

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	107.4281	107.137	1.526	1.89
ZF	113.7969	113.255	2.521	4.19
ZN	114.5781	114.185	4.346	6.42
2y	100.897	100.2870	1.528	1.83
5y	102.569	102.1820	2.566	4.55
10y	102.797	102.2550	3.654	8.03

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	97.700	2.300	54	0.147	DEC	
EDAH09	97.890	2.110	145	0.397	MAR	White Pack
EDAM09	97.895	2.105	236	0.646	JUN	
EDAU09	97.840	2.160	327	0.895	SEP	
EDAZ09	97.655	2.345	418	1.145	DEC	
EDAH10	97.495	2.505	509	1.394	MAR	Red Pack
EDAM10	97.200	2.800	600	1.643	JUN	
EDAU10	96.825	3.175	691	1.893	SEP	
EDAZ10	96.380	3.620	782	2.142	DEC	
EDAH11	96.105	3.895	873	2.391	MAR	Green Pack
EDAM11	95.875	4.125	964	2.640	JUN	
EDAU11	95.730	4.270	1062	2.909	SEP	
EDAZ11	95.640	4.360	1153	3.158	DEC	
EDAH12	95.640	4.360	1244	3.408	MAR	Blue Pack
EDAM12	95.585	4.415	1335	3.657	JUN	
EDAU12	95.530	4.470	1426	3.906	SEP	
EDAZ12	95.415	4.585	1517	4.156	DEC	
EDAH13	95.390	4.610	1608	4.405	MAR	Gold Pack
EDAM13	95.335	4.665	1699	4.654	JUN	
EDZU13	95.130	4.870	1881	5.153	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	2.211	4.250	9783.125	Pack Prices
Red Pack	2.763	5.750	9729.375	
Green Pack	4.073	3.500	9602.250	
Blue Pack	4.512	1.500	9559.875	
Gold Pack	4.767	0.500	9535.250	

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.

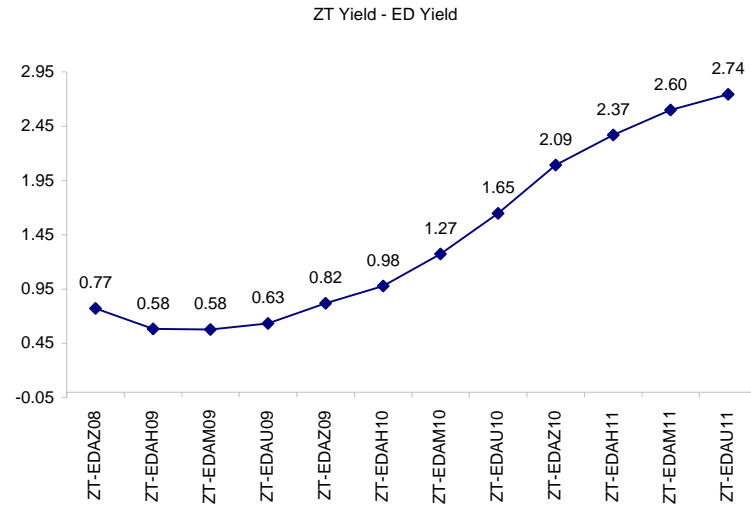
jgoulding@ghco.com

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.

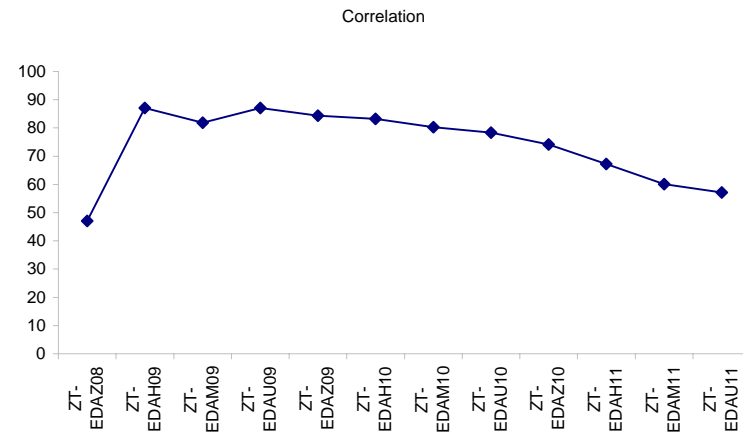
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	9.728	0.77	ZT-EDAZ08	47.099
EDAH09	9.538	0.58	ZT-EDAH09	87.096
EDAM09	9.533	0.58	ZT-EDAM09	81.866
EDAU09	9.588	0.63	ZT-EDAU09	87.096
EDAZ09	9.773	0.82	ZT-EDAZ09	84.398
EDAH10	9.933	0.98	ZT-EDAH10	83.169
EDAM10	10.228	1.27	ZT-EDAM10	80.256
EDAU10	10.603	1.65	ZT-EDAU10	78.333
EDAZ10	11.048	2.09	ZT-EDAZ10	74.110
EDAH11	11.323	2.37	ZT-EDAH11	67.216
EDAM11	11.553	2.60	ZT-EDAM11	60.036
EDAU11	11.698	2.74	ZT-EDAU11	57.122

