

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	108.4844	108.155	0.942	1.77
ZF	116.7250	116.232	2.178	4.32
ZN	117.2031	117.065	3.487	6.43
2y	100.678	100.2170	1.149	1.93
5y	102.000	102.0000	2.319	4.62
10y	100.375	100.1200	3.705	7.98

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	97.825	2.175	32	0.087	DEC	
EDAH09	98.025	1.975	123	0.336	MAR	White Pack
EDAM09	98.025	1.975	214	0.586	JUN	
EDAU09	97.950	2.050	305	0.835	SEP	
EDAZ09	97.765	2.235	396	1.084	DEC	
EDAH10	97.665	2.335	487	1.334	MAR	Red Pack
EDAM10	97.425	2.575	578	1.583	JUN	
EDAU10	97.120	2.880	669	1.832	SEP	
EDAZ10	96.730	3.270	760	2.082	DEC	
EDAH11	96.440	3.560	851	2.331	MAR	Green Pack
EDAM11	96.160	3.840	942	2.580	JUN	
EDAU11	95.940	4.060	1040	2.849	SEP	
EDAZ11	95.700	4.300	1131	3.098	DEC	
EDAH12	95.650	4.350	1222	3.347	MAR	Blue Pack
EDAM12	95.605	4.395	1313	3.597	JUN	
EDAU12	95.445	4.555	1404	3.846	SEP	
EDAZ12	95.315	4.685	1495	4.095	DEC	
EDAH13	95.275	4.725	1586	4.345	MAR	Gold Pack
EDAM13	95.205	4.795	1677	4.594	JUN	
EDZU13	95.045	4.955	1859	5.092	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	2.083	-11.625	9795.625	Pack Prices
Red Pack	2.557	0.625	9749.375	
Green Pack	3.769	3.625	9631.750	
Blue Pack	4.511	0.500	9560.000	
Gold Pack	4.892	-1.375	9523.250	

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.

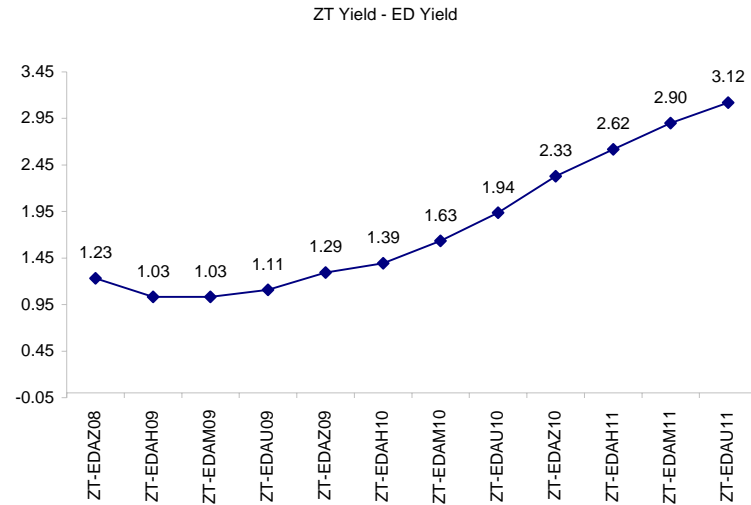
jgoulding@ghco.com

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.

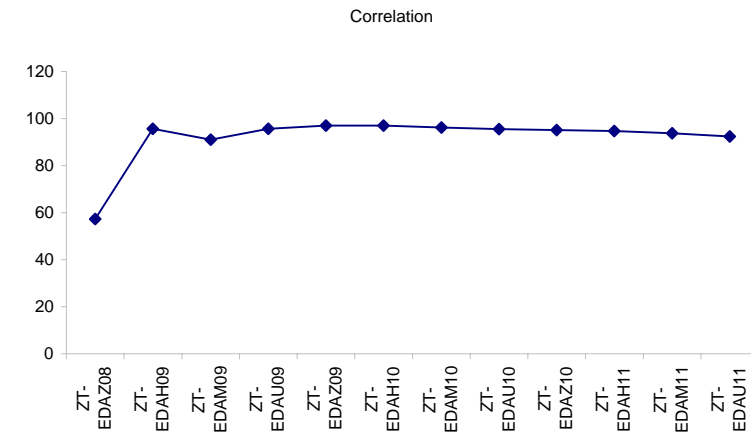
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.659	1.23	ZT-EDAZ08	57.326
EDAH09	10.459	1.03	ZT-EDAH09	95.643
EDAM09	10.459	1.03	ZT-EDAM09	91.082
EDAU09	10.534	1.11	ZT-EDAU09	95.643
EDAZ09	10.719	1.29	ZT-EDAZ09	97.071
EDAH10	10.819	1.39	ZT-EDAH10	97.016
EDAM10	11.059	1.63	ZT-EDAM10	96.171
EDAU10	11.364	1.94	ZT-EDAU10	95.505
EDAZ10	11.754	2.33	ZT-EDAZ10	95.170
EDAH11	12.044	2.62	ZT-EDAH11	94.654
EDAM11	12.324	2.90	ZT-EDAM11	93.682
EDAU11	12.544	3.12	ZT-EDAU11	92.359

