

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	105.6313	105.202	2.641	1.87
ZF	110.4438	110.142	3.314	4.00
ZN	113.5469	113.175	3.876	6.42
2y	100.438	100.1400	2.638	1.87
5y	99.859	99.2750	3.404	4.51
10y	98.328	98.1050	4.081	8.02

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	97.060	2.940	56	0.153	SEP	
EDAZ08	96.790	3.210	147	0.402	DEC	White Pack
EDAH09	96.670	3.330	238	0.651	MAR	
EDAM09	96.445	3.555	329	0.901	JUN	
EDAU09	96.150	3.850	420	1.150	SEP	
EDAZ09	95.840	4.160	511	1.399	DEC	Red Pack
EDAH10	95.610	4.390	602	1.649	MAR	
EDAM10	95.425	4.575	693	1.898	JUN	
EDAU10	95.310	4.690	784	2.147	SEP	
EDAZ10	95.195	4.805	875	2.397	DEC	Green Pack
EDAH11	95.145	4.855	966	2.646	MAR	
EDAM11	95.090	4.910	1057	2.895	JUN	
EDAU11	95.085	4.915	1155	3.164	SEP	
EDAZ11	95.025	4.975	1246	3.413	DEC	Blue Pack
EDAH12	#VALUE!	#VALUE!	1337	3.662	MAR	
EDAM12	#VALUE!	#VALUE!	1428	3.912	JUN	
EDAU12	#VALUE!	#VALUE!	1519	4.161	SEP	
EDAZ12	#VALUE!	#VALUE!	1610	4.410	DEC	Gold Pack
EDAH13	94.835	5.165	1701	4.660	MAR	
EDAM13	#VALUE!	#VALUE!	1792	4.909	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	3.331	-2.625	9674.125	
Red Pack	4.349	-3.375	9575.625	Pack Prices
Green Pack	4.941	-0.875	9518.500	
Blue Pack		0.750	9501.000	
Gold Pack		0.500	9484.000	

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.

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.

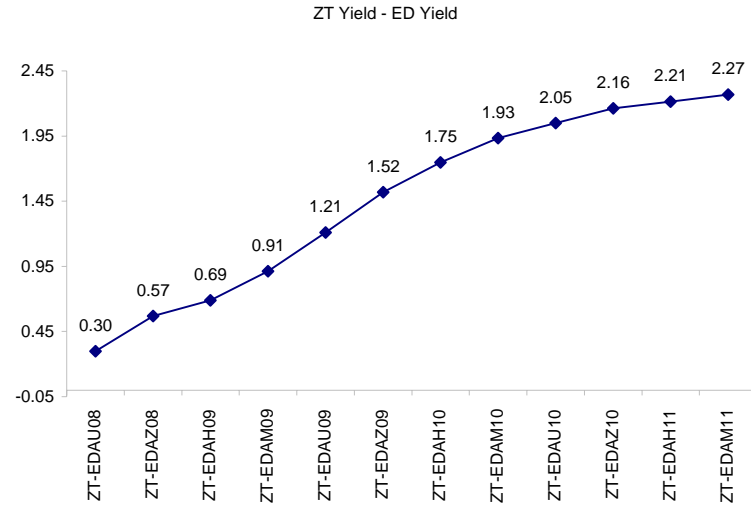
jgoulding@ghco.com

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.

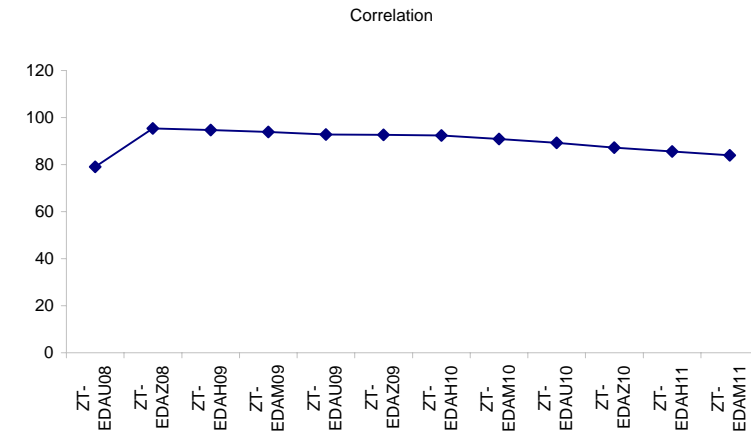
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	8.571	0.30	ZT-EDAU08	79.067
EDAZ08	8.841	0.57	ZT-EDAZ08	95.389
EDAH09	8.961	0.69	ZT-EDAH09	94.629
EDAM09	9.186	0.91	ZT-EDAM09	93.911
EDAU09	9.481	1.21	ZT-EDAU09	92.758
EDAZ09	9.791	1.52	ZT-EDAZ09	92.684
EDAH10	10.021	1.75	ZT-EDAH10	92.315
EDAM10	10.206	1.93	ZT-EDAM10	90.918
EDAU10	10.321	2.05	ZT-EDAU10	89.245
EDAZ10	10.436	2.16	ZT-EDAZ10	87.214
EDAH11	10.486	2.21	ZT-EDAH11	85.529
EDAM11	10.541	2.27	ZT-EDAM11	83.979

