

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	106.2188	106.070	2.230	1.80
ZF	111.6406	111.205	2.988	3.94
ZN	115.4219	115.135	3.625	5.89
2y	99.631	99.2020	2.315	1.95
5y	100.078	100.0250	3.108	4.60
10y	97.375	97.1200	3.819	8.14

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.240	2.760	48	0.131	JUN
EDAU08	97.185	2.815	139	0.380	SEP White
EDAZ08	96.995	3.005	230	0.629	DEC Pack
EDAH09	96.915	3.085	321	0.879	MAR
EDAM09	96.765	3.235	412	1.128	JUN
EDAU09	96.610	3.390	503	1.377	SEP Red Pack
EDAZ09	96.420	3.580	594	1.627	DEC
EDAH10	96.300	3.700	685	1.876	MAR
EDAM10	96.140	3.860	776	2.125	JUN
EDAU10	95.980	4.020	867	2.375	SEP Green
EDAZ10	95.830	4.170	958	2.624	DEC Pack
EDAH11	95.730	4.270	1049	2.873	MAR
EDAM11	95.645	4.355	1140	3.123	JUN
EDAU11	95.585	4.415	1238	3.391	SEP Blue Pack
EDAZ11	95.455	4.545	1329	3.640	DEC
EDAH12	95.360	4.640	1420	3.890	MAR
EDAM12	95.325	4.675	1511	4.139	JUN
EDAU12	95.255	4.745	1602	4.388	SEP Gold Pack
EDAZ12	95.160	4.840	1693	4.638	DEC
EDAH13	95.115	4.885	1784	4.887	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.979	4.875	9708.375	Pack Prices
Red Pack	3.556	5.375	9652.375	
Green Pack	4.179	2.750	9592.000	
Blue Pack	4.603	2.000	9551.125	
Gold Pack	4.911	0.625	9521.375	

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.

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.

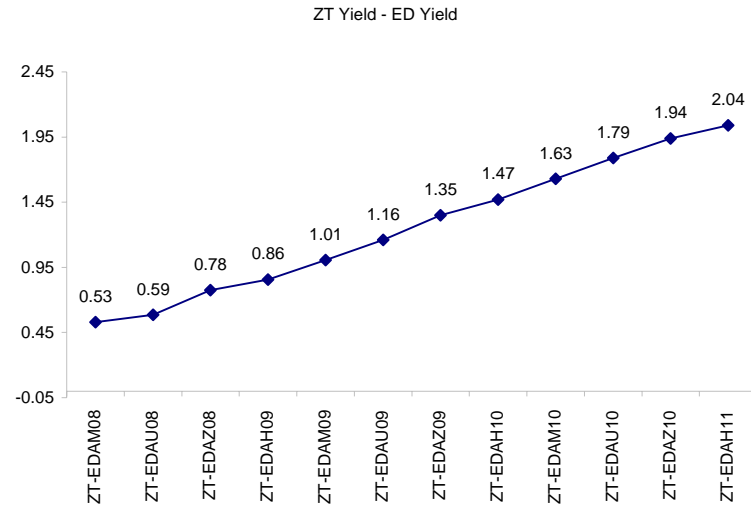
jgoulding@ghco.com

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.

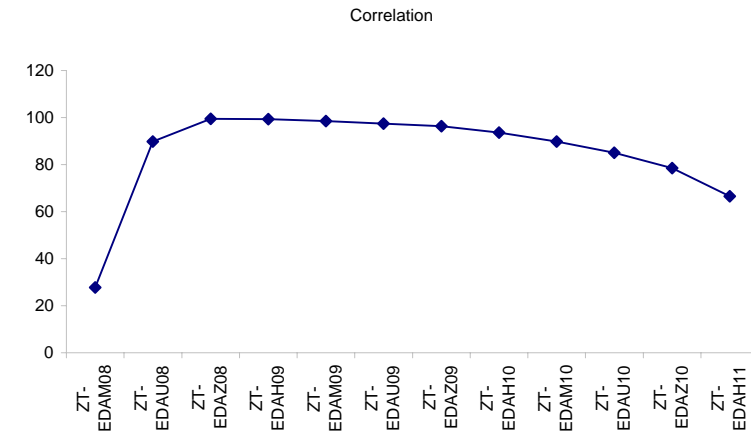
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.979	0.53	ZT-EDAM08	27.820
EDAU08	9.034	0.59	ZT-EDAU08	89.737
EDAZ08	9.224	0.78	ZT-EDAZ08	99.443
EDAH09	9.304	0.86	ZT-EDAH09	99.280
EDAM09	9.454	1.01	ZT-EDAM09	98.551
EDAU09	9.609	1.16	ZT-EDAU09	97.426
EDAZ09	9.799	1.35	ZT-EDAZ09	96.345
EDAH10	9.919	1.47	ZT-EDAH10	93.589
EDAM10	10.079	1.63	ZT-EDAM10	89.854
EDAU10	10.239	1.79	ZT-EDAU10	85.063
EDAZ10	10.389	1.94	ZT-EDAZ10	78.481
EDAH11	10.489	2.04	ZT-EDAH11	66.564

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	0.131	1.80	1.67	ZT-EDAM08		
EDAU08	0.380	1.80	1.42	ZT-EDAU08		
EDAZ08	0.629	1.80	1.17	ZT-EDAZ08		
EDAH09	0.879	1.80	0.92	ZT-EDAH09		
EDAM09	1.128	1.80	0.67	ZT-EDAM09		
EDAU09	1.377	1.80	0.42	ZT-EDAU09		
EDAZ09	1.627	1.80	0.17	ZT-EDAZ09		
EDAH10	1.876	1.80	(0.08)	ZT-EDAH10		
EDAM10	2.125	1.80	(0.33)	ZT-EDAM10		
EDAU10	2.375	1.80	(0.58)	ZT-EDAU10		
EDAZ10	2.624	1.80	(0.83)	ZT-EDAZ10		
EDAH11	2.873	1.80	(1.08)	ZT-EDAH11		

