

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	108.6563	108.2100	0.573	1.92
ZF	119.8188	119.2620	1.033	1.03
ZN	127.6250	127.2000	2.040	6.85
2y	100.9688	100.3100	0.746	1.92
5y	103.1563	103.0500	1.337	4.70
10y	114.4063	114.1300	2.128	8.37

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	98.795	1.205	88	0.240	MAR	
EDAZ08	98.765	1.235	179	0.490	JUN	White Pack
EDAH09	98.680	1.320	270	0.739	SEP	
EDAM09	98.540	1.460	361	0.988	DEC	
EDAU09	98.450	1.550	452	1.238	MAR	
EDAZ09	98.280	1.720	543	1.487	JUN	Red Pack
EDAH10	98.150	1.850	634	1.736	SEP	
EDAM10	98.015	1.985	725	1.986	DEC	
EDAU10	97.930	2.070	816	2.235	MAR	
EDAZ10	97.780	2.220	907	2.484	JUN	Green Pack
EDAH11	97.665	2.335	1005	2.753	SEP	
EDAM11	97.565	2.435	1096	3.002	DEC	
EDAU11	97.515	2.485	1187	3.251	MAR	
EDAZ11	97.520	2.480	1278	3.501	JUN	Blue Pack
EDAH12	97.460	2.540	1369	3.750	SEP	
EDAM12	97.430	2.570	1460	3.999	DEC	
EDAU12	97.405	2.595	1551	4.249	MAR	
EDAZ12	97.350	2.650	1642	4.498	JUN	Gold Pack
EDAM13	97.290	2.710	1733	4.747	SEP	
EDZU13	97.195	2.805	1824	4.997	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.327	3.500	9869.500	
Red Pack	1.809	2.625	9822.375	Pack Prices
Green Pack	2.310	1.750	9773.500	
Blue Pack		0.875	9748.625	
Gold Pack	2.746	0.250	9731.000	

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.

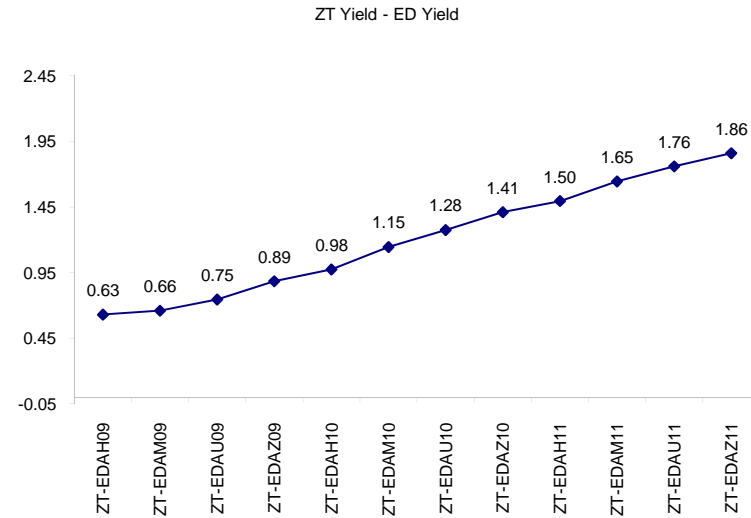
jgoulding@ghco.com

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.

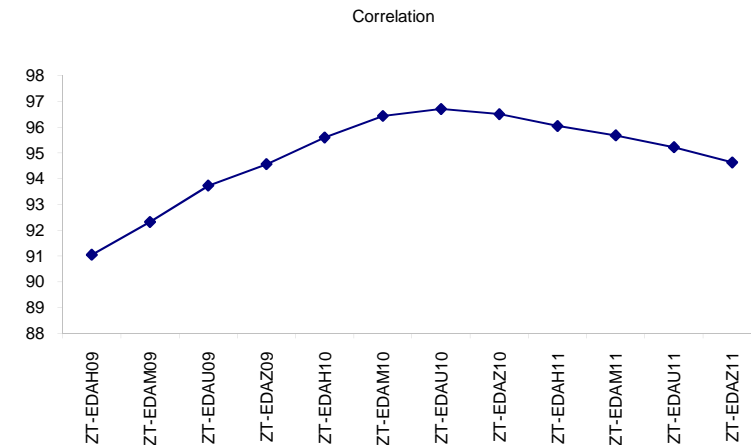
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	9.861	0.63	ZT-EDAH09	91.051
EDAM09	9.891	0.66	ZT-EDAM09	92.324
EDAU09	9.976	0.75	ZT-EDAU09	93.733
EDAZ09	10.116	0.89	ZT-EDAZ09	94.566
EDAH10	10.206	0.98	ZT-EDAH10	95.601
EDAM10	10.376	1.15	ZT-EDAM10	96.435
EDAU10	10.506	1.28	ZT-EDAU10	96.707
EDAZ10	10.641	1.41	ZT-EDAZ10	96.502
EDAH11	10.726	1.50	ZT-EDAH11	96.047
EDAM11	10.876	1.65	ZT-EDAM11	95.679
EDAU11	10.991	1.76	ZT-EDAU11	95.220
EDAZ11	11.091	1.86	ZT-EDAZ11	94.635