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	0.153	1.87	1.72	ZT-EDAU08		
EDAZ08	0.402	1.87	1.47	ZT-EDAZ08		
EDAH09	0.651	1.87	1.22	ZT-EDAH09		
EDAM09	0.901	1.87	0.97	ZT-EDAM09		
EDAU09	1.150	1.87	0.72	ZT-EDAU09		
EDAZ09	1.399	1.87	0.47	ZT-EDAZ09		
EDAH10	1.649	1.87	0.22	ZT-EDAH10		
EDAM10	1.898	1.87	(0.02)	ZT-EDAM10		
EDAU10	2.147	1.87	(0.27)	ZT-EDAU10		
EDAZ10	2.397	1.87	(0.52)	ZT-EDAZ10		
EDAH11	2.646	1.87	(0.77)	ZT-EDAH11		
EDAM11	2.895	1.87	(1.02)	ZT-EDAM11		

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

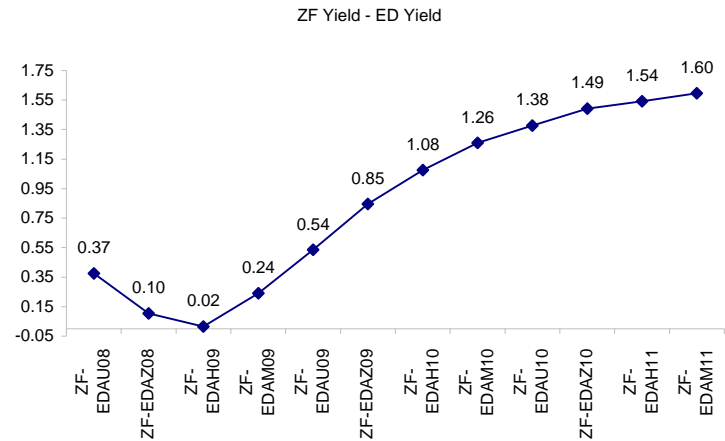


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	13.384	0.37	ZF-EDAU08	65.487
EDAZ08	13.654	0.10	ZF-EDAZ08	94.474
EDAH09	13.774	0.02	ZF-EDAH09	97.290
EDAM09	13.999	0.24	ZF-EDAM09	97.637
EDAU09	14.294	0.54	ZF-EDAU09	97.438
EDAZ09	14.604	0.85	ZF-EDAZ09	97.693
EDAH10	14.834	1.08	ZF-EDAH10	97.787
EDAM10	15.019	1.26	ZF-EDAM10	97.623
EDAU10	15.134	1.38	ZF-EDAU10	97.197
EDAZ10	15.249	1.49	ZF-EDAZ10	96.273
EDAH11	15.299	1.54	ZF-EDAH11	95.402
EDAM11	15.354	1.60	ZF-EDAM11	94.589

Price = Outright Decimal Price - Euro Contract Price

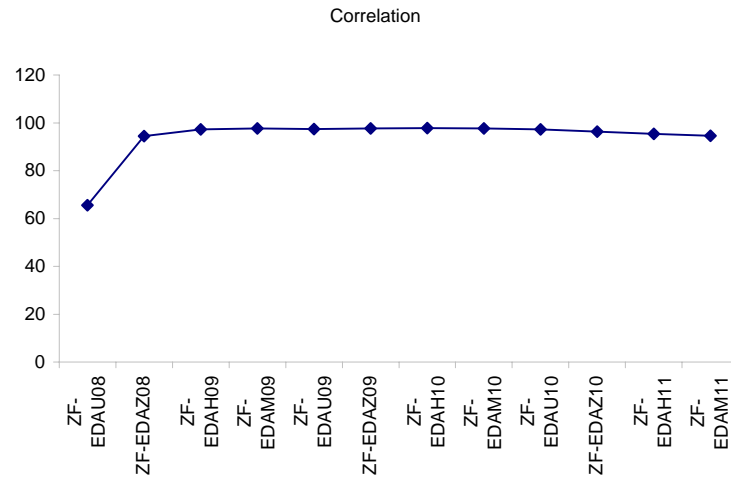
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAU08	0.153	4.00	3.85	ZF-EDAU08	
EDAZ08	0.402	4.00	3.60	ZF-EDAZ08	
EDAH09	0.651	4.00	3.35	ZF-EDAH09	
EDAM09	0.901	4.00	3.10	ZF-EDAM09	
EDAU09	1.150	4.00	2.85	ZF-EDAU09	
EDAZ09	1.399	4.00	2.61	ZF-EDAZ09	
EDAH10	1.649	4.00	2.36	ZF-EDAH10	
EDAM10	1.898	4.00	2.11	ZF-EDAM10	
EDAU10	2.147	4.00	1.86	ZF-EDAU10	
EDAZ10	2.397	4.00	1.61	ZF-EDAZ10	
EDAH11	2.646	4.00	1.36	ZF-EDAH11	
EDAM11	2.895	4.00	1.11	ZF-EDAM11	

