

The Morning Email: TERM TEDS & Dirty TEDS

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New

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	106.8906	106.285	1.828	1.86
ZF	113.1313	113.042	2.621	4.01
ZN	117.5781	117.185	3.311	6.60
2y	99.709	99.2270	1.896	1.94
5y	98.928	98.2970	2.730	4.56
10y	99.422	99.1350	3.566	8.23

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.540	2.460	73	0.199	JUN
EDAU08	97.640	2.360	164	0.449	SEP White
EDAZ08	97.535	2.465	255	0.698	DEC Pack
EDAH09	97.460	2.540	346	0.947	MAR
EDAM09	97.255	2.745	437	1.197	JUN
EDAU09	97.030	2.970	528	1.446	SEP Red Pack
EDAZ09	96.755	3.245	619	1.695	DEC
EDAH10	96.565	3.435	710	1.945	MAR
EDAM10	96.355	3.645	801	2.194	JUN
EDAU10	96.170	3.830	892	2.443	SEP Green
EDAZ10	96.005	3.995	983	2.692	DEC Pack
EDAH11	95.880	4.120	1074	2.942	MAR
EDAM11	95.760	4.240	1165	3.191	JUN
EDAU11	95.655	4.345	1263	3.460	SEP Blue Pack
EDAZ11	95.535	4.465	1354	3.709	DEC
EDAH12	95.465	4.535	1445	3.958	MAR
EDAM12	95.385	4.615	1536	4.208	JUN
EDAU12	95.295	4.705	1627	4.457	SEP Gold Pack
EDAZ12	95.180	4.820	1718	4.706	DEC
EDAH13	95.140	4.860	1809	4.956	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.506	0.875	9754.375	Pack Prices
Red Pack	3.166	1.125	9690.125	
Green Pack	3.991	1.750	9610.250	
Blue Pack	4.507	0.375	9560.375	
Gold Pack	4.874	-0.250	9525.000	

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.

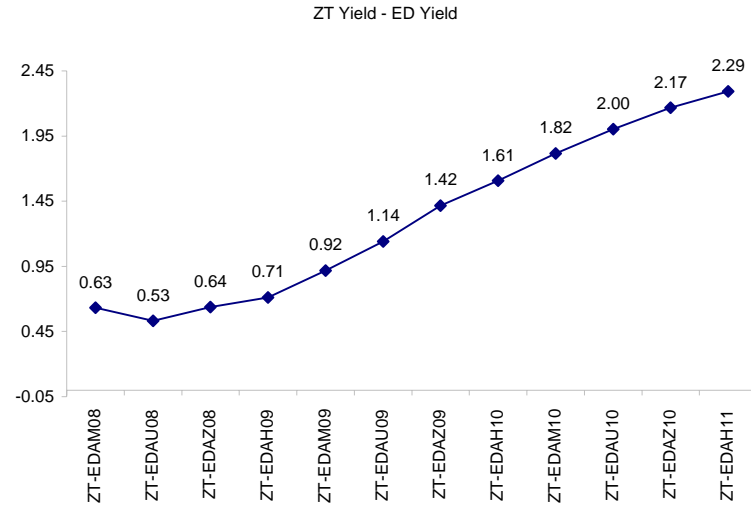
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Correlations (Important)

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.

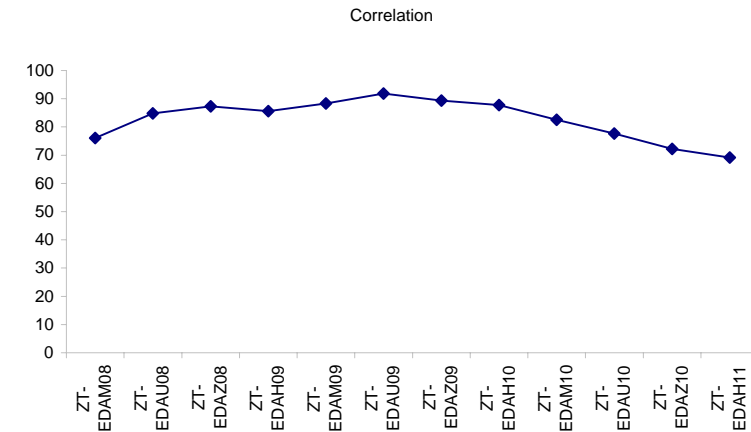
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	9.351	0.63	ZT-EDAM08	76.103
EDAU08	9.251	0.53	ZT-EDAU08	84.858
EDAZ08	9.356	0.64	ZT-EDAZ08	87.312
EDAH09	9.431	0.71	ZT-EDAH09	85.578
EDAM09	9.636	0.92	ZT-EDAM09	88.295
EDAU09	9.861	1.14	ZT-EDAU09	91.795
EDAZ09	10.136	1.42	ZT-EDAZ09	89.328
EDAH10	10.326	1.61	ZT-EDAH10	87.783
EDAM10	10.536	1.82	ZT-EDAM10	82.525
EDAU10	10.721	2.00	ZT-EDAU10	77.654
EDAZ10	10.886	2.17	ZT-EDAZ10	72.208
EDAH11	11.011	2.29	ZT-EDAH11	69.138

