

The Morning Email: TERM TEDS & Dirty TEDS

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Want something added? Let me know: jgoulding@ghco.com

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Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	108.4438	108.142	0.937	1.75
ZF	117.4844	117.155	1.975	4.23
ZN	119.0469	119.015	3.155	6.44
2y	100.703	100.2250	1.126	1.91
5y	102.797	102.2550	2.151	4.61
10y	102.484	102.1550	3.454	8.30

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	97.983	2.018	26	0.071	DEC	
EDAH09	98.120	1.880	117	0.320	MAR	White Pack
EDAM09	98.085	1.915	208	0.569	JUN	
EDAU09	97.990	2.010	299	0.819	SEP	
EDAZ09	97.825	2.175	390	1.068	DEC	
EDAH10	97.750	2.250	481	1.317	MAR	Red Pack
EDAM10	97.550	2.450	572	1.566	JUN	
EDAU10	97.305	2.695	663	1.816	SEP	
EDAZ10	96.985	3.015	754	2.065	DEC	
EDAH11	96.755	3.245	845	2.314	MAR	Green Pack
EDAM11	96.505	3.495	936	2.564	JUN	
EDAU11	96.285	3.715	1034	2.832	SEP	
EDAZ11	96.040	3.960	1125	3.082	DEC	
EDAH12	95.955	4.045	1216	3.331	MAR	Blue Pack
EDAM12	95.825	4.175	1307	3.580	JUN	
EDAU12	95.710	4.290	1398	3.829	SEP	
EDAZ12	95.555	4.445	1489	4.079	DEC	
EDAH13	95.535	4.465	1580	4.328	MAR	Gold Pack
EDAM13	95.460	4.540	1671	4.577	JUN	
EDZU13	95.050	4.950	1853	5.076	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.993	4.000	9804.438	
Red Pack	2.440	4.875	9760.750	Pack Prices
Green Pack	3.443	9.875	9663.250	
Blue Pack	4.218	7.500	9588.250	
Gold Pack	4.642	8.125	9547.375	

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.

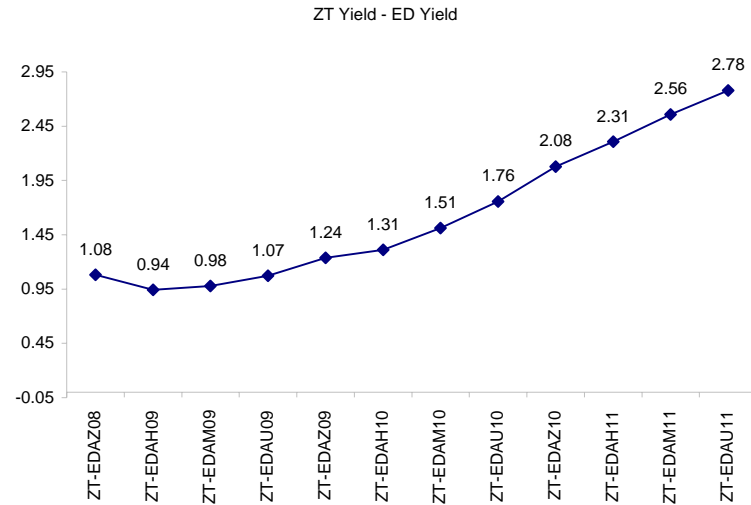
jgoulding@ghco.com

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.

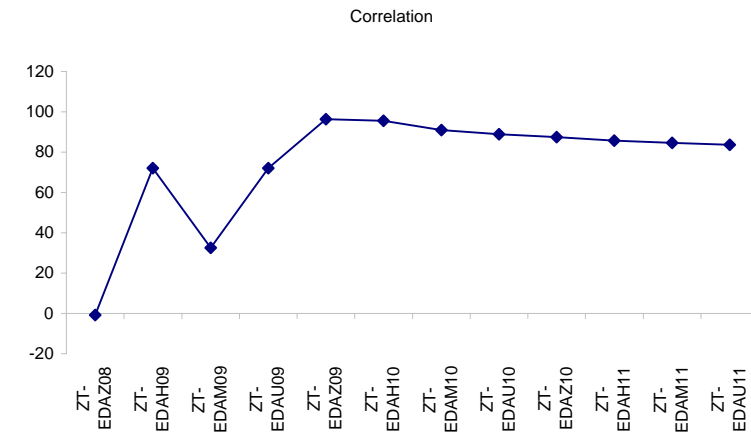
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.461	1.08	ZT-EDAZ08	-0.724
EDAH09	10.324	0.94	ZT-EDAH09	72.082
EDAM09	10.359	0.98	ZT-EDAM09	32.527
EDAU09	10.454	1.07	ZT-EDAU09	72.082
EDAZ09	10.619	1.24	ZT-EDAZ09	96.274
EDAH10	10.694	1.31	ZT-EDAH10	95.486
EDAM10	10.894	1.51	ZT-EDAM10	90.908
EDAU10	11.139	1.76	ZT-EDAU10	88.820
EDAZ10	11.459	2.08	ZT-EDAZ10	87.493
EDAH11	11.689	2.31	ZT-EDAH11	85.724
EDAM11	11.939	2.56	ZT-EDAM11	84.598
EDAU11	12.159	2.78	ZT-EDAU11	83.654

