

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 € 32.00	Last Yield*	MDuration
ZT	108.8438	108.2700	0.798	1.73
ZF	118.2250	118.0720	1.614	1.61
ZN	122.9688	122.3100	1.815	6.12
2y	99.7656	99.2450	0.993	1.97
5y	99.5000	99.1600	1.857	4.69
10y	99.7031	99.2250	2.782	8.66

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAH09	98.743	1.257	19	0.051	MAR	
EDAM09	98.735	1.265	110	0.301	JUN	White Pack
EDAU09	98.675	1.325	201	0.550	SEP	
EDAZ09	98.520	1.480	292	0.799	DEC	
EDAH10	98.395	1.605	383	1.049	MAR	
EDAM10	98.185	1.815	474	1.298	JUN	Red Pack
EDAU10	97.970	2.030	565	1.547	SEP	
EDAZ10	97.730	2.270	656	1.797	DEC	
EDAH11	97.555	2.445	747	2.046	MAR	
EDAM11	97.355	2.645	838	2.295	JUN	Green Pack
EDAU11	97.155	2.845	936	2.564	SEP	
EDAZ11	96.965	3.035	1027	2.813	DEC	
EDAH12	96.855	3.145	1118	3.062	MAR	
EDAM12	96.755	3.245	1209	3.312	JUN	Blue Pack
EDAU12	96.680	3.320	1300	3.561	SEP	
EDAZ12	96.570	3.430	1391	3.810	DEC	
EDAH13	96.525	3.475	1482	4.060	MAR	
EDAM13	96.450	3.550	1573	4.309	JUN	Gold Pack
EDZU13	96.380	3.620	1664	4.558	SEP	
EDZZ13	96.285	3.715	1755	4.808	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.355	1.063	9866.813	
Red Pack	1.966	0.500	9807.000	Pack Prices
Green Pack	2.800	-0.500	9725.750	
Blue Pack	3.358	-1.750	9671.500	
Gold Pack	3.673	-1.125	9641.000	

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.

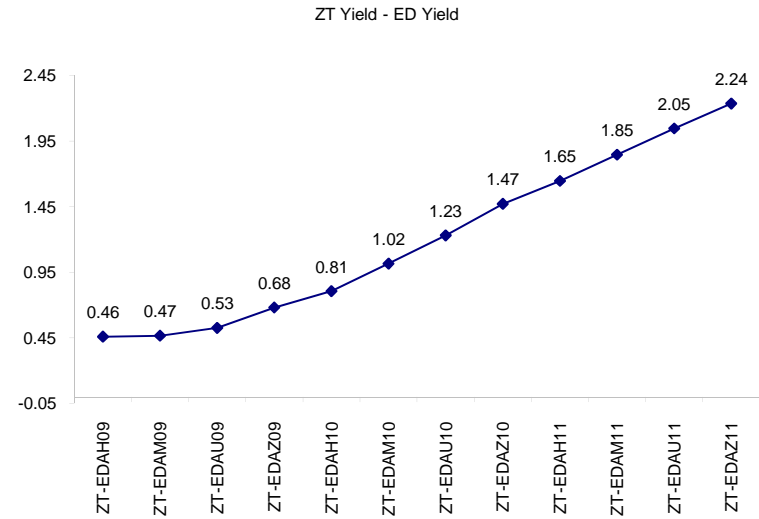
jgoulding@ghco.com

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.

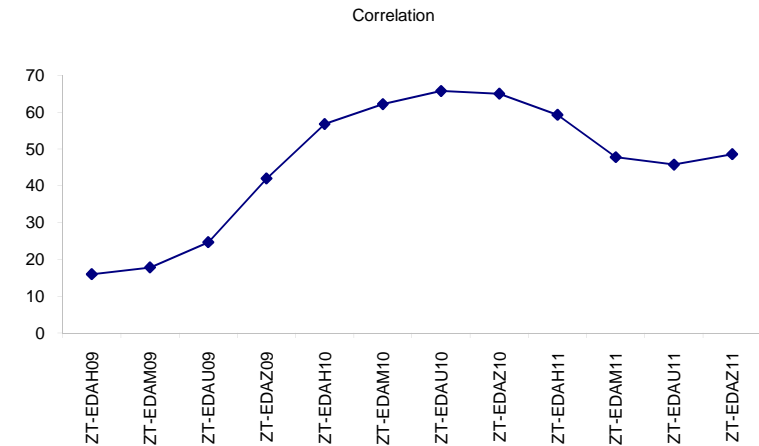
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	10.101	0.46	ZT-EDAH09	15.966
EDAM09	10.109	0.47	ZT-EDAM09	17.830
EDAU09	10.169	0.53	ZT-EDAU09	24.660
EDAZ09	10.324	0.68	ZT-EDAZ09	41.961
EDAH10	10.449	0.81	ZT-EDAH10	56.738
EDAM10	10.659	1.02	ZT-EDAM10	62.158
EDAU10	10.874	1.23	ZT-EDAU10	65.714
EDAZ10	11.114	1.47	ZT-EDAZ10	64.951
EDAH11	11.289	1.65	ZT-EDAH11	59.226
EDAM11	11.489	1.85	ZT-EDAM11	47.741
EDAU11	11.689	2.05	ZT-EDAU11	45.741
EDAZ11	11.879	2.24	ZT-EDAZ11	48.537

