

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	107.7875	107.252	1.321	1.86
ZF	115.0156	115.005	2.329	4.16
ZN	114.9688	114.310	3.606	6.16
2y	100.131	100.0420	1.429	1.94
5y	100.734	100.2350	2.589	4.63
10y	101.797	101.2550	3.778	7.98

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	97.950	2.050	40	0.109	DEC	
EDAH09	97.970	2.030	131	0.358	MAR	White Pack
EDAM09	97.850	2.150	222	0.608	JUN	
EDAU09	97.695	2.305	313	0.857	SEP	
EDAZ09	97.475	2.525	404	1.106	DEC	
EDAH10	97.335	2.665	495	1.356	MAR	Red Pack
EDAM10	97.045	2.955	586	1.605	JUN	
EDAU10	96.715	3.285	677	1.854	SEP	
EDAZ10	96.315	3.685	768	2.103	DEC	
EDAH11	96.065	3.935	859	2.353	MAR	Green Pack
EDAM11	95.835	4.165	950	2.602	JUN	
EDAU11	95.675	4.325	1048	2.871	SEP	
EDAZ11	95.550	4.450	1139	3.120	DEC	
EDAH12	95.520	4.480	1230	3.369	MAR	Blue Pack
EDAM12	95.375	4.625	1321	3.619	JUN	
EDAU12	95.210	4.790	1412	3.868	SEP	
EDAZ12	95.160	4.840	1503	4.117	DEC	
EDAH13	95.135	4.865	1594	4.366	MAR	Gold Pack
EDAM13	94.990	5.010	1685	4.616	JUN	
EDZU13	94.675	5.325	1867	5.114	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	2.175	-1.500	9786.625	Pack Prices
Red Pack	2.918	-0.375	9714.250	
Green Pack	4.125	0.375	9597.250	
Blue Pack	4.704	2.500	9541.375	
Gold Pack		1.000	9506.000	

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.

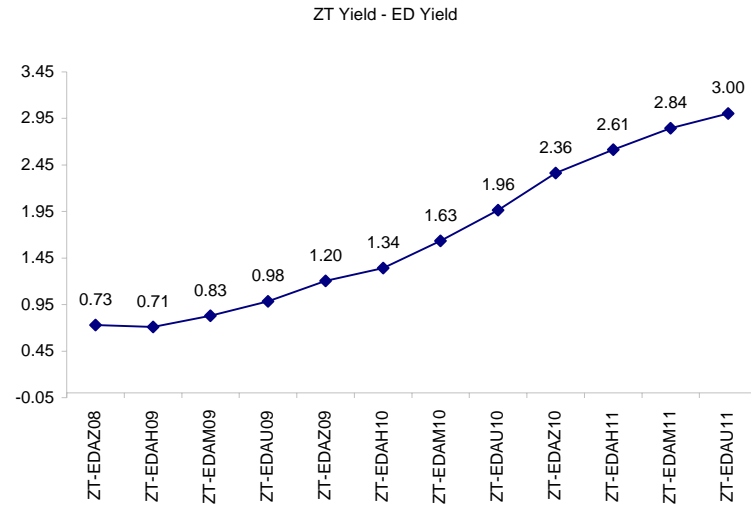
jgoulding@ghco.com

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.

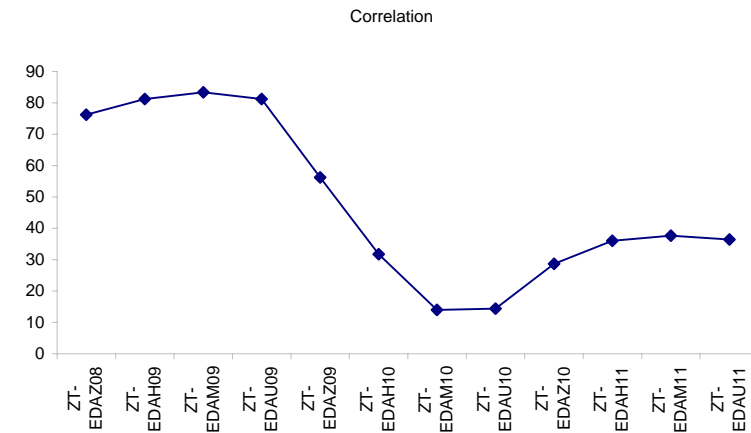
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	9.837	0.73	ZT-EDAZ08	76.259
EDAH09	9.817	0.71	ZT-EDAH09	81.203
EDAM09	9.937	0.83	ZT-EDAM09	83.390
EDAU09	10.093	0.98	ZT-EDAU09	81.203
EDAZ09	10.313	1.20	ZT-EDAZ09	56.265
EDAH10	10.453	1.34	ZT-EDAH10	31.781
EDAM10	10.743	1.63	ZT-EDAM10	14.014
EDAU10	11.073	1.96	ZT-EDAU10	14.362
EDAZ10	11.473	2.36	ZT-EDAZ10	28.694
EDAH11	11.723	2.61	ZT-EDAH11	36.045
EDAM11	11.953	2.84	ZT-EDAM11	37.606
EDAU11	12.113	3.00	ZT-EDAU11	36.396

