

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	106.7188	106.230	2.008	1.93
ZF	112.2250	112.072	2.814	4.12
ZN	115.0000	115.000	3.673	6.25
2y	99.975	99.3120	2.009	1.89
5y	100.772	100.2470	2.958	4.53
10y	101.766	101.2450	3.780	8.08

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	96.635	3.365	80	0.218	DEC	
EDAH09	96.945	3.055	171	0.468	MAR	White Pack
EDAM09	96.855	3.145	262	0.717	JUN	
EDAU09	96.760	3.240	353	0.966	SEP	
EDAZ09	96.480	3.520	444	1.216	DEC	
EDAH10	96.315	3.685	535	1.465	MAR	Red Pack
EDAM10	96.070	3.930	626	1.714	JUN	
EDAU10	95.835	4.165	717	1.964	SEP	
EDAZ10	95.620	4.380	808	2.213	DEC	
EDAH11	95.555	4.445	899	2.462	MAR	Green Pack
EDAM11	95.470	4.530	990	2.712	JUN	
EDAU11	95.435	4.565	1088	2.980	SEP	
EDAZ11	95.370	4.630	1179	3.229	DEC	
EDAH12	95.395	4.605	1270	3.479	MAR	Blue Pack
EDAM12	95.300	4.700	1361	3.728	JUN	
EDAU12	95.325	4.675	1452	3.977	SEP	
EDAZ12	95.230	4.770	1543	4.227	DEC	
EDAH13	95.220	4.780	1634	4.476	MAR	Gold Pack
EDAM13	95.140	4.860	1725	4.725	JUN	
EDZU13	#VALUE!	#VALUE!	1907	5.224	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	3.272	12.250	9679.875	
Red Pack	3.916	10.625	9617.500	Pack Prices
Green Pack	4.594	7.500	9552.000	
Blue Pack		4.500	9534.375	
Gold Pack		1.625	9517.125	

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)

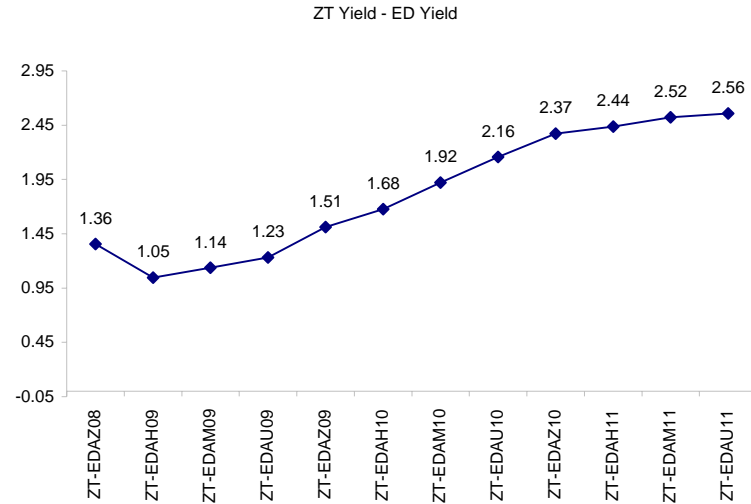
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.084	1.36	ZT-EDAZ08	38.684
EDAH09	9.774	1.05	ZT-EDAH09	88.605
EDAM09	9.864	1.14	ZT-EDAM09	79.180
EDAU09	9.959	1.23	ZT-EDAU09	88.605
EDAZ09	10.239	1.51	ZT-EDAZ09	90.718
EDAH10	10.404	1.68	ZT-EDAH10	91.884
EDAM10	10.649	1.92	ZT-EDAM10	91.825
EDAU10	10.884	2.16	ZT-EDAU10	92.258
EDAZ10	11.099	2.37	ZT-EDAZ10	91.446
EDAH11	11.164	2.44	ZT-EDAH11	91.854
EDAM11	11.249	2.52	ZT-EDAM11	91.009
EDAU11	11.284	2.56	ZT-EDAU11	91.079

Price = Outright Decimal Price - Euro Contract Price

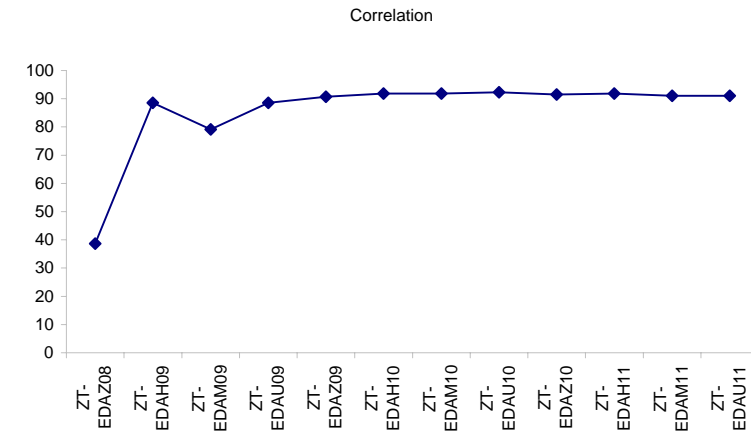
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZT Duration	Spread Duration	
EDAZ08	0.218	1.93	1.72	ZT-EDAZ08		
EDAH09	0.468	1.93	1.47	ZT-EDAH09		
EDAM09	0.717	1.93	1.22	ZT-EDAM09		
EDAU09	0.966	1.93	0.97	ZT-EDAU09		
EDAZ09	1.216	1.93	0.72	ZT-EDAZ09		
EDAH10	1.465	1.93	0.47	ZT-EDAH10		
EDAM10	1.714	1.93	0.22	ZT-EDAM10		
EDAU10	1.964	1.93	(0.03)	ZT-EDAU10		
EDAZ10	2.213	1.93	(0.28)	ZT-EDAZ10		
EDAH11	2.462	1.93	(0.53)	ZT-EDAH11		
EDAM11	2.712	1.93	(0.78)	ZT-EDAM11		
EDAU11	2.980	1.93	(1.05)	ZT-EDAU11		

