

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 Feb-00	Last Yield*	MDuration
ZT	108.2813	108.0900	1.071	1.838
ZF	114.9531	114.3050	2.345	4.112
ZN	116.2188	116.0700	3.184	5.740
2y	99.7656	99.2450	1.115	1.967
5y	100.1938	100.0620	2.580	4.580
10y	95.6250	95.2000	3.660	8.269

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU09	99.4900	0.510	47	0.1281	SEP	
EDAZ09	99.2650	0.735	138	0.3774	DEC	White Pack
EDAH10	98.9950	1.005	229	0.6267	MAR	
EDAM10	98.6000	1.400	320	0.8760	JUN	
EDAU10	98.2000	1.800	411	1.1254	SEP	
EDAZ10	97.8000	2.200	502	1.3747	DEC	Red Pack
EDAH11	97.4500	2.550	593	1.6240	MAR	
EDAM11	97.1050	2.895	684	1.8733	JUN	
EDAU11	96.7900	3.210	782	2.1418	SEP	
EDAZ11	96.4900	3.510	873	2.3911	DEC	Green Pack
EDAH12	96.2750	3.725	964	2.6404	MAR	
EDAM12	96.0600	3.940	1,055	2.8897	JUN	
EDAU12	95.8900	4.110	1,146	3.1391	SEP	
EDAZ12	95.7150	4.285	1,237	3.3884	DEC	Blue Pack
EDAH13	95.6150	4.385	1,328	3.6377	MAR	
EDAM13	95.4850	4.515	1,419	3.8870	JUN	
EDAU13	95.3800	4.620	1,510	4.1363	SEP	
EDAZ13	95.2600	4.740	1,601	4.3856	DEC	Gold Pack
EDAH14	95.1950	4.805	1,692	4.6350	MAR	
EDAM14	95.1050	4.895	1,783	4.8843	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	0.928	0.075	9908.75	
Red Pack	2.409	0.037	9763.88	Pack Prices
Green Pack	3.679	0.175	9640.38	
Blue Pack	4.432	0.463	9567.63	
Gold Pack	4.889	0.675	9523.50	

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.

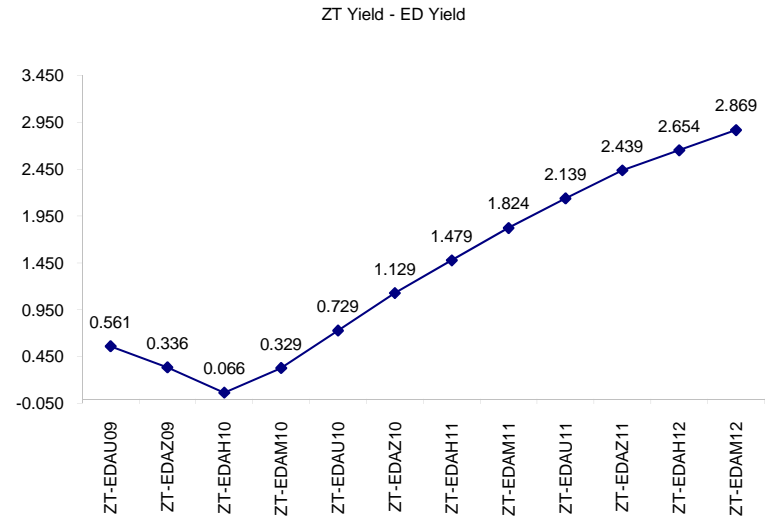
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Correlations (Important)

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.

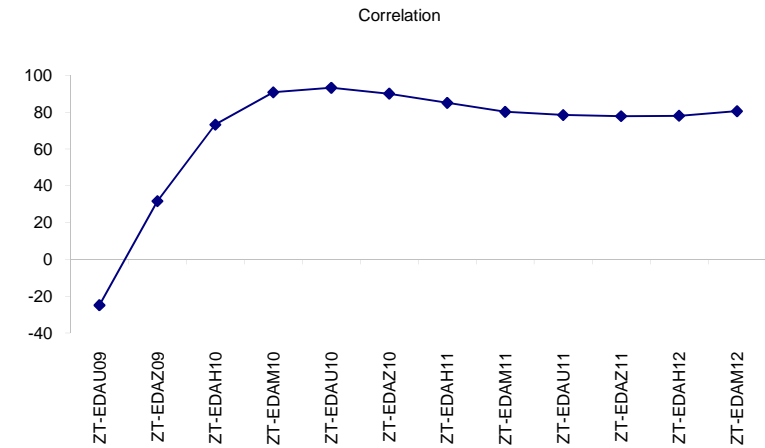
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	8.79	0.561	ZT-EDAU09	-25
EDAZ09	9.02	0.336	ZT-EDAZ09	32
EDAH10	9.29	0.066	ZT-EDAH10	73
EDAM10	9.68	0.329	ZT-EDAM10	91
EDAU10	10.08	0.729	ZT-EDAU10	93
EDAZ10	10.48	1.129	ZT-EDAZ10	90
EDAH11	10.83	1.479	ZT-EDAH11	85
EDAM11	11.18	1.824	ZT-EDAM11	80
EDAU11	11.49	2.139	ZT-EDAU11	78
EDAZ11	11.79	2.439	ZT-EDAZ11	78
EDAH12	12.01	2.654	ZT-EDAH12	78
EDAM12	12.22	2.869	ZT-EDAM12	80

