

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 € 32.00	Last Yield*	MDuration
ZT	108.6250	108.2000	0.879	1.94
ZF	117.7406	117.2370	1.627	1.63
ZN	122.3438	122.1100	2.322	6.02
2y	99.9906	99.3170	0.879	1.95
5y	100.5625	100.1800	1.750	4.73
10y	99.7656	99.2450	2.772	8.63

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAH09	98.665	1.335	10	0.027	MAR	
EDAM09	98.650	1.350	101	0.276	JUN	White Pack
EDAU09	98.625	1.375	192	0.525	SEP	
EDAZ09	98.510	1.490	283	0.775	DEC	
EDAH10	98.435	1.565	374	1.024	MAR	
EDAM10	98.250	1.750	465	1.273	JUN	Red Pack
EDAU10	98.040	1.960	556	1.523	SEP	
EDAZ10	97.810	2.190	647	1.772	DEC	
EDAH11	97.630	2.370	738	2.021	MAR	
EDAM11	97.425	2.575	829	2.271	JUN	Green Pack
EDAU11	97.240	2.760	927	2.539	SEP	
EDAZ11	97.050	2.950	1018	2.788	DEC	
EDAH12	96.940	3.060	1109	3.038	MAR	
EDAM12	96.805	3.195	1200	3.287	JUN	Blue Pack
EDAU12	96.700	3.300	1291	3.536	SEP	
EDAZ12	96.645	3.355	1382	3.786	DEC	
EDAH13	96.570	3.430	1473	4.035	MAR	
EDAM13	96.445	3.555	1564	4.284	JUN	Gold Pack
EDZU13	96.445	3.555	1655	4.534	SEP	
EDZZ13	96.350	3.650	1746	4.783	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.412	-0.062	9861.250	
Red Pack	1.901	2.875	9813.375	Pack Prices
Green Pack	2.719	4.125	9733.625	
Blue Pack	3.299	3.125	9677.250	
Gold Pack	3.629	2.875	9645.250	

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.

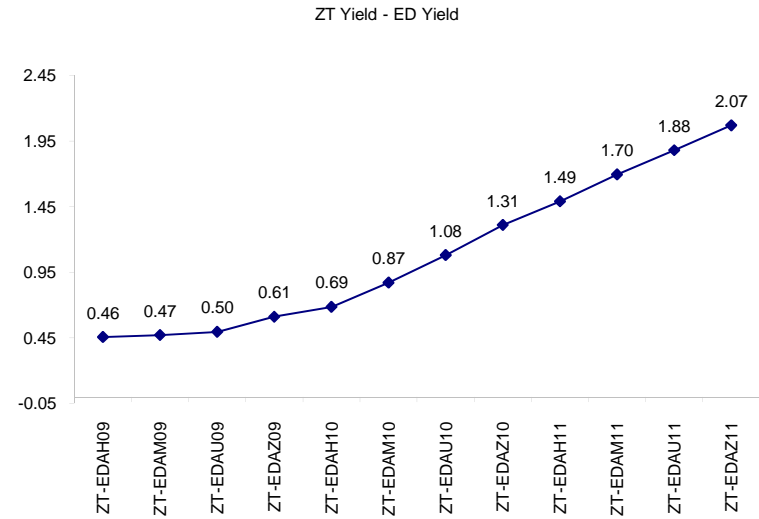
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Correlations (Important)

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.

