

The Morning Email: TERM TEDS & Dirty TEDS

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Want something added? Let me know: jgoulding@ghco.com

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Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	106.3031	106.097	2.190	1.79
ZF	112.0000	112.000	2.911	3.93
ZN	115.8594	115.275	3.556	5.88
2y	99.719	99.2300	2.271	1.94
5y	100.444	100.1420	3.027	4.59
10y	97.984	97.3150	3.745	8.14

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.325	2.675	46	0.125	JUN
EDAU08	97.305	2.695	137	0.375	SEP White
EDAZ08	97.120	2.880	228	0.624	DEC Pack
EDAH09	97.015	2.985	319	0.873	MAR
EDAM09	96.855	3.145	410	1.123	JUN
EDAU09	96.680	3.320	501	1.372	SEP Red Pack
EDAZ09	96.470	3.530	592	1.621	DEC
EDAH10	96.335	3.665	683	1.871	MAR
EDAM10	96.180	3.820	774	2.120	JUN
EDAU10	96.045	3.955	865	2.369	SEP Green
EDAZ10	95.900	4.100	956	2.618	DEC Pack
EDAH11	95.830	4.170	1047	2.868	MAR
EDAM11	95.750	4.250	1138	3.117	JUN
EDAU11	95.655	4.345	1236	3.386	SEP Blue Pack
EDAZ11	95.580	4.420	1327	3.635	DEC
EDAH12	95.530	4.470	1418	3.884	MAR
EDAM12	95.395	4.605	1509	4.134	JUN
EDAU12	95.350	4.650	1600	4.383	SEP Gold Pack
EDAZ12	95.335	4.665	1691	4.632	DEC
EDAH13	95.300	4.700	1782	4.881	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.868	0.875	9719.125	Pack Prices
Red Pack	3.492	2.250	9658.500	
Green Pack	4.108	2.875	9598.875	
Blue Pack	4.481	5.625	9562.875	
Gold Pack	4.775	5.250	9534.500	

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.

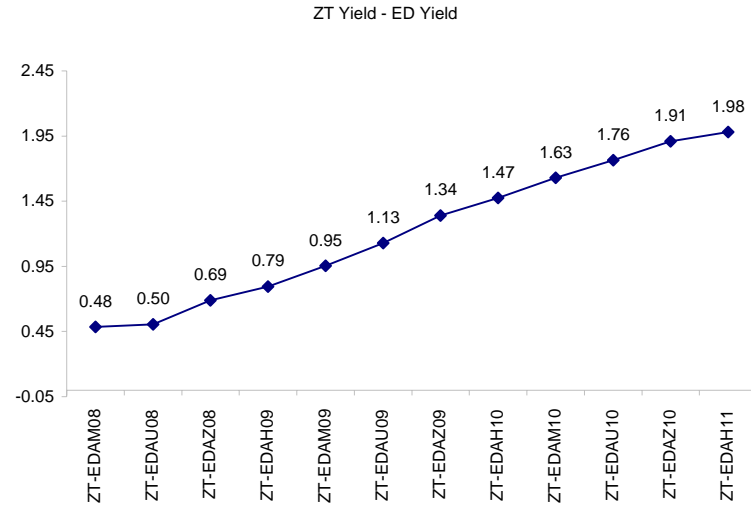
jgoulding@ghco.com

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.

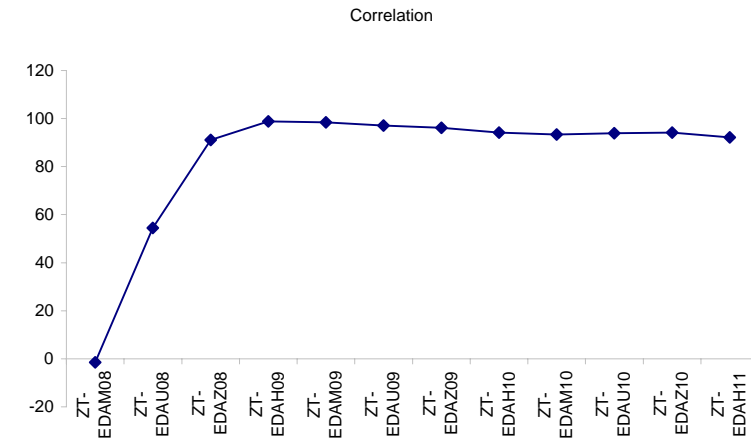
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.978	0.48	ZT-EDAM08	-1.511
EDAU08	8.998	0.50	ZT-EDAU08	54.484
EDAZ08	9.183	0.69	ZT-EDAZ08	91.039
EDAH09	9.288	0.79	ZT-EDAH09	98.798
EDAM09	9.448	0.95	ZT-EDAM09	98.417
EDAU09	9.623	1.13	ZT-EDAU09	97.090
EDAZ09	9.833	1.34	ZT-EDAZ09	96.142
EDAH10	9.968	1.47	ZT-EDAH10	94.128
EDAM10	10.123	1.63	ZT-EDAM10	93.423
EDAU10	10.258	1.76	ZT-EDAU10	93.872
EDAZ10	10.403	1.91	ZT-EDAZ10	94.224
EDAH11	10.473	1.98	ZT-EDAH11	92.205

