

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	108.5844	108.187	0.954	1.74
ZF	117.7563	117.242	1.671	4.00
ZN	120.0313	120.010	2.960	6.29
2y	100.006	100.0020	1.239	1.97
5y	102.788	102.2520	2.146	4.59
10y	104.375	104.1200	3.229	8.31

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	97.855	2.145	20	0.054	DEC	
EDAH09	97.955	2.045	111	0.303	MAR	White Pack
EDAM09	97.890	2.110	202	0.553	JUN	
EDAU09	97.790	2.210	293	0.802	SEP	
EDAZ09	97.635	2.365	384	1.051	DEC	
EDAH10	97.610	2.390	475	1.301	MAR	Red Pack
EDAM10	97.470	2.530	566	1.550	JUN	
EDAU10	97.270	2.730	657	1.799	SEP	
EDAZ10	96.965	3.035	748	2.049	DEC	
EDAH11	96.775	3.225	839	2.298	MAR	Green Pack
EDAM11	96.545	3.455	930	2.547	JUN	
EDAU11	96.345	3.655	1028	2.816	SEP	
EDAZ11	96.160	3.840	1119	3.065	DEC	
EDAH12	96.130	3.870	1210	3.314	MAR	Blue Pack
EDAM12	96.040	3.960	1301	3.564	JUN	
EDAU12	95.950	4.050	1392	3.813	SEP	
EDAZ12	95.835	4.165	1483	4.062	DEC	
EDAH13	95.680	4.320	1574	4.312	MAR	Gold Pack
EDAM13	95.655	4.345	1665	4.561	JUN	
EDZU13	#VALUE!	#VALUE!	1847	5.060	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	2.169	-1.812	9787.250	Pack Prices
Red Pack	2.555	5.875	9749.625	
Green Pack	3.418	6.875	9665.750	
Blue Pack	4.024	9.750	9607.000	
Gold Pack		2.250	9571.250	

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.

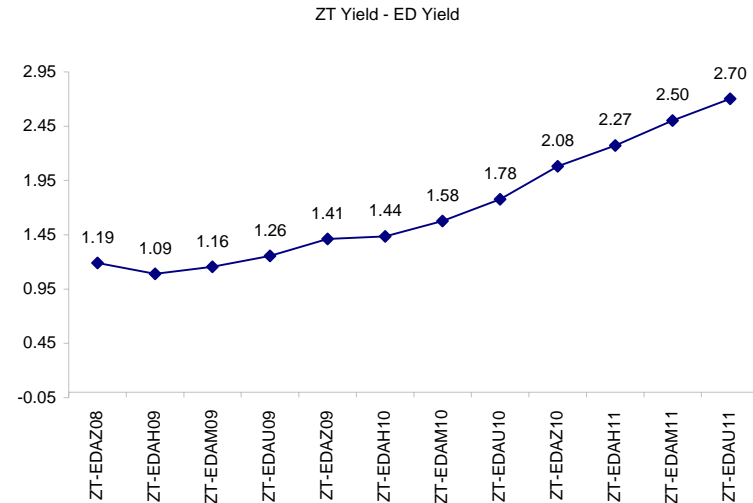
jgoulding@ghco.com

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.

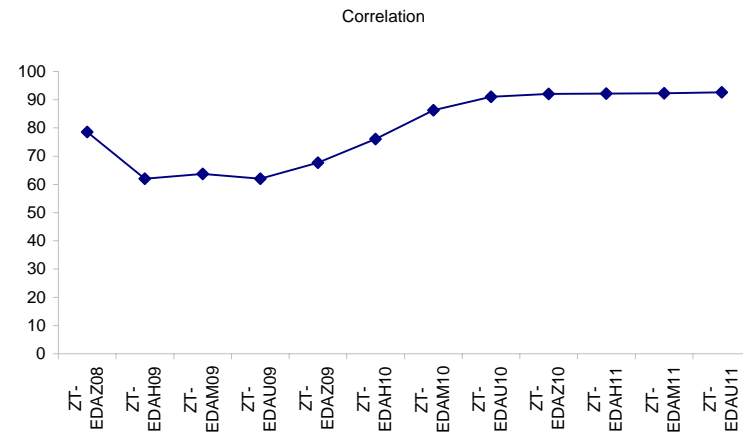
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.729	1.19	ZT-EDAZ08	78.576
EDAH09	10.629	1.09	ZT-EDAH09	62.026
EDAM09	10.694	1.16	ZT-EDAM09	63.736
EDAU09	10.794	1.26	ZT-EDAU09	62.026
EDAZ09	10.949	1.41	ZT-EDAZ09	67.652
EDAH10	10.974	1.44	ZT-EDAH10	76.073
EDAM10	11.114	1.58	ZT-EDAM10	86.311
EDAU10	11.314	1.78	ZT-EDAU10	91.063
EDAZ10	11.619	2.08	ZT-EDAZ10	92.025
EDAH11	11.809	2.27	ZT-EDAH11	92.181
EDAM11	12.039	2.50	ZT-EDAM11	92.330
EDAU11	12.239	2.70	ZT-EDAU11	92.684

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	0.054	1.74	1.68	ZT-EDAZ08		
EDAH09	0.303	1.74	1.43	ZT-EDAH09		
EDAM09	0.553	1.74	1.19	ZT-EDAM09		
EDAU09	0.802	1.74	0.94	ZT-EDAU09		
EDAZ09	1.051	1.74	0.69	ZT-EDAZ09		
EDAH10	1.301	1.74	0.44	ZT-EDAH10		
EDAM10	1.550	1.74	0.19	ZT-EDAM10		
EDAU10	1.799	1.74	(0.06)	ZT-EDAU10		
EDAZ10	2.049	1.74	(0.31)	ZT-EDAZ10		
EDAH11	2.298	1.74	(0.56)	ZT-EDAH11		
EDAM11	2.547	1.74	(0.81)	ZT-EDAM11		
EDAU11	2.816	1.74	(1.08)	ZT-EDAU11		