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	0.147	1.89	1.75	ZT-EDAZ08		
EDAH09	0.397	1.89	1.50	ZT-EDAH09		
EDAM09	0.646	1.89	1.25	ZT-EDAM09		
EDAU09	0.895	1.89	1.00	ZT-EDAU09		
EDAZ09	1.145	1.89	0.75	ZT-EDAZ09		
EDAH10	1.394	1.89	0.50	ZT-EDAH10		
EDAM10	1.643	1.89	0.25	ZT-EDAM10		
EDAU10	1.893	1.89	0.00	ZT-EDAU10		
EDAZ10	2.142	1.89	(0.25)	ZT-EDAZ10		
EDAH11	2.391	1.89	(0.50)	ZT-EDAH11		
EDAM11	2.640	1.89	(0.75)	ZT-EDAM11		
EDAU11	2.909	1.89	(1.02)	ZT-EDAU11		

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

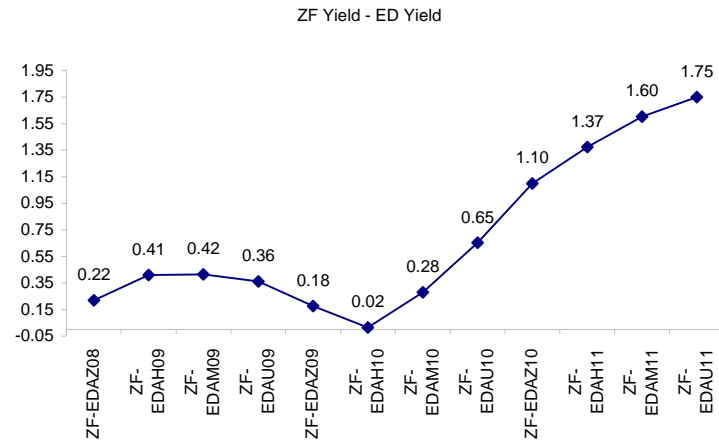


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	16.097	0.22	ZF-EDAZ08	64.888
EDAH09	15.907	0.41	ZF-EDAH09	61.332
EDAM09	15.902	0.42	ZF-EDAM09	83.777
EDAU09	15.957	0.36	ZF-EDAU09	87.083
EDAZ09	16.142	0.18	ZF-EDAZ09	87.478
EDAH10	16.302	0.02	ZF-EDAH10	87.741
EDAM10	16.597	0.28	ZF-EDAM10	89.222
EDAU10	16.972	0.65	ZF-EDAU10	91.886
EDAZ10	17.417	1.10	ZF-EDAZ10	95.197
EDAH11	17.692	1.37	ZF-EDAH11	97.097
EDAM11	17.922	1.60	ZF-EDAM11	96.358
EDAU11	18.067	1.75	ZF-EDAU11	95.701

Price = Outright Decimal Price - Euro Contract Price

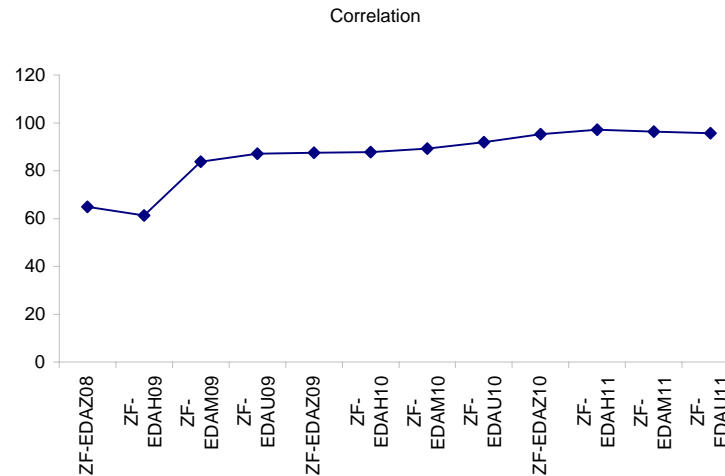
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	0.147	4.19	4.04	ZF-EDAZ08		
EDAH09	0.397	4.19	3.79	ZF-EDAH09		
EDAM09	0.646	4.19	3.55	ZF-EDAM09		
EDAU09	0.895	4.19	3.30	ZF-EDAU09		
EDAZ09	1.145	4.19	3.05	ZF-EDAZ09		
EDAH10	1.394	4.19	2.80	ZF-EDAH10		
EDAM10	1.643	4.19	2.55	ZF-EDAM10		
EDAU10	1.893	4.19	2.30	ZF-EDAU10		
EDAZ10	2.142	4.19	2.05	ZF-EDAZ10		
EDAH11	2.391	4.19	1.80	ZF-EDAH11		
EDAM11	2.640	4.19	1.55	ZF-EDAM11		
EDAU11	2.909	4.19	1.28	ZF-EDAU11		

