

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	106.1938	106.062	2.264	1.78
ZF	111.8500	111.272	2.950	3.93
ZN	115.6406	115.205	3.598	5.88
2y	99.578	99.1850	2.340	1.93
5y	100.256	100.0820	3.067	4.58
10y	97.828	97.2650	3.765	8.13

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.370	2.630	45	0.123	JUN
EDAU08	97.335	2.665	136	0.372	SEP White
EDAZ08	97.110	2.890	227	0.621	DEC Pack
EDAH09	96.980	3.020	318	0.871	MAR
EDAM09	96.790	3.210	409	1.120	JUN
EDAU09	96.605	3.395	500	1.369	SEP Red Pack
EDAZ09	96.400	3.600	591	1.619	DEC
EDAH10	96.275	3.725	682	1.868	MAR
EDAM10	96.140	3.860	773	2.117	JUN
EDAU10	96.015	3.985	864	2.366	SEP Green
EDAZ10	95.885	4.115	955	2.616	DEC Pack
EDAH11	95.810	4.190	1046	2.865	MAR
EDAM11	95.730	4.270	1137	3.114	JUN
EDAU11	95.665	4.335	1235	3.383	SEP Blue Pack
EDAZ11	95.555	4.445	1326	3.632	DEC
EDAH12	95.500	4.500	1417	3.882	MAR
EDAM12	95.460	4.540	1508	4.131	JUN
EDAU12	95.425	4.575	1599	4.380	SEP Gold Pack
EDAZ12	95.305	4.695	1690	4.629	DEC
EDAH13	95.250	4.750	1781	4.879	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.860	4.125	9719.875	Pack Prices
Red Pack	3.562	0.500	9651.750	
Green Pack	4.135	-0.250	9596.250	
Blue Pack	4.498	-0.625	9561.250	
Gold Pack	4.760	0.000	9536.000	

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.

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.

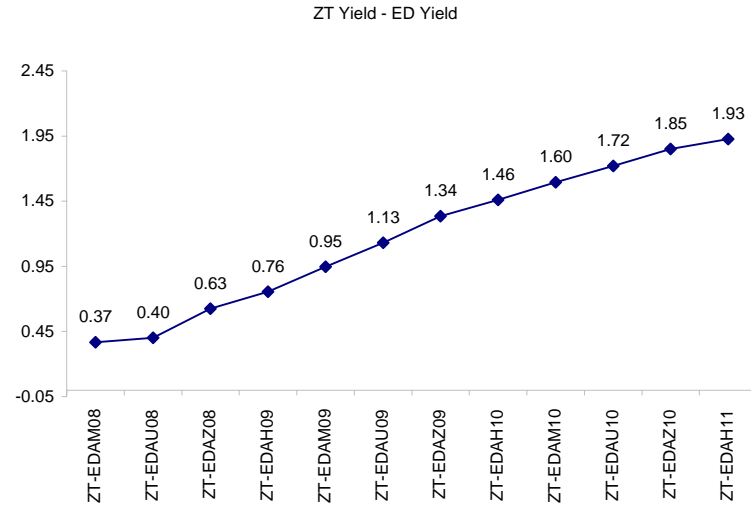
jgoulding@ghco.com

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.

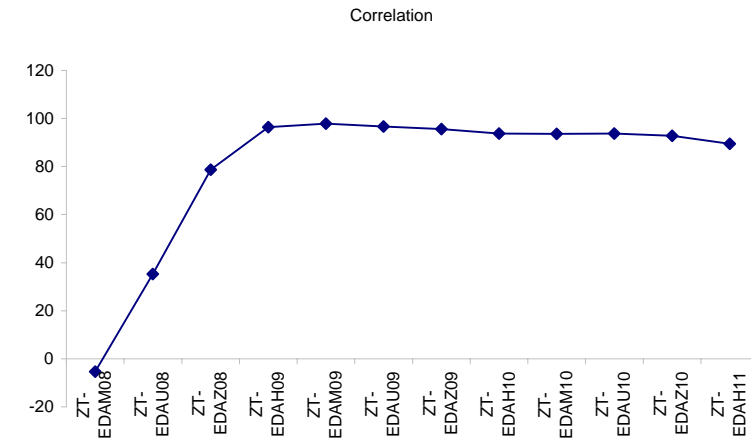
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.824	0.37	ZT-EDAM08	-5.402
EDAU08	8.859	0.40	ZT-EDAU08	35.222
EDAZ08	9.084	0.63	ZT-EDAZ08	78.712
EDAH09	9.214	0.76	ZT-EDAH09	96.385
EDAM09	9.404	0.95	ZT-EDAM09	97.905
EDAU09	9.589	1.13	ZT-EDAU09	96.681
EDAZ09	9.794	1.34	ZT-EDAZ09	95.653
EDAH10	9.919	1.46	ZT-EDAH10	93.772
EDAM10	10.054	1.60	ZT-EDAM10	93.672
EDAU10	10.179	1.72	ZT-EDAU10	93.709
EDAZ10	10.309	1.85	ZT-EDAZ10	92.782
EDAH11	10.384	1.93	ZT-EDAH11	89.527

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	
EDAM08	0.123	1.78	1.66	ZT-EDAM08		
EDAU08	0.372	1.78	1.41	ZT-EDAU08		
EDAZ08	0.621	1.78	1.16	ZT-EDAZ08		
EDAH09	0.871	1.78	0.91	ZT-EDAH09		
EDAM09	1.120	1.78	0.66	ZT-EDAM09		
EDAU09	1.369	1.78	0.42	ZT-EDAU09		
EDAZ09	1.619	1.78	0.17	ZT-EDAZ09		
EDAH10	1.868	1.78	(0.08)	ZT-EDAH10		
EDAM10	2.117	1.78	(0.33)	ZT-EDAM10		
EDAU10	2.366	1.78	(0.58)	ZT-EDAU10		
EDAZ10	2.616	1.78	(0.83)	ZT-EDAZ10		
EDAH11	2.865	1.78	(1.08)	ZT-EDAH11		