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	0.109	1.86	1.75	ZT-EDAZ08	
EDAH09	0.358	1.86	1.50	ZT-EDAH09	
EDAM09	0.608	1.86	1.25	ZT-EDAM09	
EDAU09	0.857	1.86	1.00	ZT-EDAU09	
EDAZ09	1.106	1.86	0.75	ZT-EDAZ09	
EDAH10	1.356	1.86	0.50	ZT-EDAH10	
EDAM10	1.605	1.86	0.25	ZT-EDAM10	
EDAU10	1.854	1.86	0.00	ZT-EDAU10	
EDAZ10	2.103	1.86	(0.25)	ZT-EDAZ10	
EDAH11	2.353	1.86	(0.50)	ZT-EDAH11	
EDAM11	2.602	1.86	(0.75)	ZT-EDAM11	
EDAU11	2.871	1.86	(1.01)	ZT-EDAU11	

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

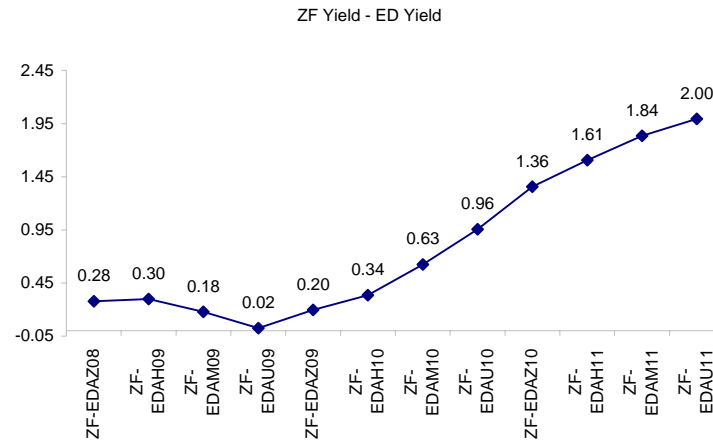


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	17.066	0.28	ZF-EDAZ08	57.682
EDAH09	17.046	0.30	ZF-EDAH09	52.139
EDAM09	17.166	0.18	ZF-EDAM09	66.956
EDAU09	17.321	0.02	ZF-EDAU09	78.991
EDAZ09	17.541	0.20	ZF-EDAZ09	71.705
EDAH10	17.681	0.34	ZF-EDAH10	59.143
EDAM10	17.971	0.63	ZF-EDAM10	46.635
EDAU10	18.301	0.96	ZF-EDAU10	48.487
EDAZ10	18.701	1.36	ZF-EDAZ10	60.130
EDAH11	18.951	1.61	ZF-EDAH11	64.842
EDAM11	19.181	1.84	ZF-EDAM11	65.005
EDAU11	19.341	2.00	ZF-EDAU11	63.308

Price = Outright Decimal Price - Euro Contract Price

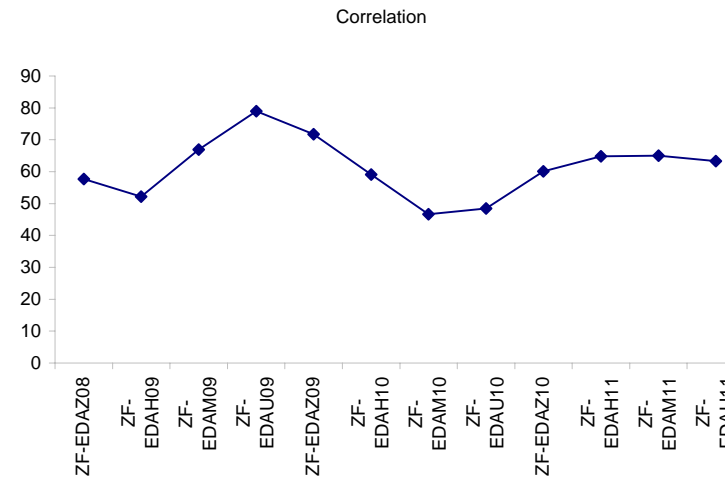
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	0.109	4.16	4.05	ZF-EDAZ08		
EDAH09	0.358	4.16	3.80	ZF-EDAH09		
EDAM09	0.608	4.16	3.55	ZF-EDAM09		
EDAU09	0.857	4.16	3.30	ZF-EDAU09		
EDAZ09	1.106	4.16	3.05	ZF-EDAZ09		
EDAH10	1.356	4.16	2.80	ZF-EDAH10		
EDAM10	1.605	4.16	2.55	ZF-EDAM10		
EDAU10	1.854	4.16	2.31	ZF-EDAU10		
EDAZ10	2.103	4.16	2.06	ZF-EDAZ10		
EDAH11	2.353	4.16	1.81	ZF-EDAH11		
EDAM11	2.602	4.16	1.56	ZF-EDAM11		
EDAU11	2.871	4.16	1.29	ZF-EDAU11		