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

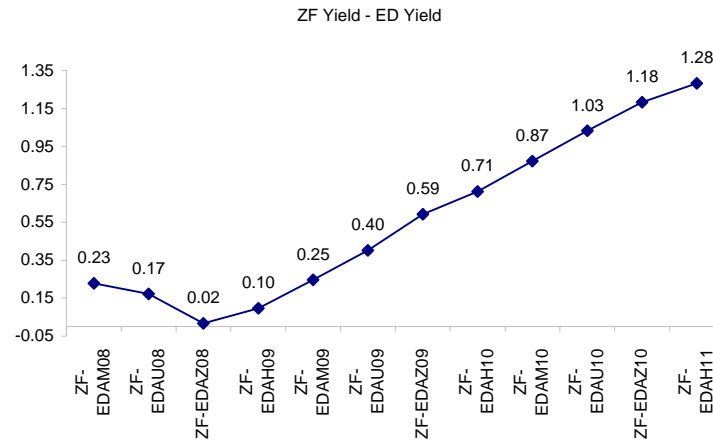


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	14.401	0.23	ZF-EDAM08	11.158
EDAU08	14.456	0.17	ZF-EDAU08	80.577
EDAZ08	14.646	0.02	ZF-EDAZ08	96.342
EDAH09	14.726	0.10	ZF-EDAH09	99.523
EDAM09	14.876	0.25	ZF-EDAM09	99.756
EDAU09	15.031	0.40	ZF-EDAU09	99.389
EDAZ09	15.221	0.59	ZF-EDAZ09	98.388
EDAH10	15.341	0.71	ZF-EDAH10	96.490
EDAM10	15.501	0.87	ZF-EDAM10	94.015
EDAU10	15.661	1.03	ZF-EDAU10	90.083
EDAZ10	15.811	1.18	ZF-EDAZ10	85.447
EDAH11	15.911	1.28	ZF-EDAH11	74.862

Price = Outright Decimal Price - Euro Contract Price

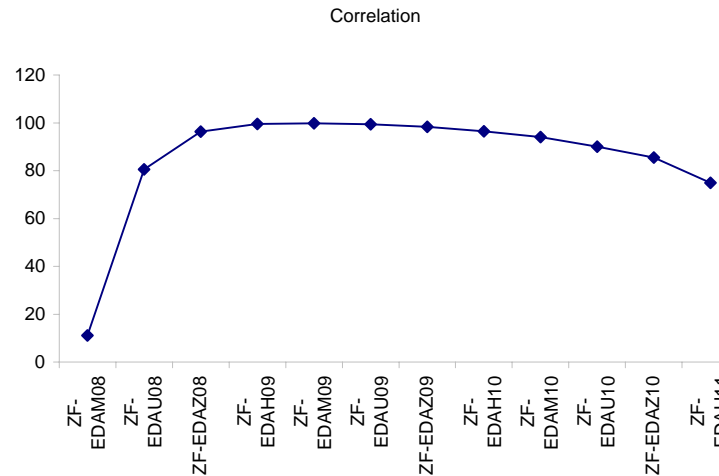
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.131	3.94	3.81	ZF-EDAM08	
EDAU08	0.380	3.94	3.56	ZF-EDAU08	
EDAZ08	0.629	3.94	3.31	ZF-EDAZ08	
EDAH09	0.879	3.94	3.06	ZF-EDAH09	
EDAM09	1.128	3.94	2.81	ZF-EDAM09	
EDAU09	1.377	3.94	2.56	ZF-EDAU09	
EDAZ09	1.627	3.94	2.31	ZF-EDAZ09	
EDAH10	1.876	3.94	2.06	ZF-EDAH10	
EDAM10	2.125	3.94	1.81	ZF-EDAM10	
EDAU10	2.375	3.94	1.56	ZF-EDAU10	
EDAZ10	2.624	3.94	1.31	ZF-EDAZ10	
EDAH11	2.873	3.94	1.06	ZF-EDAH11	

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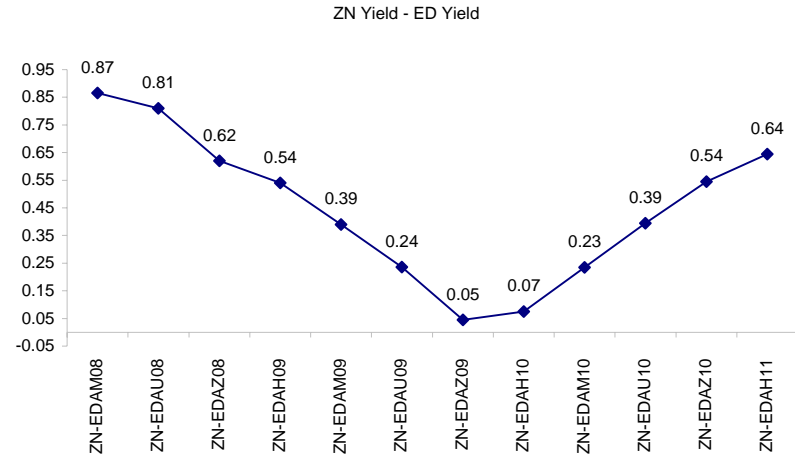


