

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	107.0375	107.012	1.755	1.91
ZF	111.9063	111.290	2.845	4.08
ZN	112.1719	112.055	3.859	6.19
2y	100.469	100.1500	1.756	1.85
5y	100.797	100.2550	2.946	4.56
10y	99.906	99.2900	4.007	8.01

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	97.345	2.655	61	0.166	DEC	
EDAH09	97.745	2.255	152	0.416	MAR	White Pack
EDAM09	97.670	2.330	243	0.665	JUN	
EDAU09	97.475	2.525	334	0.914	SEP	
EDAZ09	97.140	2.860	425	1.164	DEC	
EDAH10	96.910	3.090	516	1.413	MAR	Red Pack
EDAM10	96.535	3.465	607	1.662	JUN	
EDAU10	96.140	3.860	698	1.912	SEP	
EDAZ10	95.690	4.310	789	2.161	DEC	
EDAH11	95.495	4.505	880	2.410	MAR	Green Pack
EDAM11	95.315	4.685	971	2.660	JUN	
EDAU11	95.200	4.800	1069	2.928	SEP	
EDAZ11	95.150	4.850	1160	3.177	DEC	
EDAH12	94.985	5.015	1251	3.427	MAR	Blue Pack
EDAM12	94.905	5.095	1342	3.676	JUN	
EDAU12	94.955	5.045	1433	3.925	SEP	
EDAZ12	94.725	5.275	1524	4.175	DEC	
EDAH13	94.680	5.320	1615	4.424	MAR	Gold Pack
EDAM13	94.615	5.385	1706	4.673	JUN	
EDZU13	94.575	5.425	1888	5.172	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	2.490	2.500	9755.875	Pack Prices
Red Pack	3.393	11.625	9668.125	
Green Pack	4.692	10.625	9542.500	
Blue Pack		5.250	9501.375	
Gold Pack		0.000	9466.125	

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.

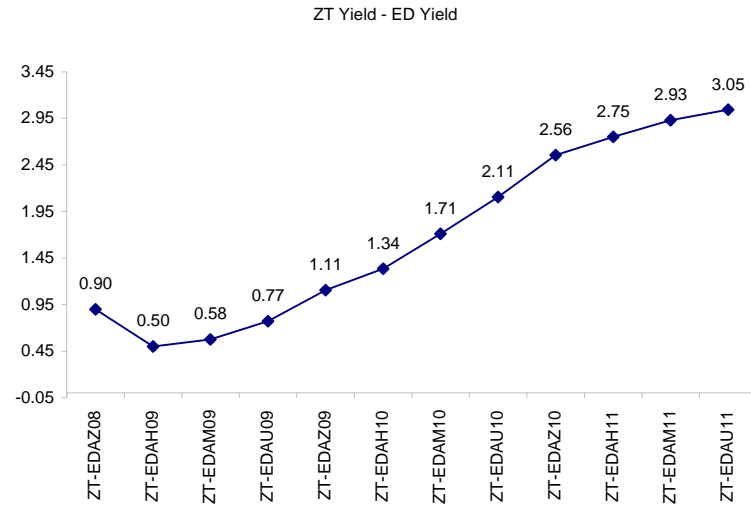
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Correlations (Important)

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.

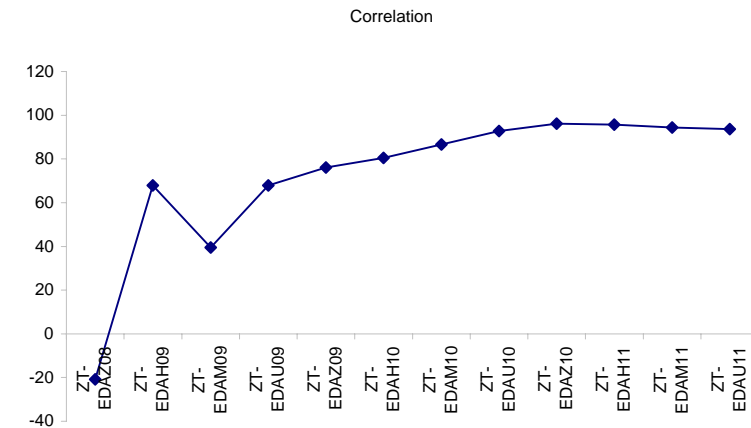
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	9.693	0.90	ZT-EDAZ08	-20.869
EDAH09	9.292	0.50	ZT-EDAH09	67.845
EDAM09	9.367	0.58	ZT-EDAM09	39.526
EDAU09	9.562	0.77	ZT-EDAU09	67.845
EDAZ09	9.897	1.11	ZT-EDAZ09	76.091
EDAH10	10.128	1.34	ZT-EDAH10	80.425
EDAM10	10.503	1.71	ZT-EDAM10	86.630
EDAU10	10.898	2.11	ZT-EDAU10	92.831
EDAZ10	11.348	2.56	ZT-EDAZ10	96.144
EDAH11	11.543	2.75	ZT-EDAH11	95.658
EDAM11	11.723	2.93	ZT-EDAM11	94.410
EDAU11	11.838	3.05	ZT-EDAU11	93.638

