

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	105.0156	105.005	2.919	1.91
ZF	109.4750	109.152	3.509	4.07
ZN	112.7344	112.235	3.896	6.48
2y	99.913	99.2920	2.920	1.91
5y	99.709	99.2270	3.563	4.48
10y	98.016	98.0050	4.119	8.08

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	96.885	3.115	82	0.224	SEP	
EDAZ08	96.560	3.440	173	0.473	DEC	White Pack
EDAH09	96.365	3.635	264	0.723	MAR	
EDAM09	96.150	3.850	355	0.972	JUN	
EDAU09	95.915	4.085	446	1.221	SEP	
EDAZ09	95.655	4.345	537	1.471	DEC	Red Pack
EDAH10	95.480	4.520	628	1.720	MAR	
EDAM10	95.330	4.670	719	1.969	JUN	
EDAU10	95.225	4.775	810	2.219	SEP	
EDAZ10	95.125	4.875	901	2.468	DEC	Green Pack
EDAH11	95.090	4.910	992	2.717	MAR	
EDAM11	95.050	4.950	1083	2.966	JUN	
EDAU11	95.010	4.990	1181	3.235	SEP	
EDAZ11	94.960	5.040	1272	3.484	DEC	Blue Pack
EDAH12	94.945	5.055	1363	3.734	MAR	
EDAM12	94.935	5.065	1454	3.983	JUN	
EDAU12	94.900	5.100	1545	4.232	SEP	
EDAZ12	94.900	5.100	1636	4.482	DEC	Gold Pack
EDAH13	94.840	5.160	1727	4.731	MAR	
EDAM13	94.815	5.185	1818	4.980	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	3.590	-1.375	9649.000	
Red Pack	4.516	-2.500	9559.500	Pack Prices
Green Pack	5.006	-3.000	9512.250	
Blue Pack	5.173	-2.750	9496.250	
Gold Pack		-1.375	9485.750	

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.

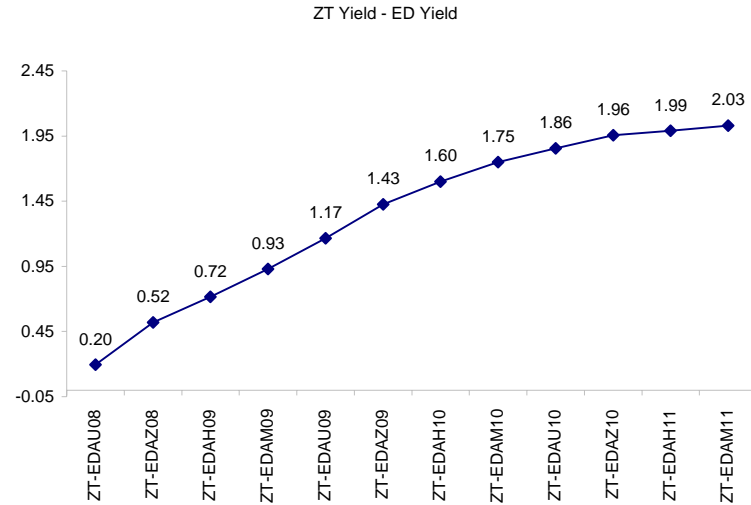
jgoulding@ghco.com

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.

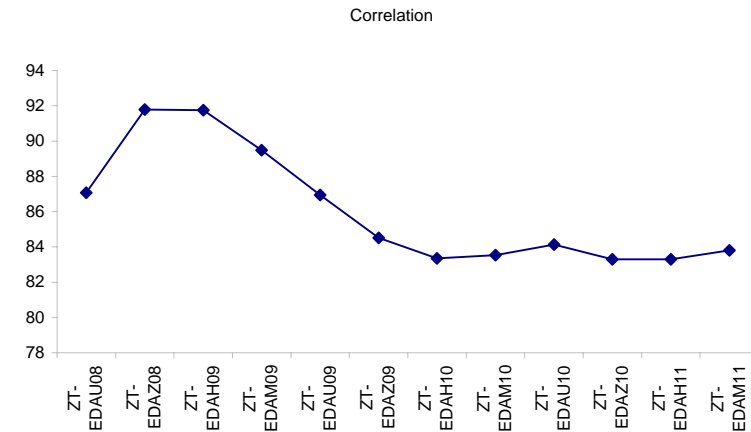
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	8.131	0.20	ZT-EDAU08	87.077
EDAZ08	8.456	0.52	ZT-EDAZ08	91.788
EDAH09	8.651	0.72	ZT-EDAH09	91.759
EDAM09	8.866	0.93	ZT-EDAM09	89.480
EDAU09	9.101	1.17	ZT-EDAU09	86.945
EDAZ09	9.361	1.43	ZT-EDAZ09	84.516
EDAH10	9.536	1.60	ZT-EDAH10	83.357
EDAM10	9.686	1.75	ZT-EDAM10	83.530
EDAU10	9.791	1.86	ZT-EDAU10	84.138
EDAZ10	9.891	1.96	ZT-EDAZ10	83.298
EDAH11	9.926	1.99	ZT-EDAH11	83.293
EDAM11	9.966	2.03	ZT-EDAM11	83.810