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	0.071	1.75	1.68	ZT-EDAZ08
EDAH09	0.320	1.75	1.44	ZT-EDAH09
EDAM09	0.569	1.75	1.19	ZT-EDAM09
EDAU09	0.819	1.75	0.94	ZT-EDAU09
EDAZ09	1.068	1.75	0.69	ZT-EDAZ09
EDAH10	1.317	1.75	0.44	ZT-EDAH10
EDAM10	1.566	1.75	0.19	ZT-EDAM10
EDAU10	1.816	1.75	(0.06)	ZT-EDAU10
EDAZ10	2.065	1.75	(0.31)	ZT-EDAZ10
EDAH11	2.314	1.75	(0.56)	ZT-EDAH11
EDAM11	2.564	1.75	(0.81)	ZT-EDAM11
EDAU11	2.832	1.75	(1.08)	ZT-EDAU11

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

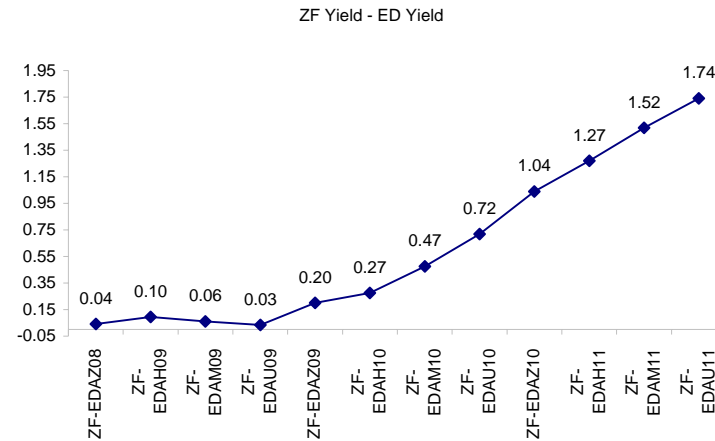


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	19.502	0.04	ZF-EDAZ08	-32.183
EDAH09	19.364	0.10	ZF-EDAH09	-20.825
EDAM09	19.399	0.06	ZF-EDAM09	2.730
EDAU09	19.494	0.03	ZF-EDAU09	45.667
EDAZ09	19.659	0.20	ZF-EDAZ09	84.538
EDAH10	19.734	0.27	ZF-EDAH10	96.629
EDAM10	19.934	0.47	ZF-EDAM10	98.500
EDAU10	20.179	0.72	ZF-EDAU10	99.474
EDAZ10	20.499	1.04	ZF-EDAZ10	99.788
EDAH11	20.729	1.27	ZF-EDAH11	99.552
EDAM11	20.979	1.52	ZF-EDAM11	99.166
EDAU11	21.199	1.74	ZF-EDAU11	98.727

Price = Outright Decimal Price - Euro Contract Price

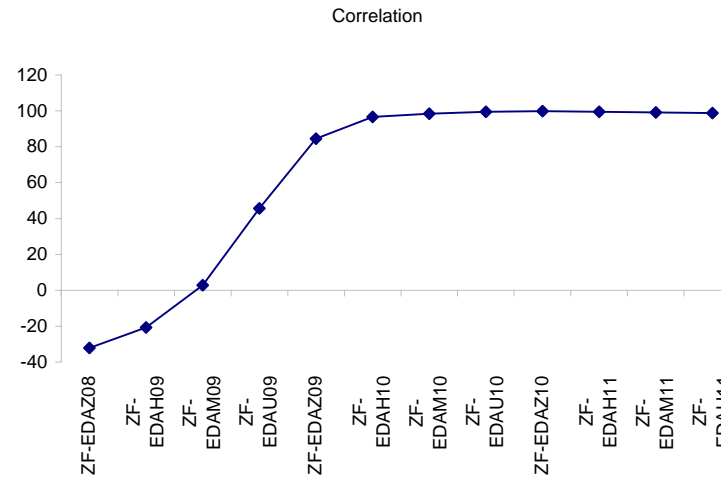
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	0.071	4.23	4.16	ZF-EDAZ08		
EDAH09	0.320	4.23	3.91	ZF-EDAH09		
EDAM09	0.569	4.23	3.66	ZF-EDAM09		
EDAU09	0.819	4.23	3.41	ZF-EDAU09		
EDAZ09	1.068	4.23	3.16	ZF-EDAZ09		
EDAH10	1.317	4.23	2.91	ZF-EDAH10		
EDAM10	1.566	4.23	2.66	ZF-EDAM10		
EDAU10	1.816	4.23	2.41	ZF-EDAU10		
EDAZ10	2.065	4.23	2.16	ZF-EDAZ10		
EDAH11	2.314	4.23	1.91	ZF-EDAH11		
EDAM11	2.564	4.23	1.66	ZF-EDAM11		
EDAU11	2.832	4.23	1.39	ZF-EDAU11		