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

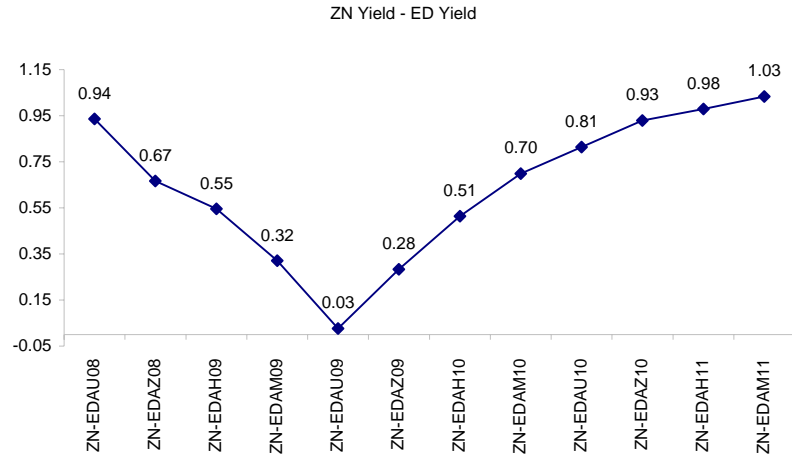


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	16.487	0.94	ZN-EDAU08	53.676
EDAZ08	16.757	0.67	ZN-EDAZ08	90.850
EDAH09	16.877	0.55	ZN-EDAH09	94.870
EDAM09	17.102	0.32	ZN-EDAM09	95.161
EDAU09	17.397	0.03	ZN-EDAU09	95.293
EDAZ09	17.707	0.28	ZN-EDAZ09	95.657
EDAH10	17.937	0.51	ZN-EDAH10	97.787
EDAM10	18.122	0.70	ZN-EDAM10	97.623
EDAU10	18.237	0.81	ZN-EDAU10	97.197
EDAZ10	18.352	0.93	ZN-EDAZ10	96.273
EDAH11	18.402	0.98	ZN-EDAH11	95.402
EDAM11	18.457	1.03	ZN-EDAM11	94.589

Price = Outright Decimal Price - Euro Contract Price

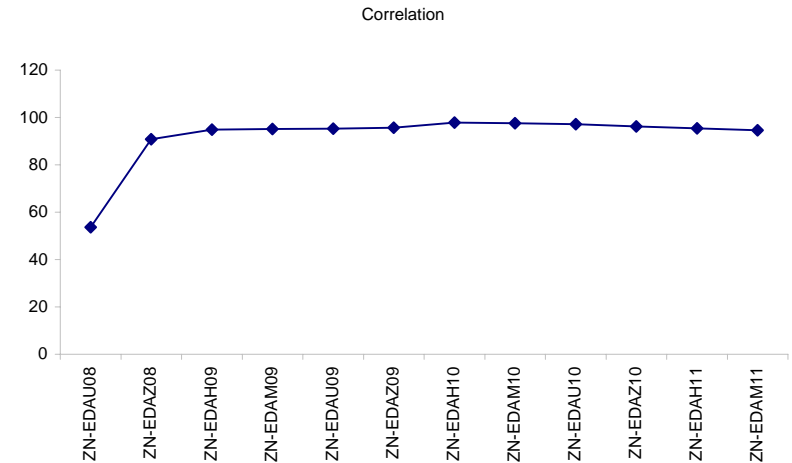
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAU08	0.153	6.42	6.26	ZN-EDAU08		
EDAZ08	0.402	6.42	6.01	ZN-EDAZ08		
EDAH09	0.651	6.42	5.77	ZN-EDAH09		
EDAM09	0.901	6.42	5.52	ZN-EDAM09		
EDAU09	1.150	6.42	5.27	ZN-EDAU09		
EDAZ09	1.399	6.42	5.02	ZN-EDAZ09		
EDAH10	1.649	6.42	4.77	ZN-EDAH10		
EDAM10	1.898	6.42	4.52	ZN-EDAM10		
EDAU10	2.147	6.42	4.27	ZN-EDAU10		
EDAZ10	2.397	6.42	4.02	ZN-EDAZ10		
EDAH11	2.646	6.42	3.77	ZN-EDAH11		
EDAM11	2.895	6.42	3.52	ZN-EDAM11		

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

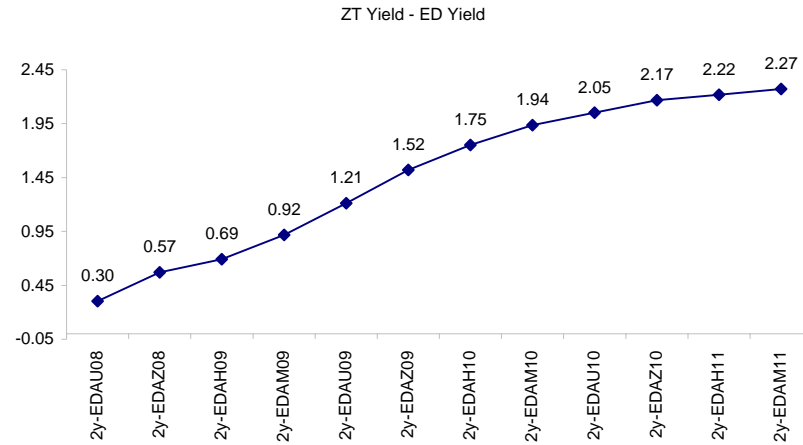


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.378	0.30	2y-EDAU08	-79.956
EDAZ08	3.647	0.57	2y-EDAZ08	-90.991
EDAH09	3.768	0.69	2y-EDAH09	-90.203
EDAM09	3.992	0.92	2y-EDAM09	-90.301
EDAU09	4.287	1.21	2y-EDAU09	-89.637
EDAZ09	4.598	1.52	2y-EDAZ09	-89.586
EDAH10	4.828	1.75	2y-EDAH10	-89.270
EDAM10	5.013	1.94	2y-EDAM10	-87.663
EDAU10	5.128	2.05	2y-EDAU10	-85.543
EDAZ10	5.242	2.17	2y-EDAZ10	-83.128
EDAH11	5.293	2.22	2y-EDAH11	-81.480
EDAM11	5.348	2.27	2y-EDAM11	-80.263

