

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	108.8813	108.2820	0.843	1.97
ZF	119.7094	119.2270	1.121	1.12
ZN	127.4688	127.1500	1.347	6.31
2y	100.0313	100.0100	0.843	1.97
5y	100.2969	100.0950	1.425	4.67
10y	114.4063	114.1300	2.115	8.34

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAH09	98.875	1.125	77	0.210	MAR	
EDAM09	98.820	1.180	168	0.460	JUN	White Pack
EDAU09	98.725	1.275	259	0.709	SEP	
EDAZ09	98.585	1.415	350	0.958	DEC	
EDAH10	98.470	1.530	441	1.208	MAR	
EDAM10	98.275	1.725	532	1.457	JUN	Red Pack
EDAU10	98.115	1.885	623	1.706	SEP	
EDAZ10	97.940	2.060	714	1.956	DEC	
EDAH11	97.835	2.165	805	2.205	MAR	
EDAM11	97.705	2.295	896	2.454	JUN	Green Pack
EDAU11	97.610	2.390	994	2.723	SEP	
EDAZ11	97.505	2.495	1085	2.972	DEC	
EDAH12	97.455	2.545	1176	3.221	MAR	
EDAM12	97.425	2.575	1267	3.471	JUN	Blue Pack
EDAU12	97.335	2.665	1358	3.720	SEP	
EDAZ12	97.270	2.730	1449	3.969	DEC	
EDAH13	#VALUE!	#VALUE!	1540	4.219	MAR	
EDAM13	#VALUE!	#VALUE!	1631	4.468	JUN	Gold Pack
EDZU13	#VALUE!	#VALUE!	1722	4.717	SEP	
EDZZ13	97.005	2.995	1813	4.966	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.270	7.875	9875.125	
Red Pack	1.833	11.250	9820.000	Pack Prices
Green Pack	2.383	9.875	9766.375	
Blue Pack		2.625	9737.375	
Gold Pack		0.000	9716.500	

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.

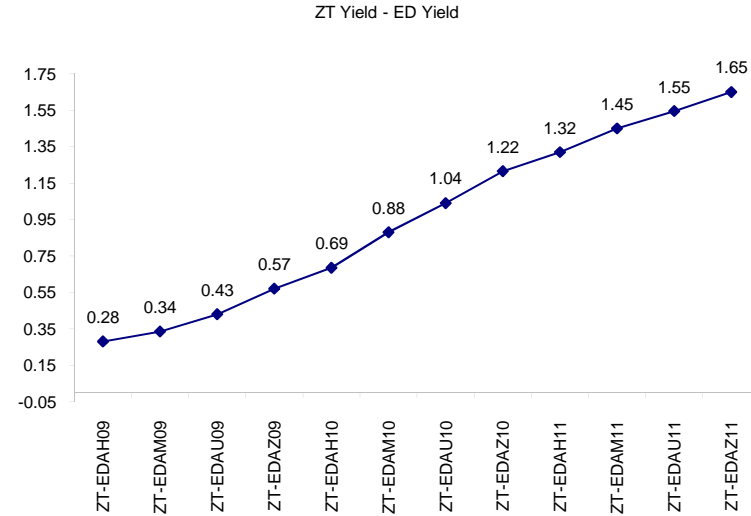
jgoulding@ghco.com

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.

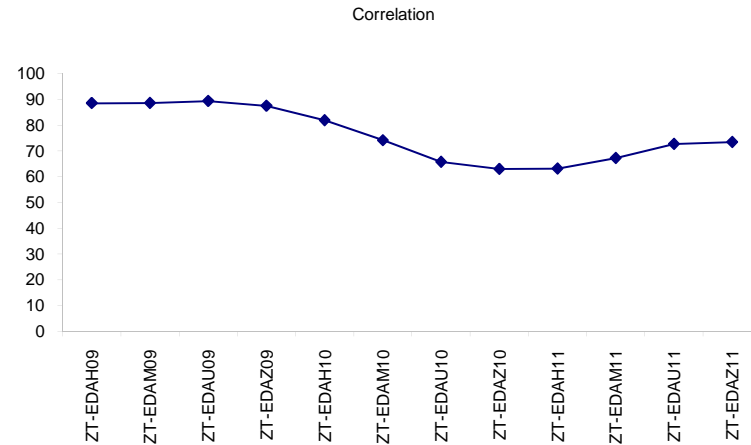
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	10.006	0.28	ZT-EDAH09	88.582
EDAM09	10.061	0.34	ZT-EDAM09	88.601
EDAU09	10.156	0.43	ZT-EDAU09	89.393
EDAZ09	10.296	0.57	ZT-EDAZ09	87.549
EDAH10	10.411	0.69	ZT-EDAH10	81.924
EDAM10	10.606	0.88	ZT-EDAM10	74.189
EDAU10	10.766	1.04	ZT-EDAU10	65.846
EDAZ10	10.941	1.22	ZT-EDAZ10	63.076
EDAH11	11.046	1.32	ZT-EDAH11	63.217
EDAM11	11.176	1.45	ZT-EDAM11	67.314
EDAU11	11.271	1.55	ZT-EDAU11	72.774
EDAZ11	11.376	1.65	ZT-EDAZ11	73.493