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	
EDAU09	0.1281	1.8381	1.7100	ZT-EDAU09		
EDAZ09	0.3774	1.8381	1.4607	ZT-EDAZ09		
EDAH10	0.6267	1.8381	1.2114	ZT-EDAH10		
EDAM10	0.8760	1.8381	0.9620	ZT-EDAM10		
EDAU10	1.1254	1.8381	0.7127	ZT-EDAU10		
EDAZ10	1.3747	1.8381	0.4634	ZT-EDAZ10		
EDAH11	1.6240	1.8381	0.2141	ZT-EDAH11		
EDAM11	1.8733	1.8381	-0.0352	ZT-EDAM11		
EDAU11	2.1418	1.8381	-0.3037	ZT-EDAU11		
EDAZ11	2.3911	1.8381	-0.5530	ZT-EDAZ11		
EDAH12	2.6404	1.8381	-0.8023	ZT-EDAH12		
EDAM12	2.8897	1.8381	-1.0517	ZT-EDAM12		

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

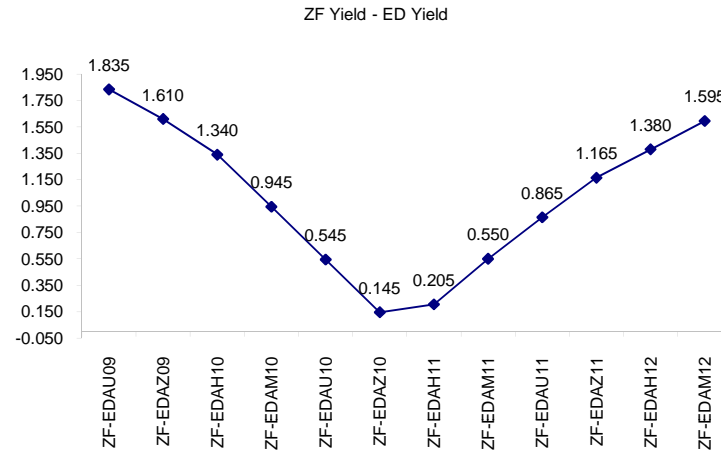


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	15.46	1.835	ZF-EDAU09	-25
EDAZ09	15.69	1.610	ZF-EDAZ09	29
EDAH10	15.96	1.340	ZF-EDAH10	70
EDAM10	16.35	0.945	ZF-EDAM10	88
EDAU10	16.75	0.545	ZF-EDAU10	90
EDAZ10	17.15	0.145	ZF-EDAZ10	87
EDAH11	17.50	0.205	ZF-EDAH11	83
EDAM11	17.85	0.550	ZF-EDAM11	79
EDAU11	18.16	0.865	ZF-EDAU11	79
EDAZ11	18.46	1.165	ZF-EDAZ11	80
EDAH12	18.68	1.380	ZF-EDAH12	81
EDAM12	18.89	1.595	ZF-EDAM12	85

Price = Outright Decimal Price - Euro Contract Price

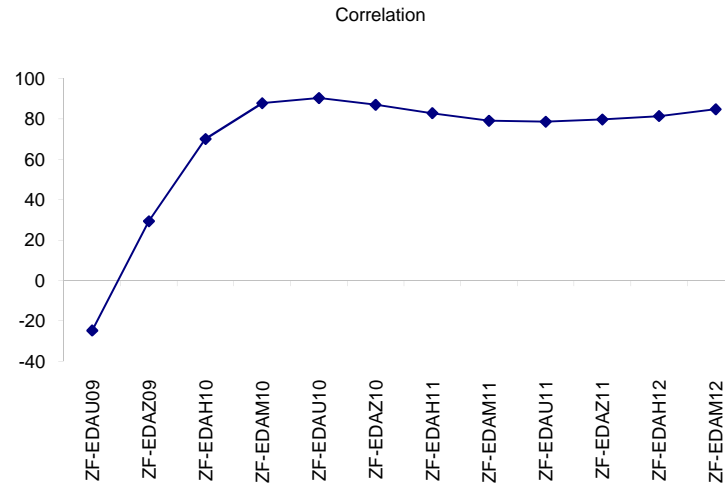
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAU09	0.1281	4.1121	3.9840	ZF-EDAU09	
EDAZ09	0.3774	4.1121	3.7347	ZF-EDAZ09	
EDAH10	0.6267	4.1121	3.4854	ZF-EDAH10	
EDAM10	0.8760	4.1121	3.2360	ZF-EDAM10	
EDAU10	1.1254	4.1121	2.9867	ZF-EDAU10	
EDAZ10	1.3747	4.1121	2.7374	ZF-EDAZ10	
EDAH11	1.6240	4.1121	2.4881	ZF-EDAH11	
EDAM11	1.8733	4.1121	2.2388	ZF-EDAM11	
EDAU11	2.1418	4.1121	1.9703	ZF-EDAU11	
EDAZ11	2.3911	4.1121	1.7210	ZF-EDAZ11	
EDAH12	2.6404	4.1121	1.4717	ZF-EDAH12	
EDAM12	2.8897	4.1121	1.2223	ZF-EDAM12	

