

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	108.7250	108.2320	0.875	1.812
ZF	116.8906	116.2850	1.867	4.006
ZN	120.7813	120.2500	2.645	5.856
2y	99.8594	99.2750	0.947	1.945
5y	99.0000	99.0000	2.088	4.713
10y	99.0000	99.0000	3.241	8.395

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	99.1750	0.825	35	0.0952	JUN	
EDAU09	99.1350	0.865	126	0.3446	SEP	White Pack
EDAZ09	98.9200	1.080	217	0.5939	DEC	
EDAH10	98.7900	1.210	308	0.8432	MAR	
EDAM10	98.5450	1.455	399	1.0925	JUN	
EDAU10	98.2750	1.725	490	1.3418	SEP	Red Pack
EDAZ10	97.9550	2.045	581	1.5911	DEC	
EDAH11	97.6850	2.315	672	1.8405	MAR	
EDAM11	97.3950	2.605	763	2.0898	JUN	
EDAU11	97.1450	2.855	861	2.3583	SEP	Green Pack
EDAZ11	96.8950	3.105	952	2.6076	DEC	
EDAH12	96.7400	3.260	1,043	2.8569	MAR	
EDAM12	96.5850	3.415	1,134	3.1062	JUN	
EDAU12	96.4600	3.540	1,225	3.3555	SEP	Blue Pack
EDAZ12	96.3250	3.675	1,316	3.6048	DEC	
EDAH13	96.2550	3.745	1,407	3.8541	MAR	
EDAM13	96.1650	3.835	1,498	4.1035	JUN	
EDAU13	95.9800	4.020	1,589	4.3528	SEP	Gold Pack
EDAZ13	95.8900	4.110	1,680	4.6021	DEC	
EDAH14	95.8300	4.170	1,771	4.8514	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.011	2.125	9900.50	
Red Pack	1.921	7.625	9811.50	Pack Prices
Green Pack	3.020	9.375	9704.38	
Blue Pack	3.677	9.750	9640.63	
Gold Pack		2.500	9596.50	

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)

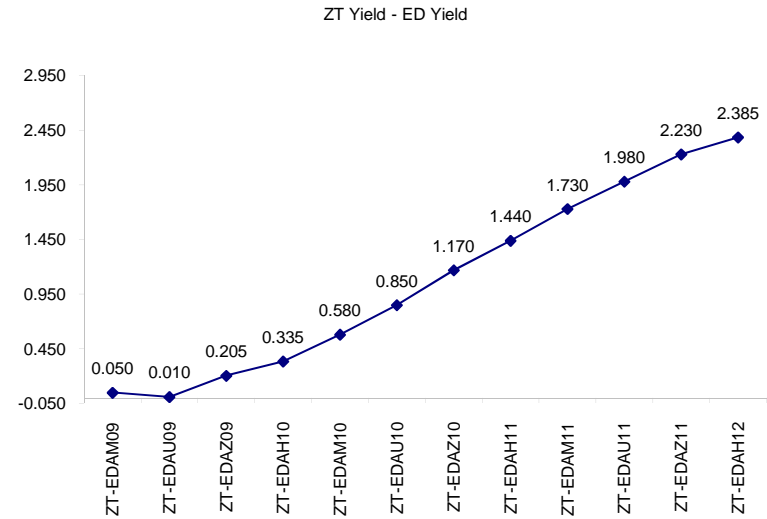
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.55	0.050	ZT-EDAM09	-25
EDAU09	9.59	0.010	ZT-EDAU09	-26
EDAZ09	9.80	0.205	ZT-EDAZ09	-22
EDAH10	9.93	0.335	ZT-EDAH10	-15
EDAM10	10.18	0.580	ZT-EDAM10	-7
EDAU10	10.45	0.850	ZT-EDAU10	1
EDAZ10	10.77	1.170	ZT-EDAZ10	6
EDAH11	11.04	1.440	ZT-EDAH11	16
EDAM11	11.33	1.730	ZT-EDAM11	17
EDAU11	11.58	1.980	ZT-EDAU11	18
EDAZ11	11.83	2.230	ZT-EDAZ11	19
EDAH12	11.99	2.385	ZT-EDAH12	18

Price = Outright Decimal Price - Euro Contract Price

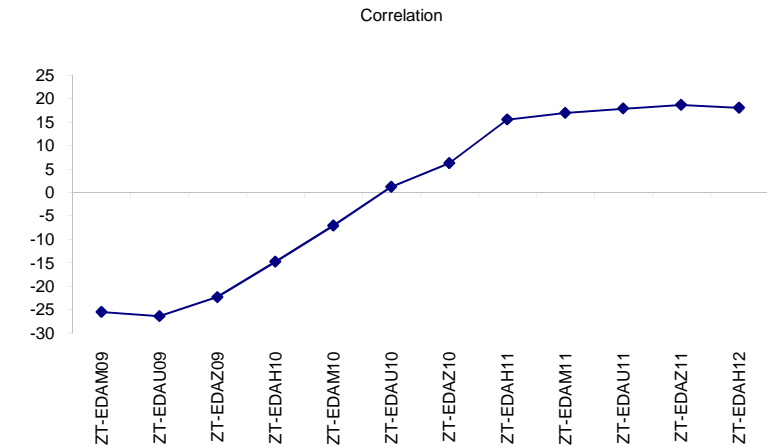
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