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

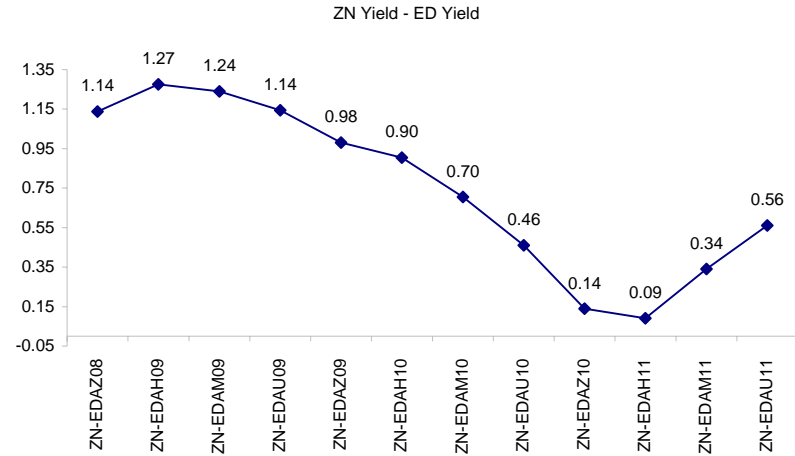


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	21.064	1.14	ZN-EDAZ08	-24.927
EDAH09	20.927	1.27	ZN-EDAH09	-13.515
EDAM09	20.962	1.24	ZN-EDAM09	8.410
EDAU09	21.057	1.14	ZN-EDAU09	47.969
EDAZ09	21.222	0.98	ZN-EDAZ09	83.517
EDAH10	21.297	0.90	ZN-EDAH10	93.660
EDAM10	21.497	0.70	ZN-EDAM10	98.500
EDAU10	21.742	0.46	ZN-EDAU10	99.474
EDAZ10	22.062	0.14	ZN-EDAZ10	99.788
EDAH11	22.292	0.09	ZN-EDAH11	99.552
EDAM11	22.542	0.34	ZN-EDAM11	99.166
EDAU11	22.762	0.56	ZN-EDAU11	98.727

Price = Outright Decimal Price - Euro Contract Price

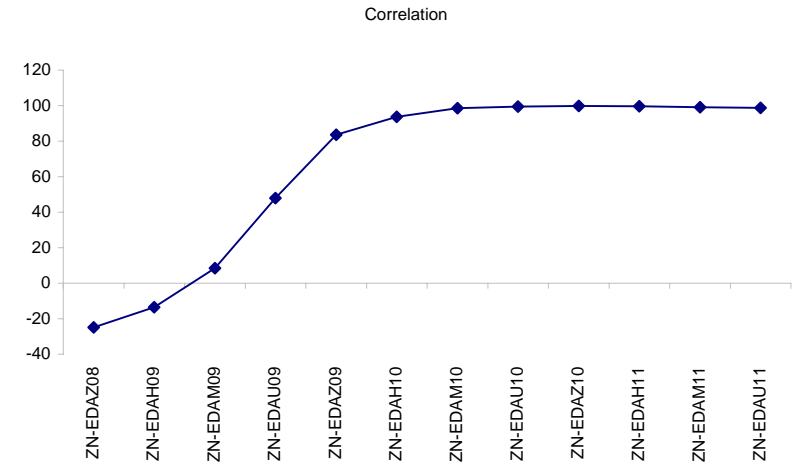
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.071	6.44	6.37	ZN-EDAZ08		
EDAH09	0.320	6.44	6.12	ZN-EDAH09		
EDAM09	0.569	6.44	5.87	ZN-EDAM09		
EDAU09	0.819	6.44	5.62	ZN-EDAU09		
EDAZ09	1.068	6.44	5.37	ZN-EDAZ09		
EDAH10	1.317	6.44	5.12	ZN-EDAH10		
EDAM10	1.566	6.44	4.87	ZN-EDAM10		
EDAU10	1.816	6.44	4.62	ZN-EDAU10		
EDAZ10	2.065	6.44	4.37	ZN-EDAZ10		
EDAH11	2.314	6.44	4.12	ZN-EDAH11		
EDAM11	2.564	6.44	3.88	ZN-EDAM11		
EDAU11	2.832	6.44	3.61	ZN-EDAU11		

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

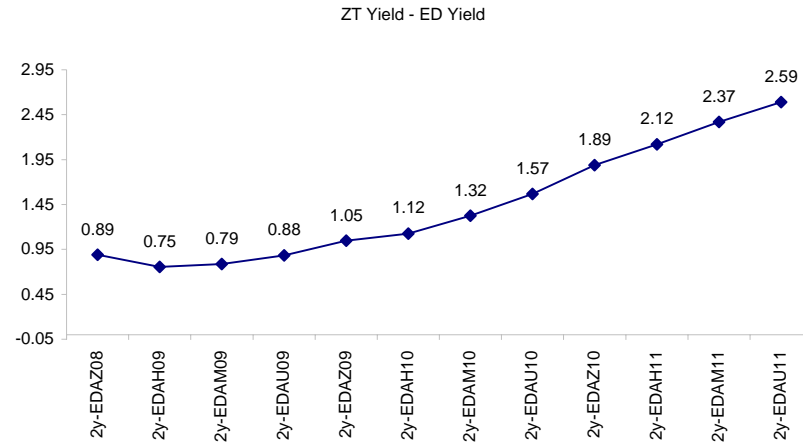


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.721	0.89	2y-EDAZ08	13.522
EDAH09	2.583	0.75	2y-EDAH09	-1.045
EDAM09	2.618	0.79	2y-EDAM09	-33.574
EDAU09	2.713	0.88	2y-EDAU09	-72.773
EDAZ09	2.878	1.05	2y-EDAZ09	-94.359
EDAH10	2.953	1.12	2y-EDAH10	-97.034
EDAM10	3.153	1.32	2y-EDAM10	-95.700
EDAU10	3.398	1.57	2y-EDAU10	-95.051
EDAZ10	3.718	1.89	2y-EDAZ10	-94.381
EDAH11	3.948	2.12	2y-EDAH11	-93.248
EDAM11	4.198	2.37	2y-EDAM11	-92.293
EDAU11	4.418	2.59	2y-EDAU11	-91.196