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	0.051	1.73	1.68	ZT-EDAH09		
EDAM09	0.301	1.73	1.43	ZT-EDAM09		
EDAU09	0.550	1.73	1.18	ZT-EDAU09		
EDAZ09	0.799	1.73	0.93	ZT-EDAZ09		
EDAH10	1.049	1.73	0.68	ZT-EDAH10		
EDAM10	1.298	1.73	0.43	ZT-EDAM10		
EDAU10	1.547	1.73	0.18	ZT-EDAU10		
EDAZ10	1.797	1.73	(0.06)	ZT-EDAZ10		
EDAH11	2.046	1.73	(0.31)	ZT-EDAH11		
EDAM11	2.295	1.73	(0.56)	ZT-EDAM11		
EDAU11	2.564	1.73	(0.83)	ZT-EDAU11		
EDAZ11	2.813	1.73	(1.08)	ZT-EDAZ11		

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

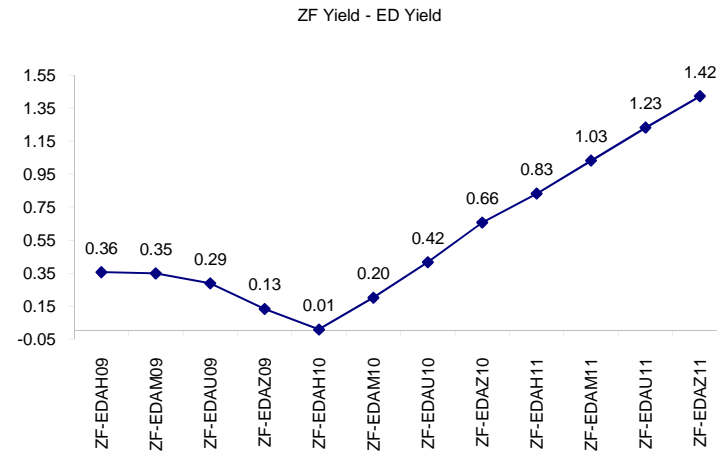


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	19.483	0.36	ZF-EDAH09	-2.752
EDAM09	19.490	0.35	ZF-EDAM09	11.467
EDAU09	19.550	0.29	ZF-EDAU09	30.771
EDAZ09	19.705	0.13	ZF-EDAZ09	55.182
EDAH10	19.830	0.01	ZF-EDAH10	72.834
EDAM10	20.040	0.20	ZF-EDAM10	80.992
EDAU10	20.255	0.42	ZF-EDAU10	85.846
EDAZ10	20.495	0.66	ZF-EDAZ10	87.675
EDAH11	20.670	0.83	ZF-EDAH11	84.886
EDAM11	20.870	1.03	ZF-EDAM11	77.828
EDAU11	21.070	1.23	ZF-EDAU11	76.781
EDAZ11	21.260	1.42	ZF-EDAZ11	78.027

Price = Outright Decimal Price - Euro Contract Price

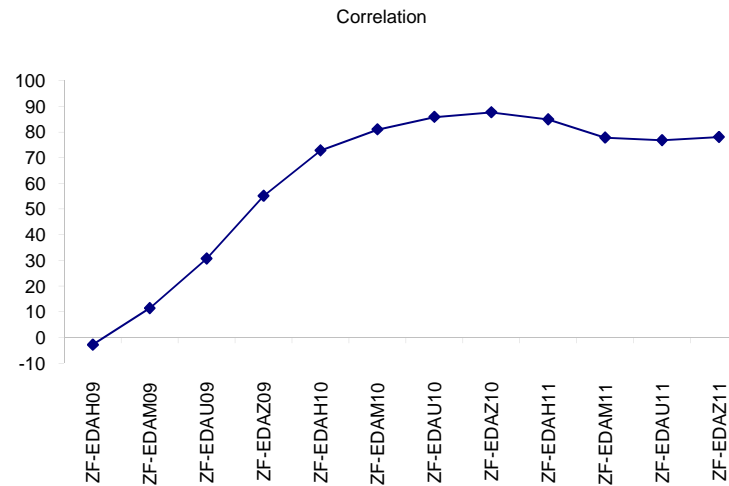
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAH09	0.051	1.61	1.56	1.56	ZF-EDAH09
EDAM09	0.301	1.61	1.31	1.31	ZF-EDAM09
EDAU09	0.550	1.61	1.06	1.06	ZF-EDAU09
EDAZ09	0.799	1.61	0.81	0.81	ZF-EDAZ09
EDAH10	1.049	1.61	0.56	0.56	ZF-EDAH10
EDAM10	1.298	1.61	0.32	0.32	ZF-EDAM10
EDAU10	1.547	1.61	0.07	0.07	ZF-EDAU10
EDAZ10	1.797	1.61	(0.18)	(0.18)	ZF-EDAZ10
EDAH11	2.046	1.61	(0.43)	(0.43)	ZF-EDAH11
EDAM11	2.295	1.61	(0.68)	(0.68)	ZF-EDAM11
EDAU11	2.564	1.61	(0.95)	(0.95)	ZF-EDAU11
EDAZ11	2.813	1.61	(1.20)	(1.20)	ZF-EDAZ11