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	0.166	1.91	1.74	ZT-EDAZ08		
EDAH09	0.416	1.91	1.49	ZT-EDAH09		
EDAM09	0.665	1.91	1.24	ZT-EDAM09		
EDAU09	0.914	1.91	1.00	ZT-EDAU09		
EDAZ09	1.164	1.91	0.75	ZT-EDAZ09		
EDAH10	1.413	1.91	0.50	ZT-EDAH10		
EDAM10	1.662	1.91	0.25	ZT-EDAM10		
EDAU10	1.912	1.91	(0.00)	ZT-EDAU10		
EDAZ10	2.161	1.91	(0.25)	ZT-EDAZ10		
EDAH11	2.410	1.91	(0.50)	ZT-EDAH11		
EDAM11	2.660	1.91	(0.75)	ZT-EDAM11		
EDAU11	2.928	1.91	(1.02)	ZT-EDAU11		

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

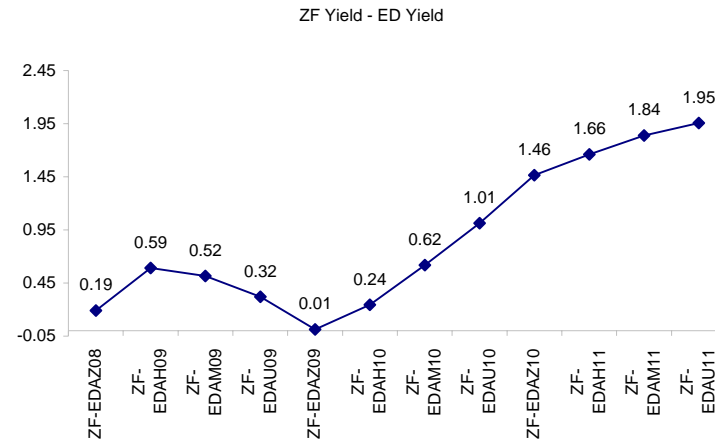


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	14.561	0.19	ZF-EDAZ08	-33.065
EDAH09	14.161	0.59	ZF-EDAH09	5.445
EDAM09	14.236	0.52	ZF-EDAM09	27.753
EDAU09	14.431	0.32	ZF-EDAU09	57.270
EDAZ09	14.766	0.01	ZF-EDAZ09	65.929
EDAH10	14.996	0.24	ZF-EDAH10	71.277
EDAM10	15.371	0.62	ZF-EDAM10	80.031
EDAU10	15.766	1.01	ZF-EDAU10	89.496
EDAZ10	16.216	1.46	ZF-EDAZ10	97.411
EDAH11	16.411	1.66	ZF-EDAH11	99.140
EDAM11	16.591	1.84	ZF-EDAM11	99.490
EDAU11	16.706	1.95	ZF-EDAU11	99.454

Price = Outright Decimal Price - Euro Contract Price

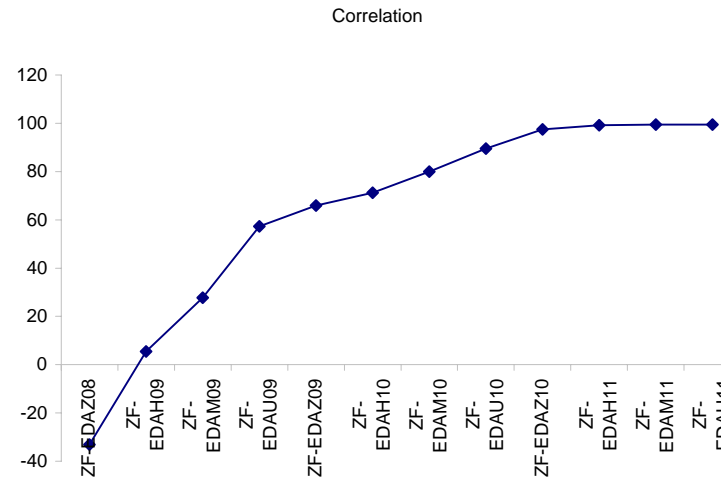
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	0.166	4.08	3.91	ZF-EDAZ08		
EDAH09	0.416	4.08	3.66	ZF-EDAH09		
EDAM09	0.665	4.08	3.41	ZF-EDAM09		
EDAU09	0.914	4.08	3.16	ZF-EDAU09		
EDAZ09	1.164	4.08	2.91	ZF-EDAZ09		
EDAH10	1.413	4.08	2.66	ZF-EDAH10		
EDAM10	1.662	4.08	2.42	ZF-EDAM10		
EDAU10	1.912	4.08	2.17	ZF-EDAU10		
EDAZ10	2.161	4.08	1.92	ZF-EDAZ10		
EDAH11	2.410	4.08	1.67	ZF-EDAH11		
EDAM11	2.660	4.08	1.42	ZF-EDAM11		
EDAU11	2.928	4.08	1.15	ZF-EDAU11		

