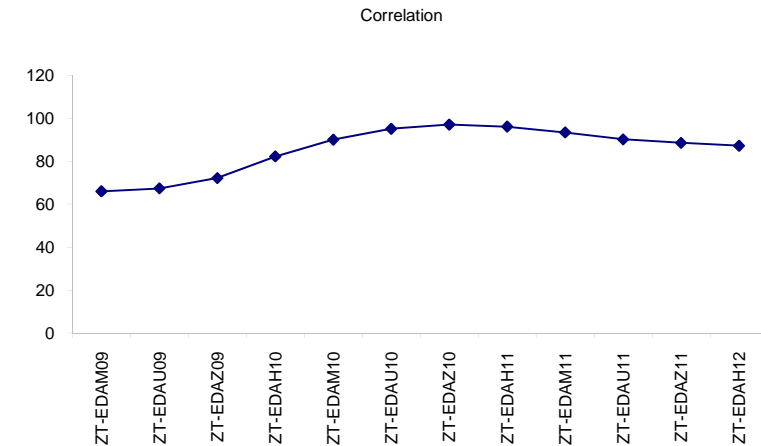
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



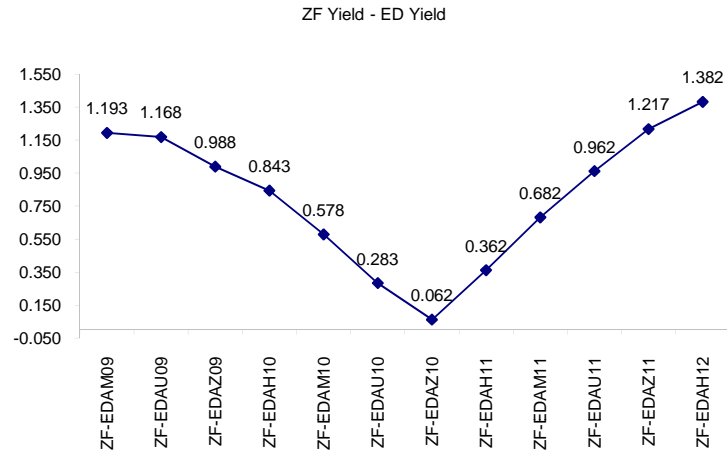
	ED Duration as Fraction of year			ZT Duration	Spread Duration	
EDAM09	0.0706	1.7875	1.7169	ZT-EDAM09		
EDAU09	0.3199	1.7875	1.4676	ZT-EDAU09		
EDAZ09	0.5692	1.7875	1.2183	ZT-EDAZ09		
EDAH10	0.8185	1.7875	0.9690	ZT-EDAH10		
EDAM10	1.0678	1.7875	0.7197	ZT-EDAM10		
EDAU10	1.3171	1.7875	0.4704	ZT-EDAU10		
EDAZ10	1.5665	1.7875	0.2211	ZT-EDAZ10		
EDAH11	1.8158	1.7875	-0.0283	ZT-EDAH11		
EDAM11	2.0651	1.7875	-0.2776	ZT-EDAM11		
EDAU11	2.3336	1.7875	-0.5461	ZT-EDAU11		
EDAZ11	2.5829	1.7875	-0.7954	ZT-EDAZ11		
EDAH12	2.8322	1.7875	-1.0447	ZT-EDAH12		

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



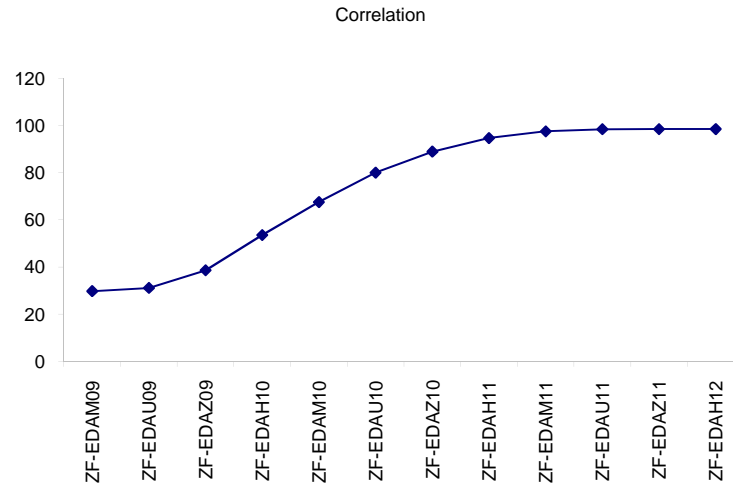
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	17.66	1.193	ZF-EDAM09	30
EDAU09	17.68	1.168	ZF-EDAU09	31
EDAZ09	17.86	0.988	ZF-EDAZ09	39
EDAH10	18.01	0.843	ZF-EDAH10	54
EDAM10	18.27	0.578	ZF-EDAM10	68
EDAU10	18.57	0.283	ZF-EDAU10	80
EDAZ10	18.91	0.062	ZF-EDAZ10	89
EDAH11	19.21	0.362	ZF-EDAH11	95
EDAM11	19.53	0.682	ZF-EDAM11	98
EDAU11	19.81	0.962	ZF-EDAU11	99
EDAZ11	20.07	1.217	ZF-EDAZ11	99
EDAH12	20.23	1.382	ZF-EDAH12	99