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

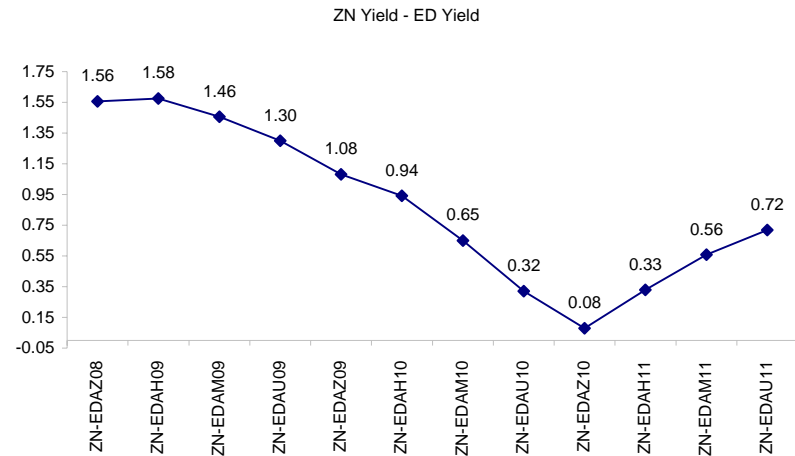


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	17.019	1.56	ZN-EDAZ08	-34.443
EDAH09	16.999	1.58	ZN-EDAH09	-31.758
EDAM09	17.119	1.46	ZN-EDAM09	0.900
EDAU09	17.274	1.30	ZN-EDAU09	45.304
EDAZ09	17.494	1.08	ZN-EDAZ09	81.006
EDAH10	17.634	0.94	ZN-EDAH10	94.450
EDAM10	17.924	0.65	ZN-EDAM10	46.635
EDAU10	18.254	0.32	ZN-EDAU10	48.487
EDAZ10	18.654	0.08	ZN-EDAZ10	60.130
EDAH11	18.904	0.33	ZN-EDAH11	64.842
EDAM11	19.134	0.56	ZN-EDAM11	65.005
EDAU11	19.294	0.72	ZN-EDAU11	63.308

Price = Outright Decimal Price - Euro Contract Price

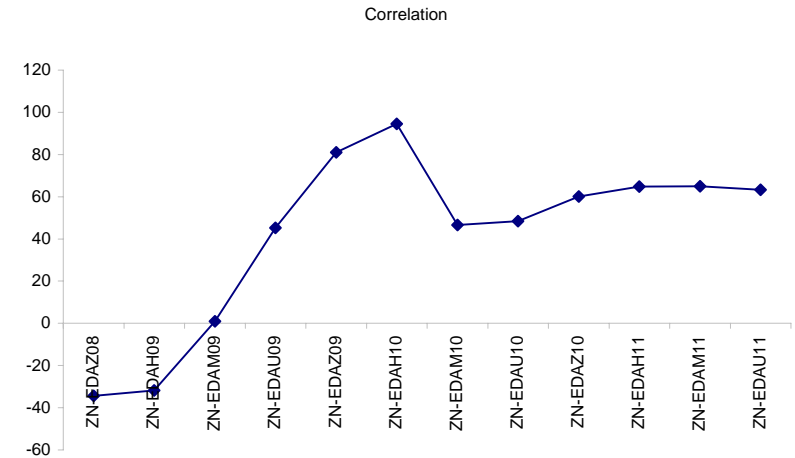
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.109	6.16	6.05	ZN-EDAZ08		
EDAH09	0.358	6.16	5.80	ZN-EDAH09		
EDAM09	0.608	6.16	5.55	ZN-EDAM09		
EDAU09	0.857	6.16	5.30	ZN-EDAU09		
EDAZ09	1.106	6.16	5.05	ZN-EDAZ09		
EDAH10	1.356	6.16	4.80	ZN-EDAH10		
EDAM10	1.605	6.16	4.55	ZN-EDAM10		
EDAU10	1.854	6.16	4.30	ZN-EDAU10		
EDAZ10	2.103	6.16	4.05	ZN-EDAZ10		
EDAH11	2.353	6.16	3.80	ZN-EDAH11		
EDAM11	2.602	6.16	3.55	ZN-EDAM11		
EDAU11	2.871	6.16	3.29	ZN-EDAU11		

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

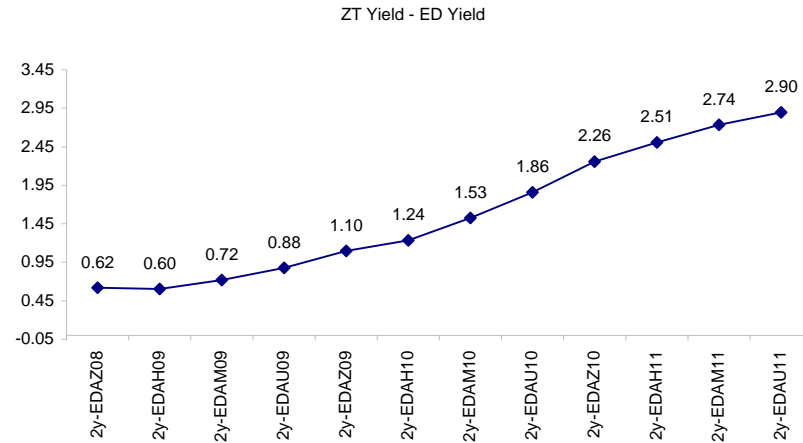


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.181	0.62	2y-EDAZ08	-62.656
EDAH09	2.161	0.60	2y-EDAH09	-50.823
EDAM09	2.281	0.72	2y-EDAM09	-52.943
EDAU09	2.436	0.88	2y-EDAU09	-53.197
EDAZ09	2.656	1.10	2y-EDAZ09	-39.436
EDAH10	2.796	1.24	2y-EDAH10	-27.055
EDAM10	3.086	1.53	2y-EDAM10	-17.682
EDAU10	3.416	1.86	2y-EDAU10	-20.943
EDAZ10	3.816	2.26	2y-EDAZ10	-31.473
EDAH11	4.066	2.51	2y-EDAH11	-34.845
EDAM11	4.296	2.74	2y-EDAM11	-33.742
EDAU11	4.456	2.90	2y-EDAU11	-30.950