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

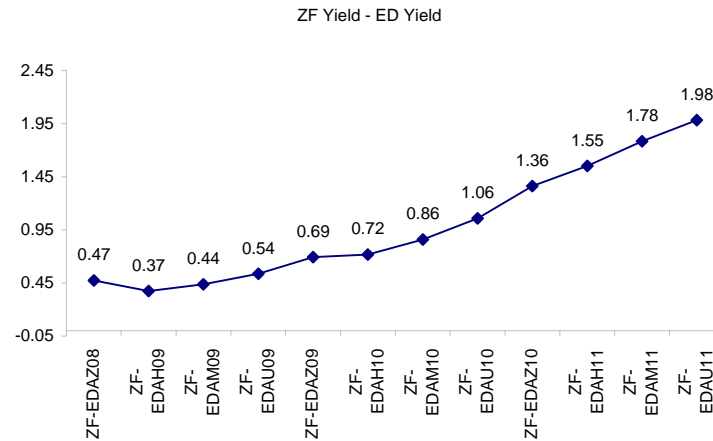


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	19.901	0.47	ZF-EDAZ08	59.113
EDAH09	19.801	0.37	ZF-EDAH09	52.839
EDAM09	19.866	0.44	ZF-EDAM09	45.573
EDAU09	19.966	0.54	ZF-EDAU09	45.576
EDAZ09	20.121	0.69	ZF-EDAZ09	55.524
EDAH10	20.146	0.72	ZF-EDAH10	68.842
EDAM10	20.286	0.86	ZF-EDAM10	84.936
EDAU10	20.486	1.06	ZF-EDAU10	93.609
EDAZ10	20.791	1.36	ZF-EDAZ10	96.252
EDAH11	20.981	1.55	ZF-EDAH11	97.216
EDAM11	21.211	1.78	ZF-EDAM11	97.125
EDAU11	21.411	1.98	ZF-EDAU11	97.042

Price = Outright Decimal Price - Euro Contract Price

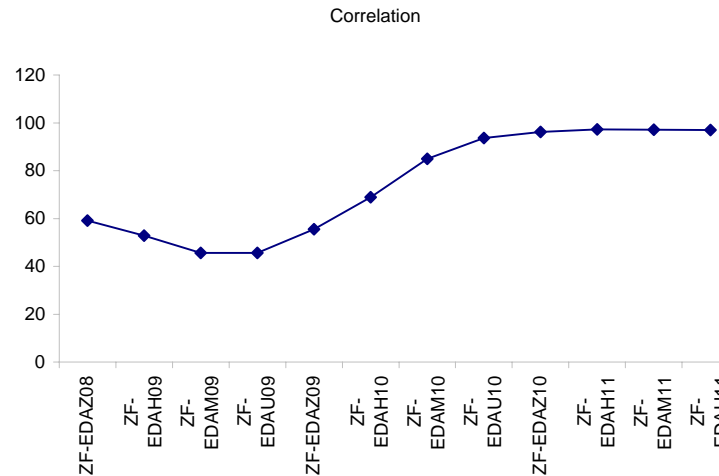
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	0.054	4.00	3.94	ZF-EDAZ08		
EDAH09	0.303	4.00	3.69	ZF-EDAH09		
EDAM09	0.553	4.00	3.44	ZF-EDAM09		
EDAU09	0.802	4.00	3.19	ZF-EDAU09		
EDAZ09	1.051	4.00	2.94	ZF-EDAZ09		
EDAH10	1.301	4.00	2.70	ZF-EDAH10		
EDAM10	1.550	4.00	2.45	ZF-EDAM10		
EDAU10	1.799	4.00	2.20	ZF-EDAU10		
EDAZ10	2.049	4.00	1.95	ZF-EDAZ10		
EDAH11	2.298	4.00	1.70	ZF-EDAH11		
EDAM11	2.547	4.00	1.45	ZF-EDAM11		
EDAU11	2.816	4.00	1.18	ZF-EDAU11		