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

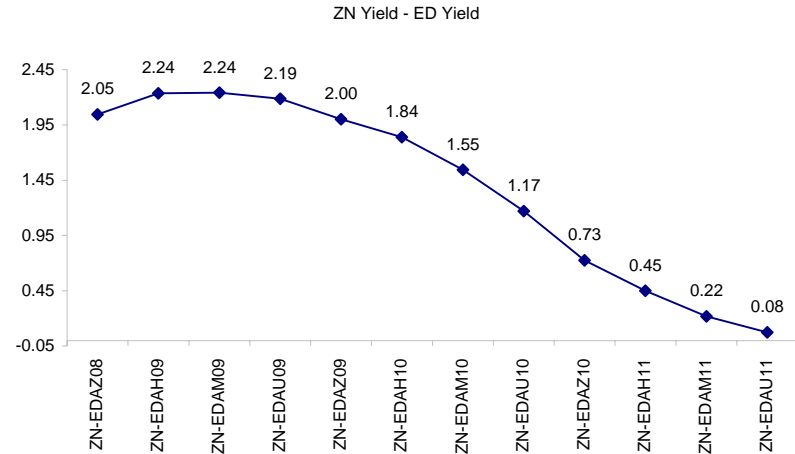


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	16.878	2.05	ZN-EDAZ08	42.926
EDAH09	16.688	2.24	ZN-EDAH09	42.590
EDAM09	16.683	2.24	ZN-EDAM09	51.077
EDAU09	16.738	2.19	ZN-EDAU09	52.029
EDAZ09	16.923	2.00	ZN-EDAZ09	54.376
EDAH10	17.083	1.84	ZN-EDAH10	55.873
EDAM10	17.378	1.55	ZN-EDAM10	89.222
EDAU10	17.753	1.17	ZN-EDAU10	91.886
EDAZ10	18.198	0.73	ZN-EDAZ10	95.197
EDAH11	18.473	0.45	ZN-EDAH11	97.097
EDAM11	18.703	0.22	ZN-EDAM11	96.358
EDAU11	18.848	0.08	ZN-EDAU11	95.701

Price = Outright Decimal Price - Euro Contract Price

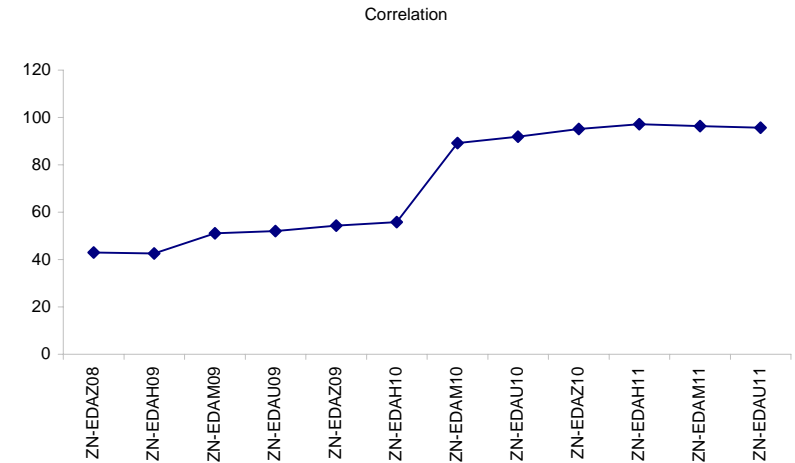
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.147	6.42	6.27	ZN-EDAZ08		
EDAH09	0.397	6.42	6.02	ZN-EDAH09		
EDAM09	0.646	6.42	5.77	ZN-EDAM09		
EDAU09	0.895	6.42	5.52	ZN-EDAU09		
EDAZ09	1.145	6.42	5.27	ZN-EDAZ09		
EDAH10	1.394	6.42	5.02	ZN-EDAH10		
EDAM10	1.643	6.42	4.78	ZN-EDAM10		
EDAU10	1.893	6.42	4.53	ZN-EDAU10		
EDAZ10	2.142	6.42	4.28	ZN-EDAZ10		
EDAH11	2.391	6.42	4.03	ZN-EDAH11		
EDAM11	2.640	6.42	3.78	ZN-EDAM11		
EDAU11	2.909	6.42	3.51	ZN-EDAU11		

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

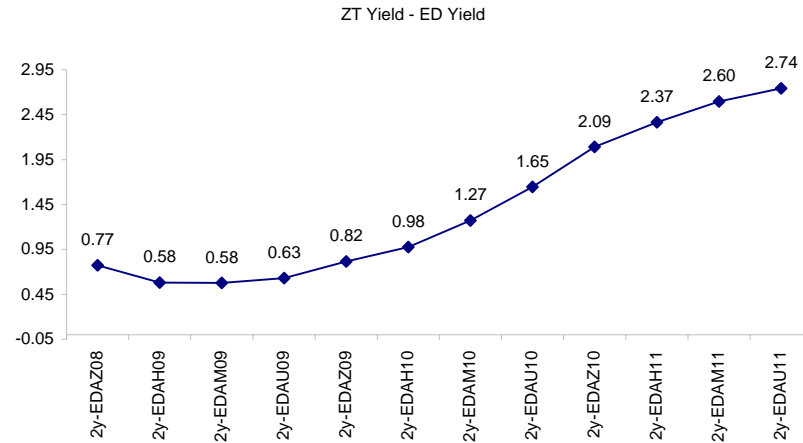


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.197	0.77	2y-EDAZ08	23.386
EDAH09	3.007	0.58	2y-EDAH09	2.271
EDAM09	3.002	0.58	2y-EDAM09	-17.870
EDAU09	3.057	0.63	2y-EDAU09	-22.325
EDAZ09	3.242	0.82	2y-EDAZ09	-18.136
EDAH10	3.402	0.98	2y-EDAH10	-16.392
EDAM10	3.697	1.27	2y-EDAM10	-17.427
EDAU10	4.072	1.65	2y-EDAU10	-21.693
EDAZ10	4.517	2.09	2y-EDAZ10	-28.898
EDAH11	4.792	2.37	2y-EDAH11	-35.112
EDAM11	5.022	2.60	2y-EDAM11	-38.461
EDAU11	5.167	2.74	2y-EDAU11	-41.127