Price = Outright Decimal Price - Euro Contract Price

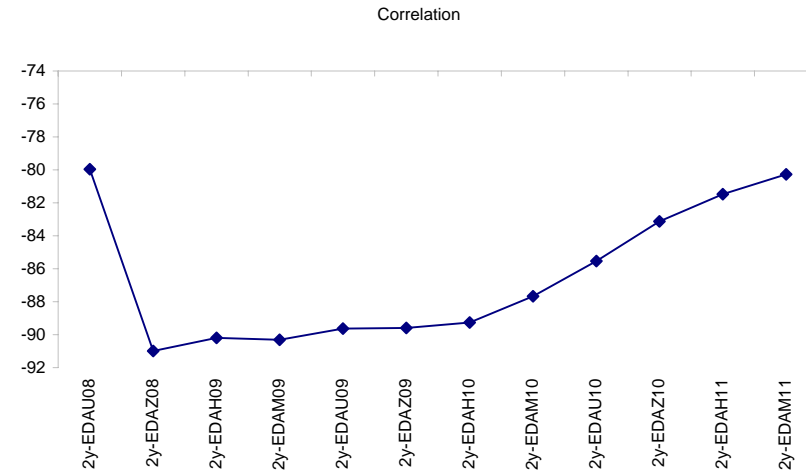
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAU08	0.153	1.87	1.72	2y-EDAU08
EDAZ08	0.402	1.87	1.47	2y-EDAZ08
EDAH09	0.651	1.87	1.22	2y-EDAH09
EDAM09	0.901	1.87	0.97	2y-EDAM09
EDAU09	1.150	1.87	0.72	2y-EDAU09
EDAZ09	1.399	1.87	0.47	2y-EDAZ09
EDAH10	1.649	1.87	0.22	2y-EDAH10
EDAM10	1.898	1.87	(0.02)	2y-EDAM10
EDAU10	2.147	1.87	(0.27)	2y-EDAU10
EDAZ10	2.397	1.87	(0.52)	2y-EDAZ10
EDAH11	2.646	1.87	(0.77)	2y-EDAH11
EDAM11	2.895	1.87	(1.02)	2y-EDAM11

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

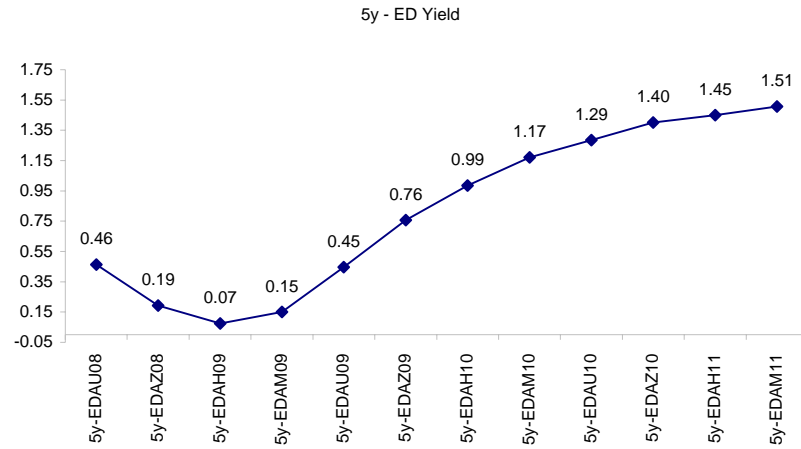


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.799	0.46	5y-EDAU08	-63.961
EDAZ08	3.069	0.19	5y-EDAZ08	-91.126
EDAH09	3.189	0.07	5y-EDAH09	-94.167
EDAM09	3.414	0.15	5y-EDAM09	-95.083
EDAU09	3.709	0.45	5y-EDAU09	-95.309
EDAZ09	4.019	0.76	5y-EDAZ09	-95.631
EDAH10	4.249	0.99	5y-EDAH10	-95.837
EDAM10	4.434	1.17	5y-EDAM10	-95.688
EDAU10	4.549	1.29	5y-EDAU10	-95.073
EDAZ10	4.664	1.40	5y-EDAZ10	-93.896
EDAH11	4.714	1.45	5y-EDAH11	-93.034
EDAM11	4.769	1.51	5y-EDAM11	-92.424

Price = Outright Decimal Price - Euro Contract Price

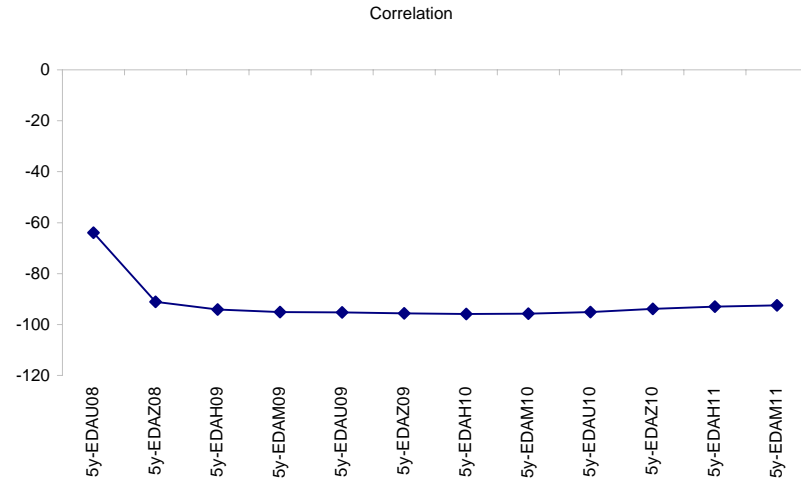
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAU08	0.153	4.51	4.35	5y-EDAU08
EDAZ08	0.402	4.51	4.10	5y-EDAZ08
EDAH09	0.651	4.51	3.85	5y-EDAH09
EDAM09	0.901	4.51	3.61	5y-EDAM09
EDAU09	1.150	4.51	3.36	5y-EDAU09
EDAZ09	1.399	4.51	3.11	5y-EDAZ09
EDAH10	1.649	4.51	2.86	5y-EDAH10
EDAM10	1.898	4.51	2.61	5y-EDAM10
EDAU10	2.147	4.51	2.36	5y-EDAU10
EDAZ10	2.397	4.51	2.11	5y-EDAZ10
EDAH11	2.646	4.51	1.86	5y-EDAH11
EDAM11	2.895	4.51	1.61	5y-EDAM11