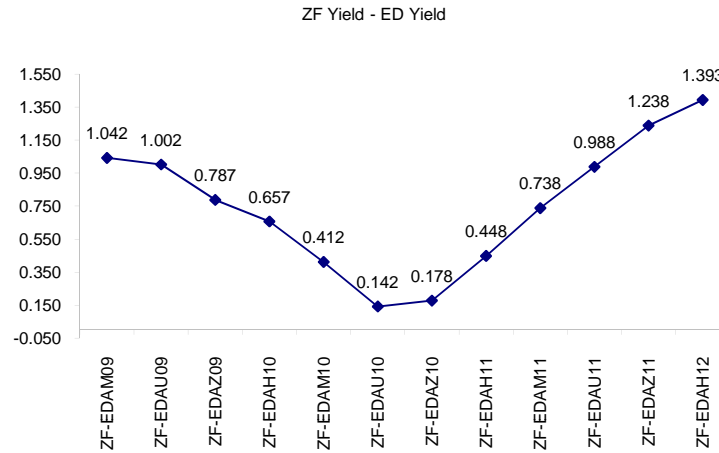
	ED Duration as Fraction of year		ZT Duration	Spread Duration	
EDAM09	0.0952	1.8116	1.7164	1.7164	ZT-EDAM09
EDAU09	0.3446	1.8116	1.4671	1.4671	ZT-EDAU09
EDAZ09	0.5939	1.8116	1.2177	1.2177	ZT-EDAZ09
EDAH10	0.8432	1.8116	0.9684	0.9684	ZT-EDAH10
EDAM10	1.0925	1.8116	0.7191	0.7191	ZT-EDAM10
EDAU10	1.3418	1.8116	0.4698	0.4698	ZT-EDAU10
EDAZ10	1.5911	1.8116	0.2205	0.2205	ZT-EDAZ10
EDAH11	1.8405	1.8116	-0.0288	-0.0288	ZT-EDAH11
EDAM11	2.0898	1.8116	-0.2781	-0.2781	ZT-EDAM11
EDAU11	2.3583	1.8116	-0.5466	-0.5466	ZT-EDAU11
EDAZ11	2.6076	1.8116	-0.7959	-0.7959	ZT-EDAZ11
EDAH12	2.8569	1.8116	-1.0453	-1.0453	ZT-EDAH12

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



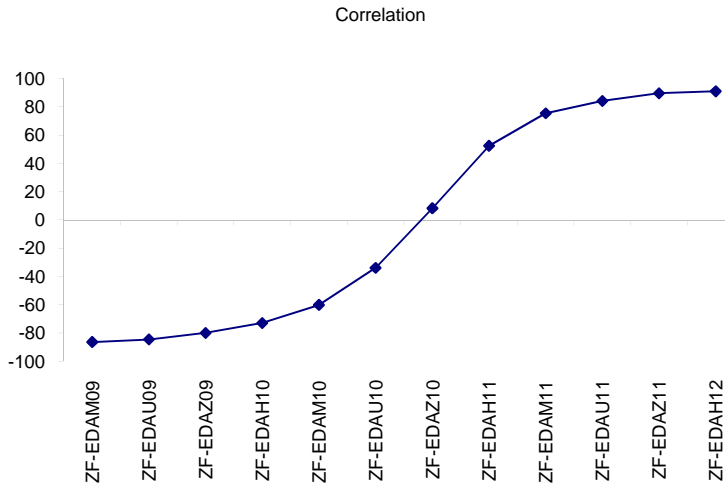
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	17.72	1.042	ZF-EDAM09	-86
EDAU09	17.76	1.002	ZF-EDAU09	-85
EDAZ09	17.97	0.787	ZF-EDAZ09	-80
EDAH10	18.10	0.657	ZF-EDAH10	-73
EDAM10	18.35	0.412	ZF-EDAM10	-60
EDAU10	18.62	0.142	ZF-EDAU10	-34
EDAZ10	18.94	0.178	ZF-EDAZ10	8
EDAH11	19.21	0.448	ZF-EDAH11	52
EDAM11	19.50	0.738	ZF-EDAM11	75
EDAU11	19.75	0.988	ZF-EDAU11	84
EDAZ11	20.00	1.238	ZF-EDAZ11	90
EDAH12	20.15	1.393	ZF-EDAH12	91

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	0.0952	4.0055	3.9103	ZF-EDAM09	
EDAU09	0.3446	4.0055	3.6609	ZF-EDAU09	
EDAZ09	0.5939	4.0055	3.4116	ZF-EDAZ09	
EDAH10	0.8432	4.0055	3.1623	ZF-EDAH10	
EDAM10	1.0925	4.0055	2.9130	ZF-EDAM10	
EDAU10	1.3418	4.0055	2.6637	ZF-EDAU10	
EDAZ10	1.5911	4.0055	2.4144	ZF-EDAZ10	
EDAH11	1.8405	4.0055	2.1651	ZF-EDAH11	
EDAM11	2.0898	4.0055	1.9157	ZF-EDAM11	
EDAU11	2.3583	4.0055	1.6472	ZF-EDAU11	
EDAZ11	2.6076	4.0055	1.3979	ZF-EDAZ11	
EDAH12	2.8569	4.0055	1.1486	ZF-EDAH12	