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

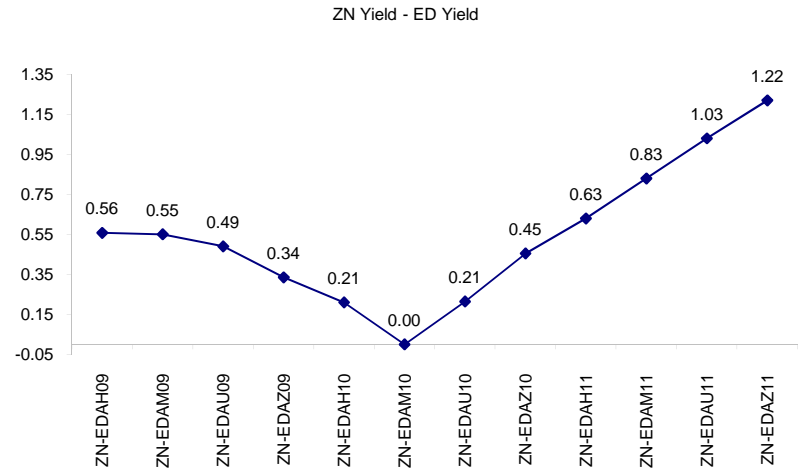


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAH09	24.226	0.56	ZN-EDAH09	-5.890
EDAM09	24.234	0.55	ZN-EDAM09	10.076
EDAU09	24.294	0.49	ZN-EDAU09	34.905
EDAZ09	24.449	0.34	ZN-EDAZ09	61.890
EDAH10	24.574	0.21	ZN-EDAH10	80.387
EDAM10	24.784	0.00	ZN-EDAM10	87.940
EDAU10	24.999	0.21	ZN-EDAU10	91.348
EDAZ10	25.239	0.45	ZN-EDAZ10	92.031
EDAH11	25.414	0.63	ZN-EDAH11	89.447
EDAM11	25.614	0.83	ZN-EDAM11	84.436
EDAU11	25.814	1.03	ZN-EDAU11	83.634
EDAZ11	26.004	1.22	ZN-EDAZ11	85.345

Price = Outright Decimal Price - Euro Contract Price

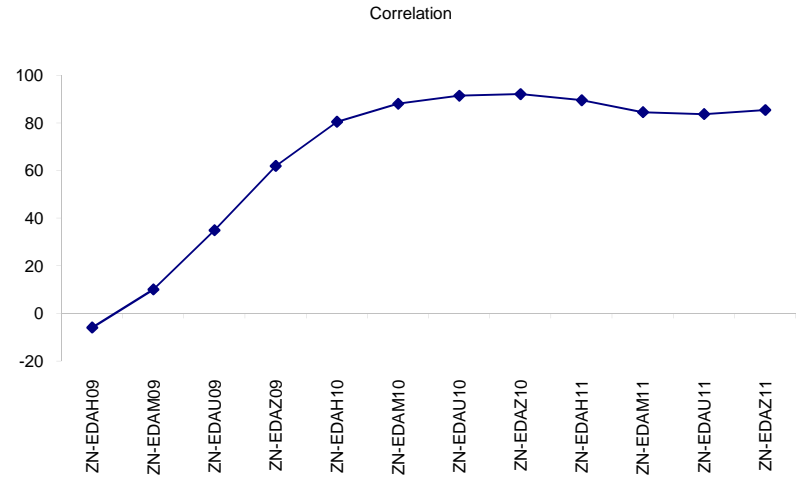
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			ZN Duration	Spread Duration	Contract Name
	Fraction of year	Duration	Duration			
EDAH09	0.051	6.12	6.07	6.07	ZN-EDAH09	
EDAM09	0.301	6.12	5.82	5.82	ZN-EDAM09	
EDAU09	0.550	6.12	5.57	5.57	ZN-EDAU09	
EDAZ09	0.799	6.12	5.32	5.32	ZN-EDAZ09	
EDAH10	1.049	6.12	5.07	5.07	ZN-EDAH10	
EDAM10	1.298	6.12	4.82	4.82	ZN-EDAM10	
EDAU10	1.547	6.12	4.57	4.57	ZN-EDAU10	
EDAZ10	1.797	6.12	4.32	4.32	ZN-EDAZ10	
EDAH11	2.046	6.12	4.07	4.07	ZN-EDAH11	
EDAM11	2.295	6.12	3.82	3.82	ZN-EDAM11	
EDAU11	2.564	6.12	3.55	3.55	ZN-EDAU11	
EDAZ11	2.813	6.12	3.31	3.31	ZN-EDAZ11	

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

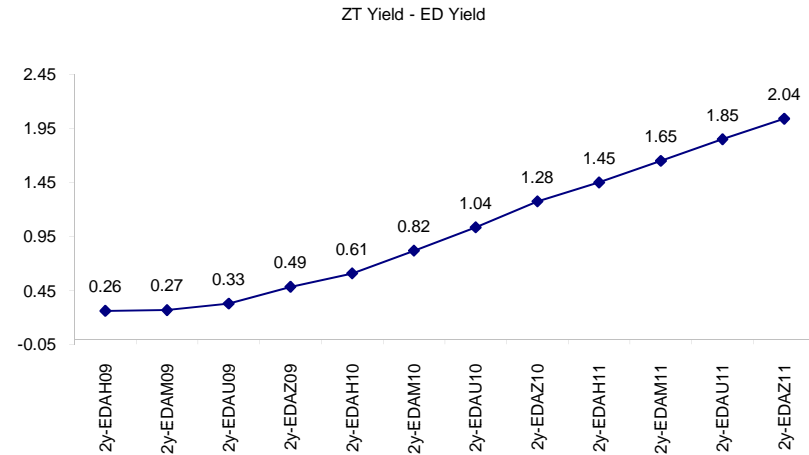


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.023	0.26	2y-EDAH09	-9.201
EDAM09	1.031	0.27	2y-EDAM09	-21.329
EDAU09	1.091	0.33	2y-EDAU09	-39.196
EDAZ09	1.246	0.49	2y-EDAZ09	-60.630
EDAH10	1.371	0.61	2y-EDAH10	-74.704
EDAM10	1.581	0.82	2y-EDAM10	-79.898
EDAU10	1.796	1.04	2y-EDAU10	-80.438
EDAZ10	2.036	1.28	2y-EDAZ10	-79.408
EDAH11	2.211	1.45	2y-EDAH11	-76.849
EDAM11	2.411	1.65	2y-EDAM11	-72.788
EDAU11	2.611	1.85	2y-EDAU11	-74.177
EDAZ11	2.801	2.04	2y-EDAZ11	-78.093