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

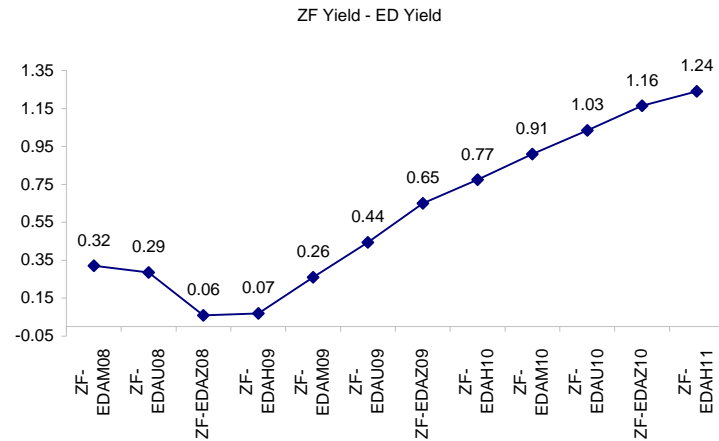


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	14.480	0.32	ZF-EDAM08	-3.399
EDAU08	14.515	0.29	ZF-EDAU08	36.743
EDAZ08	14.740	0.06	ZF-EDAZ08	80.532
EDAH09	14.870	0.07	ZF-EDAH09	98.618
EDAM09	15.060	0.26	ZF-EDAM09	99.316
EDAU09	15.245	0.44	ZF-EDAU09	97.314
EDAZ09	15.450	0.65	ZF-EDAZ09	95.627
EDAH10	15.575	0.77	ZF-EDAH10	94.339
EDAM10	15.710	0.91	ZF-EDAM10	96.146
EDAU10	15.835	1.03	ZF-EDAU10	98.120
EDAZ10	15.965	1.16	ZF-EDAZ10	98.274
EDAH11	16.040	1.24	ZF-EDAH11	96.212

Price = Outright Decimal Price - Euro Contract Price

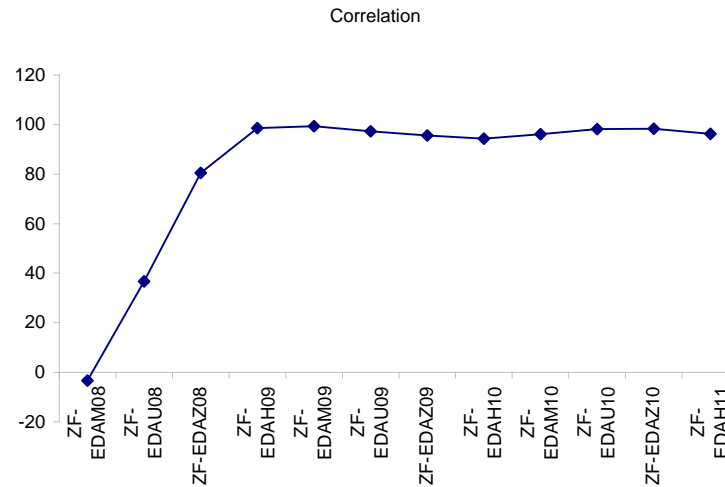
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.123	3.93	3.80	ZF-EDAM08	
EDAU08	0.372	3.93	3.55	ZF-EDAU08	
EDAZ08	0.621	3.93	3.30	ZF-EDAZ08	
EDAH09	0.871	3.93	3.06	ZF-EDAH09	
EDAM09	1.120	3.93	2.81	ZF-EDAM09	
EDAU09	1.369	3.93	2.56	ZF-EDAU09	
EDAZ09	1.619	3.93	2.31	ZF-EDAZ09	
EDAH10	1.868	3.93	2.06	ZF-EDAH10	
EDAM10	2.117	3.93	1.81	ZF-EDAM10	
EDAU10	2.366	3.93	1.56	ZF-EDAU10	
EDAZ10	2.616	3.93	1.31	ZF-EDAZ10	
EDAH11	2.865	3.93	1.06	ZF-EDAH11	

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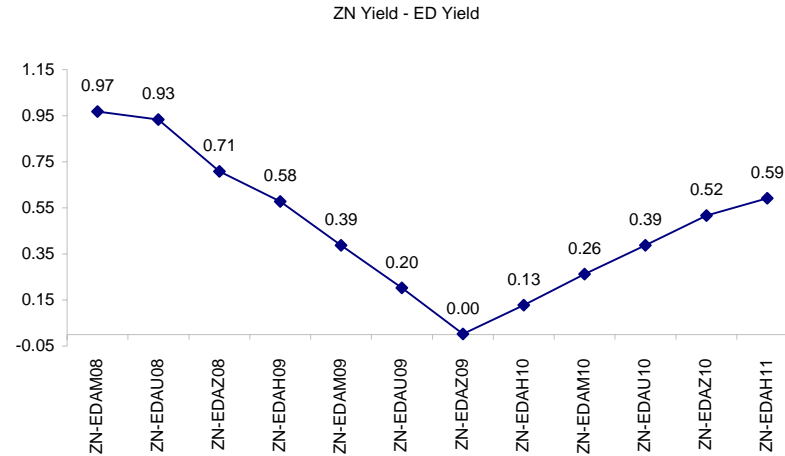