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		
EDAZ08	0.087	1.77	1.68	ZT-EDAZ08
EDAH09	0.336	1.77	1.44	ZT-EDAH09
EDAM09	0.586	1.77	1.19	ZT-EDAM09
EDAU09	0.835	1.77	0.94	ZT-EDAU09
EDAZ09	1.084	1.77	0.69	ZT-EDAZ09
EDAH10	1.334	1.77	0.44	ZT-EDAH10
EDAM10	1.583	1.77	0.19	ZT-EDAM10
EDAU10	1.832	1.77	(0.06)	ZT-EDAU10
EDAZ10	2.082	1.77	(0.31)	ZT-EDAZ10
EDAH11	2.331	1.77	(0.56)	ZT-EDAH11
EDAM11	2.580	1.77	(0.81)	ZT-EDAM11
EDAU11	2.849	1.77	(1.08)	ZT-EDAU11

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

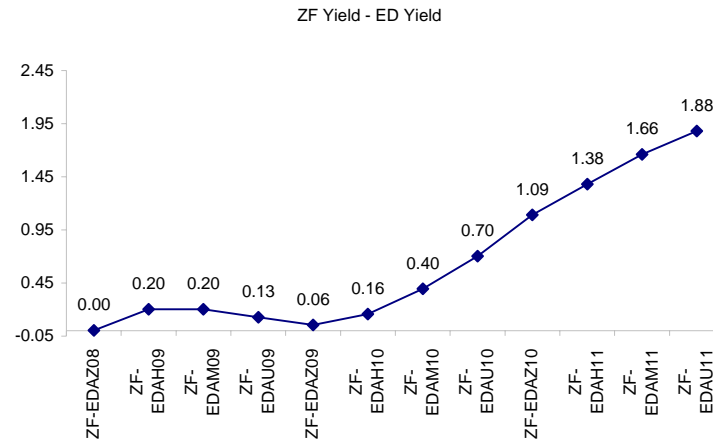


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	18.900	0.00	ZF-EDAZ08	56.758
EDAH09	18.700	0.20	ZF-EDAH09	79.997
EDAM09	18.700	0.20	ZF-EDAM09	92.161
EDAU09	18.775	0.13	ZF-EDAU09	96.975
EDAZ09	18.960	0.06	ZF-EDAZ09	98.694
EDAH10	19.060	0.16	ZF-EDAH10	98.856
EDAM10	19.300	0.40	ZF-EDAM10	97.701
EDAU10	19.605	0.70	ZF-EDAU10	96.540
EDAZ10	19.995	1.09	ZF-EDAZ10	96.069
EDAH11	20.285	1.38	ZF-EDAH11	95.875
EDAM11	20.565	1.66	ZF-EDAM11	95.650
EDAU11	20.785	1.88	ZF-EDAU11	95.123

Price = Outright Decimal Price - Euro Contract Price

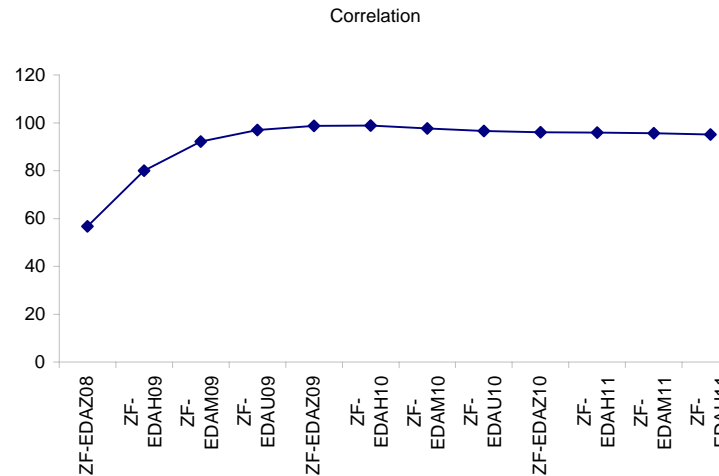
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	0.087	4.32	4.23	ZF-EDAZ08		
EDAH09	0.336	4.32	3.98	ZF-EDAH09		
EDAM09	0.586	4.32	3.73	ZF-EDAM09		
EDAU09	0.835	4.32	3.48	ZF-EDAU09		
EDAZ09	1.084	4.32	3.24	ZF-EDAZ09		
EDAH10	1.334	4.32	2.99	ZF-EDAH10		
EDAM10	1.583	4.32	2.74	ZF-EDAM10		
EDAU10	1.832	4.32	2.49	ZF-EDAU10		
EDAZ10	2.082	4.32	2.24	ZF-EDAZ10		
EDAH11	2.331	4.32	1.99	ZF-EDAH11		
EDAM11	2.580	4.32	1.74	ZF-EDAM11		
EDAU11	2.849	4.32	1.47	ZF-EDAU11		