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	18.182	0.87	ZN-EDAM08	-2.226
EDAU08	18.237	0.81	ZN-EDAU08	69.042
EDAZ08	18.427	0.62	ZN-EDAZ08	90.125
EDAH09	18.507	0.54	ZN-EDAH09	96.115
EDAM09	18.657	0.39	ZN-EDAM09	97.668
EDAU09	18.812	0.24	ZN-EDAU09	98.482
EDAZ09	19.002	0.05	ZN-EDAZ09	98.211
EDAH10	19.122	0.07	ZN-EDAH10	96.490
EDAM10	19.282	0.23	ZN-EDAM10	94.015
EDAU10	19.442	0.39	ZN-EDAU10	90.083
EDAZ10	19.592	0.54	ZN-EDAZ10	85.447
EDAH11	19.692	0.64	ZN-EDAH11	74.862

Price = Outright Decimal Price - Euro Contract Price

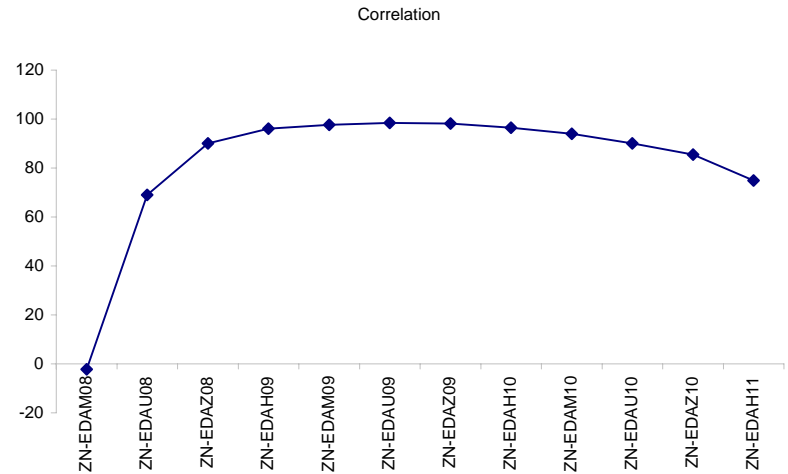
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAM08	0.131	5.89	5.76	ZN-EDAM08
EDAU08	0.380	5.89	5.51	ZN-EDAU08
EDAZ08	0.629	5.89	5.26	ZN-EDAZ08
EDAH09	0.879	5.89	5.01	ZN-EDAH09
EDAM09	1.128	5.89	4.76	ZN-EDAM09
EDAU09	1.377	5.89	4.51	ZN-EDAU09
EDAZ09	1.627	5.89	4.26	ZN-EDAZ09
EDAH10	1.876	5.89	4.01	ZN-EDAH10
EDAM10	2.125	5.89	3.76	ZN-EDAM10
EDAU10	2.375	5.89	3.52	ZN-EDAU10
EDAZ10	2.624	5.89	3.27	ZN-EDAZ10
EDAH11	2.873	5.89	3.02	ZN-EDAH11

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

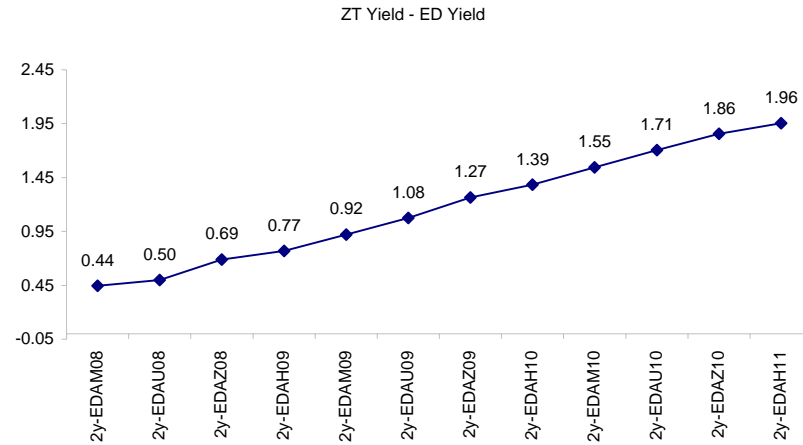


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.391	0.44	2y-EDAM08	-14.486
EDAU08	2.446	0.50	2y-EDAU08	-83.938
EDAZ08	2.636	0.69	2y-EDAZ08	-97.669
EDAH09	2.716	0.77	2y-EDAH09	-99.551
EDAM09	2.866	0.92	2y-EDAM09	-99.034
EDAU09	3.021	1.08	2y-EDAU09	-98.030
EDAZ09	3.211	1.27	2y-EDAZ09	-96.589
EDAH10	3.331	1.39	2y-EDAH10	-94.012
EDAM10	3.491	1.55	2y-EDAM10	-90.732
EDAU10	3.651	1.71	2y-EDAU10	-86.030
EDAZ10	3.801	1.86	2y-EDAZ10	-80.782
EDAH11	3.901	1.96	2y-EDAH11	-69.239