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

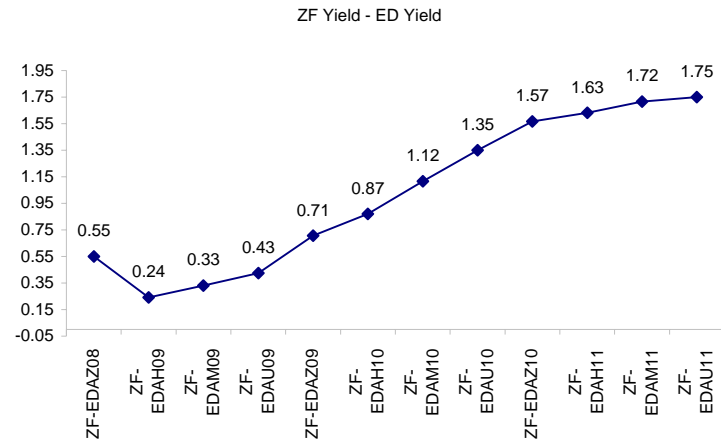


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	15.590	0.55	ZF-EDAZ08	52.307
EDAH09	15.280	0.24	ZF-EDAH09	75.762
EDAM09	15.370	0.33	ZF-EDAM09	88.946
EDAU09	15.465	0.43	ZF-EDAU09	95.836
EDAZ09	15.745	0.71	ZF-EDAZ09	96.905
EDAH10	15.910	0.87	ZF-EDAH10	97.313
EDAM10	16.155	1.12	ZF-EDAM10	97.390
EDAU10	16.390	1.35	ZF-EDAU10	98.072
EDAZ10	16.605	1.57	ZF-EDAZ10	97.860
EDAH11	16.670	1.63	ZF-EDAH11	98.017
EDAM11	16.755	1.72	ZF-EDAM11	97.479
EDAU11	16.790	1.75	ZF-EDAU11	97.493

Price = Outright Decimal Price - Euro Contract Price

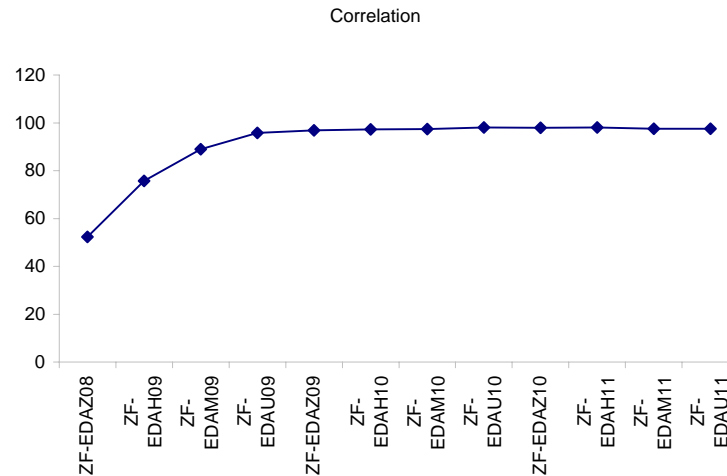
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year			
	ZF Duration	Spread Duration	
EDAZ08	0.218	4.12	3.91
EDAH09	0.468	4.12	3.66
EDAM09	0.717	4.12	3.41
EDAU09	0.966	4.12	3.16
EDAZ09	1.216	4.12	2.91
EDAH10	1.465	4.12	2.66
EDAM10	1.714	4.12	2.41
EDAU10	1.964	4.12	2.16
EDAZ10	2.213	4.12	1.91
EDAH11	2.462	4.12	1.66
EDAM11	2.712	4.12	1.41
EDAU11	2.980	4.12	1.14

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

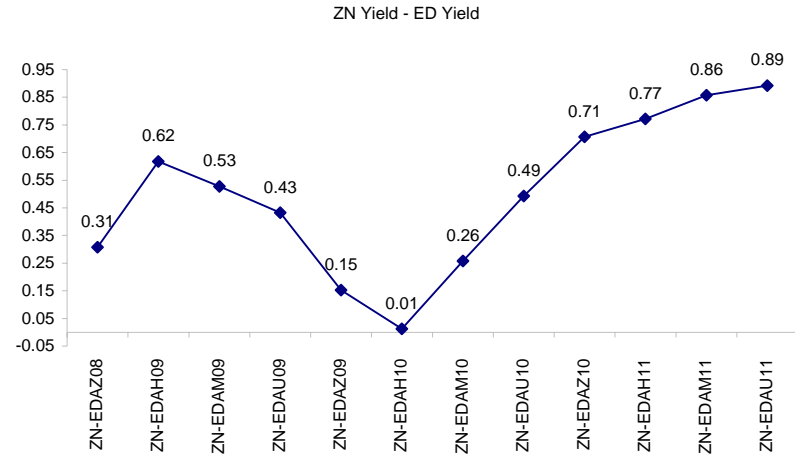


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	18.365	0.31	ZN-EDAZ08	58.196
EDAH09	18.055	0.62	ZN-EDAH09	80.117
EDAM09	18.145	0.53	ZN-EDAM09	92.552
EDAU09	18.240	0.43	ZN-EDAU09	98.393
EDAZ09	18.520	0.15	ZN-EDAZ09	98.850
EDAH10	18.685	0.01	ZN-EDAH10	98.844
EDAM10	18.930	0.26	ZN-EDAM10	97.390
EDAU10	19.165	0.49	ZN-EDAU10	98.072
EDAZ10	19.380	0.71	ZN-EDAZ10	97.860
EDAH11	19.445	0.77	ZN-EDAH11	98.017
EDAM11	19.530	0.86	ZN-EDAM11	97.479
EDAU11	19.565	0.89	ZN-EDAU11	97.493