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

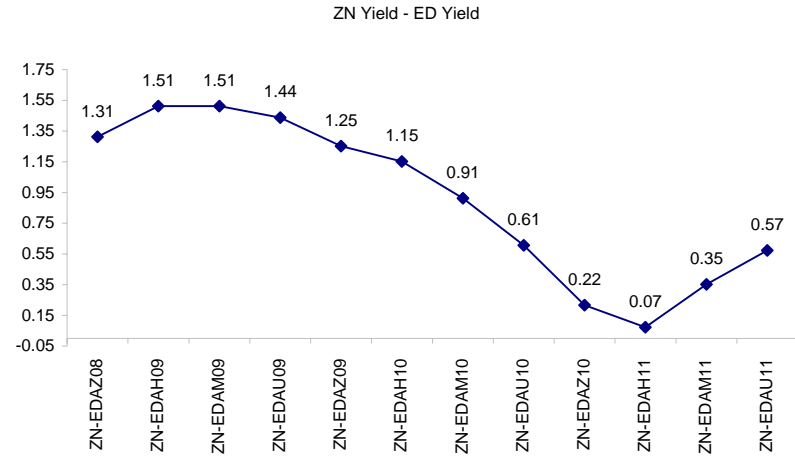


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	19.378	1.31	ZN-EDAZ08	50.425
EDAH09	19.178	1.51	ZN-EDAH09	74.994
EDAM09	19.178	1.51	ZN-EDAM09	88.186
EDAU09	19.253	1.44	ZN-EDAU09	94.217
EDAZ09	19.438	1.25	ZN-EDAZ09	97.291
EDAH10	19.538	1.15	ZN-EDAH10	98.590
EDAM10	19.778	0.91	ZN-EDAM10	97.701
EDAU10	20.083	0.61	ZN-EDAU10	96.540
EDAZ10	20.473	0.22	ZN-EDAZ10	96.069
EDAH11	20.763	0.07	ZN-EDAH11	95.875
EDAM11	21.043	0.35	ZN-EDAM11	95.650
EDAU11	21.263	0.57	ZN-EDAU11	95.123

Price = Outright Decimal Price - Euro Contract Price

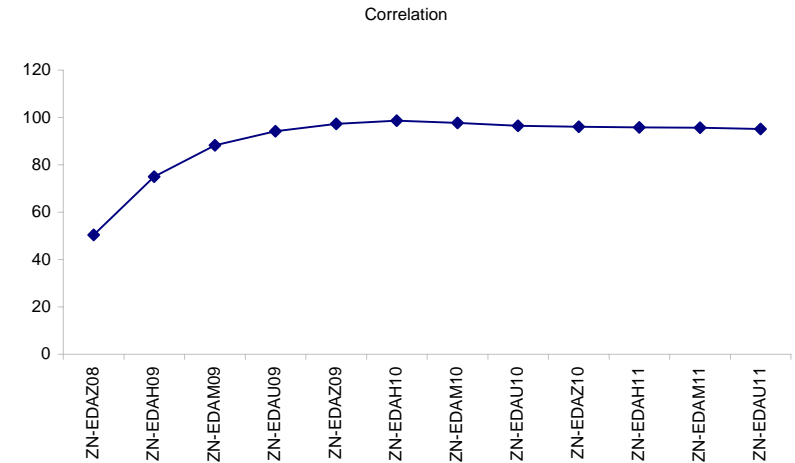
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.087	6.43	6.34	ZN-EDAZ08		
EDAH09	0.336	6.43	6.09	ZN-EDAH09		
EDAM09	0.586	6.43	5.84	ZN-EDAM09		
EDAU09	0.835	6.43	5.59	ZN-EDAU09		
EDAZ09	1.084	6.43	5.34	ZN-EDAZ09		
EDAH10	1.334	6.43	5.09	ZN-EDAH10		
EDAM10	1.583	6.43	4.85	ZN-EDAM10		
EDAU10	1.832	6.43	4.60	ZN-EDAU10		
EDAZ10	2.082	6.43	4.35	ZN-EDAZ10		
EDAH11	2.331	6.43	4.10	ZN-EDAH11		
EDAM11	2.580	6.43	3.85	ZN-EDAM11		
EDAU11	2.849	6.43	3.58	ZN-EDAU11		

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

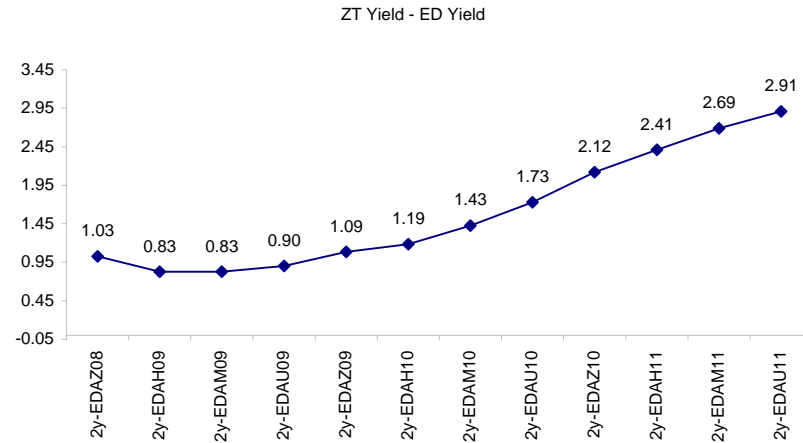


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.853	1.03	2y-EDAZ08	-70.592
EDAH09	2.653	0.83	2y-EDAH09	-85.879
EDAM09	2.653	0.83	2y-EDAM09	-92.878
EDAU09	2.728	0.90	2y-EDAU09	-95.959
EDAZ09	2.913	1.09	2y-EDAZ09	-96.958
EDAH10	3.013	1.19	2y-EDAH10	-97.328
EDAM10	3.253	1.43	2y-EDAM10	-97.221
EDAU10	3.558	1.73	2y-EDAU10	-97.097
EDAZ10	3.948	2.12	2y-EDAZ10	-97.008
EDAH11	4.238	2.41	2y-EDAH11	-96.803
EDAM11	4.518	2.69	2y-EDAM11	-96.220
EDAU11	4.738	2.91	2y-EDAU11	-95.600