Price = Outright Decimal Price - Euro Contract Price

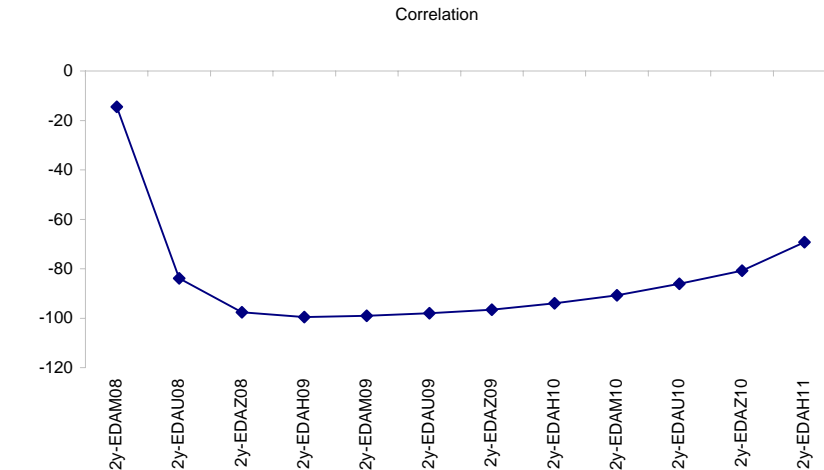
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			2Y Duration	Spread Duration	
EDAM08	0.131	1.95	1.82	2y-EDAM08		
EDAU08	0.380	1.95	1.57	2y-EDAU08		
EDAZ08	0.629	1.95	1.32	2y-EDAZ08		
EDAH09	0.879	1.95	1.07	2y-EDAH09		
EDAM09	1.128	1.95	0.82	2y-EDAM09		
EDAU09	1.377	1.95	0.57	2y-EDAU09		
EDAZ09	1.627	1.95	0.32	2y-EDAZ09		
EDAH10	1.876	1.95	0.07	2y-EDAH10		
EDAM10	2.125	1.95	(0.18)	2y-EDAM10		
EDAU10	2.375	1.95	(0.43)	2y-EDAU10		
EDAZ10	2.624	1.95	(0.68)	2y-EDAZ10		
EDAH11	2.873	1.95	(0.93)	2y-EDAH11		

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

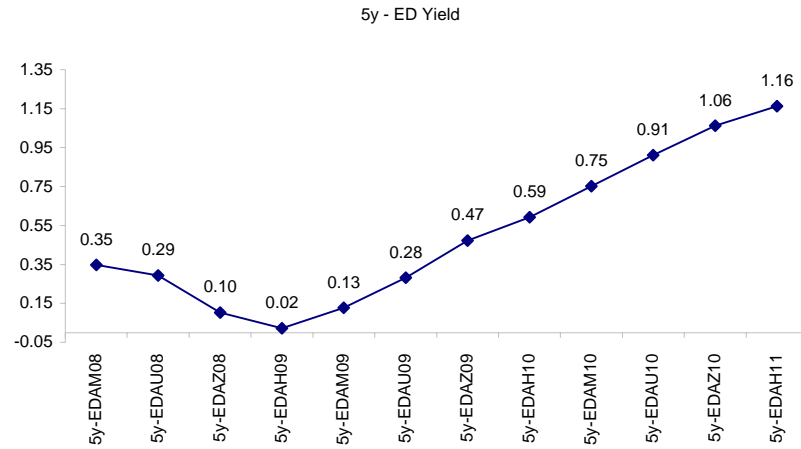


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.838	0.35	5y-EDAM08	5.066
EDAU08	2.893	0.29	5y-EDAU08	-70.667
EDAZ08	3.083	0.10	5y-EDAZ08	5.066
EDAH09	3.163	0.02	5y-EDAH09	-96.520
EDAM09	3.313	0.13	5y-EDAM09	-97.062
EDAU09	3.468	0.28	5y-EDAU09	-96.970
EDAZ09	3.658	0.47	5y-EDAZ09	-95.666
EDAH10	3.778	0.59	5y-EDAH10	-94.216
EDAM10	3.938	0.75	5y-EDAM10	-92.493
EDAU10	4.098	0.91	5y-EDAU10	-89.008
EDAZ10	4.248	1.06	5y-EDAZ10	-86.131
EDAH11	4.348	1.16	5y-EDAH11	-76.590

Price = Outright Decimal Price - Euro Contract Price

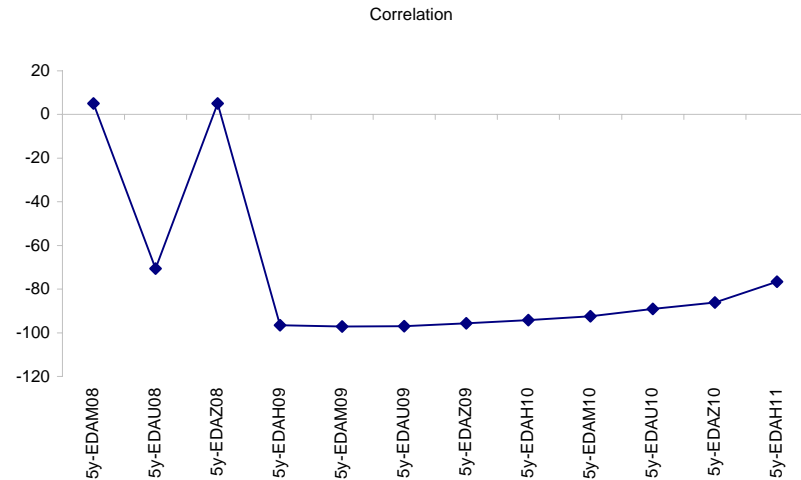
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.131	4.60	4.47	5y-EDAM08
EDAU08	0.380	4.60	4.22	5y-EDAU08
EDAZ08	0.629	4.60	3.97	5y-EDAZ08
EDAH09	0.879	4.60	3.72	5y-EDAH09
EDAM09	1.128	4.60	3.47	5y-EDAM09
EDAU09	1.377	4.60	3.22	5y-EDAU09
EDAZ09	1.627	4.60	2.97	5y-EDAZ09
EDAH10	1.876	4.60	2.72	5y-EDAH10
EDAM10	2.125	4.60	2.47	5y-EDAM10
EDAU10	2.375	4.60	2.22	5y-EDAU10
EDAZ10	2.624	4.60	1.97	5y-EDAZ10
EDAH11	2.873	4.60	1.72	5y-EDAH11