Price = Outright Decimal Price - Euro Contract Price

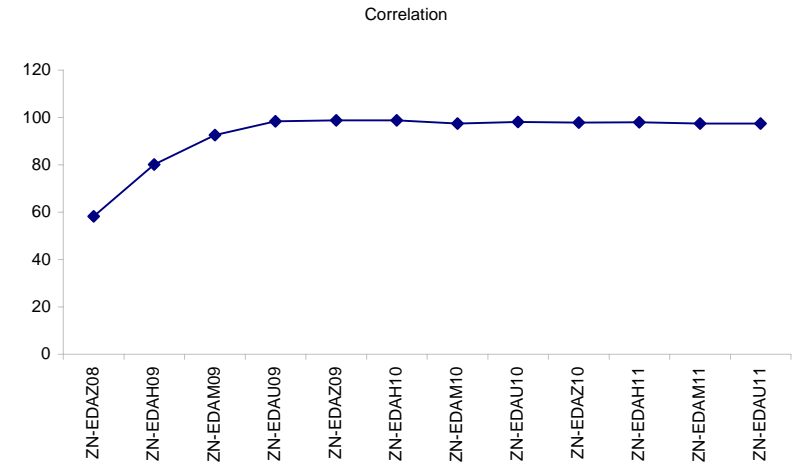
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.218	6.25	6.03	ZN-EDAZ08		
EDAH09	0.468	6.25	5.78	ZN-EDAH09		
EDAM09	0.717	6.25	5.53	ZN-EDAM09		
EDAU09	0.966	6.25	5.28	ZN-EDAU09		
EDAZ09	1.216	6.25	5.03	ZN-EDAZ09		
EDAH10	1.465	6.25	4.78	ZN-EDAH10		
EDAM10	1.714	6.25	4.53	ZN-EDAM10		
EDAU10	1.964	6.25	4.29	ZN-EDAU10		
EDAZ10	2.213	6.25	4.04	ZN-EDAZ10		
EDAH11	2.462	6.25	3.79	ZN-EDAH11		
EDAM11	2.712	6.25	3.54	ZN-EDAM11		
EDAU11	2.980	6.25	3.27	ZN-EDAU11		

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

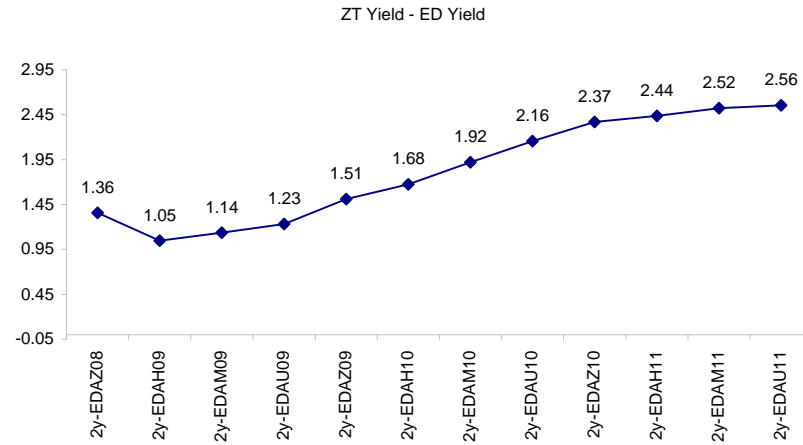


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.340	1.36	2y-EDAZ08	-42.777
EDAH09	3.030	1.05	2y-EDAH09	-67.518
EDAM09	3.120	1.14	2y-EDAM09	-80.532
EDAU09	3.215	1.23	2y-EDAU09	-87.718
EDAZ09	3.495	1.51	2y-EDAZ09	-89.024
EDAH10	3.660	1.68	2y-EDAH10	-89.706
EDAM10	3.905	1.92	2y-EDAM10	-89.663
EDAU10	4.140	2.16	2y-EDAU10	-91.006
EDAZ10	4.355	2.37	2y-EDAZ10	-92.113
EDAH11	4.420	2.44	2y-EDAH11	-92.140
EDAM11	4.505	2.52	2y-EDAM11	-92.043
EDAU11	4.540	2.56	2y-EDAU11	-92.238