Price = Outright Decimal Price - Euro Contract Price

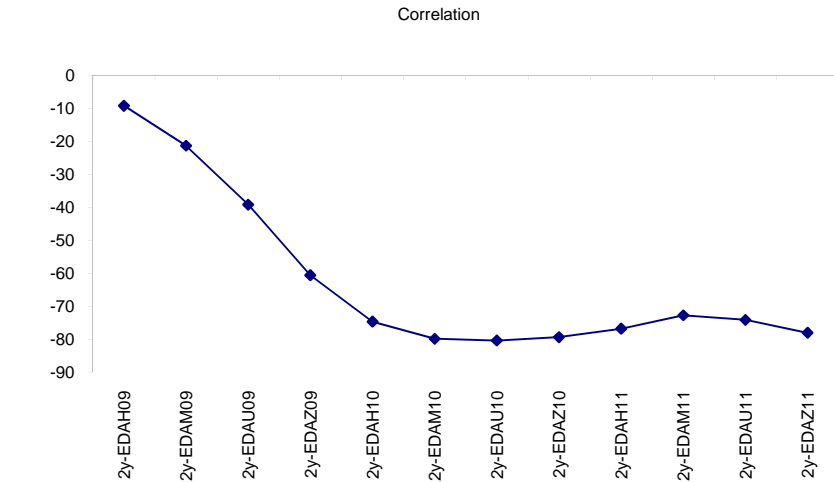
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	Fraction of year	2Y Duration	Spread Duration	
EDAH09	0.051	1.97	1.92	2y-EDAH09
EDAM09	0.301	1.97	1.67	2y-EDAM09
EDAU09	0.550	1.97	1.42	2y-EDAU09
EDAZ09	0.799	1.97	1.17	2y-EDAZ09
EDAH10	1.049	1.97	0.93	2y-EDAH10
EDAM10	1.298	1.97	0.68	2y-EDAM10
EDAU10	1.547	1.97	0.43	2y-EDAU10
EDAZ10	1.797	1.97	0.18	2y-EDAZ10
EDAH11	2.046	1.97	(0.07)	2y-EDAH11
EDAM11	2.295	1.97	(0.32)	2y-EDAM11
EDAU11	2.564	1.97	(0.59)	2y-EDAU11
EDAZ11	2.813	1.97	(0.84)	2y-EDAZ11

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

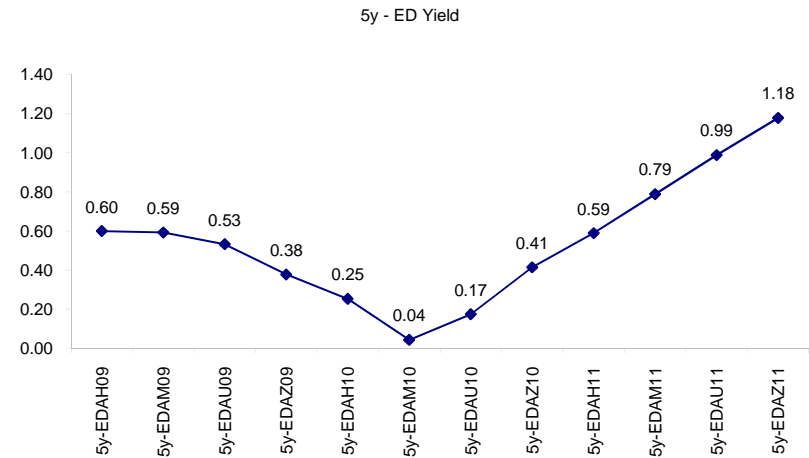


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	0.757	0.60	5y-EDAH09	-2.163
EDAM09	0.765	0.59	5y-EDAM09	-17.031
EDAU09	0.825	0.53	5y-EDAU09	-38.948
EDAZ09	0.980	0.38	5y-EDAZ09	-62.748
EDAH10	1.105	0.25	5y-EDAH10	-77.298
EDAM10	1.315	0.04	5y-EDAM10	-82.373
EDAU10	1.530	0.17	5y-EDAU10	-83.027
EDAZ10	1.770	0.41	5y-EDAZ10	-82.360
EDAH11	1.945	0.59	5y-EDAH11	-80.817
EDAM11	2.145	0.79	5y-EDAM11	-78.143
EDAU11	2.345	0.99	5y-EDAU11	-78.822
EDAZ11	2.535	1.18	5y-EDAZ11	-81.992

