

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	106.1250	106.040	2.341	1.74
ZF	111.9281	111.297	2.966	3.88
ZN	115.5000	115.160	3.653	5.83
2y	99.491	99.1570	2.394	1.89
5y	100.203	100.0650	3.080	4.48
10y	100.438	100.1400	3.822	8.08

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.388	2.613	27	0.073	JUN
EDAU08	97.325	2.675	118	0.323	SEP White
EDAZ08	97.090	2.910	209	0.572	DEC Pack
EDAH09	96.935	3.065	300	0.821	MAR
EDAM09	96.745	3.255	391	1.071	JUN
EDAU09	96.550	3.450	482	1.320	SEP Red Pack
EDAZ09	96.350	3.650	573	1.569	DEC
EDAH10	96.225	3.775	664	1.819	MAR
EDAM10	96.080	3.920	755	2.068	JUN
EDAU10	95.960	4.040	846	2.317	SEP Green
EDAZ10	95.835	4.165	937	2.566	DEC Pack
EDAH11	95.765	4.235	1028	2.816	MAR
EDAM11	95.685	4.315	1119	3.065	JUN
EDAU11	95.635	4.365	1217	3.334	SEP Blue Pack
EDAZ11	95.555	4.445	1308	3.583	DEC
EDAH12	95.515	4.485	1399	3.832	MAR
EDAM12	95.455	4.545	1490	4.082	JUN
EDAU12	95.415	4.585	1581	4.331	SEP Gold Pack
EDAZ12	95.335	4.665	1672	4.580	DEC
EDAH13	95.170	4.830	1763	4.829	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.875	0.625	9718.438	
Red Pack	3.614	0.875	9646.750	Pack
Green Pack	4.190	1.500	9591.000	Prices
Blue Pack	4.513	2.500	9559.750	
Gold Pack		1.500	9536.125	

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.

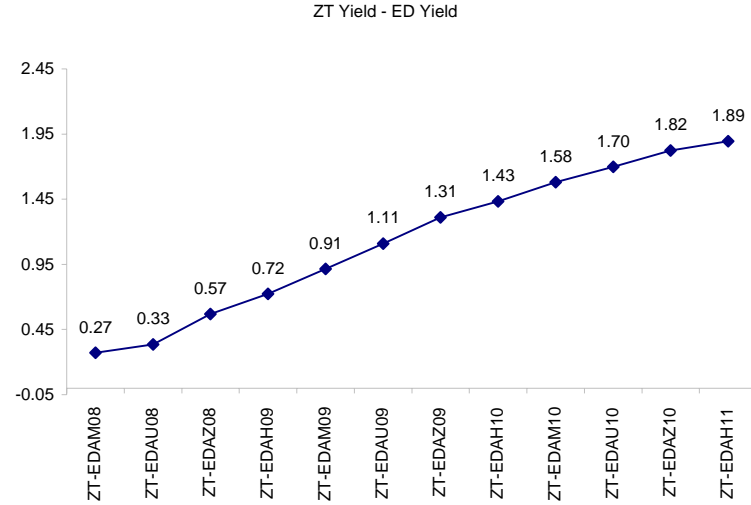
jgoulding@ghco.com

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. So, it's much easier to formulate the correlations based on yield than price.

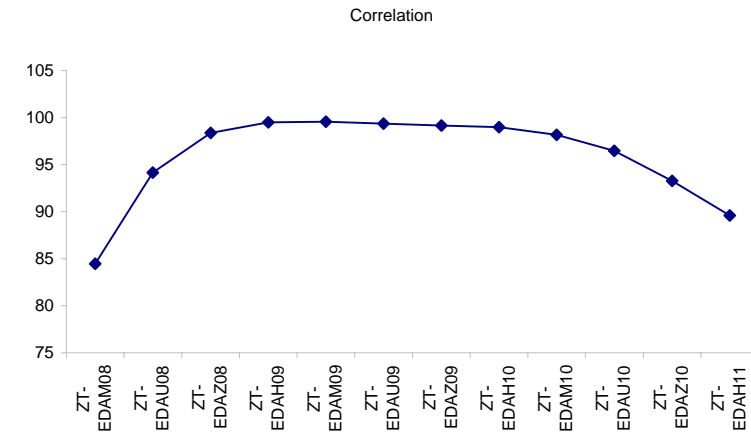
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.738	0.27	ZT-EDAM08	84.440
EDAU08	8.800	0.33	ZT-EDAU08	94.166
EDAZ08	9.035	0.57	ZT-EDAZ08	98.367
EDAH09	9.190	0.72	ZT-EDAH09	99.506
EDAM09	9.380	0.91	ZT-EDAM09	99.574
EDAU09	9.575	1.11	ZT-EDAU09	99.348
EDAZ09	9.775	1.31	ZT-EDAZ09	99.159
EDAH10	9.900	1.43	ZT-EDAH10	98.991
EDAM10	10.045	1.58	ZT-EDAM10	98.171
EDAU10	10.165	1.70	ZT-EDAU10	96.466
EDAZ10	10.290	1.82	ZT-EDAZ10	93.265
EDAH11	10.360	1.89	ZT-EDAH11	89.581