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

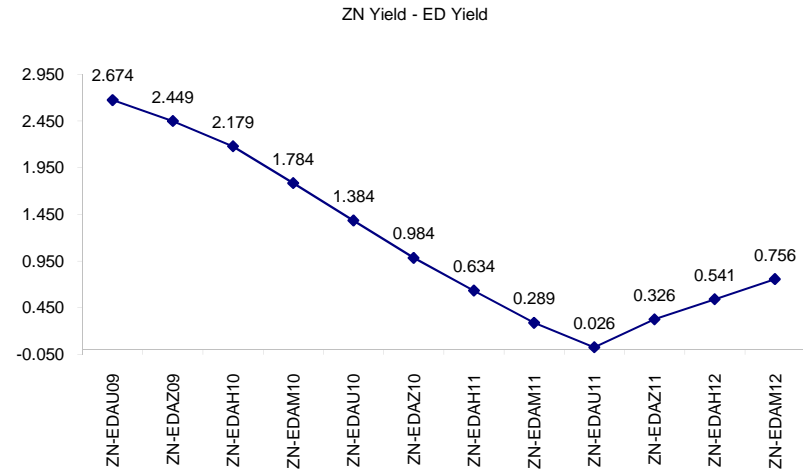


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAU09	16.73	2.674	ZN-EDAU09	-23
EDAZ09	16.95	2.449	ZN-EDAZ09	31
EDAH10	17.22	2.179	ZN-EDAH10	71
EDAM10	17.62	1.784	ZN-EDAM10	88
EDAU10	18.02	1.384	ZN-EDAU10	90
EDAZ10	18.42	0.984	ZN-EDAZ10	88
EDAH11	18.77	0.634	ZN-EDAH11	85
EDAM11	19.11	0.289	ZN-EDAM11	82
EDAU11	19.43	0.026	ZN-EDAU11	82
EDAZ11	19.73	0.326	ZN-EDAZ11	83
EDAH12	19.94	0.541	ZN-EDAH12	85
EDAM12	20.16	0.756	ZN-EDAM12	88

Price = Outright Decimal Price - Euro Contract Price

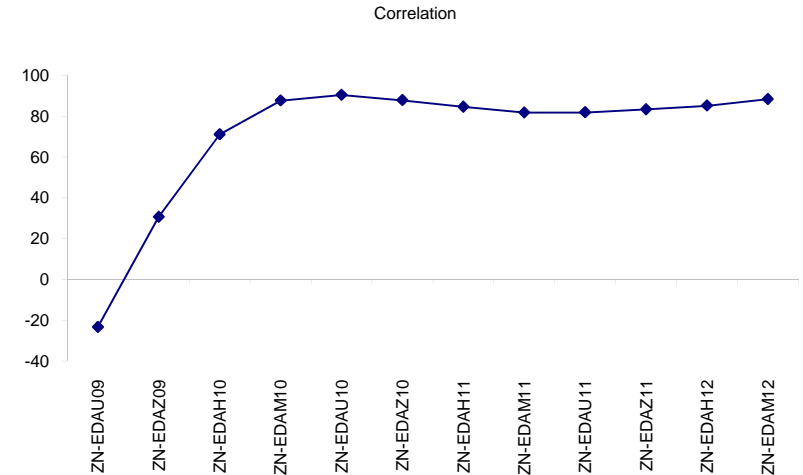
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			ZN Duration	Spread Duration	ZN-EDAU09
	Fraction of year	Duration	Duration			
EDAU09	0.1281	5.7398	5.6117	5.7398	5.6117	ZN-EDAU09
EDAZ09	0.3774	5.7398	5.3623	5.7398	5.3623	ZN-EDAZ09
EDAH10	0.6267	5.7398	5.1130	5.7398	5.1130	ZN-EDAH10
EDAM10	0.8760	5.7398	4.8637	5.7398	4.8637	ZN-EDAM10
EDAU10	1.1254	5.7398	4.6144	5.7398	4.6144	ZN-EDAU10
EDAZ10	1.3747	5.7398	4.3651	5.7398	4.3651	ZN-EDAZ10
EDAH11	1.6240	5.7398	4.1158	5.7398	4.1158	ZN-EDAH11
EDAM11	1.8733	5.7398	3.8665	5.7398	3.8665	ZN-EDAM11
EDAU11	2.1418	5.7398	3.5980	5.7398	3.5980	ZN-EDAU11
EDAZ11	2.3911	5.7398	3.3486	5.7398	3.3486	ZN-EDAZ11
EDAH12	2.6404	5.7398	3.0993	5.7398	3.0993	ZN-EDAH12
EDAM12	2.8897	5.7398	2.8500	5.7398	2.8500	ZN-EDAM12

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



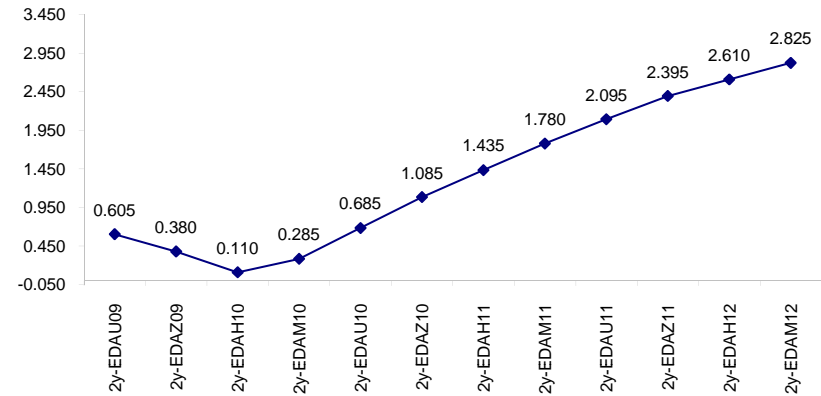
	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.28	0.605	2y-EDAU09	52
EDAZ09	0.50	0.380	2y-EDAZ09	-5
EDAH10	0.77	0.110	2y-EDAH10	-53
EDAM10	1.17	0.285	2y-EDAM10	-77
EDAU10	1.57	0.685	2y-EDAU10	-82
EDAZ10	1.97	1.085	2y-EDAZ10	-78
EDAH11	2.32	1.435	2y-EDAH11	-71
EDAM11	2.66	1.780	2y-EDAM11	-63
EDAU11	2.98	2.095	2y-EDAU11	-59
EDAZ11	3.28	2.395	2y-EDAZ11	-57
EDAH12	3.49	2.610	2y-EDAH12	-56
EDAM12	3.71	2.825	2y-EDAM12	-59