Price = Outright Decimal Price - Euro Contract Price

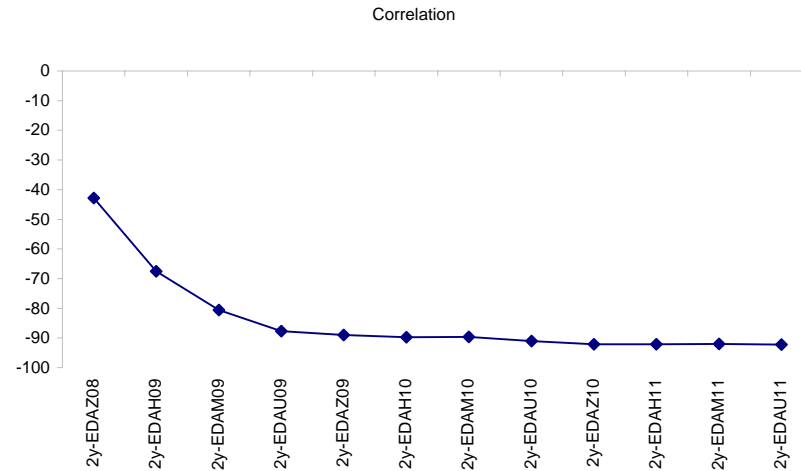
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.218	1.89	1.67	2y-EDAZ08	
EDAH09	0.468	1.89	1.42	2y-EDAH09	
EDAM09	0.717	1.89	1.17	2y-EDAM09	
EDAU09	0.966	1.89	0.92	2y-EDAU09	
EDAZ09	1.216	1.89	0.67	2y-EDAZ09	
EDAH10	1.465	1.89	0.42	2y-EDAH10	
EDAM10	1.714	1.89	0.17	2y-EDAM10	
EDAU10	1.964	1.89	(0.07)	2y-EDAU10	
EDAZ10	2.213	1.89	(0.32)	2y-EDAZ10	
EDAH11	2.462	1.89	(0.57)	2y-EDAH11	
EDAM11	2.712	1.89	(0.82)	2y-EDAM11	
EDAU11	2.980	1.89	(1.09)	2y-EDAU11	

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

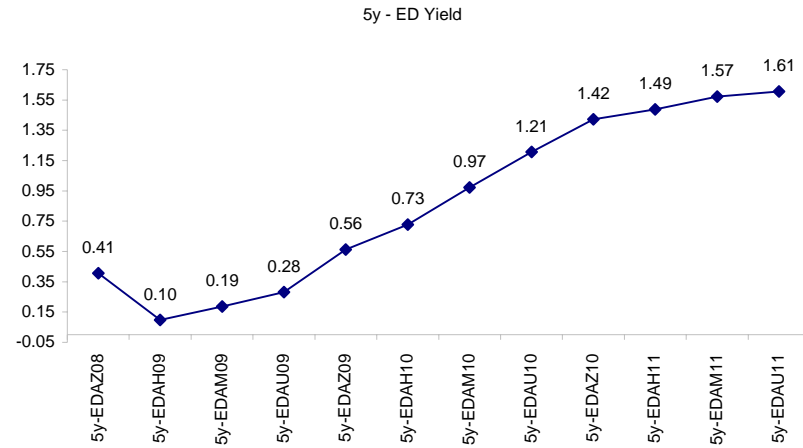


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	4.137	0.41	5y-EDAZ08	-59.154
EDAH09	3.827	0.10	5y-EDAH09	-80.209
EDAM09	3.917	0.19	5y-EDAM09	-89.548
EDAU09	4.012	0.28	5y-EDAU09	-92.545
EDAZ09	4.292	0.56	5y-EDAZ09	-92.529
EDAH10	4.457	0.73	5y-EDAH10	-92.067
EDAM10	4.702	0.97	5y-EDAM10	-92.212
EDAU10	4.937	1.21	5y-EDAU10	-94.240
EDAZ10	5.152	1.42	5y-EDAZ10	-96.792
EDAH11	5.217	1.49	5y-EDAH11	-96.661
EDAM11	5.302	1.57	5y-EDAM11	-97.156
EDAU11	5.337	1.61	5y-EDAU11	-97.264

Price = Outright Decimal Price - Euro Contract Price

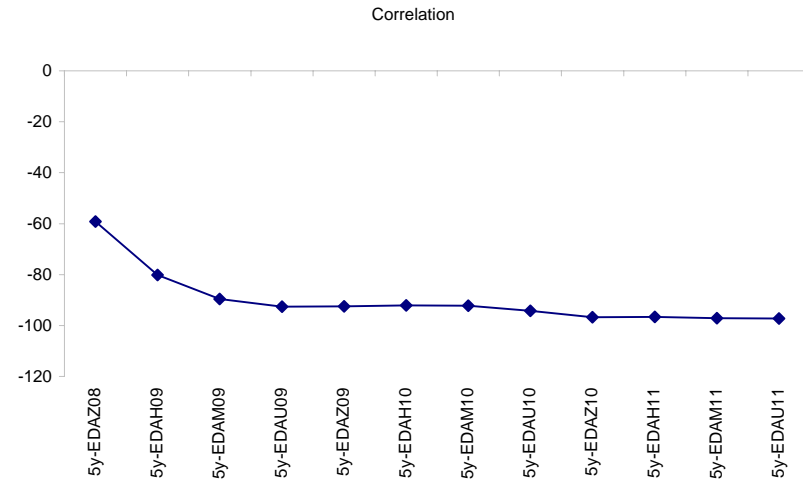
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAZ08	0.218	4.53	4.32	5y-EDAZ08
EDAH09	0.468	4.53	4.07	5y-EDAH09
EDAM09	0.717	4.53	3.82	5y-EDAM09
EDAU09	0.966	4.53	3.57	5y-EDAU09
EDAZ09	1.216	4.53	3.32	5y-EDAZ09
EDAH10	1.465	4.53	3.07	5y-EDAH10
EDAM10	1.714	4.53	2.82	5y-EDAM10
EDAU10	1.964	4.53	2.57	5y-EDAU10
EDAZ10	2.213	4.53	2.32	5y-EDAZ10
EDAH11	2.462	4.53	2.07	5y-EDAH11
EDAM11	2.712	4.53	1.82	5y-EDAM11
EDAU11	2.980	4.53	1.55	5y-EDAU11