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	0.073	1.74	1.67	ZT-EDAM08
EDAU08	0.323	1.74	1.42	ZT-EDAU08
EDAZ08	0.572	1.74	1.17	ZT-EDAZ08
EDAH09	0.821	1.74	0.92	ZT-EDAH09
EDAM09	1.071	1.74	0.67	ZT-EDAM09
EDAU09	1.320	1.74	0.42	ZT-EDAU09
EDAZ09	1.569	1.74	0.17	ZT-EDAZ09
EDAH10	1.819	1.74	(0.08)	ZT-EDAH10
EDAM10	2.068	1.74	(0.33)	ZT-EDAM10
EDAU10	2.317	1.74	(0.58)	ZT-EDAU10
EDAZ10	2.566	1.74	(0.83)	ZT-EDAZ10
EDAH11	2.816	1.74	(1.08)	ZT-EDAH11

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

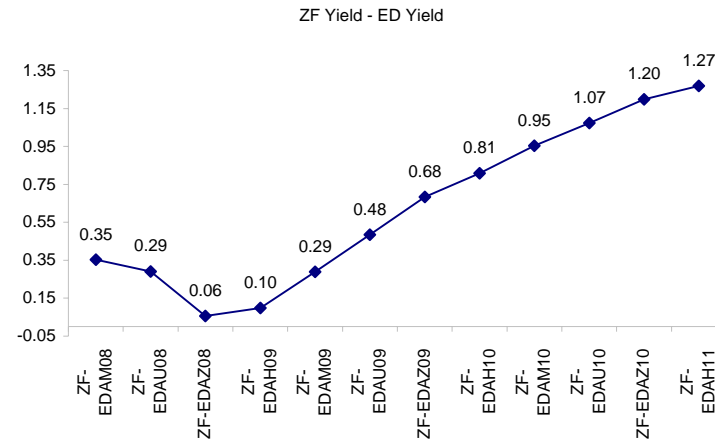


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	14.541	0.35	ZF-EDAM08	81.572
EDAU08	14.603	0.29	ZF-EDAU08	89.477
EDAZ08	14.838	0.06	ZF-EDAZ08	92.892
EDAH09	14.993	0.10	ZF-EDAH09	95.244
EDAM09	15.183	0.29	ZF-EDAM09	95.954
EDAU09	15.378	0.48	ZF-EDAU09	95.573
EDAZ09	15.578	0.68	ZF-EDAZ09	95.686
EDAH10	15.703	0.81	ZF-EDAH10	96.720
EDAM10	15.848	0.95	ZF-EDAM10	98.169
EDAU10	15.968	1.07	ZF-EDAU10	99.170
EDAZ10	16.093	1.20	ZF-EDAZ10	99.575
EDAH11	16.163	1.27	ZF-EDAH11	98.602

Price = Outright Decimal Price - Euro Contract Price

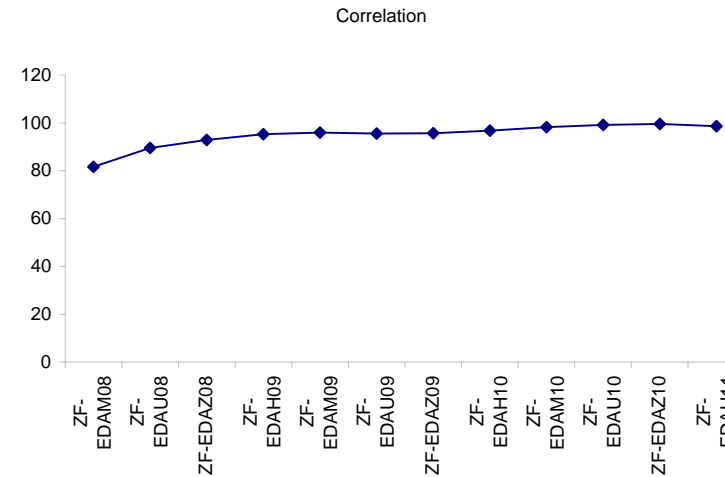
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.073	3.88	3.81	ZF-EDAM08	
EDAU08	0.323	3.88	3.56	ZF-EDAU08	
EDAZ08	0.572	3.88	3.31	ZF-EDAZ08	
EDAH09	0.821	3.88	3.06	ZF-EDAH09	
EDAM09	1.071	3.88	2.81	ZF-EDAM09	
EDAU09	1.320	3.88	2.56	ZF-EDAU09	
EDAZ09	1.569	3.88	2.31	ZF-EDAZ09	
EDAH10	1.819	3.88	2.06	ZF-EDAH10	
EDAM10	2.068	3.88	1.81	ZF-EDAM10	
EDAU10	2.317	3.88	1.57	ZF-EDAU10	
EDAZ10	2.566	3.88	1.32	ZF-EDAZ10	
EDAH11	2.816	3.88	1.07	ZF-EDAH11	