Price = Outright Decimal Price - Euro Contract Price

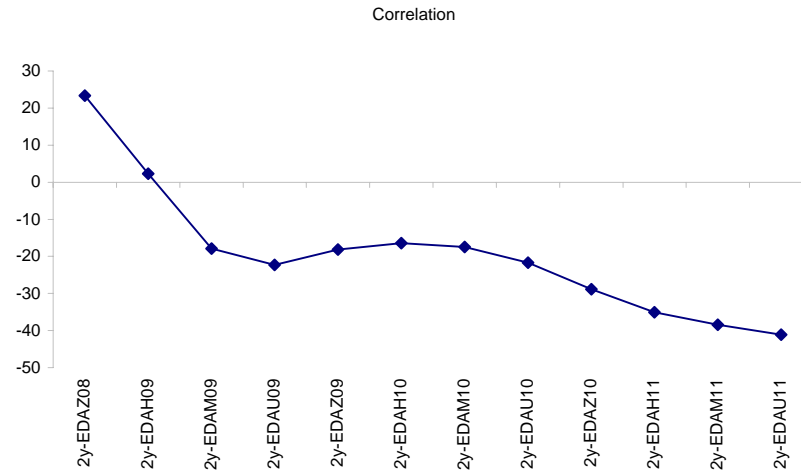
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.147	1.83	1.68	2y-EDAZ08	
EDAH09	0.397	1.83	1.43	2y-EDAH09	
EDAM09	0.646	1.83	1.18	2y-EDAM09	
EDAU09	0.895	1.83	0.93	2y-EDAU09	
EDAZ09	1.145	1.83	0.68	2y-EDAZ09	
EDAH10	1.394	1.83	0.43	2y-EDAH10	
EDAM10	1.643	1.83	0.18	2y-EDAM10	
EDAU10	1.893	1.83	(0.06)	2y-EDAU10	
EDAZ10	2.142	1.83	(0.31)	2y-EDAZ10	
EDAH11	2.391	1.83	(0.56)	2y-EDAH11	
EDAM11	2.640	1.83	(0.81)	2y-EDAM11	
EDAU11	2.909	1.83	(1.08)	2y-EDAU11	

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

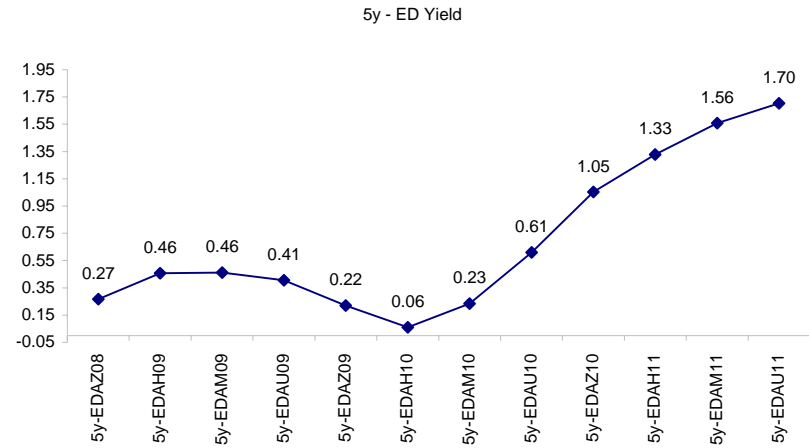


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	4.869	0.27	5y-EDAZ08	-14.063
EDAH09	4.679	0.46	5y-EDAH09	-33.812
EDAM09	4.674	0.46	5y-EDAM09	-49.128
EDAU09	4.729	0.41	5y-EDAU09	-54.060
EDAZ09	4.914	0.22	5y-EDAZ09	-52.872
EDAH10	5.074	0.06	5y-EDAH10	-52.945
EDAM10	5.369	0.23	5y-EDAM10	-56.528
EDAU10	5.744	0.61	5y-EDAU10	-63.174
EDAZ10	6.189	1.05	5y-EDAZ10	-73.303
EDAH11	6.464	1.33	5y-EDAH11	-82.330
EDAM11	6.694	1.56	5y-EDAM11	-86.335
EDAU11	6.839	1.70	5y-EDAU11	-88.237

Price = Outright Decimal Price - Euro Contract Price

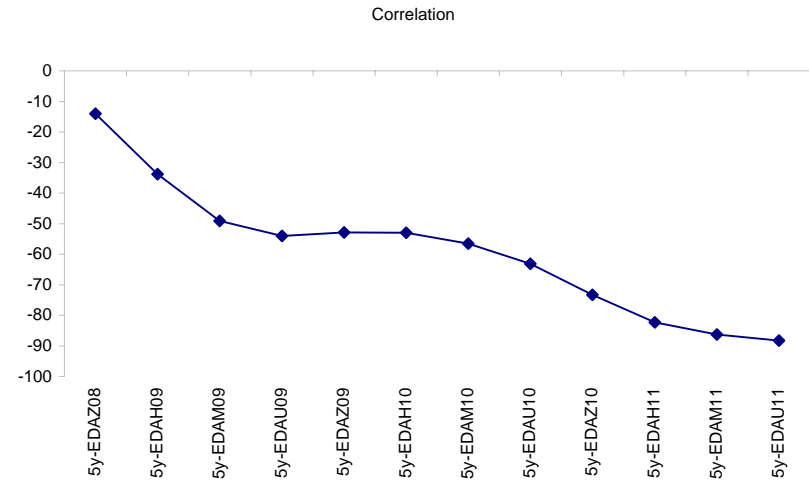
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAZ08	0.147	4.55	4.40	5y-EDAZ08
EDAH09	0.397	4.55	4.15	5y-EDAH09
EDAM09	0.646	4.55	3.91	5y-EDAM09
EDAU09	0.895	4.55	3.66	5y-EDAU09
EDAZ09	1.145	4.55	3.41	5y-EDAZ09
EDAH10	1.394	4.55	3.16	5y-EDAH10
EDAM10	1.643	4.55	2.91	5y-EDAM10
EDAU10	1.893	4.55	2.66	5y-EDAU10
EDAZ10	2.142	4.55	2.41	5y-EDAZ10
EDAH11	2.391	4.55	2.16	5y-EDAH11
EDAM11	2.640	4.55	1.91	5y-EDAM11
EDAU11	2.909	4.55	1.64	5y-EDAU11