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

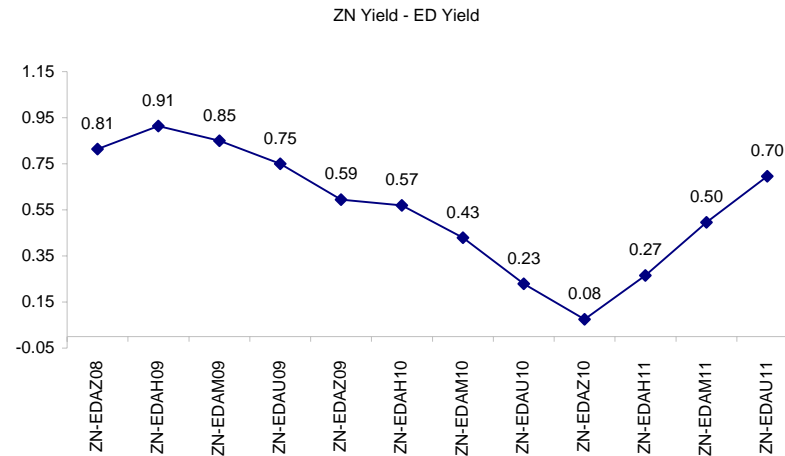


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	22.176	0.81	ZN-EDAZ08	52.634
EDAH09	22.076	0.91	ZN-EDAH09	43.533
EDAM09	22.141	0.85	ZN-EDAM09	33.666
EDAU09	22.241	0.75	ZN-EDAU09	32.332
EDAZ09	22.396	0.59	ZN-EDAZ09	42.628
EDAH10	22.421	0.57	ZN-EDAH10	57.838
EDAM10	22.561	0.43	ZN-EDAM10	84.936
EDAU10	22.761	0.23	ZN-EDAU10	93.609
EDAZ10	23.066	0.08	ZN-EDAZ10	96.252
EDAH11	23.256	0.27	ZN-EDAH11	97.216
EDAM11	23.486	0.50	ZN-EDAM11	97.125
EDAU11	23.686	0.70	ZN-EDAU11	97.042

Price = Outright Decimal Price - Euro Contract Price

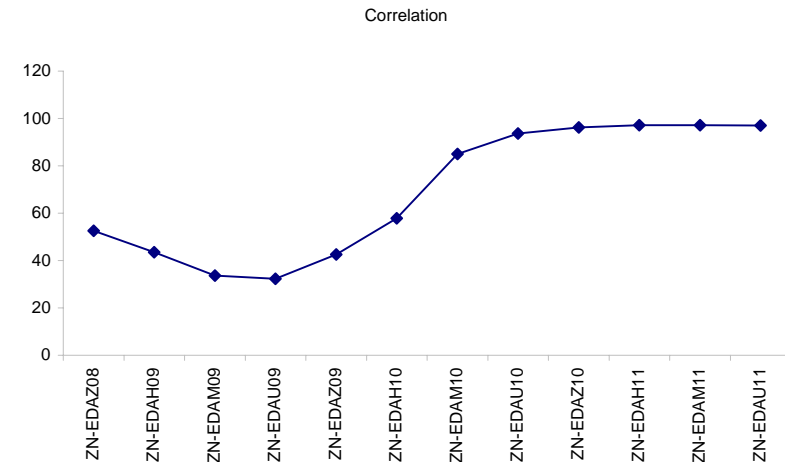
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.054	6.29	6.23	ZN-EDAZ08		
EDAH09	0.303	6.29	5.99	ZN-EDAH09		
EDAM09	0.553	6.29	5.74	ZN-EDAM09		
EDAU09	0.802	6.29	5.49	ZN-EDAU09		
EDAZ09	1.051	6.29	5.24	ZN-EDAZ09		
EDAH10	1.301	6.29	4.99	ZN-EDAH10		
EDAM10	1.550	6.29	4.74	ZN-EDAM10		
EDAU10	1.799	6.29	4.49	ZN-EDAU10		
EDAZ10	2.049	6.29	4.24	ZN-EDAZ10		
EDAH11	2.298	6.29	3.99	ZN-EDAH11		
EDAM11	2.547	6.29	3.74	ZN-EDAM11		
EDAU11	2.816	6.29	3.47	ZN-EDAU11		

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

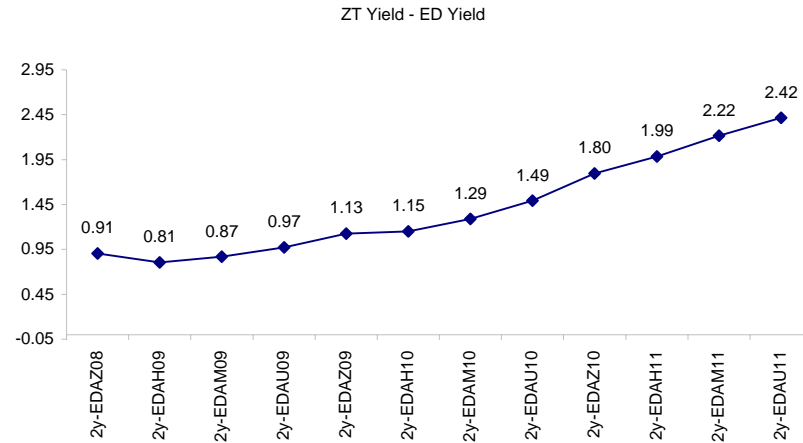


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.151	0.91	2y-EDAZ08	-71.593
EDAH09	2.051	0.81	2y-EDAH09	-84.088
EDAM09	2.116	0.87	2y-EDAM09	-84.839
EDAU09	2.216	0.97	2y-EDAU09	-88.411
EDAZ09	2.371	1.13	2y-EDAZ09	-93.868
EDAH10	2.396	1.15	2y-EDAH10	-96.120
EDAM10	2.536	1.29	2y-EDAM10	-93.501
EDAU10	2.736	1.49	2y-EDAU10	-86.937
EDAZ10	3.041	1.80	2y-EDAZ10	-81.739
EDAH11	3.231	1.99	2y-EDAH11	-76.705
EDAM11	3.461	2.22	2y-EDAM11	-75.004
EDAU11	3.661	2.42	2y-EDAU11	-74.186

