

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	106.4594	106.147	2.256	1.80
ZF	112.4219	112.135	2.899	3.93
ZN	116.4063	116.130	3.584	6.65
2y	100.850	100.2720	2.300	1.88
5y	101.475	101.1520	3.049	4.52
10y	101.422	101.1350	3.827	8.18

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	97.155	2.845	26	0.071	SEP	
EDAZ08	96.990	3.010	117	0.320	DEC	White
EDAH09	97.025	2.975	208	0.569	MAR	Pack
EDAM09	96.895	3.105	299	0.819	JUN	
EDAU09	96.675	3.325	390	1.068	SEP	
EDAZ09	96.390	3.610	481	1.317	DEC	Red
EDAH10	96.160	3.840	572	1.566	MAR	Pack
EDAM10	95.945	4.055	663	1.816	JUN	
EDAU10	95.765	4.235	754	2.065	SEP	
EDAZ10	95.610	4.390	845	2.314	DEC	Green
EDAH11	95.530	4.470	936	2.564	MAR	Pack
EDAM11	95.455	4.545	1027	2.813	JUN	
EDAU11	95.365	4.635	1125	3.082	SEP	
EDAZ11	95.295	4.705	1216	3.331	DEC	Blue Pack
EDAH12	95.280	4.720	1307	3.580	MAR	
EDAM12	95.215	4.785	1398	3.829	JUN	
EDAU12	95.175	4.825	1489	4.079	SEP	
EDAZ12	95.115	4.885	1580	4.328	DEC	Gold Pack
EDAH13	95.075	4.925	1671	4.577	MAR	
EDAM13	95.045	4.955	1762	4.827	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	3.048	0.813	9701.625	
Red Pack	3.794	0.625	9629.250	Pack
Green Pack	4.521	1.875	9559.000	Prices
Blue Pack		-1.500	9529.125	
Gold Pack		-0.875	9510.375	

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.

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.

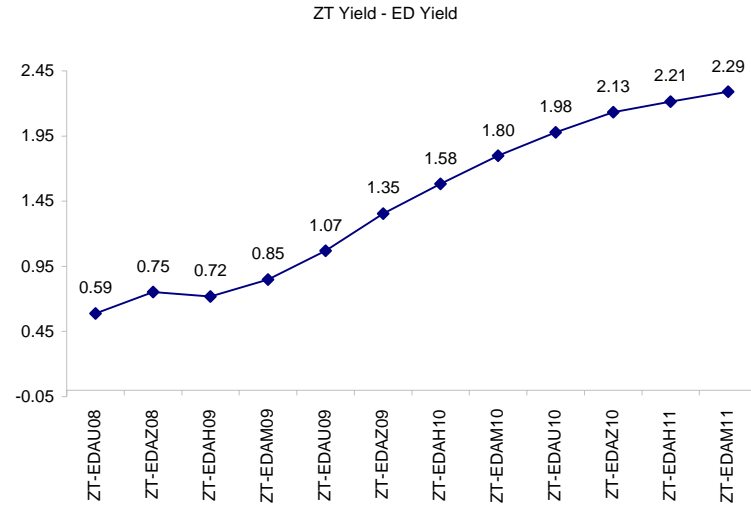
jgoulding@ghco.com

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.

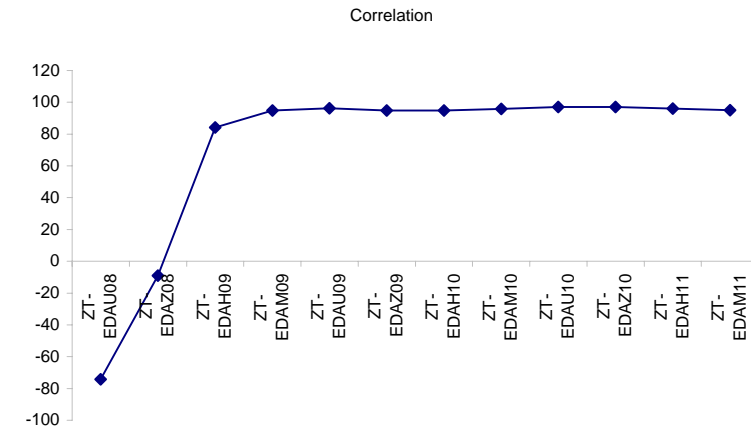
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	9.304	0.59	ZT-EDAU08	-74.190
EDAZ08	9.469	0.75	ZT-EDAZ08	-9.059
EDAH09	9.434	0.72	ZT-EDAH09	84.139
EDAM09	9.564	0.85	ZT-EDAM09	94.846
EDAU09	9.784	1.07	ZT-EDAU09	96.158
EDAZ09	10.069	1.35	ZT-EDAZ09	94.780
EDAH10	10.299	1.58	ZT-EDAH10	94.936
EDAM10	10.514	1.80	ZT-EDAM10	95.936
EDAU10	10.694	1.98	ZT-EDAU10	97.011
EDAZ10	10.849	2.13	ZT-EDAZ10	97.150
EDAH11	10.929	2.21	ZT-EDAH11	96.020
EDAM11	11.004	2.29	ZT-EDAM11	95.035