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	
EDAH09	0.210	1.97	1.76	ZT-EDAH09		
EDAM09	0.460	1.97	1.51	ZT-EDAM09		
EDAU09	0.709	1.97	1.26	ZT-EDAU09		
EDAZ09	0.958	1.97	1.01	ZT-EDAZ09		
EDAH10	1.208	1.97	0.77	ZT-EDAH10		
EDAM10	1.457	1.97	0.52	ZT-EDAM10		
EDAU10	1.706	1.97	0.27	ZT-EDAU10		
EDAZ10	1.956	1.97	0.02	ZT-EDAZ10		
EDAH11	2.205	1.97	(0.23)	ZT-EDAH11		
EDAM11	2.454	1.97	(0.48)	ZT-EDAM11		
EDAU11	2.723	1.97	(0.75)	ZT-EDAU11		
EDAZ11	2.972	1.97	(1.00)	ZT-EDAZ11		

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

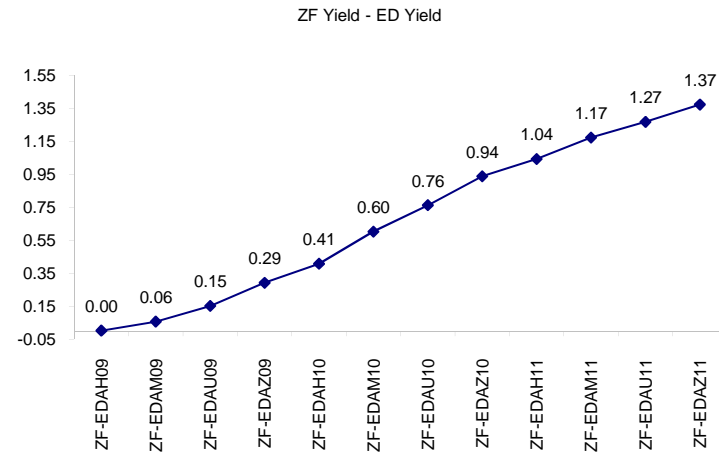


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	20.834	0.00	ZF-EDAH09	60.533
EDAM09	20.889	0.06	ZF-EDAM09	67.415
EDAU09	20.984	0.15	ZF-EDAU09	72.874
EDAZ09	21.124	0.29	ZF-EDAZ09	78.906
EDAH10	21.239	0.41	ZF-EDAH10	86.723
EDAM10	21.434	0.60	ZF-EDAM10	90.860
EDAU10	21.594	0.76	ZF-EDAU10	93.869
EDAZ10	21.769	0.94	ZF-EDAZ10	96.430
EDAH11	21.874	1.04	ZF-EDAH11	96.624
EDAM11	22.004	1.17	ZF-EDAM11	96.052
EDAU11	22.099	1.27	ZF-EDAU11	92.933
EDAZ11	22.204	1.37	ZF-EDAZ11	89.013

Price = Outright Decimal Price - Euro Contract Price

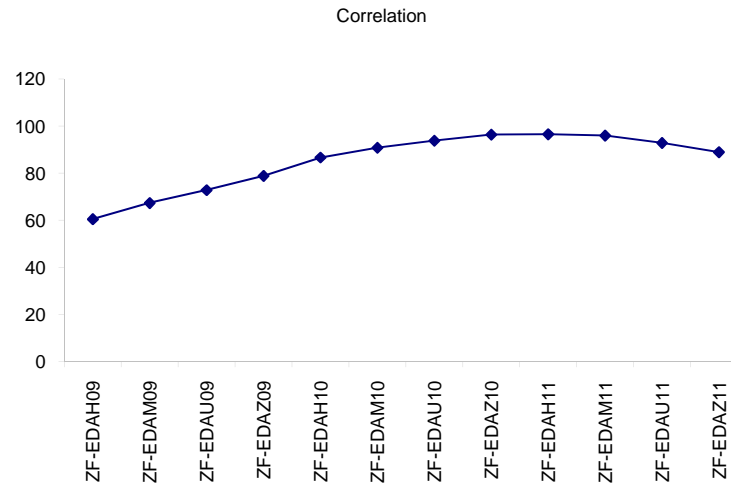
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAH09	0.210	1.12	0.91	ZF-EDAH09		
EDAM09	0.460	1.12	0.66	ZF-EDAM09		
EDAU09	0.709	1.12	0.41	ZF-EDAU09		
EDAZ09	0.958	1.12	0.16	ZF-EDAZ09		
EDAH10	1.208	1.12	(0.09)	ZF-EDAH10		
EDAM10	1.457	1.12	(0.34)	ZF-EDAM10		
EDAU10	1.706	1.12	(0.59)	ZF-EDAU10		
EDAZ10	1.956	1.12	(0.83)	ZF-EDAZ10		
EDAH11	2.205	1.12	(1.08)	ZF-EDAH11		
EDAM11	2.454	1.12	(1.33)	ZF-EDAM11		
EDAU11	2.723	1.12	(1.60)	ZF-EDAU11		
EDAZ11	2.972	1.12	(1.85)	ZF-EDAZ11		