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

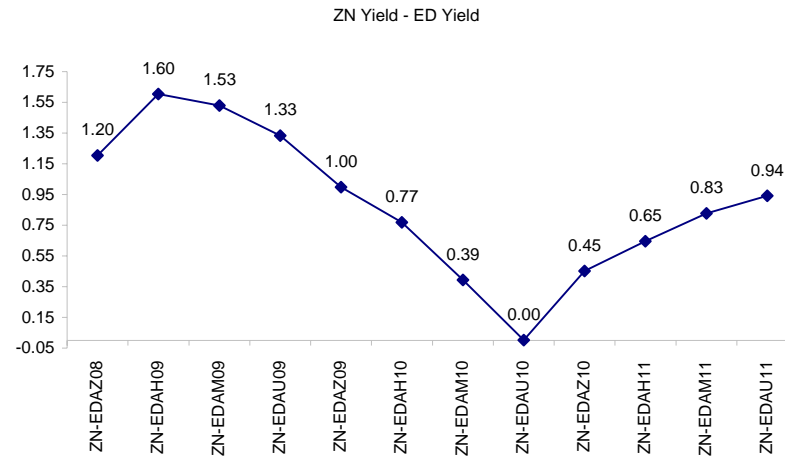


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	14.827	1.20	ZN-EDAZ08	-33.606
EDAH09	14.427	1.60	ZN-EDAH09	4.631
EDAM09	14.502	1.53	ZN-EDAM09	24.345
EDAU09	14.697	1.33	ZN-EDAU09	52.365
EDAZ09	15.032	1.00	ZN-EDAZ09	60.430
EDAH10	15.262	0.77	ZN-EDAH10	66.101
EDAM10	15.637	0.39	ZN-EDAM10	80.031
EDAU10	16.032	0.00	ZN-EDAU10	89.496
EDAZ10	16.482	0.45	ZN-EDAZ10	97.411
EDAH11	16.677	0.65	ZN-EDAH11	99.140
EDAM11	16.857	0.83	ZN-EDAM11	99.490
EDAU11	16.972	0.94	ZN-EDAU11	99.454

Price = Outright Decimal Price - Euro Contract Price

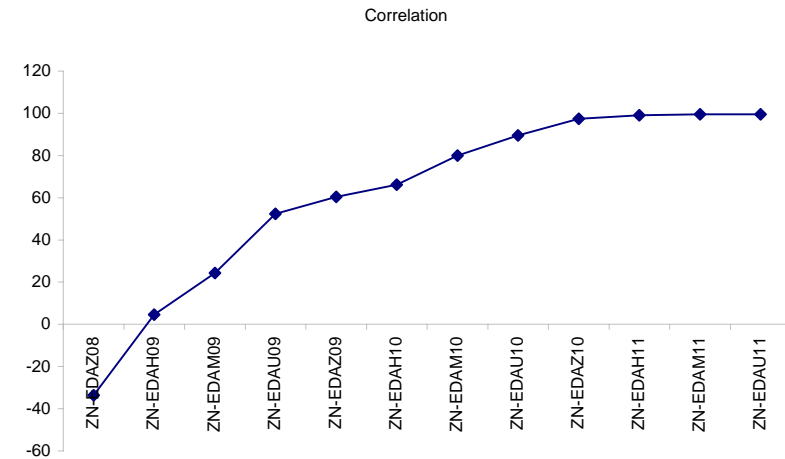
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.166	6.19	6.02	ZN-EDAZ08		
EDAH09	0.416	6.19	5.77	ZN-EDAH09		
EDAM09	0.665	6.19	5.52	ZN-EDAM09		
EDAU09	0.914	6.19	5.27	ZN-EDAU09		
EDAZ09	1.164	6.19	5.03	ZN-EDAZ09		
EDAH10	1.413	6.19	4.78	ZN-EDAH10		
EDAM10	1.662	6.19	4.53	ZN-EDAM10		
EDAU10	1.912	6.19	4.28	ZN-EDAU10		
EDAZ10	2.161	6.19	4.03	ZN-EDAZ10		
EDAH11	2.410	6.19	3.78	ZN-EDAH11		
EDAM11	2.660	6.19	3.53	ZN-EDAM11		
EDAU11	2.928	6.19	3.26	ZN-EDAU11		

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

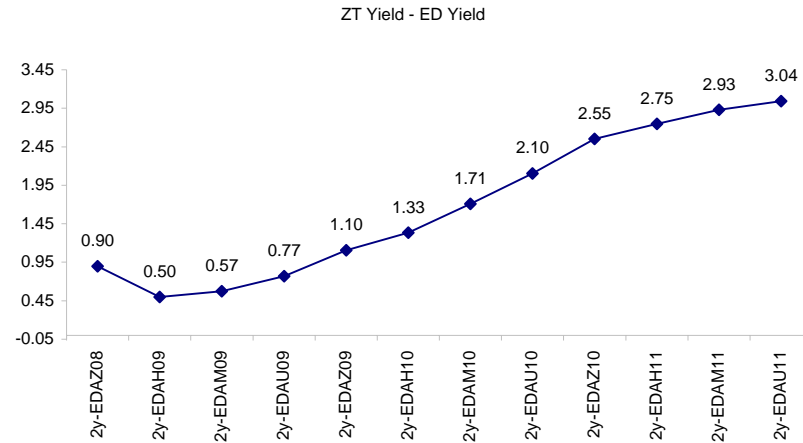


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.124	0.90	2y-EDAZ08	-9.470
EDAH09	2.724	0.50	2y-EDAH09	-39.322
EDAM09	2.799	0.57	2y-EDAM09	-51.256
EDAU09	2.994	0.77	2y-EDAU09	-64.304
EDAZ09	3.329	1.10	2y-EDAZ09	-67.670
EDAH10	3.559	1.33	2y-EDAH10	-69.377
EDAM10	3.934	1.71	2y-EDAM10	-73.270
EDAU10	4.329	2.10	2y-EDAU10	-78.322
EDAZ10	4.779	2.55	2y-EDAZ10	-79.570
EDAH11	4.974	2.75	2y-EDAH11	-78.517
EDAM11	5.154	2.93	2y-EDAM11	-75.812
EDAU11	5.269	3.04	2y-EDAU11	-73.366