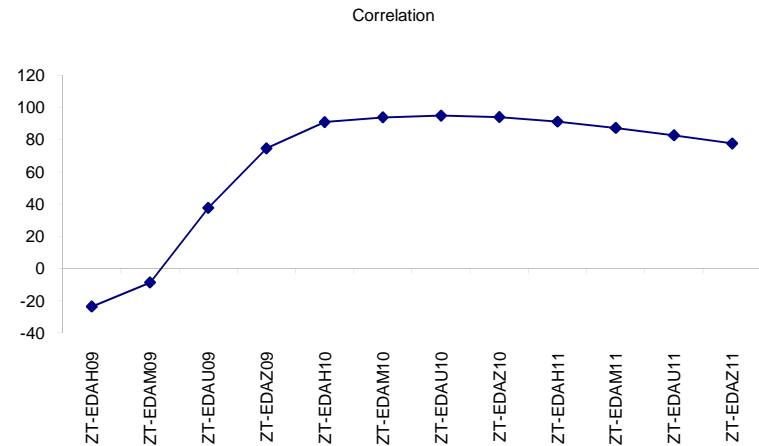
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	9.960	0.46	ZT-EDAH09	-23.487
EDAM09	9.975	0.47	ZT-EDAM09	-8.551
EDAU09	10.000	0.50	ZT-EDAU09	37.780
EDAZ09	10.115	0.61	ZT-EDAZ09	74.740
EDAH10	10.190	0.69	ZT-EDAH10	91.019
EDAM10	10.375	0.87	ZT-EDAM10	93.946
EDAU10	10.585	1.08	ZT-EDAU10	95.039
EDAZ10	10.815	1.31	ZT-EDAZ10	94.118
EDAH11	10.995	1.49	ZT-EDAH11	91.297
EDAM11	11.200	1.70	ZT-EDAM11	87.364
EDAU11	11.385	1.88	ZT-EDAU11	82.771
EDAZ11	11.575	2.07	ZT-EDAZ11	77.748

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	0.027	1.94	1.92	ZT-EDAH09		
EDAM09	0.276	1.94	1.67	ZT-EDAM09		
EDAU09	0.525	1.94	1.42	ZT-EDAU09		
EDAZ09	0.775	1.94	1.17	ZT-EDAZ09		
EDAH10	1.024	1.94	0.92	ZT-EDAH10		
EDAM10	1.273	1.94	0.67	ZT-EDAM10		
EDAU10	1.523	1.94	0.42	ZT-EDAU10		
EDAZ10	1.772	1.94	0.17	ZT-EDAZ10		
EDAH11	2.021	1.94	(0.08)	ZT-EDAH11		
EDAM11	2.271	1.94	(0.33)	ZT-EDAM11		
EDAU11	2.539	1.94	(0.59)	ZT-EDAU11		
EDAZ11	2.788	1.94	(0.84)	ZT-EDAZ11		

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

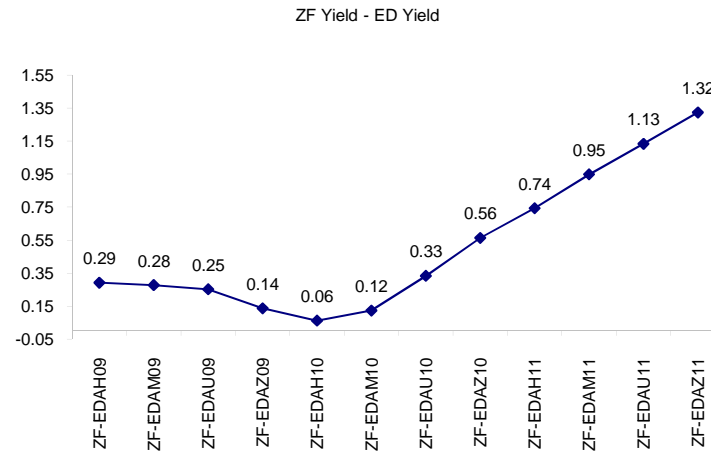


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	19.076	0.29	ZF-EDAH09	-24.466
EDAM09	19.091	0.28	ZF-EDAM09	-8.414
EDAU09	19.116	0.25	ZF-EDAU09	36.704
EDAZ09	19.231	0.14	ZF-EDAZ09	73.215
EDAH10	19.306	0.06	ZF-EDAH10	89.567
EDAM10	19.491	0.12	ZF-EDAM10	93.879
EDAU10	19.701	0.33	ZF-EDAU10	95.152
EDAZ10	19.931	0.56	ZF-EDAZ10	95.736
EDAH11	20.111	0.74	ZF-EDAH11	94.904
EDAM11	20.316	0.95	ZF-EDAM11	92.635
EDAU11	20.501	1.13	ZF-EDAU11	89.747
EDAZ11	20.691	1.32	ZF-EDAZ11	85.881