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

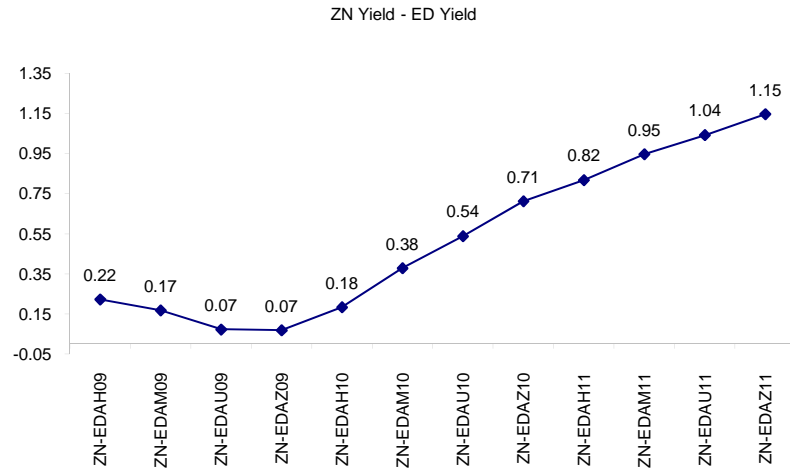


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	28.594	0.22	ZN-EDAH09	85.742
EDAM09	28.649	0.17	ZN-EDAM09	81.559
EDAU09	28.744	0.07	ZN-EDAU09	77.334
EDAZ09	28.884	0.07	ZN-EDAZ09	76.419
EDAH10	28.999	0.18	ZN-EDAH10	76.021
EDAM10	29.194	0.38	ZN-EDAM10	73.141
EDAU10	29.354	0.54	ZN-EDAU10	70.711
EDAZ10	29.529	0.71	ZN-EDAZ10	74.647
EDAH11	29.634	0.82	ZN-EDAH11	78.496
EDAM11	29.764	0.95	ZN-EDAM11	86.698
EDAU11	29.859	1.04	ZN-EDAU11	92.625
EDAZ11	29.964	1.15	ZN-EDAZ11	94.989

Price = Outright Decimal Price - Euro Contract Price

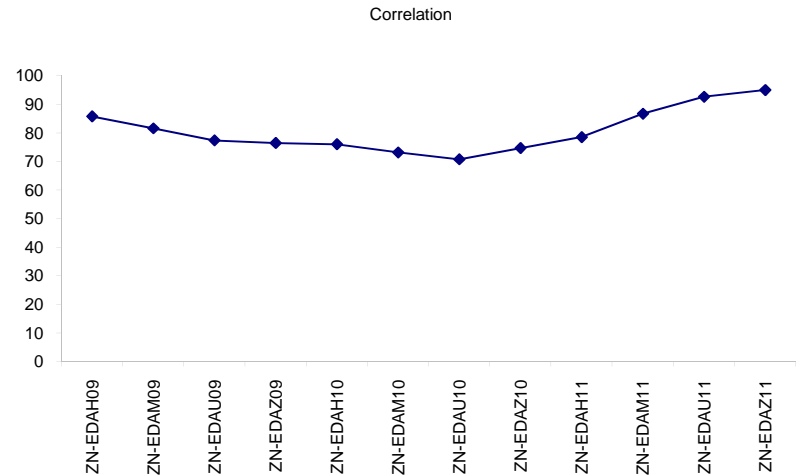
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAH09	0.210	6.31	6.10	ZN-EDAH09		
EDAM09	0.460	6.31	5.85	ZN-EDAM09		
EDAU09	0.709	6.31	5.60	ZN-EDAU09		
EDAZ09	0.958	6.31	5.35	ZN-EDAZ09		
EDAH10	1.208	6.31	5.10	ZN-EDAH10		
EDAM10	1.457	6.31	4.85	ZN-EDAM10		
EDAU10	1.706	6.31	4.60	ZN-EDAU10		
EDAZ10	1.956	6.31	4.35	ZN-EDAZ10		
EDAH11	2.205	6.31	4.10	ZN-EDAH11		
EDAM11	2.454	6.31	3.86	ZN-EDAM11		
EDAU11	2.723	6.31	3.59	ZN-EDAU11		
EDAZ11	2.972	6.31	3.34	ZN-EDAZ11		

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

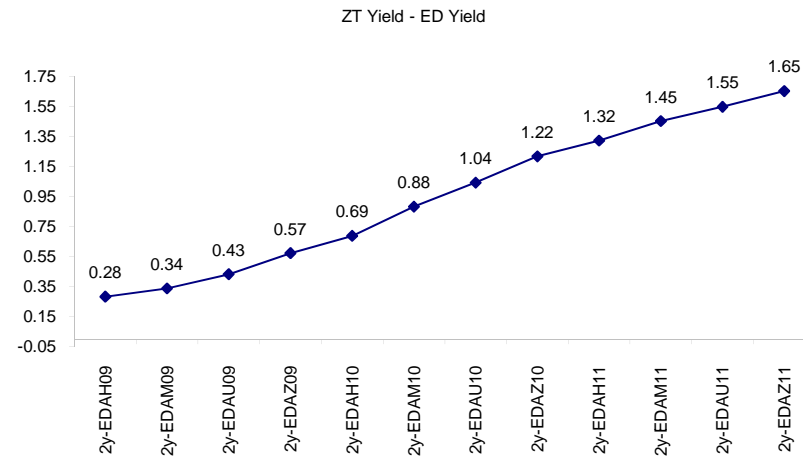


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.156	0.28	2y-EDAH09	36.187
EDAM09	1.211	0.34	2y-EDAM09	20.606
EDAU09	1.306	0.43	2y-EDAU09	9.181
EDAZ09	1.446	0.57	2y-EDAZ09	-2.095
EDAH10	1.561	0.69	2y-EDAH10	-19.004
EDAM10	1.756	0.88	2y-EDAM10	-33.970
EDAU10	1.916	1.04	2y-EDAU10	-46.850
EDAZ10	2.091	1.22	2y-EDAZ10	-49.329
EDAH11	2.196	1.32	2y-EDAH11	-46.062
EDAM11	2.326	1.45	2y-EDAM11	-34.896
EDAU11	2.421	1.55	2y-EDAU11	-20.851
EDAZ11	2.526	1.65	2y-EDAZ11	-12.092