Price = Outright Decimal Price - Euro Contract Price

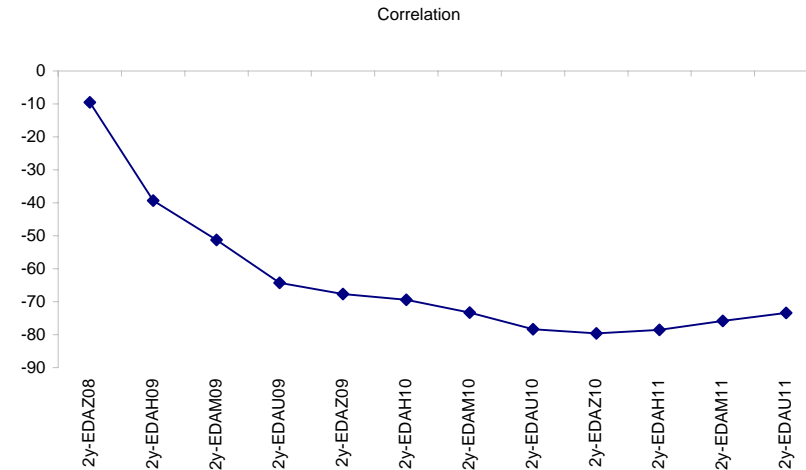
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.166	1.85	1.68	2y-EDAZ08	
EDAH09	0.416	1.85	1.43	2y-EDAH09	
EDAM09	0.665	1.85	1.18	2y-EDAM09	
EDAU09	0.914	1.85	0.93	2y-EDAU09	
EDAZ09	1.164	1.85	0.68	2y-EDAZ09	
EDAH10	1.413	1.85	0.43	2y-EDAH10	
EDAM10	1.662	1.85	0.18	2y-EDAM10	
EDAU10	1.912	1.85	(0.07)	2y-EDAU10	
EDAZ10	2.161	1.85	(0.32)	2y-EDAZ10	
EDAH11	2.410	1.85	(0.57)	2y-EDAH11	
EDAM11	2.660	1.85	(0.81)	2y-EDAM11	
EDAU11	2.928	1.85	(1.08)	2y-EDAU11	

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

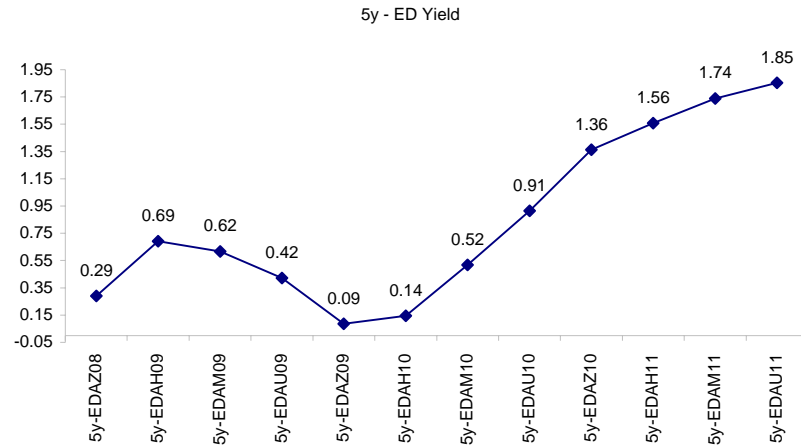


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.452	0.29	5y-EDAZ08	10.377
EDAH09	3.052	0.69	5y-EDAH09	-22.016
EDAM09	3.127	0.62	5y-EDAM09	-33.625
EDAU09	3.322	0.42	5y-EDAU09	-50.876
EDAZ09	3.657	0.09	5y-EDAZ09	-57.173
EDAH10	3.887	0.14	5y-EDAH10	-62.748
EDAM10	4.262	0.52	5y-EDAM10	-72.349
EDAU10	4.657	0.91	5y-EDAU10	-83.488
EDAZ10	5.107	1.36	5y-EDAZ10	-92.480
EDAH11	5.302	1.56	5y-EDAH11	-94.166
EDAM11	5.482	1.74	5y-EDAM11	-93.598
EDAU11	5.597	1.85	5y-EDAU11	-92.578

Price = Outright Decimal Price - Euro Contract Price

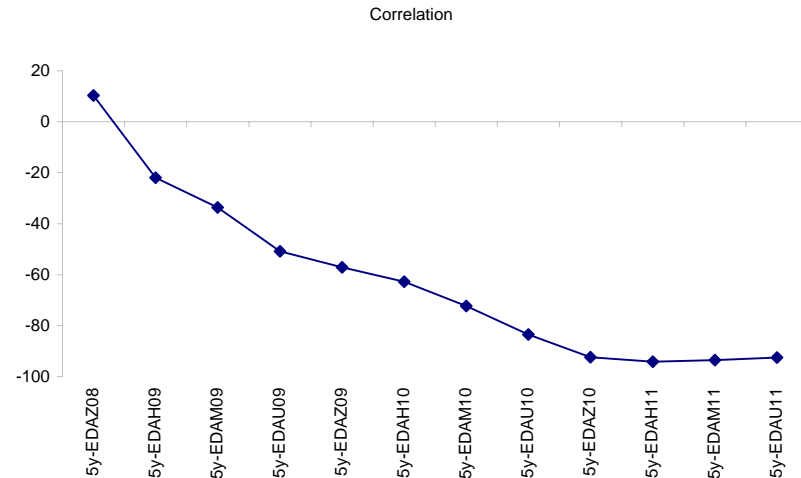
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAZ08	0.166	4.56	4.39	5y-EDAZ08
EDAH09	0.416	4.56	4.14	5y-EDAH09
EDAM09	0.665	4.56	3.89	5y-EDAM09
EDAU09	0.914	4.56	3.64	5y-EDAU09
EDAZ09	1.164	4.56	3.39	5y-EDAZ09
EDAH10	1.413	4.56	3.15	5y-EDAH10
EDAM10	1.662	4.56	2.90	5y-EDAM10
EDAU10	1.912	4.56	2.65	5y-EDAU10
EDAZ10	2.161	4.56	2.40	5y-EDAZ10
EDAH11	2.410	4.56	2.15	5y-EDAH11
EDAM11	2.660	4.56	1.90	5y-EDAM11
EDAU11	2.928	4.56	1.63	5y-EDAU11

