

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	106.2875	106.092	2.186	1.99
ZF	112.4375	112.140	2.857	4.19
ZN	116.2656	116.085	3.388	6.34
2y	100.203	100.0650	2.271	1.92
5y	100.625	100.2000	2.986	4.59
10y	102.125	102.0400	3.738	8.15

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	97.183	2.818	12	0.032	SEP	
EDAZ08	97.055	2.945	103	0.282	DEC	White
EDAH09	97.110	2.890	194	0.531	MAR	Pack
EDAM09	96.990	3.010	285	0.780	JUN	
EDAU09	96.790	3.210	376	1.029	SEP	
EDAZ09	96.505	3.495	467	1.279	DEC	Red
EDAH10	96.300	3.700	558	1.528	MAR	Pack
EDAM10	96.100	3.900	649	1.777	JUN	
EDAU10	95.930	4.070	740	2.027	SEP	
EDAZ10	95.780	4.220	831	2.276	DEC	Green
EDAH11	95.705	4.295	922	2.525	MAR	Pack
EDAM11	95.625	4.375	1013	2.775	JUN	
EDAU11	95.570	4.430	1111	3.043	SEP	
EDAZ11	95.510	4.490	1202	3.292	DEC	Blue Pack
EDAH12	95.480	4.520	1293	3.542	MAR	
EDAM12	95.430	4.570	1384	3.791	JUN	
EDAU12	95.375	4.625	1475	4.040	SEP	
EDAZ12	95.320	4.680	1566	4.290	DEC	Gold Pack
EDAH13	95.275	4.725	1657	4.539	MAR	
EDAM13	95.260	4.740	1748	4.788	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	2.978	-0.937	9708.438	
Red Pack	3.659	-0.250	9642.375	Pack
Green Pack	4.345	0.625	9576.000	Prices
Blue Pack	4.617	0.625	9549.750	
Gold Pack		0.375	9531.375	

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.

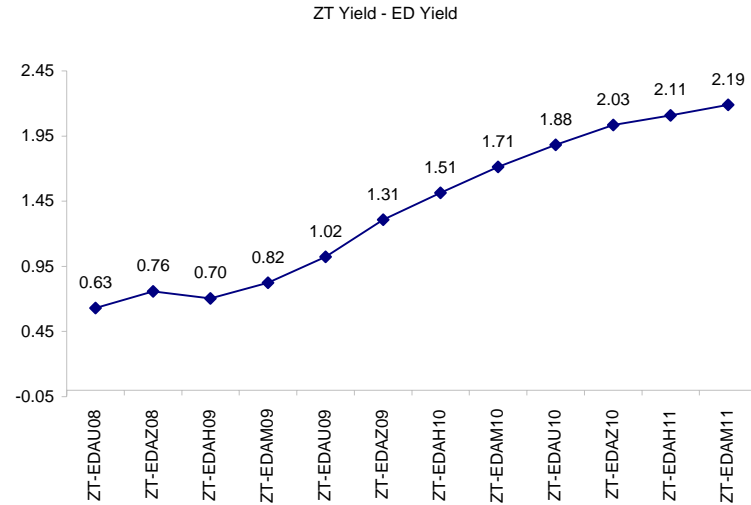
jgoulding@ghco.com

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.

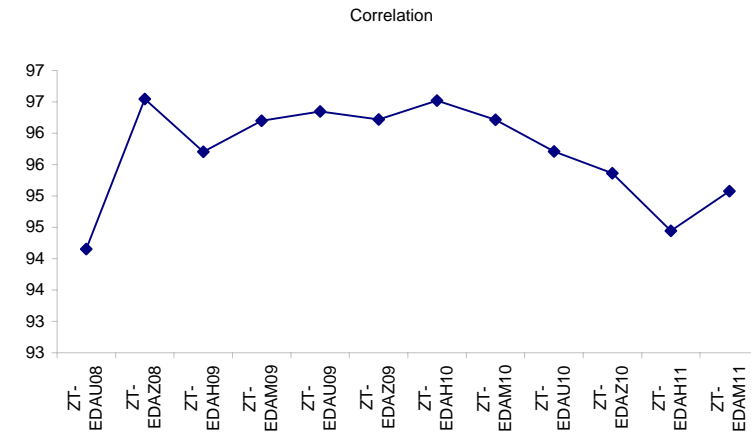
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	9.105	0.63	ZT-EDAU08	94.154
EDAZ08	9.232	0.76	ZT-EDAZ08	96.546
EDAH09	9.177	0.70	ZT-EDAH09	95.706
EDAM09	9.297	0.82	ZT-EDAM09	96.197
EDAU09	9.497	1.02	ZT-EDAU09	96.346
EDAZ09	9.783	1.31	ZT-EDAZ09	96.219
EDAH10	9.988	1.51	ZT-EDAH10	96.522
EDAM10	10.188	1.71	ZT-EDAM10	96.216
EDAU10	10.358	1.88	ZT-EDAU10	95.707
EDAZ10	10.508	2.03	ZT-EDAZ10	95.362
EDAH11	10.583	2.11	ZT-EDAH11	94.442
EDAM11	10.663	2.19	ZT-EDAM11	95.074