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	
EDAH09	0.240	1.92	1.68	ZT-EDAH09		
EDAM09	0.490	1.92	1.43	ZT-EDAM09		
EDAU09	0.739	1.92	1.18	ZT-EDAU09		
EDAZ09	0.988	1.92	0.93	ZT-EDAZ09		
EDAH10	1.238	1.92	0.69	ZT-EDAH10		
EDAM10	1.487	1.92	0.44	ZT-EDAM10		
EDAU10	1.736	1.92	0.19	ZT-EDAU10		
EDAZ10	1.986	1.92	(0.06)	ZT-EDAZ10		
EDAH11	2.235	1.92	(0.31)	ZT-EDAH11		
EDAM11	2.484	1.92	(0.56)	ZT-EDAM11		
EDAU11	2.753	1.92	(0.83)	ZT-EDAU11		
EDAZ11	3.002	1.92	(1.08)	ZT-EDAZ11		

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

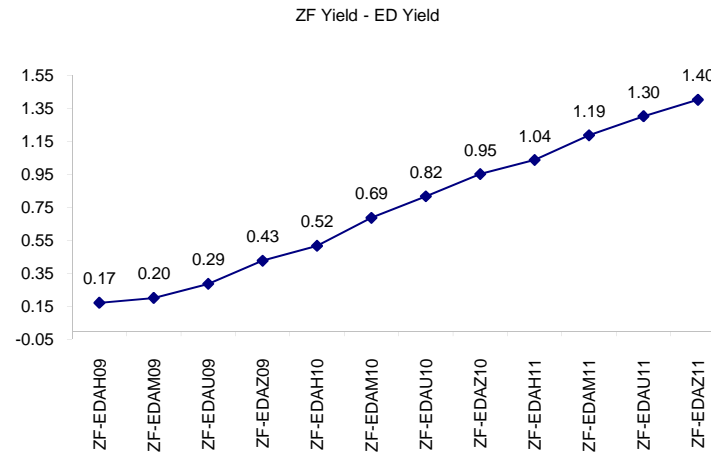


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	21.024	0.17	ZF-EDAH09	92.757
EDAM09	21.054	0.20	ZF-EDAM09	93.895
EDAU09	21.139	0.29	ZF-EDAU09	95.158
EDAZ09	21.279	0.43	ZF-EDAZ09	95.928
EDAH10	21.369	0.52	ZF-EDAH10	97.099
EDAM10	21.539	0.69	ZF-EDAM10	98.016
EDAU10	21.669	0.82	ZF-EDAU10	98.361
EDAZ10	21.804	0.95	ZF-EDAZ10	98.611
EDAH11	21.889	1.04	ZF-EDAH11	98.516
EDAM11	22.039	1.19	ZF-EDAM11	98.403
EDAU11	22.154	1.30	ZF-EDAU11	98.112
EDAZ11	22.254	1.40	ZF-EDAZ11	97.774

Price = Outright Decimal Price - Euro Contract Price

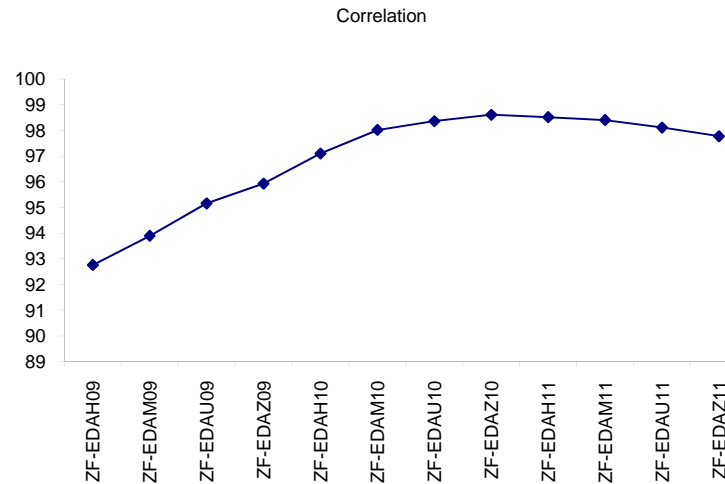
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAH09	0.240	1.03	0.79	ZF-EDAH09		
EDAM09	0.490	1.03	0.54	ZF-EDAM09		
EDAU09	0.739	1.03	0.29	ZF-EDAU09		
EDAZ09	0.988	1.03	0.04	ZF-EDAZ09		
EDAH10	1.238	1.03	(0.21)	ZF-EDAH10		
EDAM10	1.487	1.03	(0.45)	ZF-EDAM10		
EDAU10	1.736	1.03	(0.70)	ZF-EDAU10		
EDAZ10	1.986	1.03	(0.95)	ZF-EDAZ10		
EDAH11	2.235	1.03	(1.20)	ZF-EDAH11		
EDAM11	2.484	1.03	(1.45)	ZF-EDAM11		
EDAU11	2.753	1.03	(1.72)	ZF-EDAU11		
EDAZ11	3.002	1.03	(1.97)	ZF-EDAZ11		