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

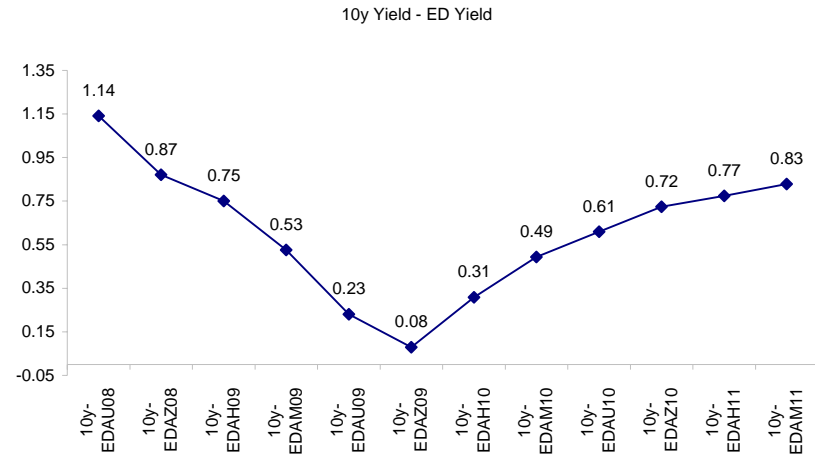


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.799	1.14	10y-EDAU08	-53.894
EDAZ08	3.069	0.87	10y-EDAZ08	-87.983
EDAH09	3.189	0.75	10y-EDAH09	-92.786
EDAM09	3.414	0.53	10y-EDAM09	-93.675
EDAU09	3.709	0.23	10y-EDAU09	-94.138
EDAZ09	4.019	0.08	10y-EDAZ09	-94.535
EDAH10	4.249	0.31	10y-EDAH10	-95.021
EDAM10	4.434	0.49	10y-EDAM10	-95.613
EDAU10	4.549	0.61	10y-EDAU10	-95.670
EDAZ10	4.664	0.72	10y-EDAZ10	-95.162
EDAH11	4.714	0.77	10y-EDAH11	-94.838
EDAM11	4.769	0.83	10y-EDAM11	-94.600

Price = Outright Decimal Price - Euro Contract Price

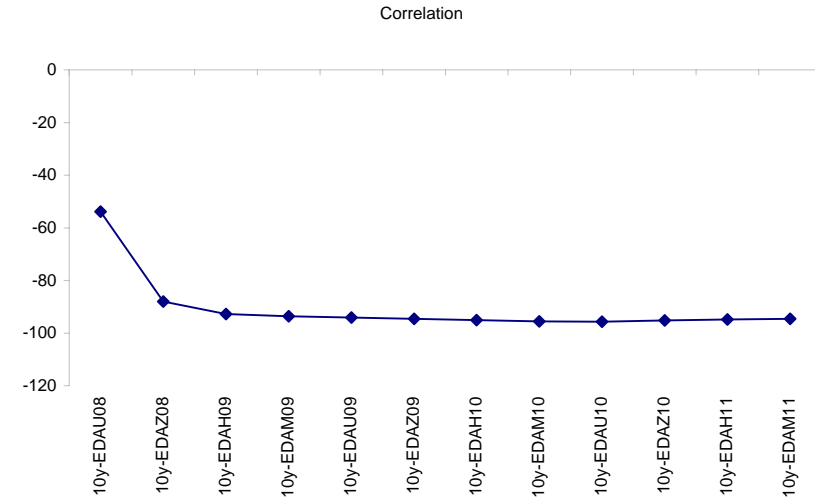
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.153	8.02	7.87	10y-EDAU08
EDAZ08	0.402	8.02	7.62	10y-EDAZ08
EDAH09	0.651	8.02	7.37	10y-EDAH09
EDAM09	0.901	8.02	7.12	10y-EDAM09
EDAU09	1.150	8.02	6.87	10y-EDAU09
EDAZ09	1.399	8.02	6.62	10y-EDAZ09
EDAH10	1.649	8.02	6.37	10y-EDAH10
EDAM10	1.898	8.02	6.12	10y-EDAM10
EDAU10	2.147	8.02	5.87	10y-EDAU10
EDAZ10	2.397	8.02	5.62	10y-EDAZ10
EDAH11	2.646	8.02	5.37	10y-EDAH11
EDAM11	2.895	8.02	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.