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	0.071	1.80	1.73	ZT-EDAU08		
EDAZ08	0.320	1.80	1.48	ZT-EDAZ08		
EDAH09	0.569	1.80	1.23	ZT-EDAH09		
EDAM09	0.819	1.80	0.98	ZT-EDAM09		
EDAU09	1.068	1.80	0.73	ZT-EDAU09		
EDAZ09	1.317	1.80	0.48	ZT-EDAZ09		
EDAH10	1.566	1.80	0.23	ZT-EDAH10		
EDAM10	1.816	1.80	(0.02)	ZT-EDAM10		
EDAU10	2.065	1.80	(0.27)	ZT-EDAU10		
EDAZ10	2.314	1.80	(0.52)	ZT-EDAZ10		
EDAH11	2.564	1.80	(0.77)	ZT-EDAH11		
EDAM11	2.813	1.80	(1.02)	ZT-EDAM11		

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

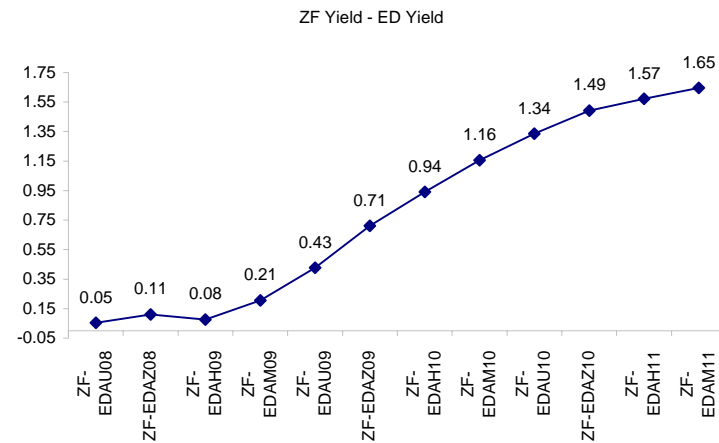


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	15.267	0.05	ZF-EDAU08	-79.095
EDAZ08	15.432	0.11	ZF-EDAZ08	-14.718
EDAH09	15.397	0.08	ZF-EDAH09	80.971
EDAM09	15.527	0.21	ZF-EDAM09	93.624
EDAU09	15.747	0.43	ZF-EDAU09	96.669
EDAZ09	16.032	0.71	ZF-EDAZ09	96.236
EDAH10	16.262	0.94	ZF-EDAH10	96.796
EDAM10	16.477	1.16	ZF-EDAM10	97.801
EDAU10	16.657	1.34	ZF-EDAU10	98.678
EDAZ10	16.812	1.49	ZF-EDAZ10	98.914
EDAH11	16.892	1.57	ZF-EDAH11	98.247
EDAM11	16.967	1.65	ZF-EDAM11	97.584

Price = Outright Decimal Price - Euro Contract Price

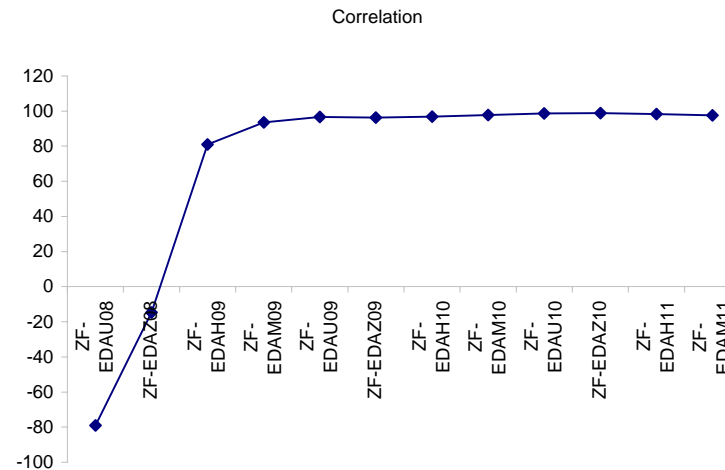
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAU08	0.071	3.93	3.86	ZF-EDAU08		
EDAZ08	0.320	3.93	3.62	ZF-EDAZ08		
EDAH09	0.569	3.93	3.37	ZF-EDAH09		
EDAM09	0.819	3.93	3.12	ZF-EDAM09		
EDAU09	1.068	3.93	2.87	ZF-EDAU09		
EDAZ09	1.317	3.93	2.62	ZF-EDAZ09		
EDAH10	1.566	3.93	2.37	ZF-EDAH10		
EDAM10	1.816	3.93	2.12	ZF-EDAM10		
EDAU10	2.065	3.93	1.87	ZF-EDAU10		
EDAZ10	2.314	3.93	1.62	ZF-EDAZ10		
EDAH11	2.564	3.93	1.37	ZF-EDAH11		
EDAM11	2.813	3.93	1.12	ZF-EDAM11		