Price = Outright Decimal Price - Euro Contract Price

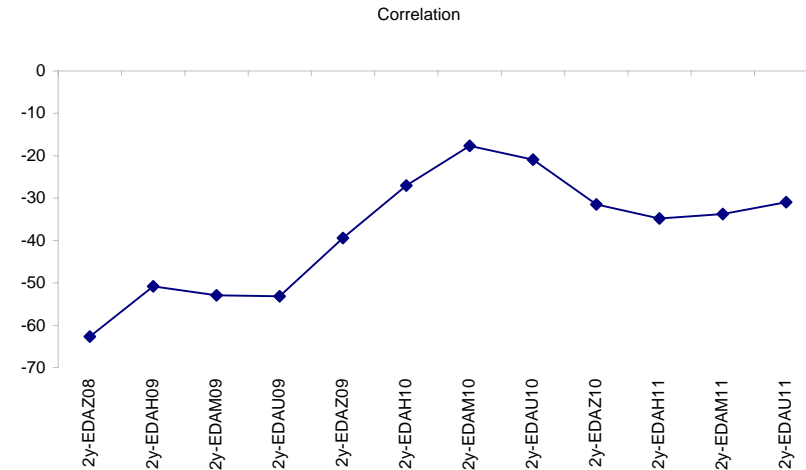
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.109	1.94	1.84	2y-EDAZ08	
EDAH09	0.358	1.94	1.59	2y-EDAH09	
EDAM09	0.608	1.94	1.34	2y-EDAM09	
EDAU09	0.857	1.94	1.09	2y-EDAU09	
EDAZ09	1.106	1.94	0.84	2y-EDAZ09	
EDAH10	1.356	1.94	0.59	2y-EDAH10	
EDAM10	1.605	1.94	0.34	2y-EDAM10	
EDAU10	1.854	1.94	0.09	2y-EDAU10	
EDAZ10	2.103	1.94	(0.16)	2y-EDAZ10	
EDAH11	2.353	1.94	(0.41)	2y-EDAH11	
EDAM11	2.602	1.94	(0.66)	2y-EDAM11	
EDAU11	2.871	1.94	(0.93)	2y-EDAU11	

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

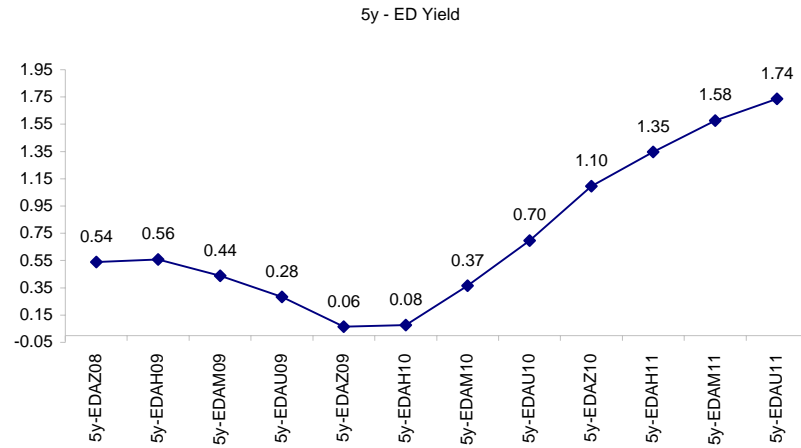


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.784	0.54	5y-EDAZ08	3.296
EDAH09	2.764	0.56	5y-EDAH09	8.891
EDAM09	2.884	0.44	5y-EDAM09	-14.251
EDAU09	3.039	0.28	5y-EDAU09	-47.690
EDAZ09	3.259	0.06	5y-EDAZ09	-71.866
EDAH10	3.399	0.08	5y-EDAH10	-80.101
EDAM10	3.689	0.37	5y-EDAM10	-79.100
EDAU10	4.019	0.70	5y-EDAU10	-79.184
EDAZ10	4.419	1.10	5y-EDAZ10	-78.277
EDAH11	4.669	1.35	5y-EDAH11	-74.528
EDAM11	4.899	1.58	5y-EDAM11	-71.685
EDAU11	5.059	1.74	5y-EDAU11	-68.697

Price = Outright Decimal Price - Euro Contract Price

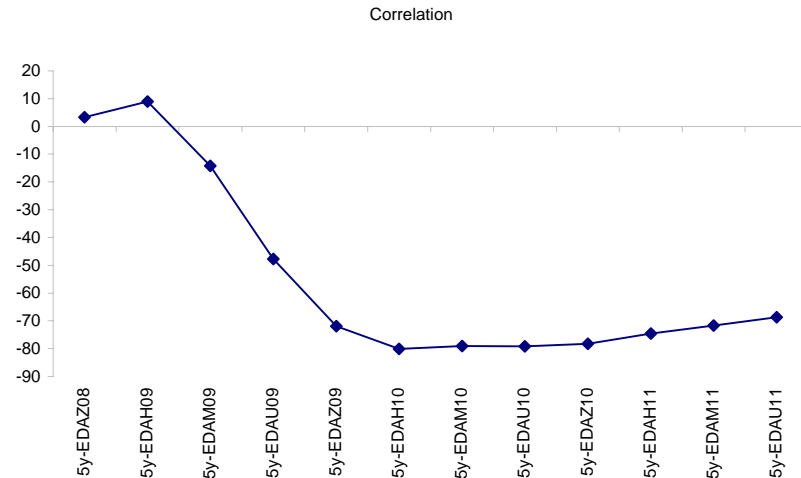
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	5Y Duration	Spread Duration		
EDAZ08	0.109	4.63	4.52	5y-EDAZ08
EDAH09	0.358	4.63	4.27	5y-EDAH09
EDAM09	0.608	4.63	4.02	5y-EDAM09
EDAU09	0.857	4.63	3.77	5y-EDAU09
EDAZ09	1.106	4.63	3.52	5y-EDAZ09
EDAH10	1.356	4.63	3.27	5y-EDAH10
EDAM10	1.605	4.63	3.03	5y-EDAM10
EDAU10	1.854	4.63	2.78	5y-EDAU10
EDAZ10	2.103	4.63	2.53	5y-EDAZ10
EDAH11	2.353	4.63	2.28	5y-EDAH11
EDAM11	2.602	4.63	2.03	5y-EDAM11
EDAU11	2.871	4.63	1.76	5y-EDAU11