Price = Outright Decimal Price - Euro Contract Price

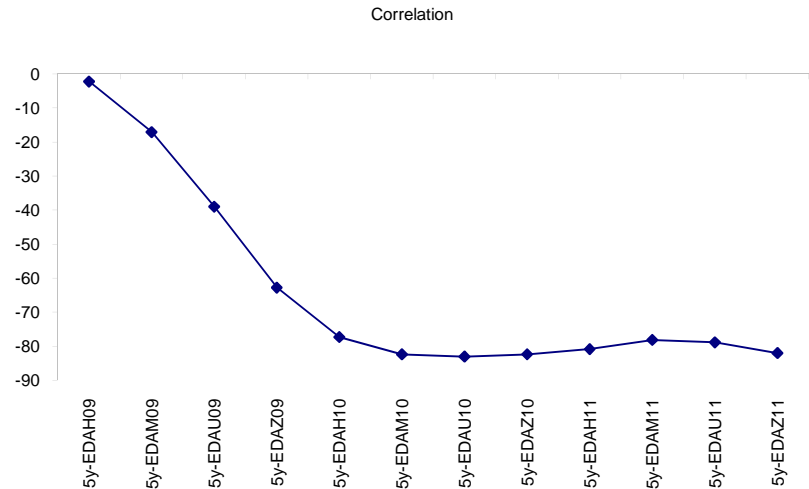
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAH09	0.051	4.69	4.64	5y-EDAH09	
EDAM09	0.301	4.69	4.39	5y-EDAM09	
EDAU09	0.550	4.69	4.14	5y-EDAU09	
EDAZ09	0.799	4.69	3.89	5y-EDAZ09	
EDAH10	1.049	4.69	3.64	5y-EDAH10	
EDAM10	1.298	4.69	3.40	5y-EDAM10	
EDAU10	1.547	4.69	3.15	5y-EDAU10	
EDAZ10	1.797	4.69	2.90	5y-EDAZ10	
EDAH11	2.046	4.69	2.65	5y-EDAH11	
EDAM11	2.295	4.69	2.40	5y-EDAM11	
EDAU11	2.564	4.69	2.13	5y-EDAU11	
EDAZ11	2.813	4.69	1.88	5y-EDAZ11	

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

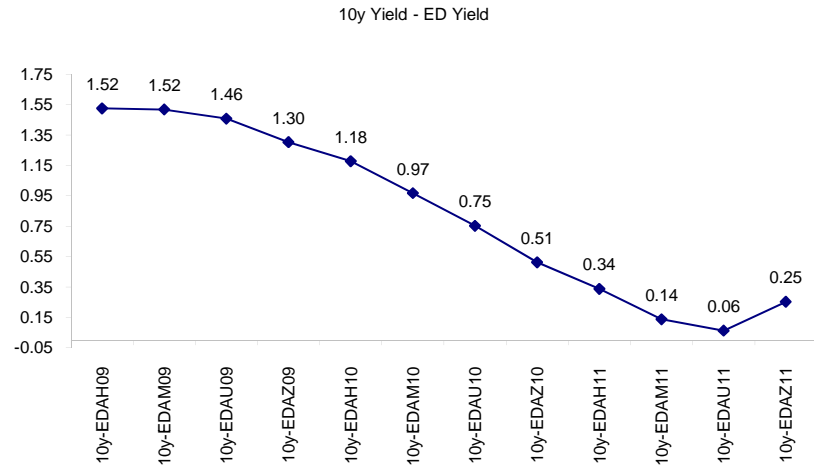


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	0.757	1.52	10y-EDAH09	19.009
EDAM09	0.765	1.52	10y-EDAM09	1.378
EDAU09	0.825	1.46	10y-EDAU09	-27.151
EDAZ09	0.980	1.30	10y-EDAZ09	-51.745
EDAH10	1.105	1.18	10y-EDAH10	-64.104
EDAM10	1.315	0.97	10y-EDAM10	-68.730
EDAU10	1.530	0.75	10y-EDAU10	-67.938
EDAZ10	1.770	0.51	10y-EDAZ10	-69.452
EDAH11	1.945	0.34	10y-EDAH11	-70.463
EDAM11	2.145	0.14	10y-EDAM11	-74.677
EDAU11	2.345	0.06	10y-EDAU11	-76.495
EDAZ11	2.535	0.25	10y-EDAZ11	-76.706

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	0.051	8.66	8.61	10y-EDAH09		
EDAM09	0.301	8.66	8.36	10y-EDAM09		
EDAU09	0.550	8.66	8.11	10y-EDAU09		
EDAZ09	0.799	8.66	7.86	10y-EDAZ09		
EDAH10	1.049	8.66	7.61	10y-EDAH10		
EDAM10	1.298	8.66	7.36	10y-EDAM10		
EDAU10	1.547	8.66	7.11	10y-EDAU10		
EDAZ10	1.797	8.66	6.86	10y-EDAZ10		
EDAH11	2.046	8.66	6.61	10y-EDAH11		
EDAM11	2.295	8.66	6.36	10y-EDAM11		
EDAU11	2.564	8.66	6.09	10y-EDAU11		
EDAZ11	2.813	8.66	5.84	10y-EDAZ11		