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

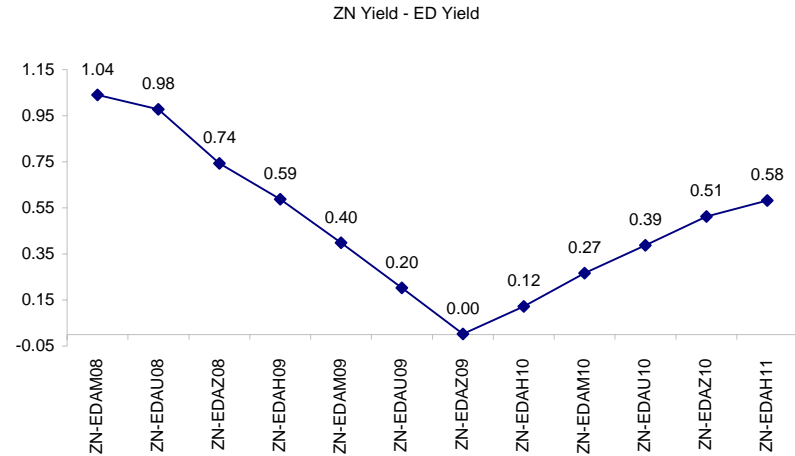


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	18.113	1.04	ZN-EDAM08	75.867
EDAU08	18.175	0.98	ZN-EDAU08	83.538
EDAZ08	18.410	0.74	ZN-EDAZ08	87.269
EDAH09	18.565	0.59	ZN-EDAH09	90.440
EDAM09	18.755	0.40	ZN-EDAM09	91.779
EDAU09	18.950	0.20	ZN-EDAU09	91.626
EDAZ09	19.150	0.00	ZN-EDAZ09	91.896
EDAH10	19.275	0.12	ZN-EDAH10	96.720
EDAM10	19.420	0.27	ZN-EDAM10	98.169
EDAU10	19.540	0.39	ZN-EDAU10	99.170
EDAZ10	19.665	0.51	ZN-EDAZ10	99.575
EDAH11	19.735	0.58	ZN-EDAH11	98.602

Price = Outright Decimal Price - Euro Contract Price

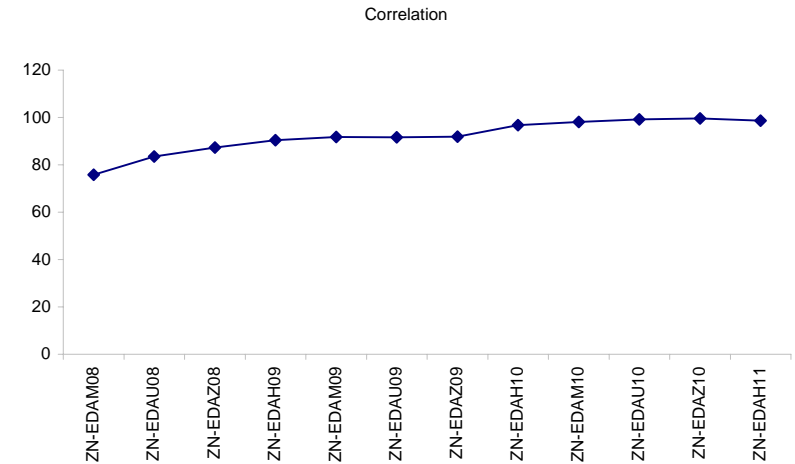
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAM08	0.073	5.83	5.75	ZN-EDAM08
EDAU08	0.323	5.83	5.50	ZN-EDAU08
EDAZ08	0.572	5.83	5.26	ZN-EDAZ08
EDAH09	0.821	5.83	5.01	ZN-EDAH09
EDAM09	1.071	5.83	4.76	ZN-EDAM09
EDAU09	1.320	5.83	4.51	ZN-EDAU09
EDAZ09	1.569	5.83	4.26	ZN-EDAZ09
EDAH10	1.819	5.83	4.01	ZN-EDAH10
EDAM10	2.068	5.83	3.76	ZN-EDAM10
EDAU10	2.317	5.83	3.51	ZN-EDAU10
EDAZ10	2.566	5.83	3.26	ZN-EDAZ10
EDAH11	2.816	5.83	3.01	ZN-EDAH11

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

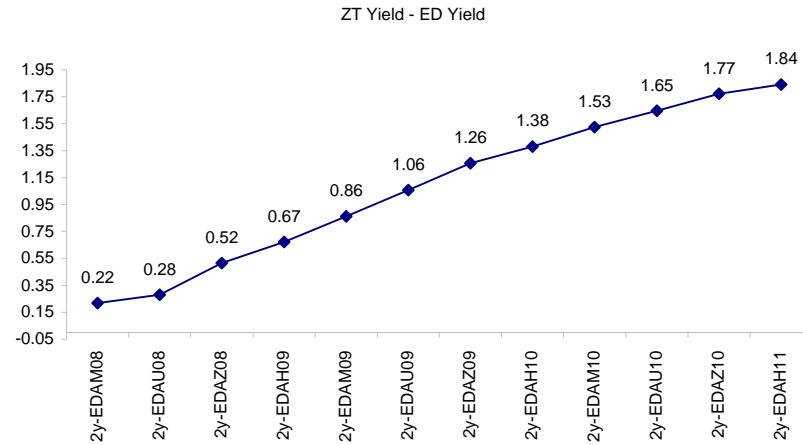


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.103	0.22	2y-EDAM08	-79.428
EDAU08	2.166	0.28	2y-EDAU08	-90.671
EDAZ08	2.401	0.52	2y-EDAZ08	-95.862
EDAH09	2.556	0.67	2y-EDAH09	-96.861
EDAM09	2.746	0.86	2y-EDAM09	-97.140
EDAU09	2.941	1.06	2y-EDAU09	-97.486
EDAZ09	3.141	1.26	2y-EDAZ09	-97.355
EDAH10	3.266	1.38	2y-EDAH10	-96.773
EDAM10	3.411	1.53	2y-EDAM10	-95.133
EDAU10	3.531	1.65	2y-EDAU10	-92.504
EDAZ10	3.656	1.77	2y-EDAZ10	-87.971
EDAH11	3.726	1.84	2y-EDAH11	-82.613