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

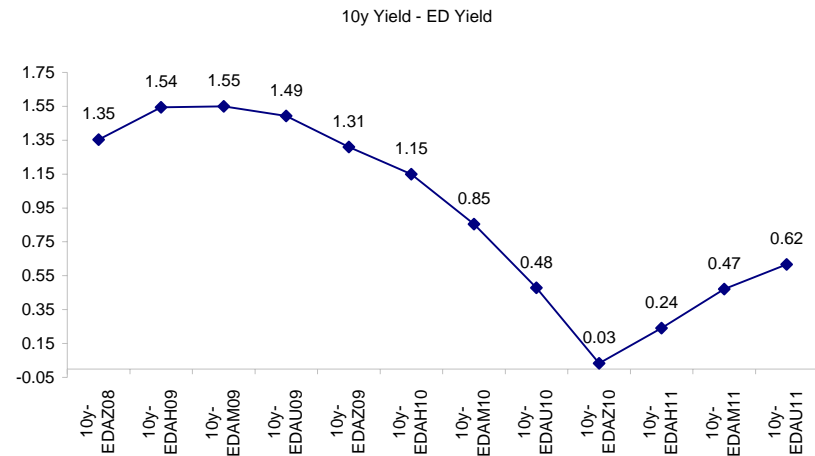


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	4.869	1.35	10y-EDAZ08	-15.350
EDAH09	4.679	1.54	10y-EDAH09	-38.942
EDAM09	4.674	1.55	10y-EDAM09	-51.503
EDAU09	4.729	1.49	10y-EDAU09	-55.816
EDAZ09	4.914	1.31	10y-EDAZ09	-54.291
EDAH10	5.074	1.15	10y-EDAH10	-54.629
EDAM10	5.369	0.85	10y-EDAM10	-58.599
EDAU10	5.744	0.48	10y-EDAU10	-65.553
EDAZ10	6.189	0.03	10y-EDAZ10	-76.285
EDAH11	6.464	0.24	10y-EDAH11	-86.232
EDAM11	6.694	0.47	10y-EDAM11	-90.948
EDAU11	6.839	0.62	10y-EDAU11	-93.073

Price = Outright Decimal Price - Euro Contract Price

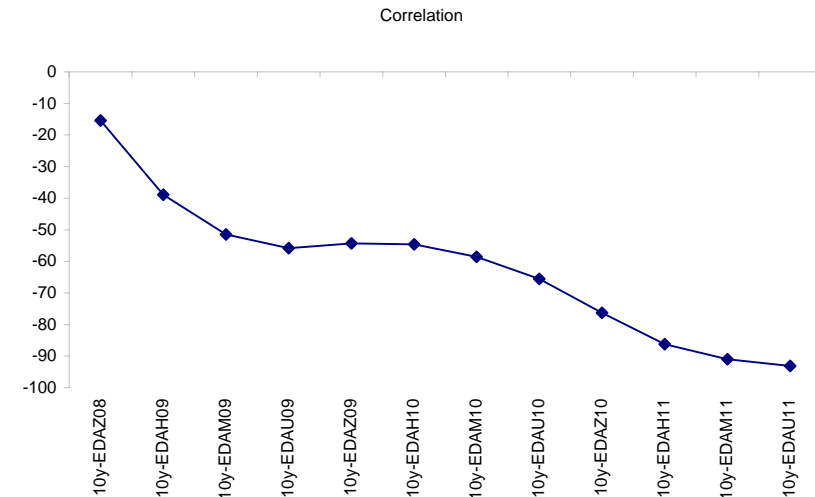
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAZ08	0.147	8.03	7.89	10y-EDAZ08
EDAH09	0.397	8.03	7.64	10y-EDAH09
EDAM09	0.646	8.03	7.39	10y-EDAM09
EDAU09	0.895	8.03	7.14	10y-EDAU09
EDAZ09	1.145	8.03	6.89	10y-EDAZ09
EDAH10	1.394	8.03	6.64	10y-EDAH10
EDAM10	1.643	8.03	6.39	10y-EDAM10
EDAU10	1.893	8.03	6.14	10y-EDAU10
EDAZ10	2.142	8.03	5.89	10y-EDAZ10
EDAH11	2.391	8.03	5.64	10y-EDAH11
EDAM11	2.640	8.03	5.39	10y-EDAM11
EDAU11	2.909	8.03	5.12	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.