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	
EDAU08	0.032	1.99	1.96	ZT-EDAU08		
EDAZ08	0.282	1.99	1.71	ZT-EDAZ08		
EDAH09	0.531	1.99	1.46	ZT-EDAH09		
EDAM09	0.780	1.99	1.21	ZT-EDAM09		
EDAU09	1.029	1.99	0.96	ZT-EDAU09		
EDAZ09	1.279	1.99	0.71	ZT-EDAZ09		
EDAH10	1.528	1.99	0.46	ZT-EDAH10		
EDAM10	1.777	1.99	0.21	ZT-EDAM10		
EDAU10	2.027	1.99	(0.04)	ZT-EDAU10		
EDAZ10	2.276	1.99	(0.28)	ZT-EDAZ10		
EDAH11	2.525	1.99	(0.53)	ZT-EDAH11		
EDAM11	2.775	1.99	(0.78)	ZT-EDAM11		

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

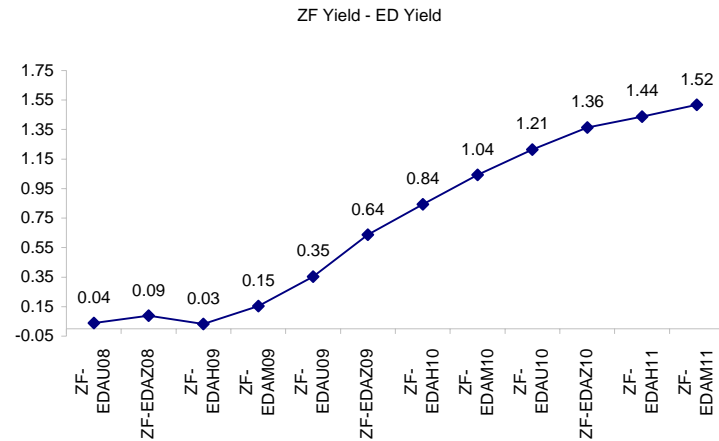


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	15.255	0.04	ZF-EDAU08	96.169
EDAZ08	15.383	0.09	ZF-EDAZ08	91.926
EDAH09	15.328	0.03	ZF-EDAH09	90.907
EDAM09	15.448	0.15	ZF-EDAM09	91.039
EDAU09	15.648	0.35	ZF-EDAU09	91.964
EDAZ09	15.933	0.64	ZF-EDAZ09	92.106
EDAH10	16.138	0.84	ZF-EDAH10	93.302
EDAM10	16.338	1.04	ZF-EDAM10	93.668
EDAU10	16.508	1.21	ZF-EDAU10	93.927
EDAZ10	16.658	1.36	ZF-EDAZ10	94.634
EDAH11	16.733	1.44	ZF-EDAH11	94.593
EDAM11	16.813	1.52	ZF-EDAM11	96.309

Price = Outright Decimal Price - Euro Contract Price

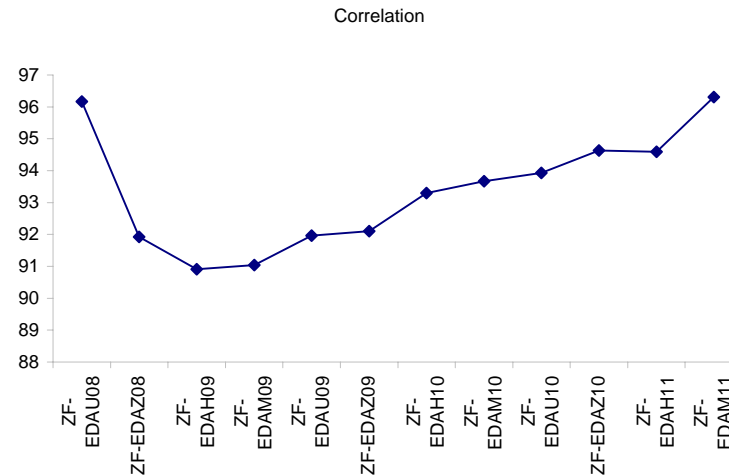
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAU08	0.032	4.19	4.16	ZF-EDAU08		
EDAZ08	0.282	4.19	3.91	ZF-EDAZ08		
EDAH09	0.531	4.19	3.66	ZF-EDAH09		
EDAM09	0.780	4.19	3.41	ZF-EDAM09		
EDAU09	1.029	4.19	3.16	ZF-EDAU09		
EDAZ09	1.279	4.19	2.91	ZF-EDAZ09		
EDAH10	1.528	4.19	2.66	ZF-EDAH10		
EDAM10	1.777	4.19	2.41	ZF-EDAM10		
EDAU10	2.027	4.19	2.17	ZF-EDAU10		
EDAZ10	2.276	4.19	1.92	ZF-EDAZ10		
EDAH11	2.525	4.19	1.67	ZF-EDAH11		
EDAM11	2.775	4.19	1.42	ZF-EDAM11		