Price = Outright Decimal Price - Euro Contract Price

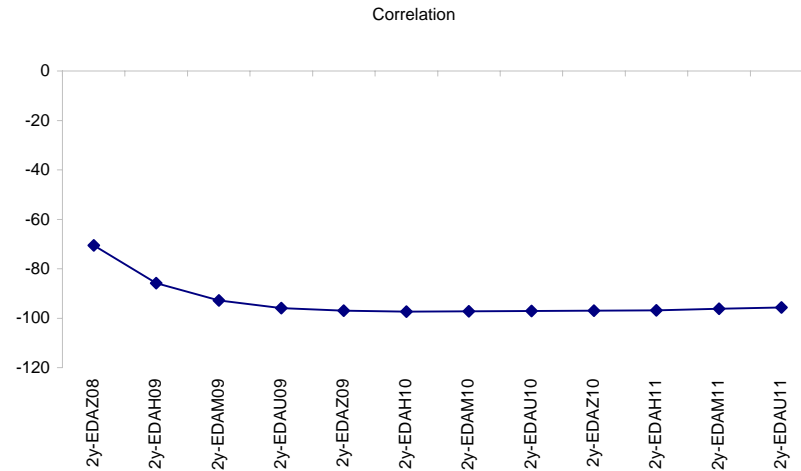
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.087	1.93	1.84	2y-EDAZ08	
EDAH09	0.336	1.93	1.59	2y-EDAH09	
EDAM09	0.586	1.93	1.34	2y-EDAM09	
EDAU09	0.835	1.93	1.09	2y-EDAU09	
EDAZ09	1.084	1.93	0.84	2y-EDAZ09	
EDAH10	1.334	1.93	0.59	2y-EDAH10	
EDAM10	1.583	1.93	0.34	2y-EDAM10	
EDAU10	1.832	1.93	0.09	2y-EDAU10	
EDAZ10	2.082	1.93	(0.16)	2y-EDAZ10	
EDAH11	2.331	1.93	(0.41)	2y-EDAH11	
EDAM11	2.580	1.93	(0.65)	2y-EDAM11	
EDAU11	2.849	1.93	(0.92)	2y-EDAU11	

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

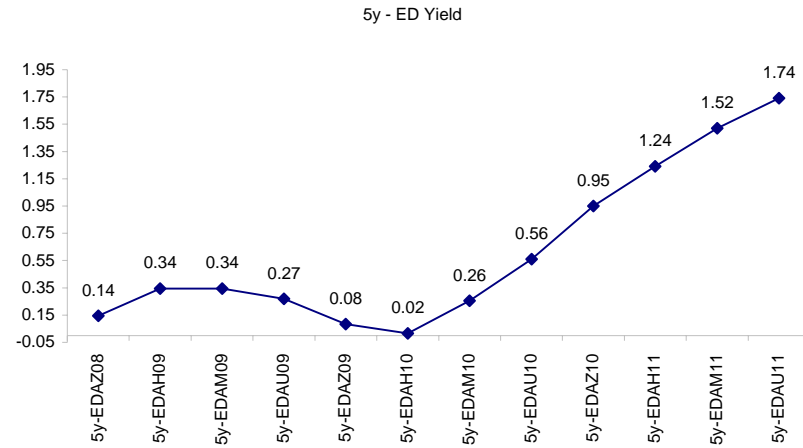


	5y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAZ08	4.175	0.14	5y-EDAZ08	-67.832
EDAH09	3.975	0.34	5y-EDAH09	-84.235
EDAM09	3.975	0.34	5y-EDAM09	-91.811
EDAU09	4.050	0.27	5y-EDAU09	-95.617
EDAZ09	4.235	0.08	5y-EDAZ09	-97.464
EDAH10	4.335	0.02	5y-EDAH10	-98.046
EDAM10	4.575	0.26	5y-EDAM10	-97.574
EDAU10	4.880	0.56	5y-EDAU10	-97.030
EDAZ10	5.270	0.95	5y-EDAZ10	-96.813
EDAH11	5.560	1.24	5y-EDAH11	-96.993
EDAM11	5.840	1.52	5y-EDAM11	-97.379
EDAU11	6.060	1.74	5y-EDAU11	-97.672

Price = Outright Decimal Price - Euro Contract Price

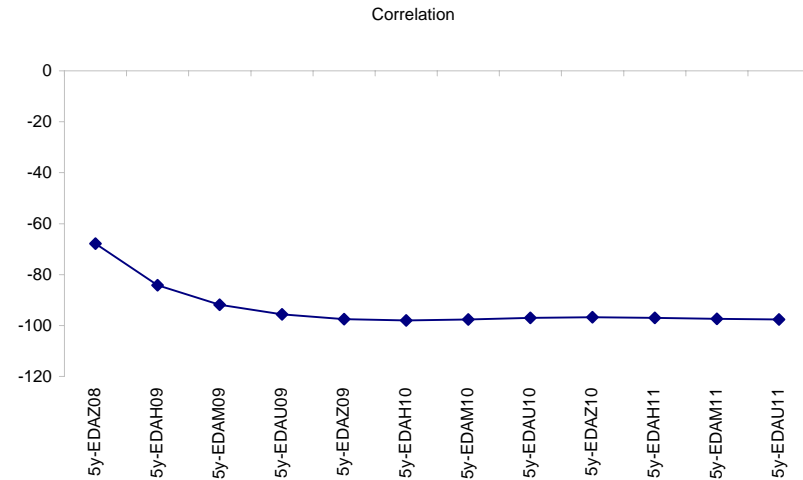
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			5Y Duration	Spread Duration	
EDAZ08	0.087	4.62	4.53	5y-EDAZ08		
EDAH09	0.336	4.62	4.28	5y-EDAH09		
EDAM09	0.586	4.62	4.03	5y-EDAM09		
EDAU09	0.835	4.62	3.78	5y-EDAU09		
EDAZ09	1.084	4.62	3.53	5y-EDAZ09		
EDAH10	1.334	4.62	3.28	5y-EDAH10		
EDAM10	1.583	4.62	3.03	5y-EDAM10		
EDAU10	1.832	4.62	2.78	5y-EDAU10		
EDAZ10	2.082	4.62	2.54	5y-EDAZ10		
EDAH11	2.331	4.62	2.29	5y-EDAH11		
EDAM11	2.580	4.62	2.04	5y-EDAM11		
EDAU11	2.849	4.62	1.77	5y-EDAU11		