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	0.125	1.79	1.67	ZT-EDAM08		
EDAU08	0.375	1.79	1.42	ZT-EDAU08		
EDAZ08	0.624	1.79	1.17	ZT-EDAZ08		
EDAH09	0.873	1.79	0.92	ZT-EDAH09		
EDAM09	1.123	1.79	0.67	ZT-EDAM09		
EDAU09	1.372	1.79	0.42	ZT-EDAU09		
EDAZ09	1.621	1.79	0.17	ZT-EDAZ09		
EDAH10	1.871	1.79	(0.08)	ZT-EDAH10		
EDAM10	2.120	1.79	(0.33)	ZT-EDAM10		
EDAU10	2.369	1.79	(0.58)	ZT-EDAU10		
EDAZ10	2.618	1.79	(0.83)	ZT-EDAZ10		
EDAH11	2.868	1.79	(1.07)	ZT-EDAH11		

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

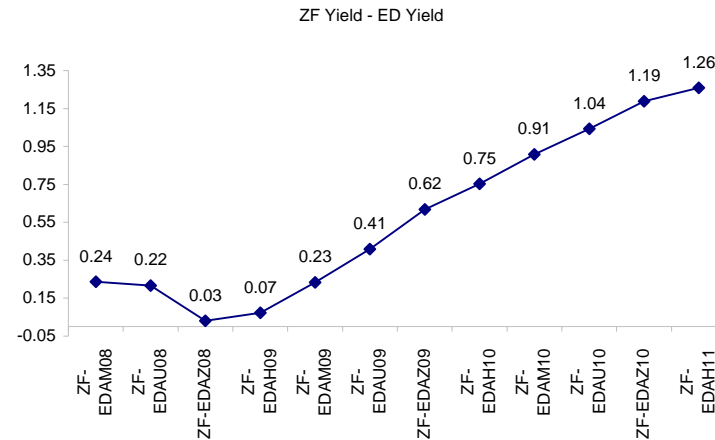


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	14.675	0.24	ZF-EDAM08	-13.017
EDAU08	14.695	0.22	ZF-EDAU08	44.069
EDAZ08	14.880	0.03	ZF-EDAZ08	86.131
EDAH09	14.985	0.07	ZF-EDAH09	99.008
EDAM09	15.145	0.23	ZF-EDAM09	99.751
EDAU09	15.320	0.41	ZF-EDAU09	99.334
EDAZ09	15.530	0.62	ZF-EDAZ09	98.553
EDAH10	15.665	0.75	ZF-EDAH10	97.290
EDAM10	15.820	0.91	ZF-EDAM10	96.782
EDAU10	15.955	1.04	ZF-EDAU10	96.740
EDAZ10	16.100	1.19	ZF-EDAZ10	96.276
EDAH11	16.170	1.26	ZF-EDAH11	92.770

Price = Outright Decimal Price - Euro Contract Price

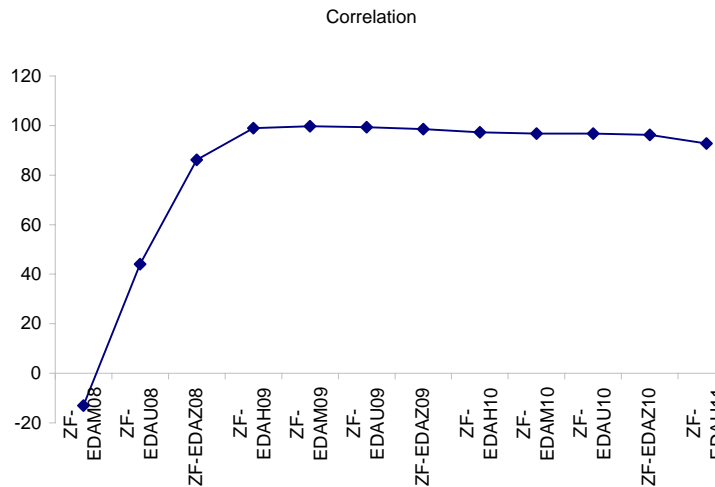
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.125	3.93	3.81	ZF-EDAM08	
EDAU08	0.375	3.93	3.56	ZF-EDAU08	
EDAZ08	0.624	3.93	3.31	ZF-EDAZ08	
EDAH09	0.873	3.93	3.06	ZF-EDAH09	
EDAM09	1.123	3.93	2.81	ZF-EDAM09	
EDAU09	1.372	3.93	2.56	ZF-EDAU09	
EDAZ09	1.621	3.93	2.31	ZF-EDAZ09	
EDAH10	1.871	3.93	2.06	ZF-EDAH10	
EDAM10	2.120	3.93	1.81	ZF-EDAM10	
EDAU10	2.369	3.93	1.57	ZF-EDAU10	
EDAZ10	2.618	3.93	1.32	ZF-EDAZ10	
EDAH11	2.868	3.93	1.07	ZF-EDAH11	