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

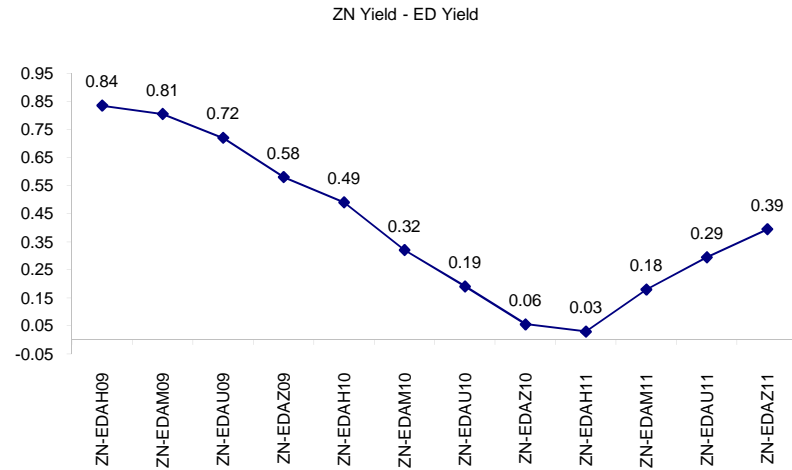


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	28.830	0.84	ZN-EDAH09	91.916
EDAM09	28.860	0.81	ZN-EDAM09	92.475
EDAU09	28.945	0.72	ZN-EDAU09	93.346
EDAZ09	29.085	0.58	ZN-EDAZ09	94.021
EDAH10	29.175	0.49	ZN-EDAH10	95.252
EDAM10	29.345	0.32	ZN-EDAM10	96.235
EDAU10	29.475	0.19	ZN-EDAU10	96.805
EDAZ10	29.610	0.06	ZN-EDAZ10	97.752
EDAH11	29.695	0.03	ZN-EDAH11	98.305
EDAM11	29.845	0.18	ZN-EDAM11	98.765
EDAU11	29.960	0.29	ZN-EDAU11	99.067
EDAZ11	30.060	0.39	ZN-EDAZ11	99.301

Price = Outright Decimal Price - Euro Contract Price

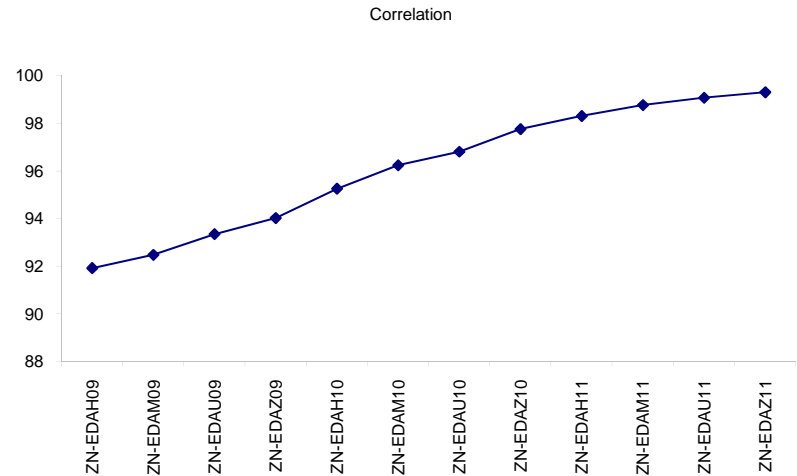
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAH09	0.240	6.85	6.61	ZN-EDAH09		
EDAM09	0.490	6.85	6.36	ZN-EDAM09		
EDAU09	0.739	6.85	6.12	ZN-EDAU09		
EDAZ09	0.988	6.85	5.87	ZN-EDAZ09		
EDAH10	1.238	6.85	5.62	ZN-EDAH10		
EDAM10	1.487	6.85	5.37	ZN-EDAM10		
EDAU10	1.736	6.85	5.12	ZN-EDAU10		
EDAZ10	1.986	6.85	4.87	ZN-EDAZ10		
EDAH11	2.235	6.85	4.62	ZN-EDAH11		
EDAM11	2.484	6.85	4.37	ZN-EDAM11		
EDAU11	2.753	6.85	4.10	ZN-EDAU11		
EDAZ11	3.002	6.85	3.85	ZN-EDAZ11		

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

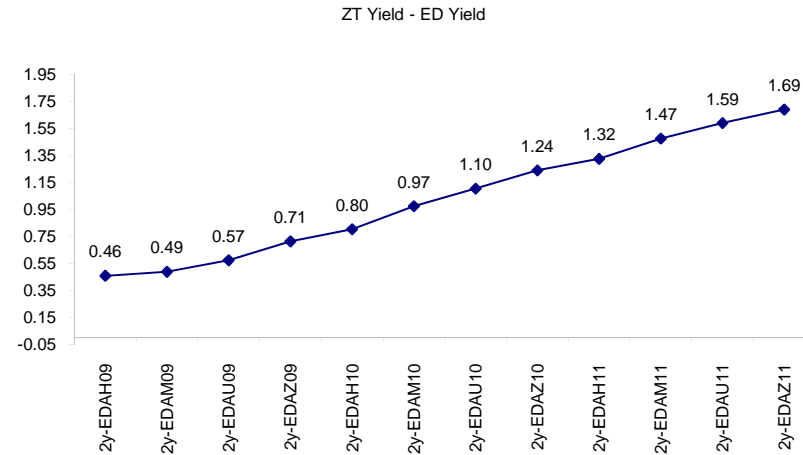


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	2.174	0.46	2y-EDAH09	-90.670
EDAM09	2.204	0.49	2y-EDAM09	-90.402
EDAU09	2.289	0.57	2y-EDAU09	-91.070
EDAZ09	2.429	0.71	2y-EDAZ09	-92.130
EDAH10	2.519	0.80	2y-EDAH10	-90.941
EDAM10	2.689	0.97	2y-EDAM10	-89.165
EDAU10	2.819	1.10	2y-EDAU10	-88.001
EDAZ10	2.954	1.24	2y-EDAZ10	-85.960
EDAH11	3.039	1.32	2y-EDAH11	-83.946
EDAM11	3.189	1.47	2y-EDAM11	-82.249
EDAU11	3.304	1.59	2y-EDAU11	-80.781
EDAZ11	3.404	1.69	2y-EDAZ11	-79.474