Price = Outright Decimal Price - Euro Contract Price

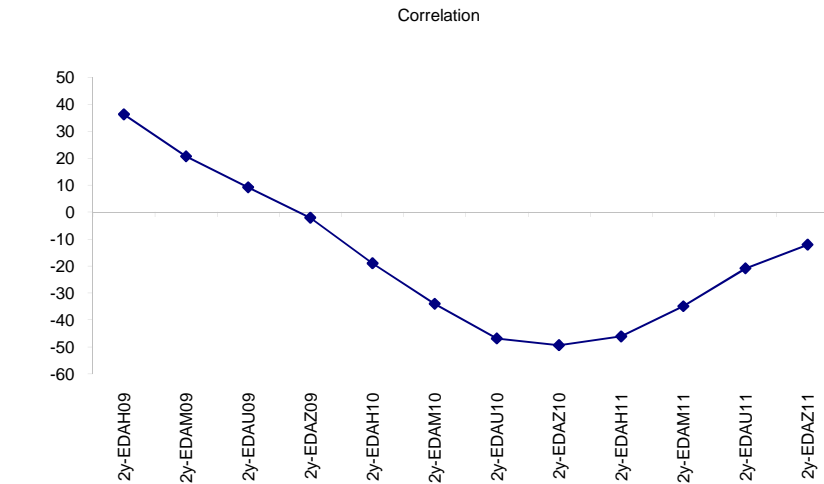
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAH09	0.210	1.97	1.76	2y-EDAH09	
EDAM09	0.460	1.97	1.51	2y-EDAM09	
EDAU09	0.709	1.97	1.26	2y-EDAU09	
EDAZ09	0.958	1.97	1.01	2y-EDAZ09	
EDAH10	1.208	1.97	0.77	2y-EDAH10	
EDAM10	1.457	1.97	0.52	2y-EDAM10	
EDAU10	1.706	1.97	0.27	2y-EDAU10	
EDAZ10	1.956	1.97	0.02	2y-EDAZ10	
EDAH11	2.205	1.97	(0.23)	2y-EDAH11	
EDAM11	2.454	1.97	(0.48)	2y-EDAM11	
EDAU11	2.723	1.97	(0.75)	2y-EDAU11	
EDAZ11	2.972	1.97	(1.00)	2y-EDAZ11	

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

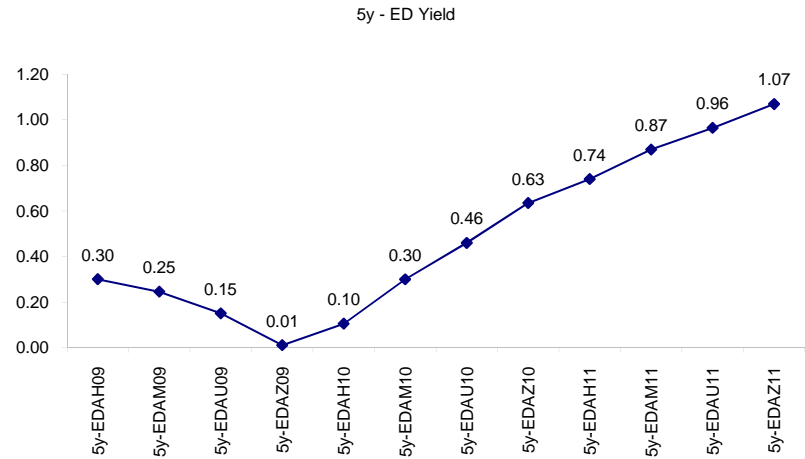


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.422	0.30	5y-EDAH09	-13.616
EDAM09	1.477	0.25	5y-EDAM09	-25.017
EDAU09	1.572	0.15	5y-EDAU09	-32.189
EDAZ09	1.712	0.01	5y-EDAZ09	-41.787
EDAH10	1.827	0.10	5y-EDAH10	-56.545
EDAM10	2.022	0.30	5y-EDAM10	-67.525
EDAU10	2.182	0.46	5y-EDAU10	-77.413
EDAZ10	2.357	0.63	5y-EDAZ10	-80.431
EDAH11	2.462	0.74	5y-EDAH11	-78.822
EDAM11	2.592	0.87	5y-EDAM11	-73.457
EDAU11	2.687	0.96	5y-EDAU11	-65.326
EDAZ11	2.792	1.07	5y-EDAZ11	-59.527