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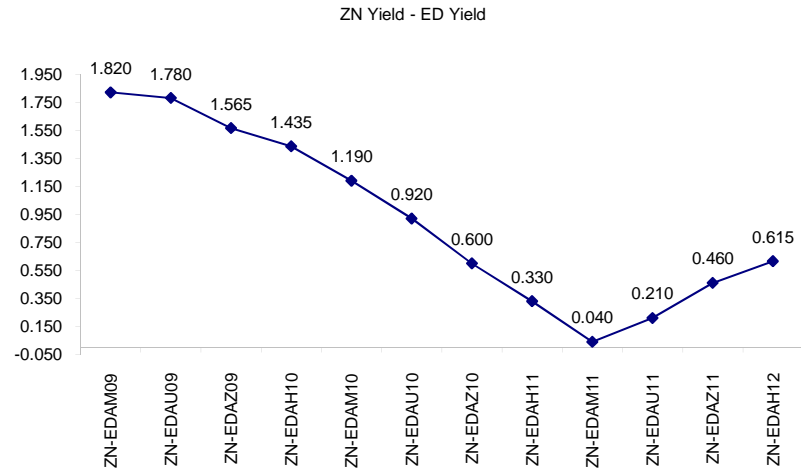


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	21.61	1.820	ZN-EDAM09	-74
EDAU09	21.65	1.780	ZN-EDAU09	-71
EDAZ09	21.86	1.565	ZN-EDAZ09	-67
EDAH10	21.99	1.435	ZN-EDAH10	-60
EDAM10	22.24	1.190	ZN-EDAM10	-47
EDAU10	22.51	0.920	ZN-EDAU10	-20
EDAZ10	22.83	0.600	ZN-EDAZ10	25
EDAH11	23.10	0.330	ZN-EDAH11	66
EDAM11	23.39	0.040	ZN-EDAM11	86
EDAU11	23.64	0.210	ZN-EDAU11	93
EDAZ11	23.89	0.460	ZN-EDAZ11	96
EDAH12	24.04	0.615	ZN-EDAH12	97

Price = Outright Decimal Price - Euro Contract Price

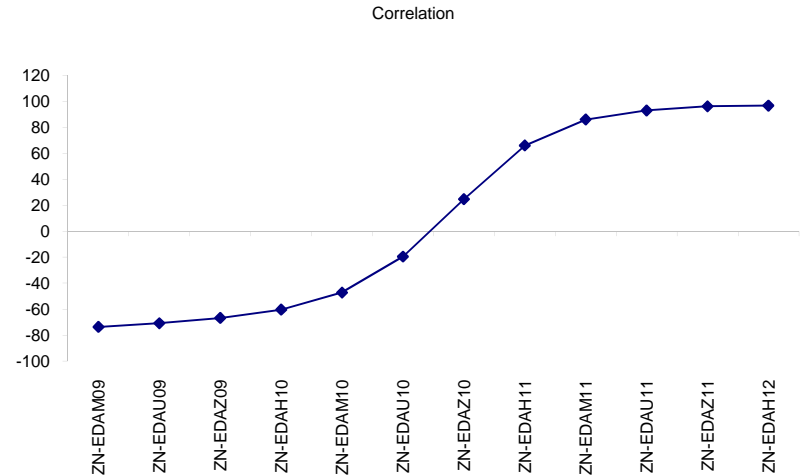
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year			
	Fraction of year	ZN Duration	Spread Duration
EDAM09	0.0952	5.8557	5.7604
EDAU09	0.3446	5.8557	5.5111
EDAZ09	0.5939	5.8557	5.2618
EDAH10	0.8432	5.8557	5.0125
EDAM10	1.0925	5.8557	4.7632
EDAU10	1.3418	5.8557	4.5139
EDAZ10	1.5911	5.8557	4.2645
EDAH11	1.8405	5.8557	4.0152
EDAM11	2.0898	5.8557	3.7659
EDAU11	2.3583	5.8557	3.4974
EDAZ11	2.6076	5.8557	3.2481
EDAH12	2.8569	5.8557	2.9988

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

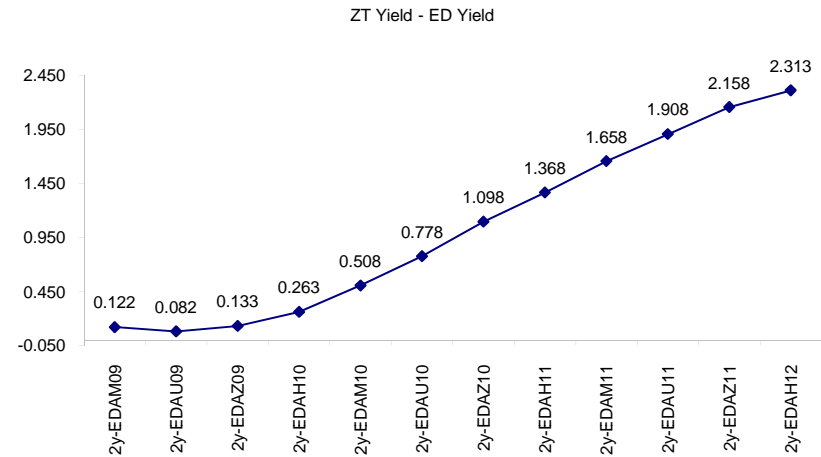


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.68	0.122	2y-EDAM09	49
EDAU09	0.72	0.082	2y-EDAU09	51
EDAZ09	0.94	0.133	2y-EDAZ09	49
EDAH10	1.07	0.263	2y-EDAH10	43
EDAM10	1.31	0.508	2y-EDAM10	36
EDAU10	1.58	0.778	2y-EDAU10	28
EDAZ10	1.90	1.098	2y-EDAZ10	17
EDAH11	2.17	1.368	2y-EDAH11	-2
EDAM11	2.46	1.658	2y-EDAM11	-13
EDAU11	2.71	1.908	2y-EDAU11	-20
EDAZ11	2.96	2.158	2y-EDAZ11	-25
EDAH12	3.12	2.313	2y-EDAH12	-26