Price = Outright Decimal Price - Euro Contract Price

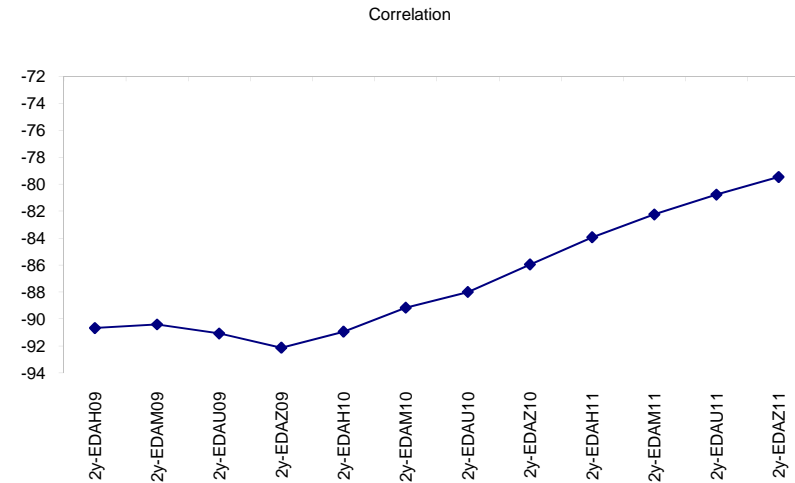
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAH09	0.240	1.92	1.68	2y-EDAH09
EDAM09	0.490	1.92	1.43	2y-EDAM09
EDAU09	0.739	1.92	1.18	2y-EDAU09
EDAZ09	0.988	1.92	0.93	2y-EDAZ09
EDAH10	1.238	1.92	0.68	2y-EDAH10
EDAM10	1.487	1.92	0.44	2y-EDAM10
EDAU10	1.736	1.92	0.19	2y-EDAU10
EDAZ10	1.986	1.92	(0.06)	2y-EDAZ10
EDAH11	2.235	1.92	(0.31)	2y-EDAH11
EDAM11	2.484	1.92	(0.56)	2y-EDAM11
EDAU11	2.753	1.92	(0.83)	2y-EDAU11
EDAZ11	3.002	1.92	(1.08)	2y-EDAZ11

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

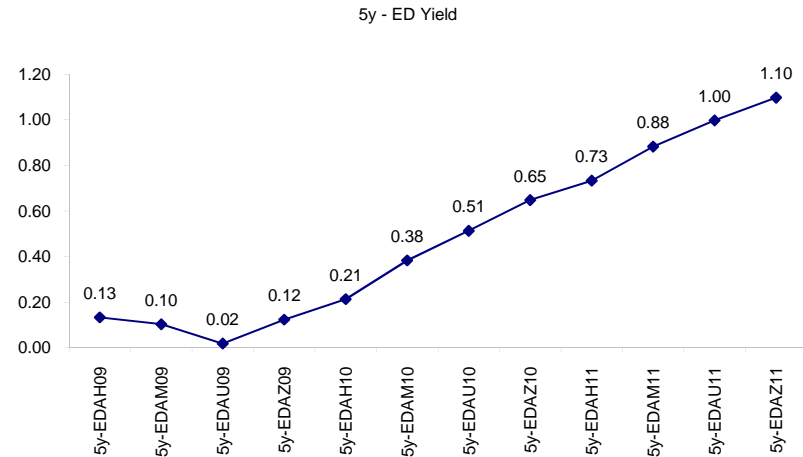


	5y			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAH09	4.361	0.13	5y-EDAH09	-97.235
EDAM09	4.391	0.10	5y-EDAM09	-97.693
EDAU09	4.476	0.02	5y-EDAU09	-98.447
EDAZ09	4.616	0.12	5y-EDAZ09	-99.008
EDAH10	4.706	0.21	5y-EDAH10	-99.079
EDAM10	4.876	0.38	5y-EDAM10	-98.794
EDAU10	5.006	0.51	5y-EDAU10	-98.353
EDAZ10	5.141	0.65	5y-EDAZ10	-97.614
EDAH11	5.226	0.73	5y-EDAH11	-96.683
EDAM11	5.376	0.88	5y-EDAM11	-95.904
EDAU11	5.491	1.00	5y-EDAU11	-95.185
EDAZ11	5.591	1.10	5y-EDAZ11	-94.616