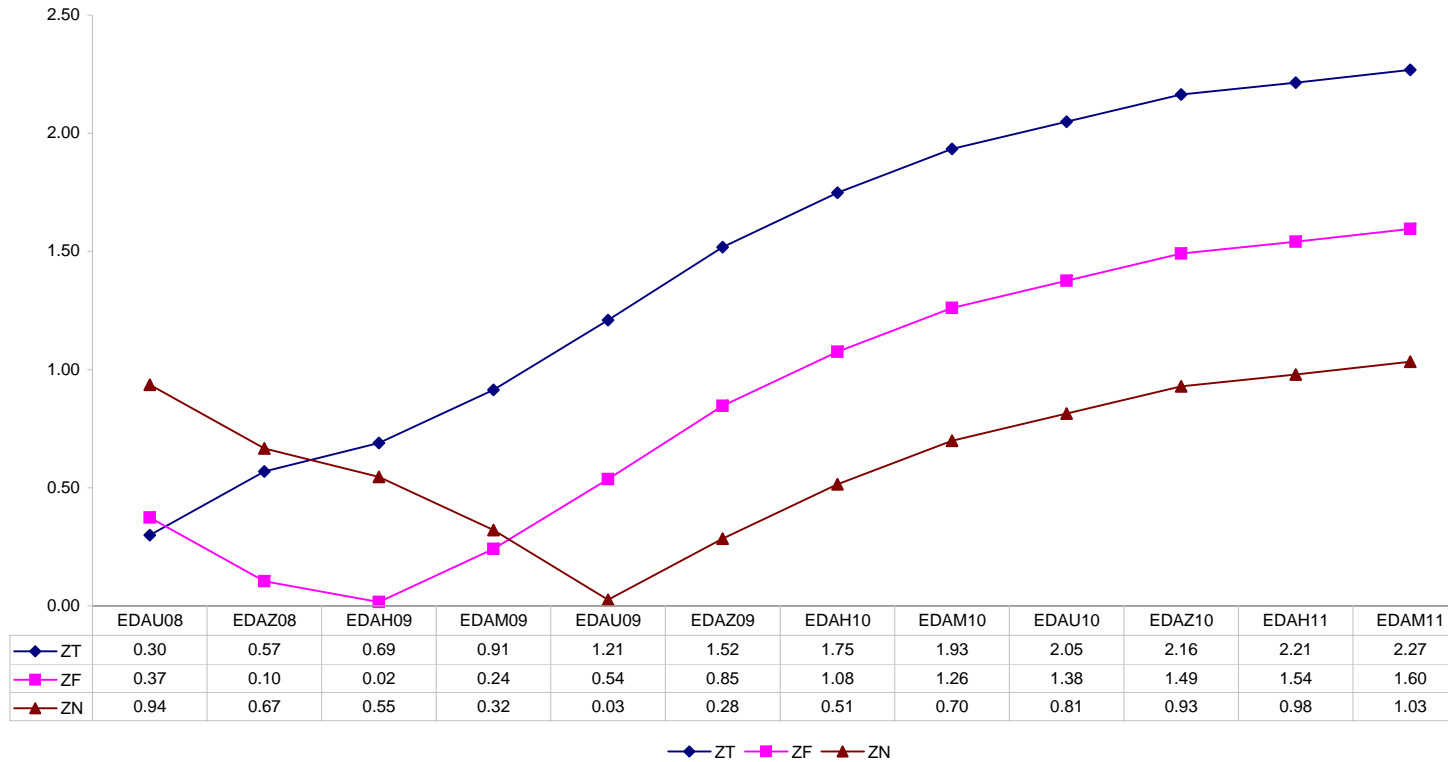
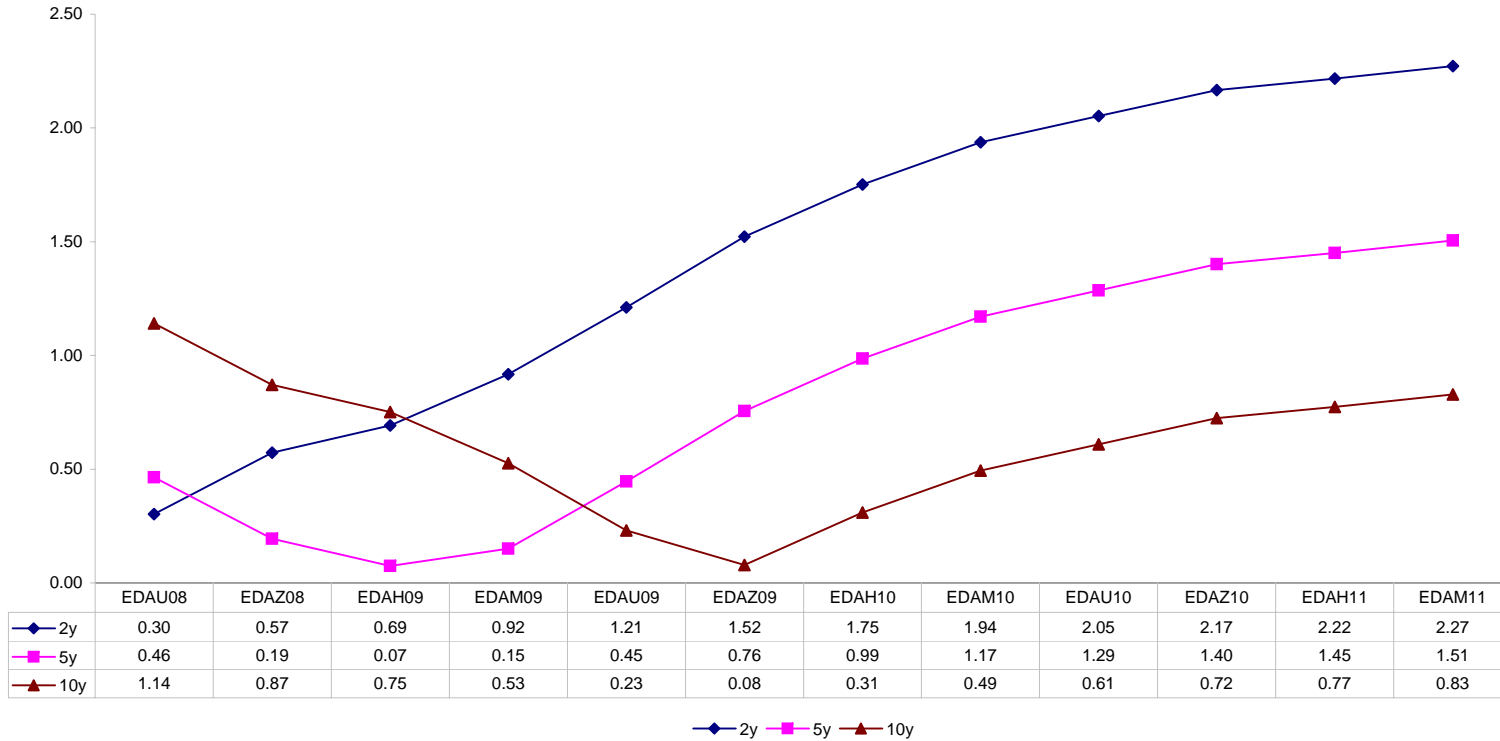
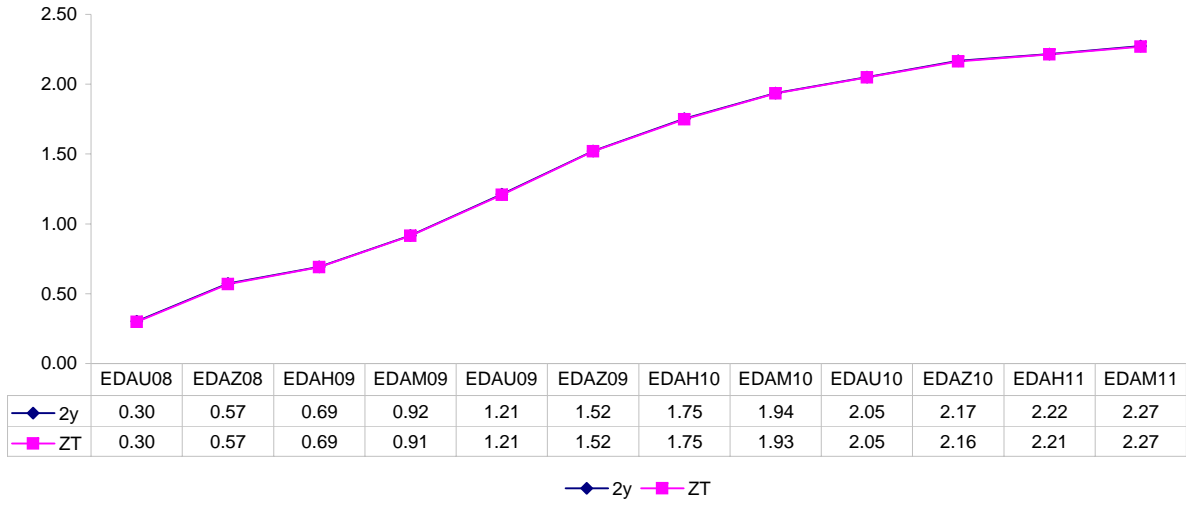