Price = Outright Decimal Price - Euro Contract Price

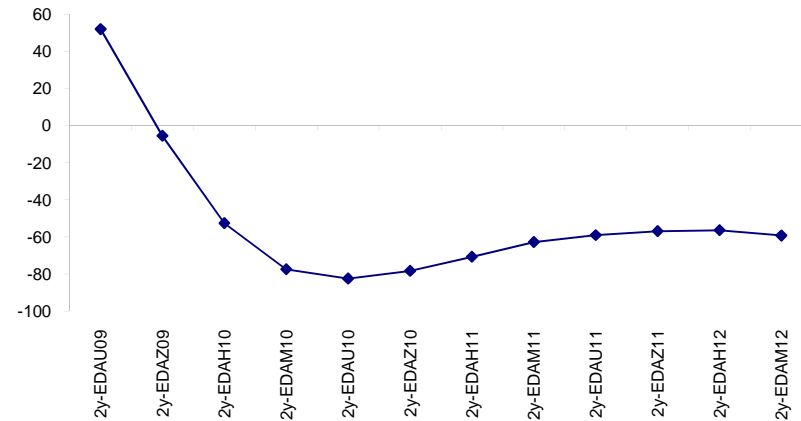
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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

ZT Yield - ED Yield



Correlation



ED Duration as

	Fraction of year	2Y Duration	Spread Duration	
EDAU09	0.1281	1.9670	1.8389	2y-EDAU09
EDAZ09	0.3774	1.9670	1.5896	2y-EDAZ09
EDAH10	0.6267	1.9670	1.3403	2y-EDAH10
EDAM10	0.8760	1.9670	1.0910	2y-EDAM10
EDAU10	1.1254	1.9670	0.8416	2y-EDAU10
EDAZ10	1.3747	1.9670	0.5923	2y-EDAZ10
EDAH11	1.6240	1.9670	0.3430	2y-EDAH11
EDAM11	1.8733	1.9670	0.0937	2y-EDAM11
EDAU11	2.1418	1.9670	-0.1748	2y-EDAU11
EDAZ11	2.3911	1.9670	-0.4241	2y-EDAZ11
EDAH12	2.6404	1.9670	-0.6734	2y-EDAH12
EDAM12	2.8897	1.9670	-0.9227	2y-EDAM12

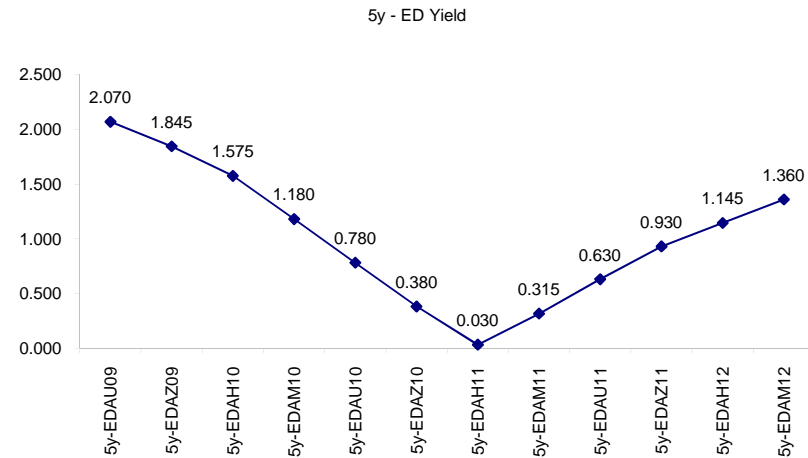
The farther away from 0 the spread duration is the riskier the trade.

5y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.70	2.070	5y-EDAU09	41
EDAZ09	0.93	1.845	5y-EDAZ09	-17
EDAH10	1.20	1.575	5y-EDAH10	-64
EDAM10	1.59	1.180	5y-EDAM10	-85
EDAU10	1.99	0.780	5y-EDAU10	-89
EDAZ10	2.39	0.380	5y-EDAZ10	-85
EDAH11	2.74	0.030	5y-EDAH11	-80
EDAM11	3.09	0.315	5y-EDAM11	-74
EDAU11	3.40	0.630	5y-EDAU11	-73
EDAZ11	3.70	0.930	5y-EDAZ11	-74
EDAH12	3.92	1.145	5y-EDAH12	-76
EDAM12	4.13	1.360	5y-EDAM12	-79