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	18.271	0.97	ZN-EDAM08	-15.422
EDAU08	18.306	0.93	ZN-EDAU08	24.445
EDAZ08	18.531	0.71	ZN-EDAZ08	71.748
EDAH09	18.661	0.58	ZN-EDAH09	95.347
EDAM09	18.851	0.39	ZN-EDAM09	98.333
EDAU09	19.036	0.20	ZN-EDAU09	97.838
EDAZ09	19.241	0.00	ZN-EDAZ09	96.681
EDAH10	19.366	0.13	ZN-EDAH10	94.339
EDAM10	19.501	0.26	ZN-EDAM10	96.146
EDAU10	19.626	0.39	ZN-EDAU10	98.120
EDAZ10	19.756	0.52	ZN-EDAZ10	98.274
EDAH11	19.831	0.59	ZN-EDAH11	96.212

Price = Outright Decimal Price - Euro Contract Price

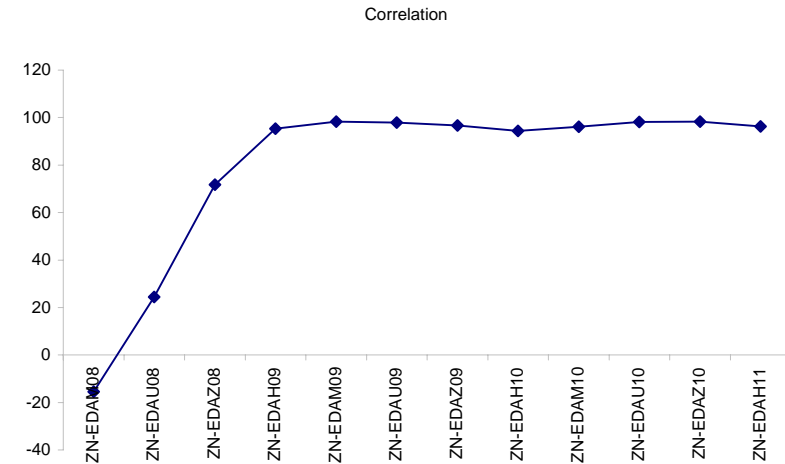
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAM08	0.123	5.88	5.75	ZN-EDAM08		
EDAU08	0.372	5.88	5.50	ZN-EDAU08		
EDAZ08	0.621	5.88	5.25	ZN-EDAZ08		
EDAH09	0.871	5.88	5.00	ZN-EDAH09		
EDAM09	1.120	5.88	4.76	ZN-EDAM09		
EDAU09	1.369	5.88	4.51	ZN-EDAU09		
EDAZ09	1.619	5.88	4.26	ZN-EDAZ09		
EDAH10	1.868	5.88	4.01	ZN-EDAH10		
EDAM10	2.117	5.88	3.76	ZN-EDAM10		
EDAU10	2.366	5.88	3.51	ZN-EDAU10		
EDAZ10	2.616	5.88	3.26	ZN-EDAZ10		
EDAH11	2.865	5.88	3.01	ZN-EDAH11		

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

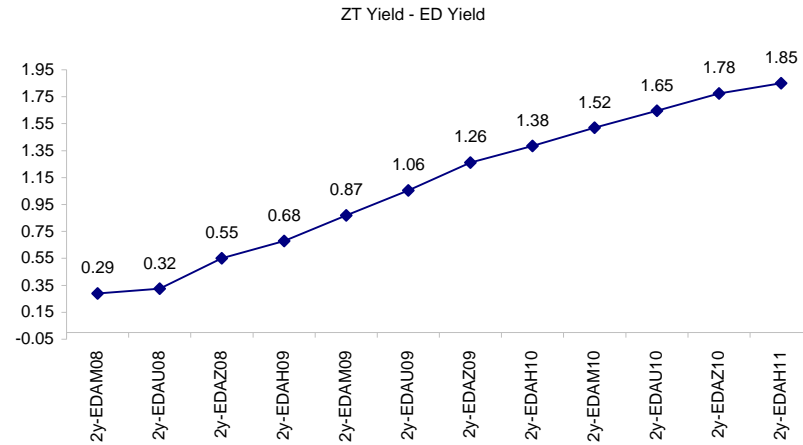


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.208	0.29	2y-EDAM08	29.694
EDAU08	2.243	0.32	2y-EDAU08	-10.919
EDAZ08	2.468	0.55	2y-EDAZ08	-61.313
EDAH09	2.598	0.68	2y-EDAH09	-89.752
EDAM09	2.788	0.87	2y-EDAM09	-95.380
EDAU09	2.973	1.06	2y-EDAU09	-97.670
EDAZ09	3.178	1.26	2y-EDAZ09	-98.087
EDAH10	3.303	1.38	2y-EDAH10	-97.576
EDAM10	3.438	1.52	2y-EDAM10	-95.998
EDAU10	3.563	1.65	2y-EDAU10	-93.081
EDAZ10	3.693	1.78	2y-EDAZ10	-89.410
EDAH11	3.768	1.85	2y-EDAH11	-82.164