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

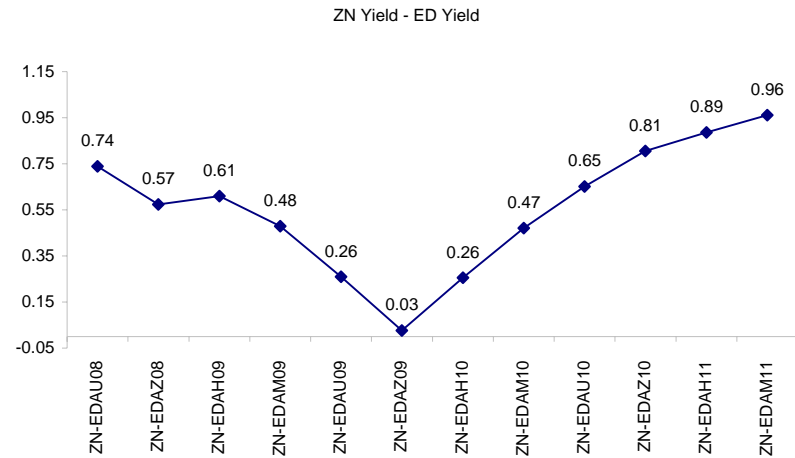


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	19.251	0.74	ZN-EDAU08	-79.595
EDAZ08	19.416	0.57	ZN-EDAZ08	-13.484
EDAH09	19.381	0.61	ZN-EDAH09	80.727
EDAM09	19.511	0.48	ZN-EDAM09	93.425
EDAU09	19.731	0.26	ZN-EDAU09	96.669
EDAZ09	20.016	0.03	ZN-EDAZ09	96.217
EDAH10	20.246	0.26	ZN-EDAH10	96.796
EDAM10	20.461	0.47	ZN-EDAM10	97.801
EDAU10	20.641	0.65	ZN-EDAU10	98.678
EDAZ10	20.796	0.81	ZN-EDAZ10	98.914
EDAH11	20.876	0.89	ZN-EDAH11	98.247
EDAM11	20.951	0.96	ZN-EDAM11	97.584

Price = Outright Decimal Price - Euro Contract Price

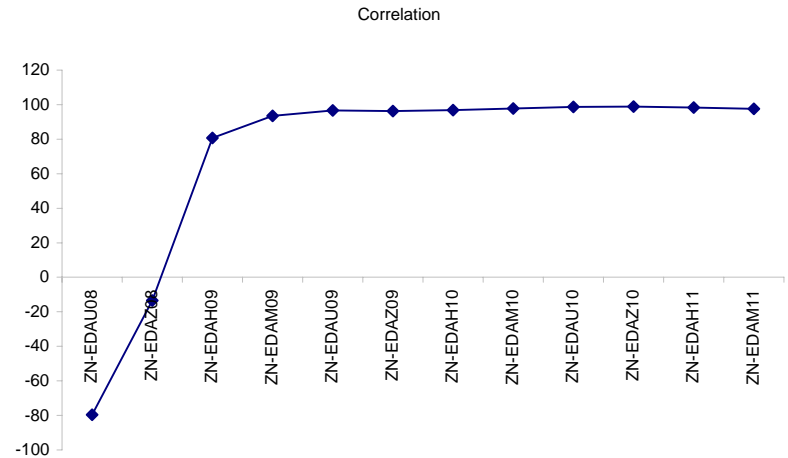
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAU08	0.071	6.65	6.58	ZN-EDAU08		
EDAZ08	0.320	6.65	6.33	ZN-EDAZ08		
EDAH09	0.569	6.65	6.08	ZN-EDAH09		
EDAM09	0.819	6.65	5.83	ZN-EDAM09		
EDAU09	1.068	6.65	5.58	ZN-EDAU09		
EDAZ09	1.317	6.65	5.33	ZN-EDAZ09		
EDAH10	1.566	6.65	5.08	ZN-EDAH10		
EDAM10	1.816	6.65	4.83	ZN-EDAM10		
EDAU10	2.065	6.65	4.58	ZN-EDAU10		
EDAZ10	2.314	6.65	4.33	ZN-EDAZ10		
EDAH11	2.564	6.65	4.08	ZN-EDAH11		
EDAM11	2.813	6.65	3.83	ZN-EDAM11		

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

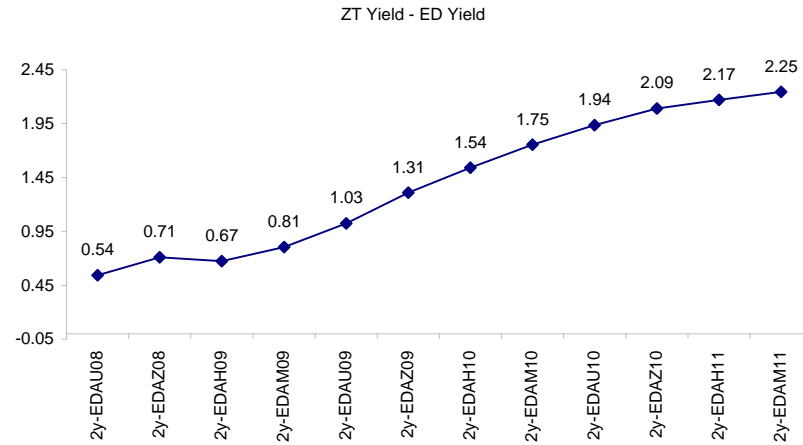


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.695	0.54	2y-EDAU08	71.116
EDAZ08	3.860	0.71	2y-EDAZ08	4.280
EDAH09	3.825	0.67	2y-EDAH09	-85.989
EDAM09	3.955	0.81	2y-EDAM09	-95.356
EDAU09	4.175	1.03	2y-EDAU09	-95.802
EDAZ09	4.460	1.31	2y-EDAZ09	-94.034
EDAH10	4.690	1.54	2y-EDAH10	-93.923
EDAM10	4.905	1.75	2y-EDAM10	-94.639
EDAU10	5.085	1.94	2y-EDAU10	-95.505
EDAZ10	5.240	2.09	2y-EDAZ10	-95.322
EDAH11	5.320	2.17	2y-EDAH11	-94.031
EDAM11	5.395	2.25	2y-EDAM11	-92.731