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

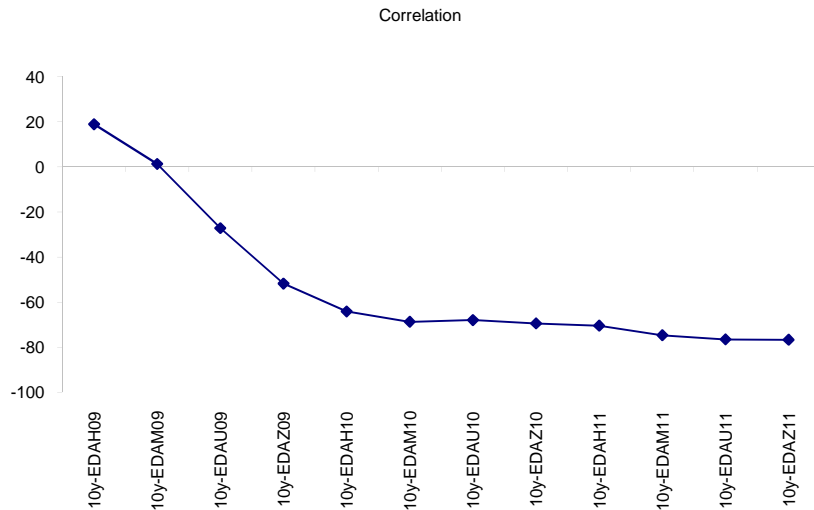


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