Price = Outright Decimal Price - Euro Contract Price

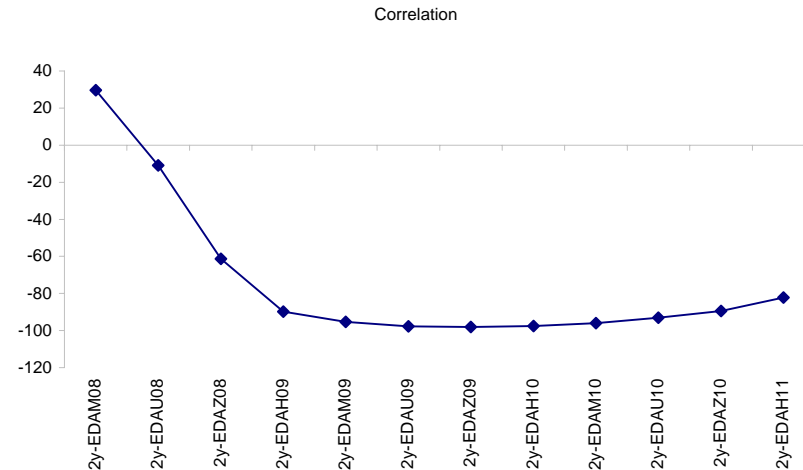
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAM08	0.123	1.93	1.81	2y-EDAM08
EDAU08	0.372	1.93	1.56	2y-EDAU08
EDAZ08	0.621	1.93	1.31	2y-EDAZ08
EDAH09	0.871	1.93	1.06	2y-EDAH09
EDAM09	1.120	1.93	0.81	2y-EDAM09
EDAU09	1.369	1.93	0.56	2y-EDAU09
EDAZ09	1.619	1.93	0.31	2y-EDAZ09
EDAH10	1.868	1.93	0.06	2y-EDAH10
EDAM10	2.117	1.93	(0.18)	2y-EDAM10
EDAU10	2.366	1.93	(0.43)	2y-EDAU10
EDAZ10	2.616	1.93	(0.68)	2y-EDAZ10
EDAH11	2.865	1.93	(0.93)	2y-EDAH11

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

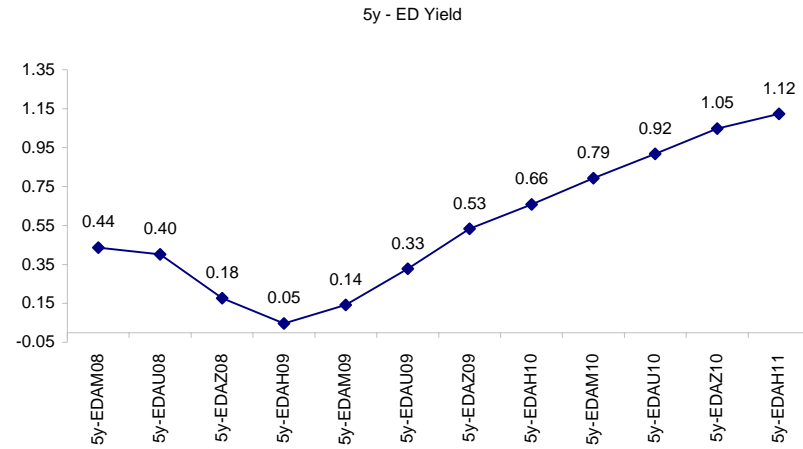


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.886	0.44	5y-EDAM08	23.060
EDAU08	2.921	0.40	5y-EDAU08	-17.012
EDAZ08	3.146	0.18	5y-EDAZ08	23.060
EDAH09	3.276	0.05	5y-EDAH09	-92.452
EDAM09	3.466	0.14	5y-EDAM09	-96.808
EDAU09	3.651	0.33	5y-EDAU09	-97.759
EDAZ09	3.856	0.53	5y-EDAZ09	-97.091
EDAH10	3.981	0.66	5y-EDAH10	-96.793
EDAM10	4.116	0.79	5y-EDAM10	-97.164
EDAU10	4.241	0.92	5y-EDAU10	-96.708
EDAZ10	4.371	1.05	5y-EDAZ10	-94.552
EDAH11	4.446	1.12	5y-EDAH11	-89.175

Price = Outright Decimal Price - Euro Contract Price

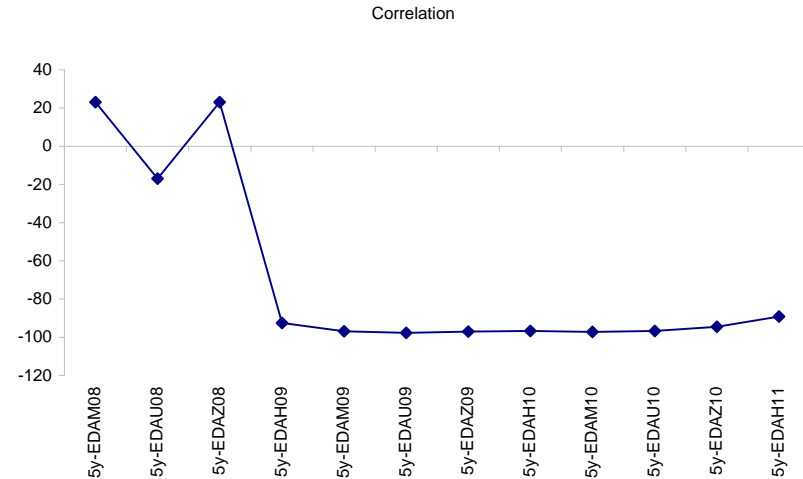
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.123	4.58	4.46	5y-EDAM08
EDAU08	0.372	4.58	4.21	5y-EDAU08
EDAZ08	0.621	4.58	3.96	5y-EDAZ08
EDAH09	0.871	4.58	3.71	5y-EDAH09
EDAM09	1.120	4.58	3.46	5y-EDAM09
EDAU09	1.369	4.58	3.22	5y-EDAU09
EDAZ09	1.619	4.58	2.97	5y-EDAZ09
EDAH10	1.868	4.58	2.72	5y-EDAH10
EDAM10	2.117	4.58	2.47	5y-EDAM10
EDAU10	2.366	4.58	2.22	5y-EDAU10
EDAZ10	2.616	4.58	1.97	5y-EDAZ10
EDAH11	2.865	4.58	1.72	5y-EDAH11