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

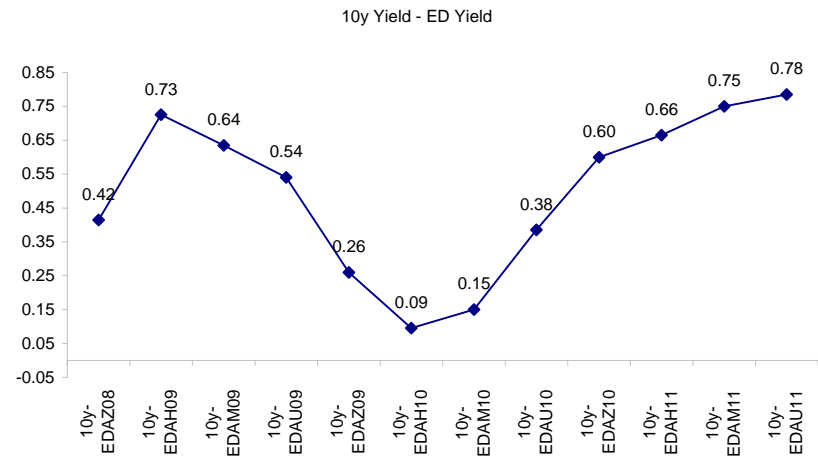


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	4.137	0.42	10y-EDAZ08	-72.304
EDAH09	3.827	0.73	10y-EDAH09	-88.952
EDAM09	3.917	0.64	10y-EDAM09	-94.825
EDAU09	4.012	0.54	10y-EDAU09	-94.423
EDAZ09	4.292	0.26	10y-EDAZ09	-93.299
EDAH10	4.457	0.09	10y-EDAH10	-91.908
EDAM10	4.702	0.15	10y-EDAM10	-92.044
EDAU10	4.937	0.38	10y-EDAU10	-94.124
EDAZ10	5.152	0.60	10y-EDAZ10	-97.063
EDAH11	5.217	0.66	10y-EDAH11	-96.547
EDAM11	5.302	0.75	10y-EDAM11	-97.251
EDAU11	5.337	0.78	10y-EDAU11	-97.171

Price = Outright Decimal Price - Euro Contract Price

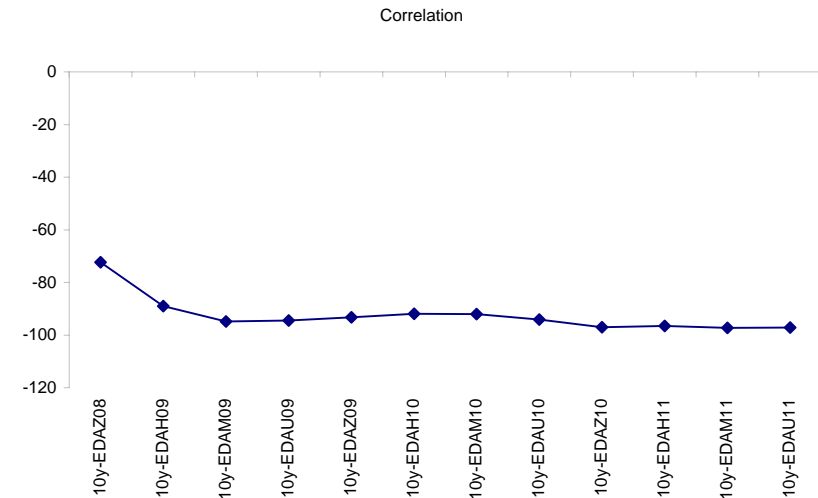
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAZ08	0.218	8.08	7.86	10y-EDAZ08
EDAH09	0.468	8.08	7.61	10y-EDAH09
EDAM09	0.717	8.08	7.36	10y-EDAM09
EDAU09	0.966	8.08	7.12	10y-EDAU09
EDAZ09	1.216	8.08	6.87	10y-EDAZ09
EDAH10	1.465	8.08	6.62	10y-EDAH10
EDAM10	1.714	8.08	6.37	10y-EDAM10
EDAU10	1.964	8.08	6.12	10y-EDAU10
EDAZ10	2.213	8.08	5.87	10y-EDAZ10
EDAH11	2.462	8.08	5.62	10y-EDAH11
EDAM11	2.712	8.08	5.37	10y-EDAM11
EDAU11	2.980	8.08	5.10	10y-EDAU11

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.