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	
EDAU08	0.224	1.91	1.69		ZT-EDAU08
EDAZ08	0.473	1.91	1.44		ZT-EDAZ08
EDAH09	0.723	1.91	1.19		ZT-EDAH09
EDAM09	0.972	1.91	0.94		ZT-EDAM09
EDAU09	1.221	1.91	0.69		ZT-EDAU09
EDAZ09	1.471	1.91	0.44		ZT-EDAZ09
EDAH10	1.720	1.91	0.19		ZT-EDAH10
EDAM10	1.969	1.91	(0.06)		ZT-EDAM10
EDAU10	2.219	1.91	(0.31)		ZT-EDAU10
EDAZ10	2.468	1.91	(0.55)		ZT-EDAZ10
EDAH11	2.717	1.91	(0.80)		ZT-EDAH11
EDAM11	2.966	1.91	(1.05)		ZT-EDAM11

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

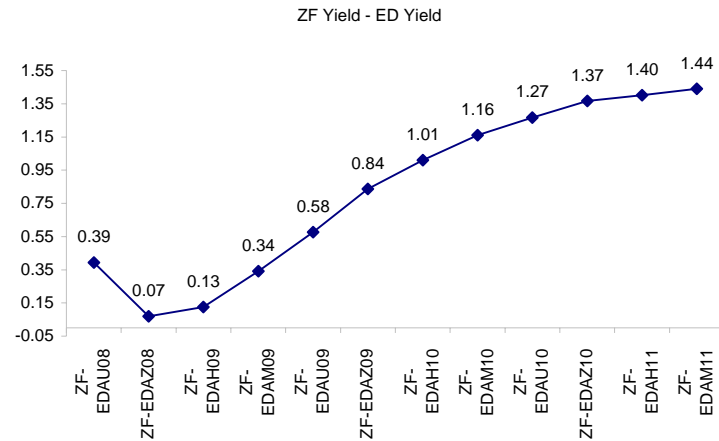


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	12.590	0.39	ZF-EDAU08	93.620
EDAZ08	12.915	0.07	ZF-EDAZ08	95.921
EDAH09	13.110	0.13	ZF-EDAH09	94.218
EDAM09	13.325	0.34	ZF-EDAM09	91.168
EDAU09	13.560	0.58	ZF-EDAU09	88.758
EDAZ09	13.820	0.84	ZF-EDAZ09	87.255
EDAH10	13.995	1.01	ZF-EDAH10	87.227
EDAM10	14.145	1.16	ZF-EDAM10	88.605
EDAU10	14.250	1.27	ZF-EDAU10	89.766
EDAZ10	14.350	1.37	ZF-EDAZ10	89.761
EDAH11	14.385	1.40	ZF-EDAH11	89.864
EDAM11	14.425	1.44	ZF-EDAM11	90.430

Price = Outright Decimal Price - Euro Contract Price

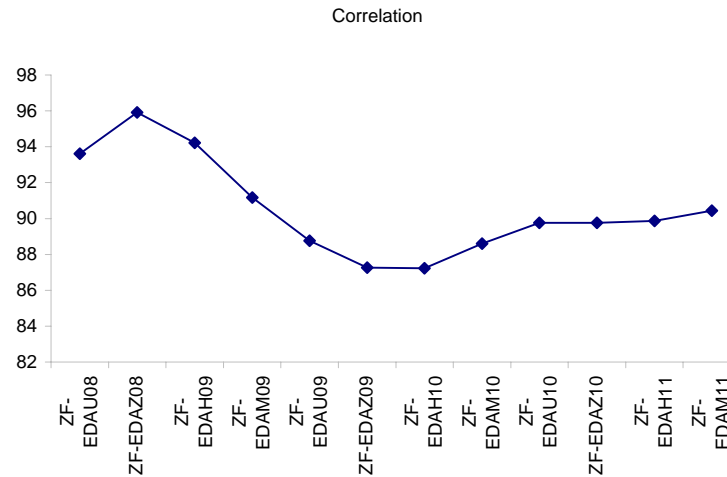
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAU08	0.224	4.07	3.85	ZF-EDAU08	
EDAZ08	0.473	4.07	3.60	ZF-EDAZ08	
EDAH09	0.723	4.07	3.35	ZF-EDAH09	
EDAM09	0.972	4.07	3.10	ZF-EDAM09	
EDAU09	1.221	4.07	2.85	ZF-EDAU09	
EDAZ09	1.471	4.07	2.60	ZF-EDAZ09	
EDAH10	1.720	4.07	2.35	ZF-EDAH10	
EDAM10	1.969	4.07	2.10	ZF-EDAM10	
EDAU10	2.219	4.07	1.85	ZF-EDAU10	
EDAZ10	2.468	4.07	1.60	ZF-EDAZ10	
EDAH11	2.717	4.07	1.35	ZF-EDAH11	
EDAM11	2.966	4.07	1.10	ZF-EDAM11	