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

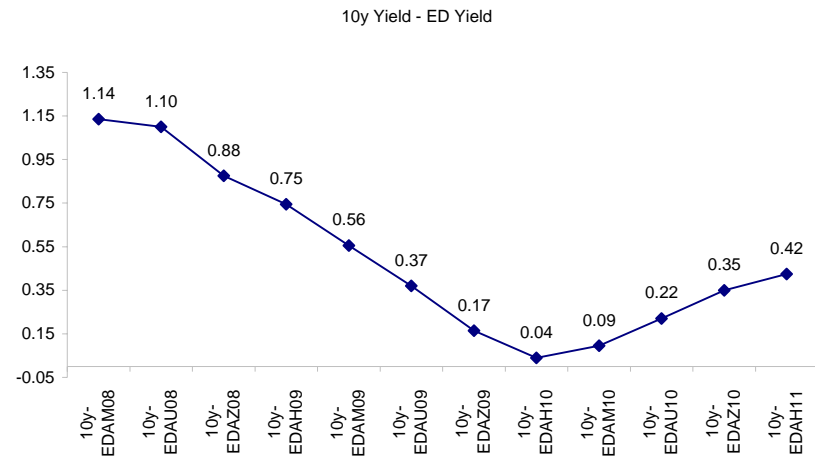


10y				Correlation* (percent)
Spread Price	Spread Yield	Spread Name		
EDAM08	2.886	1.14	10y-EDAM08	-8.905
EDAU08	2.921	1.10	10y-EDAU08	-44.955
EDAZ08	3.146	0.88	10y-EDAZ08	-8.905
EDAH09	3.276	0.75	10y-EDAH09	-93.812
EDAM09	3.466	0.56	10y-EDAM09	-92.623
EDAU09	3.651	0.37	10y-EDAU09	-89.502
EDAZ09	3.856	0.17	10y-EDAZ09	-87.570
EDAH10	3.981	0.04	10y-EDAH10	-85.772
EDAM10	4.116	0.09	10y-EDAM10	-88.598
EDAU10	4.241	0.22	10y-EDAU10	-92.645
EDAZ10	4.371	0.35	10y-EDAZ10	-94.862
EDAH11	4.446	0.42	10y-EDAH11	-95.278

Price = Outright Decimal Price - Euro Contract Price

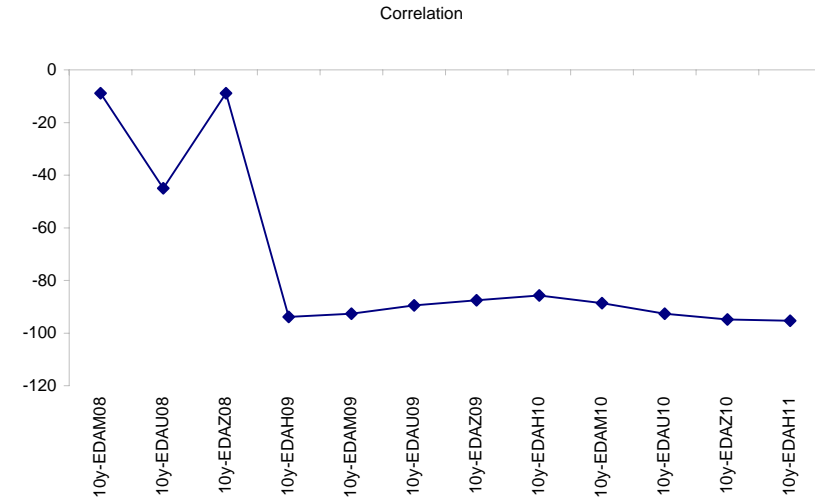
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				Spread Duration	Contract Name
ED Duration	10Y Duration	Spread Duration			
EDAM08	0.123	8.13	8.01	10y-EDAM08	
EDAU08	0.372	8.13	7.76	10y-EDAU08	
EDAZ08	0.621	8.13	7.51	10y-EDAZ08	
EDAH09	0.871	8.13	7.26	10y-EDAH09	
EDAM09	1.120	8.13	7.01	10y-EDAM09	
EDAU09	1.369	8.13	6.76	10y-EDAU09	
EDAZ09	1.619	8.13	6.51	10y-EDAZ09	
EDAH10	1.868	8.13	6.26	10y-EDAH10	
EDAM10	2.117	8.13	6.01	10y-EDAM10	
EDAU10	2.366	8.13	5.76	10y-EDAU10	
EDAZ10	2.616	8.13	5.51	10y-EDAZ10	
EDAH11	2.865	8.13	5.26	10y-EDAH11	

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.