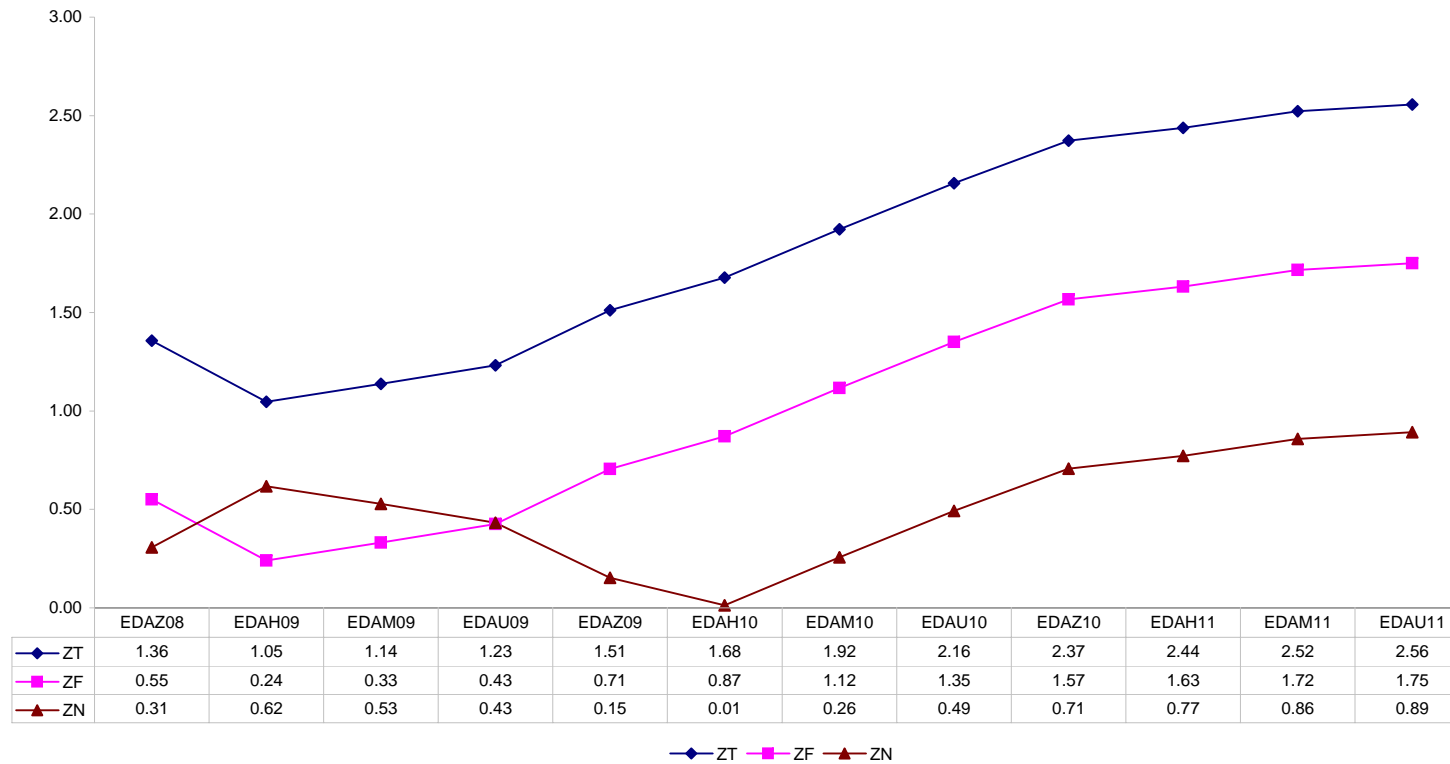
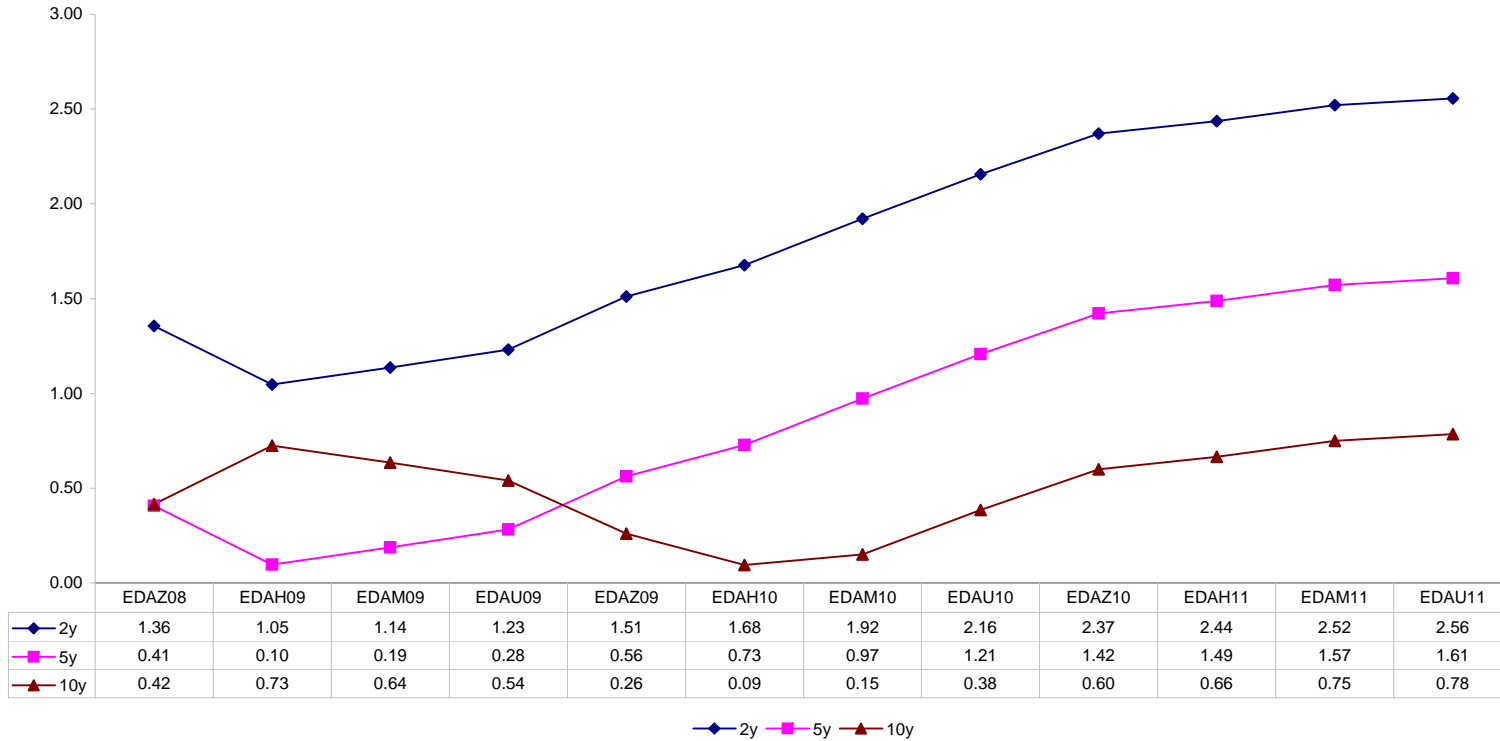
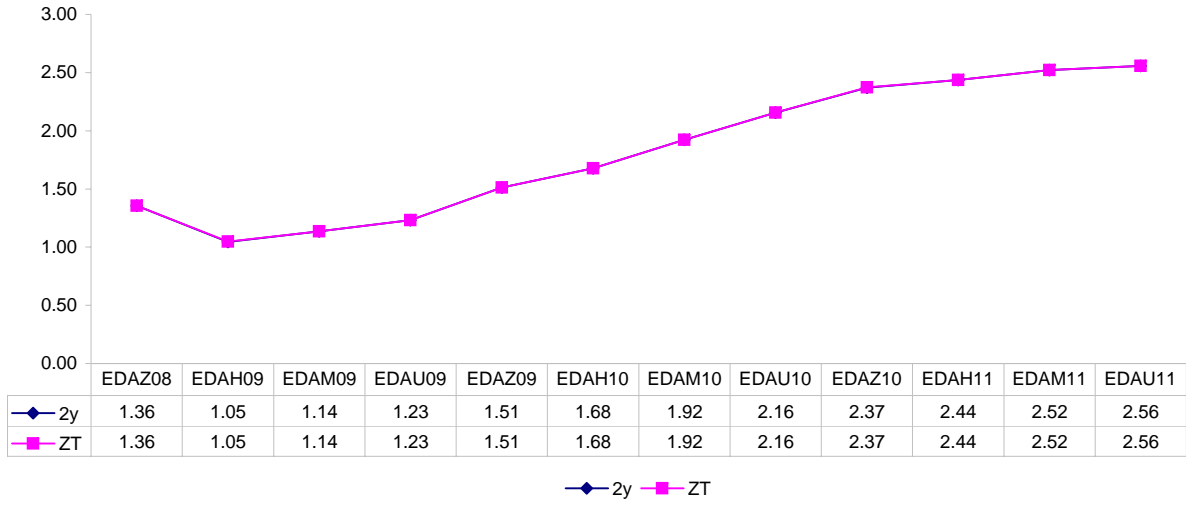