Price = Outright Decimal Price - Euro Contract Price

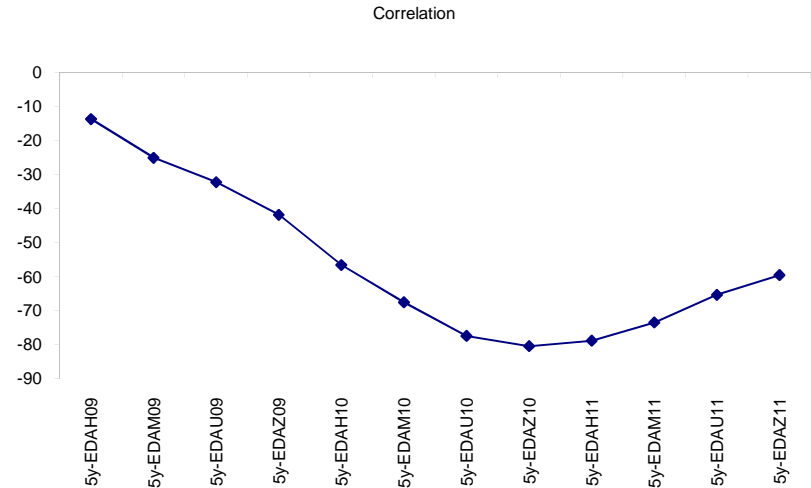
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	5Y Duration	Spread Duration		
EDAH09	0.210	4.67	4.46	5y-EDAH09
EDAM09	0.460	4.67	4.21	5y-EDAM09
EDAU09	0.709	4.67	3.96	5y-EDAU09
EDAZ09	0.958	4.67	3.72	5y-EDAZ09
EDAH10	1.208	4.67	3.47	5y-EDAH10
EDAM10	1.457	4.67	3.22	5y-EDAM10
EDAU10	1.706	4.67	2.97	5y-EDAU10
EDAZ10	1.956	4.67	2.72	5y-EDAZ10
EDAH11	2.205	4.67	2.47	5y-EDAH11
EDAM11	2.454	4.67	2.22	5y-EDAM11
EDAU11	2.723	4.67	1.95	5y-EDAU11
EDAZ11	2.972	4.67	1.70	5y-EDAZ11

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

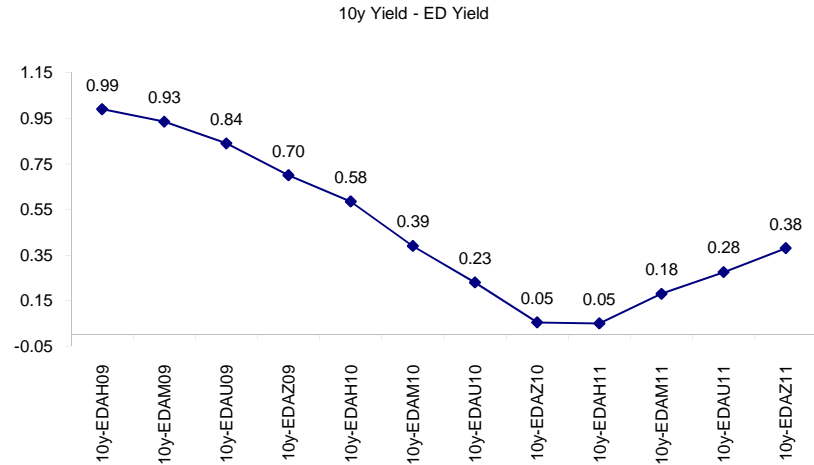


	10y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAH09	1.422	0.99	10y-EDAH09	-91.359
EDAM09	1.477	0.93	10y-EDAM09	-83.614
EDAU09	1.572	0.84	10y-EDAU09	-77.003
EDAZ09	1.712	0.70	10y-EDAZ09	-74.284
EDAH10	1.827	0.58	10y-EDAH10	-71.004
EDAM10	2.022	0.39	10y-EDAM10	-65.076
EDAU10	2.182	0.23	10y-EDAU10	-60.430
EDAZ10	2.357	0.05	10y-EDAZ10	-61.867
EDAH11	2.462	0.05	10y-EDAH11	-64.873
EDAM11	2.592	0.18	10y-EDAM11	-75.602
EDAU11	2.687	0.28	10y-EDAU11	-85.540
EDAZ11	2.792	0.38	10y-EDAZ11	-90.261

Price = Outright Decimal Price - Euro Contract Price

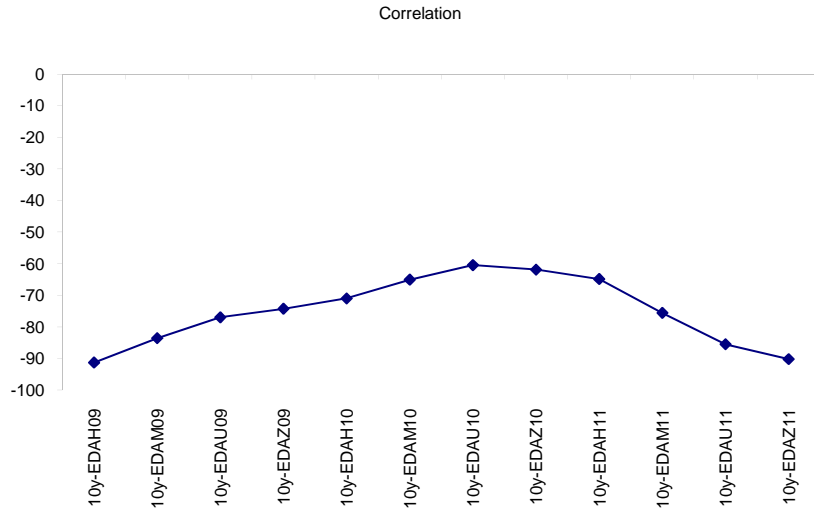
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAH09	0.210	8.34	8.13	10y-EDAH09
EDAM09	0.460	8.34	7.88	10y-EDAM09
EDAU09	0.709	8.34	7.63	10y-EDAU09
EDAZ09	0.958	8.34	7.38	10y-EDAZ09
EDAH10	1.208	8.34	7.14	10y-EDAH10
EDAM10	1.457	8.34	6.89	10y-EDAM10
EDAU10	1.706	8.34	6.64	10y-EDAU10
EDAZ10	1.956	8.34	6.39	10y-EDAZ10
EDAH11	2.205	8.34	6.14	10y-EDAH11
EDAM11	2.454	8.34	5.89	10y-EDAM11
EDAU11	2.723	8.34	5.62	10y-EDAU11
EDAZ11	2.972	8.34	5.37	10y-EDAZ11

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 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.