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

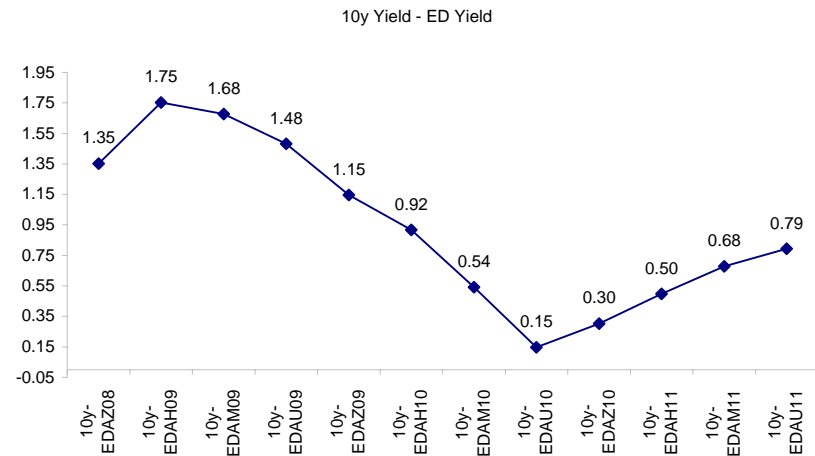


	10y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAZ08	3.452	1.35	10y-EDAZ08	35.101
EDAH09	3.052	1.75	10y-EDAH09	2.685
EDAM09	3.127	1.68	10y-EDAM09	-8.106
EDAU09	3.322	1.48	10y-EDAU09	-27.533
EDAZ09	3.657	1.15	10y-EDAZ09	-35.238
EDAH10	3.887	0.92	10y-EDAH10	-43.044
EDAM10	4.262	0.54	10y-EDAM10	-56.881
EDAU10	4.657	0.15	10y-EDAU10	-73.243
EDAZ10	5.107	0.30	10y-EDAZ10	-90.265
EDAH11	5.302	0.50	10y-EDAH11	-95.560
EDAM11	5.482	0.68	10y-EDAM11	-97.882
EDAU11	5.597	0.79	10y-EDAU11	-98.657

Price = Outright Decimal Price - Euro Contract Price

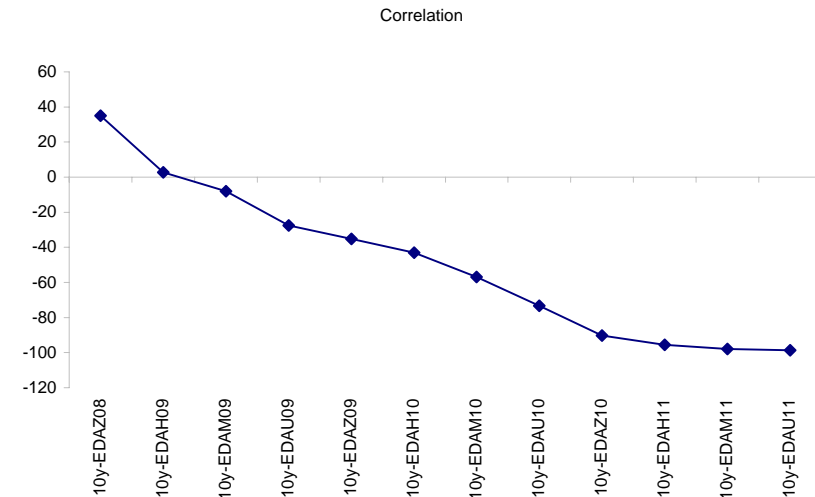
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			10Y Duration	Spread Duration	
EDAZ08	0.166	8.01	7.84	10y-EDAZ08		
EDAH09	0.416	8.01	7.59	10y-EDAH09		
EDAM09	0.665	8.01	7.34	10y-EDAM09		
EDAU09	0.914	8.01	7.09	10y-EDAU09		
EDAZ09	1.164	8.01	6.85	10y-EDAZ09		
EDAH10	1.413	8.01	6.60	10y-EDAH10		
EDAM10	1.662	8.01	6.35	10y-EDAM10		
EDAU10	1.912	8.01	6.10	10y-EDAU10		
EDAZ10	2.161	8.01	5.85	10y-EDAZ10		
EDAH11	2.410	8.01	5.60	10y-EDAH11		
EDAM11	2.660	8.01	5.35	10y-EDAM11		
EDAU11	2.928	8.01	5.08	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.