Price = Outright Decimal Price - Euro Contract Price

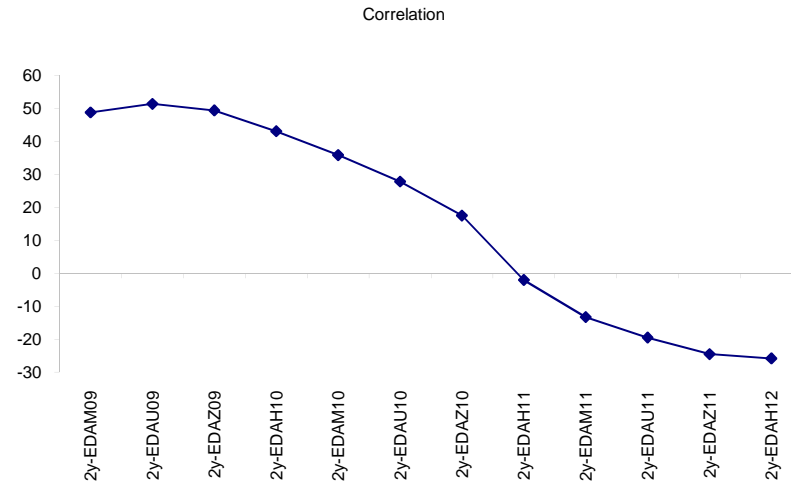
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as		Spread Duration	
	Fraction of year	2Y Duration		
EDAM09	0.0952	1.9451	1.8499	2y-EDAM09
EDAU09	0.3446	1.9451	1.6006	2y-EDAU09
EDAZ09	0.5939	1.9451	1.3513	2y-EDAZ09
EDAH10	0.8432	1.9451	1.1019	2y-EDAH10
EDAM10	1.0925	1.9451	0.8526	2y-EDAM10
EDAU10	1.3418	1.9451	0.6033	2y-EDAU10
EDAZ10	1.5911	1.9451	0.3540	2y-EDAZ10
EDAH11	1.8405	1.9451	0.1047	2y-EDAH11
EDAM11	2.0898	1.9451	-0.1446	2y-EDAM11
EDAU11	2.3583	1.9451	-0.4131	2y-EDAU11
EDAZ11	2.6076	1.9451	-0.6624	2y-EDAZ11
EDAH12	2.8569	1.9451	-0.9118	2y-EDAH12

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	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	-0.17	1.263	5y-EDAM09	84
EDAU09	-0.14	1.223	5y-EDAU09	84
EDAZ09	0.08	1.008	5y-EDAZ09	80
EDAH10	0.21	0.878	5y-EDAH10	74
EDAM10	0.45	0.633	5y-EDAM10	62
EDAU10	0.72	0.363	5y-EDAU10	39
EDAZ10	1.05	0.043	5y-EDAZ10	1
EDAH11	1.32	0.227	5y-EDAH11	-42
EDAM11	1.61	0.517	5y-EDAM11	-65
EDAU11	1.86	0.767	5y-EDAU11	-75
EDAZ11	2.11	1.017	5y-EDAZ11	-81
EDAH12	2.26	1.172	5y-EDAH12	-83

Price = Outright Decimal Price - Euro Contract Price

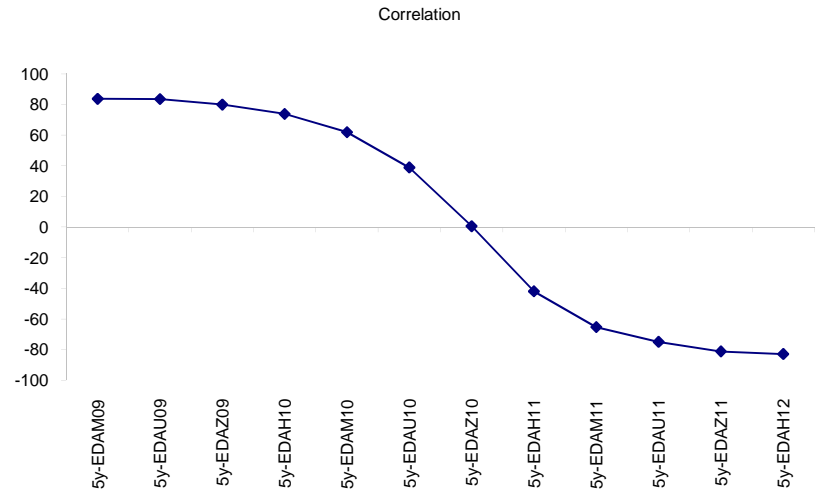
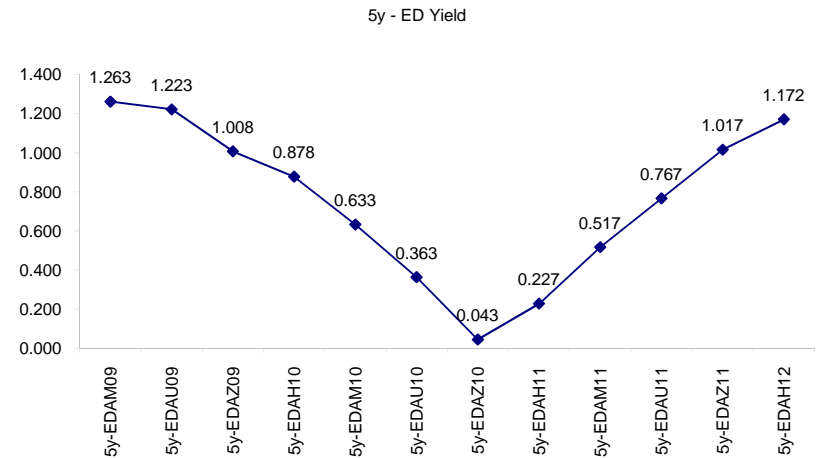
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days