Price = Outright Decimal Price - Euro Contract Price

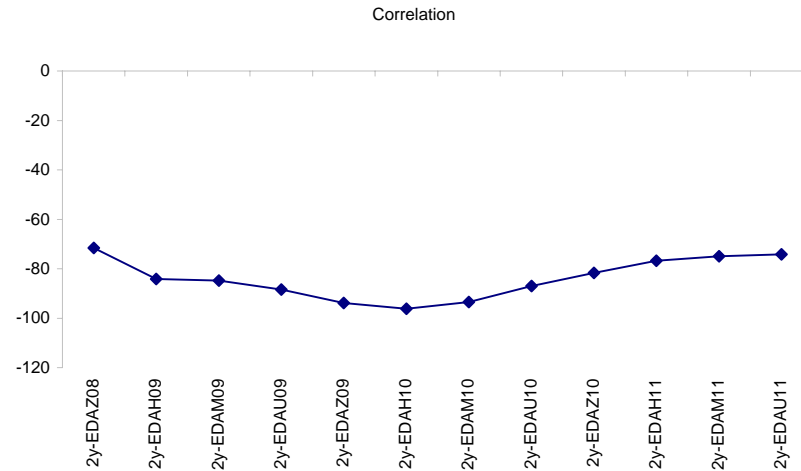
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.054	1.97	1.91	2y-EDAZ08	
EDAH09	0.303	1.97	1.66	2y-EDAH09	
EDAM09	0.553	1.97	1.42	2y-EDAM09	
EDAU09	0.802	1.97	1.17	2y-EDAU09	
EDAZ09	1.051	1.97	0.92	2y-EDAZ09	
EDAH10	1.301	1.97	0.67	2y-EDAH10	
EDAM10	1.550	1.97	0.42	2y-EDAM10	
EDAU10	1.799	1.97	0.17	2y-EDAU10	
EDAZ10	2.049	1.97	(0.08)	2y-EDAZ10	
EDAH11	2.298	1.97	(0.33)	2y-EDAH11	
EDAM11	2.547	1.97	(0.58)	2y-EDAM11	
EDAU11	2.816	1.97	(0.85)	2y-EDAU11	

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

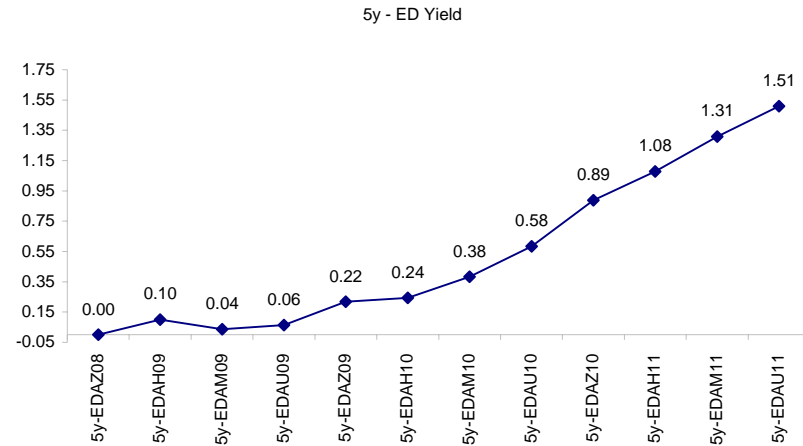


	5y			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAZ08	4.932	0.00	5y-EDAZ08	-61.383
EDAH09	4.832	0.10	5y-EDAH09	-66.058
EDAM09	4.897	0.04	5y-EDAM09	-60.054
EDAU09	4.997	0.06	5y-EDAU09	-61.161
EDAZ09	5.152	0.22	5y-EDAZ09	-71.295
EDAH10	5.177	0.24	5y-EDAH10	-83.460
EDAM10	5.317	0.38	5y-EDAM10	-94.356
EDAU10	5.517	0.58	5y-EDAU10	-98.188
EDAZ10	5.822	0.89	5y-EDAZ10	-98.724
EDAH11	6.012	1.08	5y-EDAH11	-98.170
EDAM11	6.242	1.31	5y-EDAM11	-97.822
EDAU11	6.442	1.51	5y-EDAU11	-97.555

Price = Outright Decimal Price - Euro Contract Price

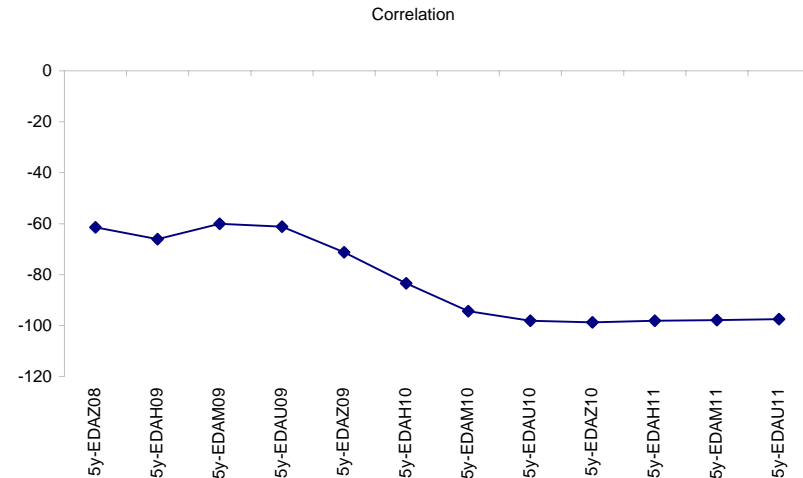
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	5Y Duration	Spread Duration	
EDAZ08	0.054	4.59	4.54	5y-EDAZ08
EDAH09	0.303	4.59	4.29	5y-EDAH09
EDAM09	0.553	4.59	4.04	5y-EDAM09
EDAU09	0.802	4.59	3.79	5y-EDAU09
EDAZ09	1.051	4.59	3.54	5y-EDAZ09
EDAH10	1.301	4.59	3.29	5y-EDAH10
EDAM10	1.550	4.59	3.04	5y-EDAM10
EDAU10	1.799	4.59	2.79	5y-EDAU10
EDAZ10	2.049	4.59	2.54	5y-EDAZ10
EDAH11	2.298	4.59	2.29	5y-EDAH11
EDAM11	2.547	4.59	2.04	5y-EDAM11
EDAU11	2.816	4.59	1.77	5y-EDAU11