Price = Outright Decimal Price - Euro Contract Price

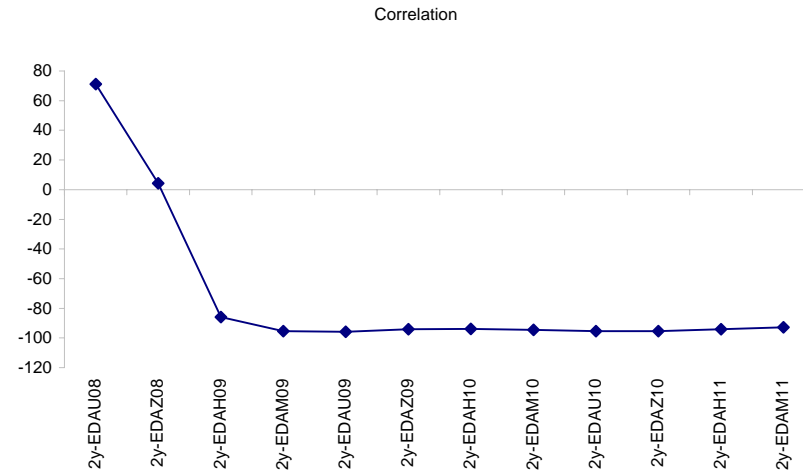
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAU08	0.071	1.88	1.81	2y-EDAU08	
EDAZ08	0.320	1.88	1.56	2y-EDAZ08	
EDAH09	0.569	1.88	1.31	2y-EDAH09	
EDAM09	0.819	1.88	1.06	2y-EDAM09	
EDAU09	1.068	1.88	0.81	2y-EDAU09	
EDAZ09	1.317	1.88	0.56	2y-EDAZ09	
EDAH10	1.566	1.88	0.31	2y-EDAH10	
EDAM10	1.816	1.88	0.07	2y-EDAM10	
EDAU10	2.065	1.88	(0.18)	2y-EDAU10	
EDAZ10	2.314	1.88	(0.43)	2y-EDAZ10	
EDAH11	2.564	1.88	(0.68)	2y-EDAH11	
EDAM11	2.813	1.88	(0.93)	2y-EDAM11	

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

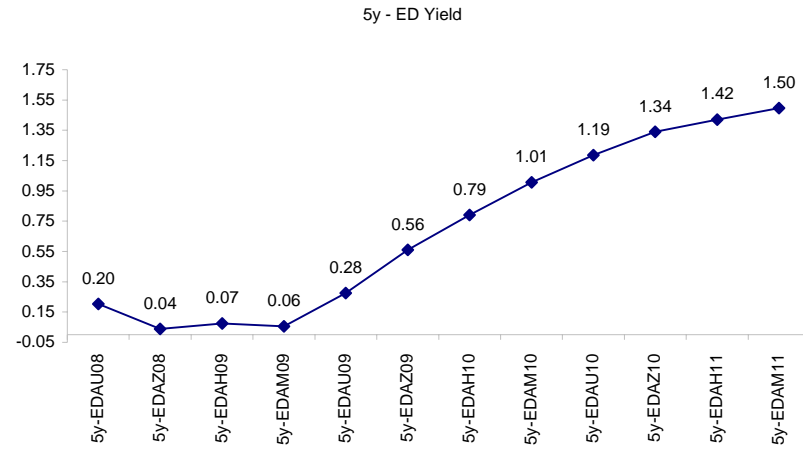


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	4.320	0.20	5y-EDAU08	73.372
EDAZ08	4.485	0.04	5y-EDAZ08	6.216
EDAH09	4.450	0.07	5y-EDAH09	-84.483
EDAM09	4.580	0.06	5y-EDAM09	-95.174
EDAU09	4.800	0.28	5y-EDAU09	-96.691
EDAZ09	5.085	0.56	5y-EDAZ09	-95.397
EDAH10	5.315	0.79	5y-EDAH10	-95.536
EDAM10	5.530	1.01	5y-EDAM10	-96.492
EDAU10	5.710	1.19	5y-EDAU10	-97.664
EDAZ10	5.865	1.34	5y-EDAZ10	-98.176
EDAH11	5.945	1.42	5y-EDAH11	-97.811
EDAM11	6.020	1.50	5y-EDAM11	-97.092

Price = Outright Decimal Price - Euro Contract Price

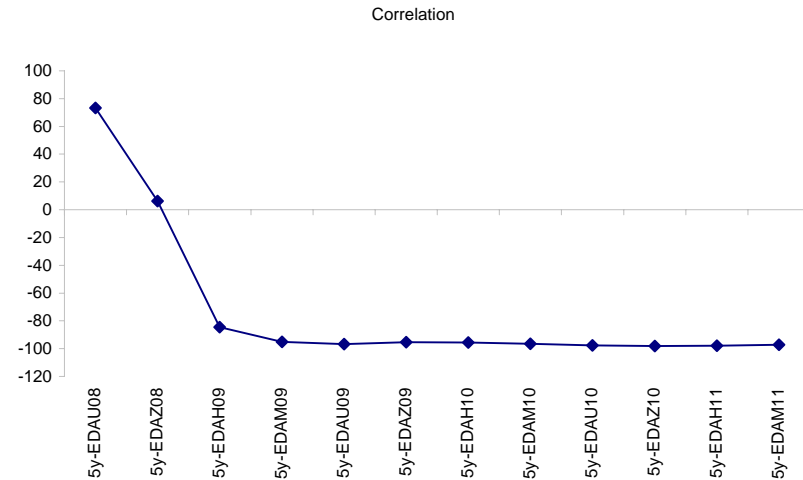
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAU08	0.071	4.52	4.45	5y-EDAU08	
EDAZ08	0.320	4.52	4.20	5y-EDAZ08	
EDAH09	0.569	4.52	3.95	5y-EDAH09	
EDAM09	0.819	4.52	3.70	5y-EDAM09	
EDAU09	1.068	4.52	3.45	5y-EDAU09	
EDAZ09	1.317	4.52	3.20	5y-EDAZ09	
EDAH10	1.566	4.52	2.95	5y-EDAH10	
EDAM10	1.816	4.52	2.70	5y-EDAM10	
EDAU10	2.065	4.52	2.45	5y-EDAU10	
EDAZ10	2.314	4.52	2.21	5y-EDAZ10	
EDAH11	2.564	4.52	1.96	5y-EDAH11	
EDAM11	2.813	4.52	1.71	5y-EDAM11	