Price = Outright Decimal Price - Euro Contract Price

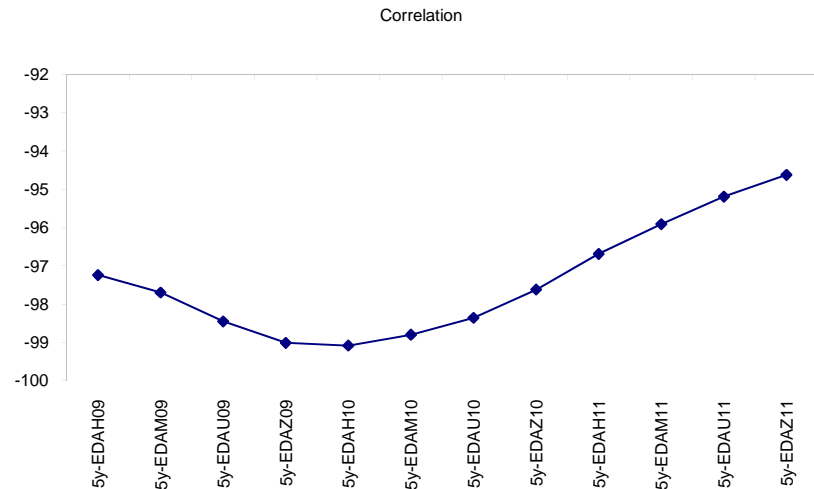
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			Spread Duration	
	ED Duration	5Y Duration	Spread Duration		
EDAH09	0.240	4.70	4.46	5y-EDAH09	
EDAM09	0.490	4.70	4.21	5y-EDAM09	
EDAU09	0.739	4.70	3.96	5y-EDAU09	
EDAZ09	0.988	4.70	3.72	5y-EDAZ09	
EDAH10	1.238	4.70	3.47	5y-EDAH10	
EDAM10	1.487	4.70	3.22	5y-EDAM10	
EDAU10	1.736	4.70	2.97	5y-EDAU10	
EDAZ10	1.986	4.70	2.72	5y-EDAZ10	
EDAH11	2.235	4.70	2.47	5y-EDAH11	
EDAM11	2.484	4.70	2.22	5y-EDAM11	
EDAU11	2.753	4.70	1.95	5y-EDAU11	
EDAZ11	3.002	4.70	1.70	5y-EDAZ11	

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

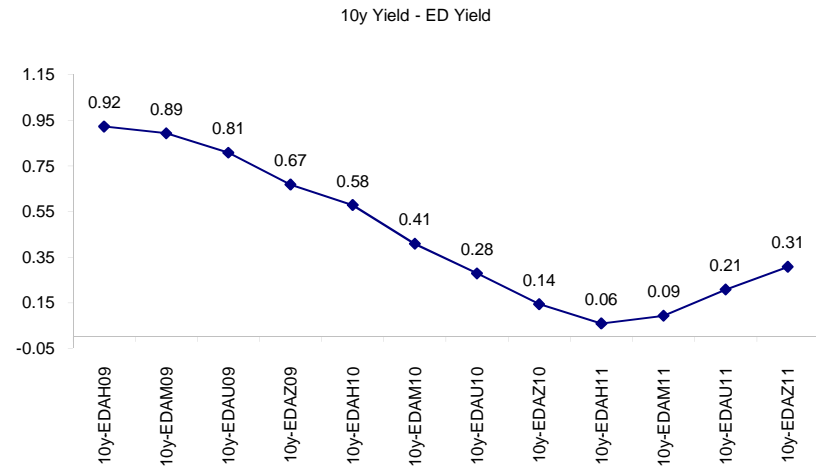


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	4.361	0.92	10y-EDAH09	-92.803
EDAM09	4.391	0.89	10y-EDAM09	-93.567
EDAU09	4.476	0.81	10y-EDAU09	-94.367
EDAZ09	4.616	0.67	10y-EDAZ09	-94.756
EDAH10	4.706	0.58	10y-EDAH10	-95.928
EDAM10	4.876	0.41	10y-EDAM10	-96.894
EDAU10	5.006	0.28	10y-EDAU10	-97.290
EDAZ10	5.141	0.14	10y-EDAZ10	-98.067
EDAH11	5.226	0.06	10y-EDAH11	-98.412
EDAM11	5.376	0.09	10y-EDAM11	-98.723
EDAU11	5.491	0.21	10y-EDAU11	-98.881
EDAZ11	5.591	0.31	10y-EDAZ11	-99.093

Price = Outright Decimal Price - Euro Contract Price

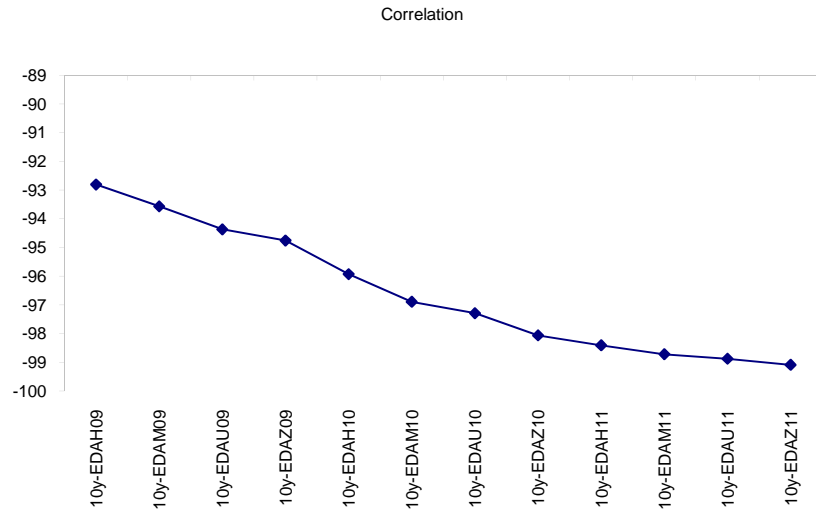
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAH09	0.240	8.37	8.13	10y-EDAH09
EDAM09	0.490	8.37	7.88	10y-EDAM09
EDAU09	0.739	8.37	7.63	10y-EDAU09
EDAZ09	0.988	8.37	7.38	10y-EDAZ09
EDAH10	1.238	8.37	7.13	10y-EDAH10
EDAM10	1.487	8.37	6.88	10y-EDAM10
EDAU10	1.736	8.37	6.63	10y-EDAU10
EDAZ10	1.986	8.37	6.39	10y-EDAZ10
EDAH11	2.235	8.37	6.14	10y-EDAH11
EDAM11	2.484	8.37	5.89	10y-EDAM11
EDAU11	2.753	8.37	5.62	10y-EDAU11
EDAZ11	3.002	8.37	5.37	10y-EDAZ11

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.