Price = Outright Decimal Price - Euro Contract Price

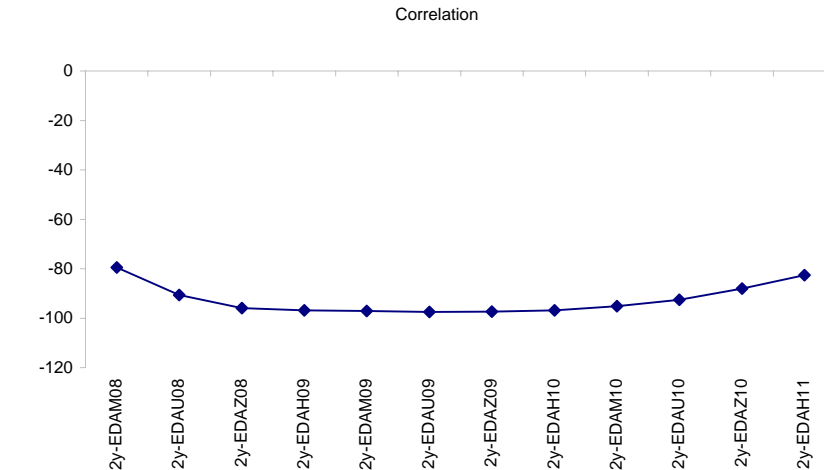
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAM08	0.073	1.89	1.82	2y-EDAM08
EDAU08	0.323	1.89	1.57	2y-EDAU08
EDAZ08	0.572	1.89	1.32	2y-EDAZ08
EDAH09	0.821	1.89	1.07	2y-EDAH09
EDAM09	1.071	1.89	0.82	2y-EDAM09
EDAU09	1.320	1.89	0.57	2y-EDAU09
EDAZ09	1.569	1.89	0.32	2y-EDAZ09
EDAH10	1.819	1.89	0.07	2y-EDAH10
EDAM10	2.068	1.89	(0.18)	2y-EDAM10
EDAU10	2.317	1.89	(0.43)	2y-EDAU10
EDAZ10	2.566	1.89	(0.68)	2y-EDAZ10
EDAH11	2.816	1.89	(0.93)	2y-EDAH11

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

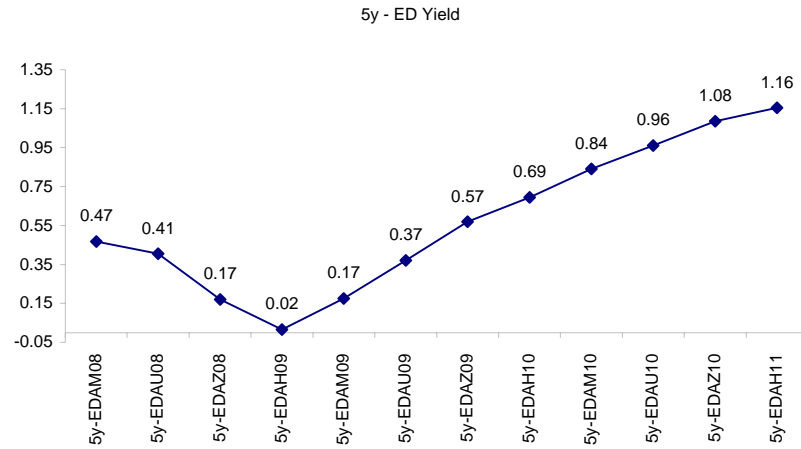


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.816	0.47	5y-EDAM08	-82.433
EDAU08	2.878	0.41	5y-EDAU08	-91.490
EDAZ08	3.113	0.17	5y-EDAZ08	-82.433
EDAH09	3.268	0.02	5y-EDAH09	-96.418
EDAM09	3.458	0.17	5y-EDAM09	-96.511
EDAU09	3.653	0.37	5y-EDAU09	-96.376
EDAZ09	3.853	0.57	5y-EDAZ09	-96.547
EDAH10	3.978	0.69	5y-EDAH10	-97.439
EDAM10	4.123	0.84	5y-EDAM10	-98.279
EDAU10	4.243	0.96	5y-EDAU10	-98.685
EDAZ10	4.368	1.08	5y-EDAZ10	-97.809
EDAH11	4.438	1.16	5y-EDAH11	-95.576

Price = Outright Decimal Price - Euro Contract Price

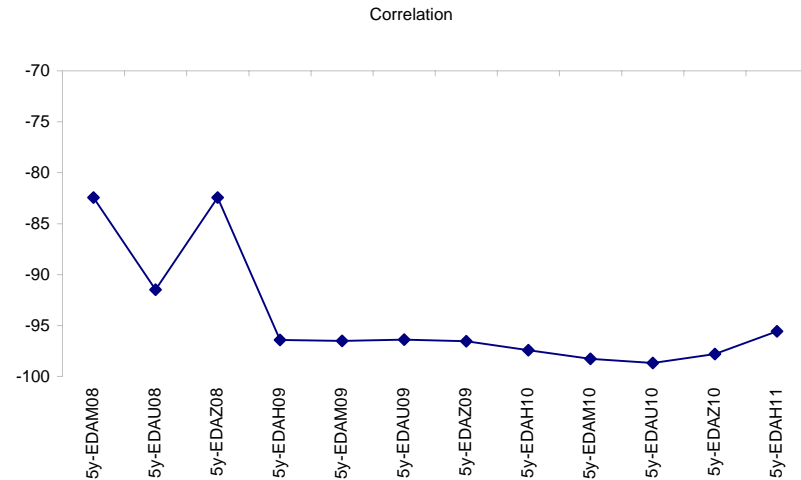
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.073	4.48	4.40	5y-EDAM08
EDAU08	0.323	4.48	4.15	5y-EDAU08
EDAZ08	0.572	4.48	3.90	5y-EDAZ08
EDAH09	0.821	4.48	3.65	5y-EDAH09
EDAM09	1.071	4.48	3.41	5y-EDAM09
EDAU09	1.320	4.48	3.16	5y-EDAU09
EDAZ09	1.569	4.48	2.91	5y-EDAZ09
EDAH10	1.819	4.48	2.66	5y-EDAH10
EDAM10	2.068	4.48	2.41	5y-EDAM10
EDAU10	2.317	4.48	2.16	5y-EDAU10
EDAZ10	2.566	4.48	1.91	5y-EDAZ10
EDAH11	2.816	4.48	1.66	5y-EDAH11