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	0.199	1.86	1.66	ZT-EDAM08
EDAU08	0.449	1.86	1.42	ZT-EDAU08
EDAZ08	0.698	1.86	1.17	ZT-EDAZ08
EDAH09	0.947	1.86	0.92	ZT-EDAH09
EDAM09	1.197	1.86	0.67	ZT-EDAM09
EDAU09	1.446	1.86	0.42	ZT-EDAU09
EDAZ09	1.695	1.86	0.17	ZT-EDAZ09
EDAH10	1.945	1.86	(0.08)	ZT-EDAH10
EDAM10	2.194	1.86	(0.33)	ZT-EDAM10
EDAU10	2.443	1.86	(0.58)	ZT-EDAU10
EDAZ10	2.692	1.86	(0.83)	ZT-EDAZ10
EDAH11	2.942	1.86	(1.08)	ZT-EDAH11

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

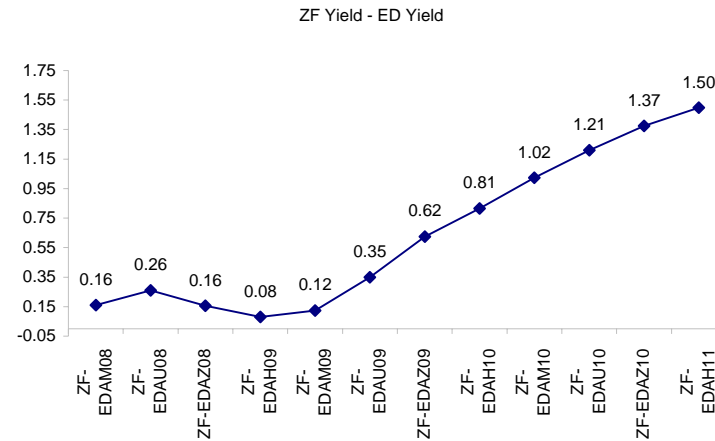


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	15.591	0.16	ZF-EDAM08	93.193
EDAU08	15.491	0.26	ZF-EDAU08	96.405
EDAZ08	15.596	0.16	ZF-EDAZ08	97.376
EDAH09	15.671	0.08	ZF-EDAH09	97.909
EDAM09	15.876	0.12	ZF-EDAM09	98.074
EDAU09	16.101	0.35	ZF-EDAU09	97.015
EDAZ09	16.376	0.62	ZF-EDAZ09	97.525
EDAH10	16.566	0.81	ZF-EDAH10	97.519
EDAM10	16.776	1.02	ZF-EDAM10	97.260
EDAU10	16.961	1.21	ZF-EDAU10	95.950
EDAZ10	17.126	1.37	ZF-EDAZ10	94.045
EDAH11	17.251	1.50	ZF-EDAH11	92.282

Price = Outright Decimal Price - Euro Contract Price

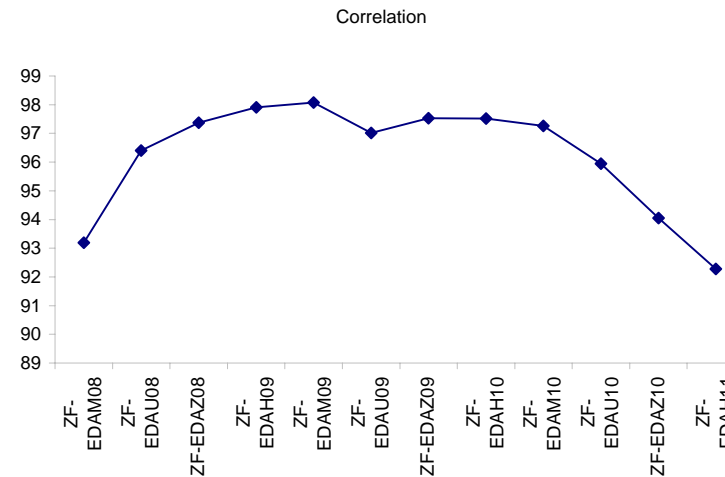
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.199	4.01	3.81	ZF-EDAM08	
EDAU08	0.449	4.01	3.56	ZF-EDAU08	
EDAZ08	0.698	4.01	3.31	ZF-EDAZ08	
EDAH09	0.947	4.01	3.06	ZF-EDAH09	
EDAM09	1.197	4.01	2.81	ZF-EDAM09	
EDAU09	1.446	4.01	2.56	ZF-EDAU09	
EDAZ09	1.695	4.01	2.31	ZF-EDAZ09	
EDAH10	1.945	4.01	2.07	ZF-EDAH10	
EDAM10	2.194	4.01	1.82	ZF-EDAM10	
EDAU10	2.443	4.01	1.57	ZF-EDAU10	
EDAZ10	2.692	4.01	1.32	ZF-EDAZ10	
EDAH11	2.942	4.01	1.07	ZF-EDAH11	