Price = Outright Decimal Price - Euro Contract Price

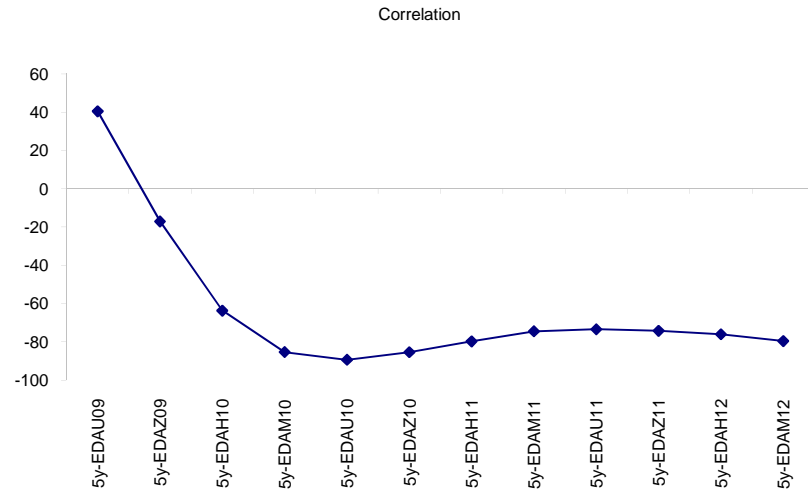
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



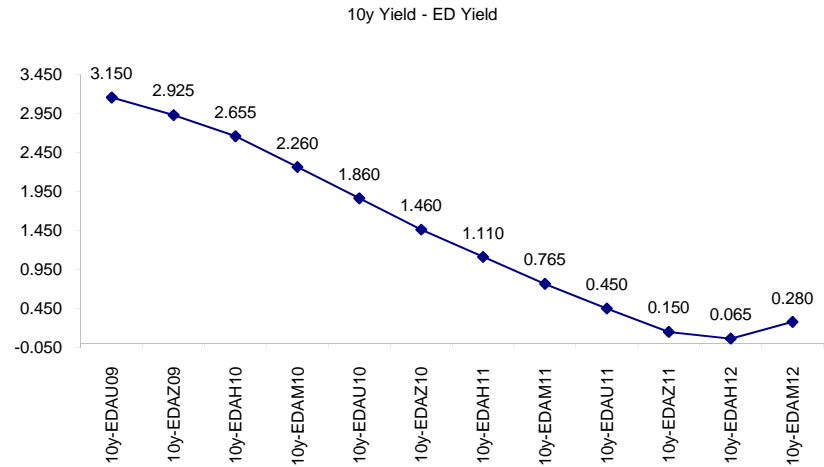
ED Duration as Fraction of year				
	5Y Duration	Spread Duration		
EDAU09	0.1281	4.5797	4.4516	5y-EDAU09
EDAZ09	0.3774	4.5797	4.2023	5y-EDAZ09
EDAH10	0.6267	4.5797	3.9529	5y-EDAH10
EDAM10	0.8760	4.5797	3.7036	5y-EDAM10
EDAU10	1.1254	4.5797	3.4543	5y-EDAU10
EDAZ10	1.3747	4.5797	3.2050	5y-EDAZ10
EDAH11	1.6240	4.5797	2.9557	5y-EDAH11
EDAM11	1.8733	4.5797	2.7064	5y-EDAM11
EDAU11	2.1418	4.5797	2.4379	5y-EDAU11
EDAZ11	2.3911	4.5797	2.1886	5y-EDAZ11
EDAH12	2.6404	4.5797	1.9392	5y-EDAH12
EDAM12	2.8897	4.5797	1.6899	5y-EDAM12

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



10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.70	3.150	10y-EDAU09	37
EDAZ09	0.93	2.925	10y-EDAZ09	-16
EDAH10	1.20	2.655	10y-EDAH10	-61
EDAM10	1.59	2.260	10y-EDAM10	-81
EDAU10	1.99	1.860	10y-EDAU10	-86
EDAZ10	2.39	1.460	10y-EDAZ10	-83
EDAH11	2.74	1.110	10y-EDAH11	-79
EDAM11	3.09	0.765	10y-EDAM11	-76
EDAU11	3.40	0.450	10y-EDAU11	-76
EDAZ11	3.70	0.150	10y-EDAZ11	-78
EDAH12	3.92	0.065	10y-EDAH12	-81
EDAM12	4.13	0.280	10y-EDAM12	-85

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	
EDAU09	0.1281	8.2695	8.1414	10y-EDAU09		
EDAZ09	0.3774	8.2695	7.8920	10y-EDAZ09		
EDAH10	0.6267	8.2695	7.6427	10y-EDAH10		
EDAM10	0.8760	8.2695	7.3934	10y-EDAM10		
EDAU10	1.1254	8.2695	7.1441	10y-EDAU10		
EDAZ10	1.3747	8.2695	6.8948	10y-EDAZ10		
EDAH11	1.6240	8.2695	6.6455	10y-EDAH11		
EDAM11	1.8733	8.2695	6.3962	10y-EDAM11		
EDAU11	2.1418	8.2695	6.1277	10y-EDAU11		
EDAZ11	2.3911	8.2695	5.8783	10y-EDAZ11		
EDAH12	2.6404	8.2695	5.6290	10y-EDAH12		
EDAM12	2.8897	8.2695	5.3797	10y-EDAM12		