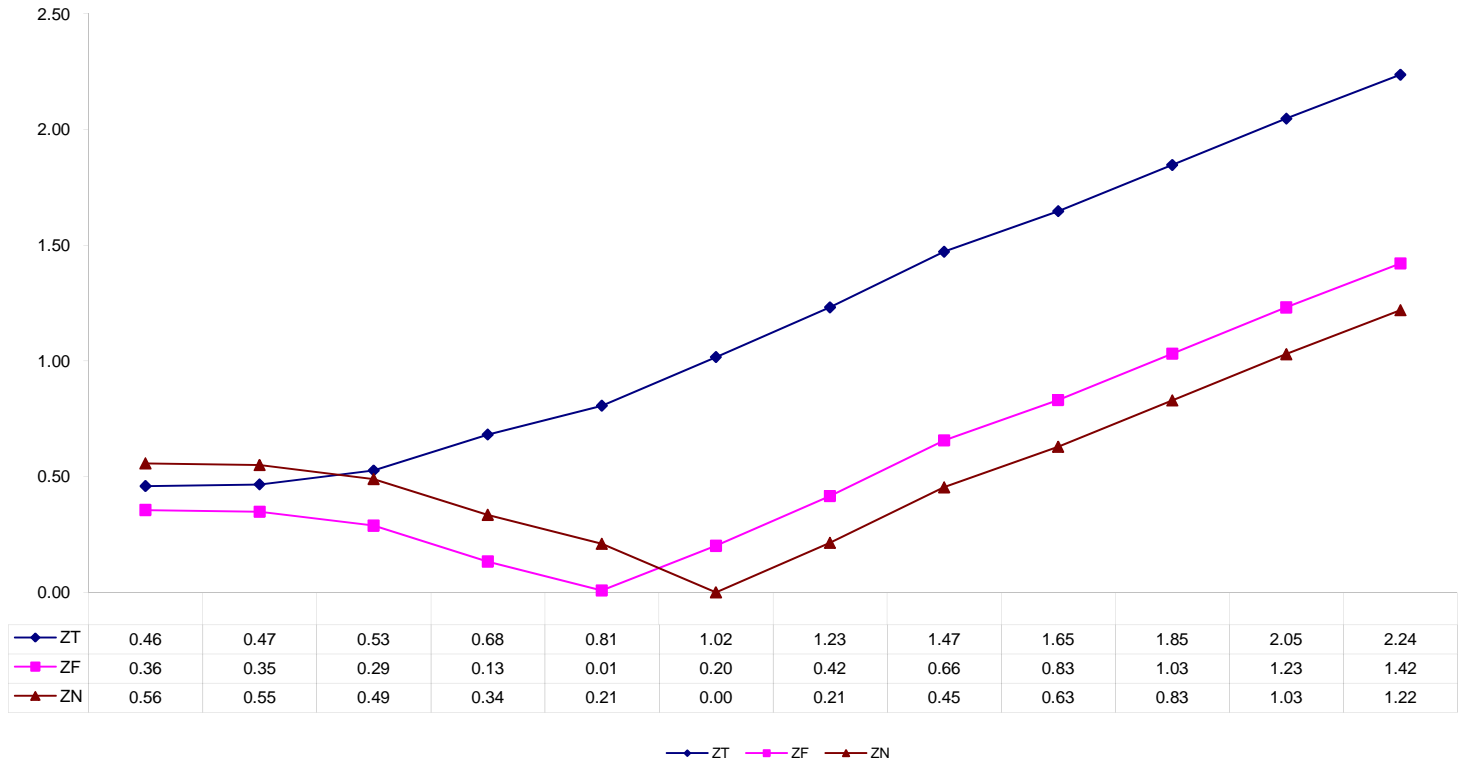
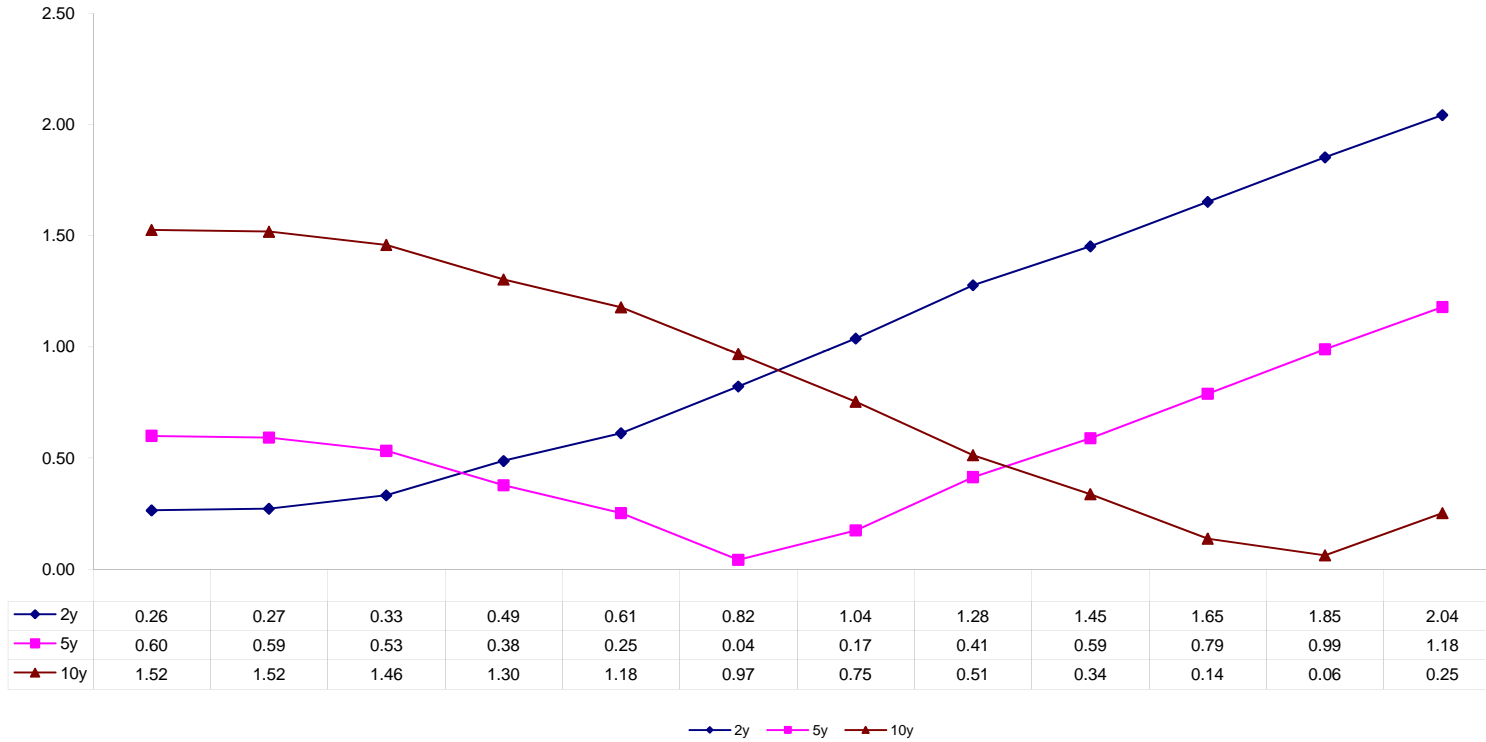
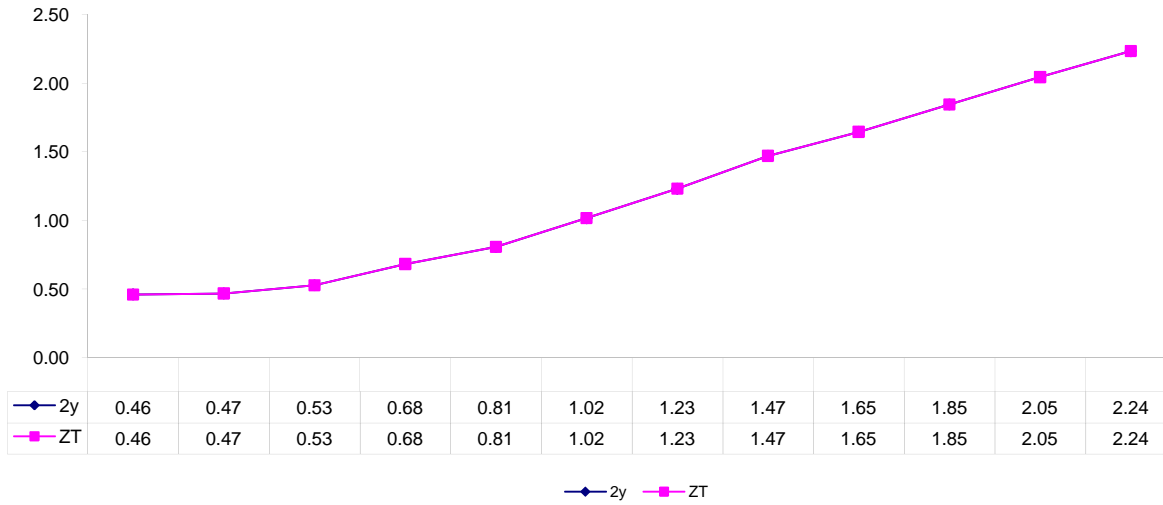
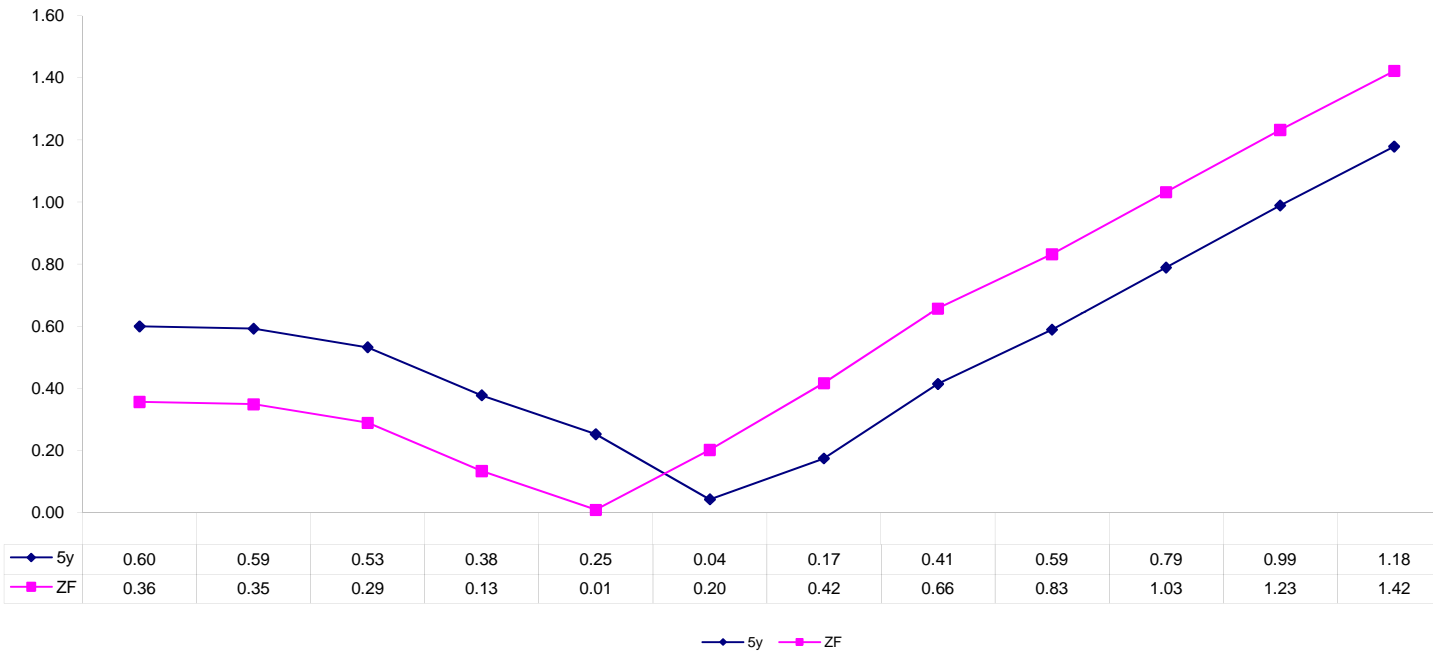