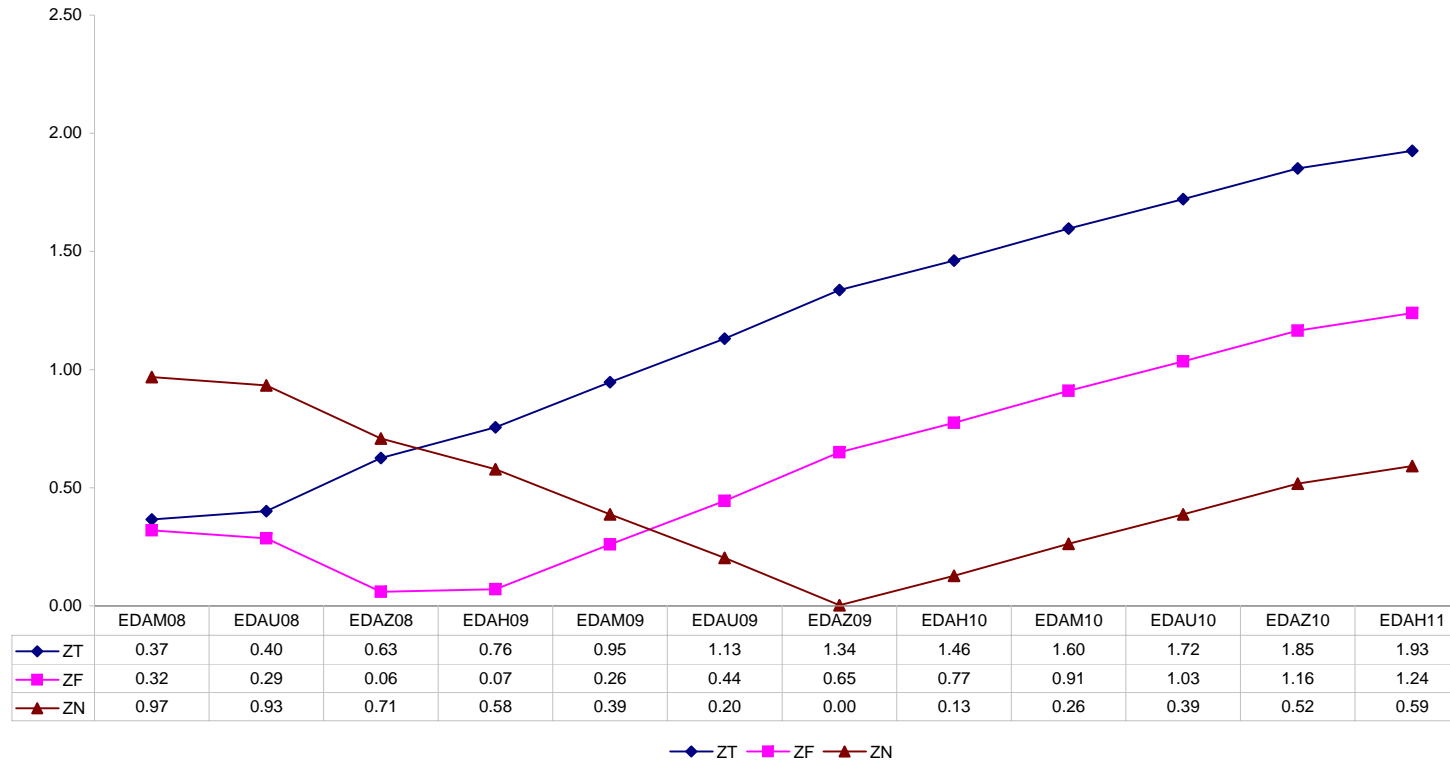
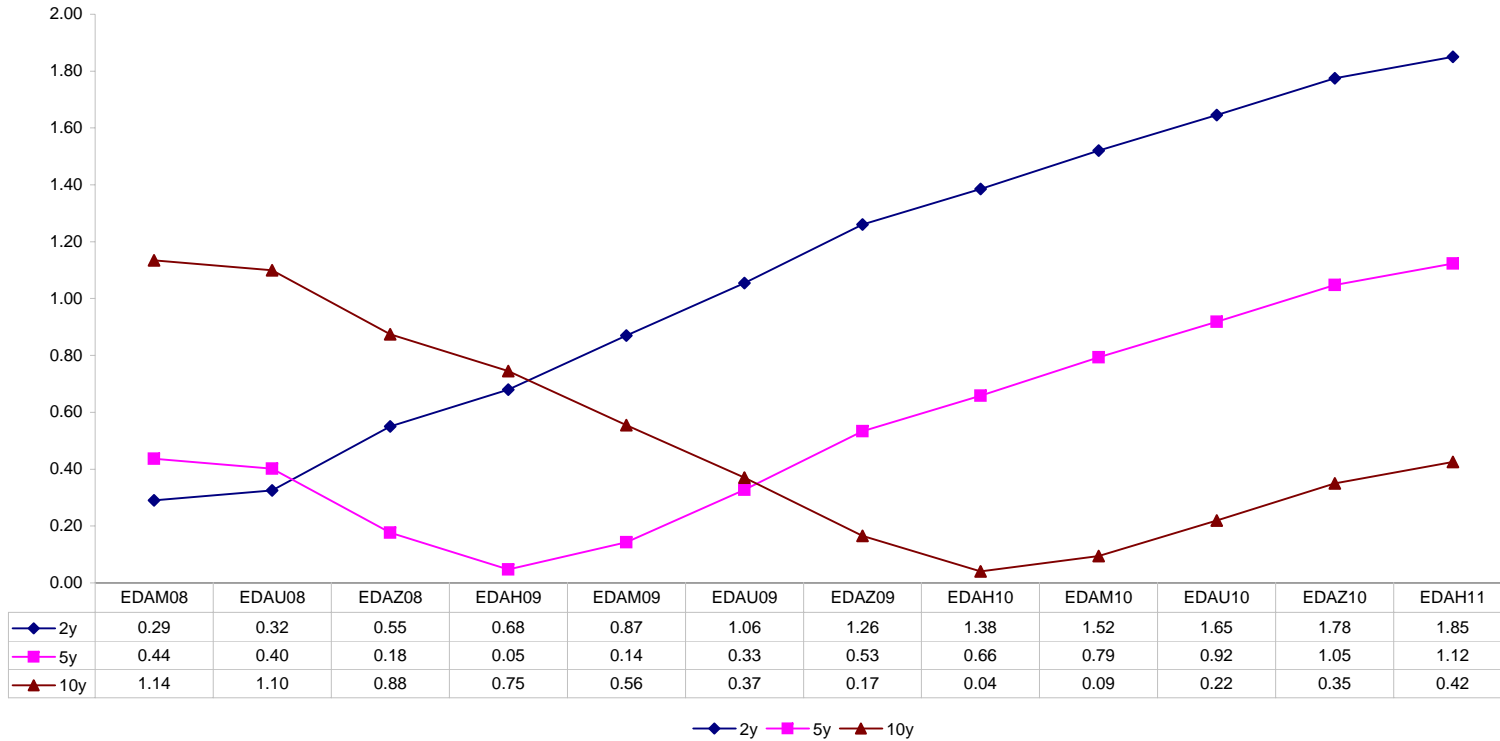
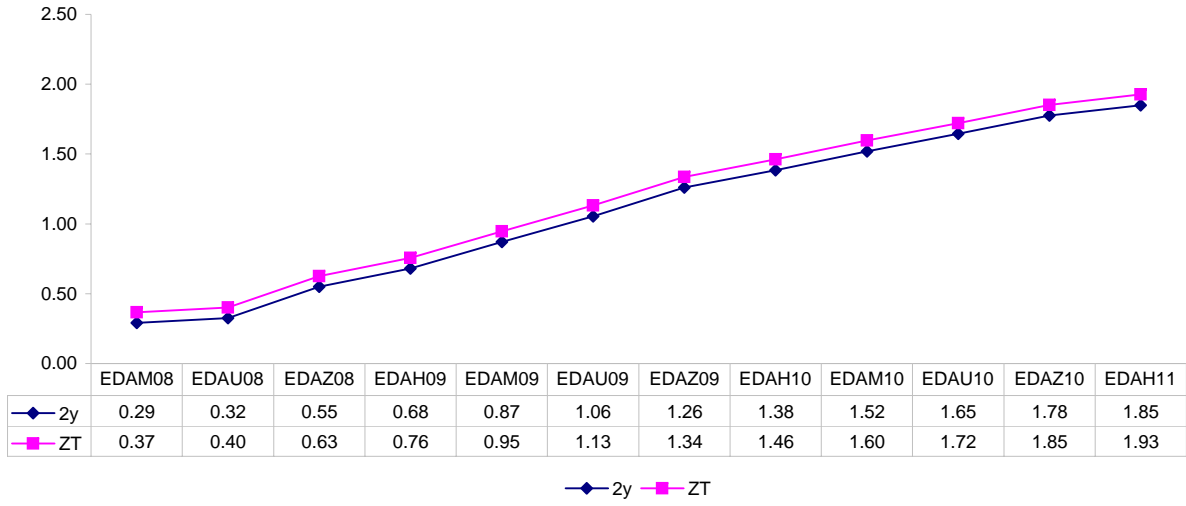