Price = Outright Decimal Price - Euro Contract Price
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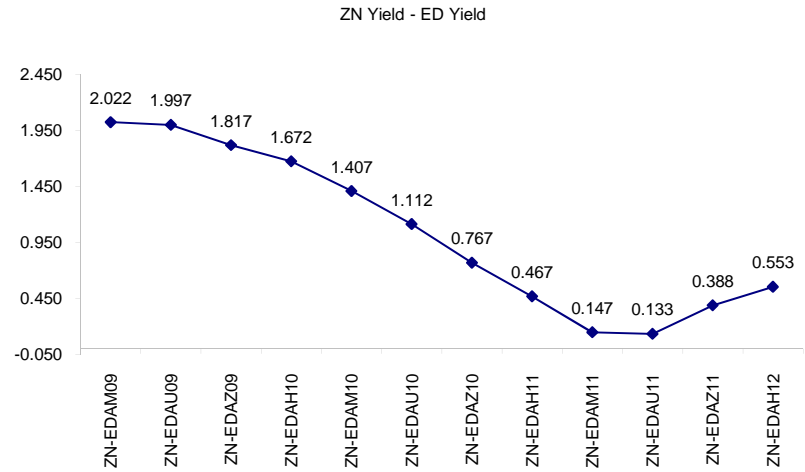
	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM09	0.0706	3.9812	3.9107	ZF-EDAM09	
EDAU09	0.3199	3.9812	3.6614	ZF-EDAU09	
EDAZ09	0.5692	3.9812	3.4120	ZF-EDAZ09	
EDAH10	0.8185	3.9812	3.1627	ZF-EDAH10	
EDAM10	1.0678	3.9812	2.9134	ZF-EDAM10	
EDAU10	1.3171	3.9812	2.6641	ZF-EDAU10	
EDAZ10	1.5665	3.9812	2.4148	ZF-EDAZ10	
EDAH11	1.8158	3.9812	2.1655	ZF-EDAH11	
EDAM11	2.0651	3.9812	1.9162	ZF-EDAM11	
EDAU11	2.3336	3.9812	1.6477	ZF-EDAU11	
EDAZ11	2.5829	3.9812	1.3983	ZF-EDAZ11	
EDAH12	2.8322	3.9812	1.1490	ZF-EDAH12	

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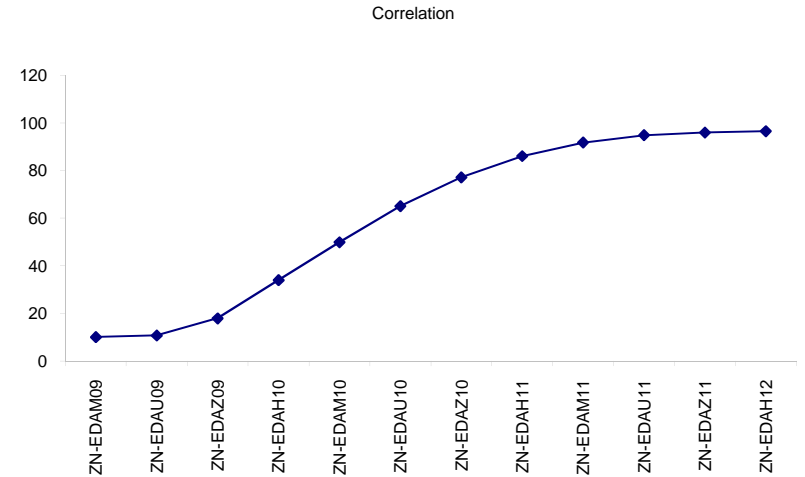
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	21.21	2.022	ZN-EDAM09	10
EDAU09	21.23	1.997	ZN-EDAU09	11
EDAZ09	21.41	1.817	ZN-EDAZ09	18
EDAH10	21.56	1.672	ZN-EDAH10	34
EDAM10	21.82	1.407	ZN-EDAM10	50
EDAU10	22.12	1.112	ZN-EDAU10	65
EDAZ10	22.46	0.767	ZN-EDAZ10	77
EDAH11	22.76	0.467	ZN-EDAH11	86
EDAM11	23.08	0.147	ZN-EDAM11	92
EDAU11	23.36	0.133	ZN-EDAU11	95
EDAZ11	23.62	0.388	ZN-EDAZ11	96
EDAH12	23.78	0.553	ZN-EDAH12	97