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

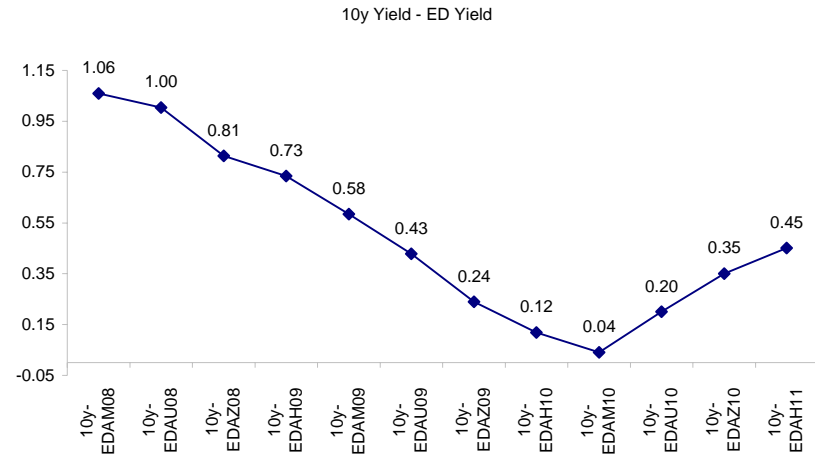


10y				Correlation* (percent)
Spread Price	Spread Yield	Spread Name		
EDAM08	2.838	1.06	10y-EDAM08	20.754
EDAU08	2.893	1.00	10y-EDAU08	-53.252
EDAZ08	3.083	0.81	10y-EDAZ08	20.754
EDAH09	3.163	0.73	10y-EDAH09	-87.520
EDAM09	3.313	0.58	10y-EDAM09	-89.550
EDAU09	3.468	0.43	10y-EDAU09	-91.169
EDAZ09	3.658	0.24	10y-EDAZ09	-91.461
EDAH10	3.778	0.12	10y-EDAH10	-92.228
EDAM10	3.938	0.04	10y-EDAM10	-92.838
EDAU10	4.098	0.20	10y-EDAU10	-91.963
EDAZ10	4.248	0.35	10y-EDAZ10	-91.854
EDAH11	4.348	0.45	10y-EDAH11	-86.166

Price = Outright Decimal Price - Euro Contract Price

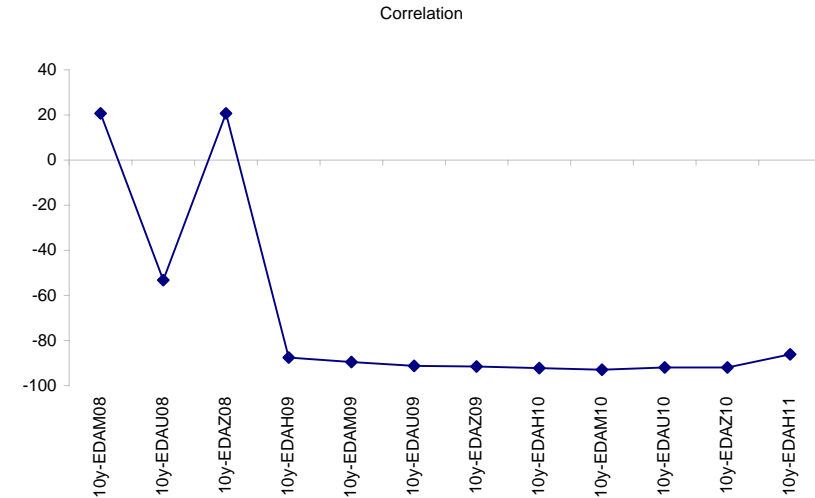
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as				Spread Duration	Contract
Fraction of year	10Y Duration	Spread Duration			
EDAM08	0.131	8.14	8.01	10y-EDAM08	
EDAU08	0.380	8.14	7.76	10y-EDAU08	
EDAZ08	0.629	8.14	7.51	10y-EDAZ08	
EDAH09	0.879	8.14	7.26	10y-EDAH09	
EDAM09	1.128	8.14	7.01	10y-EDAM09	
EDAU09	1.377	8.14	6.76	10y-EDAU09	
EDAZ09	1.627	8.14	6.51	10y-EDAZ09	
EDAH10	1.876	8.14	6.26	10y-EDAH10	
EDAM10	2.125	8.14	6.01	10y-EDAM10	
EDAU10	2.375	8.14	5.76	10y-EDAU10	
EDAZ10	2.624	8.14	5.51	10y-EDAZ10	
EDAH11	2.873	8.14	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.