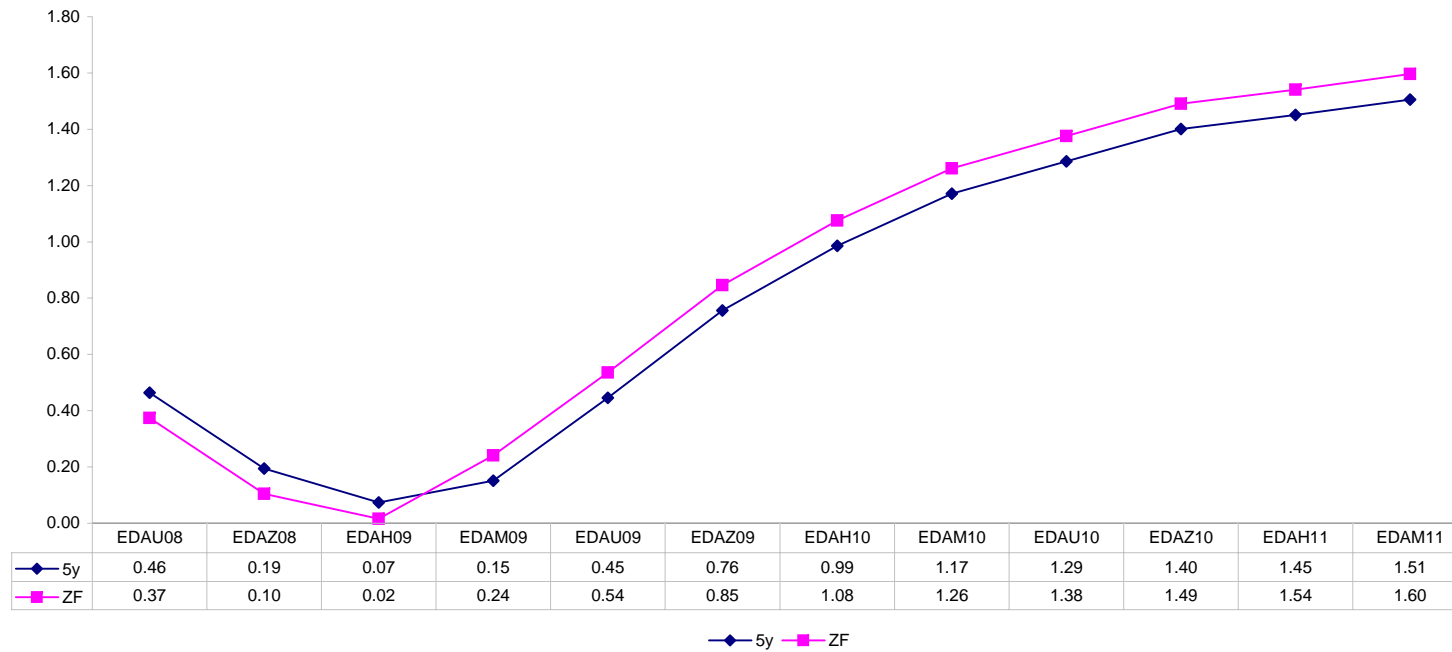
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