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

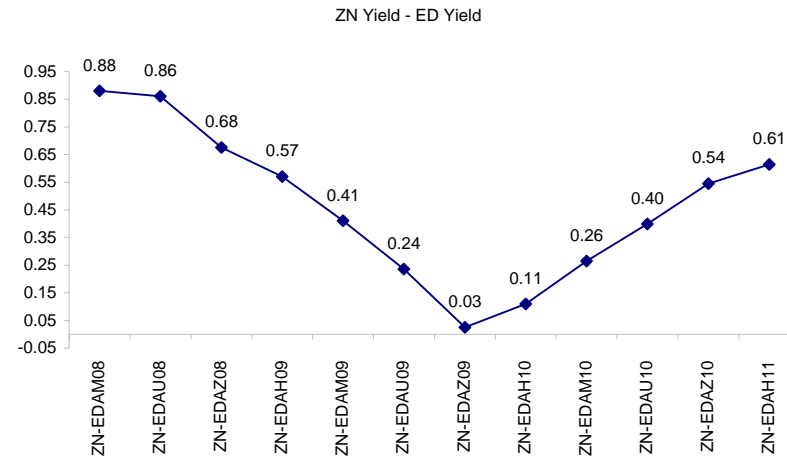


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	18.534	0.88	ZN-EDAM08	-20.292
EDAU08	18.554	0.86	ZN-EDAU08	34.657
EDAZ08	18.739	0.68	ZN-EDAZ08	79.632
EDAH09	18.844	0.57	ZN-EDAH09	96.133
EDAM09	19.004	0.41	ZN-EDAM09	98.243
EDAU09	19.179	0.24	ZN-EDAU09	98.849
EDAZ09	19.389	0.03	ZN-EDAZ09	98.623
EDAH10	19.524	0.11	ZN-EDAH10	97.290
EDAM10	19.679	0.26	ZN-EDAM10	96.782
EDAU10	19.814	0.40	ZN-EDAU10	96.740
EDAZ10	19.959	0.54	ZN-EDAZ10	96.276
EDAH11	20.029	0.61	ZN-EDAH11	92.770

Price = Outright Decimal Price - Euro Contract Price

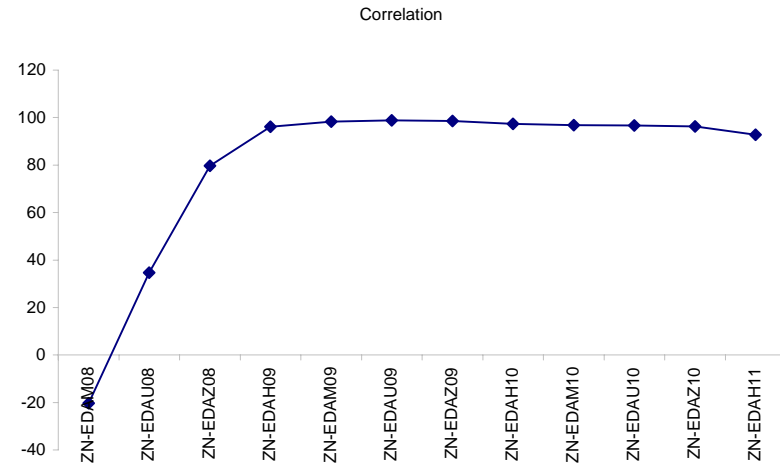
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAM08	0.125	5.88	5.76	ZN-EDAM08
EDAU08	0.375	5.88	5.51	ZN-EDAU08
EDAZ08	0.624	5.88	5.26	ZN-EDAZ08
EDAH09	0.873	5.88	5.01	ZN-EDAH09
EDAM09	1.123	5.88	4.76	ZN-EDAM09
EDAU09	1.372	5.88	4.51	ZN-EDAU09
EDAZ09	1.621	5.88	4.26	ZN-EDAZ09
EDAH10	1.871	5.88	4.01	ZN-EDAH10
EDAM10	2.120	5.88	3.76	ZN-EDAM10
EDAU10	2.369	5.88	3.52	ZN-EDAU10
EDAZ10	2.618	5.88	3.27	ZN-EDAZ10
EDAH11	2.868	5.88	3.02	ZN-EDAH11

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

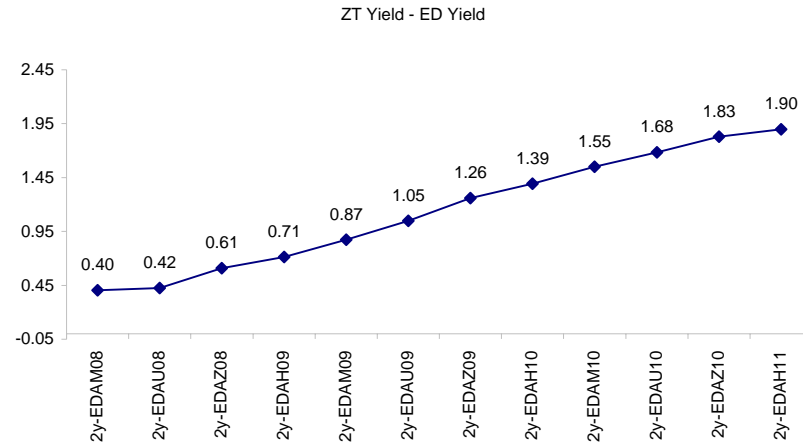


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.394	0.40	2y-EDAM08	24.697
EDAU08	2.414	0.42	2y-EDAU08	-35.027
EDAZ08	2.599	0.61	2y-EDAZ08	-80.326
EDAH09	2.704	0.71	2y-EDAH09	-96.467
EDAM09	2.864	0.87	2y-EDAM09	-97.368
EDAU09	3.039	1.05	2y-EDAU09	-97.261
EDAZ09	3.249	1.26	2y-EDAZ09	-96.523
EDAH10	3.384	1.39	2y-EDAH10	-95.612
EDAM10	3.539	1.55	2y-EDAM10	-94.379
EDAU10	3.674	1.68	2y-EDAU10	-92.555
EDAZ10	3.819	1.83	2y-EDAZ10	-91.314
EDAH11	3.889	1.90	2y-EDAH11	-85.141