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

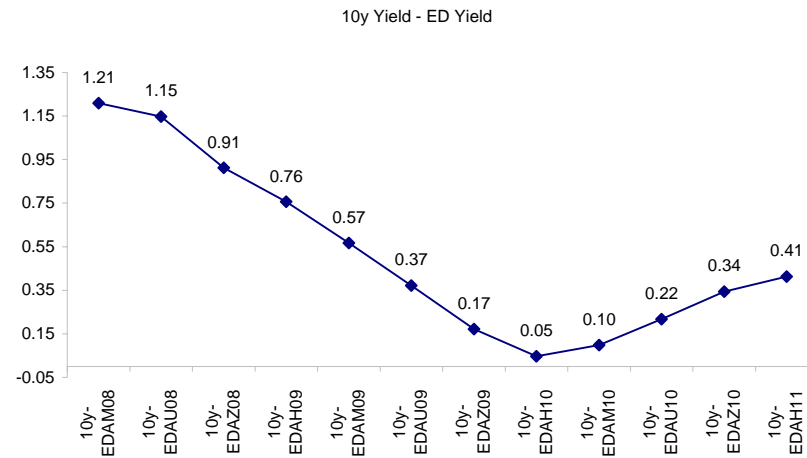


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.816	1.21	10y-EDAM08	-82.321
EDAU08	2.878	1.15	10y-EDAU08	-88.713
EDAZ08	3.113	0.91	10y-EDAZ08	-82.321
EDAH09	3.268	0.76	10y-EDAH09	-90.085
EDAM09	3.458	0.57	10y-EDAM09	-89.084
EDAU09	3.653	0.37	10y-EDAU09	-88.254
EDAZ09	3.853	0.17	10y-EDAZ09	-88.574
EDAH10	3.978	0.05	10y-EDAH10	-90.515
EDAM10	4.123	0.10	10y-EDAM10	-92.895
EDAU10	4.243	0.22	10y-EDAU10	-95.206
EDAZ10	4.368	0.34	10y-EDAZ10	-96.483
EDAH11	4.438	0.41	10y-EDAH11	-97.127

Price = Outright Decimal Price - Euro Contract Price

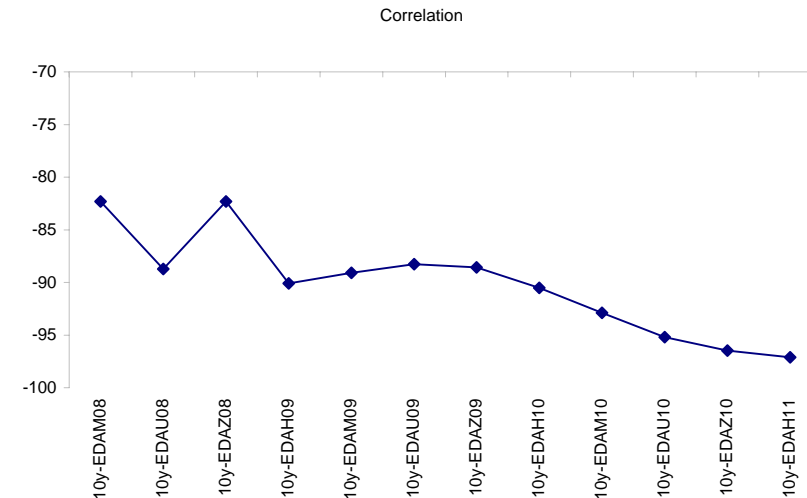
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAM08	0.073	8.08	8.01	10y-EDAM08
EDAU08	0.323	8.08	7.76	10y-EDAU08
EDAZ08	0.572	8.08	7.51	10y-EDAZ08
EDAH09	0.821	8.08	7.26	10y-EDAH09
EDAM09	1.071	8.08	7.01	10y-EDAM09
EDAU09	1.320	8.08	6.76	10y-EDAU09
EDAZ09	1.569	8.08	6.51	10y-EDAZ09
EDAH10	1.819	8.08	6.26	10y-EDAH10
EDAM10	2.068	8.08	6.01	10y-EDAM10
EDAU10	2.317	8.08	5.76	10y-EDAU10
EDAZ10	2.566	8.08	5.51	10y-EDAZ10
EDAH11	2.816	8.08	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.