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

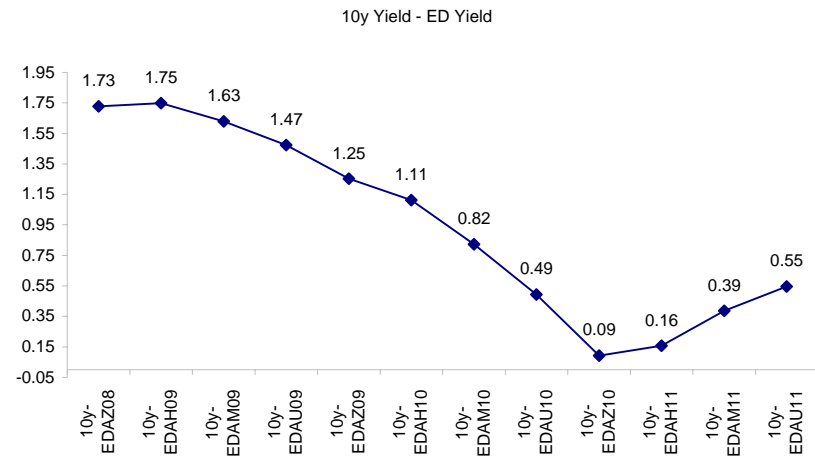


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.784	1.73	10y-EDAZ08	42.949
EDAH09	2.764	1.75	10y-EDAH09	44.382
EDAM09	2.884	1.63	10y-EDAM09	16.387
EDAU09	3.039	1.47	10y-EDAU09	-27.076
EDAZ09	3.259	1.25	10y-EDAZ09	-67.232
EDAH10	3.399	1.11	10y-EDAH10	-86.202
EDAM10	3.689	0.82	10y-EDAM10	-91.715
EDAU10	4.019	0.49	10y-EDAU10	-90.625
EDAZ10	4.419	0.09	10y-EDAZ10	-83.380
EDAH11	4.669	0.16	10y-EDAH11	-76.498
EDAM11	4.899	0.39	10y-EDAM11	-73.176
EDAU11	5.059	0.55	10y-EDAU11	-70.907

Price = Outright Decimal Price - Euro Contract Price

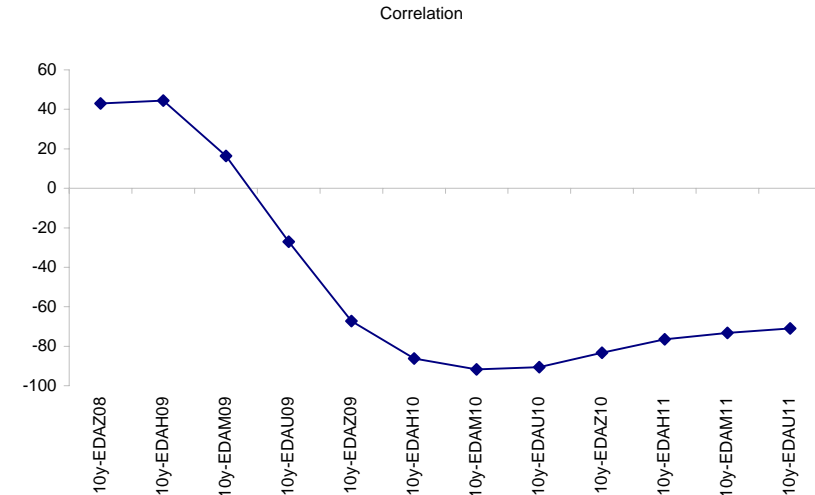
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as				
	Fraction of year	10Y Duration	Spread Duration	
EDAZ08	0.109	7.98	7.87	10y-EDAZ08
EDAH09	0.358	7.98	7.62	10y-EDAH09
EDAM09	0.608	7.98	7.37	10y-EDAM09
EDAU09	0.857	7.98	7.12	10y-EDAU09
EDAZ09	1.106	7.98	6.87	10y-EDAZ09
EDAH10	1.356	7.98	6.63	10y-EDAH10
EDAM10	1.605	7.98	6.38	10y-EDAM10
EDAU10	1.854	7.98	6.13	10y-EDAU10
EDAZ10	2.103	7.98	5.88	10y-EDAZ10
EDAH11	2.353	7.98	5.63	10y-EDAH11
EDAM11	2.602	7.98	5.38	10y-EDAM11
EDAU11	2.871	7.98	5.11	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.