Price = Outright Decimal Price - Euro Contract Price

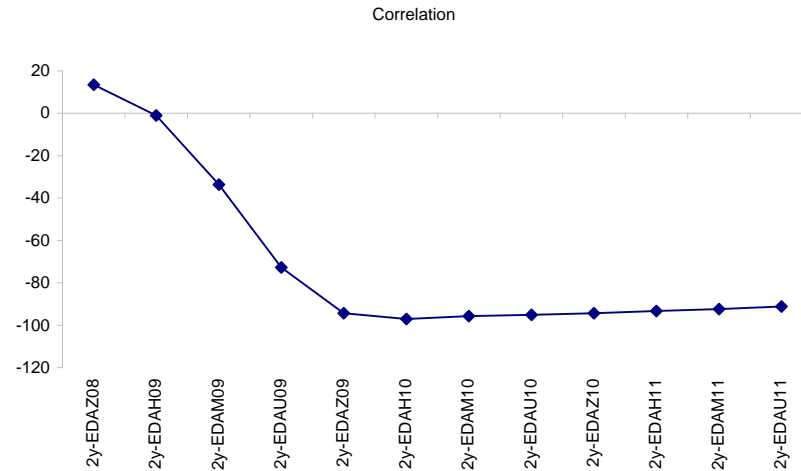
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.071	1.91	1.84	2y-EDAZ08	
EDAH09	0.320	1.91	1.59	2y-EDAH09	
EDAM09	0.569	1.91	1.34	2y-EDAM09	
EDAU09	0.819	1.91	1.09	2y-EDAU09	
EDAZ09	1.068	1.91	0.84	2y-EDAZ09	
EDAH10	1.317	1.91	0.59	2y-EDAH10	
EDAM10	1.566	1.91	0.34	2y-EDAM10	
EDAU10	1.816	1.91	0.09	2y-EDAU10	
EDAZ10	2.065	1.91	(0.16)	2y-EDAZ10	
EDAH11	2.314	1.91	(0.41)	2y-EDAH11	
EDAM11	2.564	1.91	(0.65)	2y-EDAM11	
EDAU11	2.832	1.91	(0.92)	2y-EDAU11	

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

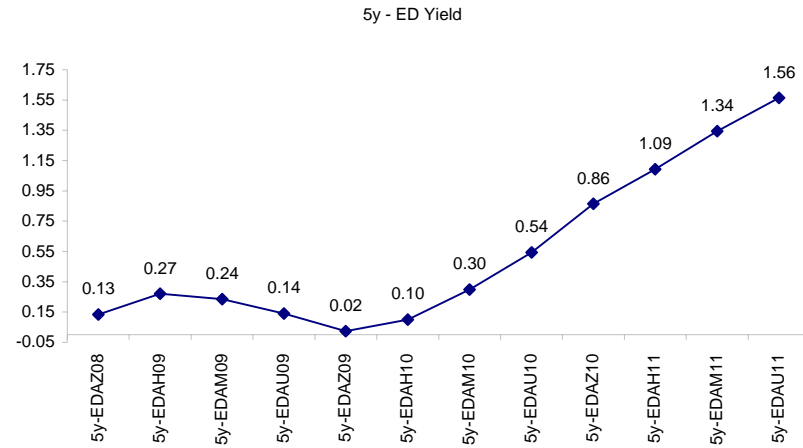


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	4.814	0.13	5y-EDAZ08	25.361
EDAH09	4.677	0.27	5y-EDAH09	8.863
EDAM09	4.712	0.24	5y-EDAM09	-20.193
EDAU09	4.807	0.14	5y-EDAU09	-58.710
EDAZ09	4.972	0.02	5y-EDAZ09	-85.968
EDAH10	5.047	0.10	5y-EDAH10	-94.186
EDAM10	5.247	0.30	5y-EDAM10	-95.990
EDAU10	5.492	0.54	5y-EDAU10	-97.184
EDAZ10	5.812	0.86	5y-EDAZ10	-97.752
EDAH11	6.042	1.09	5y-EDAH11	-97.876
EDAM11	6.292	1.34	5y-EDAM11	-97.882
EDAU11	6.512	1.56	5y-EDAU11	-97.709

Price = Outright Decimal Price - Euro Contract Price

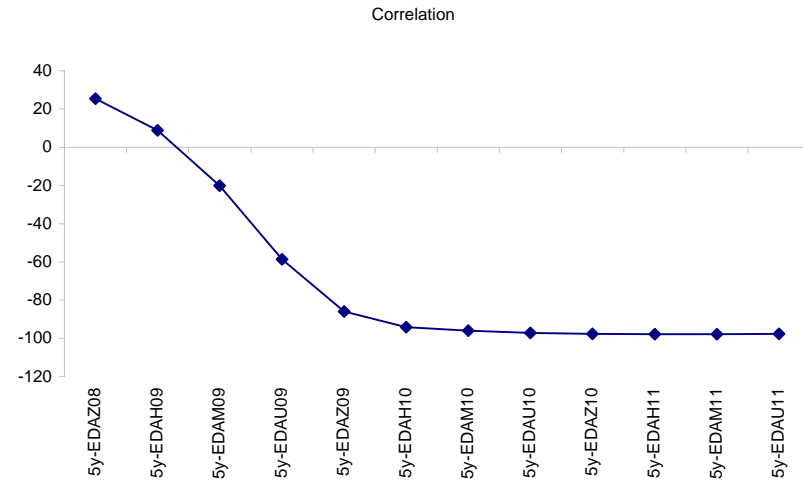
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAZ08	0.071	4.61	4.54	5y-EDAZ08	
EDAH09	0.320	4.61	4.29	5y-EDAH09	
EDAM09	0.569	4.61	4.04	5y-EDAM09	
EDAU09	0.819	4.61	3.79	5y-EDAU09	
EDAZ09	1.068	4.61	3.54	5y-EDAZ09	
EDAH10	1.317	4.61	3.29	5y-EDAH10	
EDAM10	1.566	4.61	3.04	5y-EDAM10	
EDAU10	1.816	4.61	2.79	5y-EDAU10	
EDAZ10	2.065	4.61	2.54	5y-EDAZ10	
EDAH11	2.314	4.61	2.29	5y-EDAH11	
EDAM11	2.564	4.61	2.04	5y-EDAM11	
EDAU11	2.832	4.61	1.77	5y-EDAU11	