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

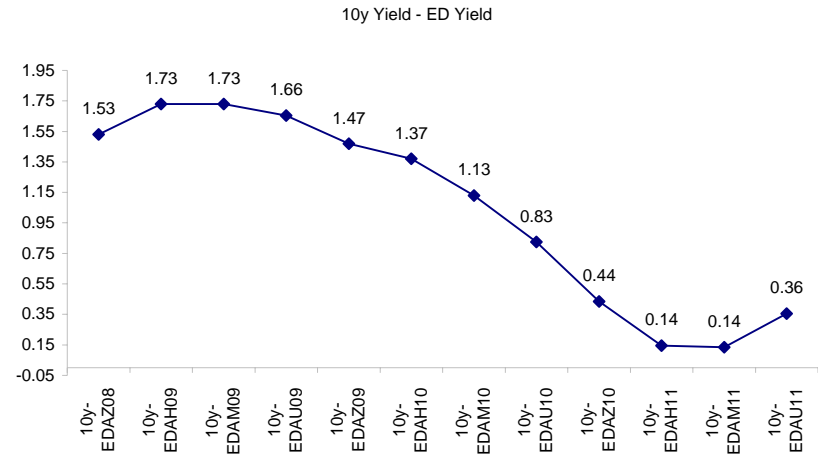


	10y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAZ08	4.175	1.53	10y-EDAZ08	-78.935
EDAH09	3.975	1.73	10y-EDAH09	-88.037
EDAM09	3.975	1.73	10y-EDAM09	-90.126
EDAU09	4.050	1.66	10y-EDAU09	-91.303
EDAZ09	4.235	1.47	10y-EDAZ09	-91.634
EDAH10	4.335	1.37	10y-EDAH10	-90.631
EDAM10	4.575	1.13	10y-EDAM10	-88.563
EDAU10	4.880	0.83	10y-EDAU10	-86.712
EDAZ10	5.270	0.44	10y-EDAZ10	-86.020
EDAH11	5.560	0.14	10y-EDAH11	-86.538
EDAM11	5.840	0.14	10y-EDAM11	-87.851
EDAU11	6.060	0.36	10y-EDAU11	-89.251

Price = Outright Decimal Price - Euro Contract Price

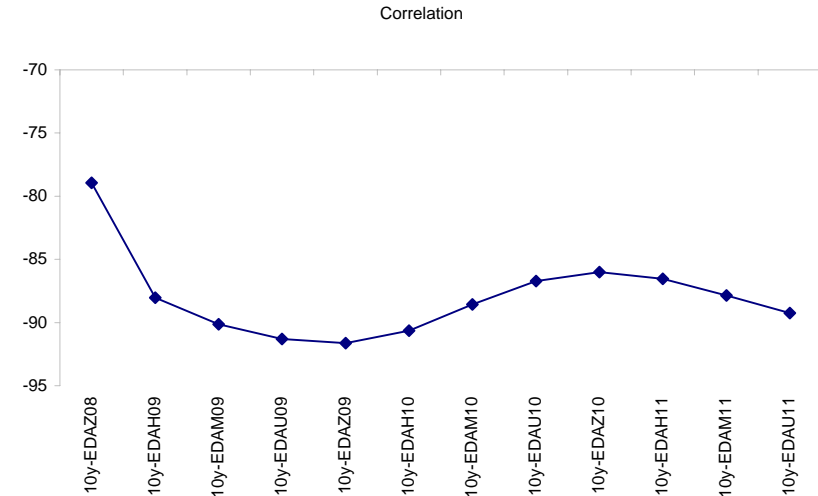
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			10Y Duration	Spread Duration	
EDAZ08	0.087	7.98	7.89	10y-EDAZ08		
EDAH09	0.336	7.98	7.64	10y-EDAH09		
EDAM09	0.586	7.98	7.39	10y-EDAM09		
EDAU09	0.835	7.98	7.14	10y-EDAU09		
EDAZ09	1.084	7.98	6.89	10y-EDAZ09		
EDAH10	1.334	7.98	6.64	10y-EDAH10		
EDAM10	1.583	7.98	6.40	10y-EDAM10		
EDAU10	1.832	7.98	6.15	10y-EDAU10		
EDAZ10	2.082	7.98	5.90	10y-EDAZ10		
EDAH11	2.331	7.98	5.65	10y-EDAH11		
EDAM11	2.580	7.98	5.40	10y-EDAM11		
EDAU11	2.849	7.98	5.13	10y-EDAU11		

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.