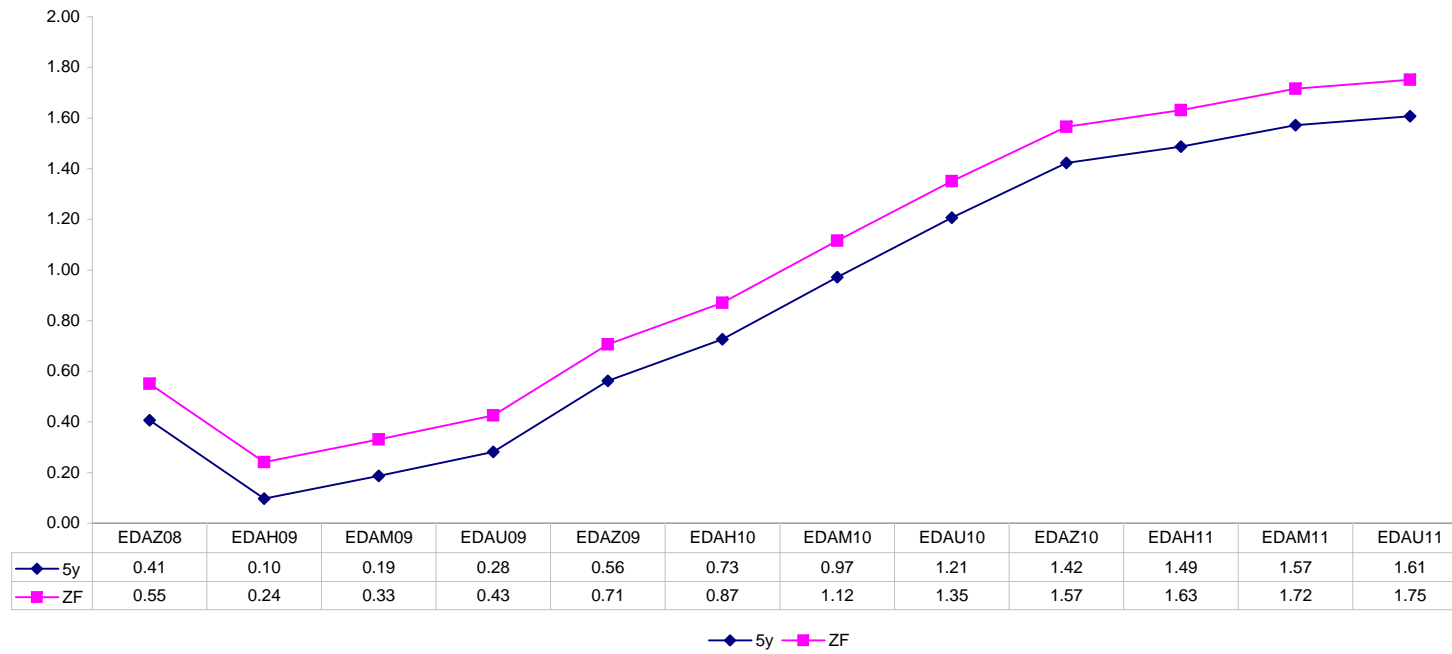
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