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

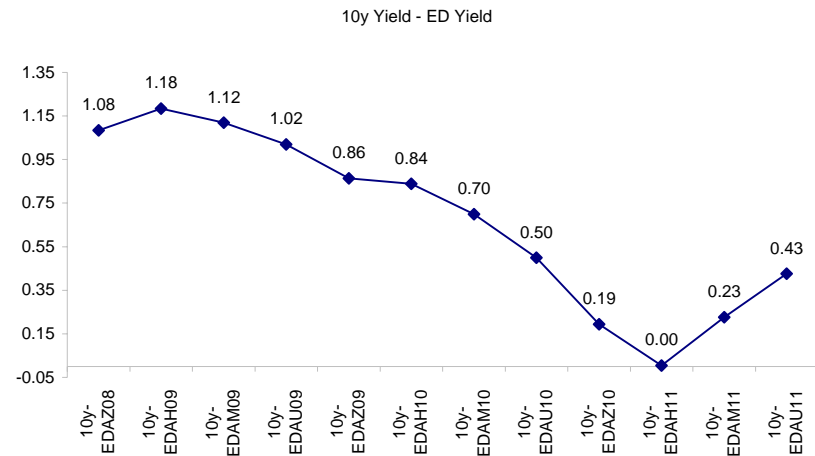


	10y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAZ08	4.932	1.08	10y-EDAZ08	-62.944
EDAH09	4.832	1.18	10y-EDAH09	-55.669
EDAM09	4.897	1.12	10y-EDAM09	-45.259
EDAU09	4.997	1.02	10y-EDAU09	-42.966
EDAZ09	5.152	0.86	10y-EDAZ09	-51.318
EDAH10	5.177	0.84	10y-EDAH10	-64.486
EDAM10	5.317	0.70	10y-EDAM10	-80.799
EDAU10	5.517	0.50	10y-EDAU10	-90.036
EDAZ10	5.822	0.19	10y-EDAZ10	-93.555
EDAH11	6.012	0.00	10y-EDAH11	-95.779
EDAM11	6.242	0.23	10y-EDAM11	-96.648
EDAU11	6.442	0.43	10y-EDAU11	-97.226

Price = Outright Decimal Price - Euro Contract Price

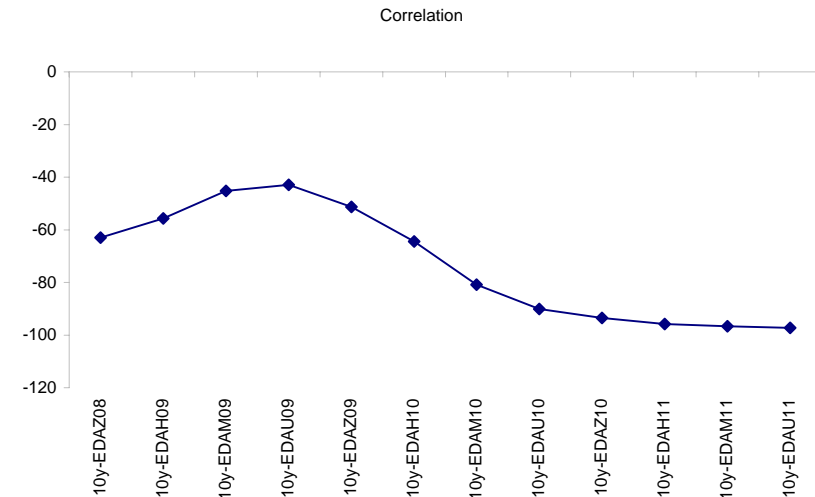
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			10Y Duration	Spread Duration	
EDAZ08	0.054	8.31	8.25	10y-EDAZ08		
EDAH09	0.303	8.31	8.00	10y-EDAH09		
EDAM09	0.553	8.31	7.75	10y-EDAM09		
EDAU09	0.802	8.31	7.50	10y-EDAU09		
EDAZ09	1.051	8.31	7.26	10y-EDAZ09		
EDAH10	1.301	8.31	7.01	10y-EDAH10		
EDAM10	1.550	8.31	6.76	10y-EDAM10		
EDAU10	1.799	8.31	6.51	10y-EDAU10		
EDAZ10	2.049	8.31	6.26	10y-EDAZ10		
EDAH11	2.298	8.31	6.01	10y-EDAH11		
EDAM11	2.547	8.31	5.76	10y-EDAM11		
EDAU11	2.816	8.31	5.49	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.