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

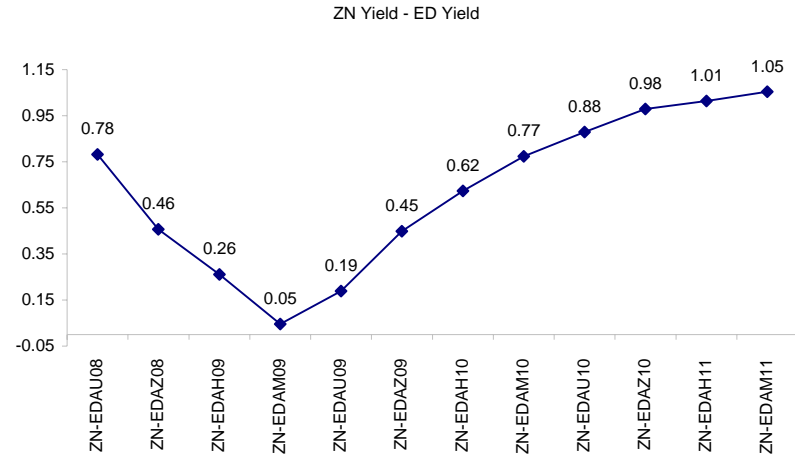


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	15.849	0.78	ZN-EDAU08	93.842
EDAZ08	16.174	0.46	ZN-EDAZ08	95.956
EDAH09	16.369	0.26	ZN-EDAH09	94.389
EDAM09	16.584	0.05	ZN-EDAM09	91.603
EDAU09	16.819	0.19	ZN-EDAU09	89.006
EDAZ09	17.079	0.45	ZN-EDAZ09	86.954
EDAH10	17.254	0.62	ZN-EDAH10	87.227
EDAM10	17.404	0.77	ZN-EDAM10	88.605
EDAU10	17.509	0.88	ZN-EDAU10	89.766
EDAZ10	17.609	0.98	ZN-EDAZ10	89.761
EDAH11	17.644	1.01	ZN-EDAH11	89.864
EDAM11	17.684	1.05	ZN-EDAM11	90.430

Price = Outright Decimal Price - Euro Contract Price

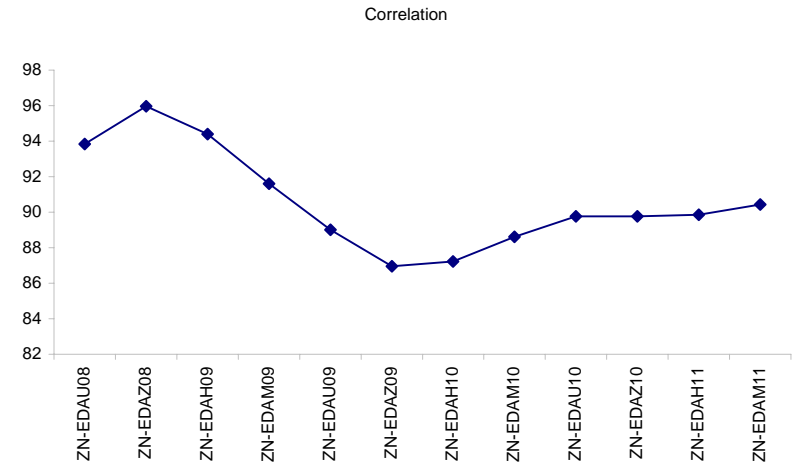
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAU08	0.224	6.48	6.26	ZN-EDAU08		
EDAZ08	0.473	6.48	6.01	ZN-EDAZ08		
EDAH09	0.723	6.48	5.76	ZN-EDAH09		
EDAM09	0.972	6.48	5.51	ZN-EDAM09		
EDAU09	1.221	6.48	5.26	ZN-EDAU09		
EDAZ09	1.471	6.48	5.01	ZN-EDAZ09		
EDAH10	1.720	6.48	4.76	ZN-EDAH10		
EDAM10	1.969	6.48	4.52	ZN-EDAM10		
EDAU10	2.219	6.48	4.27	ZN-EDAU10		
EDAZ10	2.468	6.48	4.02	ZN-EDAZ10		
EDAH11	2.717	6.48	3.77	ZN-EDAH11		
EDAM11	2.966	6.48	3.52	ZN-EDAM11		

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

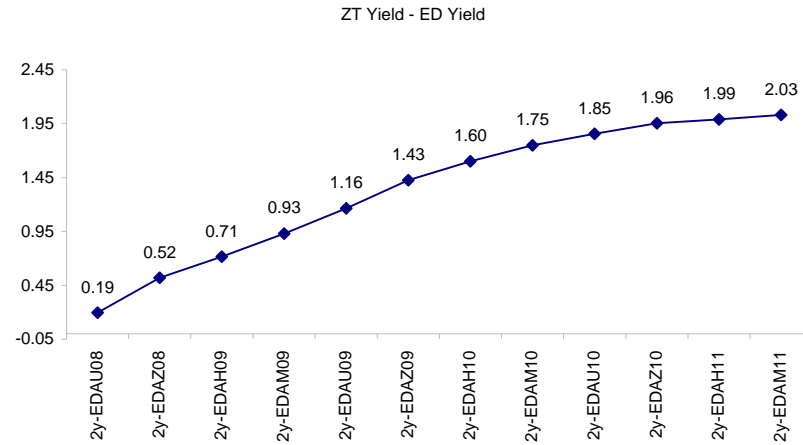


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.028	0.19	2y-EDAU08	-84.706
EDAZ08	3.353	0.52	2y-EDAZ08	-84.670
EDAH09	3.548	0.71	2y-EDAH09	-87.408
EDAM09	3.763	0.93	2y-EDAM09	-88.976
EDAU09	3.998	1.16	2y-EDAU09	-88.850
EDAZ09	4.258	1.43	2y-EDAZ09	-87.491
EDAH10	4.433	1.60	2y-EDAH10	-85.591
EDAM10	4.583	1.75	2y-EDAM10	-84.217
EDAU10	4.688	1.85	2y-EDAU10	-83.794
EDAZ10	4.788	1.96	2y-EDAZ10	-82.424
EDAH11	4.823	1.99	2y-EDAH11	-82.176
EDAM11	4.863	2.03	2y-EDAM11	-82.225