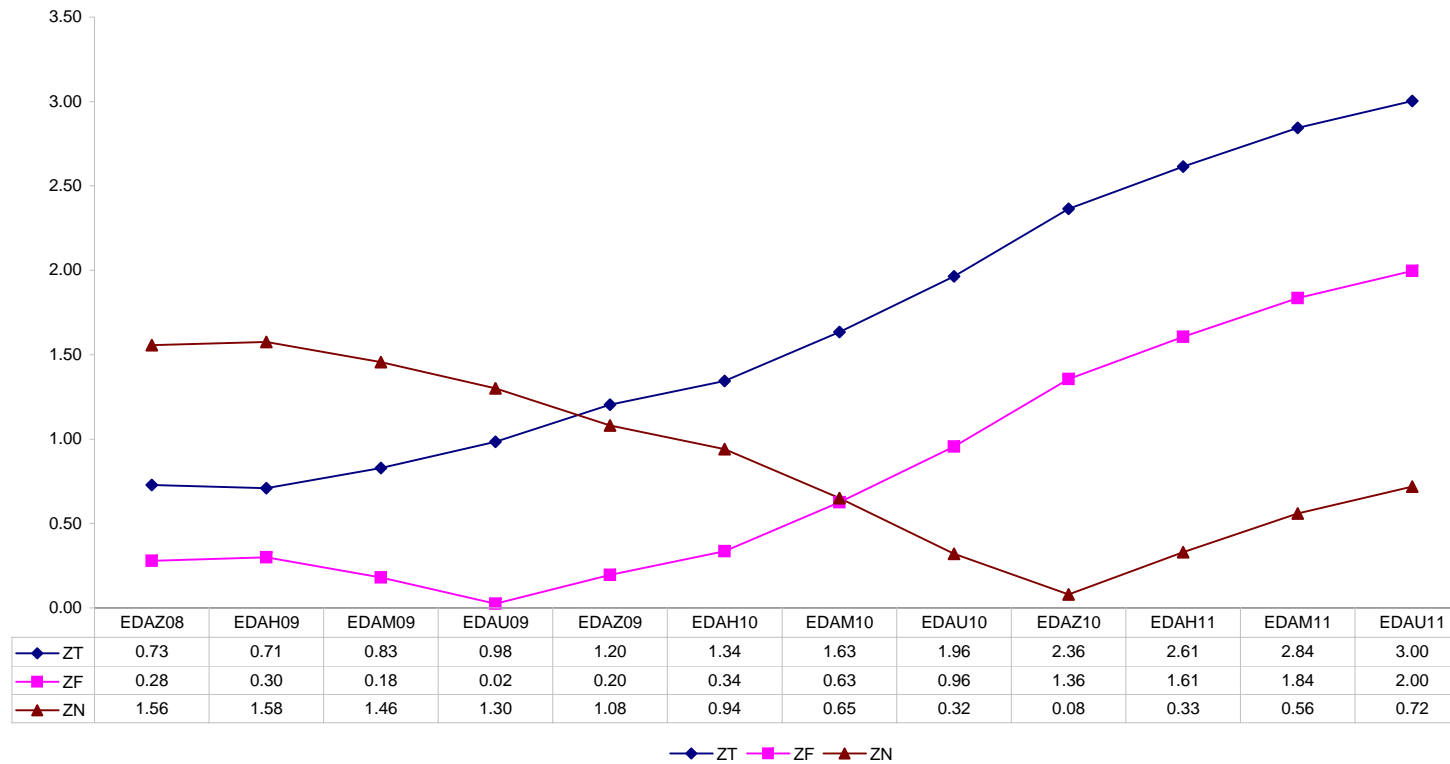
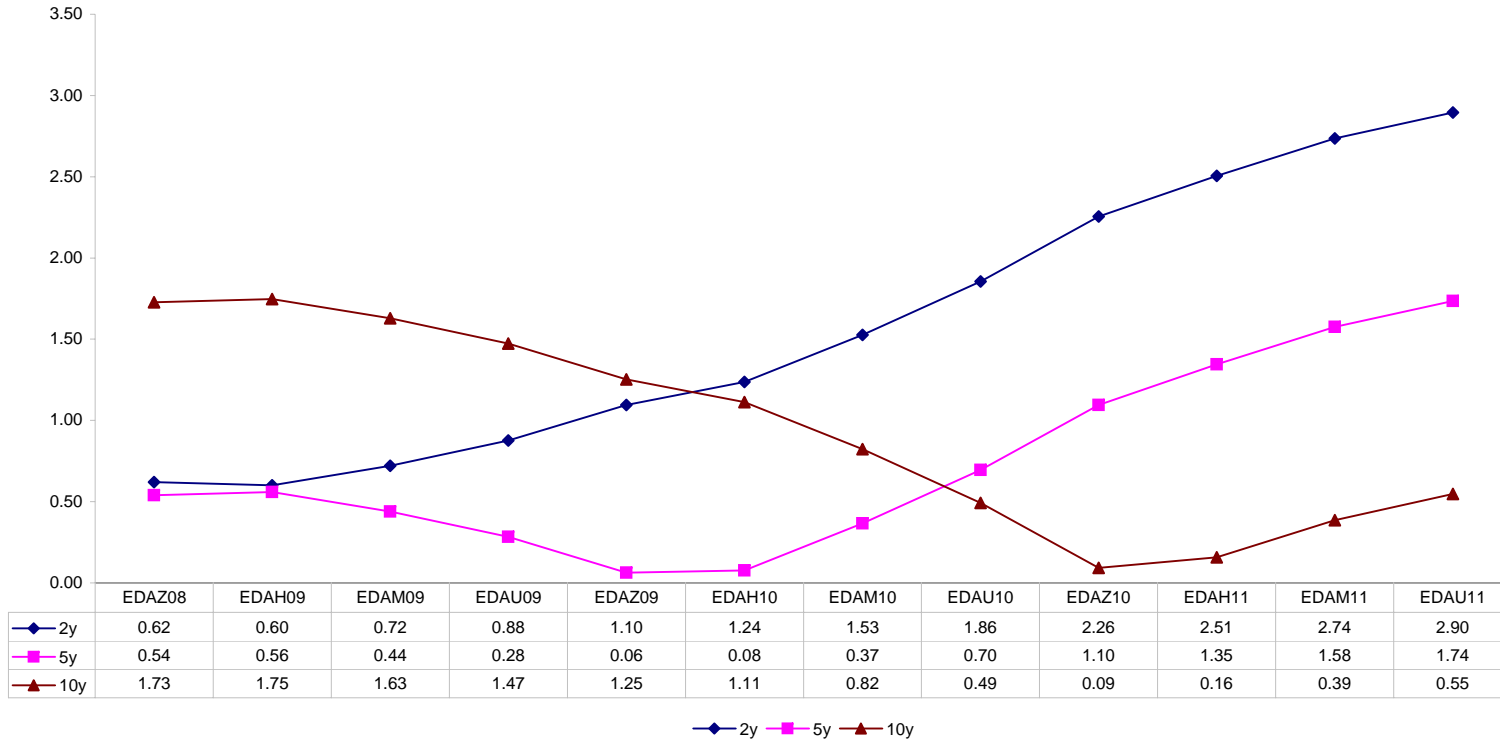
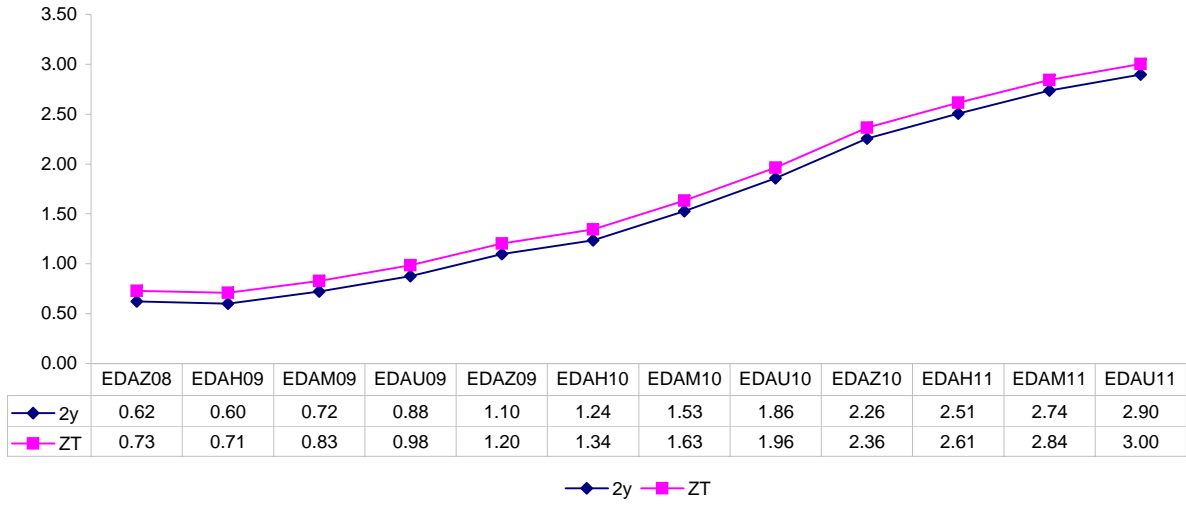