ED Duration as

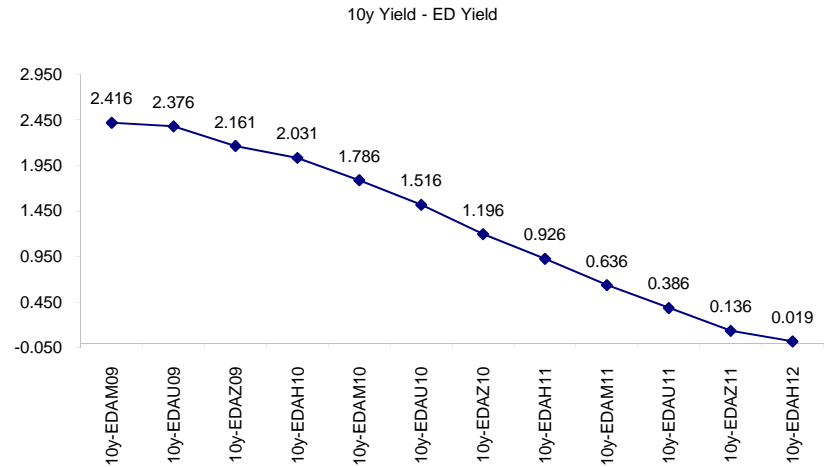
	Fraction of year	5Y Duration	Spread Duration	
EDAM09	0.0952	4.7130	4.6178	5y-EDAM09
EDAU09	0.3446	4.7130	4.3685	5y-EDAU09
EDAZ09	0.5939	4.7130	4.1191	5y-EDAZ09
EDAH10	0.8432	4.7130	3.8698	5y-EDAH10
EDAM10	1.0925	4.7130	3.6205	5y-EDAM10
EDAU10	1.3418	4.7130	3.3712	5y-EDAU10
EDAZ10	1.5911	4.7130	3.1219	5y-EDAZ10
EDAH11	1.8405	4.7130	2.8726	5y-EDAH11
EDAM11	2.0898	4.7130	2.6232	5y-EDAM11
EDAU11	2.3583	4.7130	2.3548	5y-EDAU11
EDAZ11	2.6076	4.7130	2.1054	5y-EDAZ11
EDAH12	2.8569	4.7130	1.8561	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	-0.17	2.416	10y-EDAM09	87
EDAU09	-0.14	2.376	10y-EDAU09	85
EDAZ09	0.08	2.161	10y-EDAZ09	82
EDAH10	0.21	2.031	10y-EDAH10	77
EDAM10	0.45	1.786	10y-EDAM10	66
EDAU10	0.72	1.516	10y-EDAU10	41
EDAZ10	1.05	1.196	10y-EDAZ10	-1
EDAH11	1.32	0.926	10y-EDAH11	-46
EDAM11	1.61	0.636	10y-EDAM11	-70
EDAU11	1.86	0.386	10y-EDAU11	-81
EDAZ11	2.11	0.136	10y-EDAZ11	-87
EDAH12	2.26	0.019	10y-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			
	10Y Duration	Spread Duration		
EDAM09	0.0952	8.3946	8.2994	10y-EDAM09
EDAU09	0.3446	8.3946	8.0500	10y-EDAU09
EDAZ09	0.5939	8.3946	7.8007	10y-EDAZ09
EDAH10	0.8432	8.3946	7.5514	10y-EDAH10
EDAM10	1.0925	8.3946	7.3021	10y-EDAM10
EDAU10	1.3418	8.3946	7.0528	10y-EDAU10
EDAZ10	1.5911	8.3946	6.8035	10y-EDAZ10
EDAH11	1.8405	8.3946	6.5541	10y-EDAH11
EDAM11	2.0898	8.3946	6.3048	10y-EDAM11
EDAU11	2.3583	8.3946	6.0363	10y-EDAU11
EDAZ11	2.6076	8.3946	5.7870	10y-EDAZ11
EDAH12	2.8569	8.3946	5.5377	10y-EDAH12