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 Yield = ABS (Proxy Yield - Implied Euro Contract yield)
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ED Duration as Fraction of year			
	Fraction of year	ZN Duration	Spread Duration
EDAM09	0.0706	5.9576	5.8870
EDAU09	0.3199	5.9576	5.6377
EDAZ09	0.5692	5.9576	5.3884
EDAH10	0.8185	5.9576	5.1390
EDAM10	1.0678	5.9576	4.8897
EDAU10	1.3171	5.9576	4.6404
EDAZ10	1.5665	5.9576	4.3911
EDAH11	1.8158	5.9576	4.1418
EDAM11	2.0651	5.9576	3.8925
EDAU11	2.3336	5.9576	3.6240
EDAZ11	2.5829	5.9576	3.3747
EDAH12	2.8322	5.9576	3.1253

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



	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.64	0.216	2y-EDAM09	-62
EDAU09	0.67	0.191	2y-EDAU09	-63
EDAZ09	0.85	0.011	2y-EDAZ09	-67
EDAH10	0.99	0.134	2y-EDAH10	-77
EDAM10	1.26	0.399	2y-EDAM10	-84
EDAU10	1.55	0.694	2y-EDAU10	-90
EDAZ10	1.90	1.039	2y-EDAZ10	-92
EDAH11	2.20	1.339	2y-EDAH11	-92
EDAM11	2.52	1.659	2y-EDAM11	-90
EDAU11	2.80	1.939	2y-EDAU11	-87
EDAZ11	3.05	2.194	2y-EDAZ11	-86
EDAH12	3.22	2.359	2y-EDAH12	-84

Price = Outright Decimal Price - Euro Contract Price

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

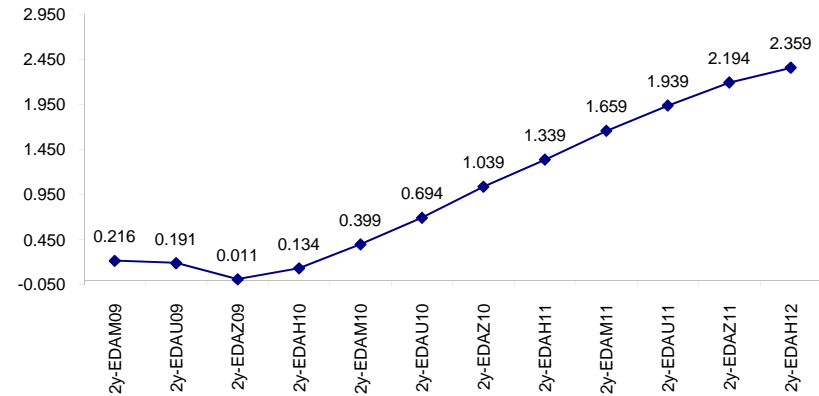
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

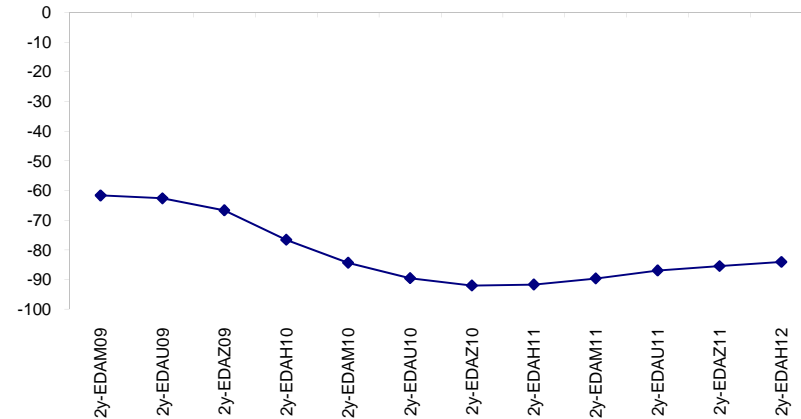
	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.0706	1.9213	1.8508	2y-EDAM09
EDAU09	0.3199	1.9213	1.6015	2y-EDAU09
EDAZ09	0.5692	1.9213	1.3521	2y-EDAZ09
EDAH10	0.8185	1.9213	1.1028	2y-EDAH10
EDAM10	1.0678	1.9213	0.8535	2y-EDAM10
EDAU10	1.3171	1.9213	0.6042	2y-EDAU10
EDAZ10	1.5665	1.9213	0.3549	2y-EDAZ10
EDAH11	1.8158	1.9213	0.1056	2y-EDAH11
EDAM11	2.0651	1.9213	-0.1437	2y-EDAM11
EDAU11	2.3336	1.9213	-0.4122	2y-EDAU11
EDAZ11	2.5829	1.9213	-0.6616	2y-EDAZ11
EDAH12	2.8322	1.9213	-0.9109	2y-EDAH12