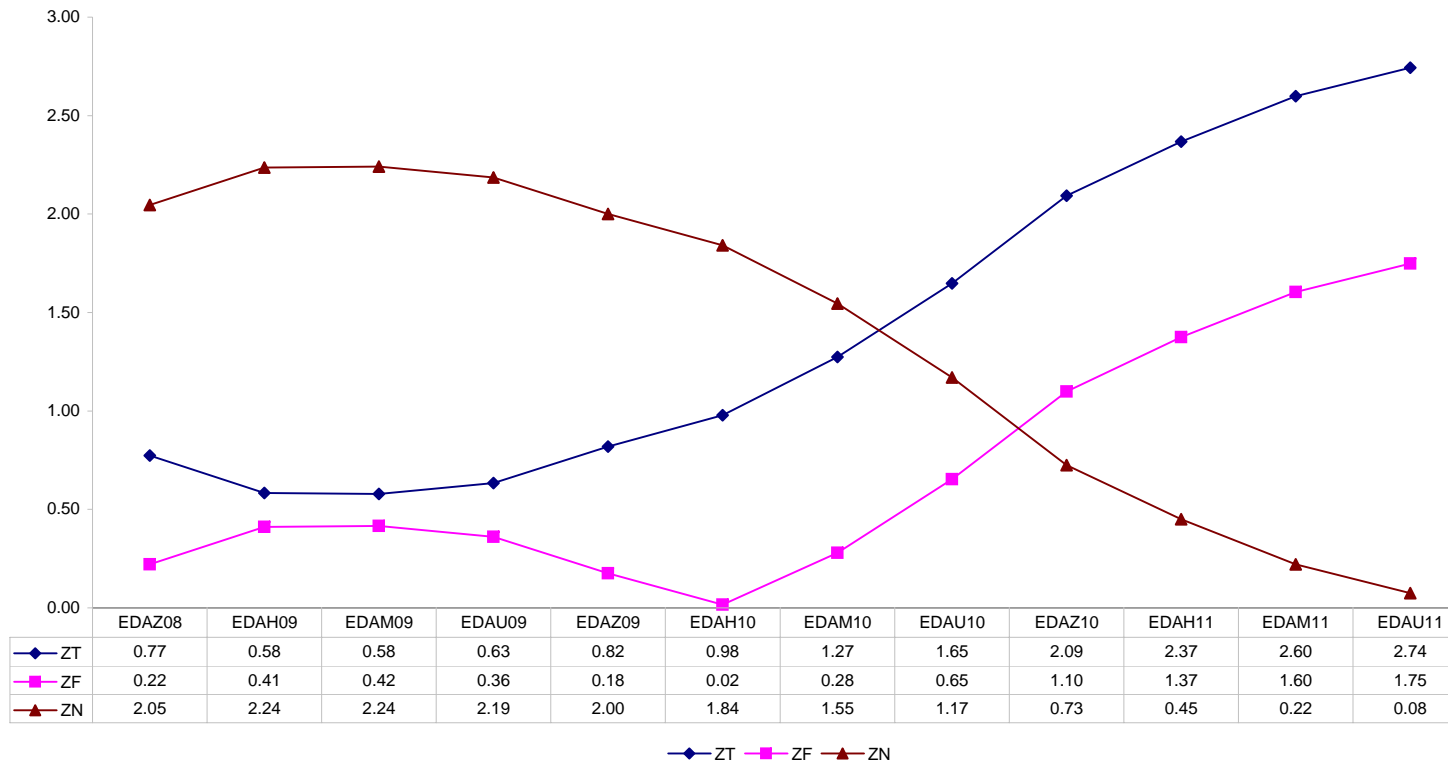
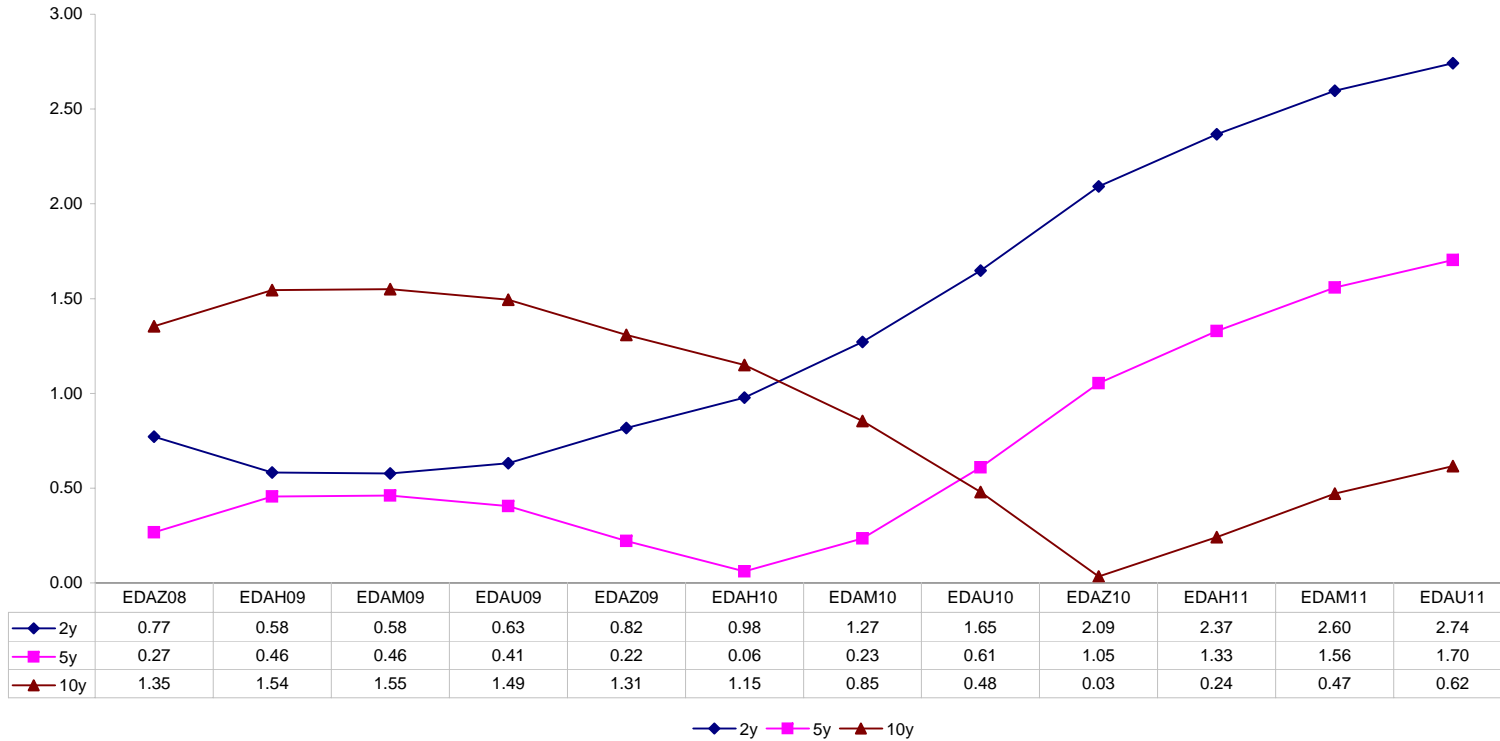
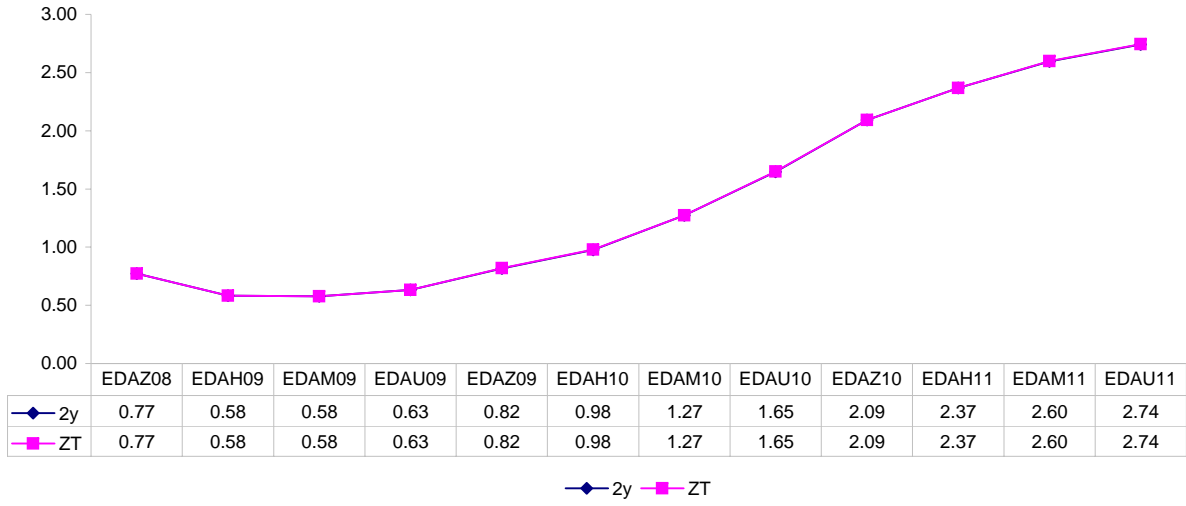