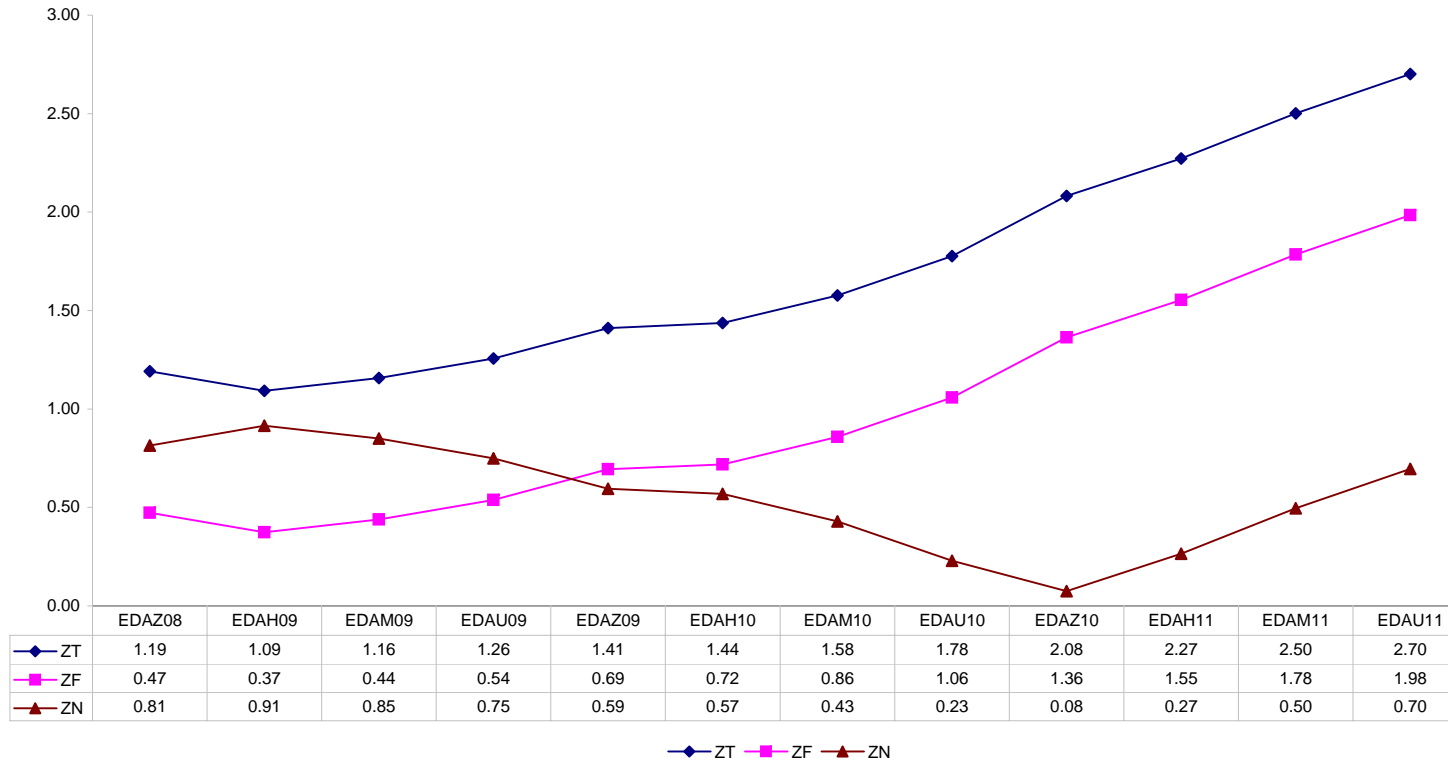
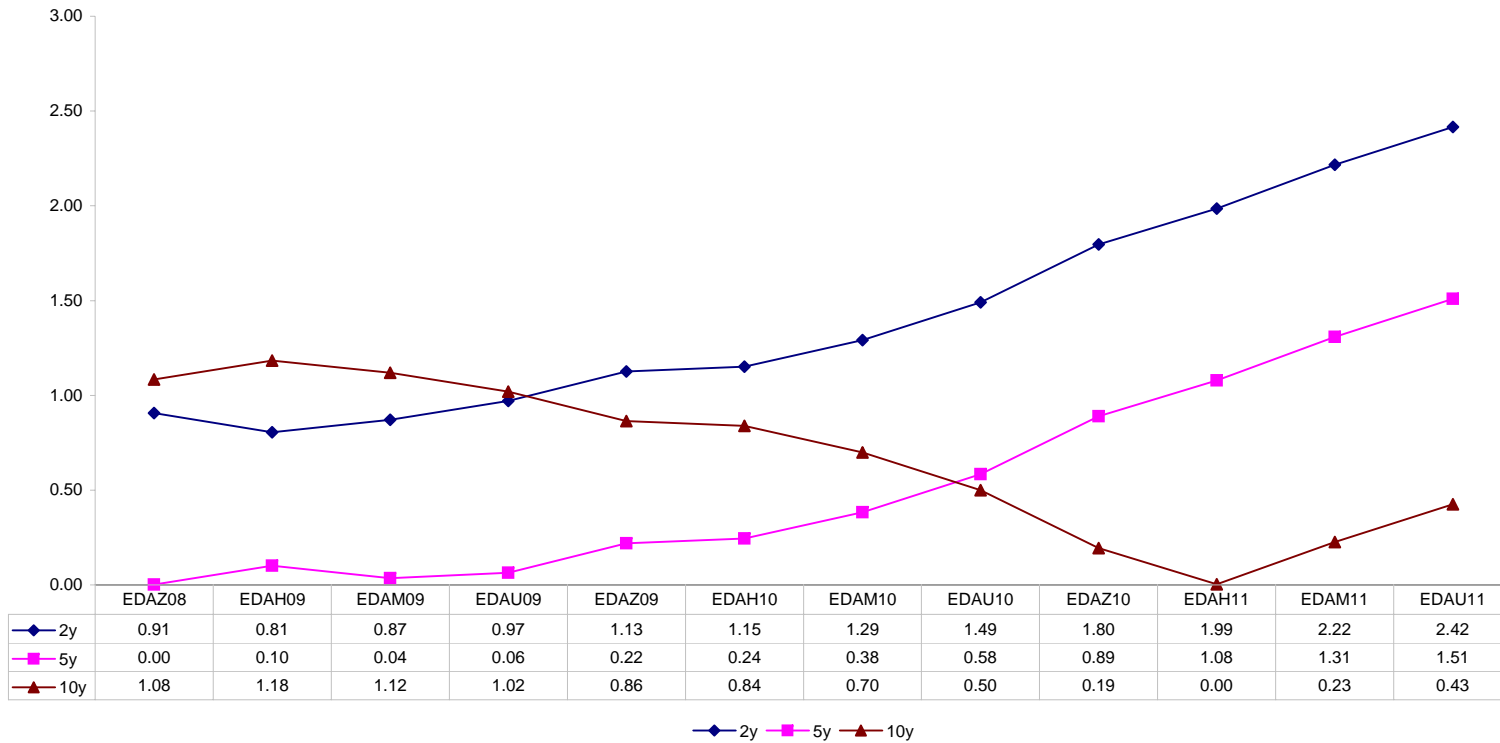
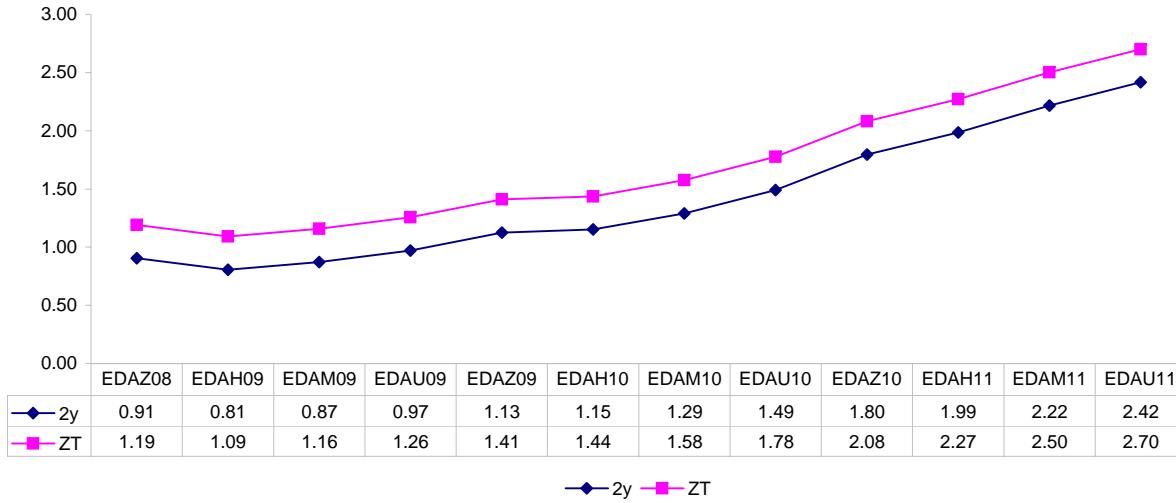