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

ZT Yield - ED Yield

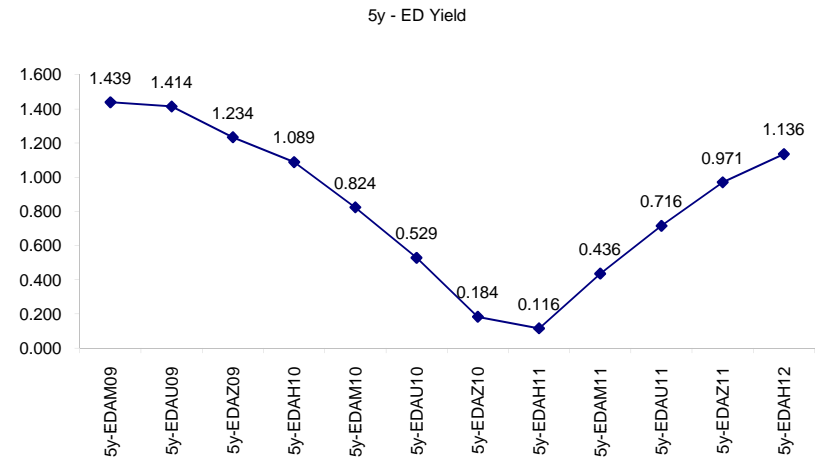


Correlation



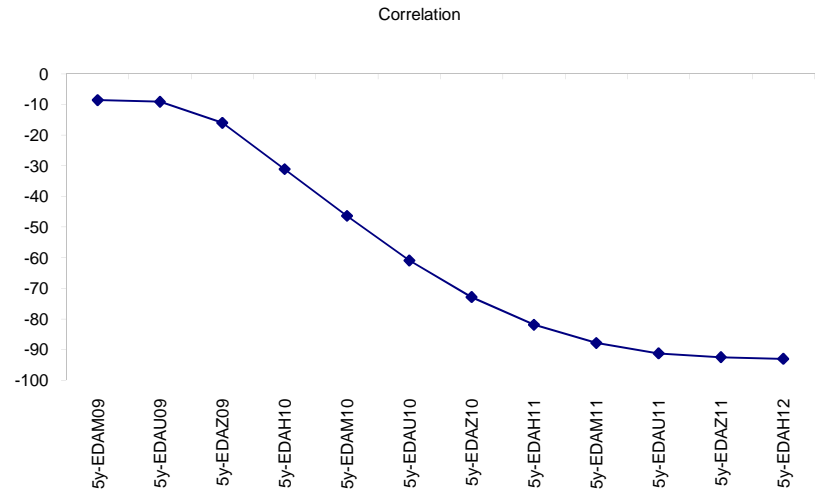
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	-0.44	1.439	5y-EDAM09	-9
EDAU09	-0.42	1.414	5y-EDAU09	-9
EDAZ09	-0.24	1.234	5y-EDAZ09	-16
EDAH10	-0.09	1.089	5y-EDAH10	-31
EDAM10	0.17	0.824	5y-EDAM10	-46
EDAU10	0.47	0.529	5y-EDAU10	-61
EDAZ10	0.81	0.184	5y-EDAZ10	-73
EDAH11	1.11	0.116	5y-EDAH11	-82
EDAM11	1.43	0.436	5y-EDAM11	-88
EDAU11	1.71	0.716	5y-EDAU11	-91
EDAZ11	1.97	0.971	5y-EDAZ11	-92
EDAH12	2.13	1.136	5y-EDAH12	-93