Price = Outright Decimal Price - Euro Contract Price

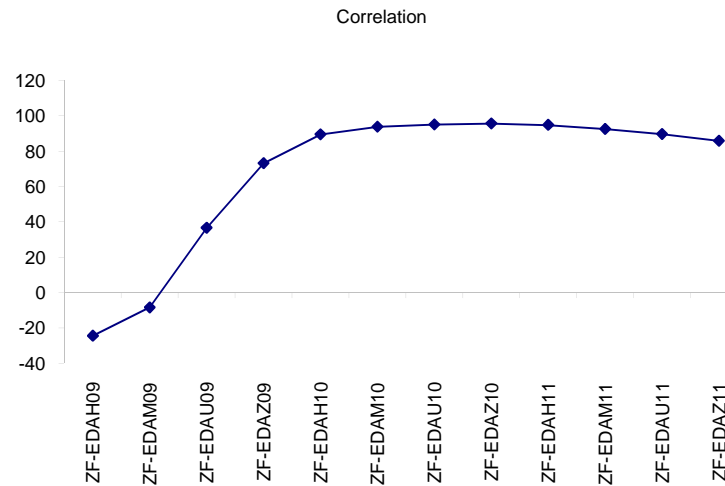
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAH09	0.027	1.63	1.60	ZF-EDAH09		
EDAM09	0.276	1.63	1.35	ZF-EDAM09		
EDAU09	0.525	1.63	1.10	ZF-EDAU09		
EDAZ09	0.775	1.63	0.85	ZF-EDAZ09		
EDAH10	1.024	1.63	0.60	ZF-EDAH10		
EDAM10	1.273	1.63	0.35	ZF-EDAM10		
EDAU10	1.523	1.63	0.10	ZF-EDAU10		
EDAZ10	1.772	1.63	(0.15)	ZF-EDAZ10		
EDAH11	2.021	1.63	(0.39)	ZF-EDAH11		
EDAM11	2.271	1.63	(0.64)	ZF-EDAM11		
EDAU11	2.539	1.63	(0.91)	ZF-EDAU11		
EDAZ11	2.788	1.63	(1.16)	ZF-EDAZ11		