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

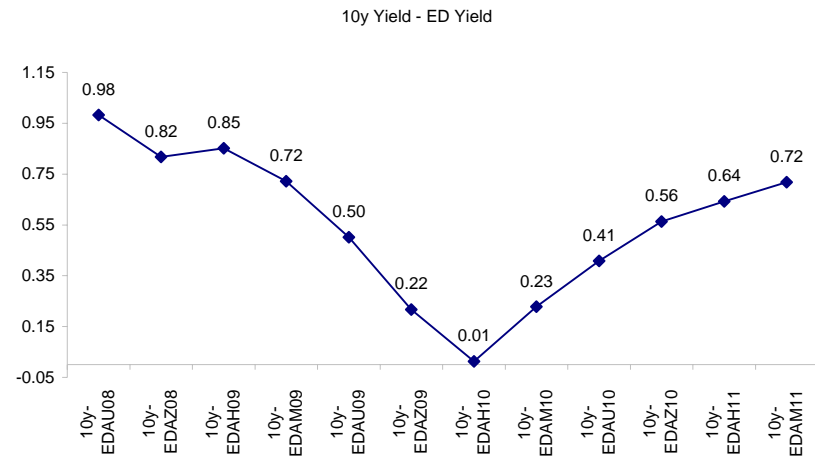


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	4.320	0.98	10y-EDAU08	82.547
EDAZ08	4.485	0.82	10y-EDAZ08	23.638
EDAH09	4.450	0.85	10y-EDAH09	-73.604
EDAM09	4.580	0.72	10y-EDAM09	-88.753
EDAU09	4.800	0.50	10y-EDAU09	-93.383
EDAZ09	5.085	0.22	10y-EDAZ09	-93.112
EDAH10	5.315	0.01	10y-EDAH10	-94.021
EDAM10	5.530	0.23	10y-EDAM10	-95.282
EDAU10	5.710	0.41	10y-EDAU10	-96.252
EDAZ10	5.865	0.56	10y-EDAZ10	-96.948
EDAH11	5.945	0.64	10y-EDAH11	-97.486
EDAM11	6.020	0.72	10y-EDAM11	-97.197

Price = Outright Decimal Price - Euro Contract Price

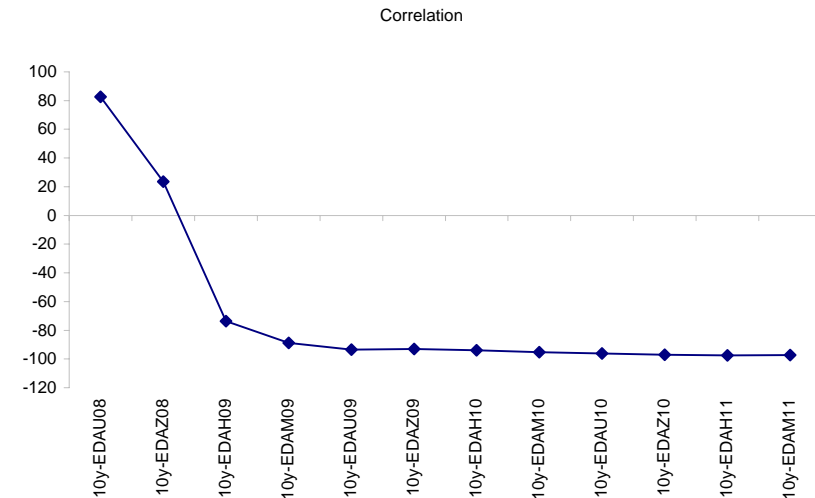
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.071	8.18	8.11	10y-EDAU08
EDAZ08	0.320	8.18	7.86	10y-EDAZ08
EDAH09	0.569	8.18	7.61	10y-EDAH09
EDAM09	0.819	8.18	7.36	10y-EDAM09
EDAU09	1.068	8.18	7.11	10y-EDAU09
EDAZ09	1.317	8.18	6.86	10y-EDAZ09
EDAH10	1.566	8.18	6.61	10y-EDAH10
EDAM10	1.816	8.18	6.36	10y-EDAM10
EDAU10	2.065	8.18	6.12	10y-EDAU10
EDAZ10	2.314	8.18	5.87	10y-EDAZ10
EDAH11	2.564	8.18	5.62	10y-EDAH11
EDAM11	2.813	8.18	5.37	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.