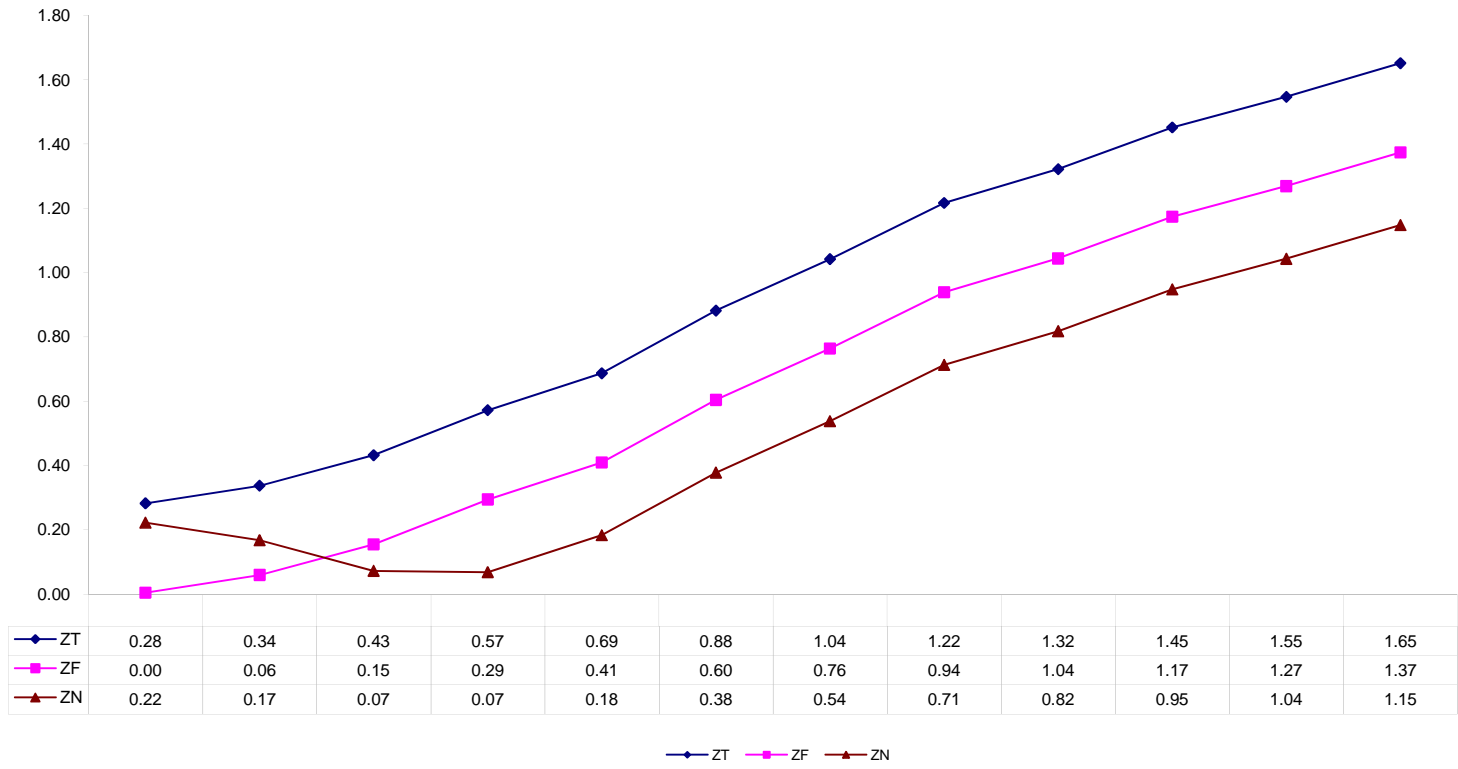
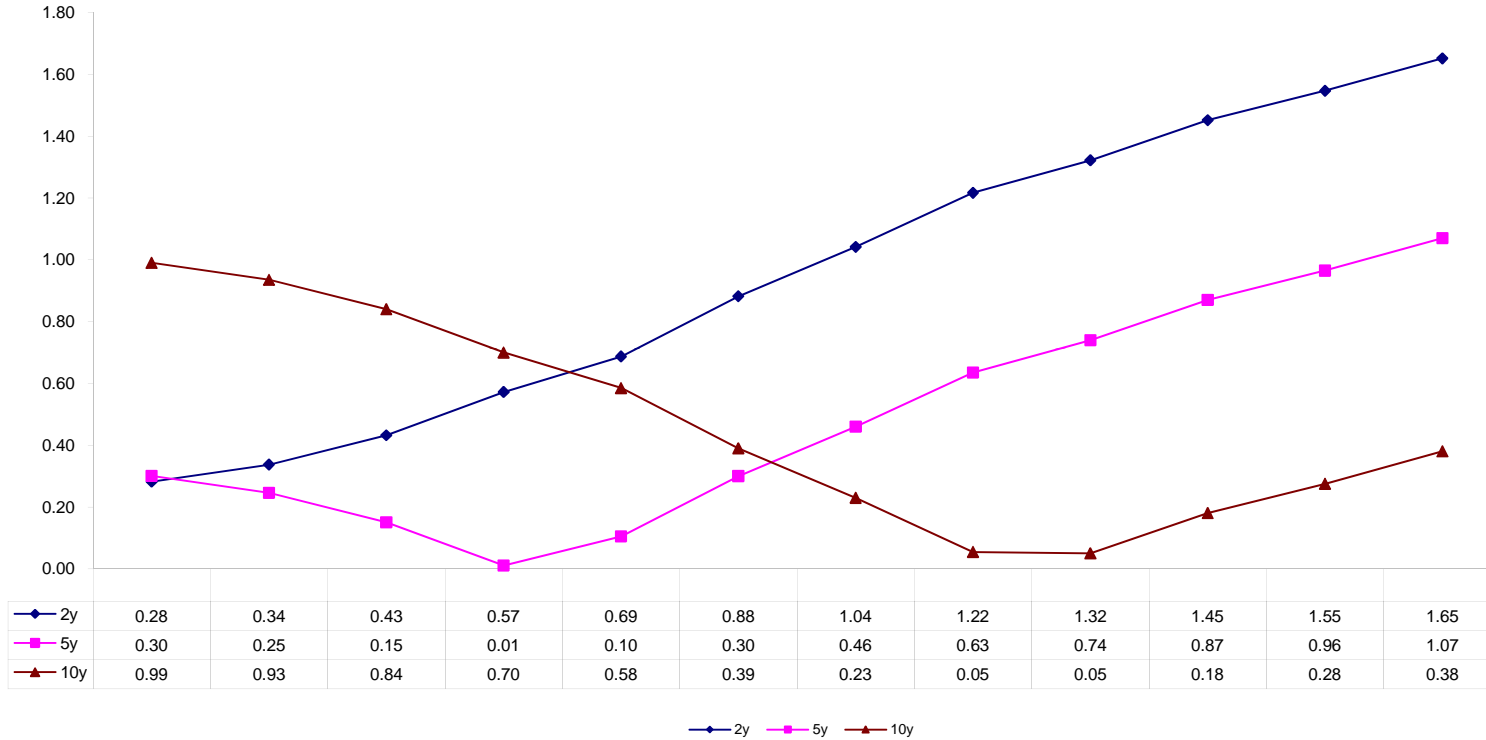
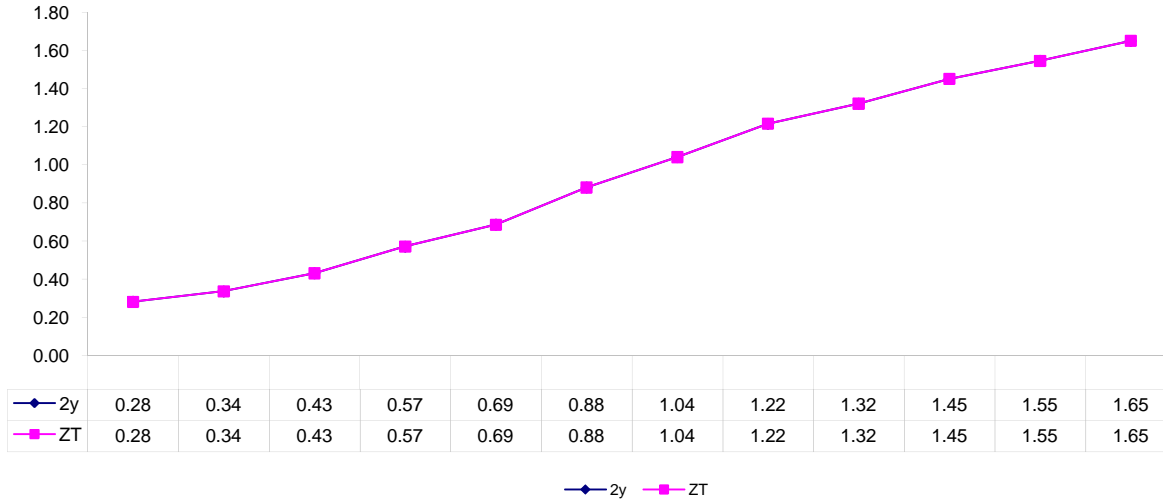