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS (Proxy Yield - Implied Euro Contract yield)
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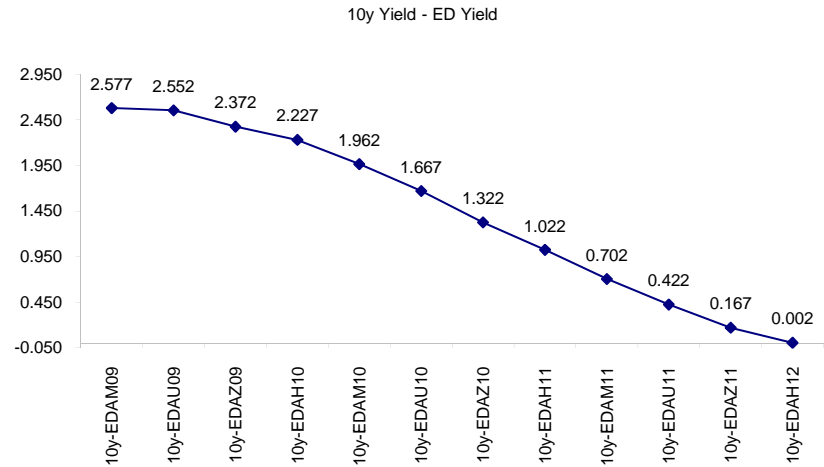
	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM09	0.0706	4.6880	4.6175	5y-EDAM09
EDAU09	0.3199	4.6880	4.3682	5y-EDAU09
EDAZ09	0.5692	4.6880	4.1188	5y-EDAZ09
EDAH10	0.8185	4.6880	3.8695	5y-EDAH10
EDAM10	1.0678	4.6880	3.6202	5y-EDAM10
EDAU10	1.3171	4.6880	3.3709	5y-EDAU10
EDAZ10	1.5665	4.6880	3.1216	5y-EDAZ10
EDAH11	1.8158	4.6880	2.8723	5y-EDAH11
EDAM11	2.0651	4.6880	2.6230	5y-EDAM11
EDAU11	2.3336	4.6880	2.3545	5y-EDAU11
EDAZ11	2.5829	4.6880	2.1051	5y-EDAZ11
EDAH12	2.8322	4.6880	1.8558	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	-0.44	2.577	10y-EDAM09	-8
EDAU09	-0.42	2.552	10y-EDAU09	-9
EDAZ09	-0.24	2.372	10y-EDAZ09	-18
EDAH10	-0.09	2.227	10y-EDAH10	-33
EDAM10	0.17	1.962	10y-EDAM10	-48
EDAU10	0.47	1.667	10y-EDAU10	-61
EDAZ10	0.81	1.322	10y-EDAZ10	-73
EDAH11	1.11	1.022	10y-EDAH11	-81
EDAM11	1.43	0.702	10y-EDAM11	-87
EDAU11	1.71	0.422	10y-EDAU11	-90
EDAZ11	1.97	0.167	10y-EDAZ11	-92
EDAH12	2.13	0.002	10y-EDAH12	-93

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	0.0706	8.5015	8.4309	10y-EDAM09
EDAU09	0.3199	8.5015	8.1816	10y-EDAU09
EDAZ09	0.5692	8.5015	7.9323	10y-EDAZ09
EDAH10	0.8185	8.5015	7.6830	10y-EDAH10
EDAM10	1.0678	8.5015	7.4337	10y-EDAM10
EDAU10	1.3171	8.5015	7.1844	10y-EDAU10
EDAZ10	1.5665	8.5015	6.9351	10y-EDAZ10
EDAH11	1.8158	8.5015	6.6857	10y-EDAH11
EDAM11	2.0651	8.5015	6.4364	10y-EDAM11
EDAU11	2.3336	8.5015	6.1679	10y-EDAU11
EDAZ11	2.5829	8.5015	5.9186	10y-EDAZ11
EDAH12	2.8322	8.5015	5.6693	10y-EDAH12

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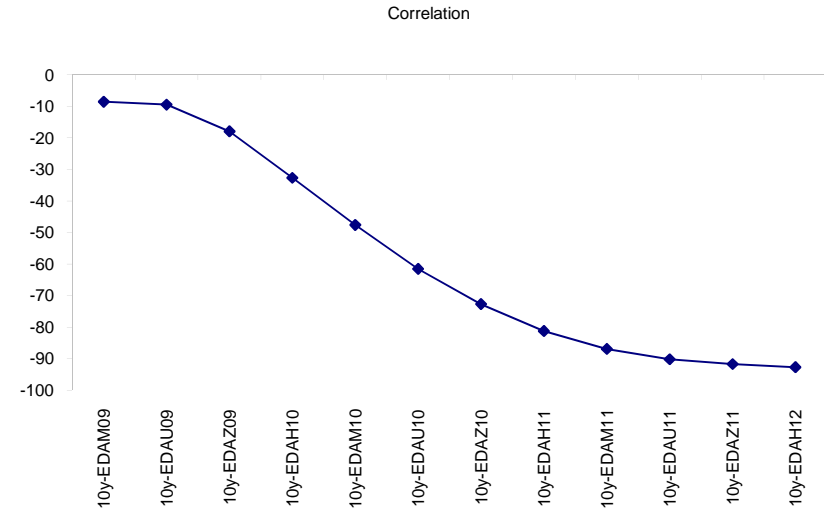