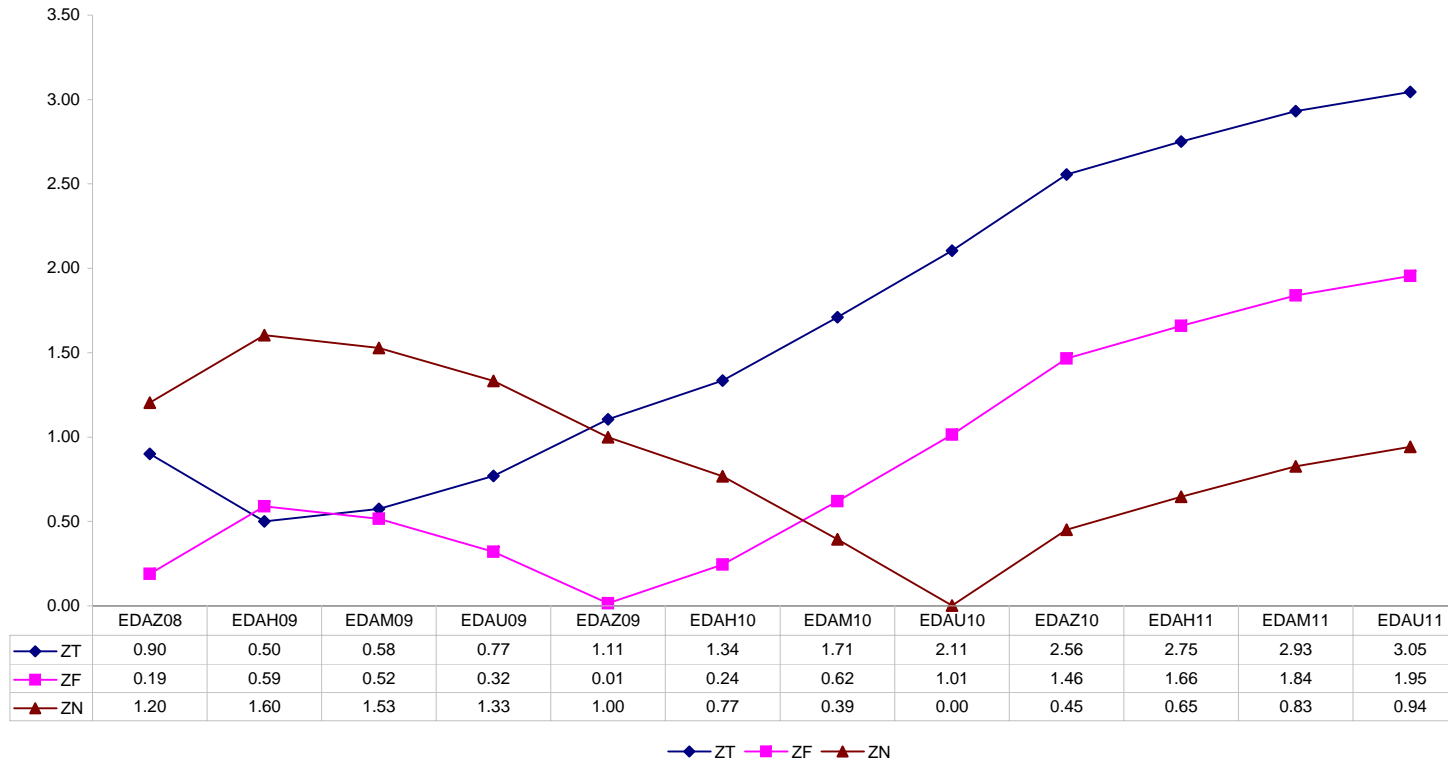
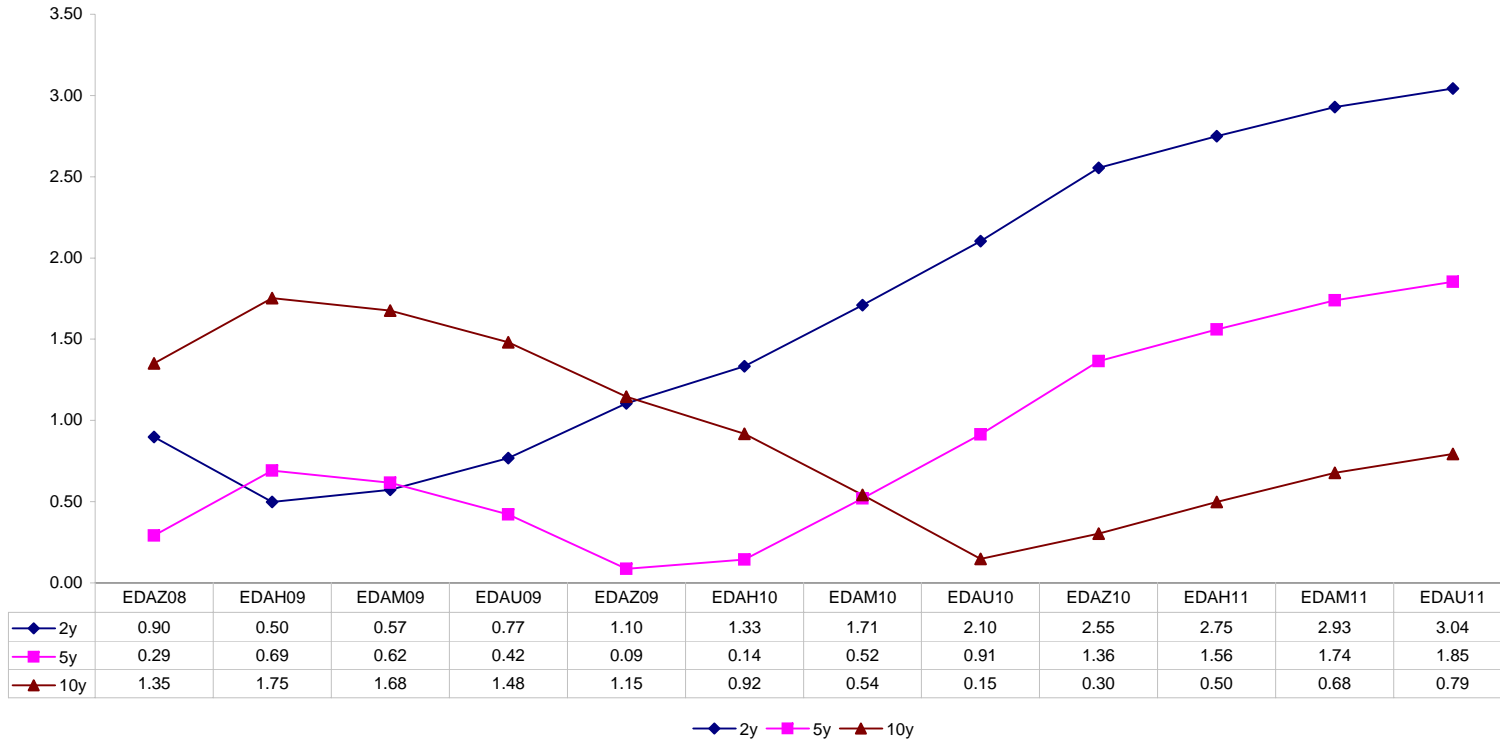
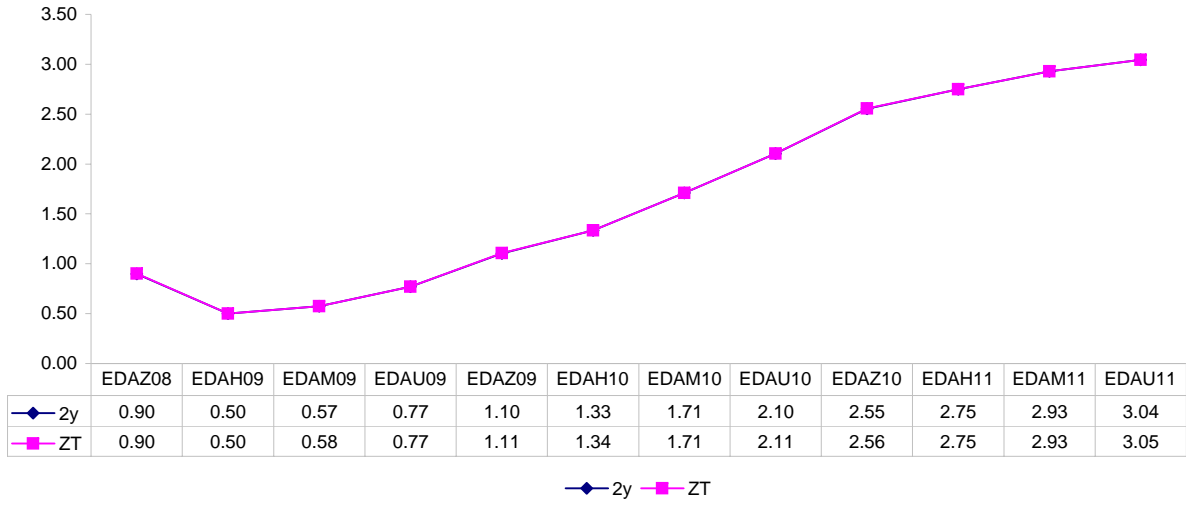