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

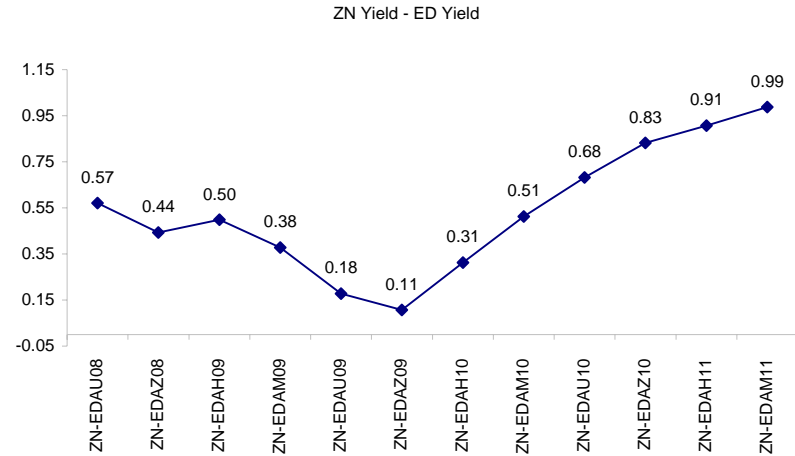


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	19.083	0.57	ZN-EDAU08	94.391
EDAZ08	19.211	0.44	ZN-EDAZ08	87.642
EDAH09	19.156	0.50	ZN-EDAH09	86.845
EDAM09	19.276	0.38	ZN-EDAM09	87.420
EDAU09	19.476	0.18	ZN-EDAU09	89.422
EDAZ09	19.761	0.11	ZN-EDAZ09	89.830
EDAH10	19.966	0.31	ZN-EDAH10	93.302
EDAM10	20.166	0.51	ZN-EDAM10	93.668
EDAU10	20.336	0.68	ZN-EDAU10	93.927
EDAZ10	20.486	0.83	ZN-EDAZ10	94.634
EDAH11	20.561	0.91	ZN-EDAH11	94.593
EDAM11	20.641	0.99	ZN-EDAM11	96.309

Price = Outright Decimal Price - Euro Contract Price

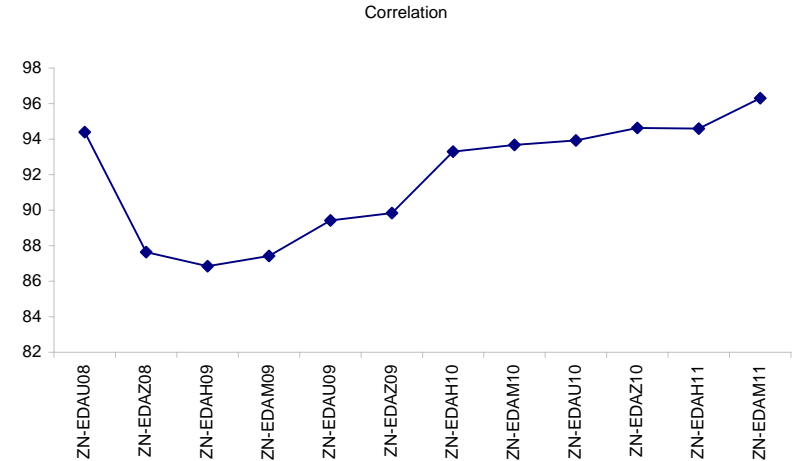
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAU08	0.032	6.34	6.31	ZN-EDAU08
EDAZ08	0.282	6.34	6.06	ZN-EDAZ08
EDAH09	0.531	6.34	5.81	ZN-EDAH09
EDAM09	0.780	6.34	5.56	ZN-EDAM09
EDAU09	1.029	6.34	5.31	ZN-EDAU09
EDAZ09	1.279	6.34	5.06	ZN-EDAZ09
EDAH10	1.528	6.34	4.81	ZN-EDAH10
EDAM10	1.777	6.34	4.56	ZN-EDAM10
EDAU10	2.027	6.34	4.31	ZN-EDAU10
EDAZ10	2.276	6.34	4.06	ZN-EDAZ10
EDAH11	2.525	6.34	3.81	ZN-EDAH11
EDAM11	2.775	6.34	3.56	ZN-EDAM11

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

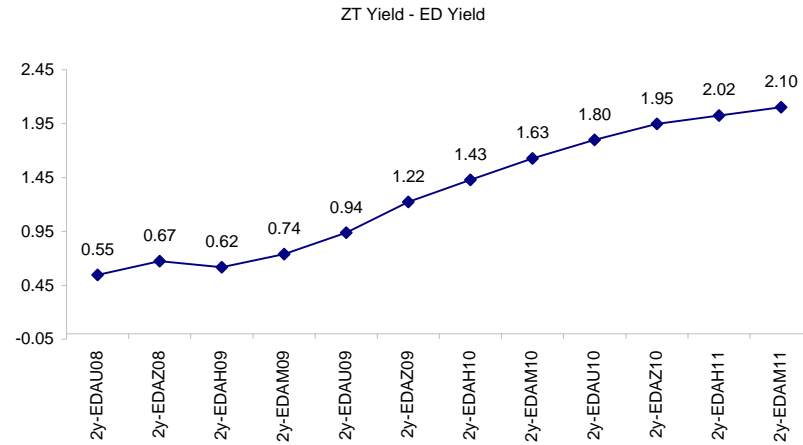


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.021	0.55	2y-EDAU08	-46.608
EDAZ08	3.148	0.67	2y-EDAZ08	-82.234
EDAH09	3.093	0.62	2y-EDAH09	-86.136
EDAM09	3.213	0.74	2y-EDAM09	-87.195
EDAU09	3.413	0.94	2y-EDAU09	-84.605
EDAZ09	3.698	1.22	2y-EDAZ09	-82.101
EDAH10	3.903	1.43	2y-EDAH10	-76.343
EDAM10	4.103	1.63	2y-EDAM10	-71.491
EDAU10	4.273	1.80	2y-EDAU10	-67.226
EDAZ10	4.423	1.95	2y-EDAZ10	-65.914
EDAH11	4.498	2.02	2y-EDAH11	-63.849
EDAM11	4.578	2.10	2y-EDAM11	-63.499