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

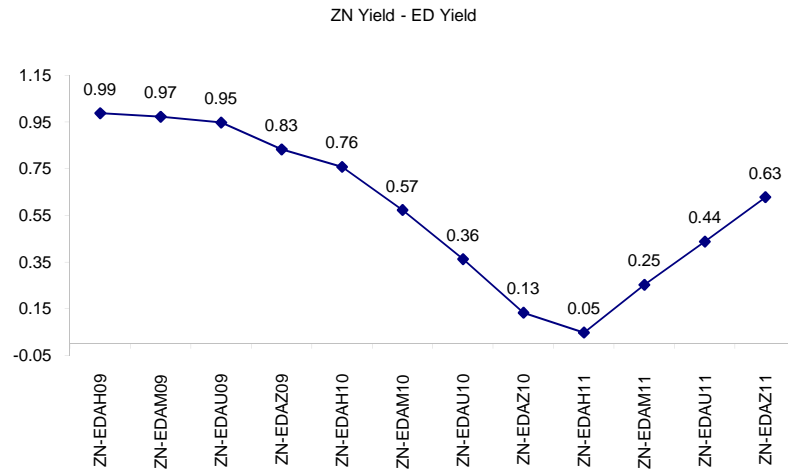


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	23.679	0.99	ZN-EDAH09	-15.855
EDAM09	23.694	0.97	ZN-EDAM09	-1.845
EDAU09	23.719	0.95	ZN-EDAU09	38.680
EDAZ09	23.834	0.83	ZN-EDAZ09	70.805
EDAH10	23.909	0.76	ZN-EDAH10	84.447
EDAM10	24.094	0.57	ZN-EDAM10	89.401
EDAU10	24.304	0.36	ZN-EDAU10	91.008
EDAZ10	24.534	0.13	ZN-EDAZ10	92.960
EDAH11	24.714	0.05	ZN-EDAH11	94.769
EDAM11	24.919	0.25	ZN-EDAM11	95.439
EDAU11	25.104	0.44	ZN-EDAU11	95.094
EDAZ11	25.294	0.63	ZN-EDAZ11	93.547

Price = Outright Decimal Price - Euro Contract Price

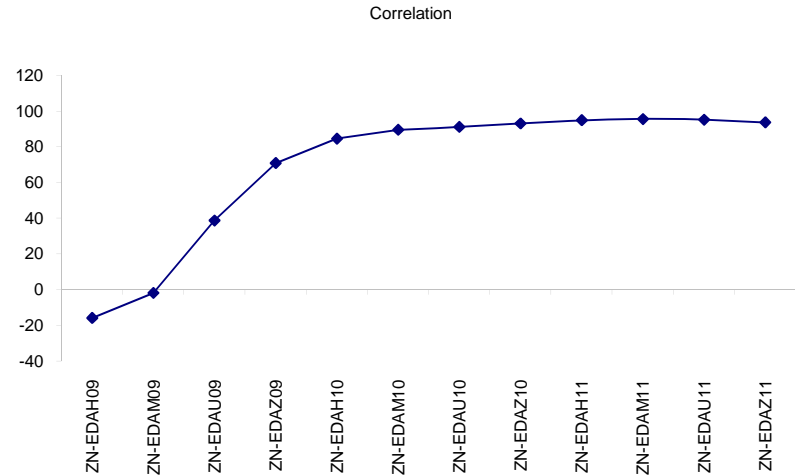
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAH09	0.027	6.02	5.99	ZN-EDAH09		
EDAM09	0.276	6.02	5.74	ZN-EDAM09		
EDAU09	0.525	6.02	5.50	ZN-EDAU09		
EDAZ09	0.775	6.02	5.25	ZN-EDAZ09		
EDAH10	1.024	6.02	5.00	ZN-EDAH10		
EDAM10	1.273	6.02	4.75	ZN-EDAM10		
EDAU10	1.523	6.02	4.50	ZN-EDAU10		
EDAZ10	1.772	6.02	4.25	ZN-EDAZ10		
EDAH11	2.021	6.02	4.00	ZN-EDAH11		
EDAM11	2.271	6.02	3.75	ZN-EDAM11		
EDAU11	2.539	6.02	3.48	ZN-EDAU11		
EDAZ11	2.788	6.02	3.23	ZN-EDAZ11		