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

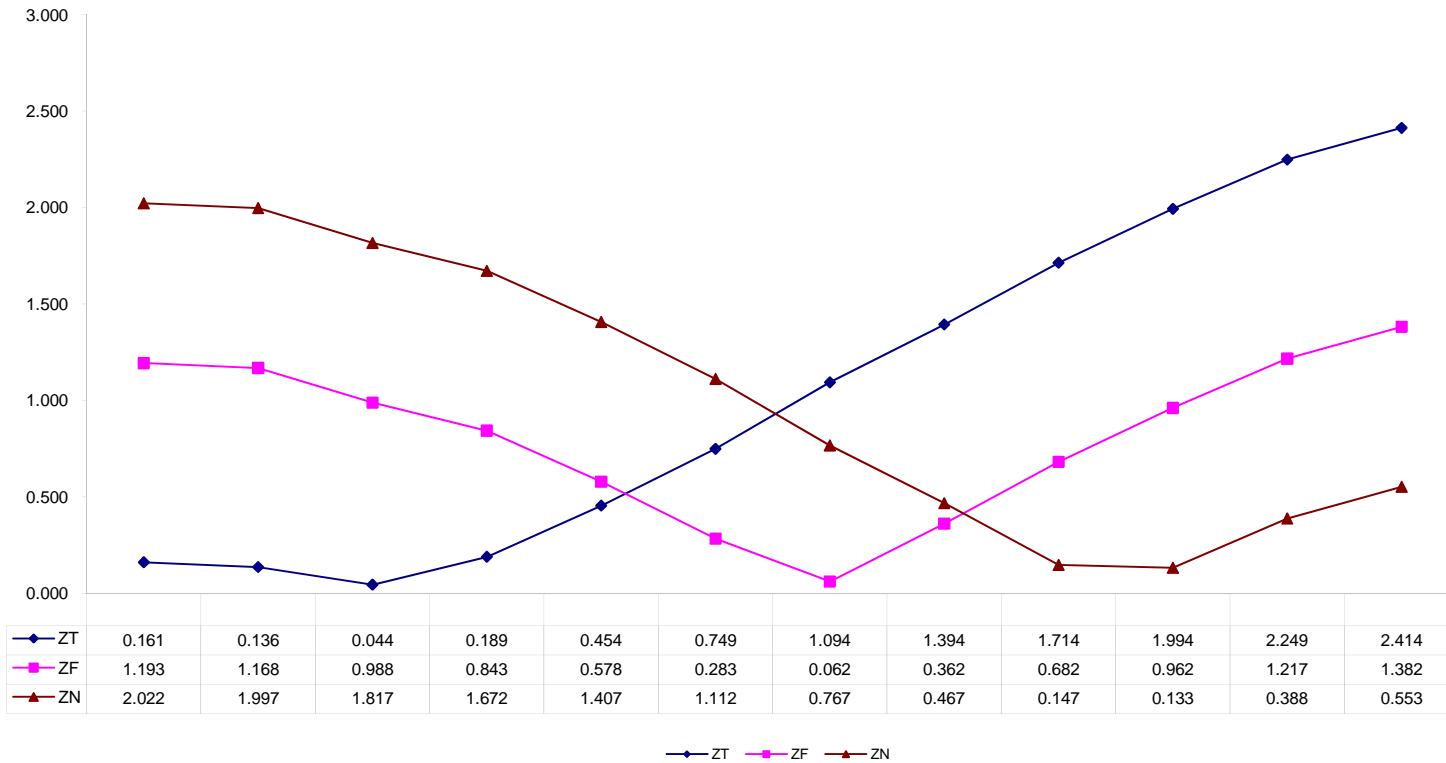