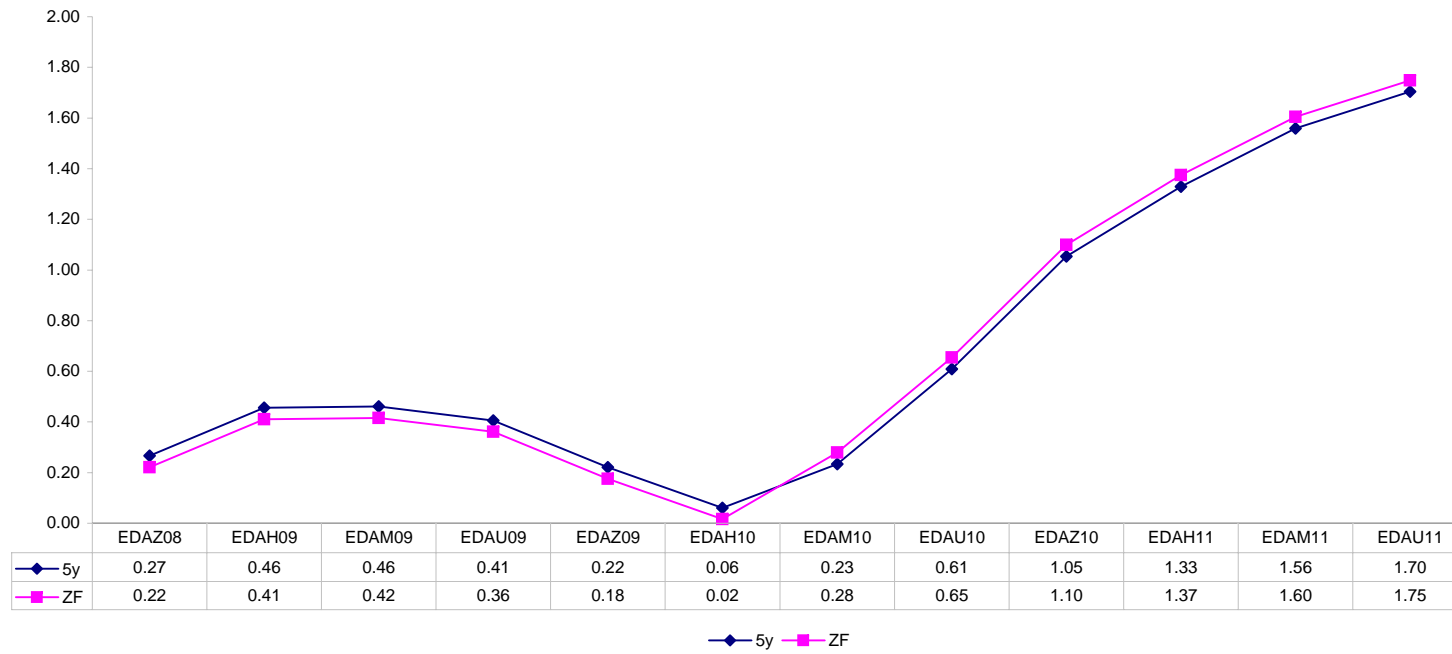
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