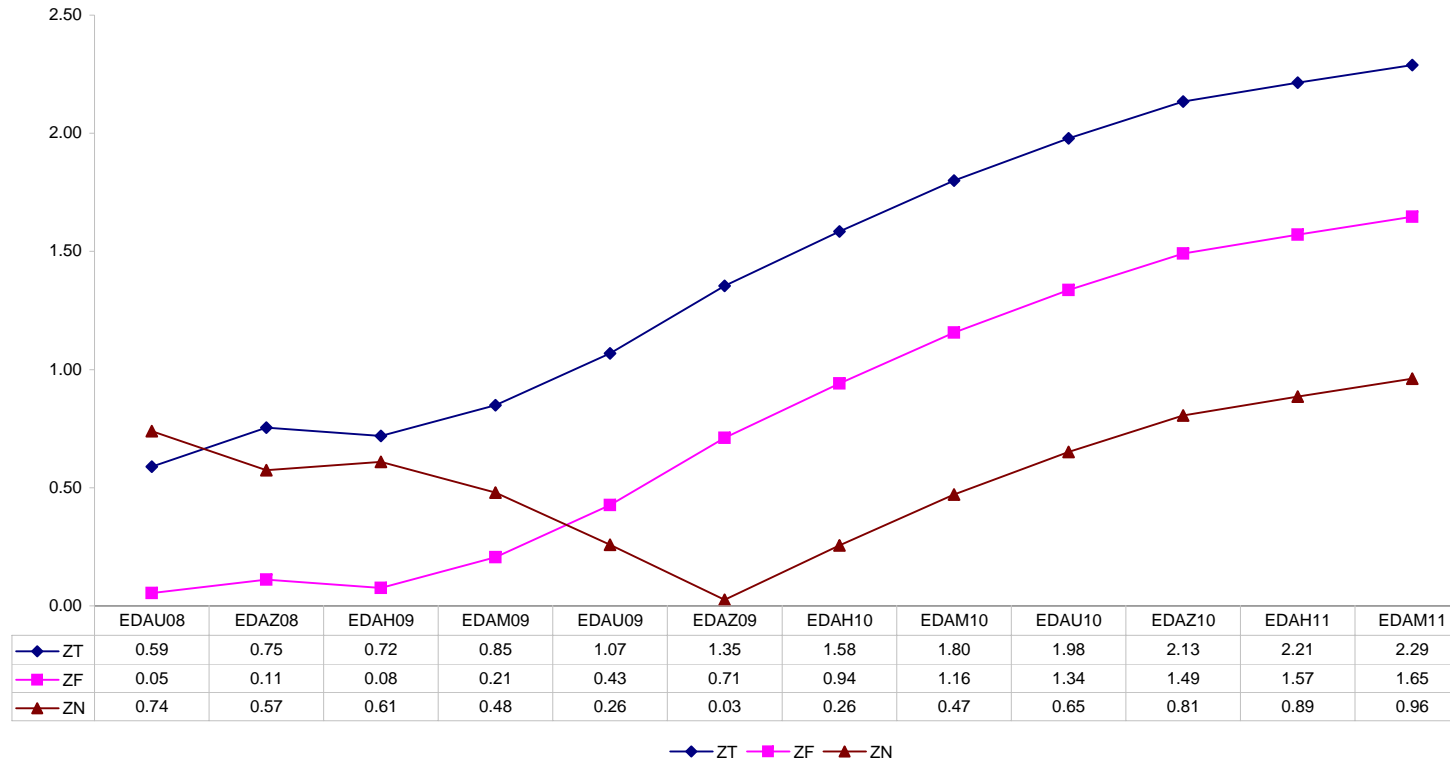
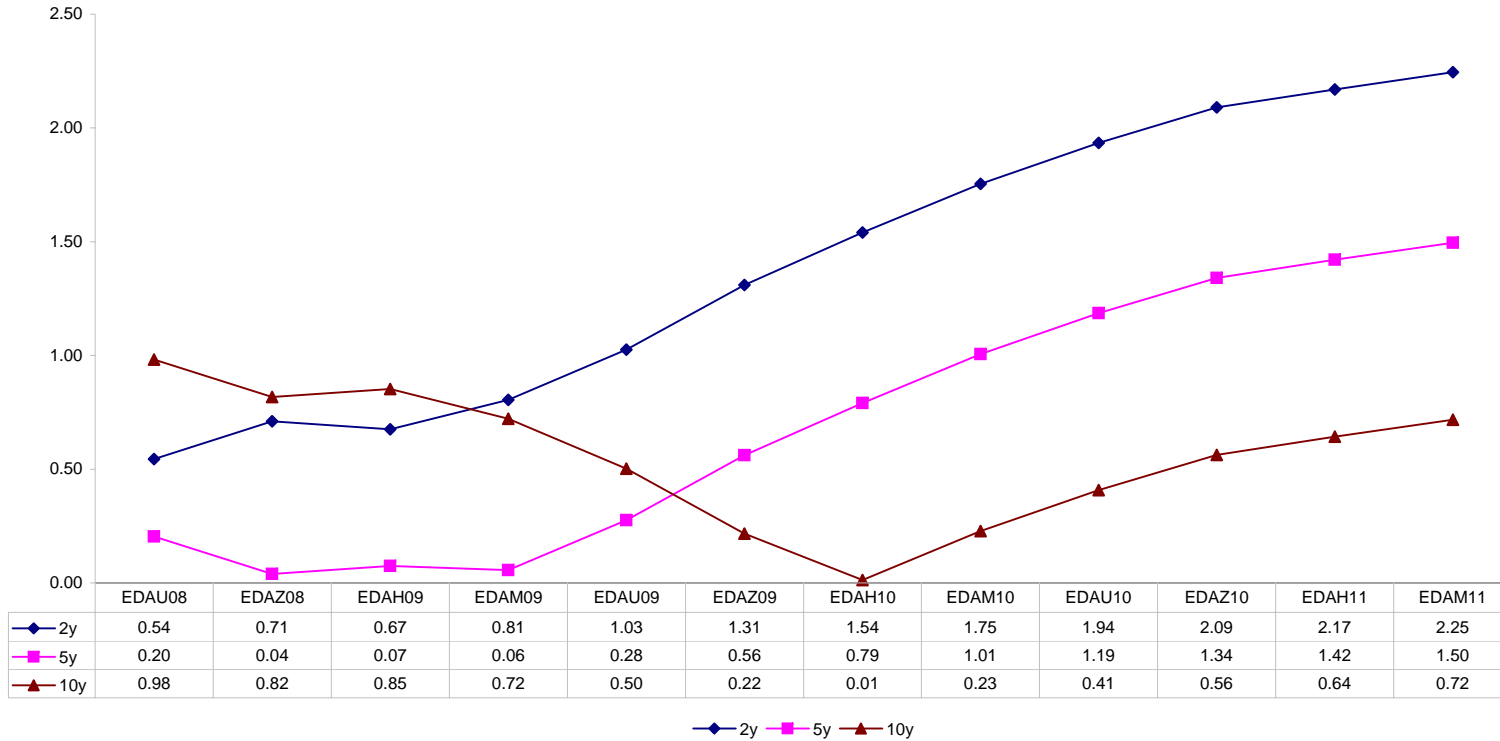
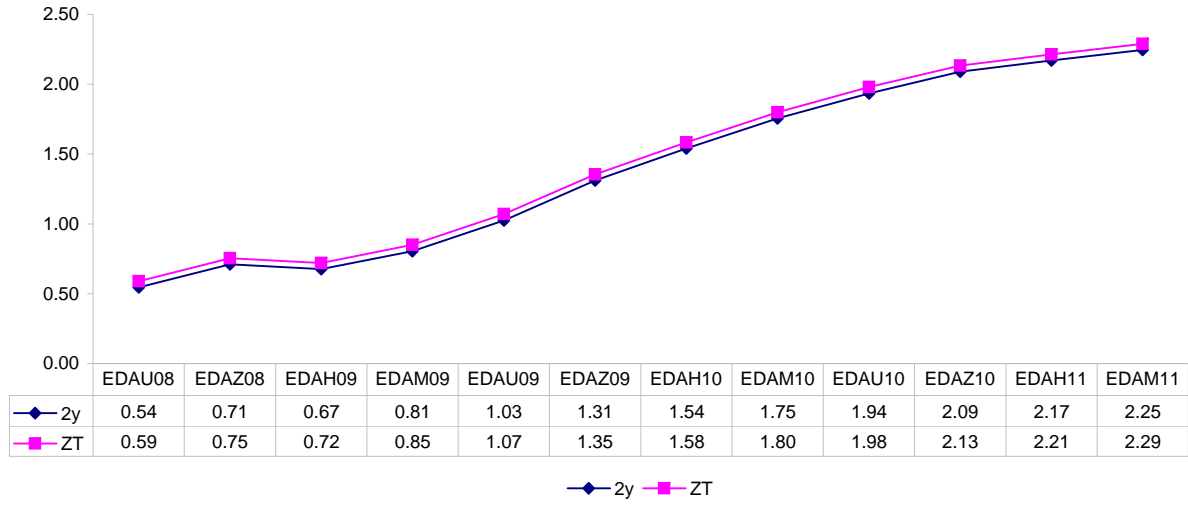