Price = Outright Decimal Price - Euro Contract Price

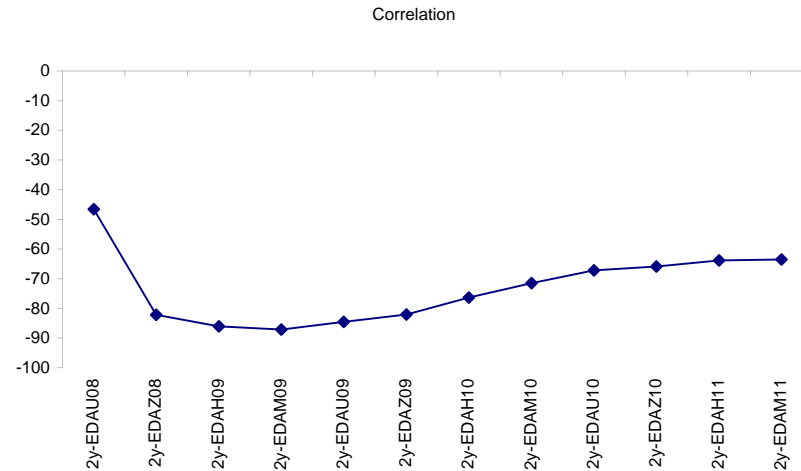
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAU08	0.032	1.92	1.89	2y-EDAU08	
EDAZ08	0.282	1.92	1.64	2y-EDAZ08	
EDAH09	0.531	1.92	1.39	2y-EDAH09	
EDAM09	0.780	1.92	1.14	2y-EDAM09	
EDAU09	1.029	1.92	0.89	2y-EDAU09	
EDAZ09	1.279	1.92	0.64	2y-EDAZ09	
EDAH10	1.528	1.92	0.39	2y-EDAH10	
EDAM10	1.777	1.92	0.14	2y-EDAM10	
EDAU10	2.027	1.92	(0.11)	2y-EDAU10	
EDAZ10	2.276	1.92	(0.36)	2y-EDAZ10	
EDAH11	2.525	1.92	(0.61)	2y-EDAH11	
EDAM11	2.775	1.92	(0.86)	2y-EDAM11	

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

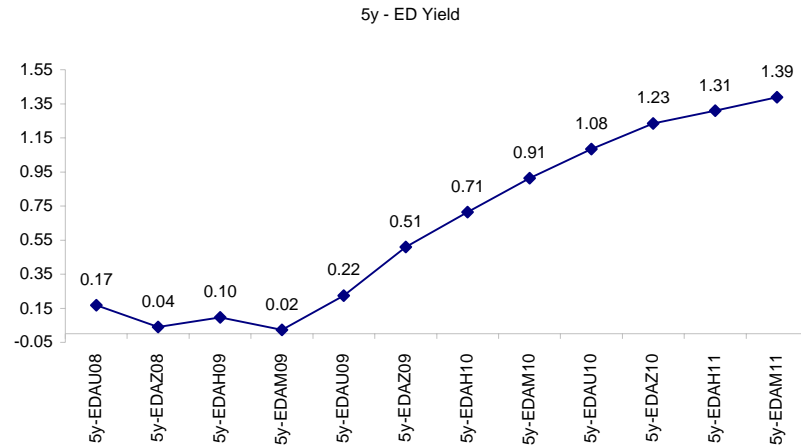


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.443	0.17	5y-EDAU08	-68.532
EDAZ08	3.570	0.04	5y-EDAZ08	-86.507
EDAH09	3.515	0.10	5y-EDAH09	-89.297
EDAM09	3.635	0.02	5y-EDAM09	-89.401
EDAU09	3.835	0.22	5y-EDAU09	-89.411
EDAZ09	4.120	0.51	5y-EDAZ09	-87.943
EDAH10	4.325	0.71	5y-EDAH10	-85.171
EDAM10	4.525	0.91	5y-EDAM10	-81.374
EDAU10	4.695	1.08	5y-EDAU10	-78.345
EDAZ10	4.845	1.23	5y-EDAZ10	-78.081
EDAH11	4.920	1.31	5y-EDAH11	-77.196
EDAM11	5.000	1.39	5y-EDAM11	-78.824

Price = Outright Decimal Price - Euro Contract Price

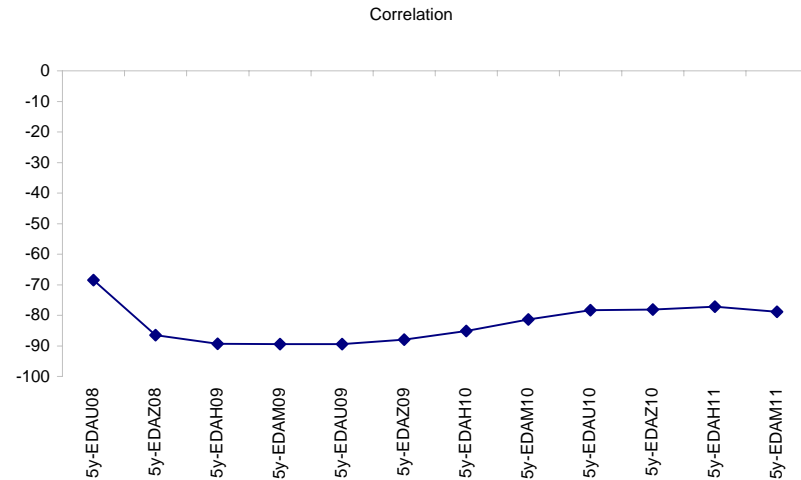
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAU08	0.032	4.59	4.56	5y-EDAU08
EDAZ08	0.282	4.59	4.31	5y-EDAZ08
EDAH09	0.531	4.59	4.06	5y-EDAH09
EDAM09	0.780	4.59	3.81	5y-EDAM09
EDAU09	1.029	4.59	3.56	5y-EDAU09
EDAZ09	1.279	4.59	3.31	5y-EDAZ09
EDAH10	1.528	4.59	3.06	5y-EDAH10
EDAM10	1.777	4.59	2.81	5y-EDAM10
EDAU10	2.027	4.59	2.56	5y-EDAU10
EDAZ10	2.276	4.59	2.31	5y-EDAZ10
EDAH11	2.525	4.59	2.06	5y-EDAH11
EDAM11	2.775	4.59	1.81	5y-EDAM11