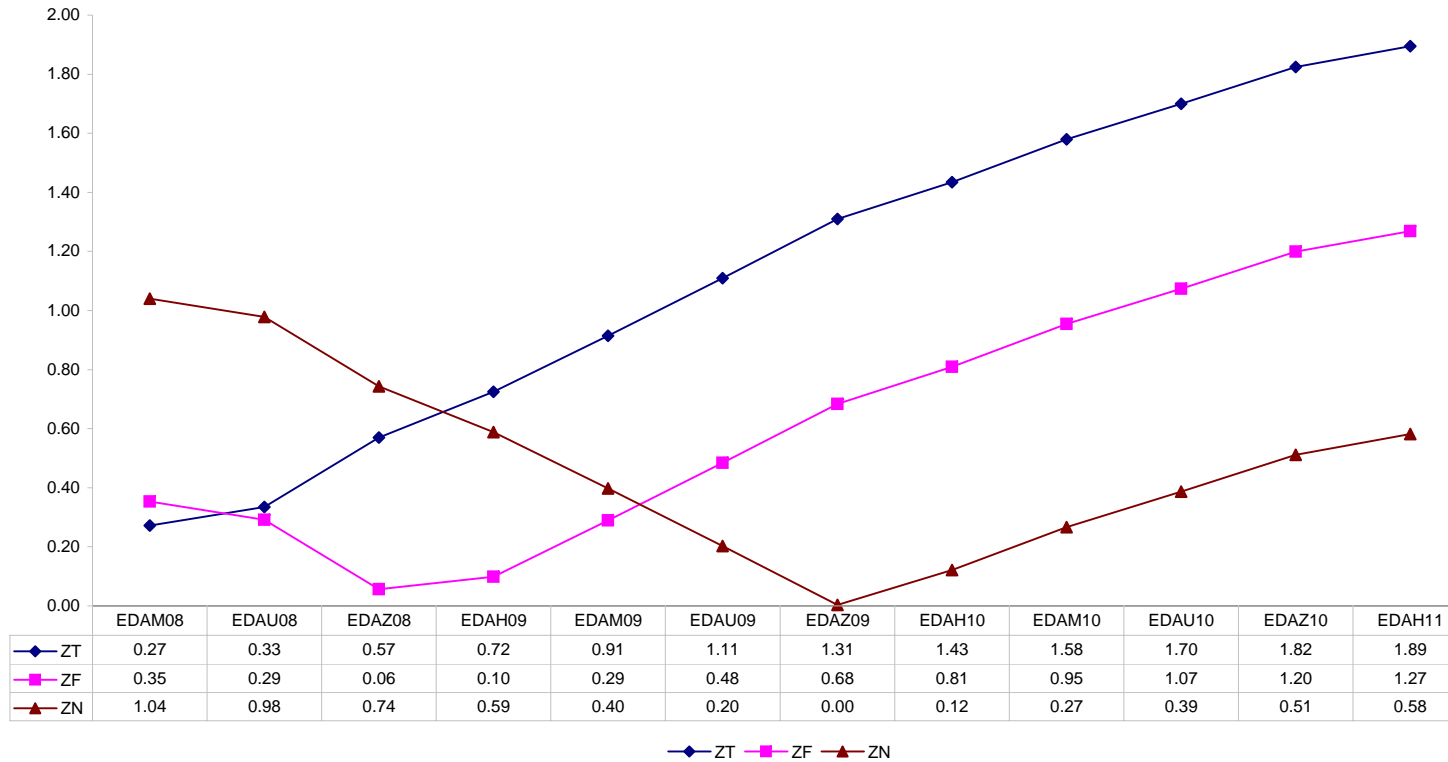
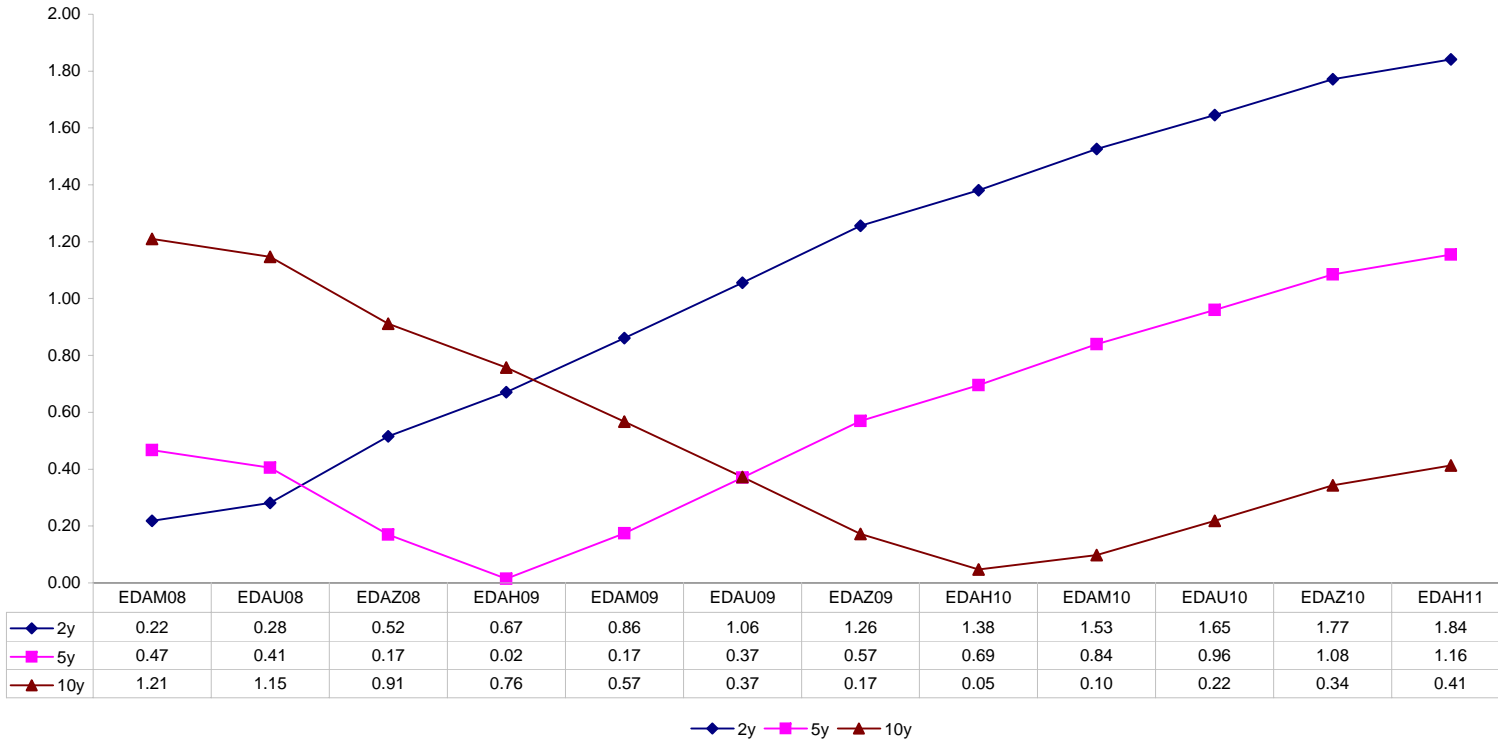
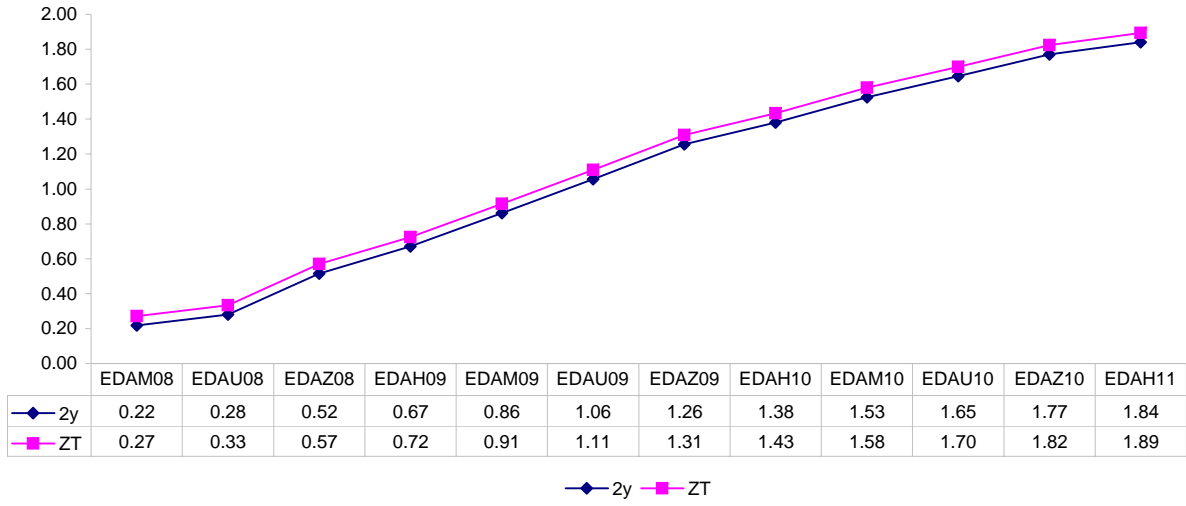