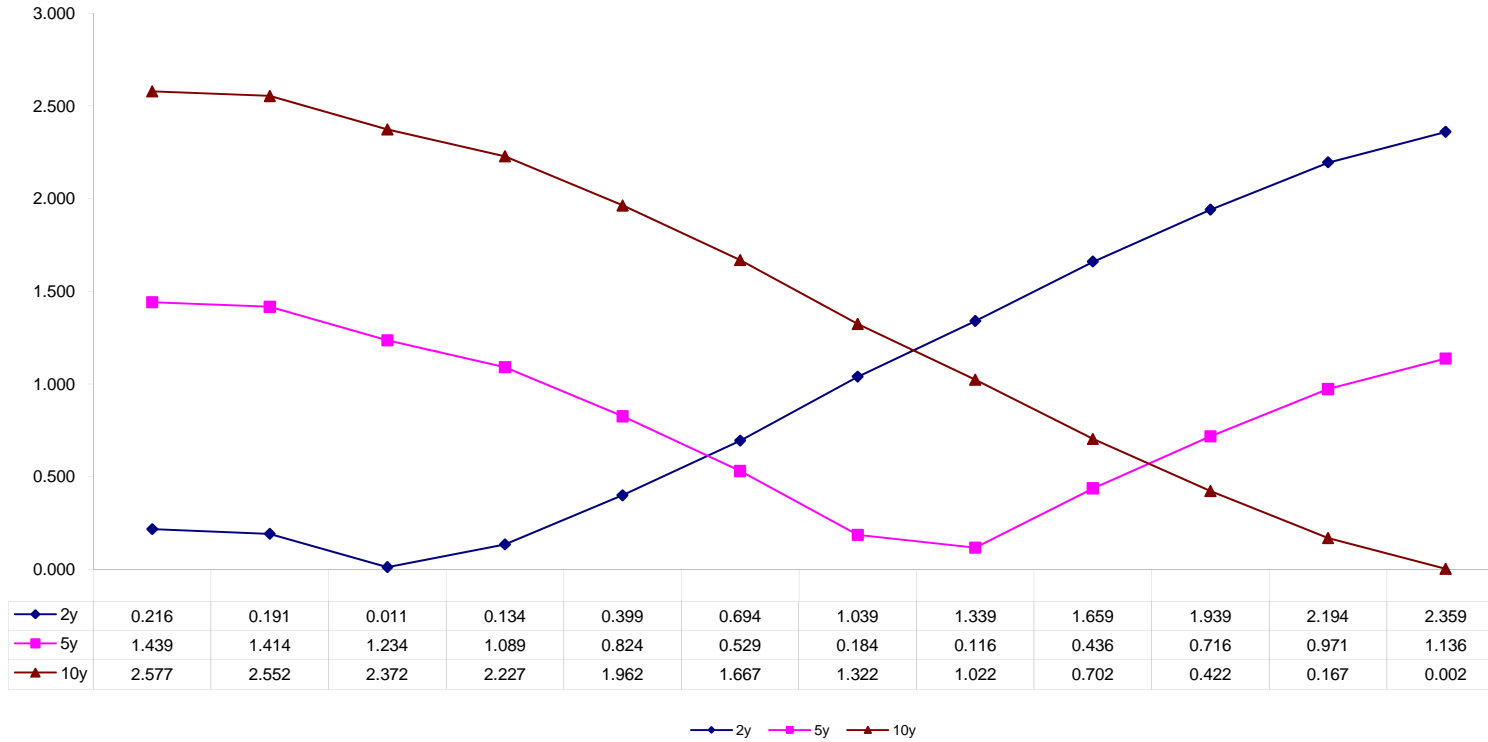
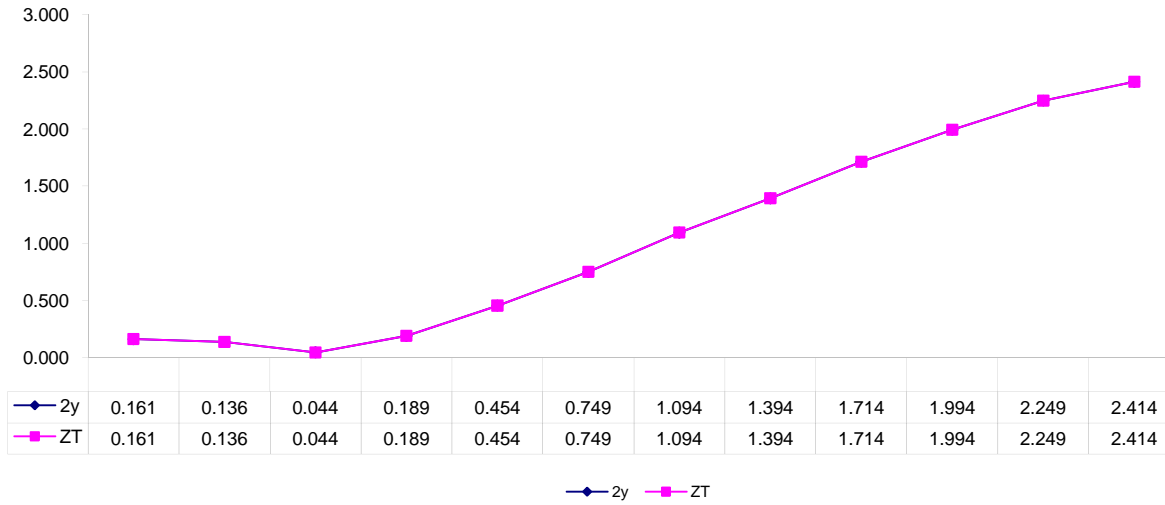
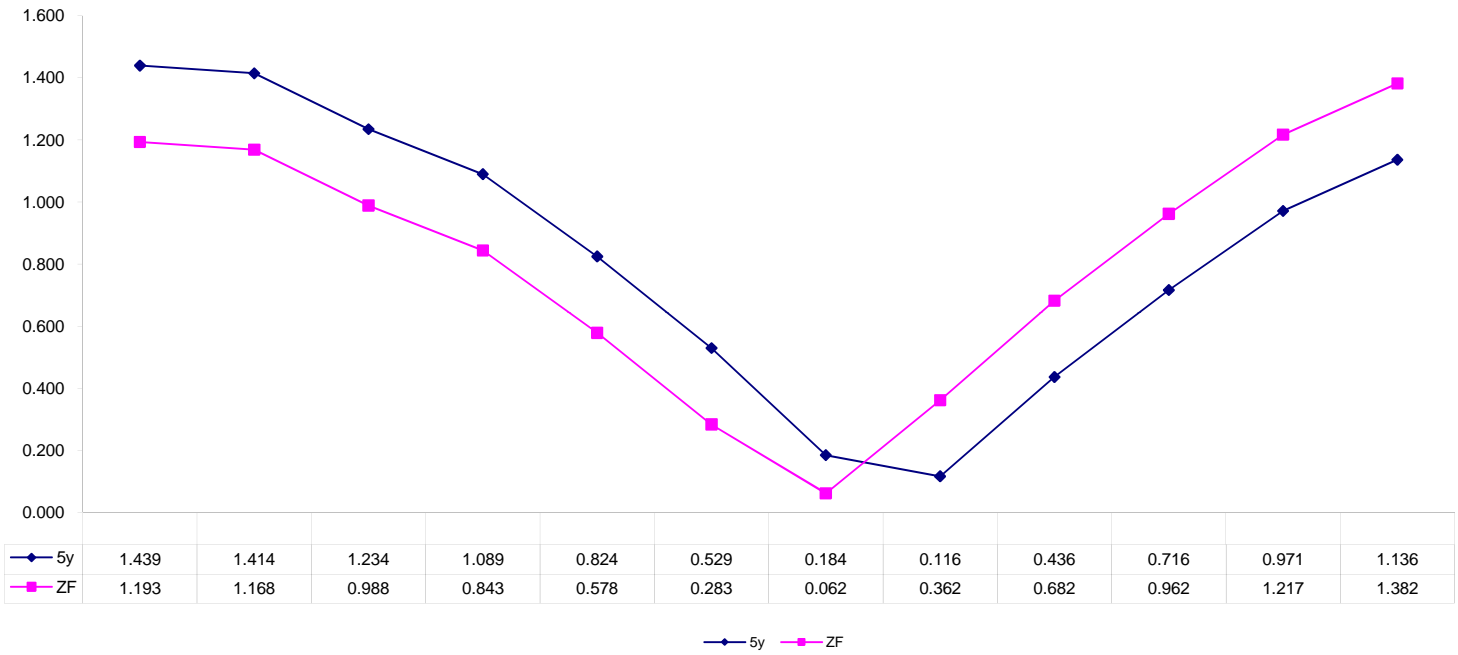