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

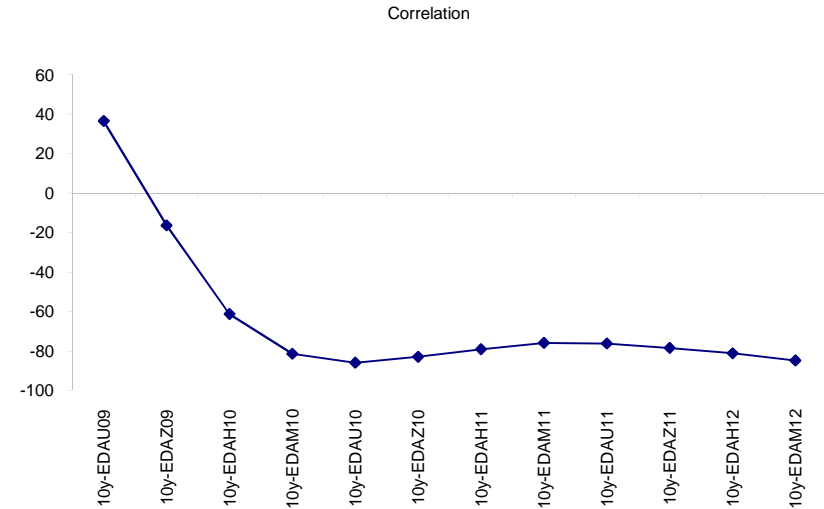


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