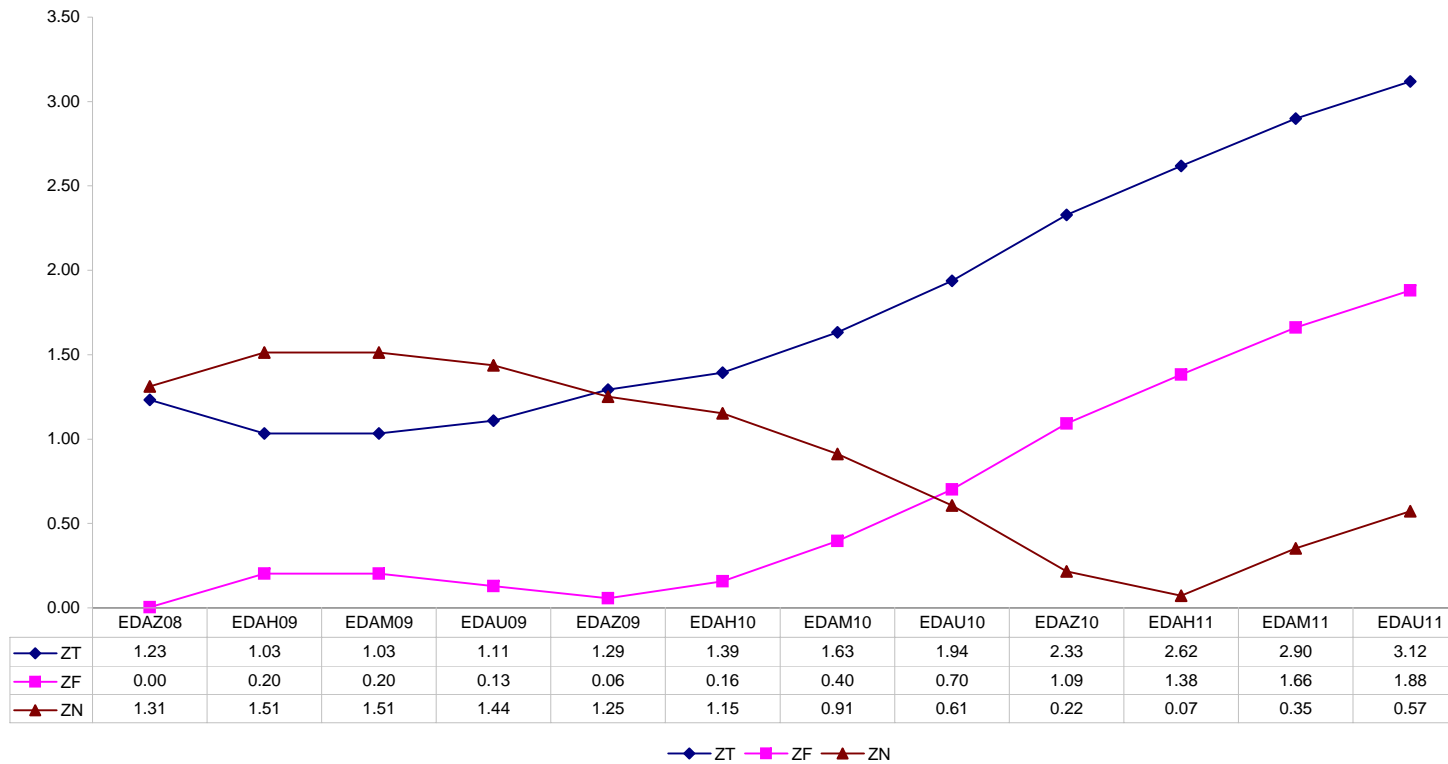
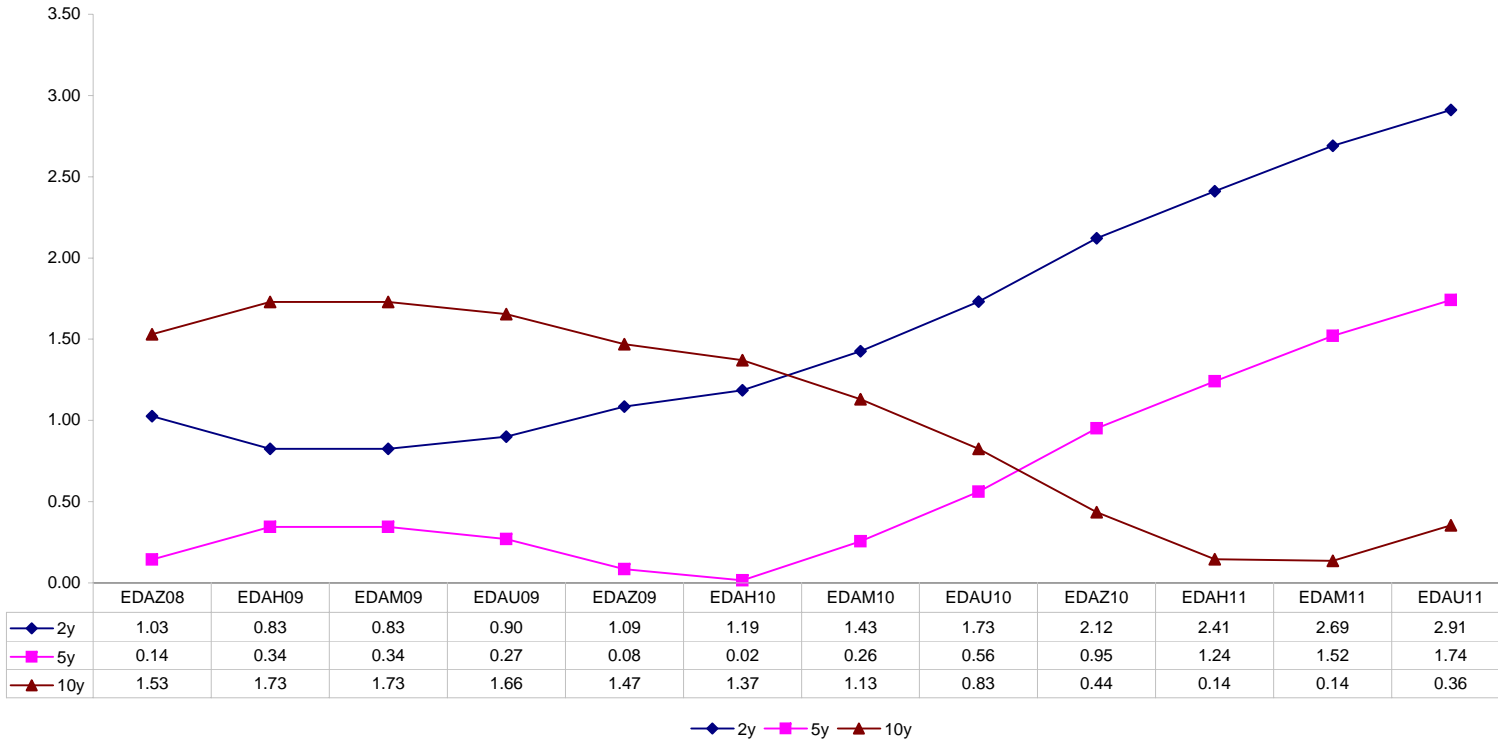
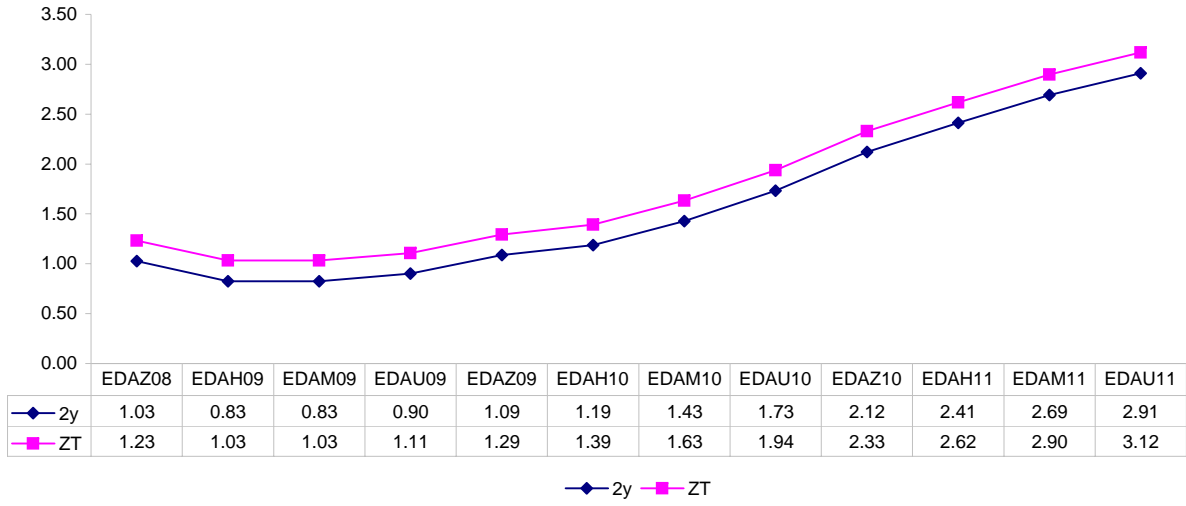