Price = Outright Decimal Price - Euro Contract Price

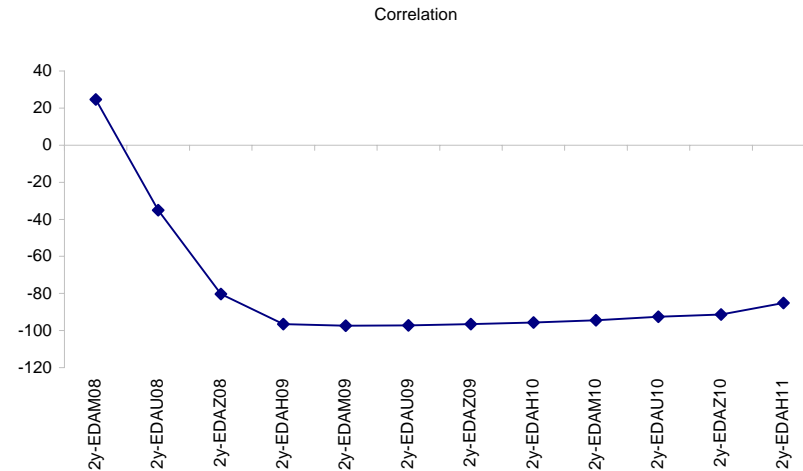
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAM08	0.125	1.94	1.82	2y-EDAM08	
EDAU08	0.375	1.94	1.57	2y-EDAU08	
EDAZ08	0.624	1.94	1.32	2y-EDAZ08	
EDAH09	0.873	1.94	1.07	2y-EDAH09	
EDAM09	1.123	1.94	0.82	2y-EDAM09	
EDAU09	1.372	1.94	0.57	2y-EDAU09	
EDAZ09	1.621	1.94	0.32	2y-EDAZ09	
EDAH10	1.871	1.94	0.07	2y-EDAH10	
EDAM10	2.120	1.94	(0.18)	2y-EDAM10	
EDAU10	2.369	1.94	(0.43)	2y-EDAU10	
EDAZ10	2.618	1.94	(0.68)	2y-EDAZ10	
EDAH11	2.868	1.94	(0.93)	2y-EDAH11	

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

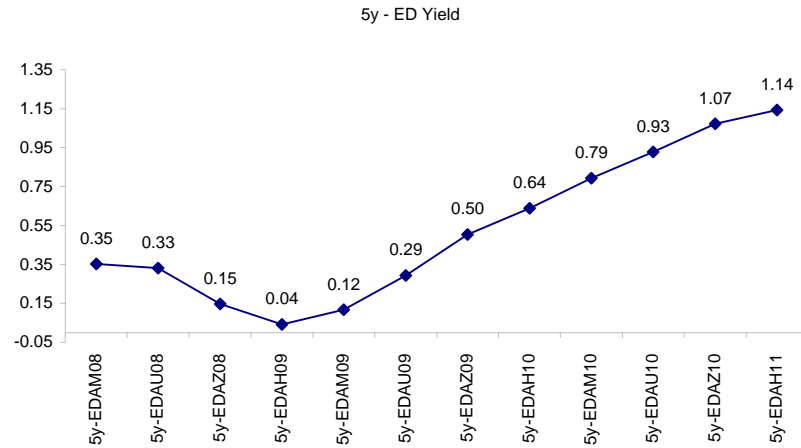


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	3.119	0.35	5y-EDAM08	29.265
EDAU08	3.139	0.33	5y-EDAU08	-29.545
EDAZ08	3.324	0.15	5y-EDAZ08	29.265
EDAH09	3.429	0.04	5y-EDAH09	-94.304
EDAM09	3.589	0.12	5y-EDAM09	-95.808
EDAU09	3.764	0.29	5y-EDAU09	-96.023
EDAZ09	3.974	0.50	5y-EDAZ09	-95.058
EDAH10	4.109	0.64	5y-EDAH10	-94.513
EDAM10	4.264	0.79	5y-EDAM10	-93.596
EDAU10	4.399	0.93	5y-EDAU10	-91.948
EDAZ10	4.544	1.07	5y-EDAZ10	-90.448
EDAH11	4.614	1.14	5y-EDAH11	-83.845

Price = Outright Decimal Price - Euro Contract Price

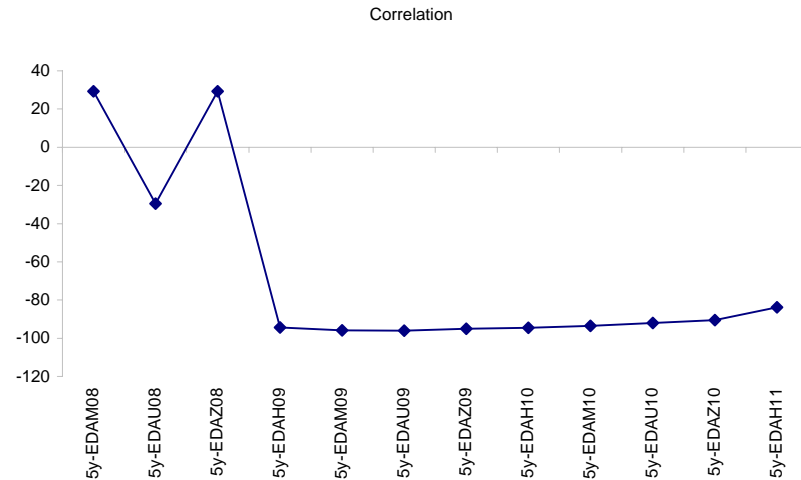
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.125	4.59	4.47	5y-EDAM08
EDAU08	0.375	4.59	4.22	5y-EDAU08
EDAZ08	0.624	4.59	3.97	5y-EDAZ08
EDAH09	0.873	4.59	3.72	5y-EDAH09
EDAM09	1.123	4.59	3.47	5y-EDAM09
EDAU09	1.372	4.59	3.22	5y-EDAU09
EDAZ09	1.621	4.59	2.97	5y-EDAZ09
EDAH10	1.871	4.59	2.72	5y-EDAH10
EDAM10	2.120	4.59	2.47	5y-EDAM10
EDAU10	2.369	4.59	2.22	5y-EDAU10
EDAZ10	2.618	4.59	1.98	5y-EDAZ10
EDAH11	2.868	4.59	1.73	5y-EDAH11