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

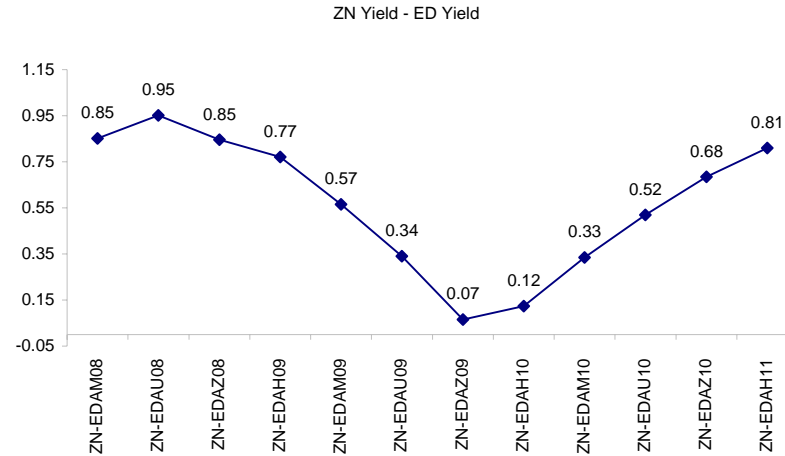


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	20.038	0.85	ZN-EDAM08	95.486
EDAU08	19.938	0.95	ZN-EDAU08	93.426
EDAZ08	20.043	0.85	ZN-EDAZ08	92.552
EDAH09	20.118	0.77	ZN-EDAH09	93.749
EDAM09	20.323	0.57	ZN-EDAM09	91.575
EDAU09	20.548	0.34	ZN-EDAU09	87.000
EDAZ09	20.823	0.07	ZN-EDAZ09	89.127
EDAH10	21.013	0.12	ZN-EDAH10	97.519
EDAM10	21.223	0.33	ZN-EDAM10	97.260
EDAU10	21.408	0.52	ZN-EDAU10	95.950
EDAZ10	21.573	0.68	ZN-EDAZ10	94.045
EDAH11	21.698	0.81	ZN-EDAH11	92.282

Price = Outright Decimal Price - Euro Contract Price

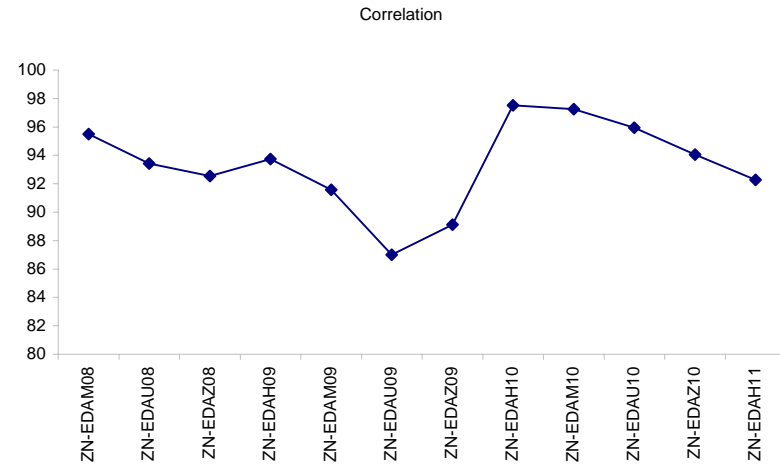
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAM08	0.199	6.60	6.40	ZN-EDAM08
EDAU08	0.449	6.60	6.15	ZN-EDAU08
EDAZ08	0.698	6.60	5.90	ZN-EDAZ08
EDAH09	0.947	6.60	5.65	ZN-EDAH09
EDAM09	1.197	6.60	5.40	ZN-EDAM09
EDAU09	1.446	6.60	5.15	ZN-EDAU09
EDAZ09	1.695	6.60	4.90	ZN-EDAZ09
EDAH10	1.945	6.60	4.65	ZN-EDAH10
EDAM10	2.194	6.60	4.41	ZN-EDAM10
EDAU10	2.443	6.60	4.16	ZN-EDAU10
EDAZ10	2.692	6.60	3.91	ZN-EDAZ10
EDAH11	2.942	6.60	3.66	ZN-EDAH11

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

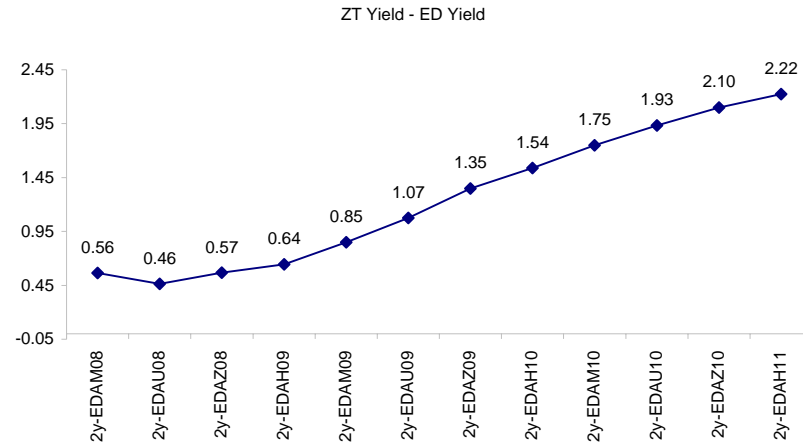


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.169	0.56	2y-EDAM08	-93.236
EDAU08	2.069	0.46	2y-EDAU08	-94.883
EDAZ08	2.174	0.57	2y-EDAZ08	-93.236
EDAH09	2.249	0.64	2y-EDAH09	-95.827
EDAM09	2.454	0.85	2y-EDAM09	-96.096
EDAU09	2.679	1.07	2y-EDAU09	-94.907
EDAZ09	2.954	1.35	2y-EDAZ09	-95.549
EDAH10	3.144	1.54	2y-EDAH10	-95.328
EDAM10	3.354	1.75	2y-EDAM10	-94.794
EDAU10	3.539	1.93	2y-EDAU10	-92.577
EDAZ10	3.704	2.10	2y-EDAZ10	-89.544
EDAH11	3.829	2.22	2y-EDAH11	-86.871