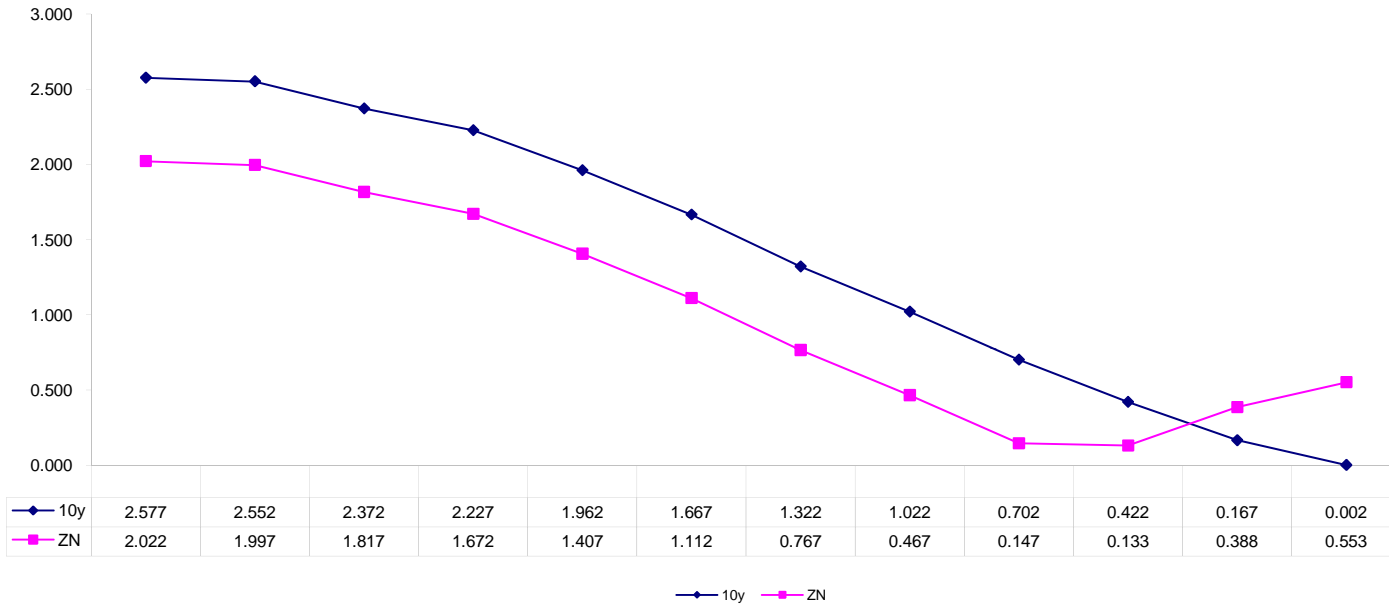
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	0.833	4.688	9918.0000
Red Pack	1.791	0.250	9824.1250
Green Pack	2.992	-2.250	9707.1250
Blue Pack	3.674	-3.000	9640.8750
Gold Pack	4.082	-4.500	9601.3750