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

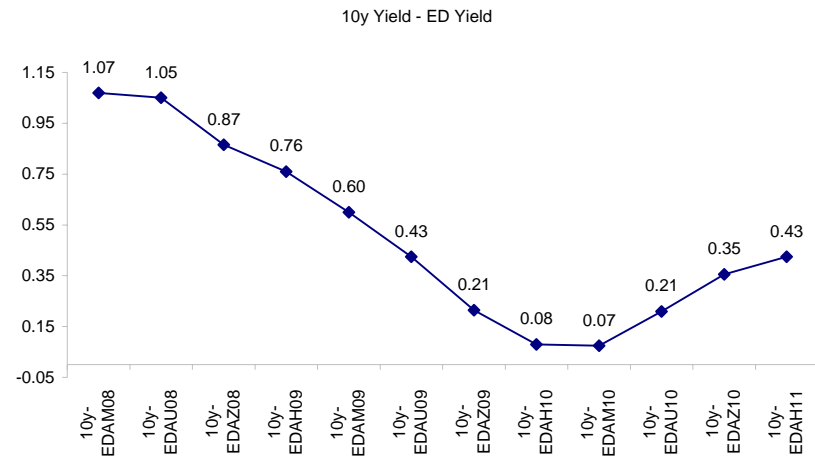


10y				Correlation* (percent)
Spread Price	Spread Yield	Spread Name		
EDAM08	3.119	1.07	10y-EDAM08	7.616
EDAU08	3.139	1.05	10y-EDAU08	-47.554
EDAZ08	3.324	0.87	10y-EDAZ08	7.616
EDAH09	3.429	0.76	10y-EDAH09	-94.792
EDAM09	3.589	0.60	10y-EDAM09	-94.376
EDAU09	3.764	0.43	10y-EDAU09	-93.127
EDAZ09	3.974	0.21	10y-EDAZ09	-91.922
EDAH10	4.109	0.08	10y-EDAH10	-90.048
EDAM10	4.264	0.07	10y-EDAM10	-89.594
EDAU10	4.399	0.21	10y-EDAU10	-90.124
EDAZ10	4.544	0.35	10y-EDAZ10	-90.559
EDAH11	4.614	0.43	10y-EDAH11	-87.646

Price = Outright Decimal Price - Euro Contract Price

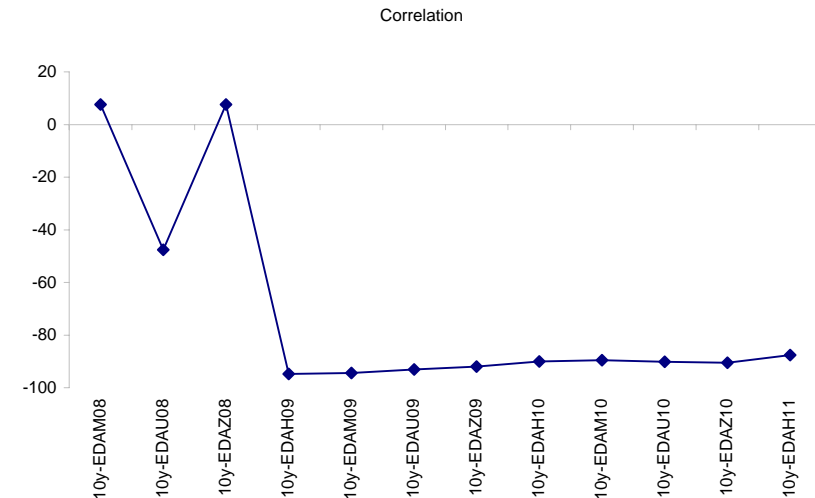
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year			10Y Duration	Spread Duration	
EDAM08	0.125	8.14	8.01	10y-EDAM08	
EDAU08	0.375	8.14	7.77	10y-EDAU08	
EDAZ08	0.624	8.14	7.52	10y-EDAZ08	
EDAH09	0.873	8.14	7.27	10y-EDAH09	
EDAM09	1.123	8.14	7.02	10y-EDAM09	
EDAU09	1.372	8.14	6.77	10y-EDAU09	
EDAZ09	1.621	8.14	6.52	10y-EDAZ09	
EDAH10	1.871	8.14	6.27	10y-EDAH10	
EDAM10	2.120	8.14	6.02	10y-EDAM10	
EDAU10	2.369	8.14	5.77	10y-EDAU10	
EDAZ10	2.618	8.14	5.52	10y-EDAZ10	
EDAH11	2.868	8.14	5.27	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.