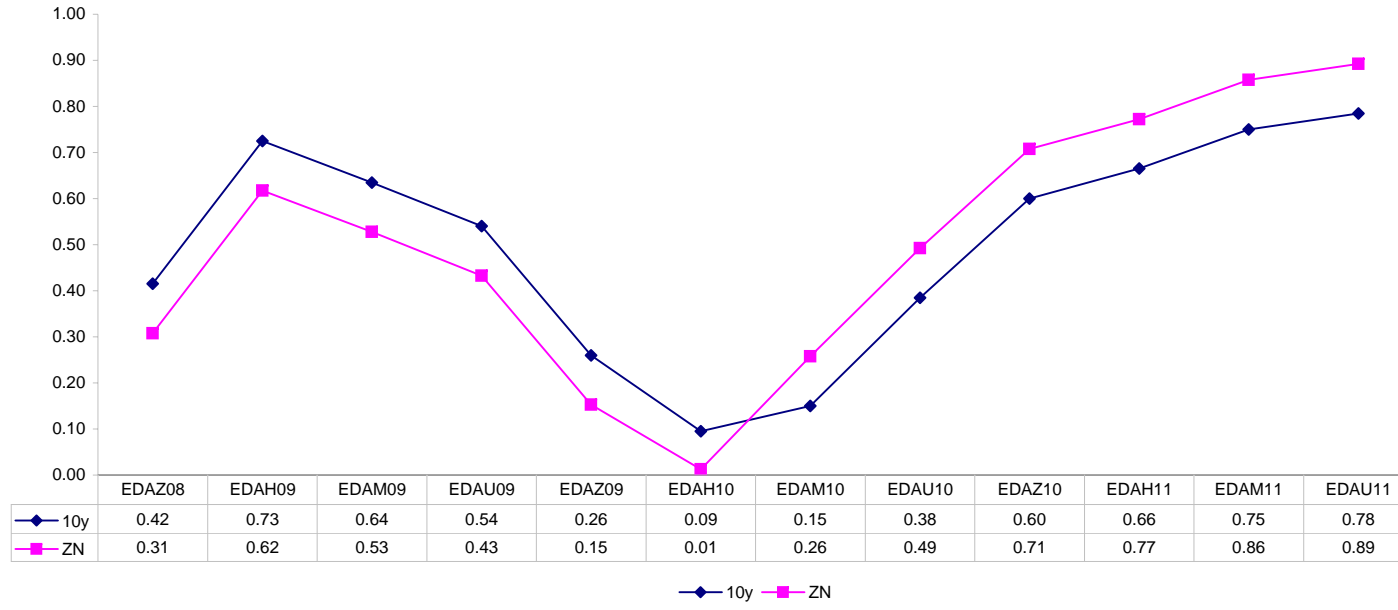
2y Basis TED Curve



5y Basis TED Curve

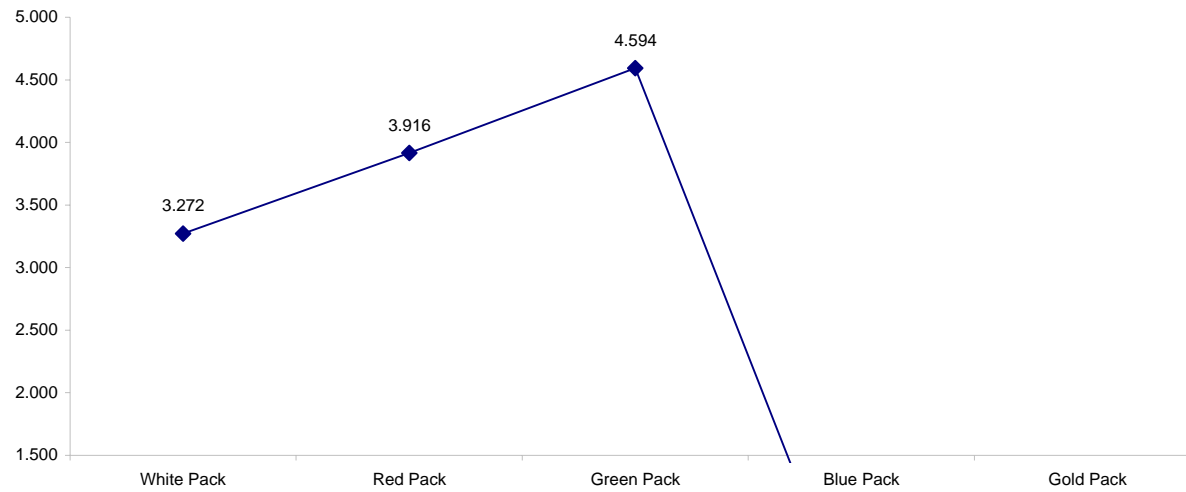


10y Basis TED Curve



Packs

	Last Yield	Net Last Yield	Last Price
White Pack	3.272	12.250	9679.875
Red Pack	3.916	10.625	9617.500
Green Pack	4.594	7.500	9552.000
Blue Pack		4.500	9534.375
Gold Pack		1.625	9517.125



2y, 5y, 10y Basis Curves vs ED