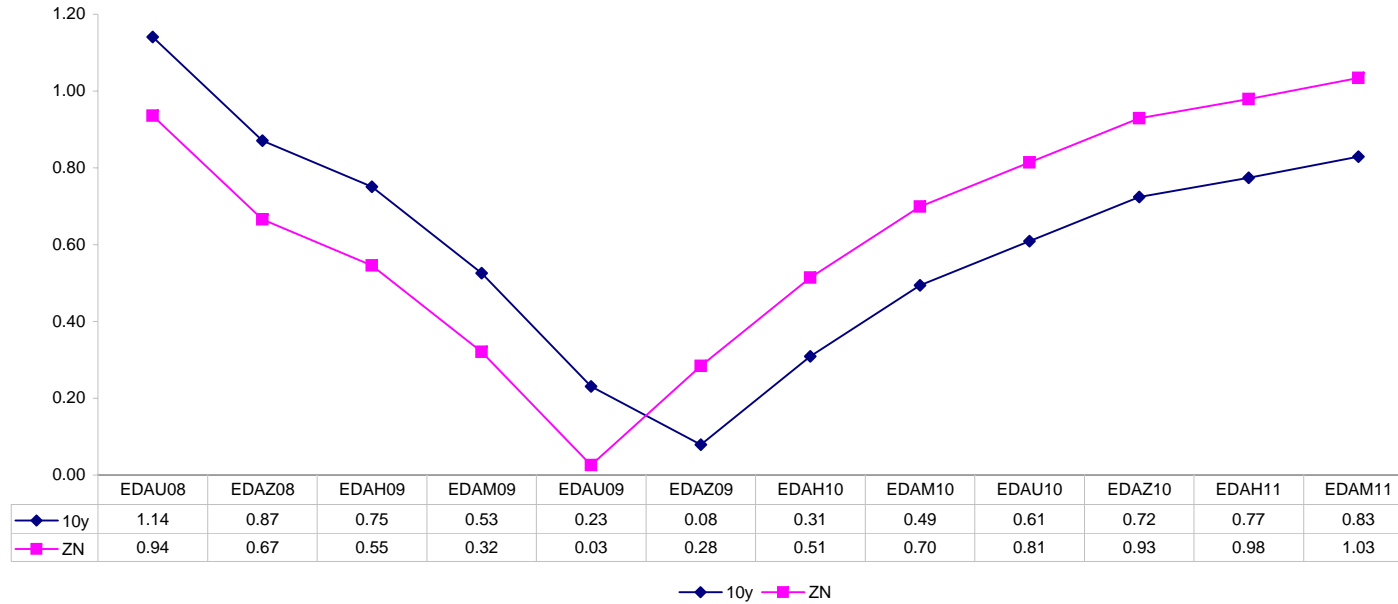
2y Basis TED Curve



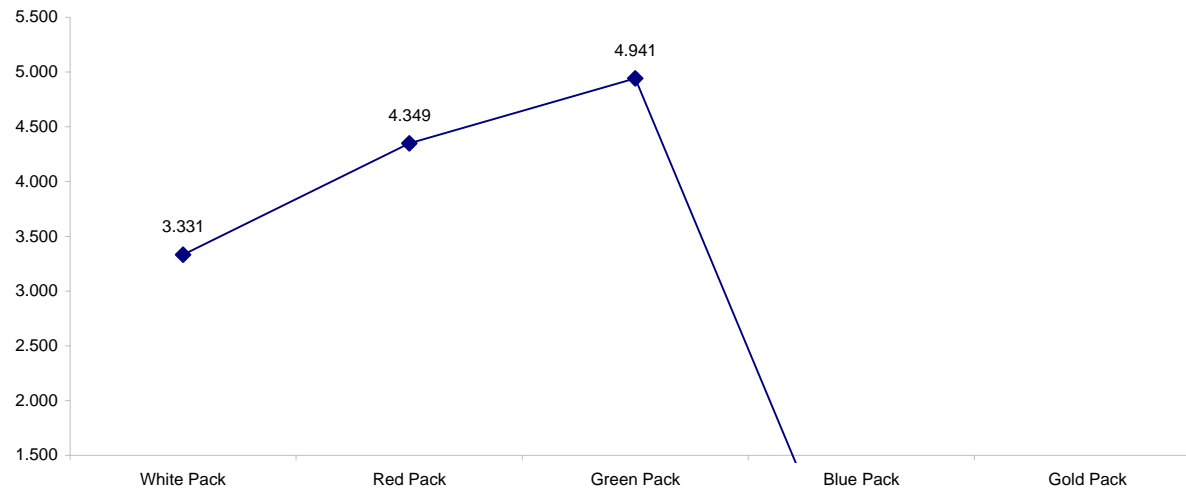
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	3.331	-2.625	9674.125
Red Pack	4.349	-3.375	9575.625
Green Pack	4.941	-0.875	9518.500
Blue Pack		0.750	9501.000
Gold Pack		0.500	9484.000



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