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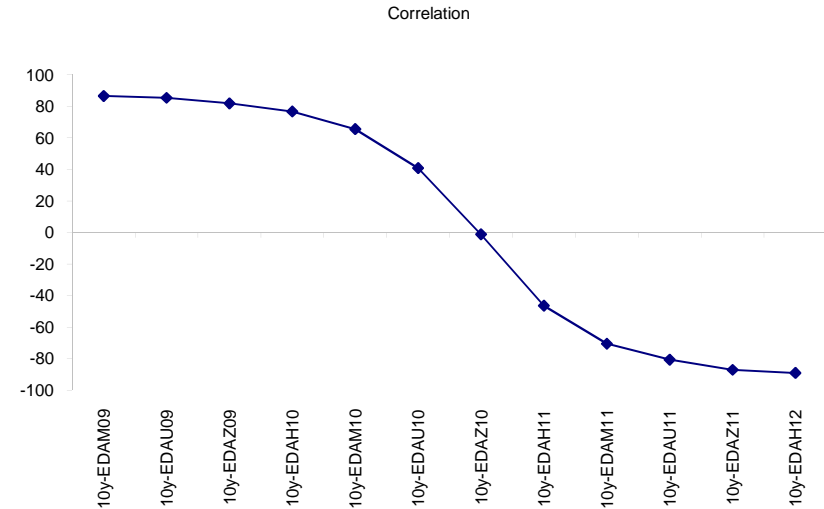