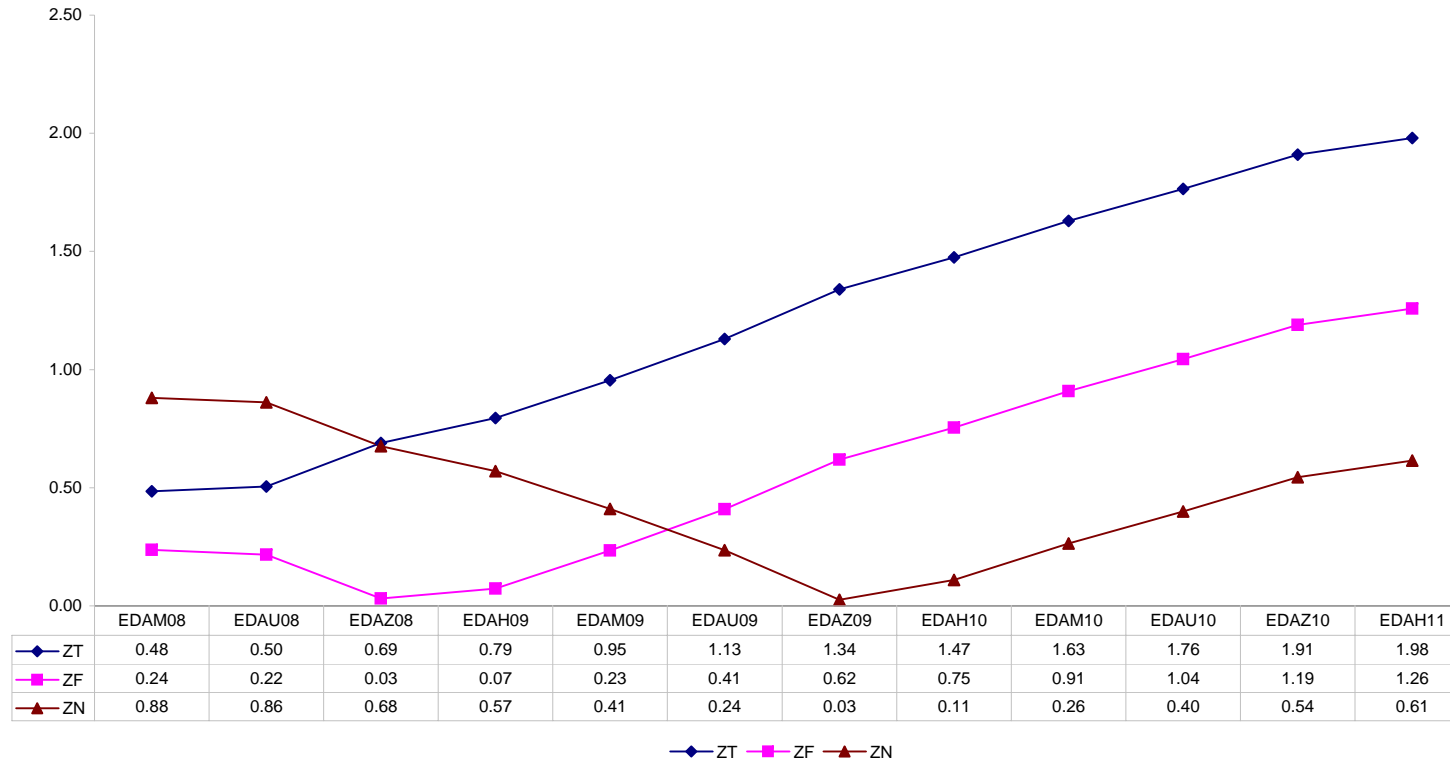
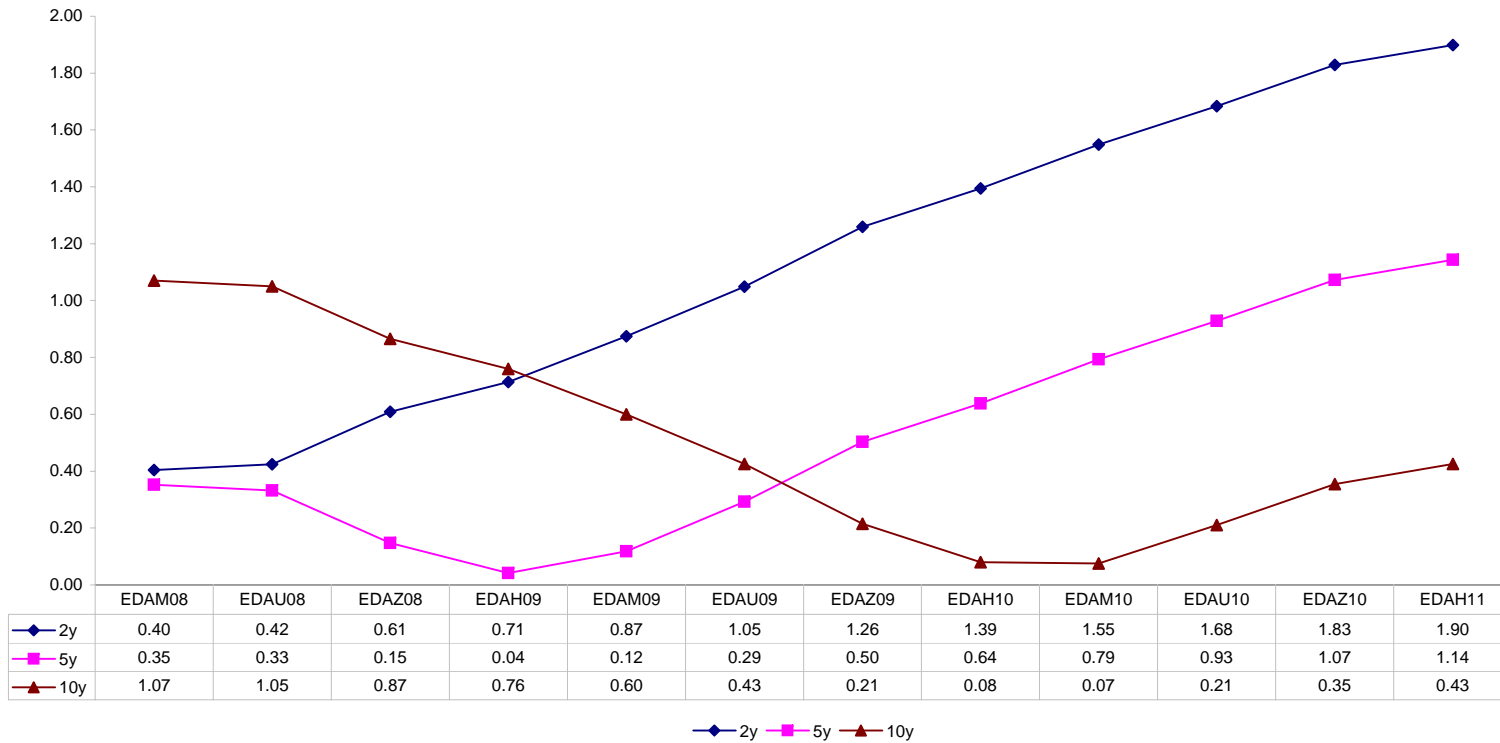
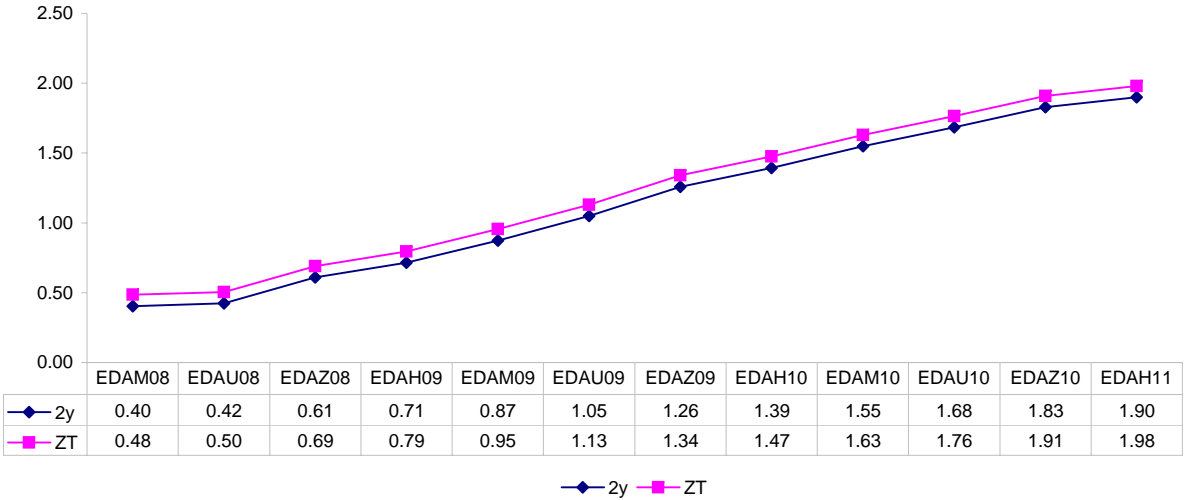