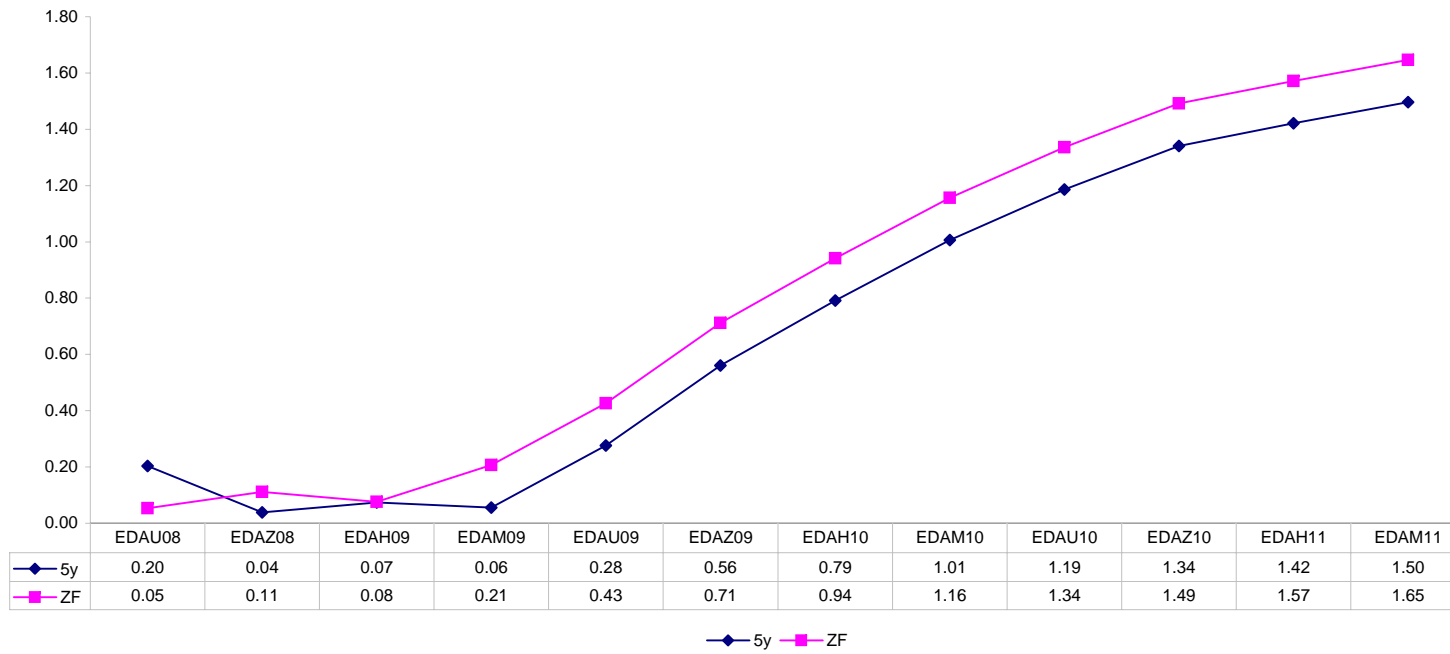
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