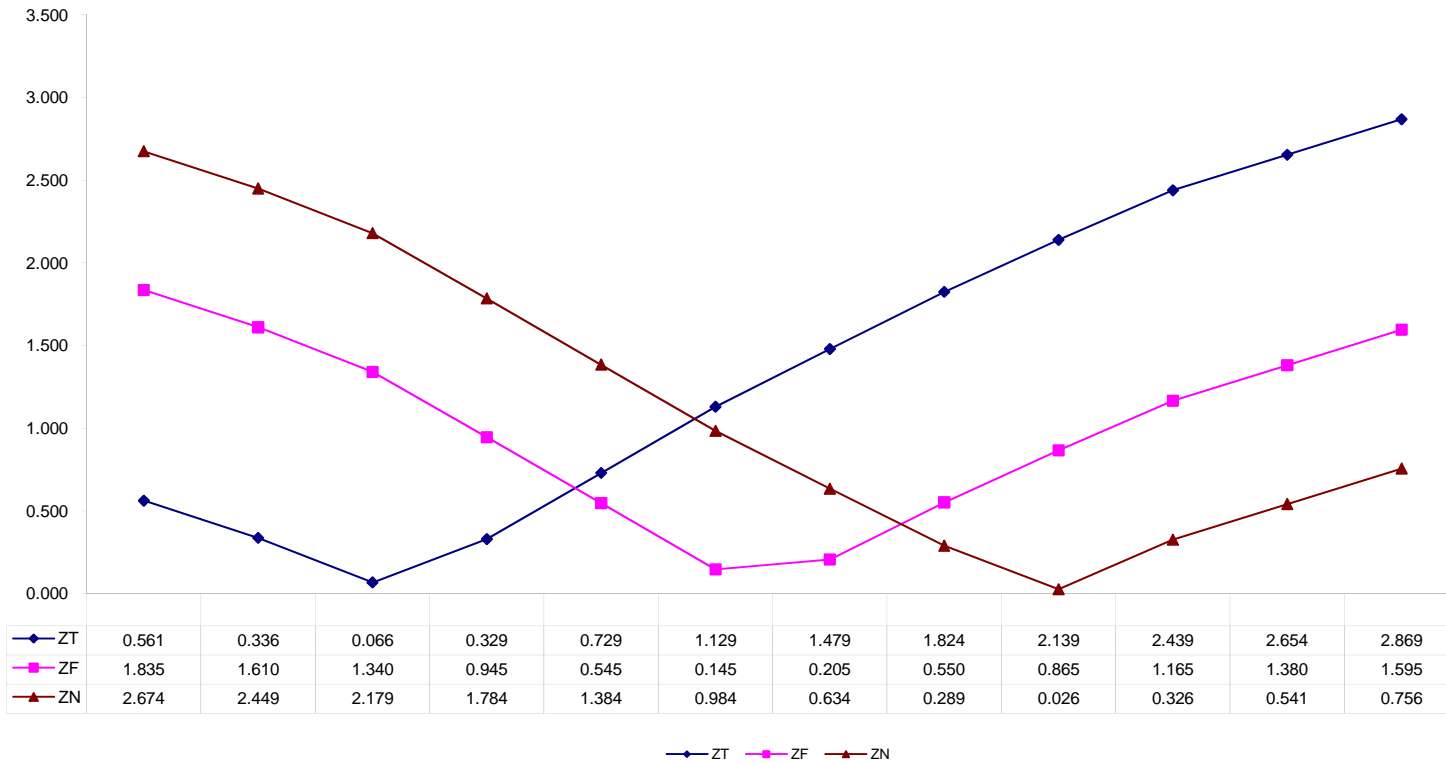
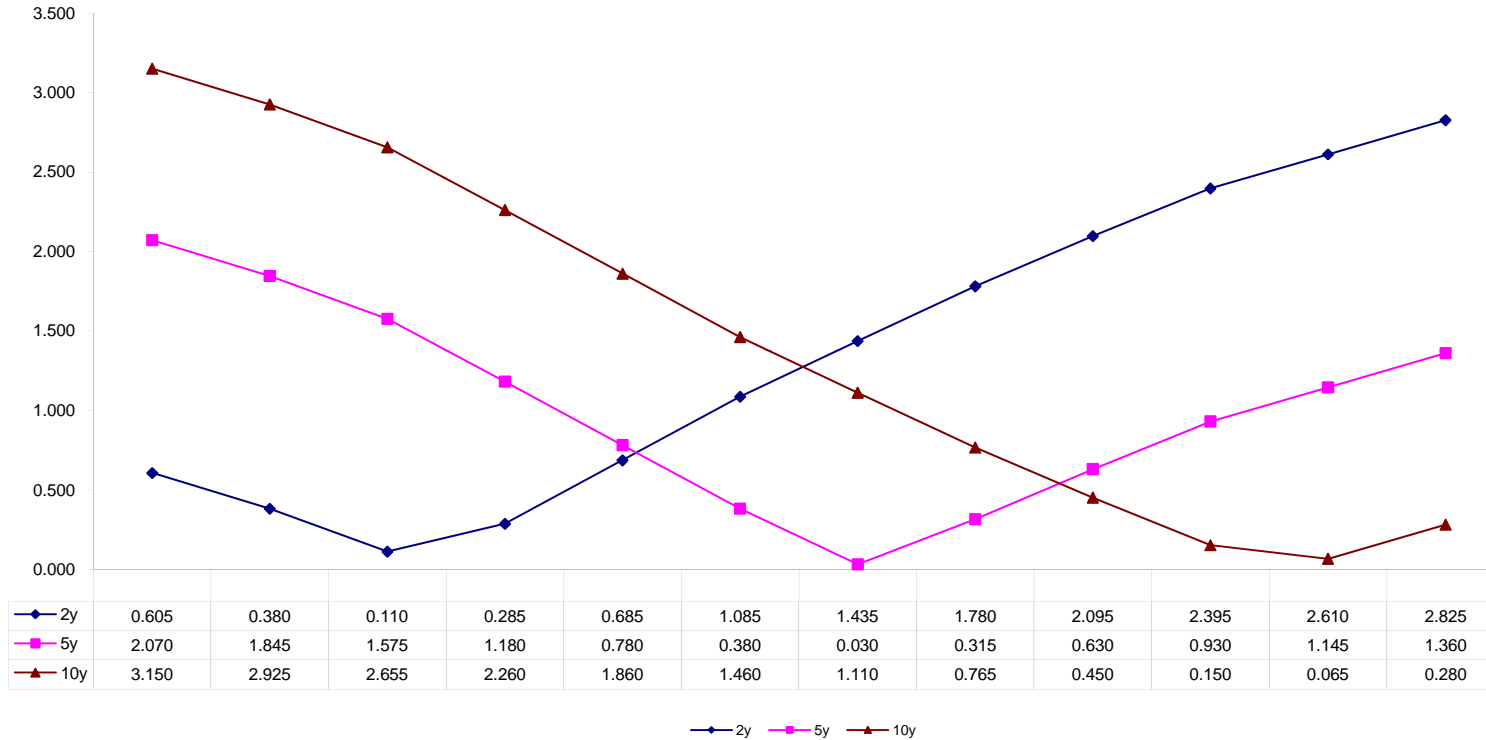
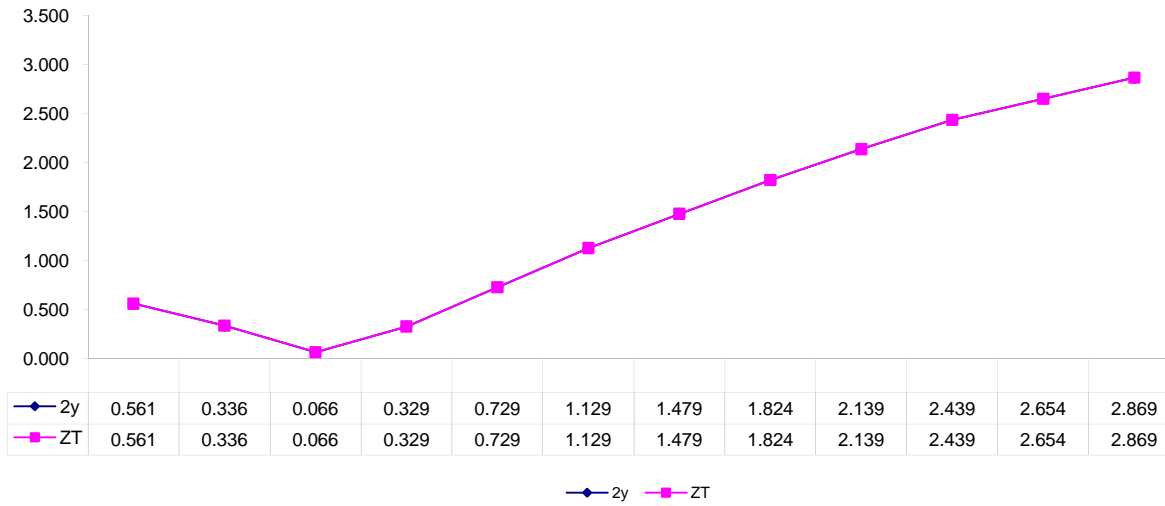
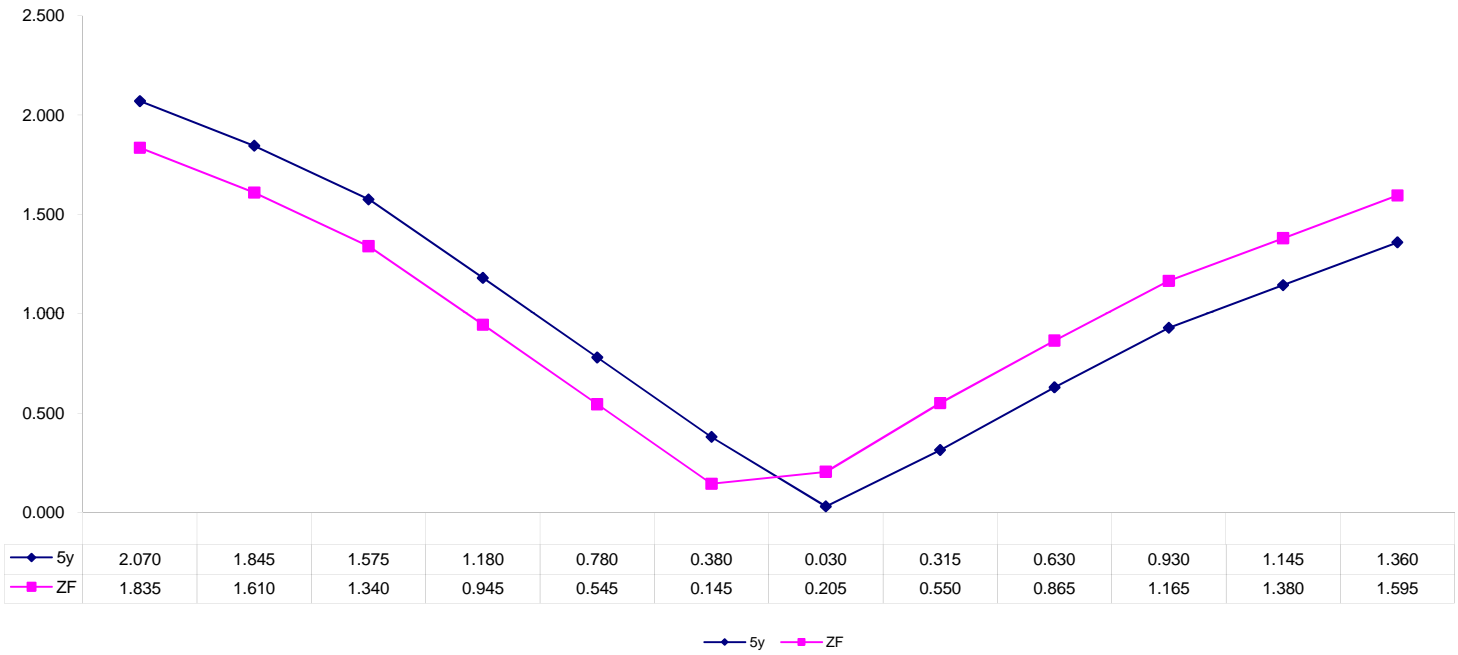