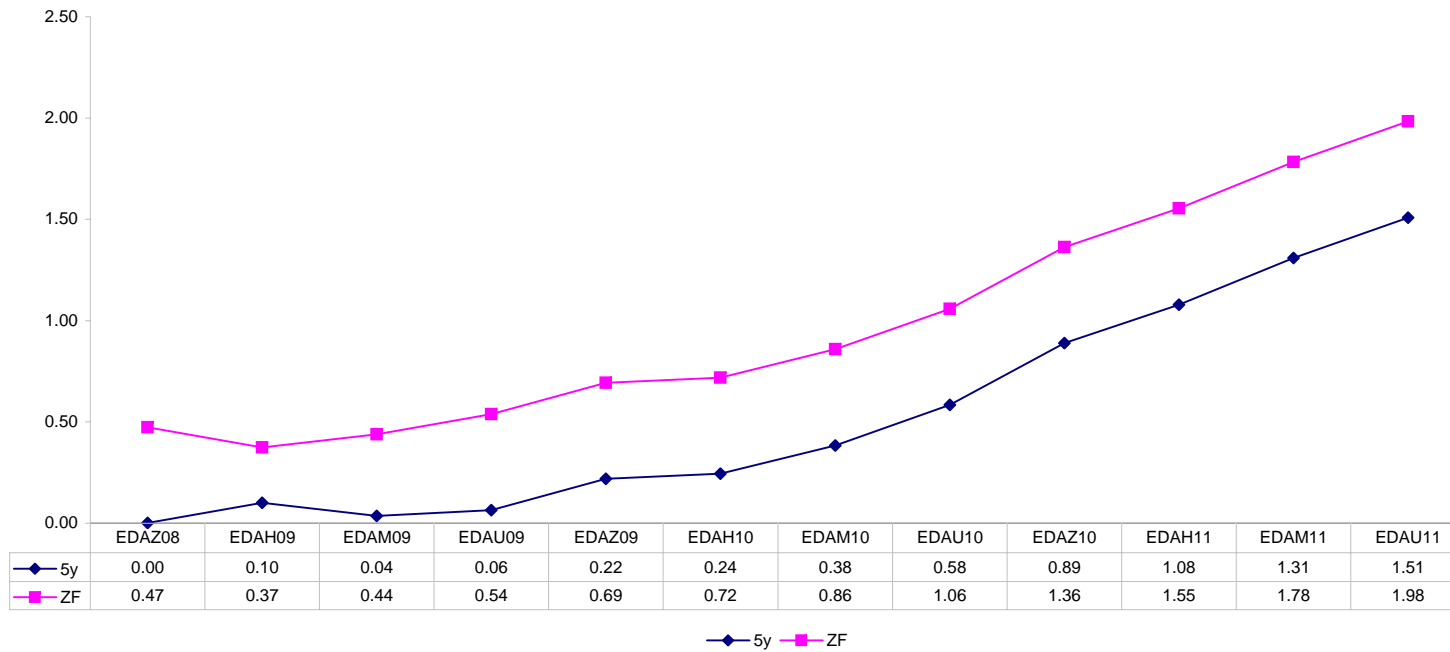
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