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

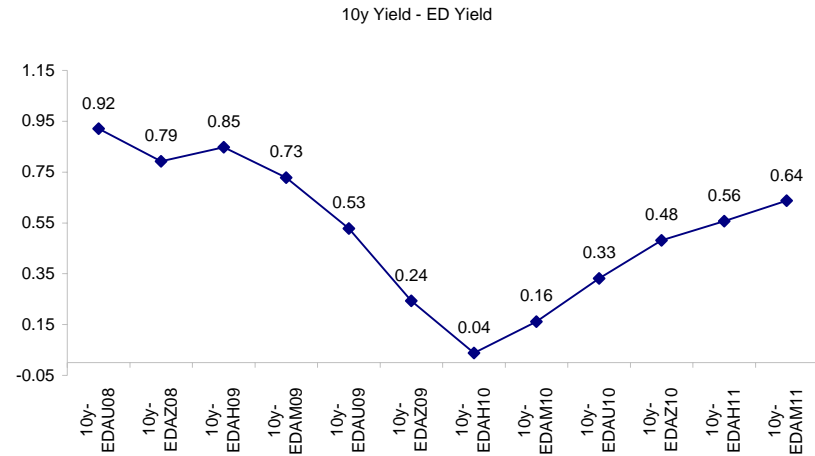


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.443	0.92	10y-EDAU08	-82.893
EDAZ08	3.570	0.79	10y-EDAZ08	-80.254
EDAH09	3.515	0.85	10y-EDAH09	-80.726
EDAM09	3.635	0.73	10y-EDAM09	-80.331
EDAU09	3.835	0.53	10y-EDAU09	-82.391
EDAZ09	4.120	0.24	10y-EDAZ09	-82.145
EDAH10	4.325	0.04	10y-EDAH10	-83.437
EDAM10	4.525	0.16	10y-EDAM10	-81.342
EDAU10	4.695	0.33	10y-EDAU10	-79.743
EDAZ10	4.845	0.48	10y-EDAZ10	-80.148
EDAH11	4.920	0.56	10y-EDAH11	-80.124
EDAM11	5.000	0.64	10y-EDAM11	-83.260

Price = Outright Decimal Price - Euro Contract Price

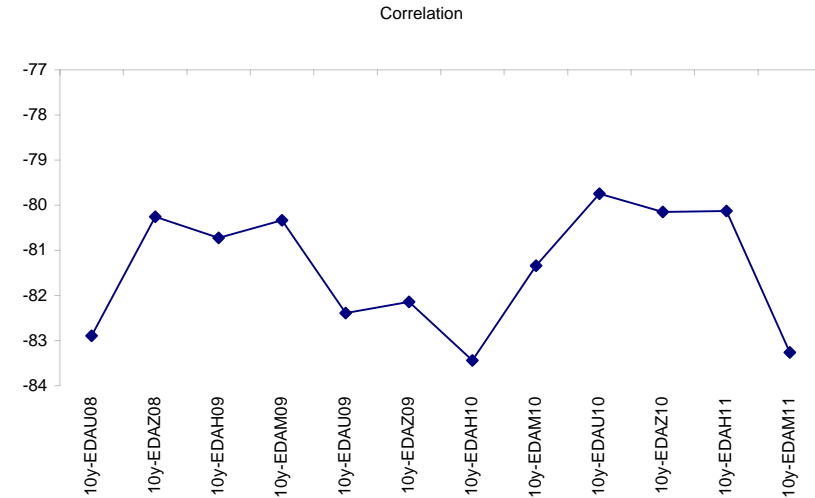
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.032	8.15	8.12	10y-EDAU08
EDAZ08	0.282	8.15	7.87	10y-EDAZ08
EDAH09	0.531	8.15	7.62	10y-EDAH09
EDAM09	0.780	8.15	7.37	10y-EDAM09
EDAU09	1.029	8.15	7.12	10y-EDAU09
EDAZ09	1.279	8.15	6.87	10y-EDAZ09
EDAH10	1.528	8.15	6.63	10y-EDAH10
EDAM10	1.777	8.15	6.38	10y-EDAM10
EDAU10	2.027	8.15	6.13	10y-EDAU10
EDAZ10	2.276	8.15	5.88	10y-EDAZ10
EDAH11	2.525	8.15	5.63	10y-EDAH11
EDAM11	2.775	8.15	5.38	10y-EDAM11

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.