Price = Outright Decimal Price - Euro Contract Price

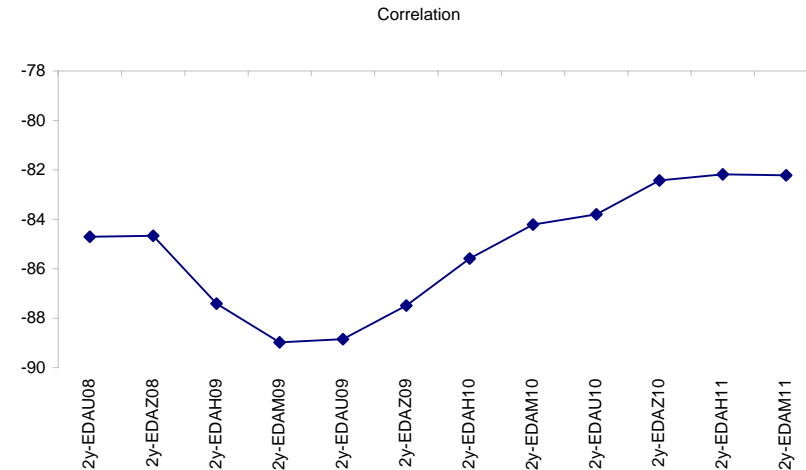
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			2Y Duration	Spread Duration	
EDAU08	0.224	1.91	1.69	2y-EDAU08		
EDAZ08	0.473	1.91	1.44	2y-EDAZ08		
EDAH09	0.723	1.91	1.19	2y-EDAH09		
EDAM09	0.972	1.91	0.94	2y-EDAM09		
EDAU09	1.221	1.91	0.69	2y-EDAU09		
EDAZ09	1.471	1.91	0.44	2y-EDAZ09		
EDAH10	1.720	1.91	0.19	2y-EDAH10		
EDAM10	1.969	1.91	(0.06)	2y-EDAM10		
EDAU10	2.219	1.91	(0.31)	2y-EDAU10		
EDAZ10	2.468	1.91	(0.55)	2y-EDAZ10		
EDAH11	2.717	1.91	(0.80)	2y-EDAH11		
EDAM11	2.966	1.91	(1.05)	2y-EDAM11		

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

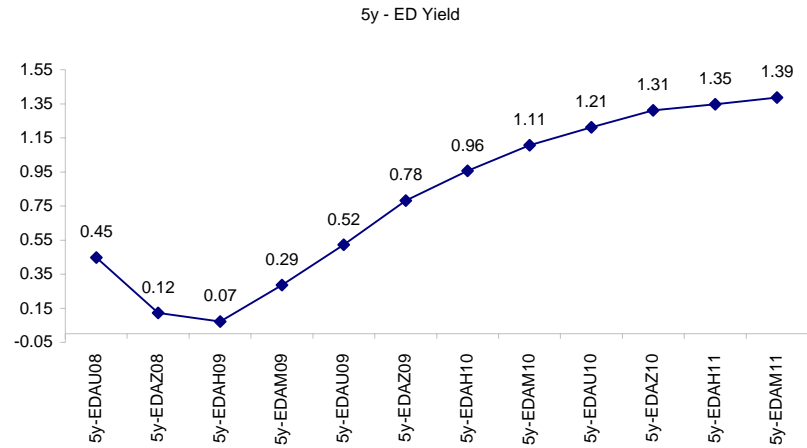


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.824	0.45	5y-EDAU08	-95.044
EDAZ08	3.149	0.12	5y-EDAZ08	-95.521
EDAH09	3.344	0.07	5y-EDAH09	-94.828
EDAM09	3.559	0.29	5y-EDAM09	-93.661
EDAU09	3.794	0.52	5y-EDAU09	-92.388
EDAZ09	4.054	0.78	5y-EDAZ09	-91.309
EDAH10	4.229	0.96	5y-EDAH10	-90.724
EDAM10	4.379	1.11	5y-EDAM10	-90.856
EDAU10	4.484	1.21	5y-EDAU10	-91.263
EDAZ10	4.584	1.31	5y-EDAZ10	-90.257
EDAH11	4.619	1.35	5y-EDAH11	-89.951
EDAM11	4.659	1.39	5y-EDAM11	-90.098

Price = Outright Decimal Price - Euro Contract Price

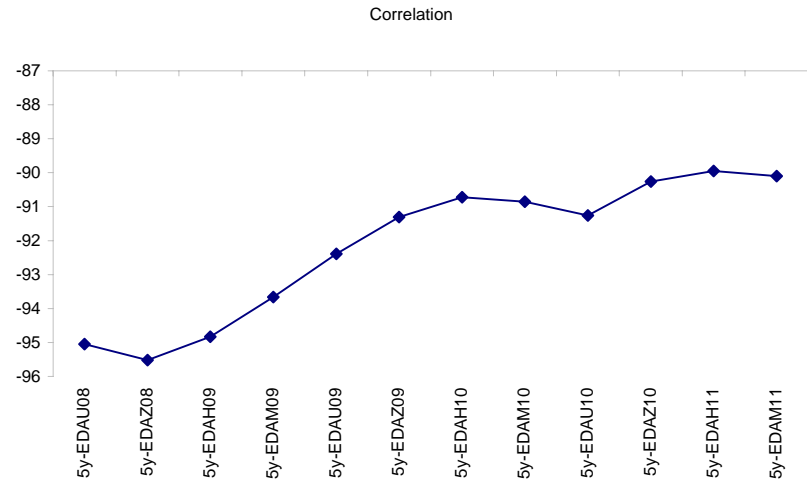
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	5Y Duration	Spread Duration		
EDAU08	0.224	4.48	4.25	5y-EDAU08
EDAZ08	0.473	4.48	4.01	5y-EDAZ08
EDAH09	0.723	4.48	3.76	5y-EDAH09
EDAM09	0.972	4.48	3.51	5y-EDAM09
EDAU09	1.221	4.48	3.26	5y-EDAU09
EDAZ09	1.471	4.48	3.01	5y-EDAZ09
EDAH10	1.720	4.48	2.76	5y-EDAH10
EDAM10	1.969	4.48	2.51	5y-EDAM10
EDAU10	2.219	4.48	2.26	5y-EDAU10
EDAZ10	2.468	4.48	2.01	5y-EDAZ10
EDAH11	2.717	4.48	1.76	5y-EDAH11
EDAM11	2.966	4.48	1.51	5y-EDAM11