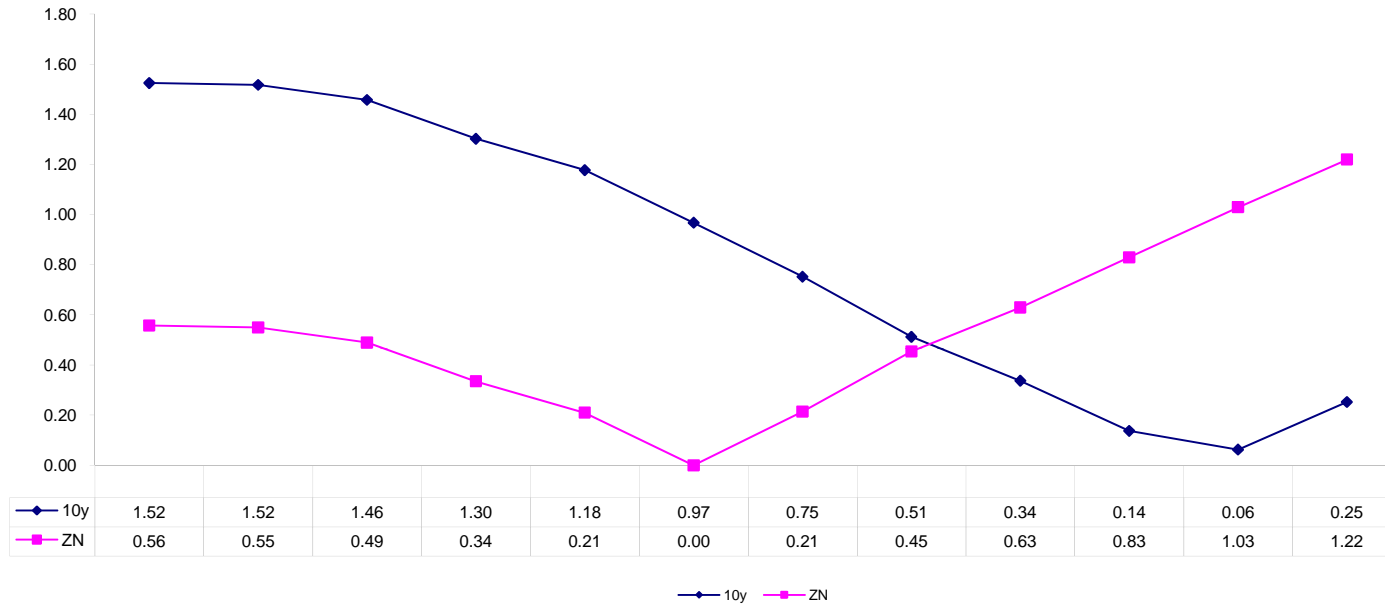
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.355	1.063	9866.813
Red Pack	1.966	0.500	9807.000
Green Pack	2.800	-0.500	9725.750
Blue Pack	3.358	-1.750	9671.500
Gold Pack	3.673	-1.125	9641.000