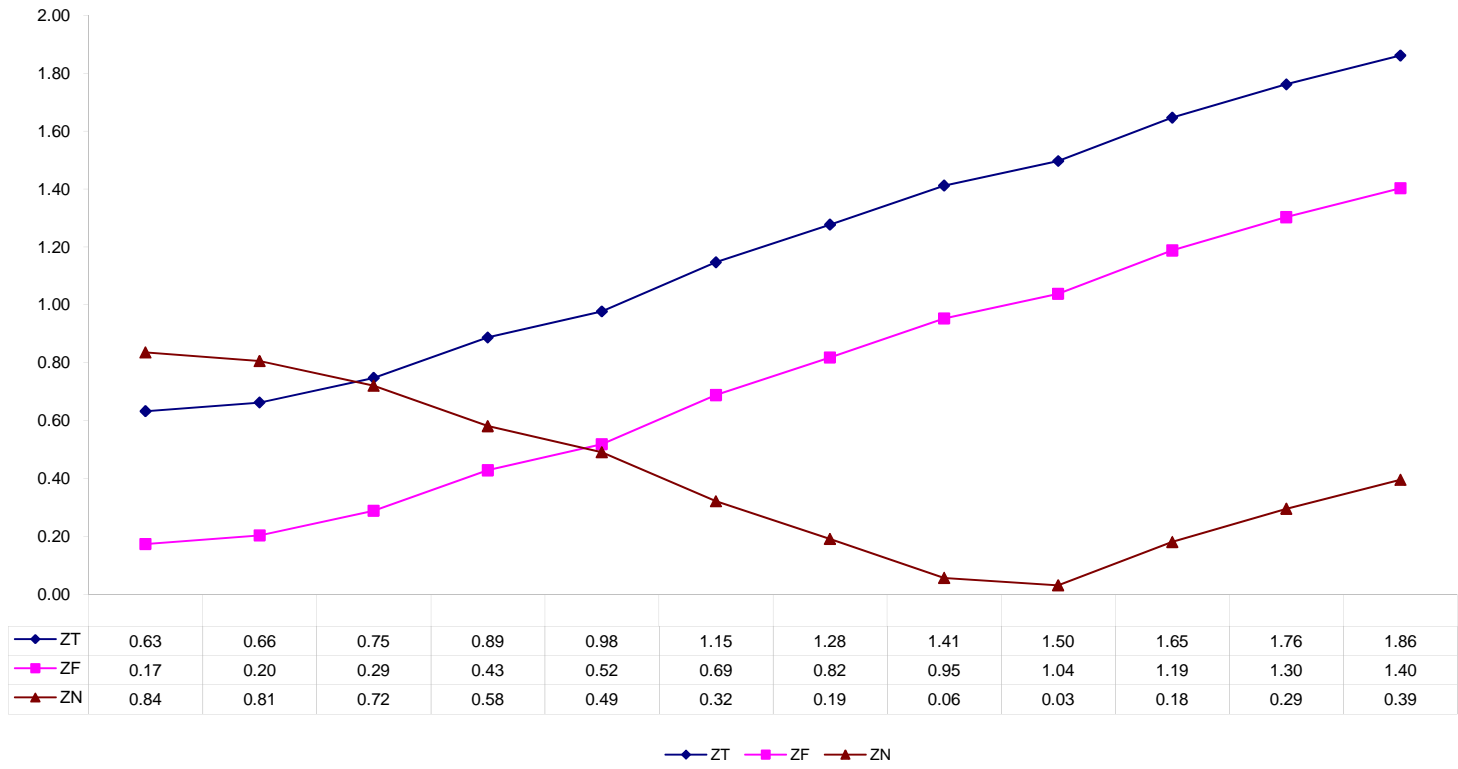
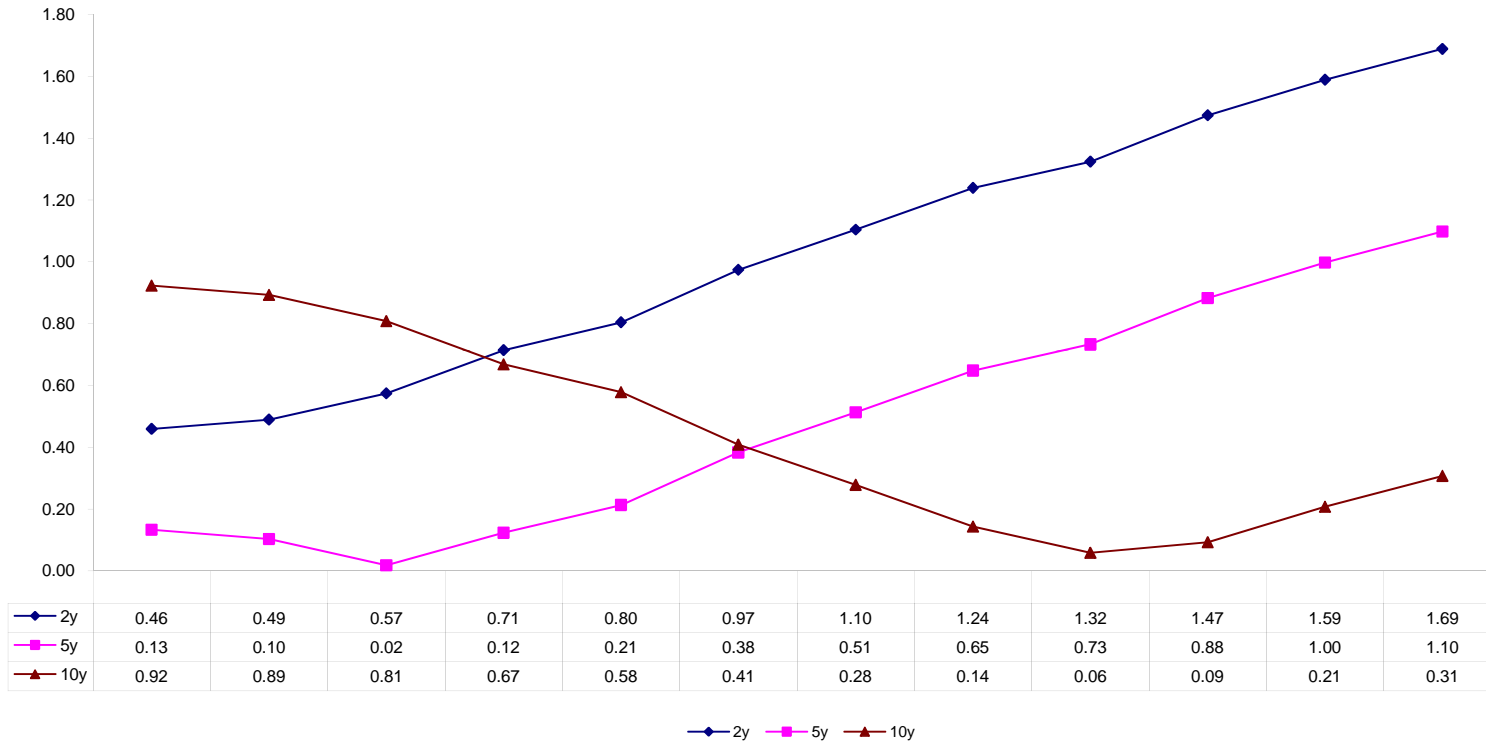
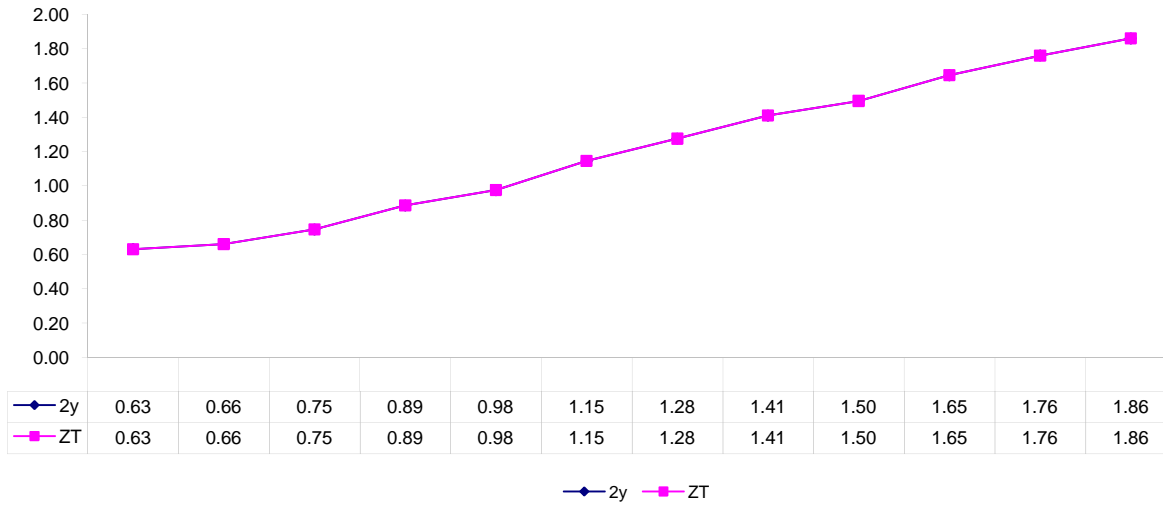