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

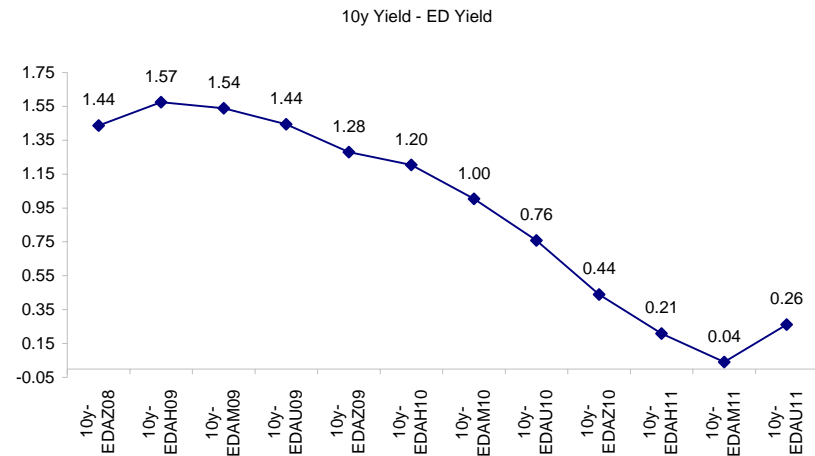


	10y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAZ08	4.814	1.44	10y-EDAZ08	-24.102
EDAH09	4.677	1.57	10y-EDAH09	-37.231
EDAM09	4.712	1.54	10y-EDAM09	-52.434
EDAU09	4.807	1.44	10y-EDAU09	-67.107
EDAZ09	4.972	1.28	10y-EDAZ09	-72.397
EDAH10	5.047	1.20	10y-EDAH10	-69.316
EDAM10	5.247	1.00	10y-EDAM10	-67.268
EDAU10	5.492	0.76	10y-EDAU10	-69.493
EDAZ10	5.812	0.44	10y-EDAZ10	-73.067
EDAH11	6.042	0.21	10y-EDAH11	-76.252
EDAM11	6.292	0.04	10y-EDAM11	-79.397
EDAU11	6.512	0.26	10y-EDAU11	-81.876

Price = Outright Decimal Price - Euro Contract Price

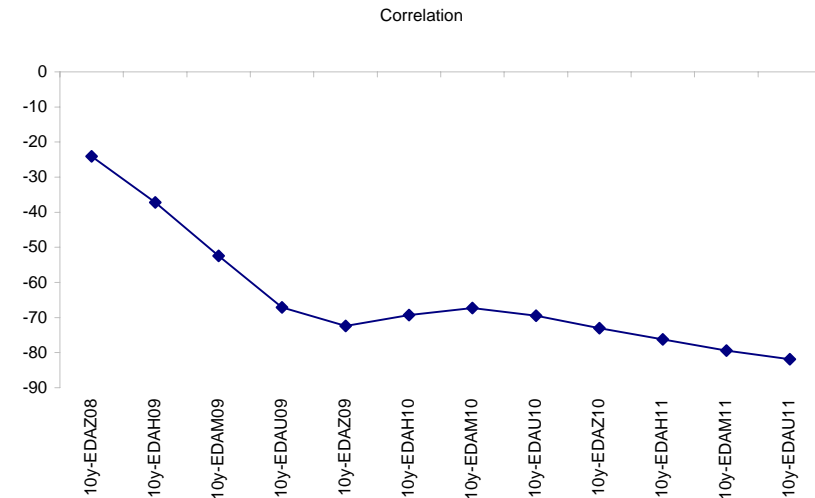
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			10Y Duration	Spread Duration	
EDAZ08	0.071	8.30	8.23	10y-EDAZ08		
EDAH09	0.320	8.30	7.98	10y-EDAH09		
EDAM09	0.569	8.30	7.73	10y-EDAM09		
EDAU09	0.819	8.30	7.48	10y-EDAU09		
EDAZ09	1.068	8.30	7.23	10y-EDAZ09		
EDAH10	1.317	8.30	6.98	10y-EDAH10		
EDAM10	1.566	8.30	6.73	10y-EDAM10		
EDAU10	1.816	8.30	6.48	10y-EDAU10		
EDAZ10	2.065	8.30	6.23	10y-EDAZ10		
EDAH11	2.314	8.30	5.98	10y-EDAH11		
EDAM11	2.564	8.30	5.73	10y-EDAM11		
EDAU11	2.832	8.30	5.46	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.