Price = Outright Decimal Price - Euro Contract Price

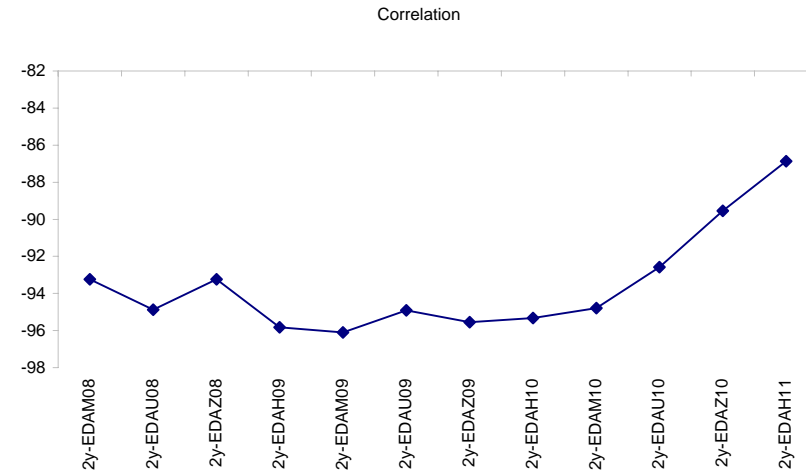
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAM08	0.199	1.94	1.74		2y-EDAM08
EDAU08	0.449	1.94	1.49		2y-EDAU08
EDAZ08	0.698	1.94	1.24		2y-EDAZ08
EDAH09	0.947	1.94	0.99		2y-EDAH09
EDAM09	1.197	1.94	0.74		2y-EDAM09
EDAU09	1.446	1.94	0.49		2y-EDAU09
EDAZ09	1.695	1.94	0.24		2y-EDAZ09
EDAH10	1.945	1.94	(0.01)		2y-EDAH10
EDAM10	2.194	1.94	(0.26)		2y-EDAM10
EDAU10	2.443	1.94	(0.51)		2y-EDAU10
EDAZ10	2.692	1.94	(0.76)		2y-EDAZ10
EDAH11	2.942	1.94	(1.01)		2y-EDAH11

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

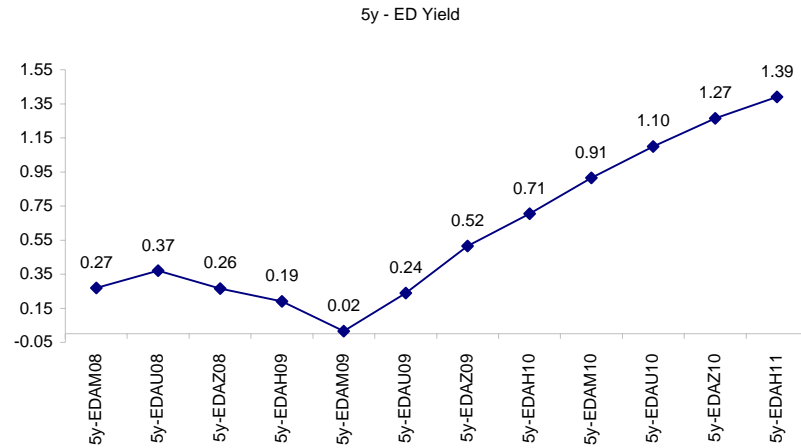


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	1.388	0.27	5y-EDAM08	-95.565
EDAU08	1.288	0.37	5y-EDAU08	-96.406
EDAZ08	1.393	0.26	5y-EDAZ08	-95.565
EDAH09	1.468	0.19	5y-EDAH09	-97.481
EDAM09	1.673	0.02	5y-EDAM09	-97.122
EDAU09	1.898	0.24	5y-EDAU09	-95.037
EDAZ09	2.173	0.52	5y-EDAZ09	-96.256
EDAH10	2.363	0.71	5y-EDAH10	-96.437
EDAM10	2.573	0.91	5y-EDAM10	-97.006
EDAU10	2.758	1.10	5y-EDAU10	-95.752
EDAZ10	2.923	1.27	5y-EDAZ10	-93.702
EDAH11	3.048	1.39	5y-EDAH11	-91.457

Price = Outright Decimal Price - Euro Contract Price

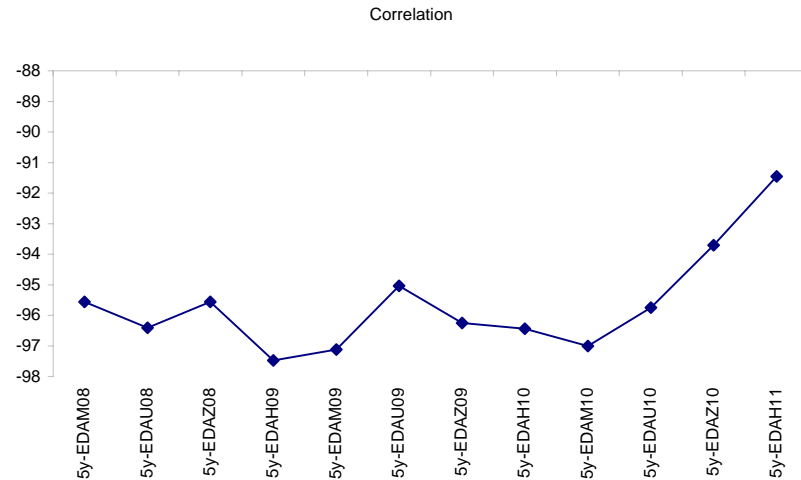
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.199	4.56	4.36	5y-EDAM08
EDAU08	0.449	4.56	4.12	5y-EDAU08
EDAZ08	0.698	4.56	3.87	5y-EDAZ08
EDAH09	0.947	4.56	3.62	5y-EDAH09
EDAM09	1.197	4.56	3.37	5y-EDAM09
EDAU09	1.446	4.56	3.12	5y-EDAU09
EDAZ09	1.695	4.56	2.87	5y-EDAZ09
EDAH10	1.945	4.56	2.62	5y-EDAH10
EDAM10	2.194	4.56	2.37	5y-EDAM10
EDAU10	2.443	4.56	2.12	5y-EDAU10
EDAZ10	2.692	4.56	1.87	5y-EDAZ10
EDAH11	2.942	4.56	1.62	5y-EDAH11