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

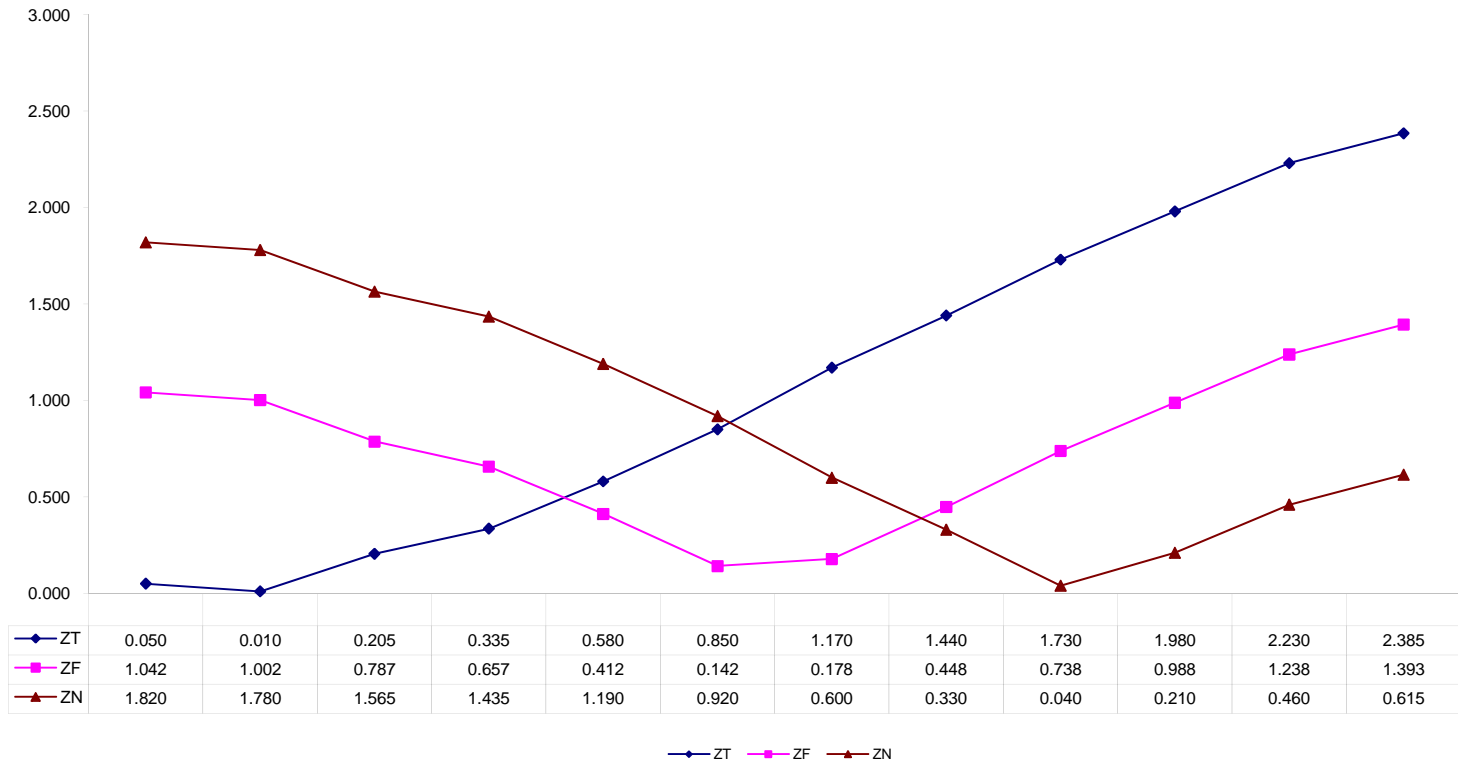
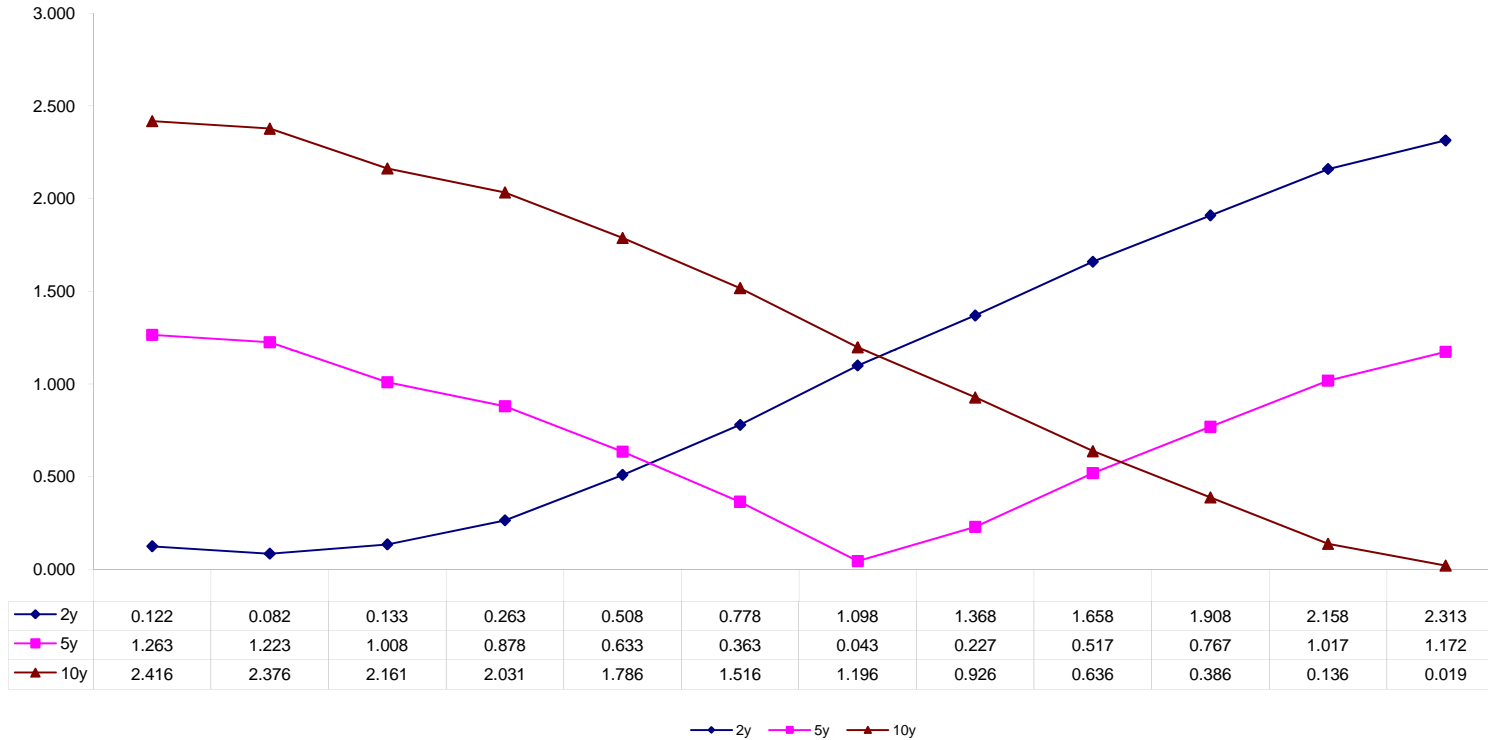
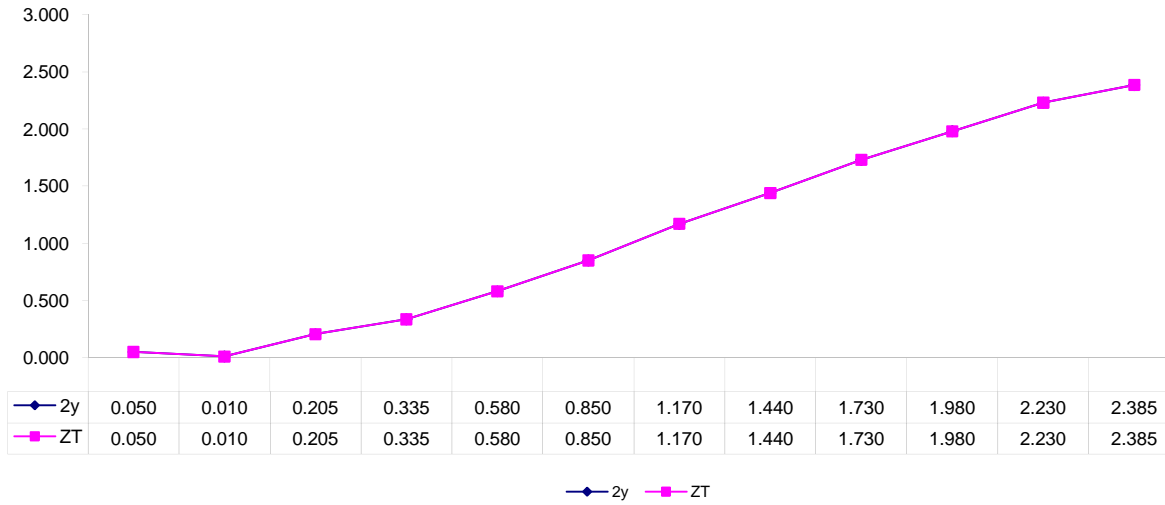
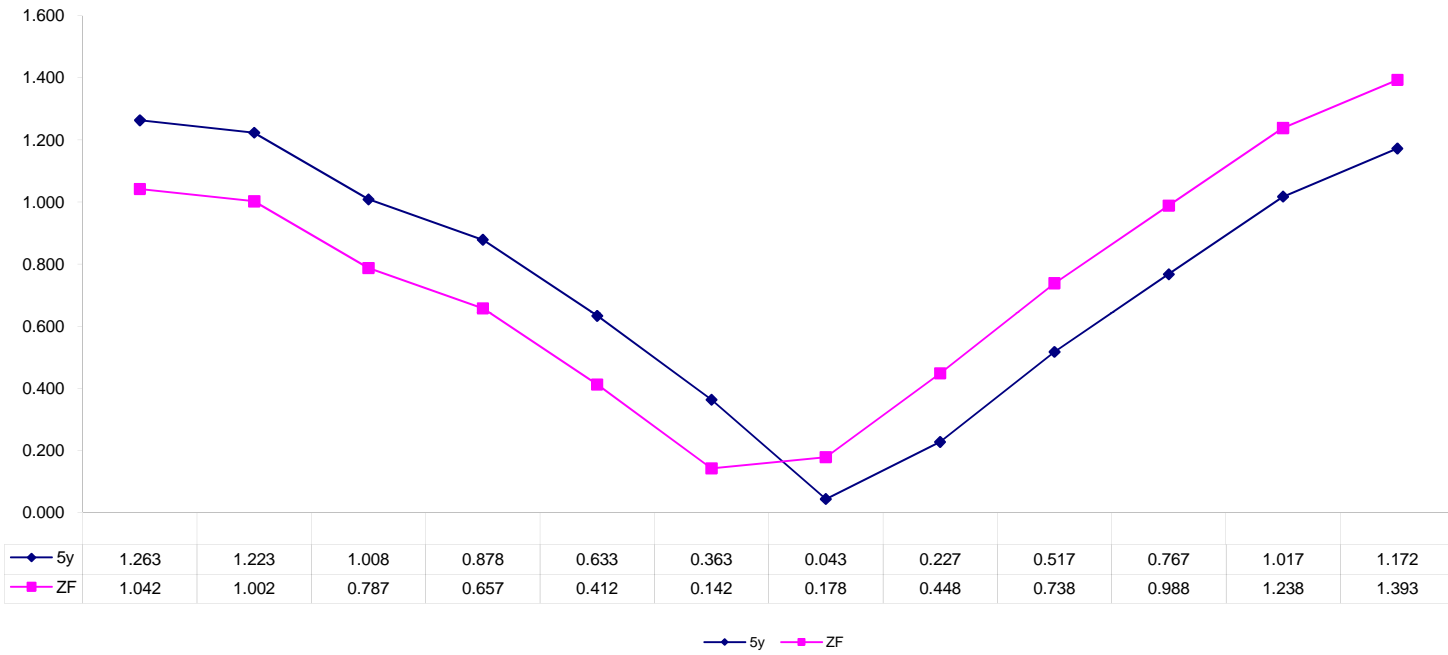