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

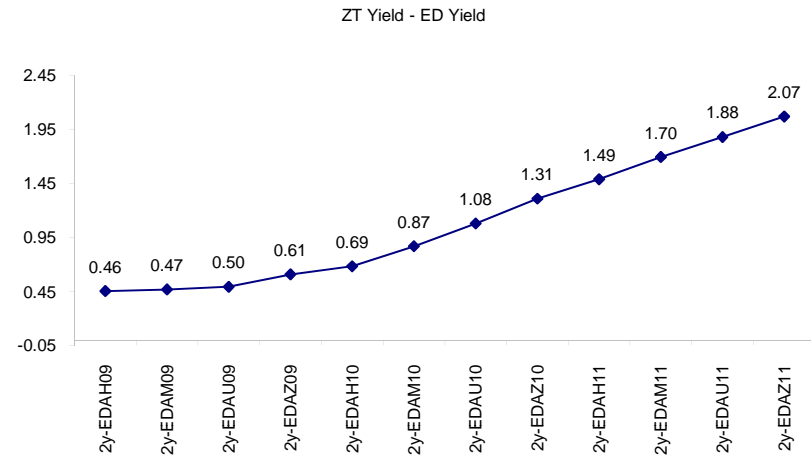


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.326	0.46	2y-EDAH09	14.498
EDAM09	1.341	0.47	2y-EDAM09	-0.528
EDAU09	1.366	0.50	2y-EDAU09	-45.311
EDAZ09	1.481	0.61	2y-EDAZ09	-78.742
EDAH10	1.556	0.69	2y-EDAH10	-92.172
EDAM10	1.741	0.87	2y-EDAM10	-93.110
EDAU10	1.951	1.08	2y-EDAU10	-93.279
EDAZ10	2.181	1.31	2y-EDAZ10	-90.806
EDAH11	2.361	1.49	2y-EDAH11	-85.869
EDAM11	2.566	1.70	2y-EDAM11	-79.650
EDAU11	2.751	1.88	2y-EDAU11	-72.776
EDAZ11	2.941	2.07	2y-EDAZ11	-66.089

Price = Outright Decimal Price - Euro Contract Price

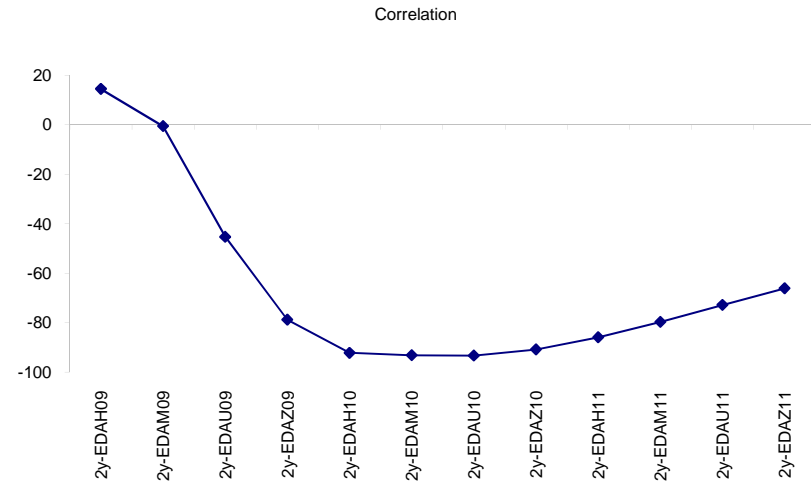
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAH09	0.027	1.95	1.93	2y-EDAH09
EDAM09	0.276	1.95	1.68	2y-EDAM09
EDAU09	0.525	1.95	1.43	2y-EDAU09
EDAZ09	0.775	1.95	1.18	2y-EDAZ09
EDAH10	1.024	1.95	0.93	2y-EDAH10
EDAM10	1.273	1.95	0.68	2y-EDAM10
EDAU10	1.523	1.95	0.43	2y-EDAU10
EDAZ10	1.772	1.95	0.18	2y-EDAZ10
EDAH11	2.021	1.95	(0.07)	2y-EDAH11
EDAM11	2.271	1.95	(0.32)	2y-EDAM11
EDAU11	2.539	1.95	(0.59)	2y-EDAU11
EDAZ11	2.788	1.95	(0.83)	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	1.898	0.41	5y-EDAH09	7.770
EDAM09	1.913	0.40	5y-EDAM09	-7.408
EDAU09	1.938	0.37	5y-EDAU09	-48.620
EDAZ09	2.053	0.26	5y-EDAZ09	-78.828
EDAH10	2.128	0.18	5y-EDAH10	-90.015
EDAM10	2.313	0.00	5y-EDAM10	-93.531
EDAU10	2.523	0.21	5y-EDAU10	-95.185
EDAZ10	2.753	0.44	5y-EDAZ10	-96.931
EDAH11	2.933	0.62	5y-EDAH11	-97.818
EDAM11	3.138	0.83	5y-EDAM11	-97.099
EDAU11	3.323	1.01	5y-EDAU11	-94.847
EDAZ11	3.513	1.20	5y-EDAZ11	-91.480