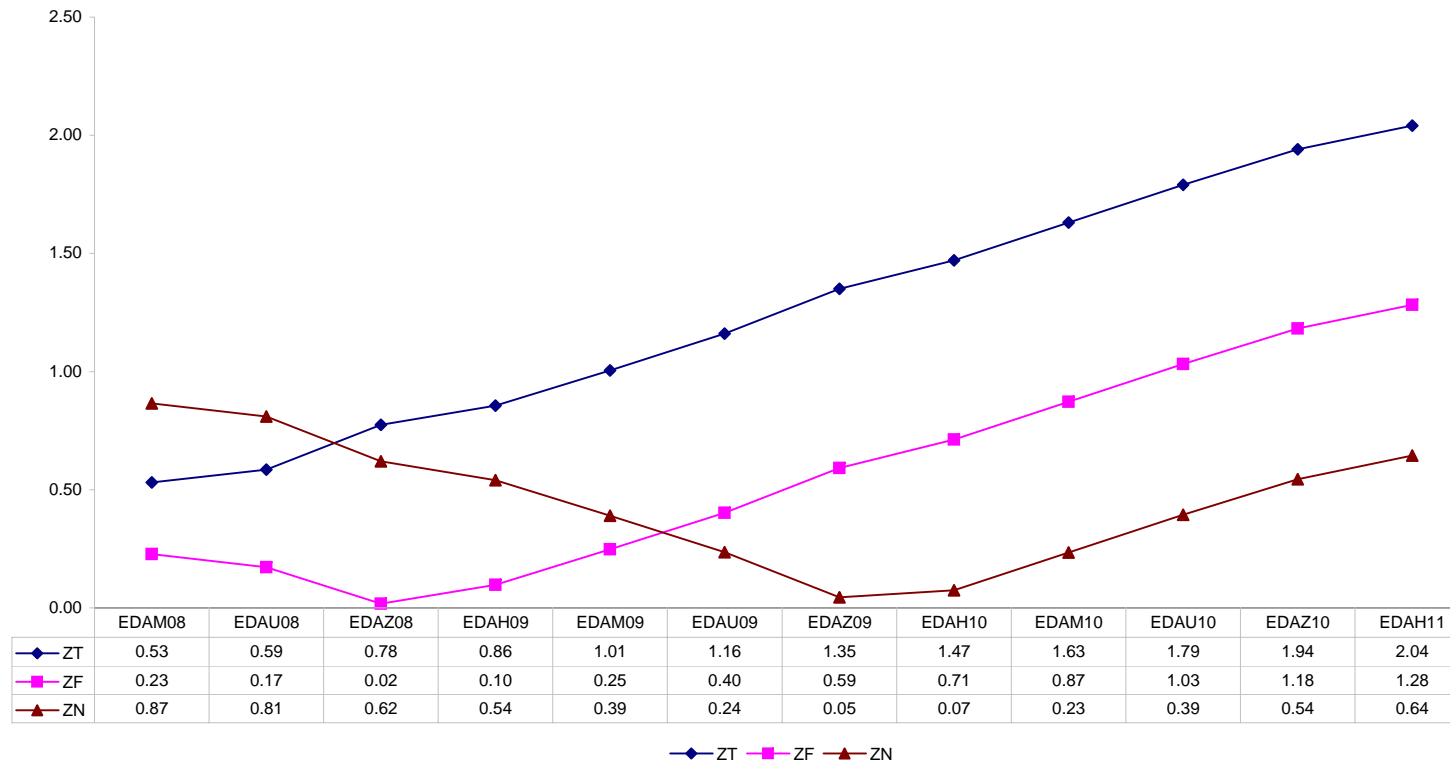
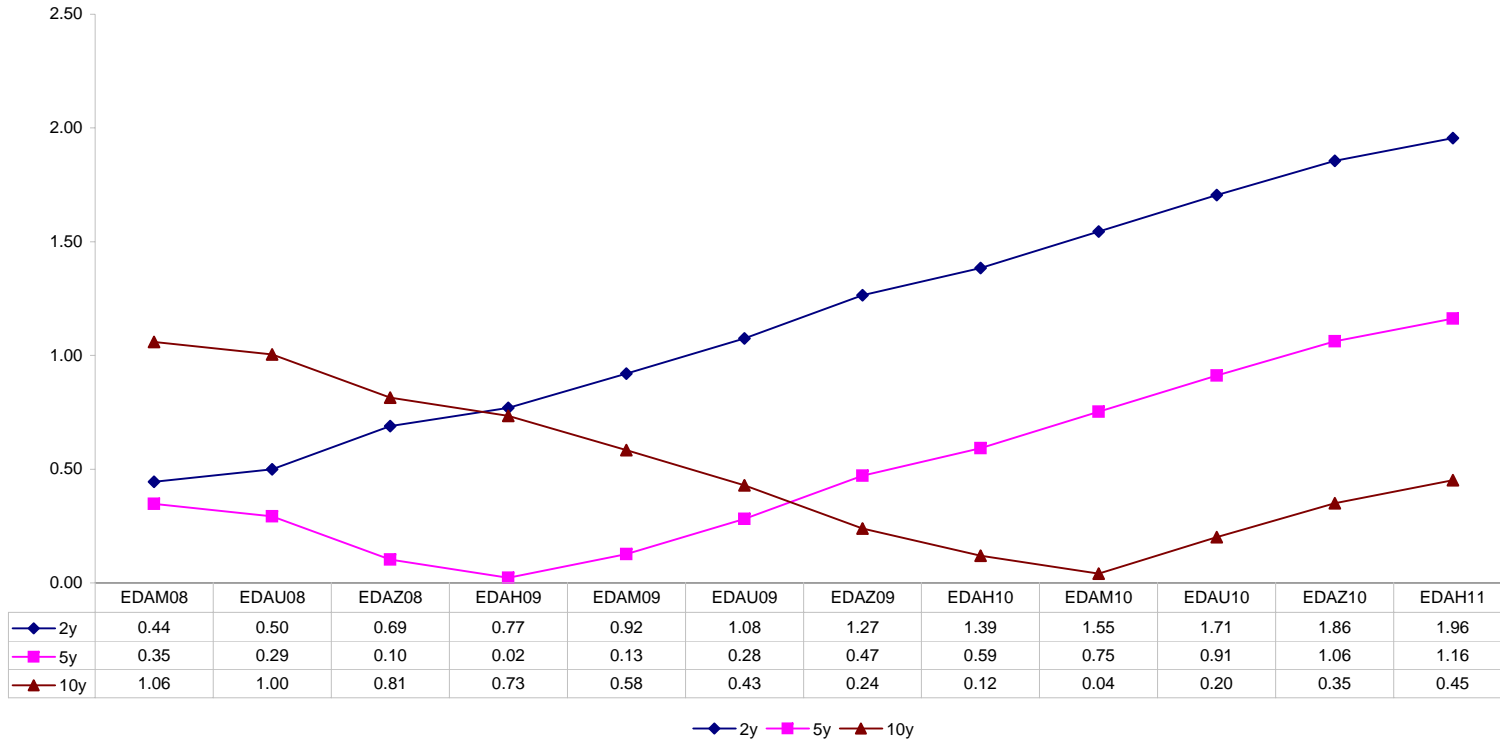
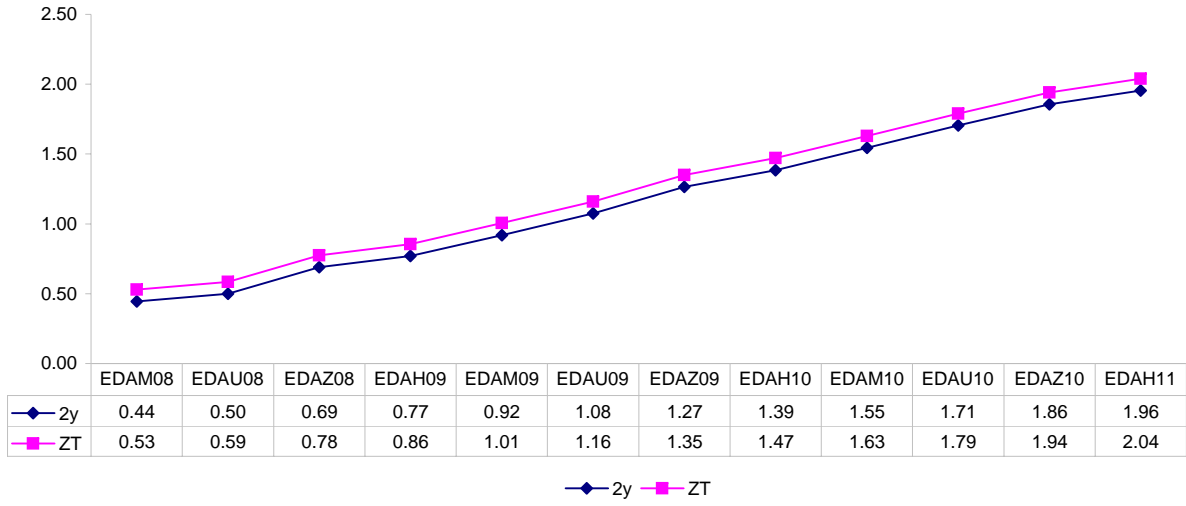