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

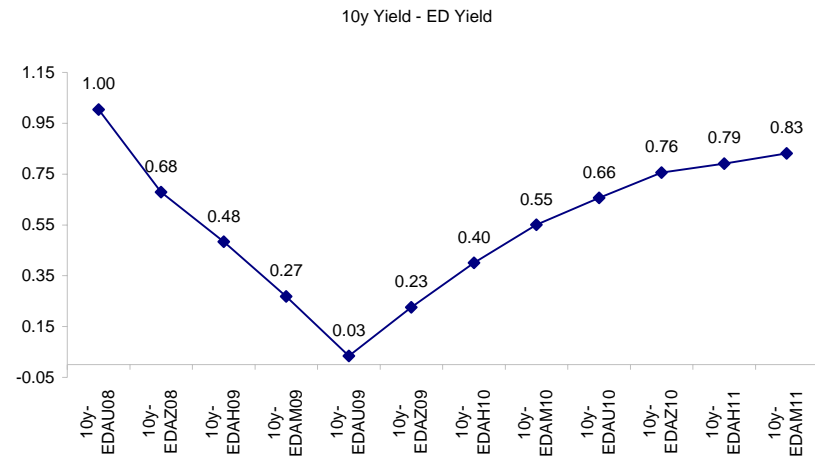


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.824	1.00	10y-EDAU08	-92.778
EDAZ08	3.149	0.68	10y-EDAZ08	-94.765
EDAH09	3.344	0.48	10y-EDAH09	-91.357
EDAM09	3.559	0.27	10y-EDAM09	-86.818
EDAU09	3.794	0.03	10y-EDAU09	-83.596
EDAZ09	4.054	0.23	10y-EDAZ09	-81.603
EDAH10	4.229	0.40	10y-EDAH10	-81.394
EDAM10	4.379	0.55	10y-EDAM10	-82.918
EDAU10	4.484	0.66	10y-EDAU10	-84.557
EDAZ10	4.584	0.76	10y-EDAZ10	-84.543
EDAH11	4.619	0.79	10y-EDAH11	-84.832
EDAM11	4.659	0.83	10y-EDAM11	-85.588

Price = Outright Decimal Price - Euro Contract Price

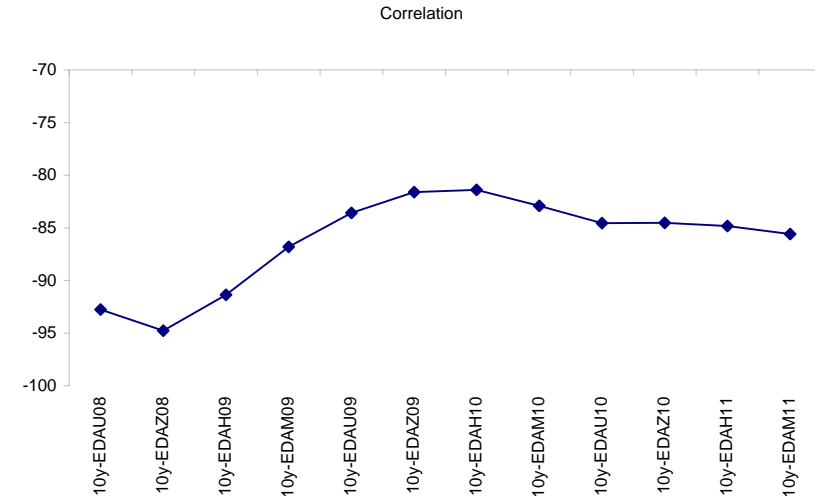
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.224	8.08	7.86	10y-EDAU08
EDAZ08	0.473	8.08	7.61	10y-EDAZ08
EDAH09	0.723	8.08	7.36	10y-EDAH09
EDAM09	0.972	8.08	7.11	10y-EDAM09
EDAU09	1.221	8.08	6.86	10y-EDAU09
EDAZ09	1.471	8.08	6.61	10y-EDAZ09
EDAH10	1.720	8.08	6.36	10y-EDAH10
EDAM10	1.969	8.08	6.12	10y-EDAM10
EDAU10	2.219	8.08	5.87	10y-EDAU10
EDAZ10	2.468	8.08	5.62	10y-EDAZ10
EDAH11	2.717	8.08	5.37	10y-EDAH11
EDAM11	2.966	8.08	5.12	10y-EDAM11

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.