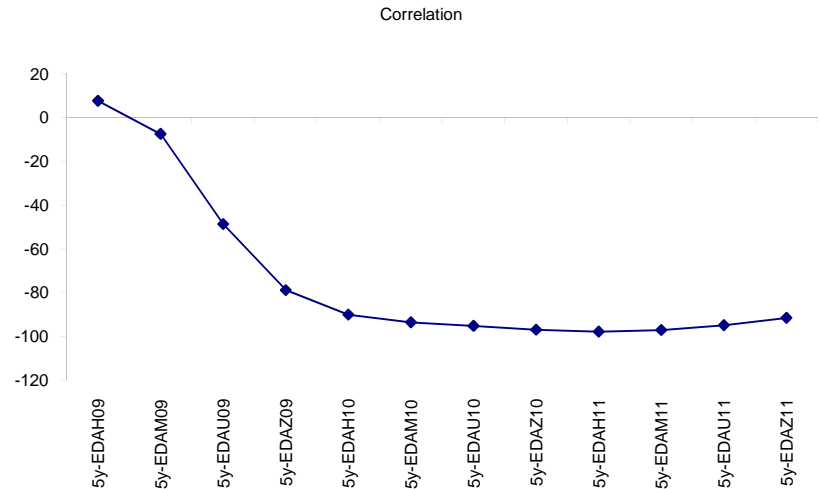
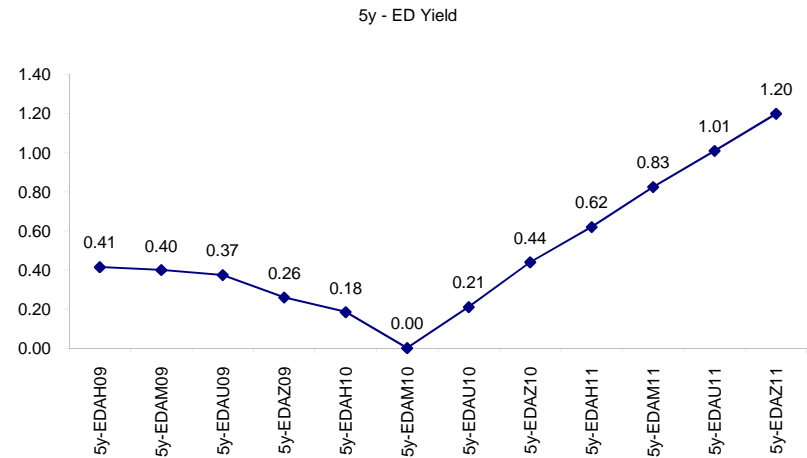
Price = Outright Decimal Price - Euro Contract Price

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	0.027		4.73	4.70	5y-EDAH09
EDAM09	0.276		4.73	4.45	5y-EDAM09
EDAU09	0.525		4.73	4.21	5y-EDAU09
EDAZ09	0.775		4.73	3.96	5y-EDAZ09
EDAH10	1.024		4.73	3.71	5y-EDAH10
EDAM10	1.273		4.73	3.46	5y-EDAM10
EDAU10	1.523		4.73	3.21	5y-EDAU10
EDAZ10	1.772		4.73	2.96	5y-EDAZ10
EDAH11	2.021		4.73	2.71	5y-EDAH11
EDAM11	2.271		4.73	2.46	5y-EDAM11
EDAU11	2.539		4.73	2.19	5y-EDAU11
EDAZ11	2.788		4.73	1.94	5y-EDAZ11