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

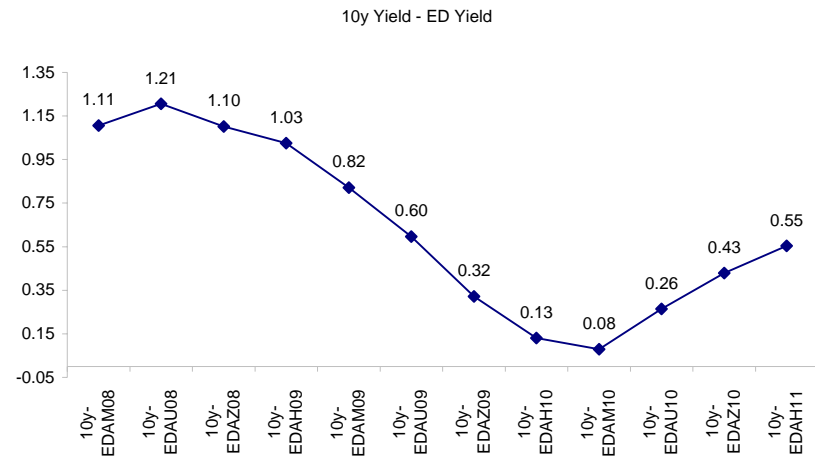


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	1.388	1.11	10y-EDAM08	-89.178
EDAU08	1.288	1.21	10y-EDAU08	-91.152
EDAZ08	1.393	1.10	10y-EDAZ08	-89.178
EDAH09	1.468	1.03	10y-EDAH09	-92.647
EDAM09	1.673	0.82	10y-EDAM09	-92.844
EDAU09	1.898	0.60	10y-EDAU09	-91.231
EDAZ09	2.173	0.32	10y-EDAZ09	-91.889
EDAH10	2.363	0.13	10y-EDAH10	-91.820
EDAM10	2.573	0.08	10y-EDAM10	-91.938
EDAU10	2.758	0.26	10y-EDAU10	-90.928
EDAZ10	2.923	0.43	10y-EDAZ10	-89.786
EDAH11	3.048	0.55	10y-EDAH11	-88.400

Price = Outright Decimal Price - Euro Contract Price

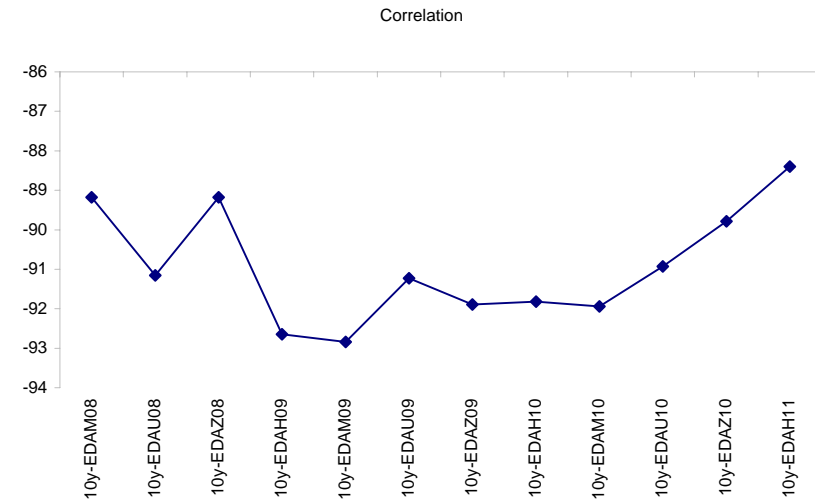
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAM08	0.199	8.23	8.03	10y-EDAM08
EDAU08	0.449	8.23	7.78	10y-EDAU08
EDAZ08	0.698	8.23	7.53	10y-EDAZ08
EDAH09	0.947	8.23	7.28	10y-EDAH09
EDAM09	1.197	8.23	7.03	10y-EDAM09
EDAU09	1.446	8.23	6.78	10y-EDAU09
EDAZ09	1.695	8.23	6.53	10y-EDAZ09
EDAH10	1.945	8.23	6.28	10y-EDAH10
EDAM10	2.194	8.23	6.03	10y-EDAM10
EDAU10	2.443	8.23	5.79	10y-EDAU10
EDAZ10	2.692	8.23	5.54	10y-EDAZ10
EDAH11	2.942	8.23	5.29	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.