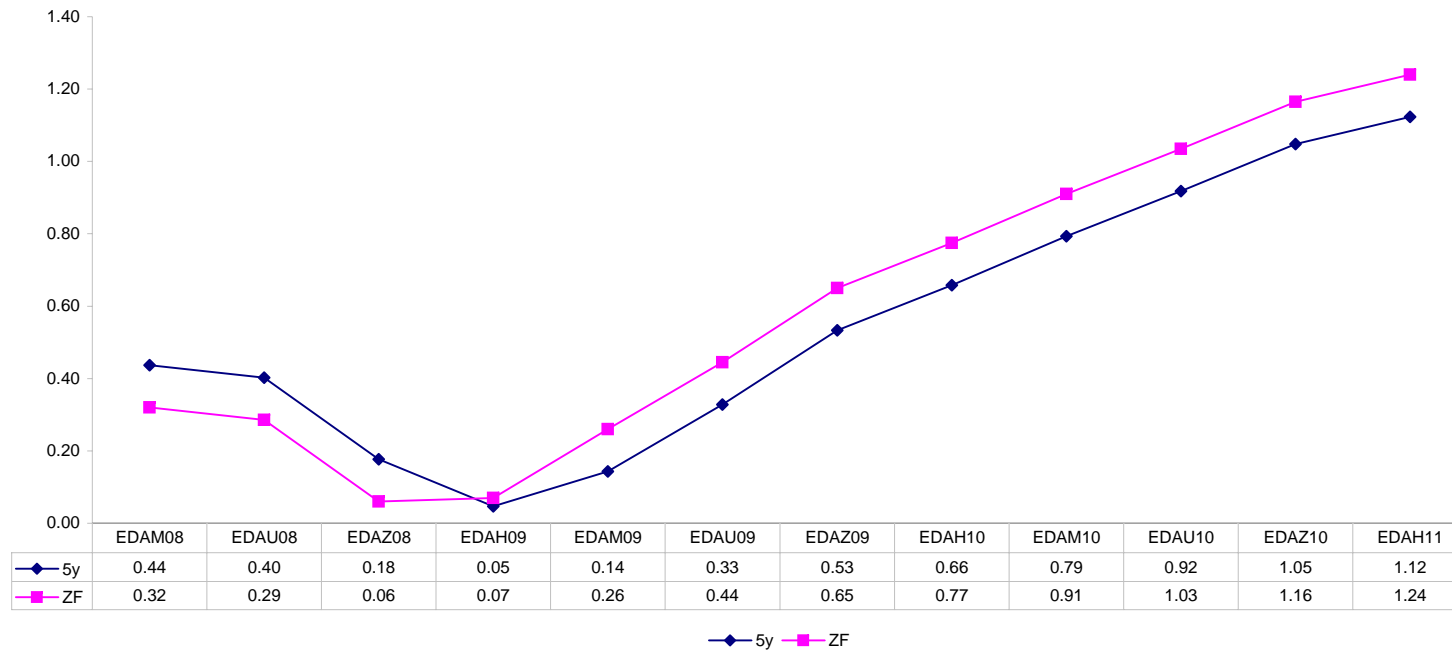
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