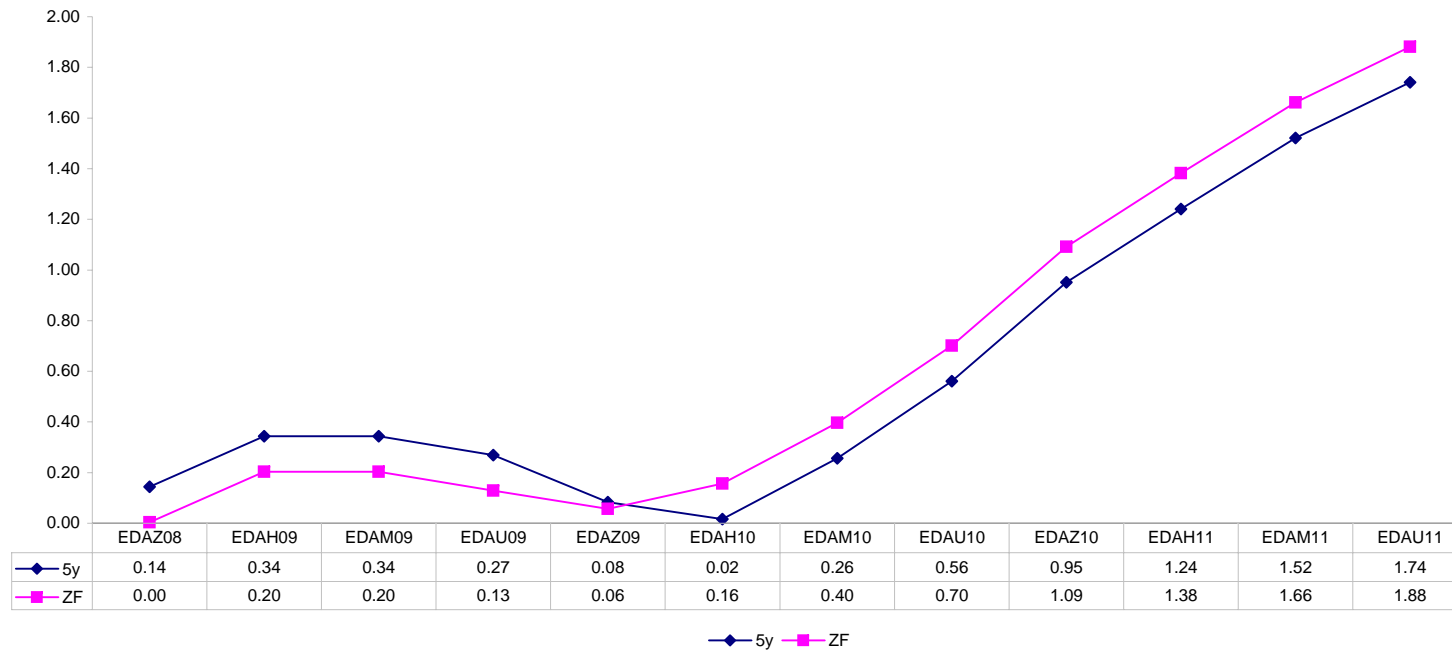
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