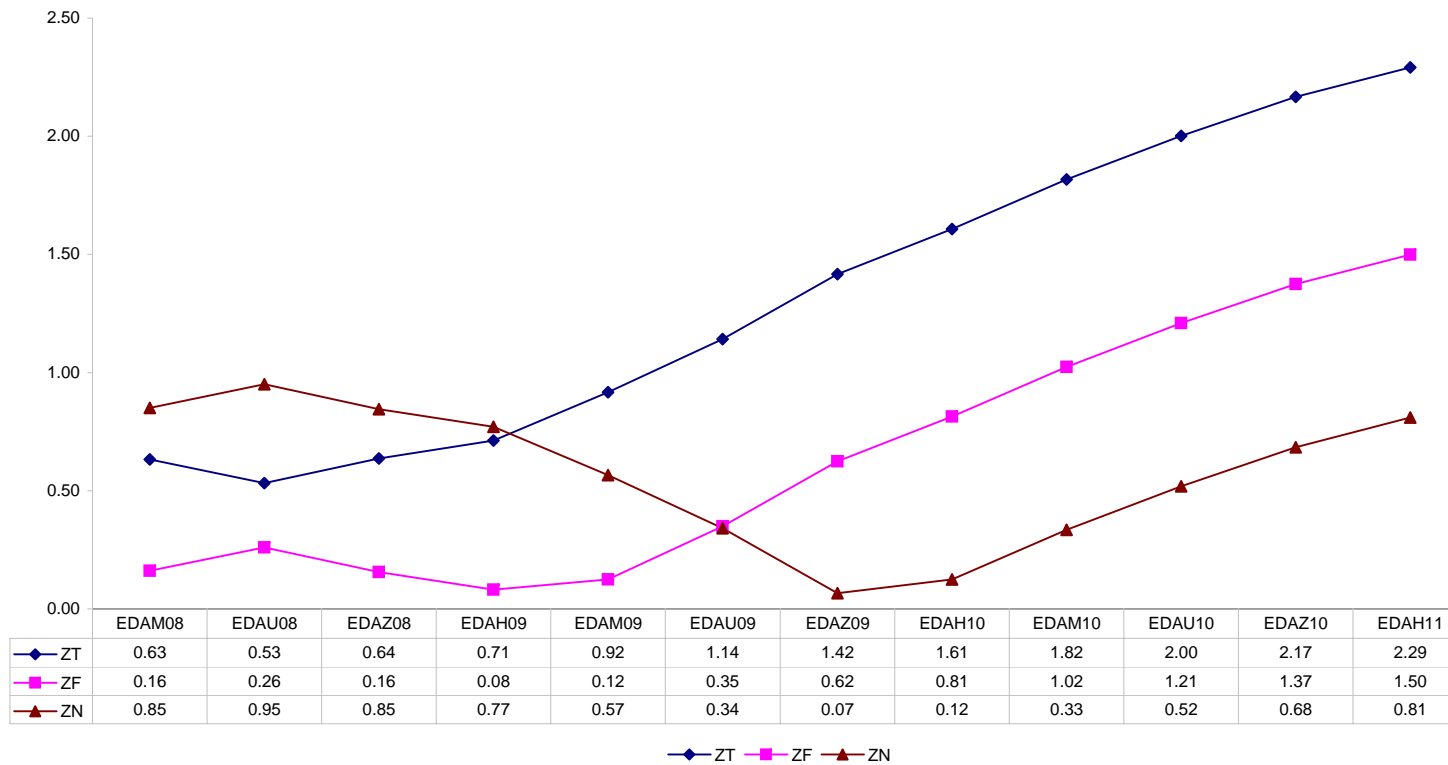
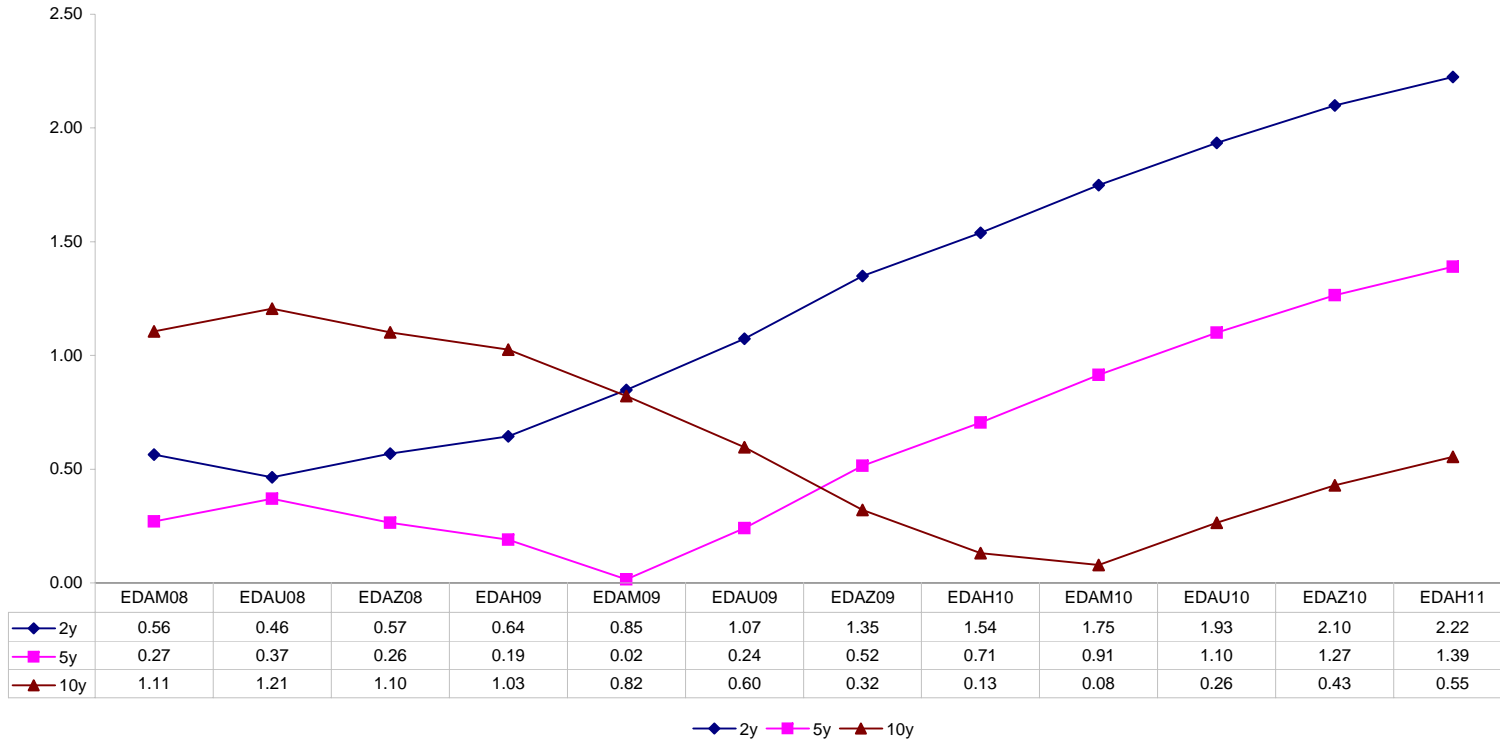
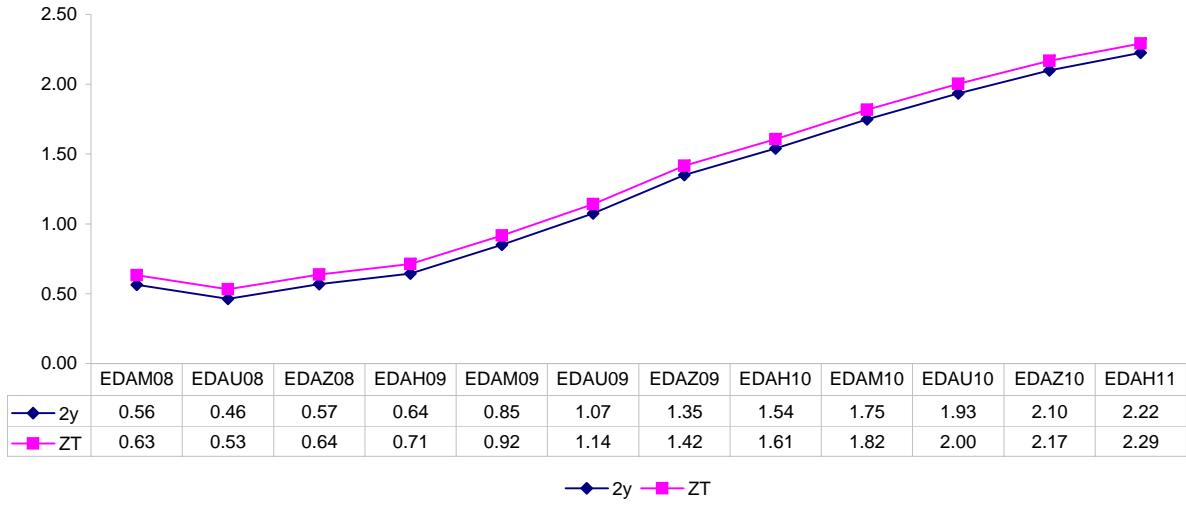