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

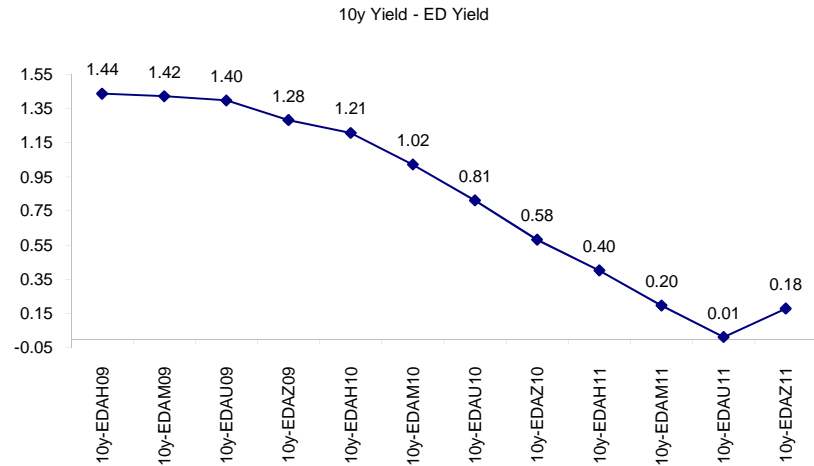


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.898	1.44	10y-EDAH09	-15.729
EDAM09	1.913	1.42	10y-EDAM09	-25.424
EDAU09	1.938	1.40	10y-EDAU09	-50.097
EDAZ09	2.053	1.28	10y-EDAZ09	-65.941
EDAH10	2.128	1.21	10y-EDAH10	-68.578
EDAM10	2.313	1.02	10y-EDAM10	-72.929
EDAU10	2.523	0.81	10y-EDAU10	-75.151
EDAZ10	2.753	0.58	10y-EDAZ10	-80.415
EDAH11	2.933	0.40	10y-EDAH11	-87.288
EDAM11	3.138	0.20	10y-EDAM11	-92.920
EDAU11	3.323	0.01	10y-EDAU11	-96.014
EDAZ11	3.513	0.18	10y-EDAZ11	-97.363

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	0.027	8.63	8.60	10y-EDAH09
EDAM09	0.276	8.63	8.35	10y-EDAM09
EDAU09	0.525	8.63	8.10	10y-EDAU09
EDAZ09	0.775	8.63	7.85	10y-EDAZ09
EDAH10	1.024	8.63	7.60	10y-EDAH10
EDAM10	1.273	8.63	7.36	10y-EDAM10
EDAU10	1.523	8.63	7.11	10y-EDAU10
EDAZ10	1.772	8.63	6.86	10y-EDAZ10
EDAH11	2.021	8.63	6.61	10y-EDAH11
EDAM11	2.271	8.63	6.36	10y-EDAM11
EDAU11	2.539	8.63	6.09	10y-EDAU11
EDAZ11	2.788	8.63	5.84	10y-EDAZ11