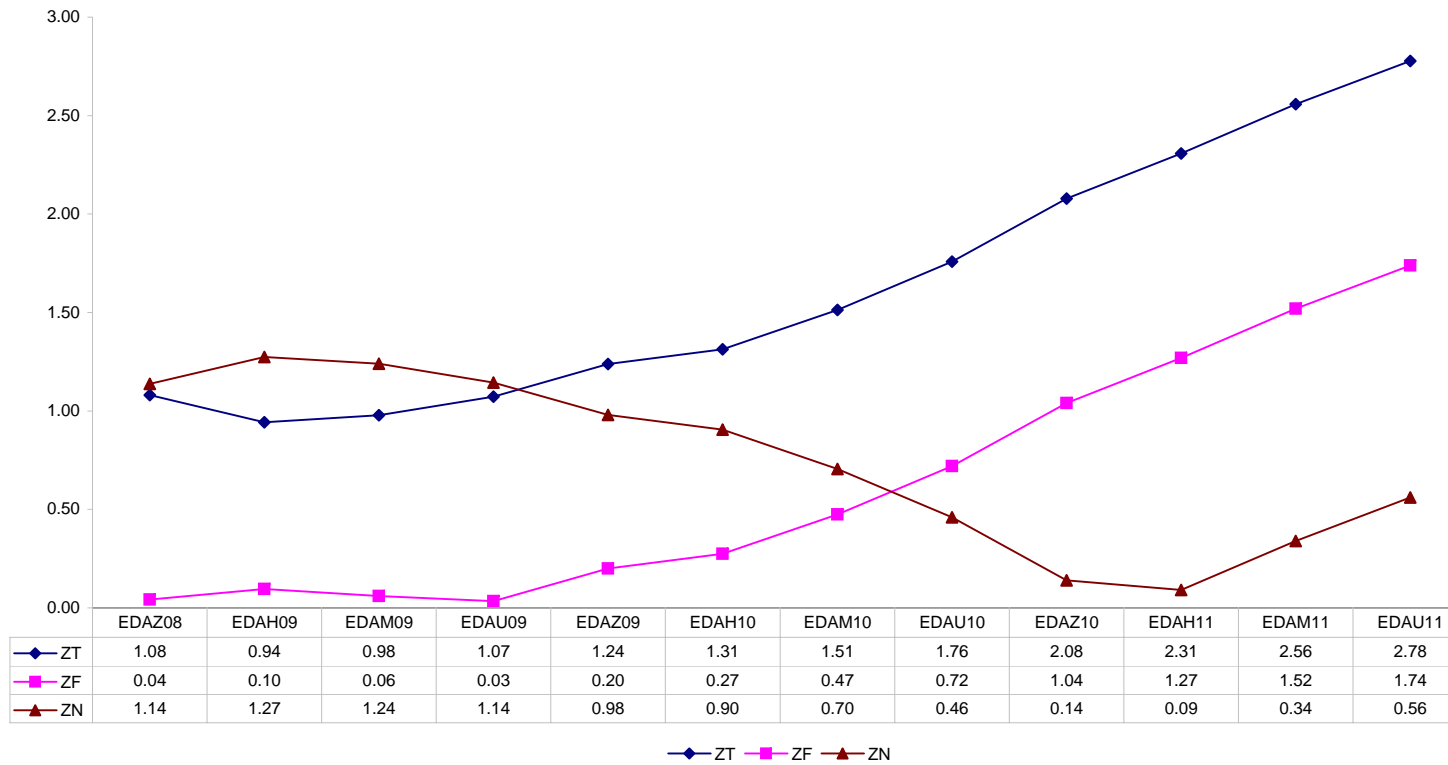
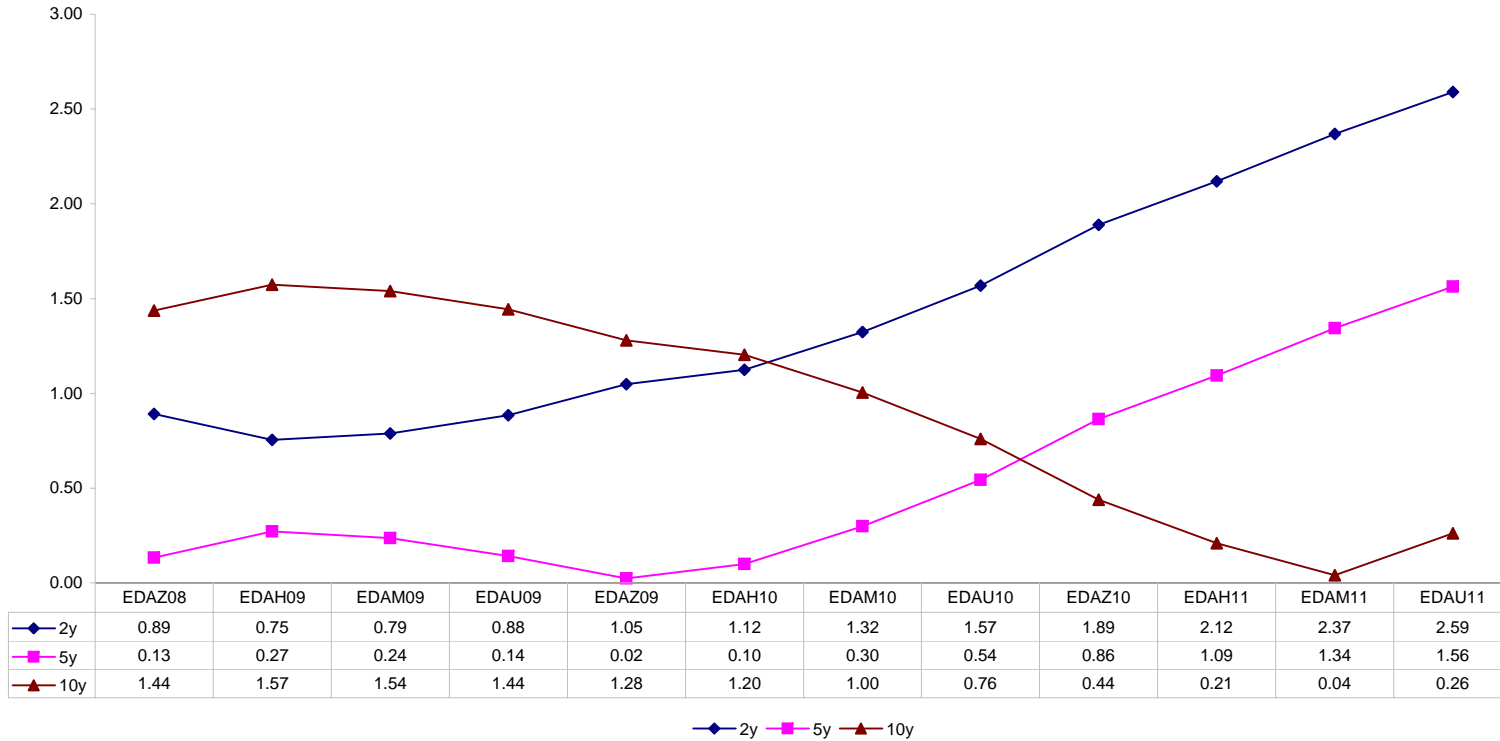
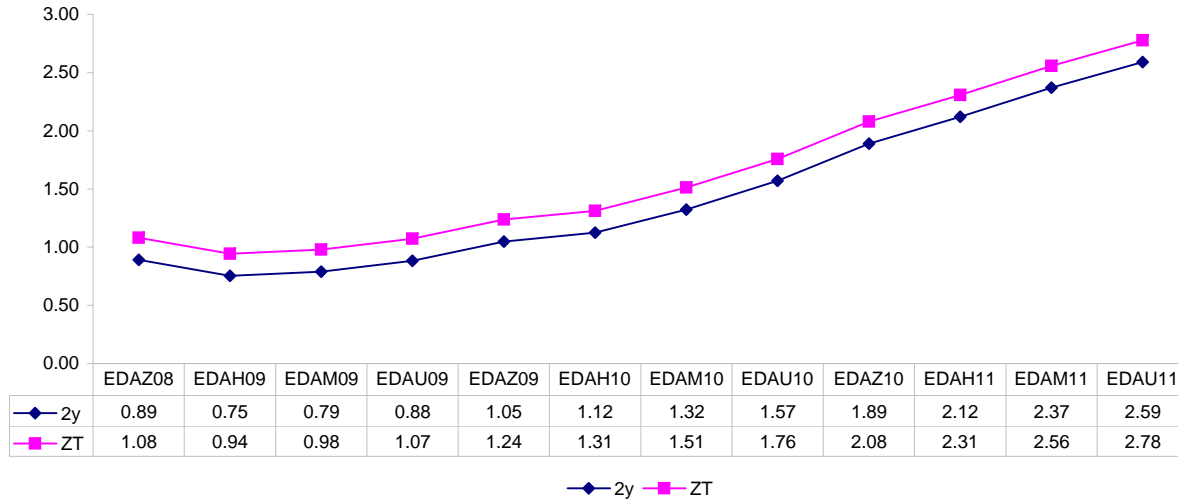