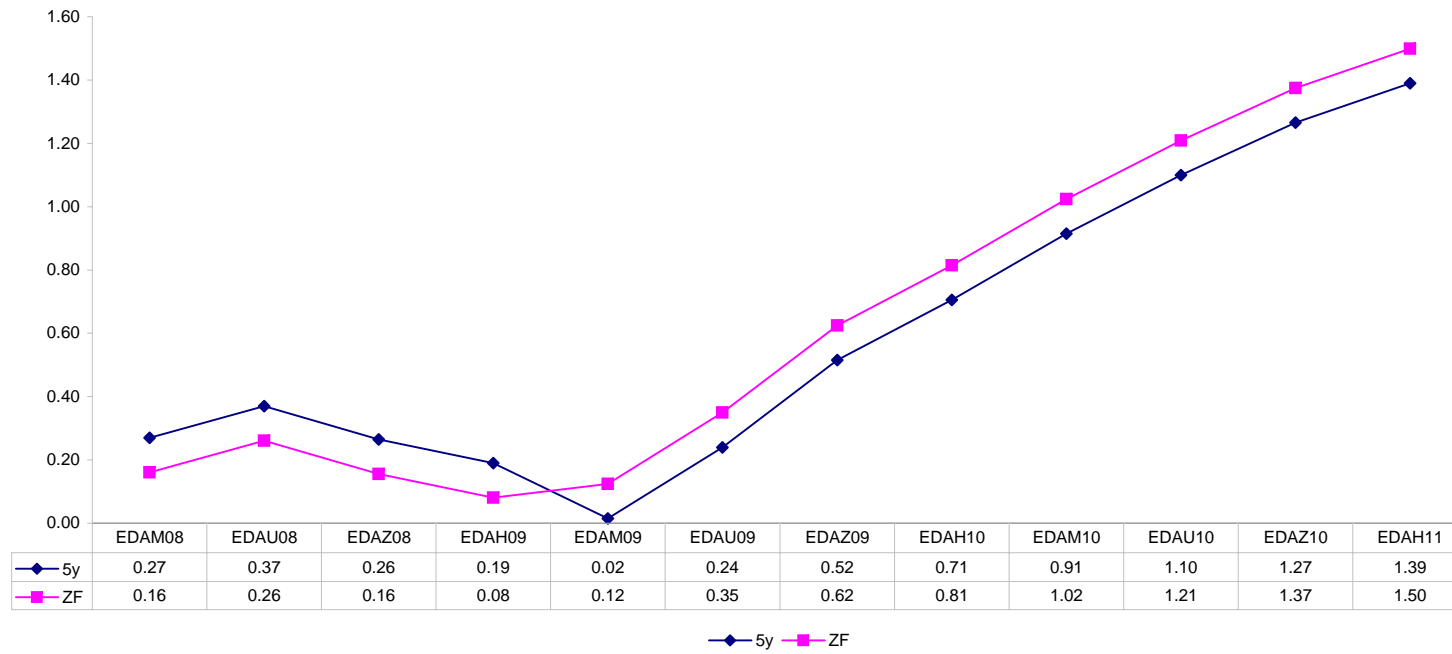
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