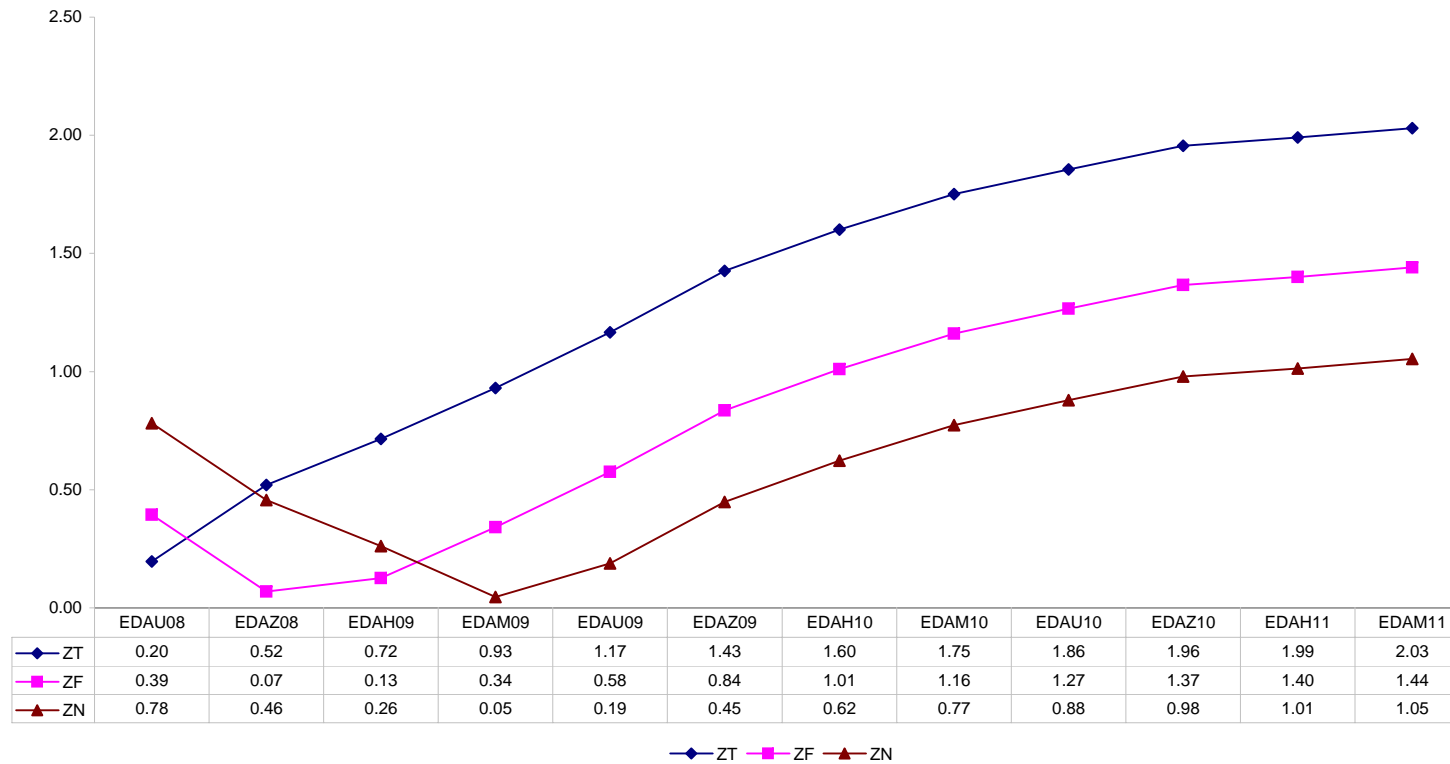
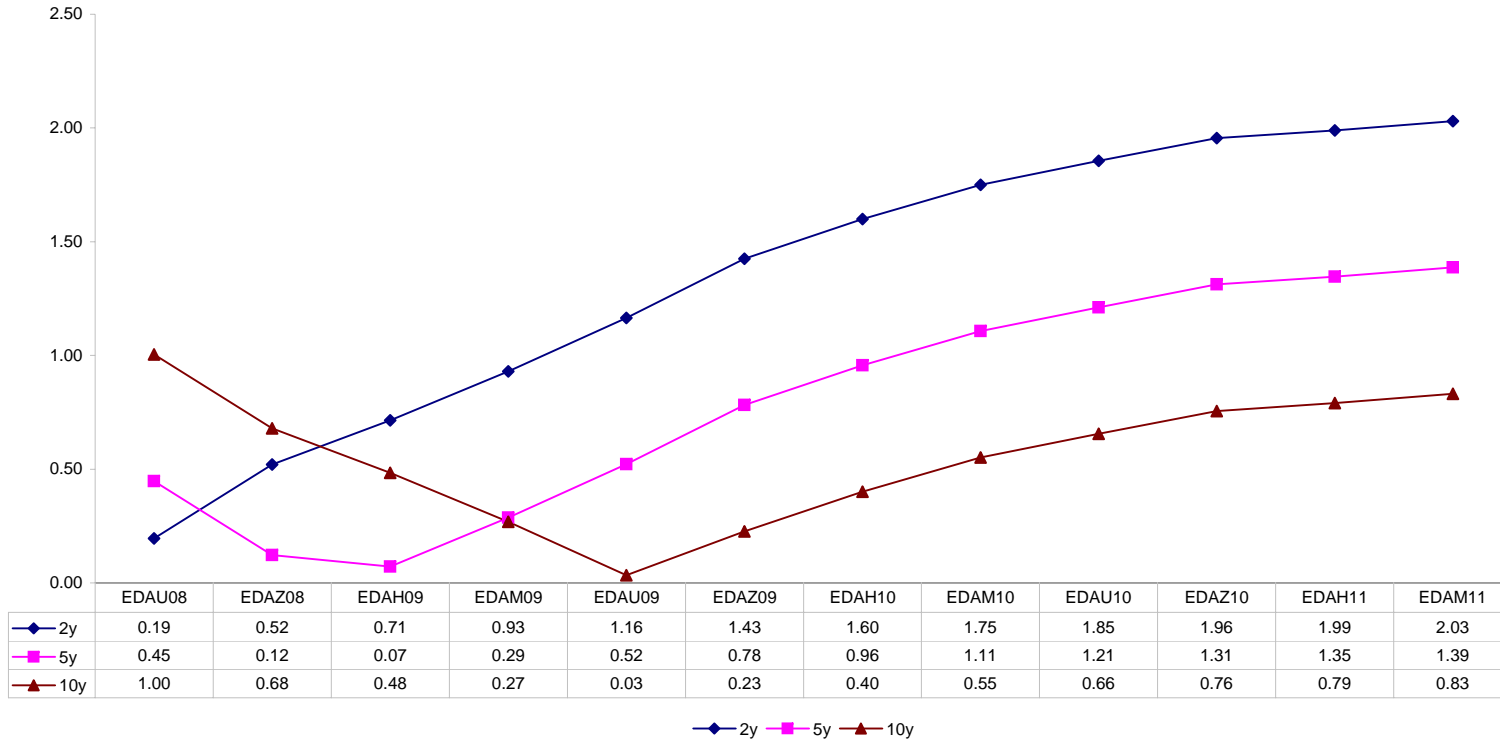
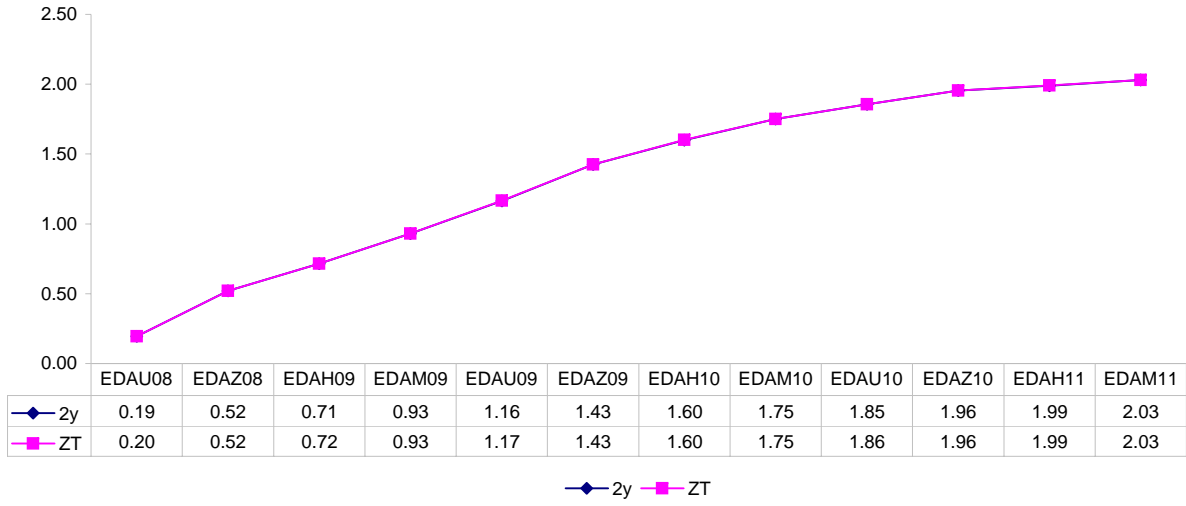