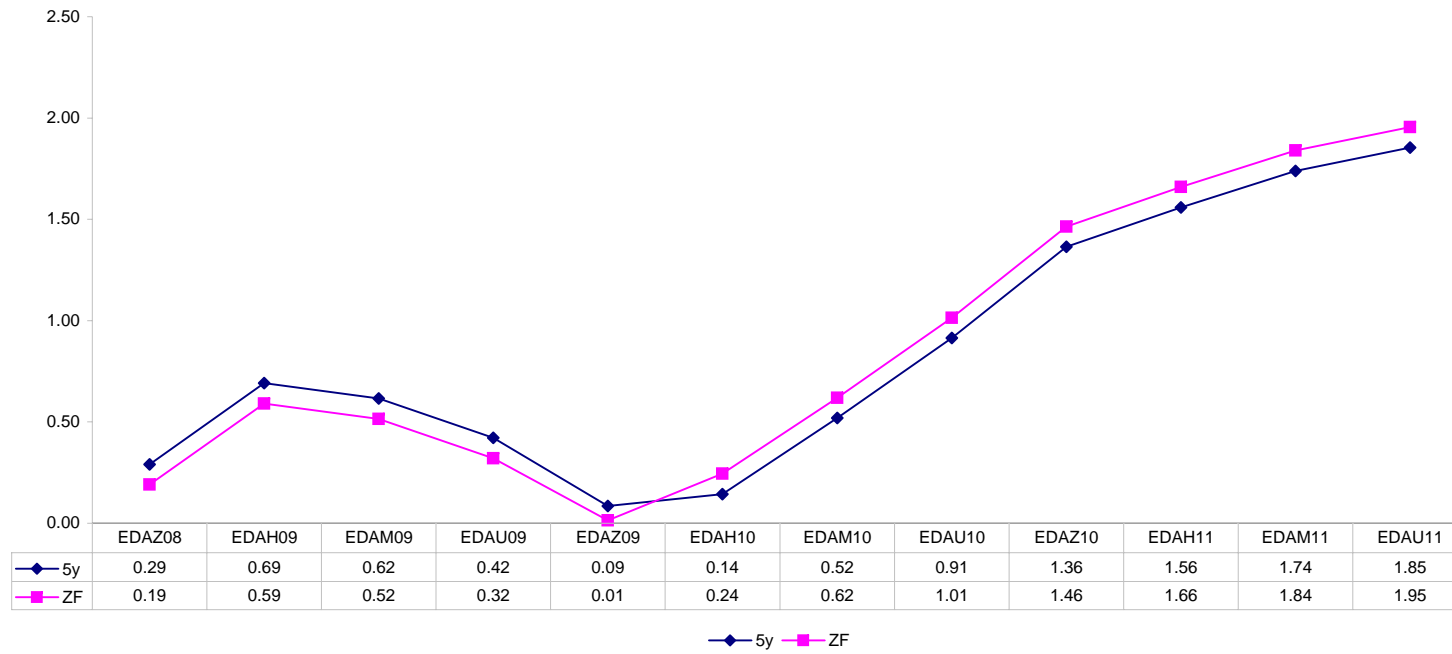
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