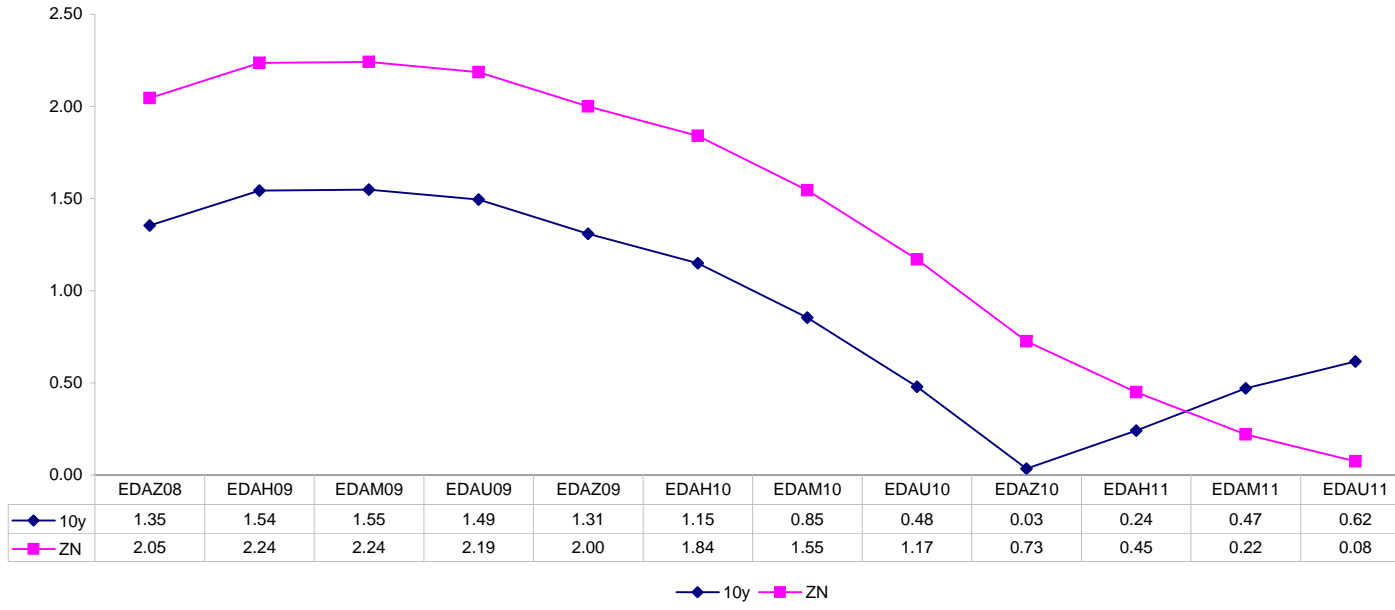
2y Basis TED Curve



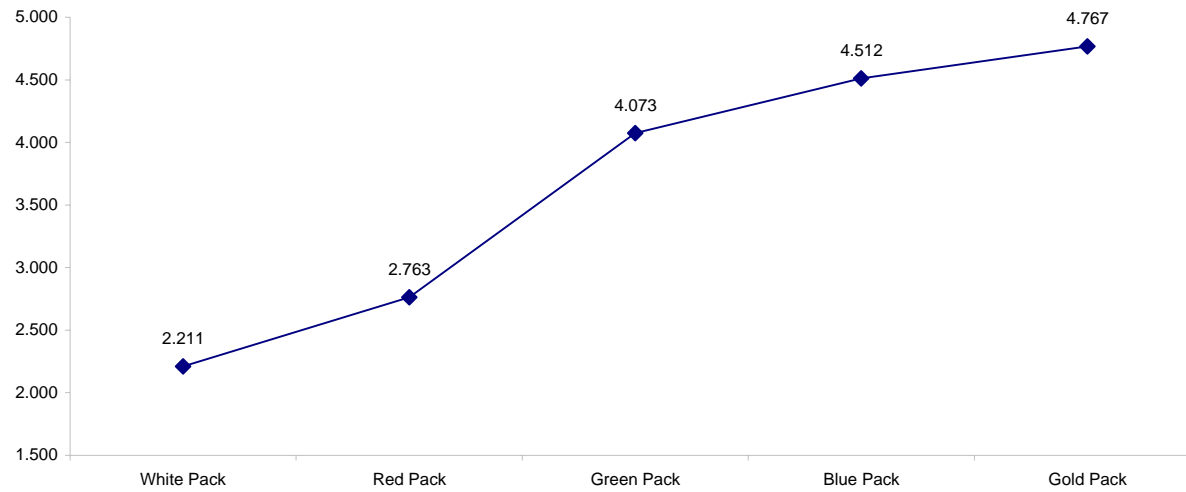
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.211	4.250	9783.125
Red Pack	2.763	5.750	9729.375
Green Pack	4.073	3.500	9602.250
Blue Pack	4.512	1.500	9559.875
Gold Pack	4.767	0.500	9535.250



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