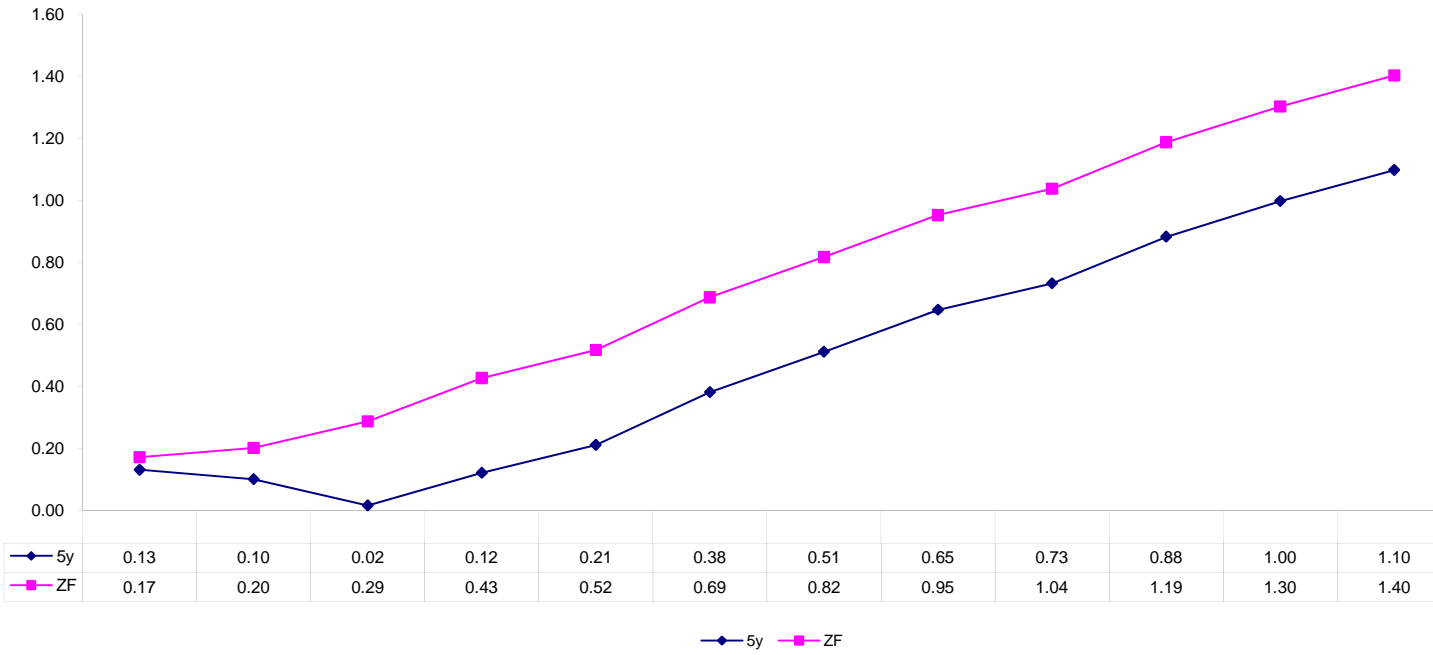
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