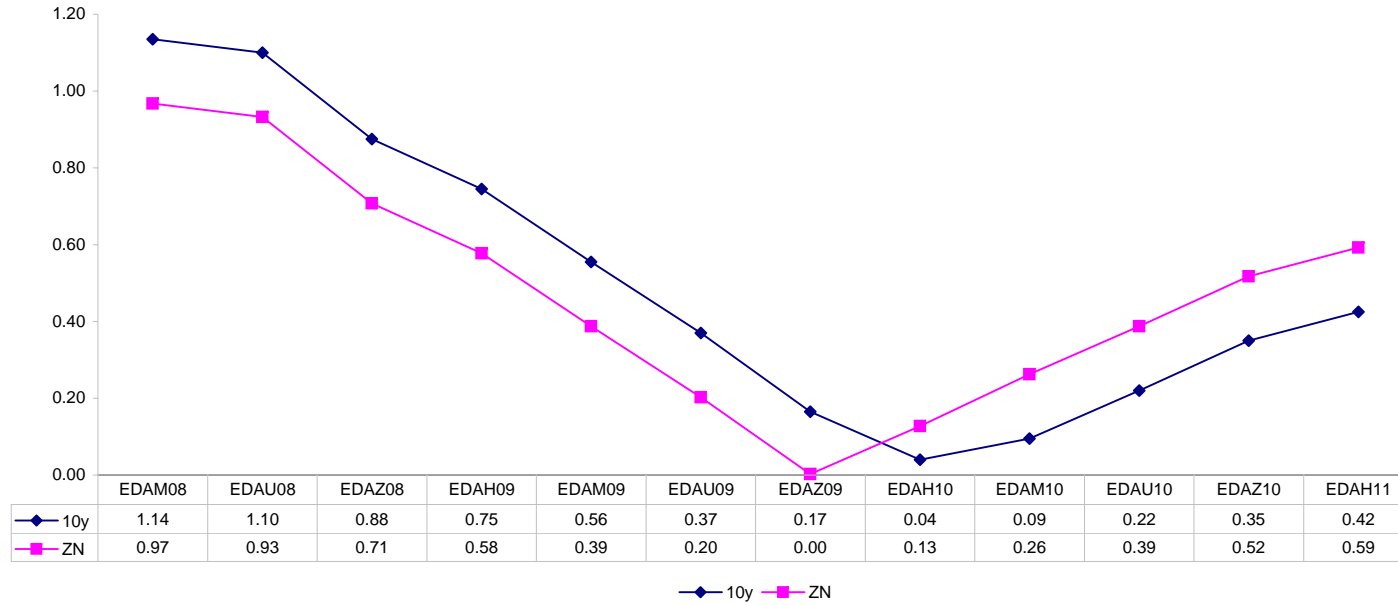
2y Basis TED Curve



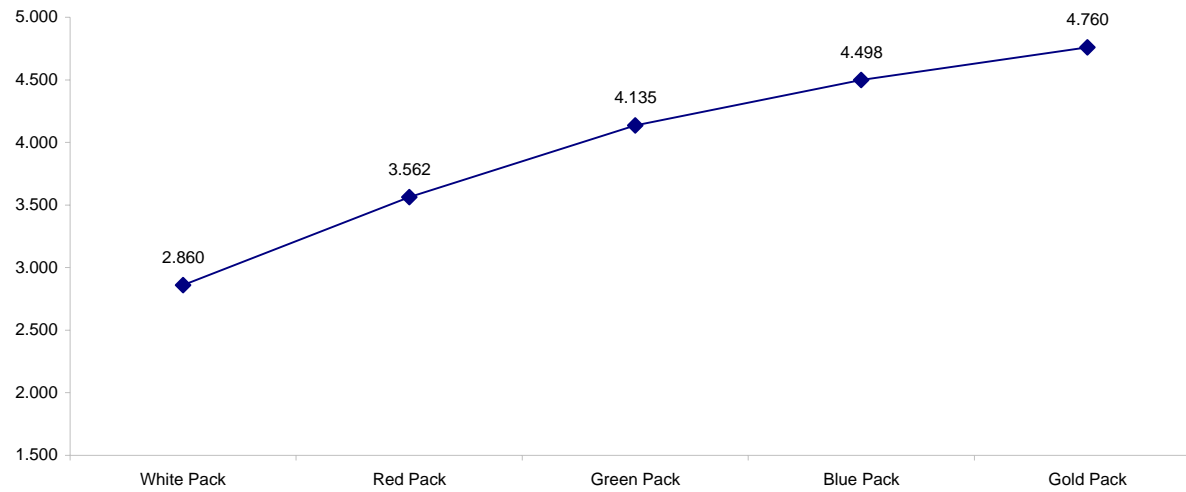
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.860	4.125	9719.875
Red Pack	3.562	0.500	9651.750
Green Pack	4.135	-0.250	9596.250
Blue Pack	4.498	-0.625	9561.250
Gold Pack	4.760	0.000	9536.000



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