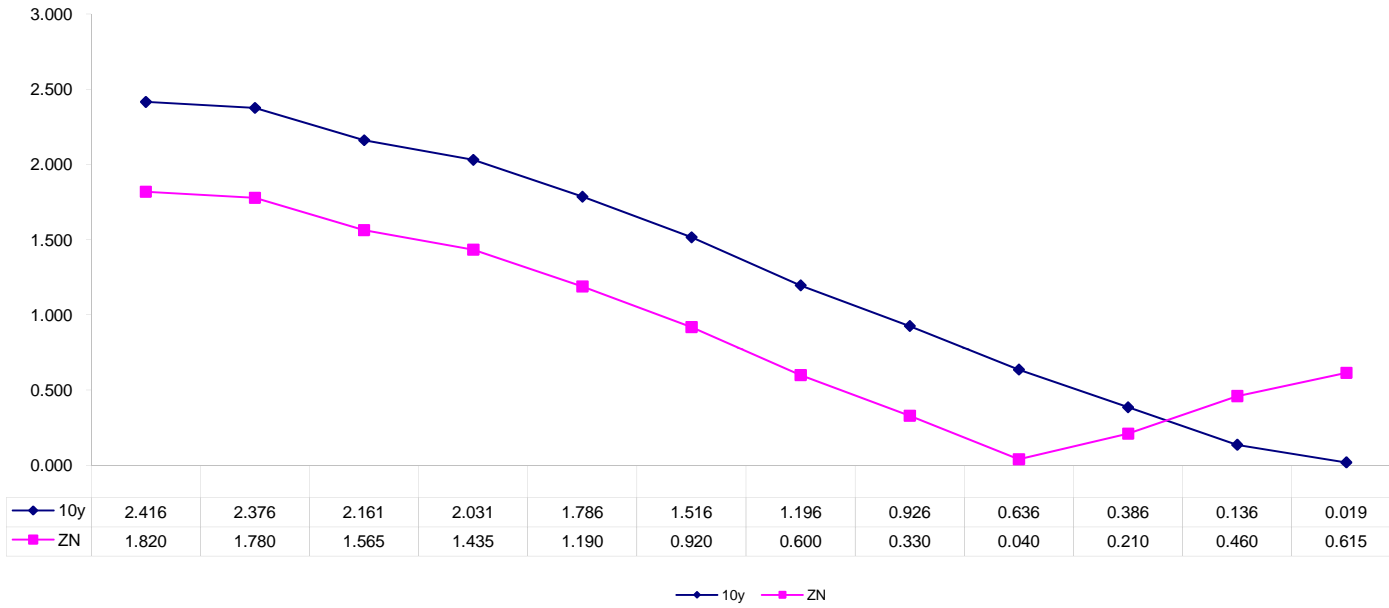
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.011	2.125	9900.5000
Red Pack	1.921	7.625	9811.5000
Green Pack	3.020	9.375	9704.3750
Blue Pack	3.677	9.750	9640.6250
Gold Pack		2.500	9596.5000