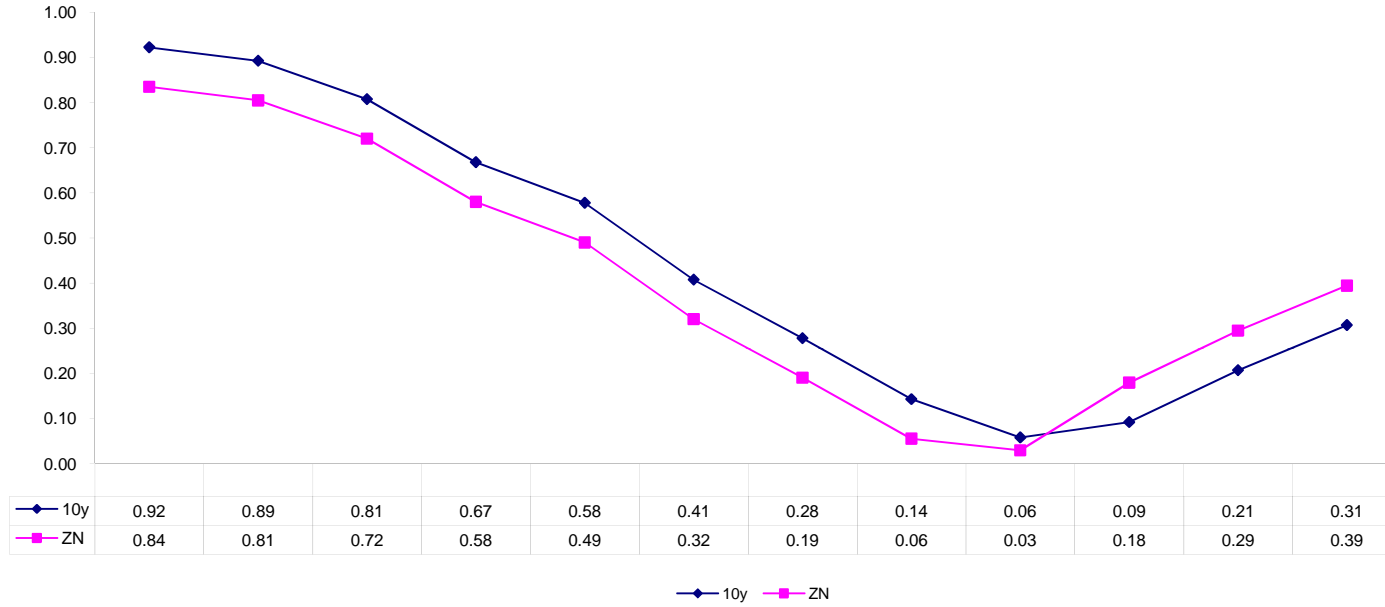
2y Basis TED Curve



5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	1.327	3.500	9869.500
Red Pack	1.809	2.625	9822.375
Green Pack	2.310	1.750	9773.500
Blue Pack	0.875	0.875	9748.625
Gold Pack	2.746	0.250	9731.000