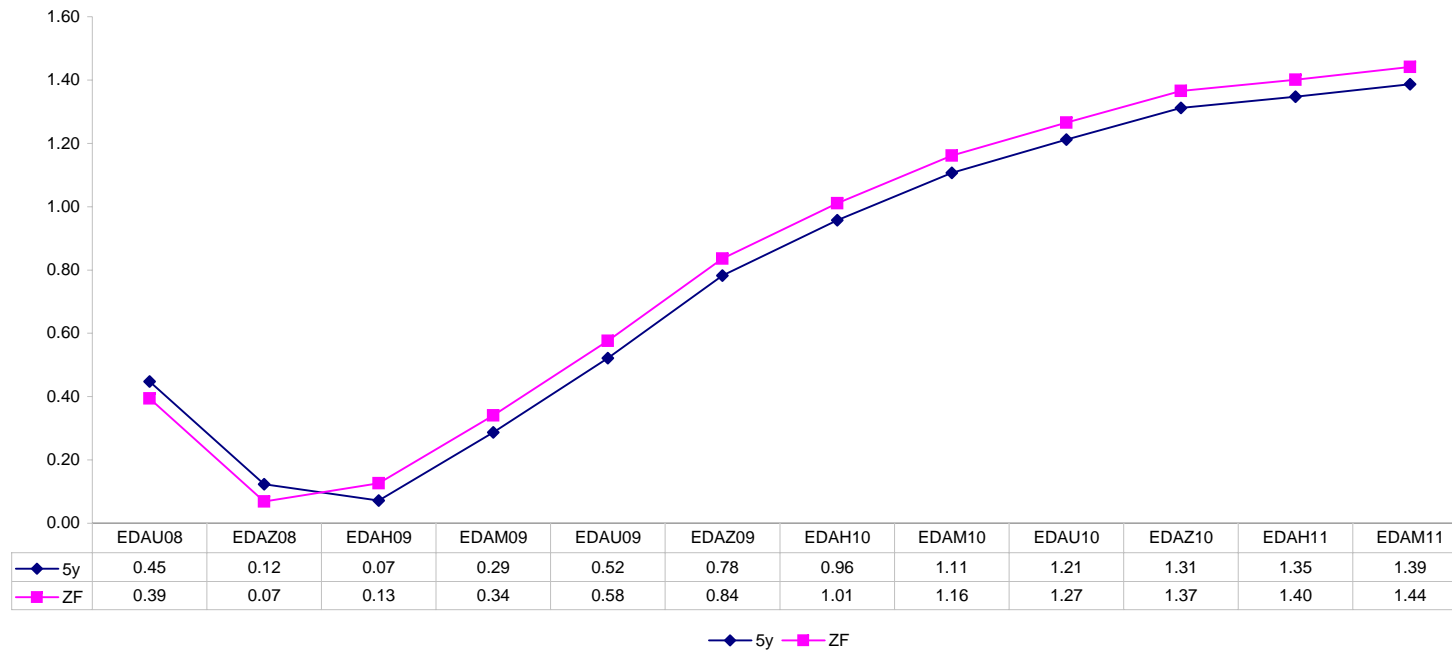
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