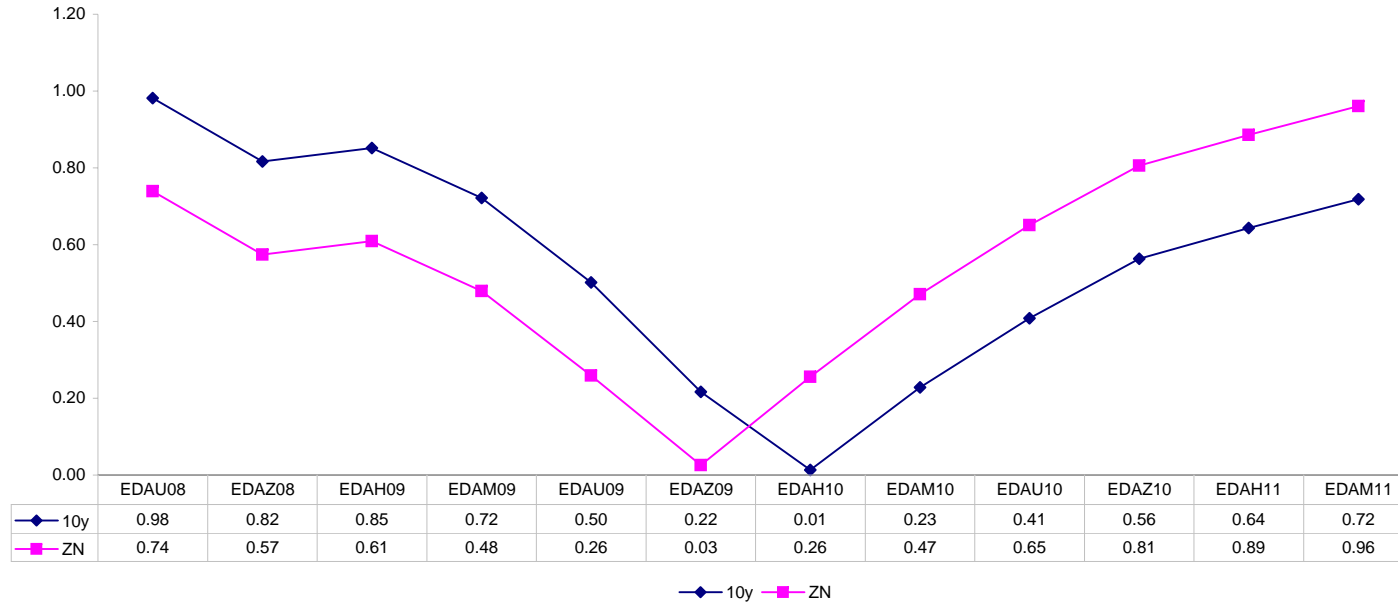
2y Basis TED Curve



5y Basis TED Curve

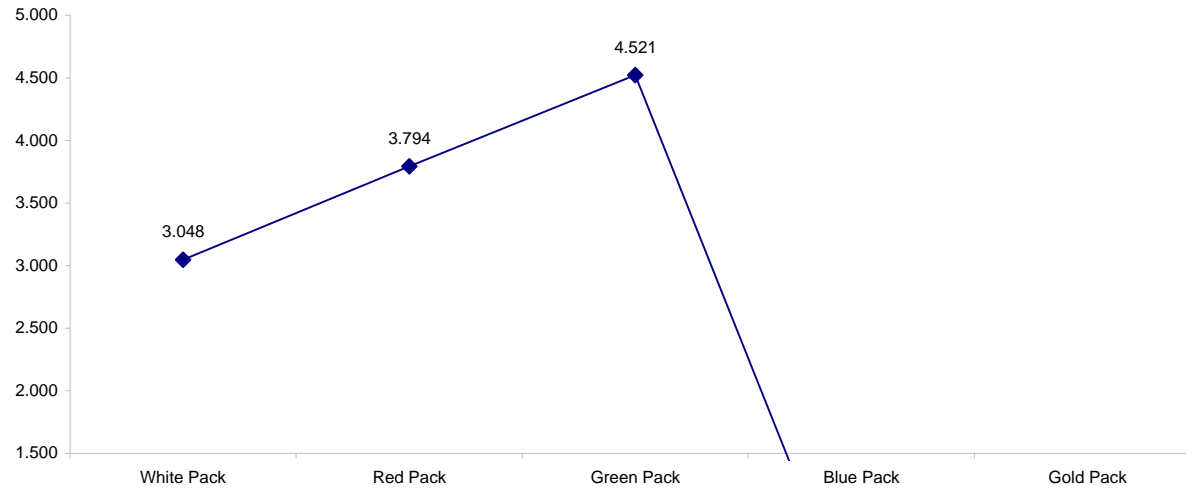


10y Basis TED Curve



Packs

	Last Yield	Net Last Yield	Last Price
White Pack	3.048	0.813	9701.625
Red Pack	3.794	0.625	9629.250
Green Pack	4.521	1.875	9559.000
Blue Pack		-1.500	9529.125
Gold Pack		-0.875	9510.375



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