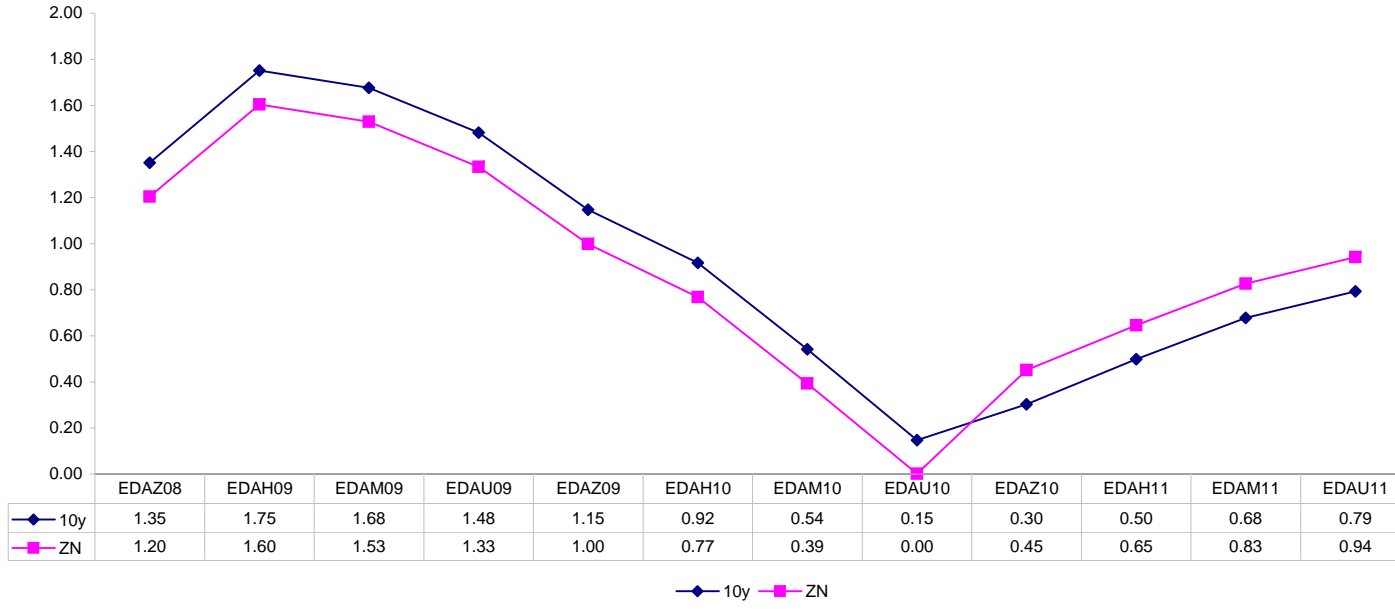
2y Basis TED Curve



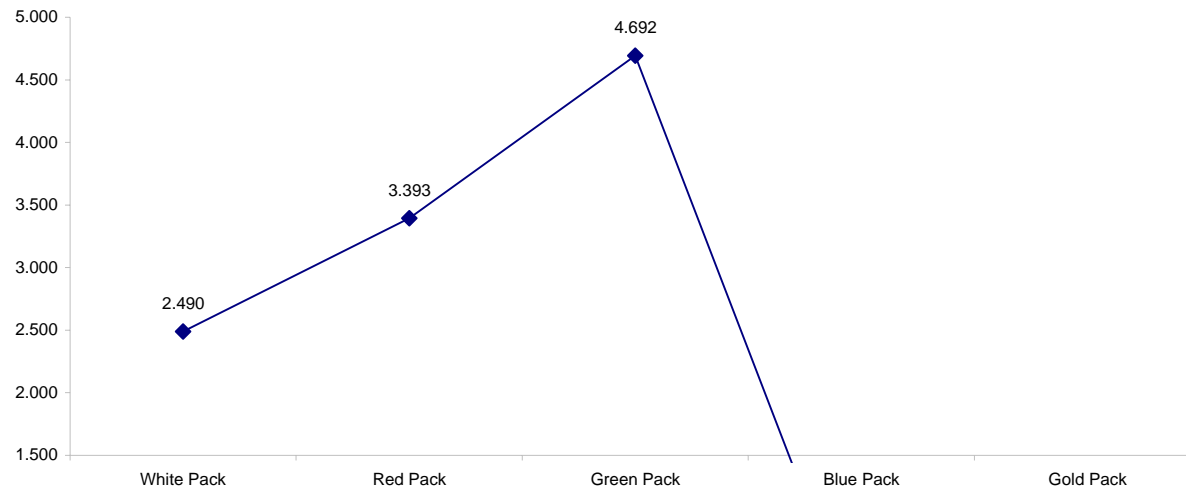
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.490	2.500	9755.875
Red Pack	3.393	11.625	9668.125
Green Pack	4.692	10.625	9542.500
Blue Pack		5.250	9501.375
Gold Pack		0.000	9466.125



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