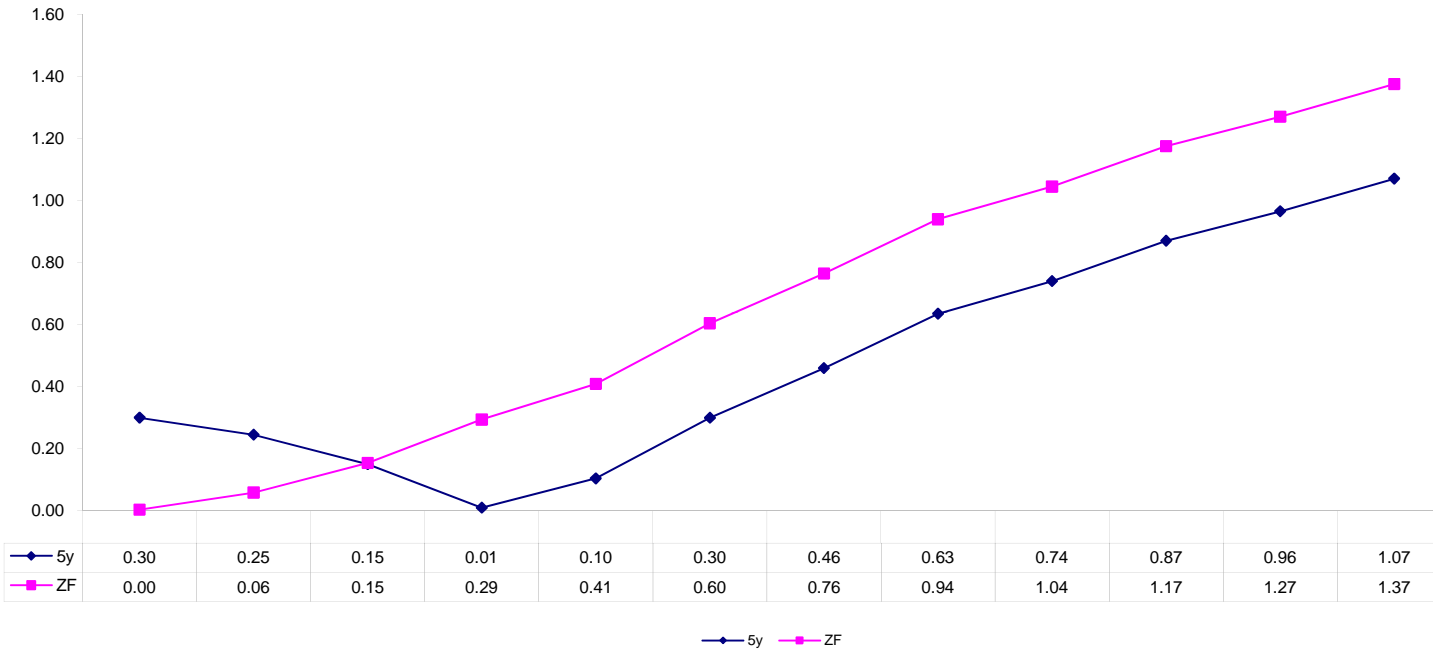
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