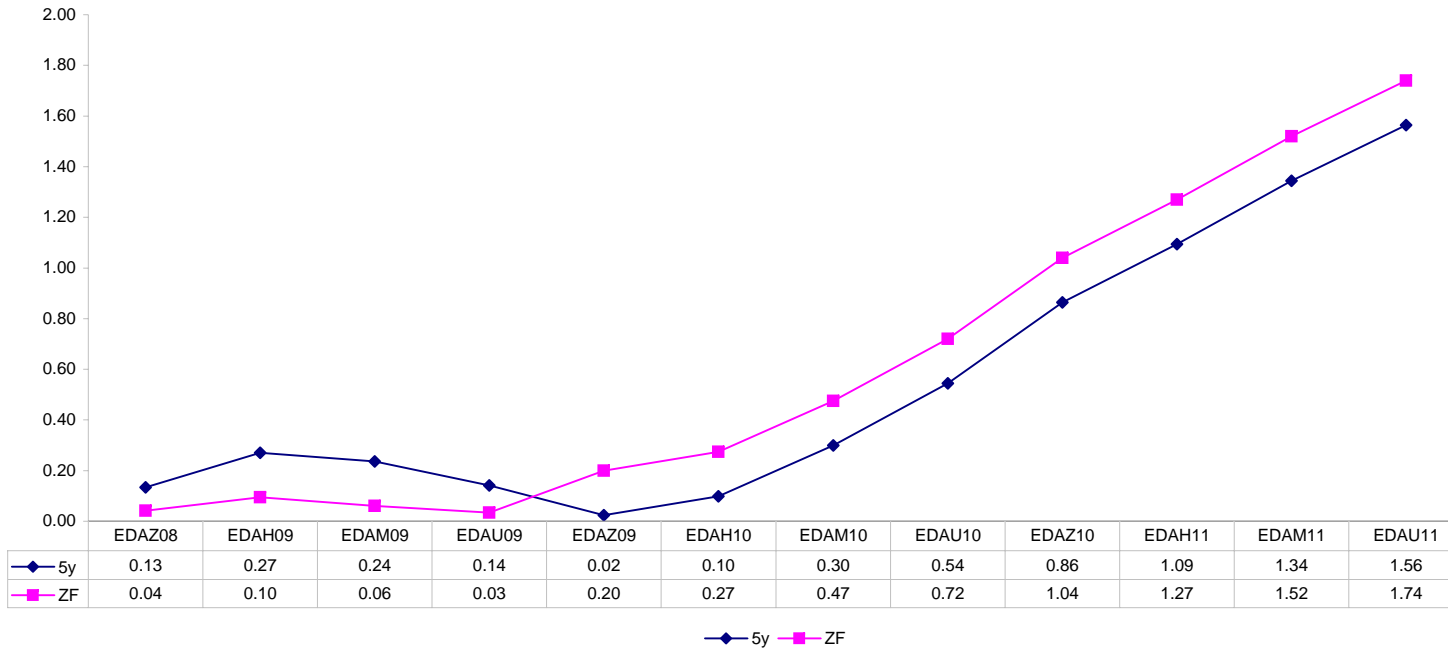
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