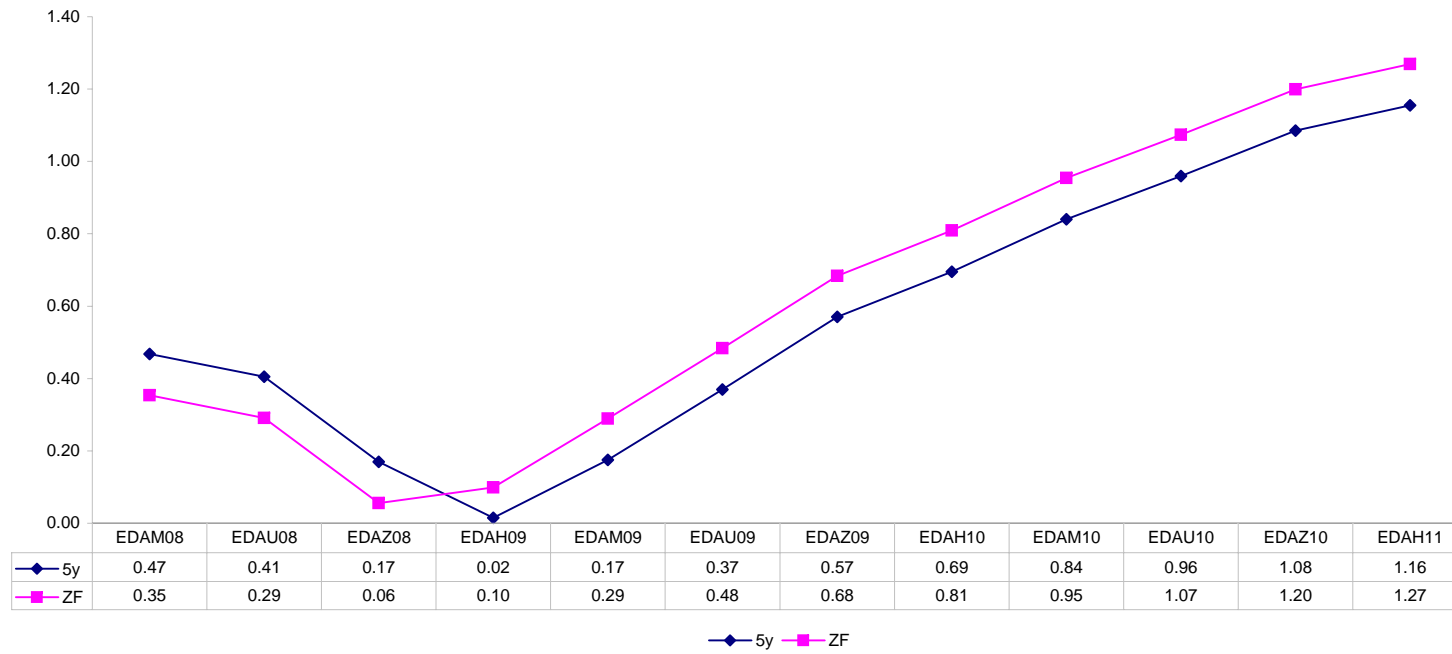
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