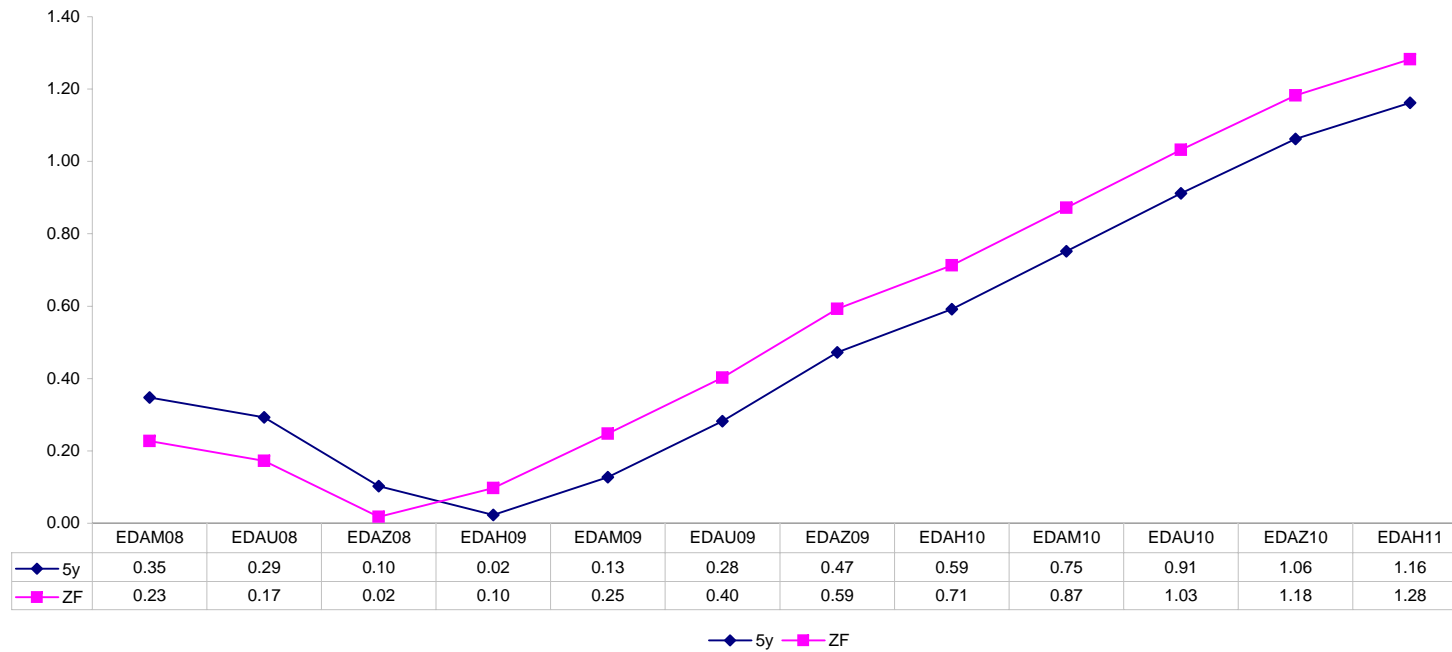
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