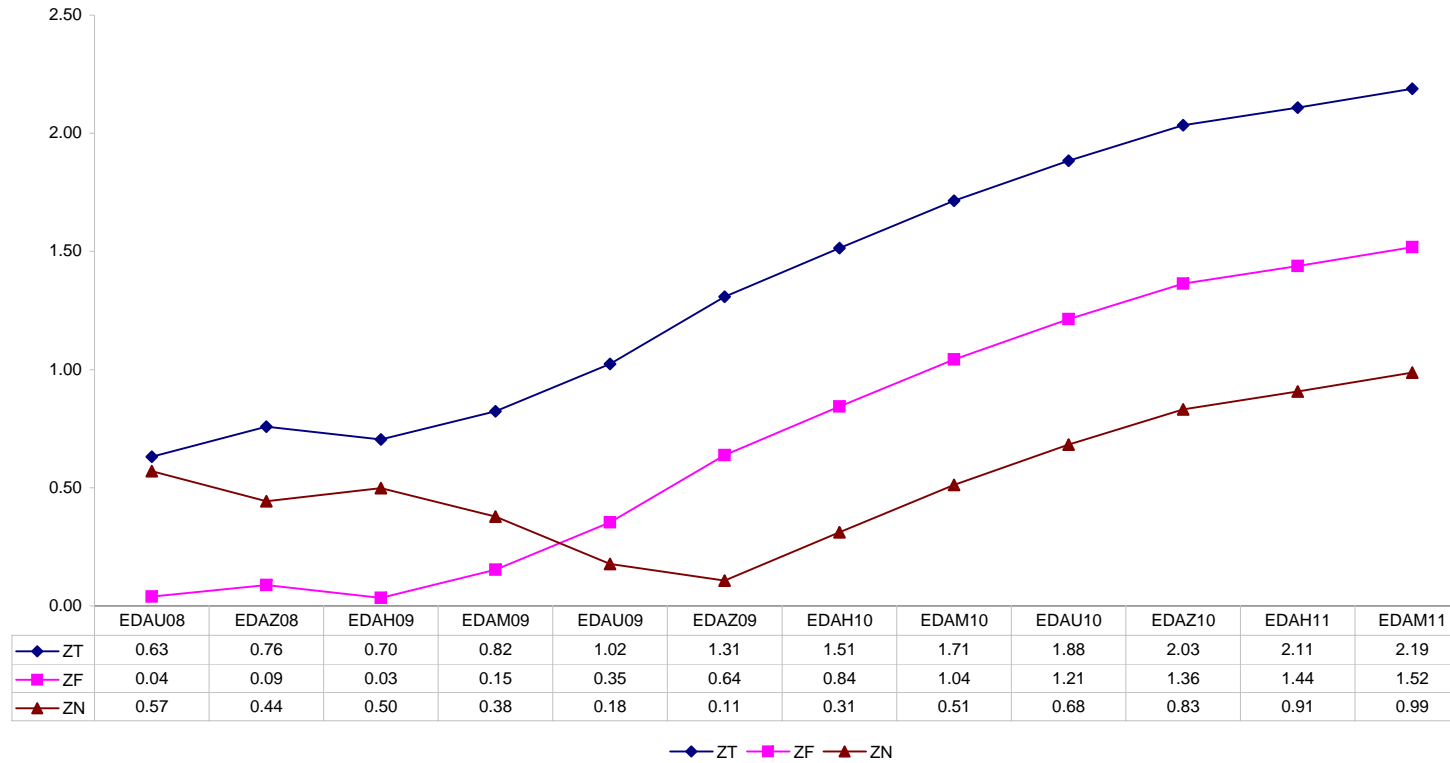
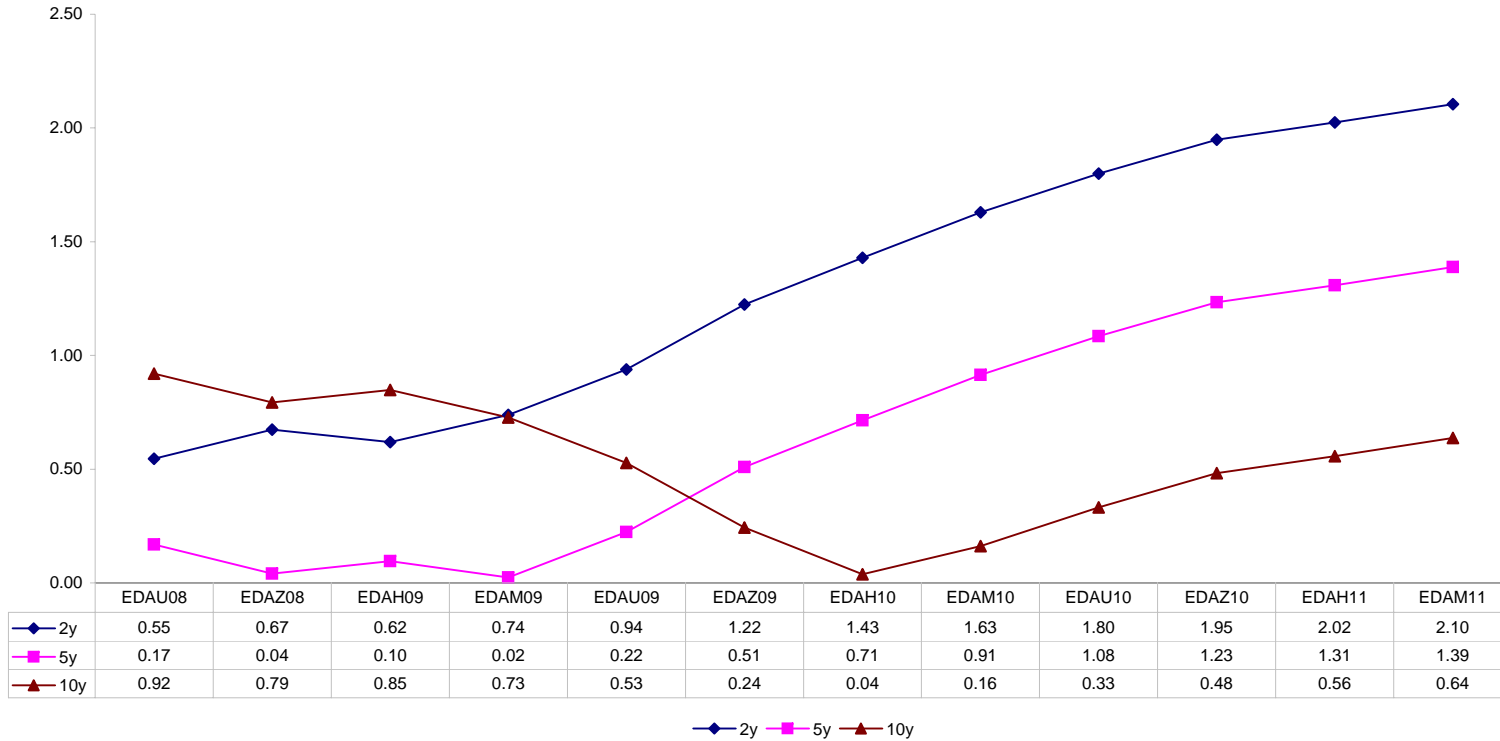
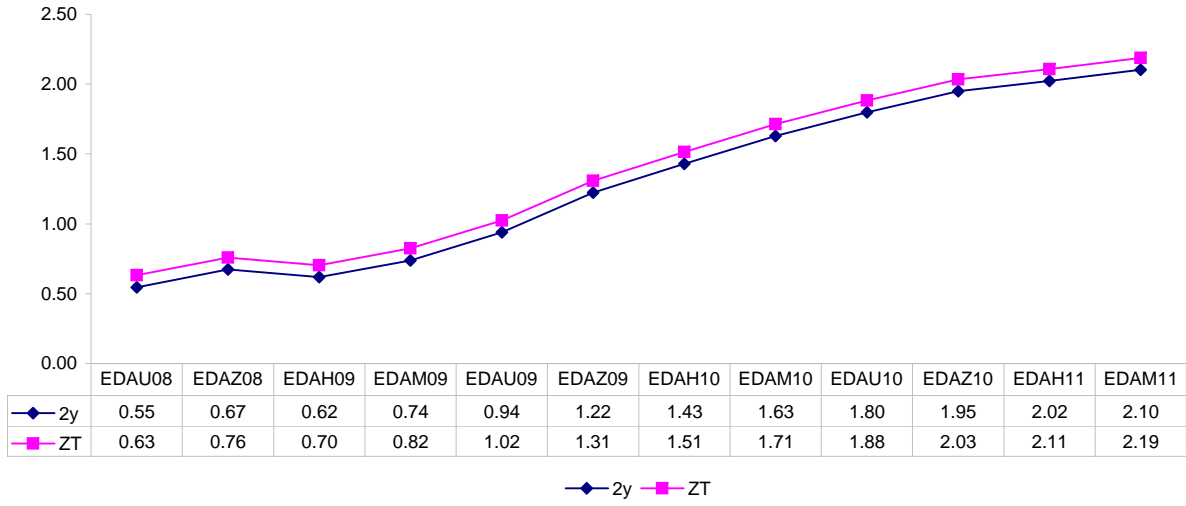