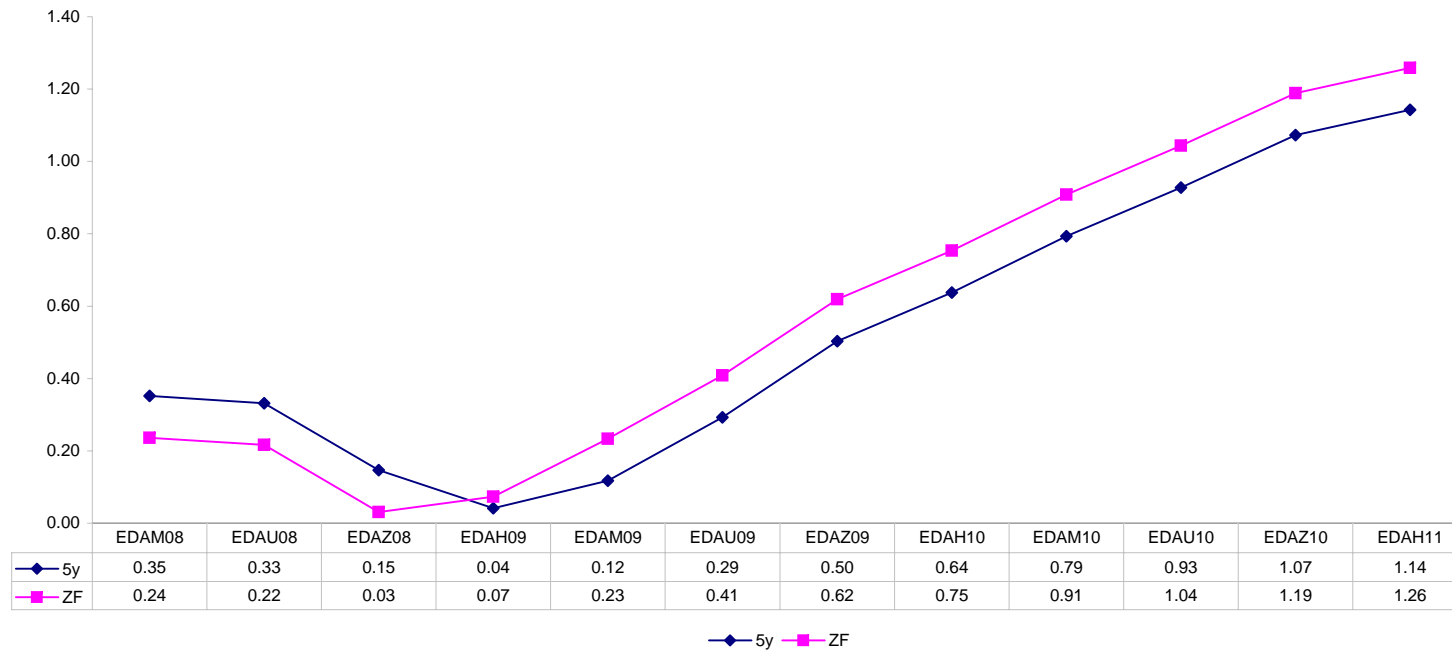
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