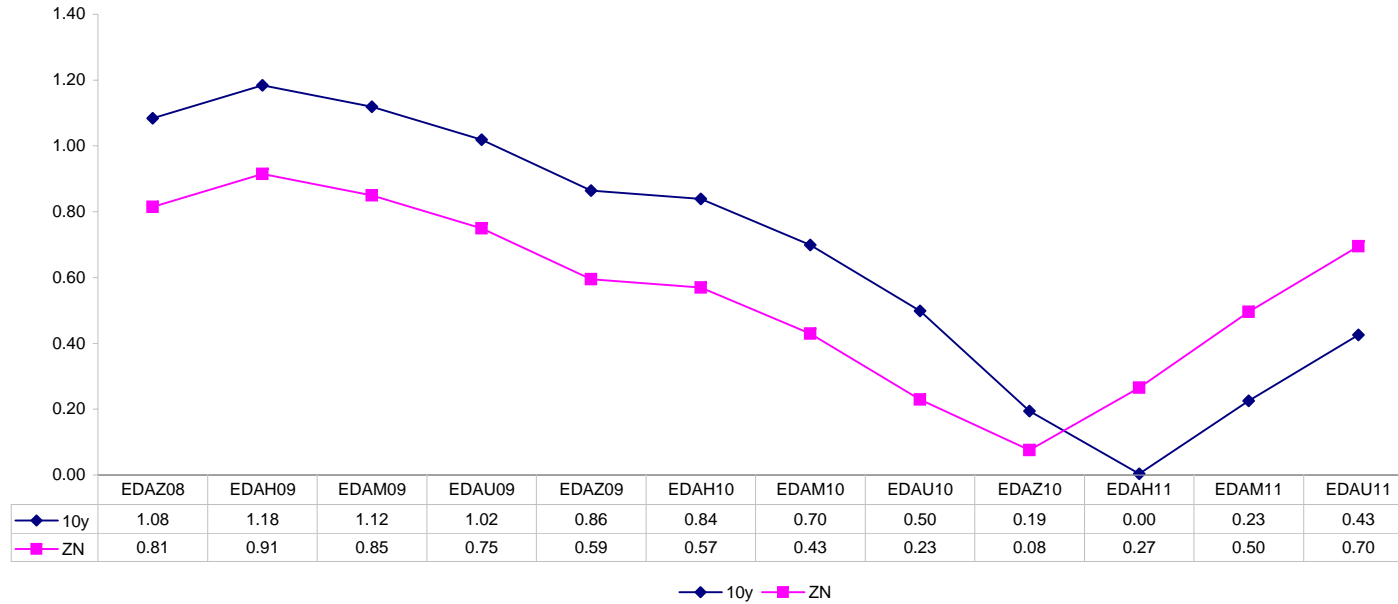
2y Basis TED Curve



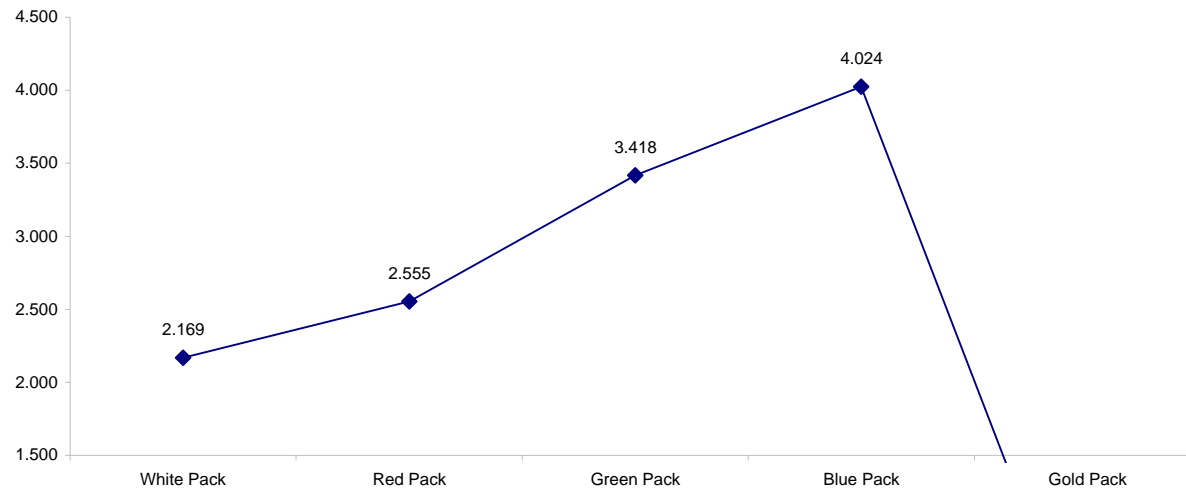
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.169	-1.812	9787.250
Red Pack	2.555	5.875	9749.625
Green Pack	3.418	6.875	9665.750
Blue Pack	4.024	9.750	9607.000
Gold Pack		2.250	9571.250



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