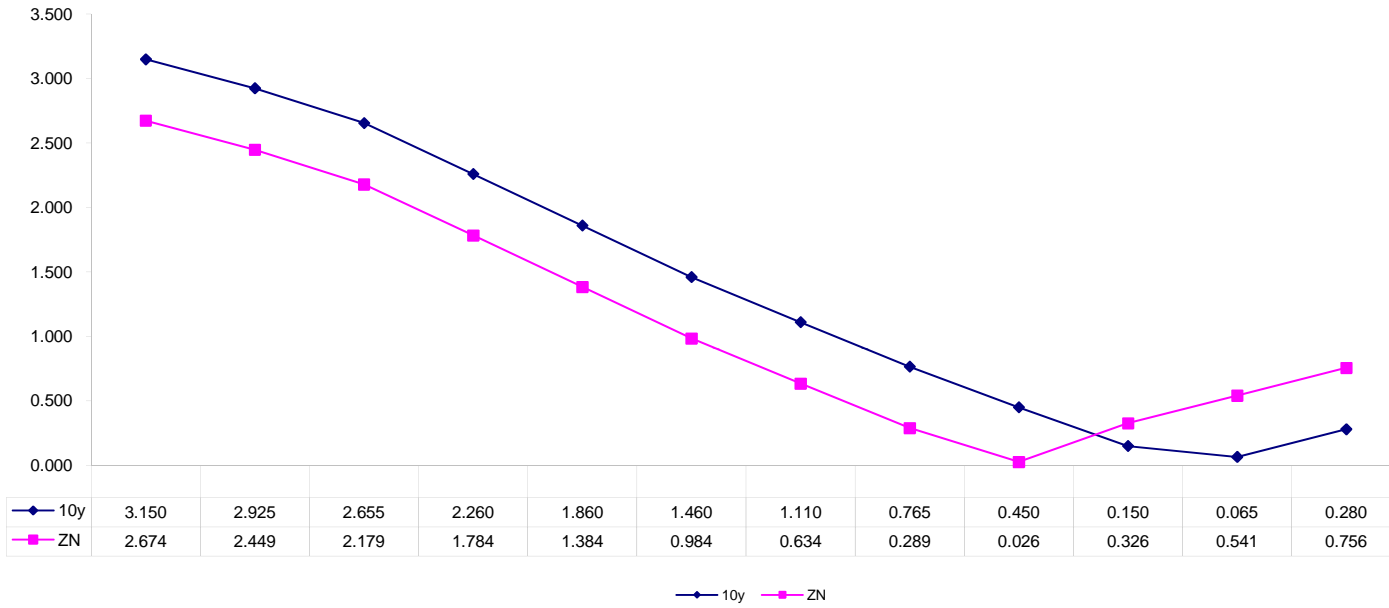
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	0.928	0.075	9908.7500
Red Pack	2.409	0.037	9763.8750
Green Pack	3.679	0.175	9640.3750
Blue Pack	4.432	0.463	9567.6250
Gold Pack	4.889	0.675	9523.5000