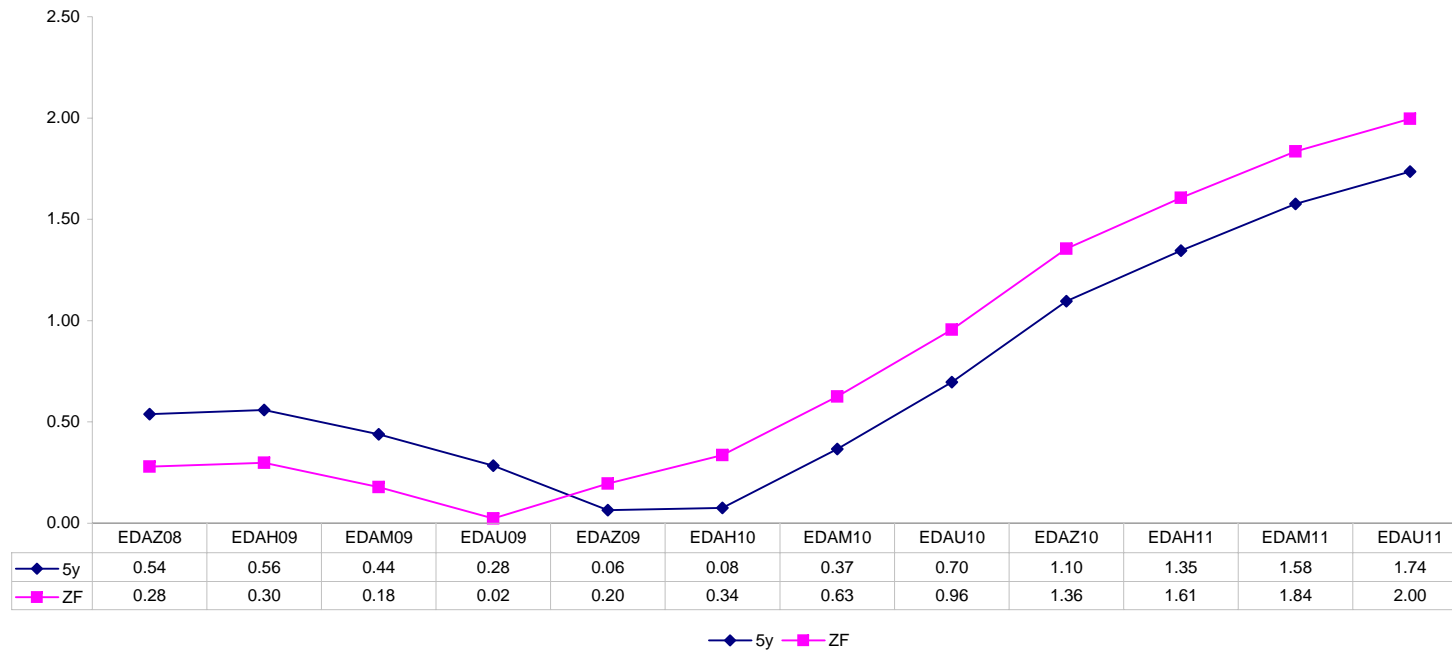
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