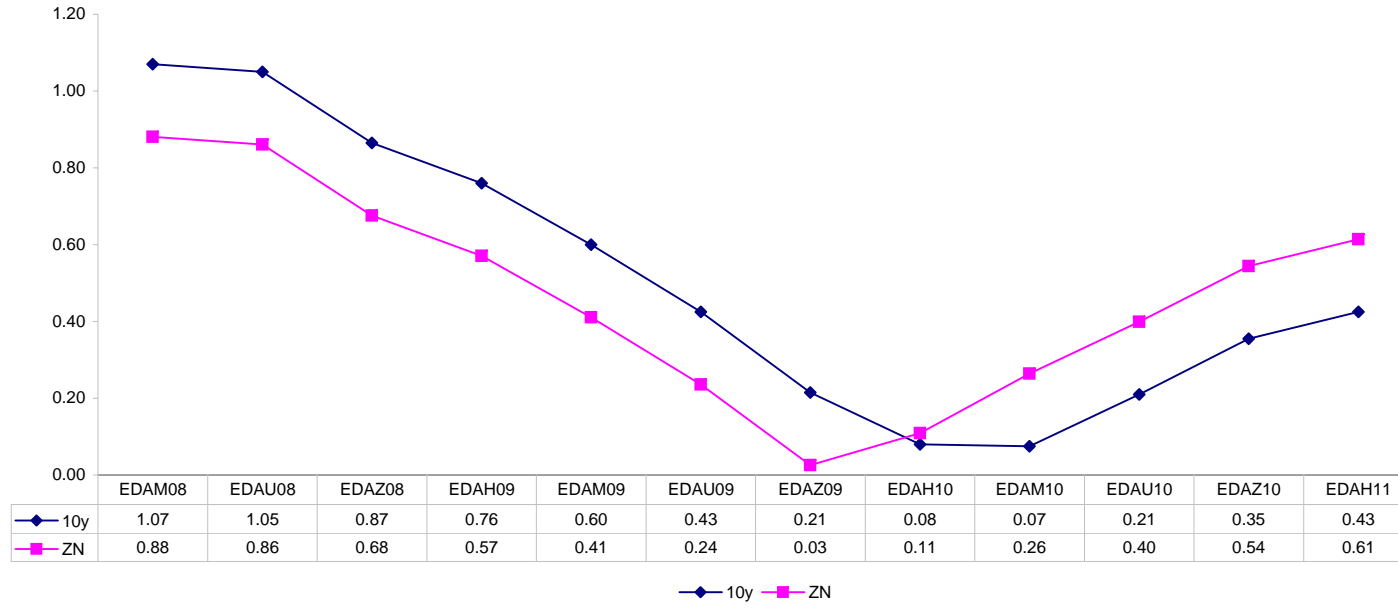
2y Basis TED Curve



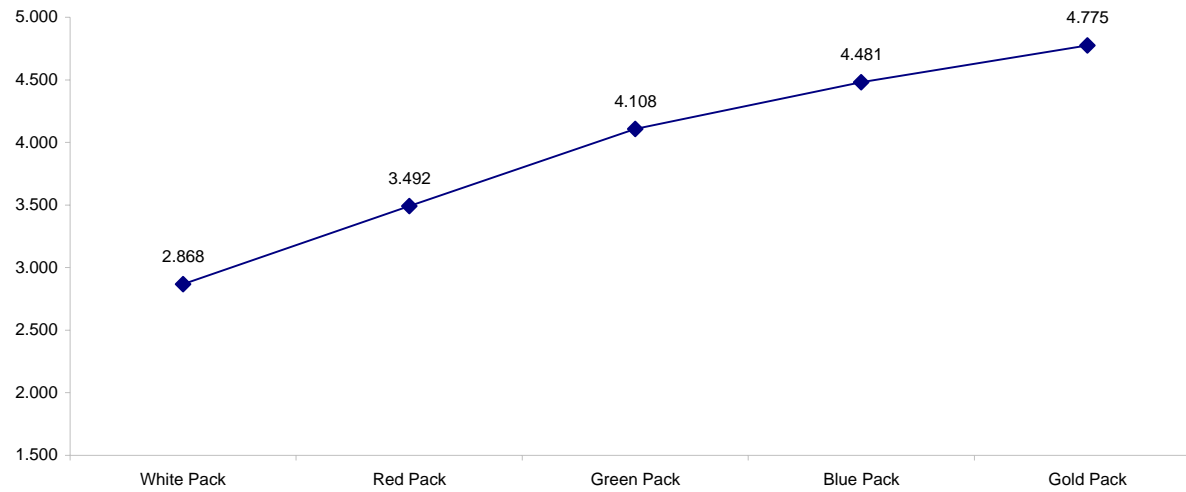
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.868	0.875	9719.125
Red Pack	3.492	2.250	9658.500
Green Pack	4.108	2.875	9598.875
Blue Pack	4.481	5.625	9562.875
Gold Pack	4.775	5.250	9534.500



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