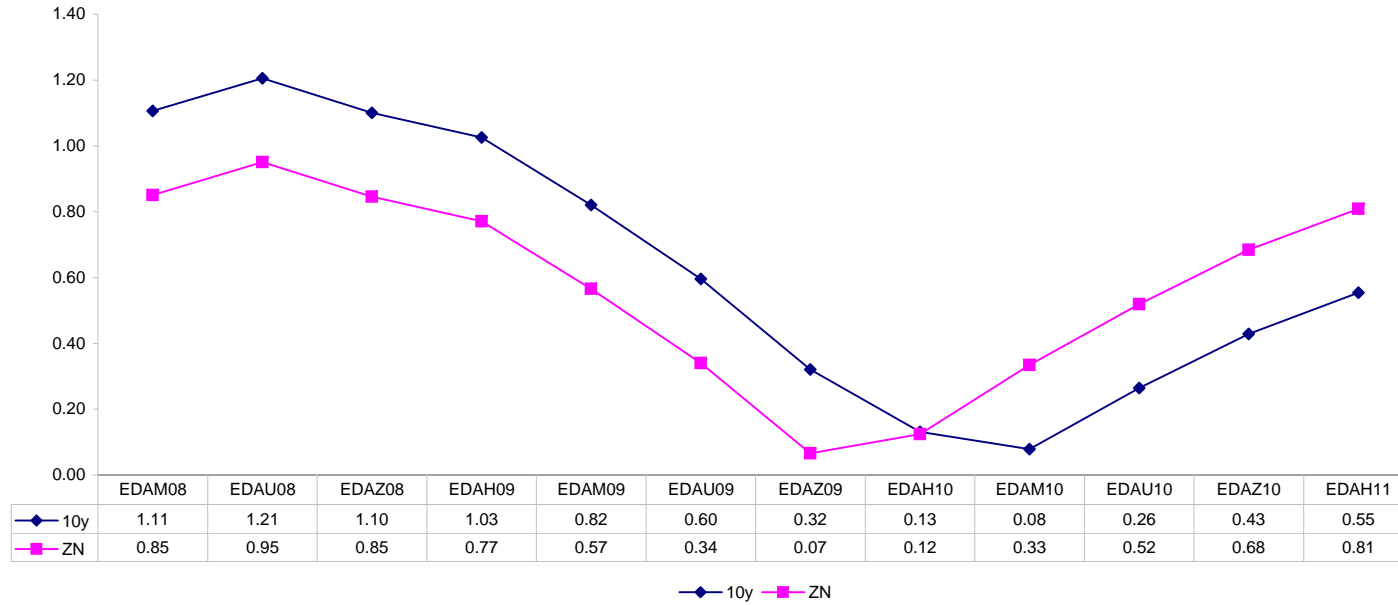
2y Basis TED Curve



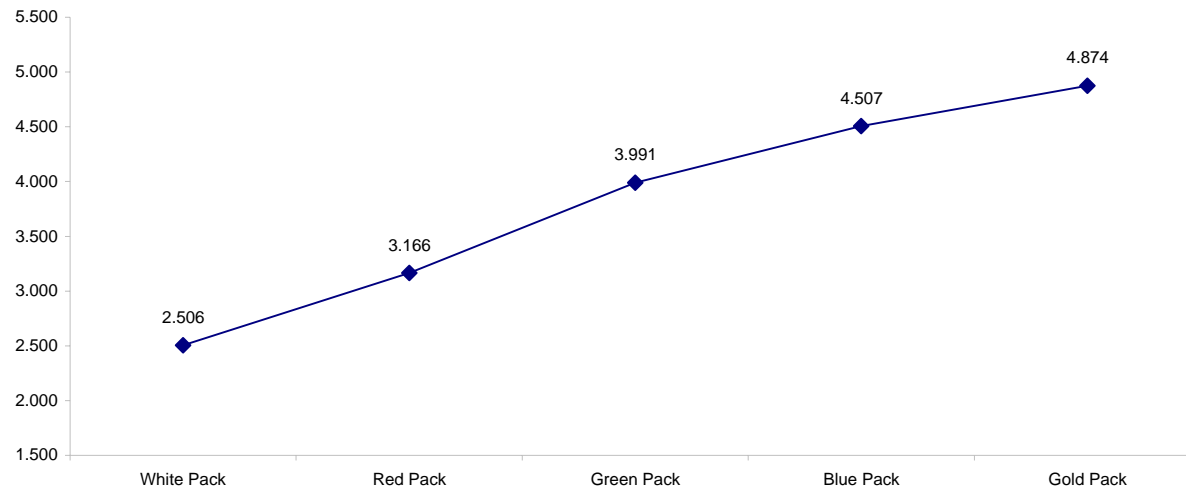
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.506	0.875	9754.375
Red Pack	3.166	1.125	9690.125
Green Pack	3.991	1.750	9610.250
Blue Pack	4.507	0.375	9560.375
Gold Pack	4.874	-0.250	9525.000



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