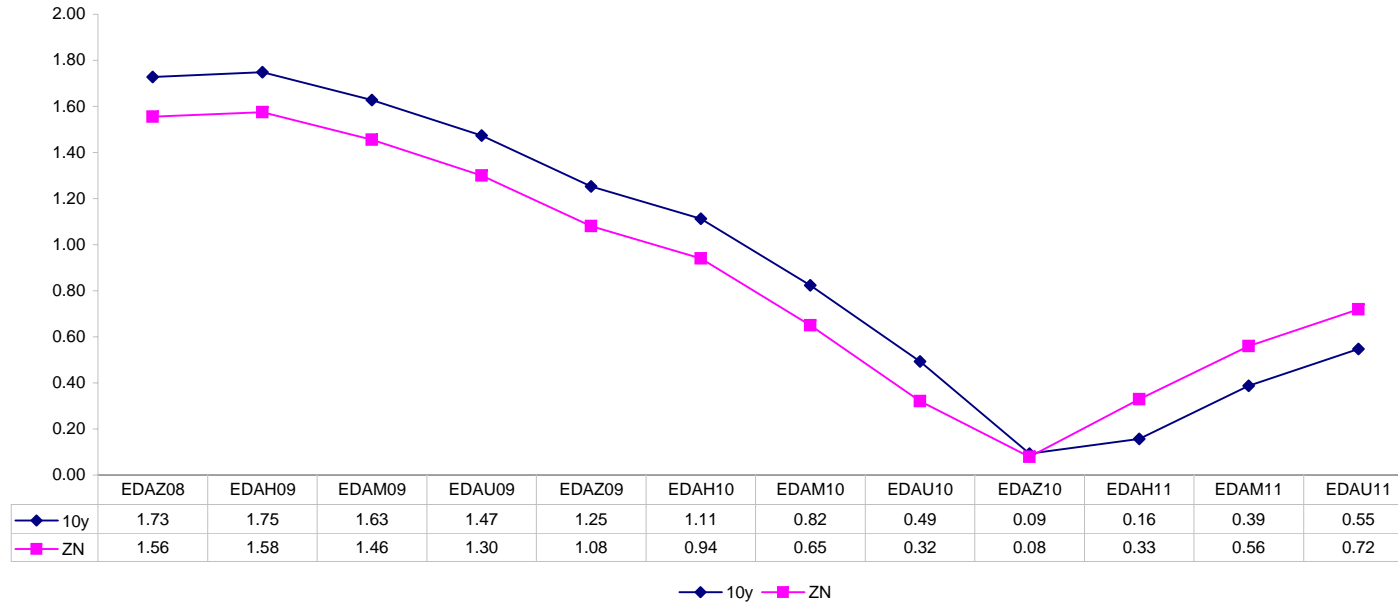
2y Basis TED Curve



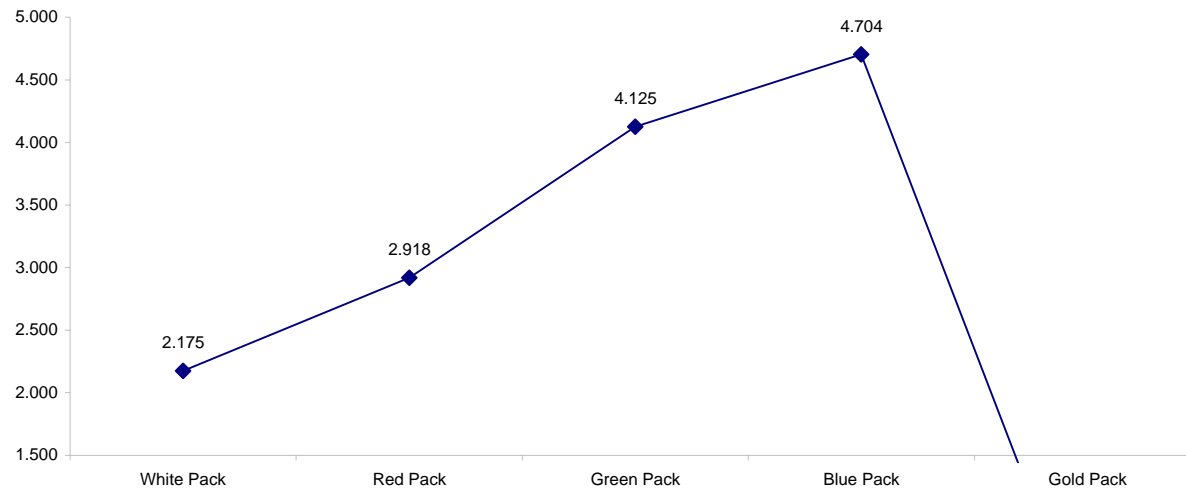
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.175	-1.500	9786.625
Red Pack	2.918	-0.375	9714.250
Green Pack	4.125	0.375	9597.250
Blue Pack	4.704	2.500	9541.375
Gold Pack		1.000	9506.000



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