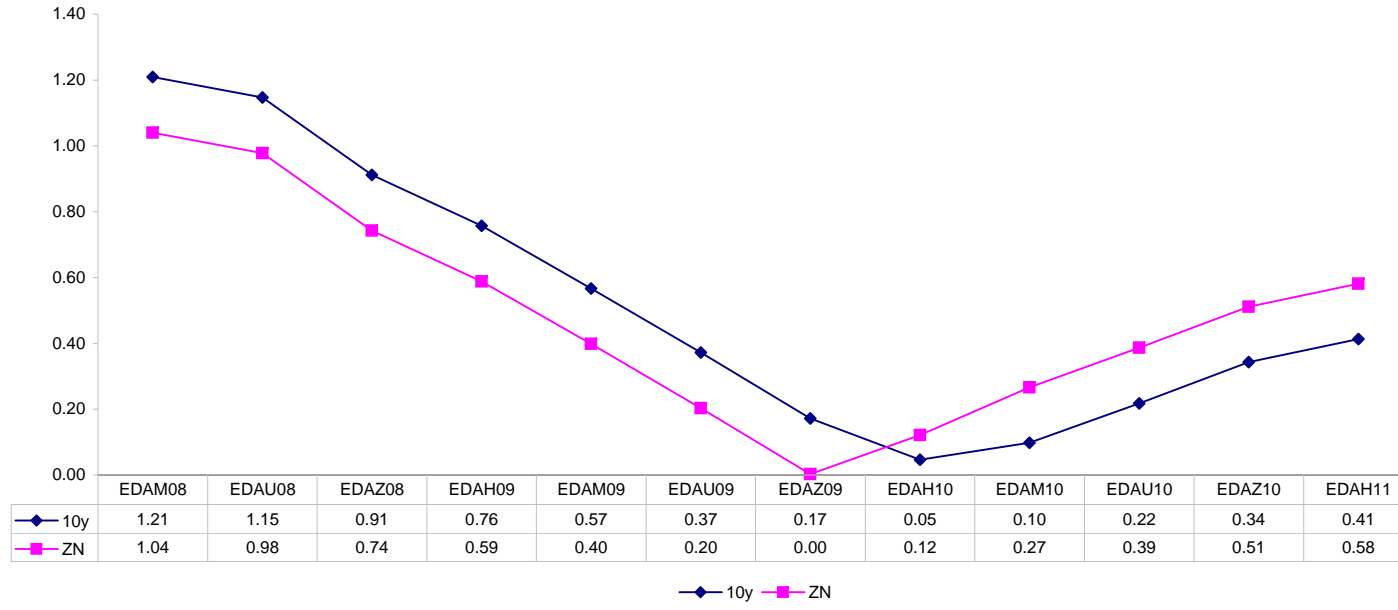
2y Basis TED Curve



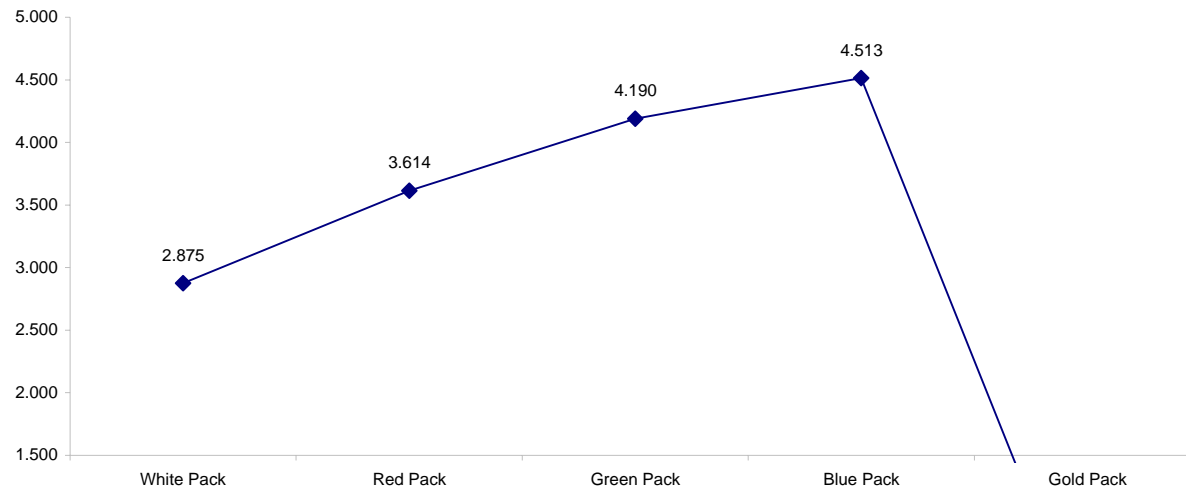
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.875	0.625	9718.438
Red Pack	3.614	0.875	9646.750
Green Pack	4.190	1.500	9591.000
Blue Pack	4.513	2.500	9559.750
Gold Pack		1.500	9536.125



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