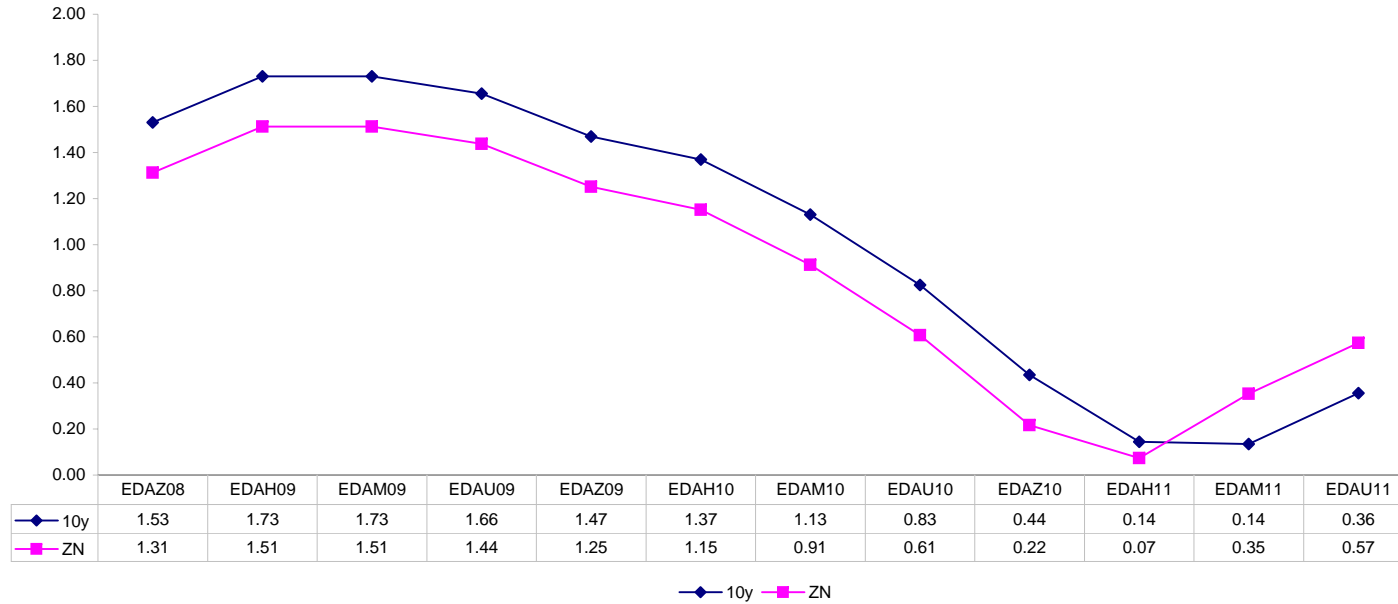
2y Basis TED Curve



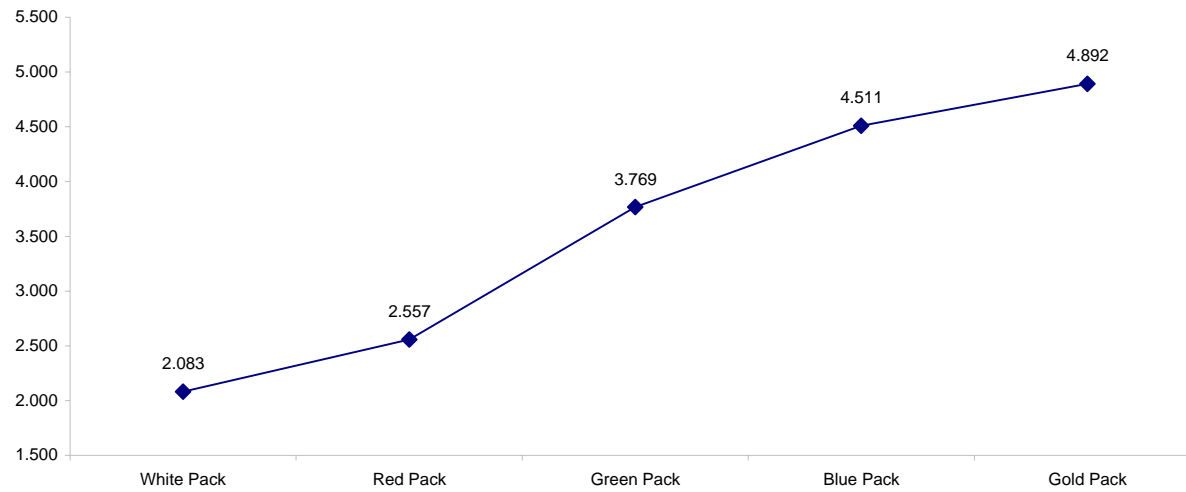
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.083	-11.625	9795.625
Red Pack	2.557	0.625	9749.375
Green Pack	3.769	3.625	9631.750
Blue Pack	4.511	0.500	9560.000
Gold Pack	4.892	-1.375	9523.250



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