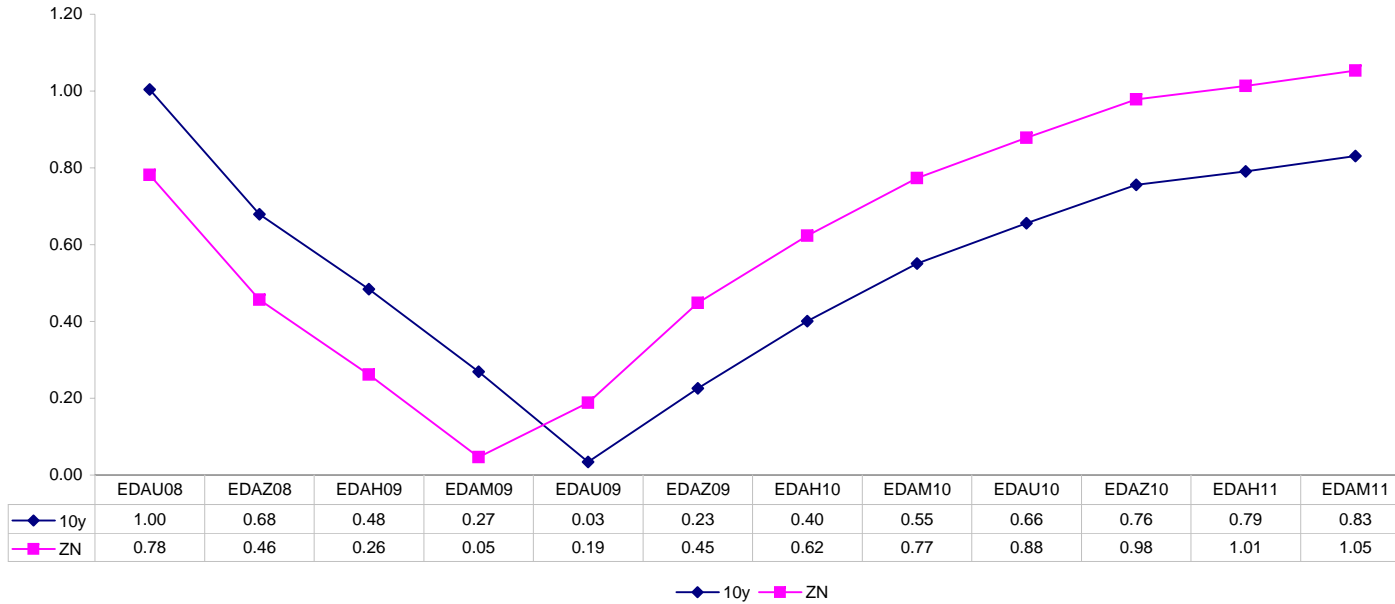
2y Basis TED Curve



5y Basis TED Curve

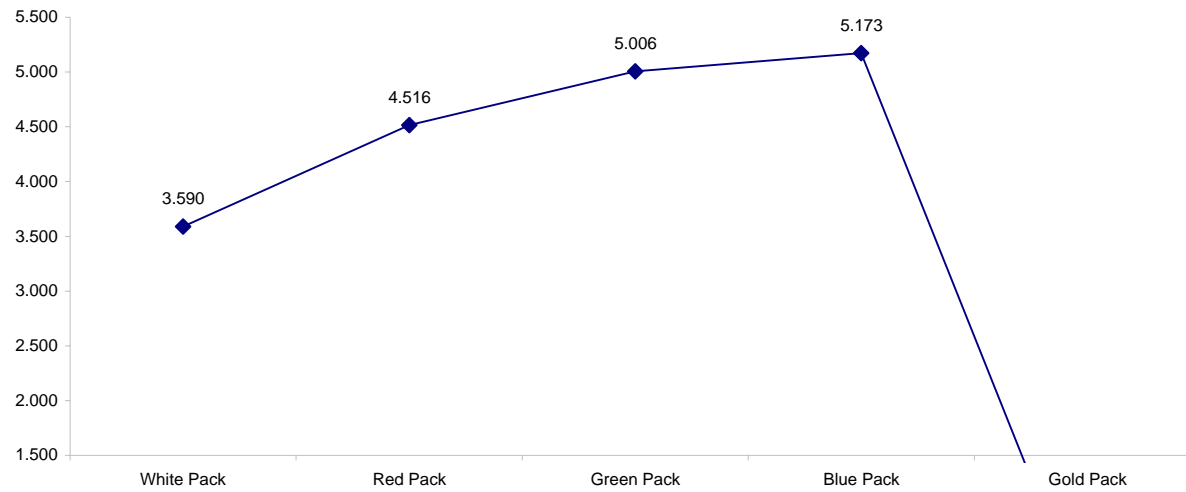


10y Basis TED Curve



Packs

	Last Yield	Net Last Yield	Last Price
White Pack	3.590	-1.375	9649.000
Red Pack	4.516	-2.500	9559.500
Green Pack	5.006	-3.000	9512.250
Blue Pack	5.173	-2.750	9496.250
Gold Pack		-1.375	9485.750



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