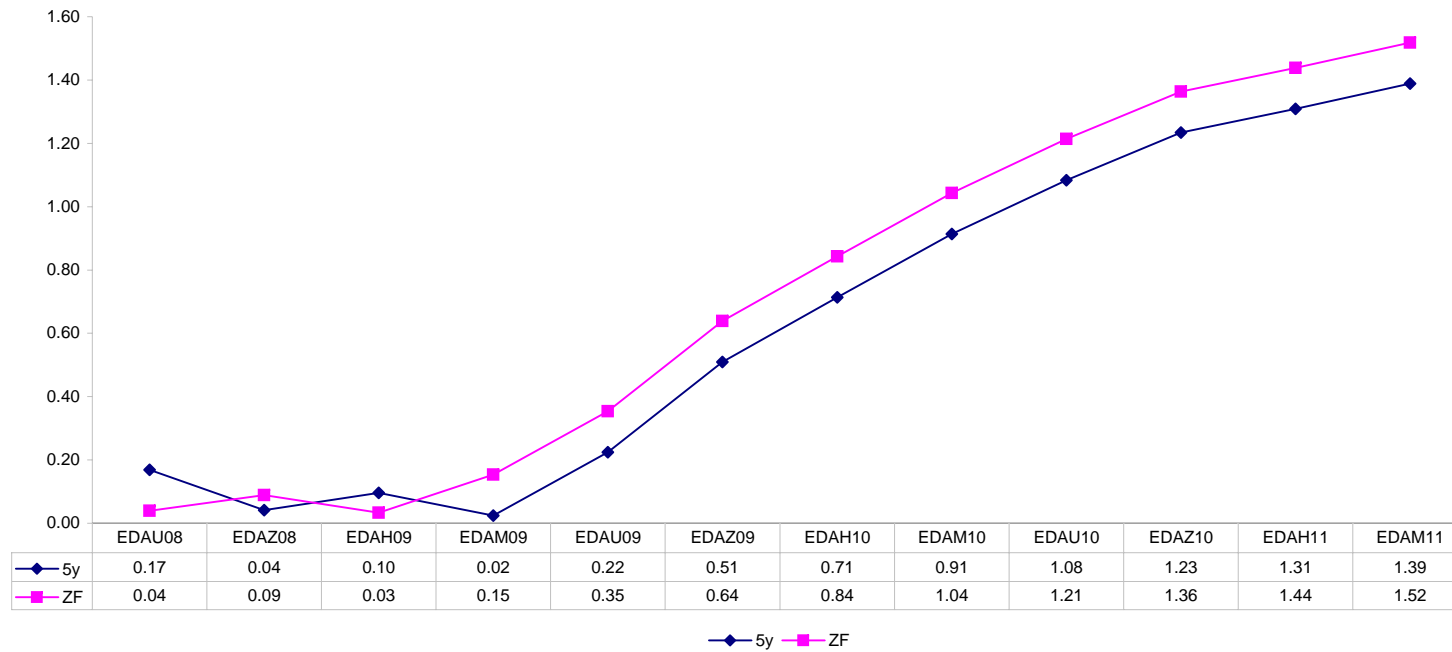
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