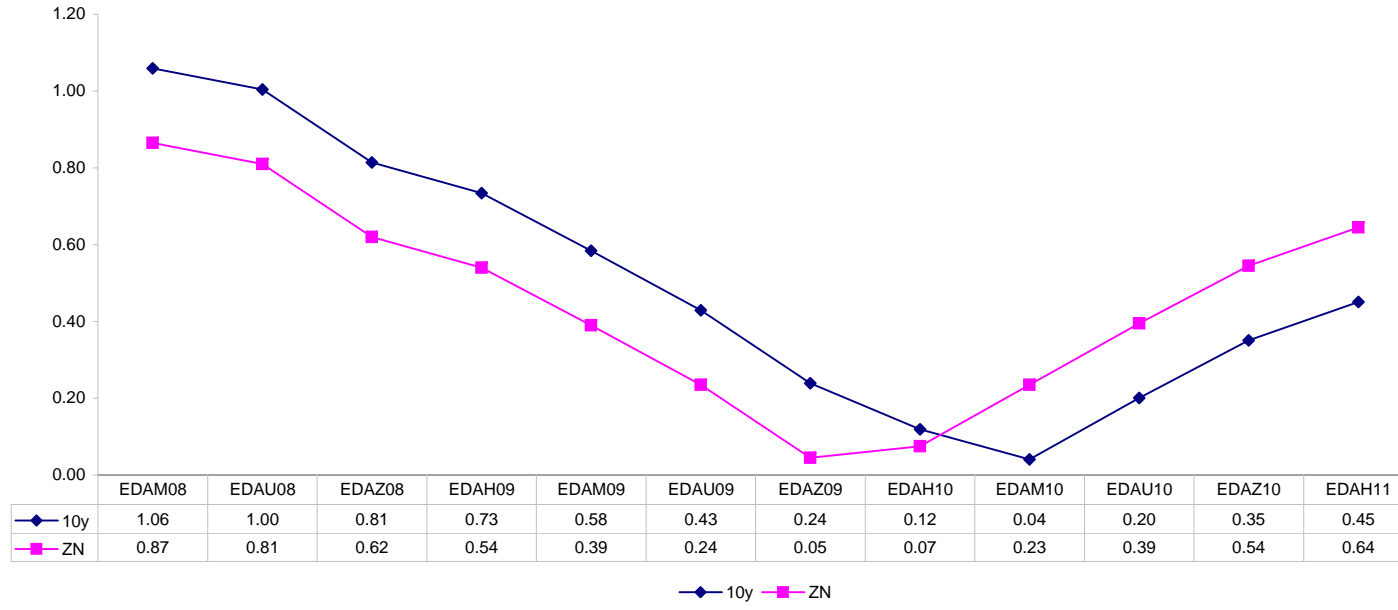
2y Basis TED Curve



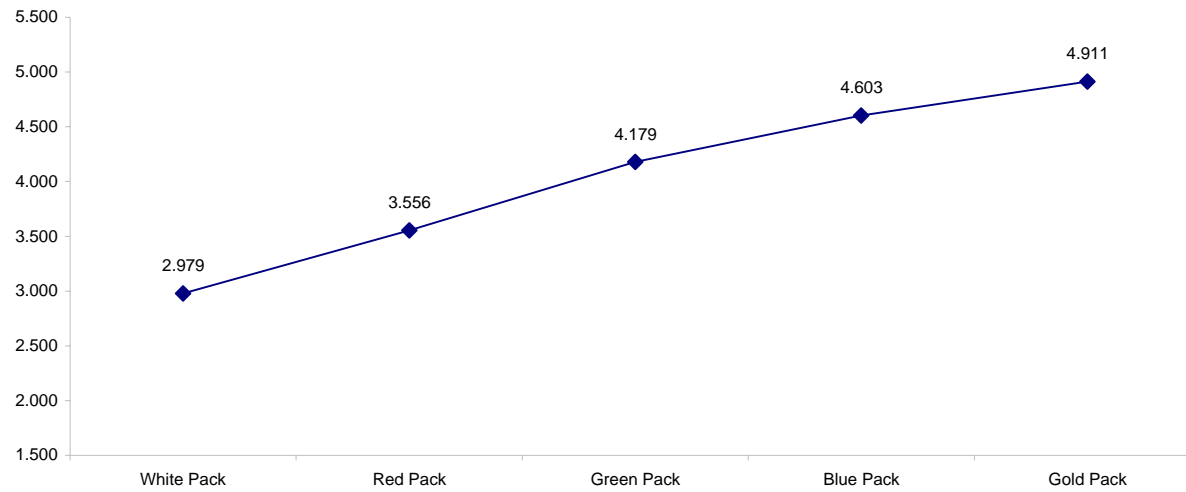
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.979	4.875	9708.375
Red Pack	3.556	5.375	9652.375
Green Pack	4.179	2.750	9592.000
Blue Pack	4.603	2.000	9551.125
Gold Pack	4.911	0.625	9521.375



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