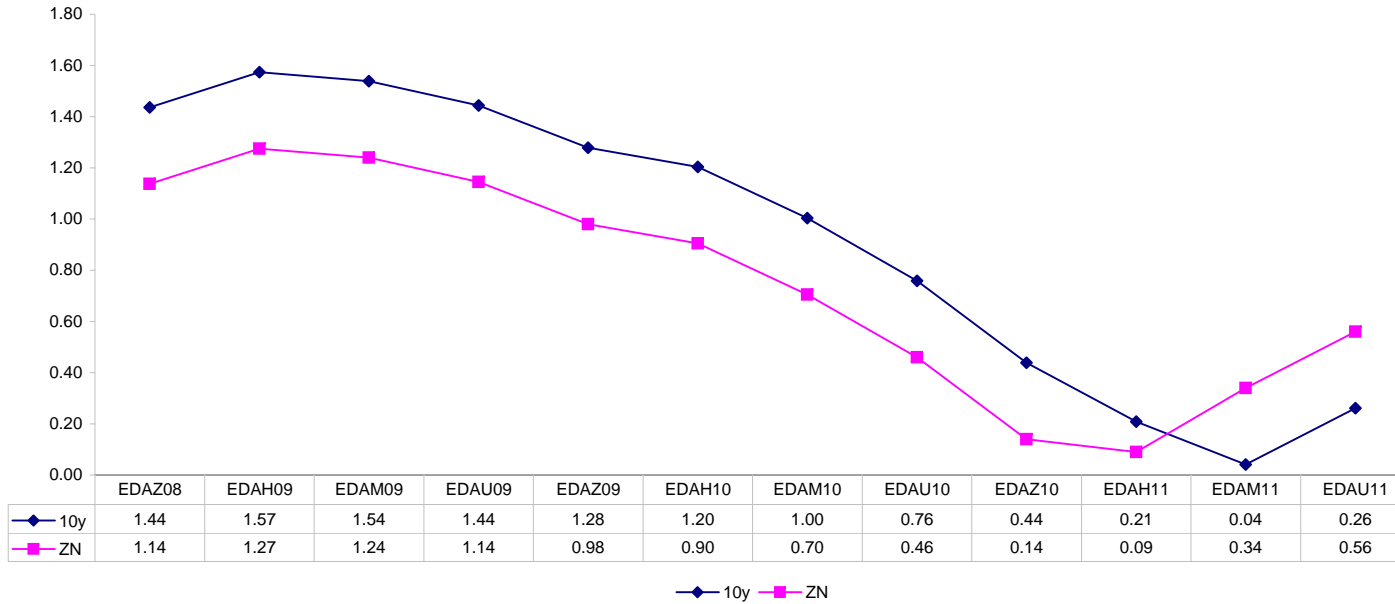
2y Basis TED Curve



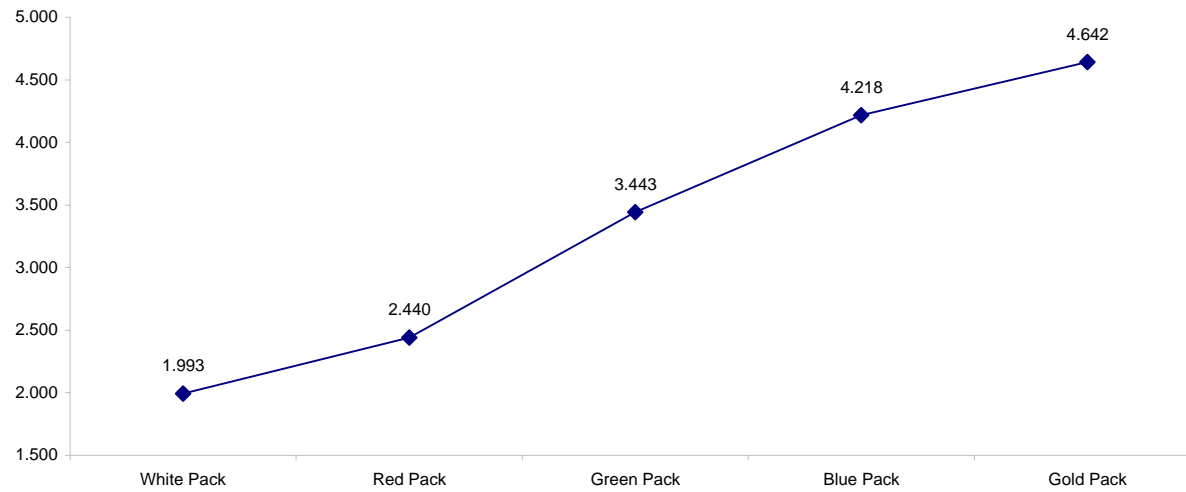
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	1.993	4.000	9804.438
Red Pack	2.440	4.875	9760.750
Green Pack	3.443	9.875	9663.250
Blue Pack	4.218	7.500	9588.250
Gold Pack	4.642	8.125	9547.375



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