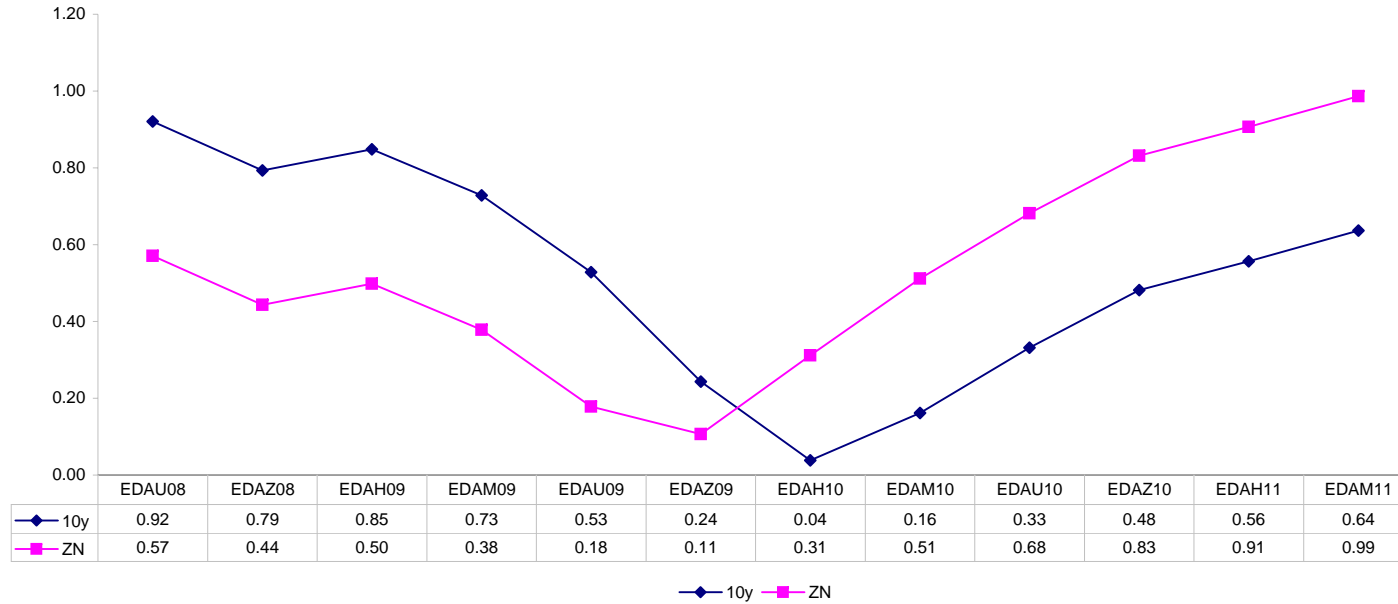
2y Basis TED Curve



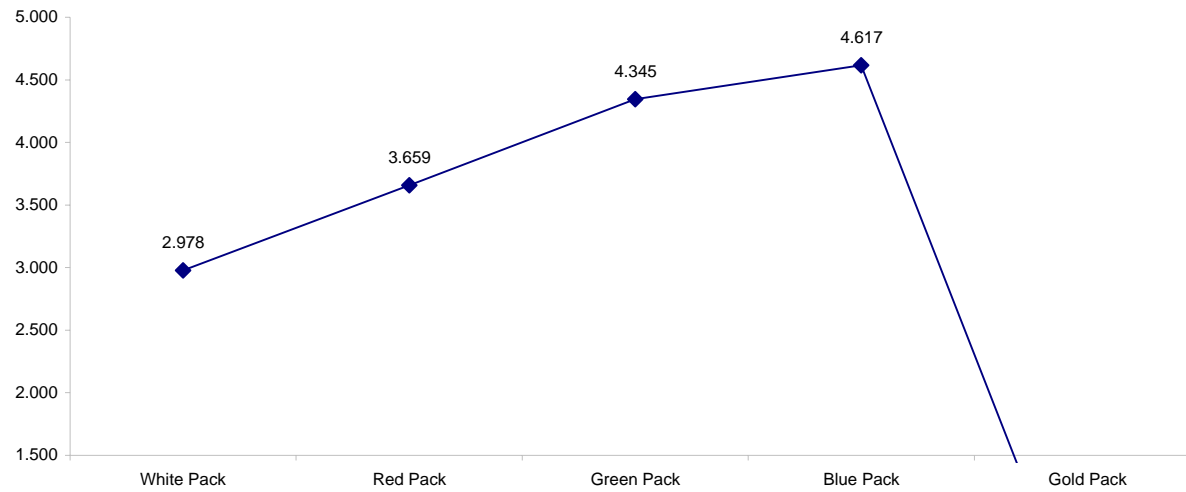
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.978	-0.937	9708.438
Red Pack	3.659	-0.250	9642.375
Green Pack	4.345	0.625	9576.000
Blue Pack	4.617	0.625	9549.750
Gold Pack		0.375	9531.375



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