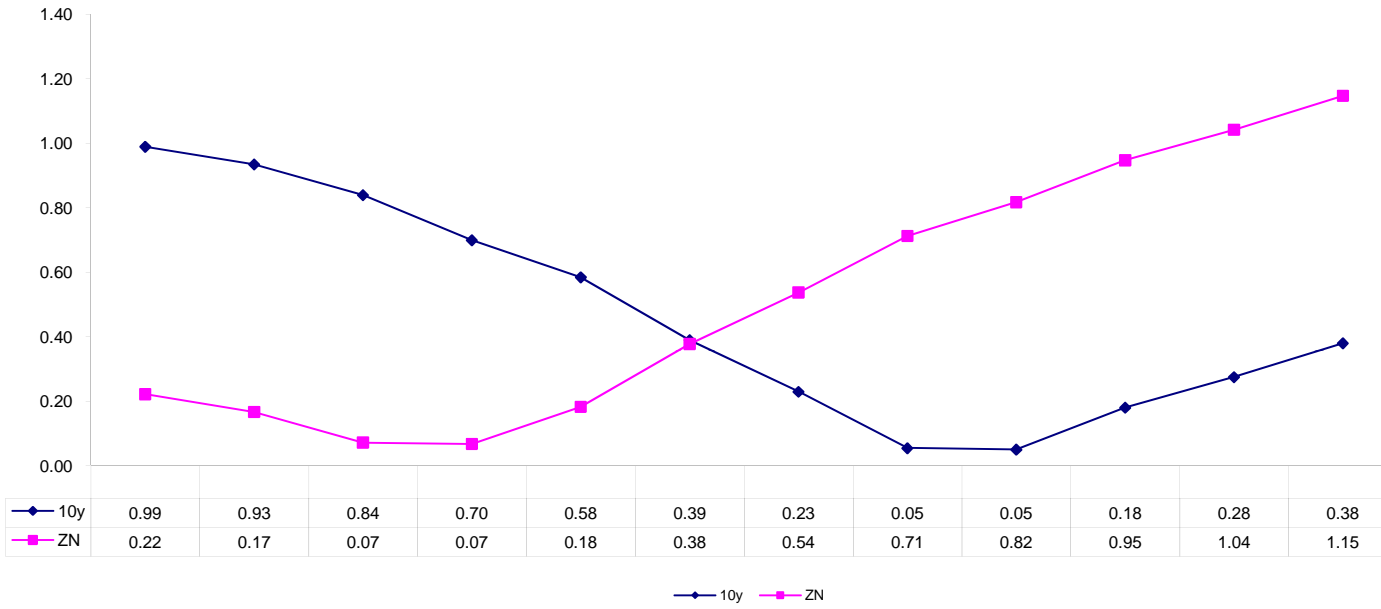
2y Basis TED Curve



5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	1.270	7.875	9875.125
Red Pack	1.833	11.250	9820.000
Green Pack	2.383	9.875	9766.375
Blue Pack	2.625		9737.375
Gold Pack		0.000	9716.500