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

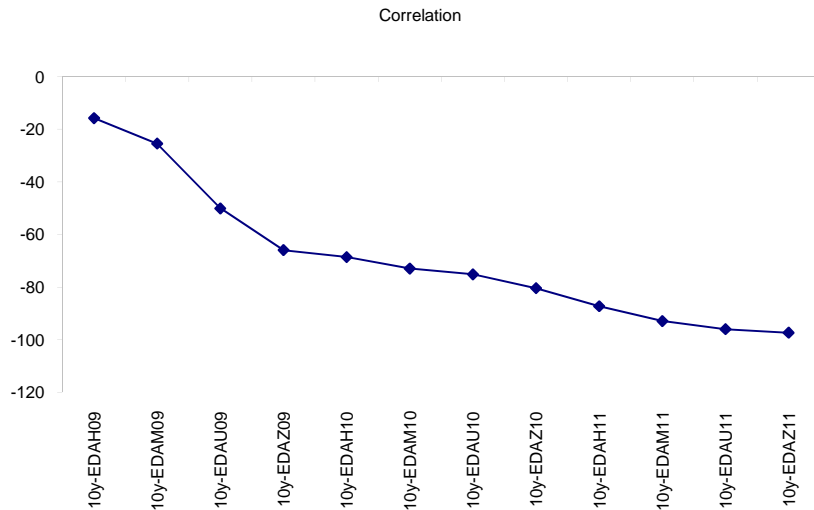


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

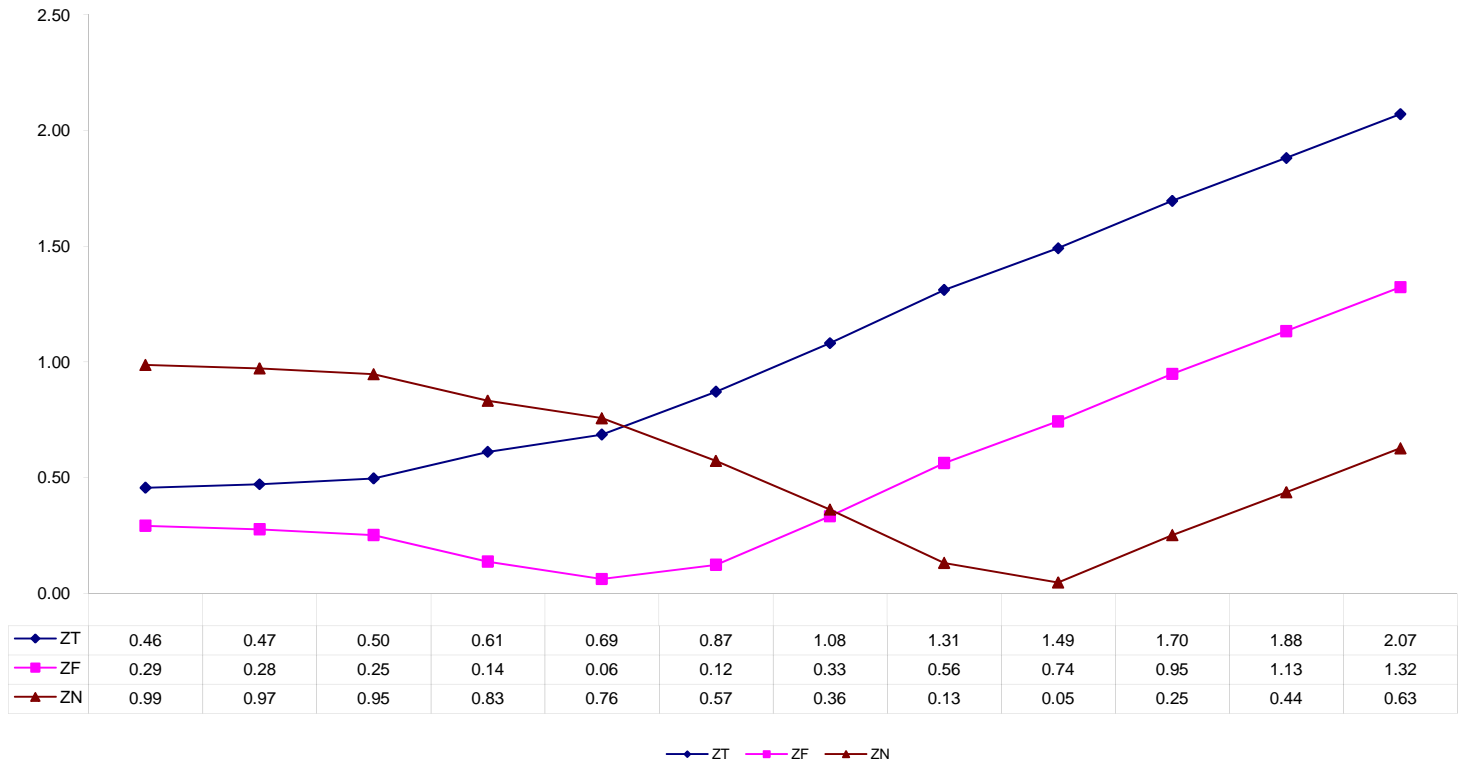
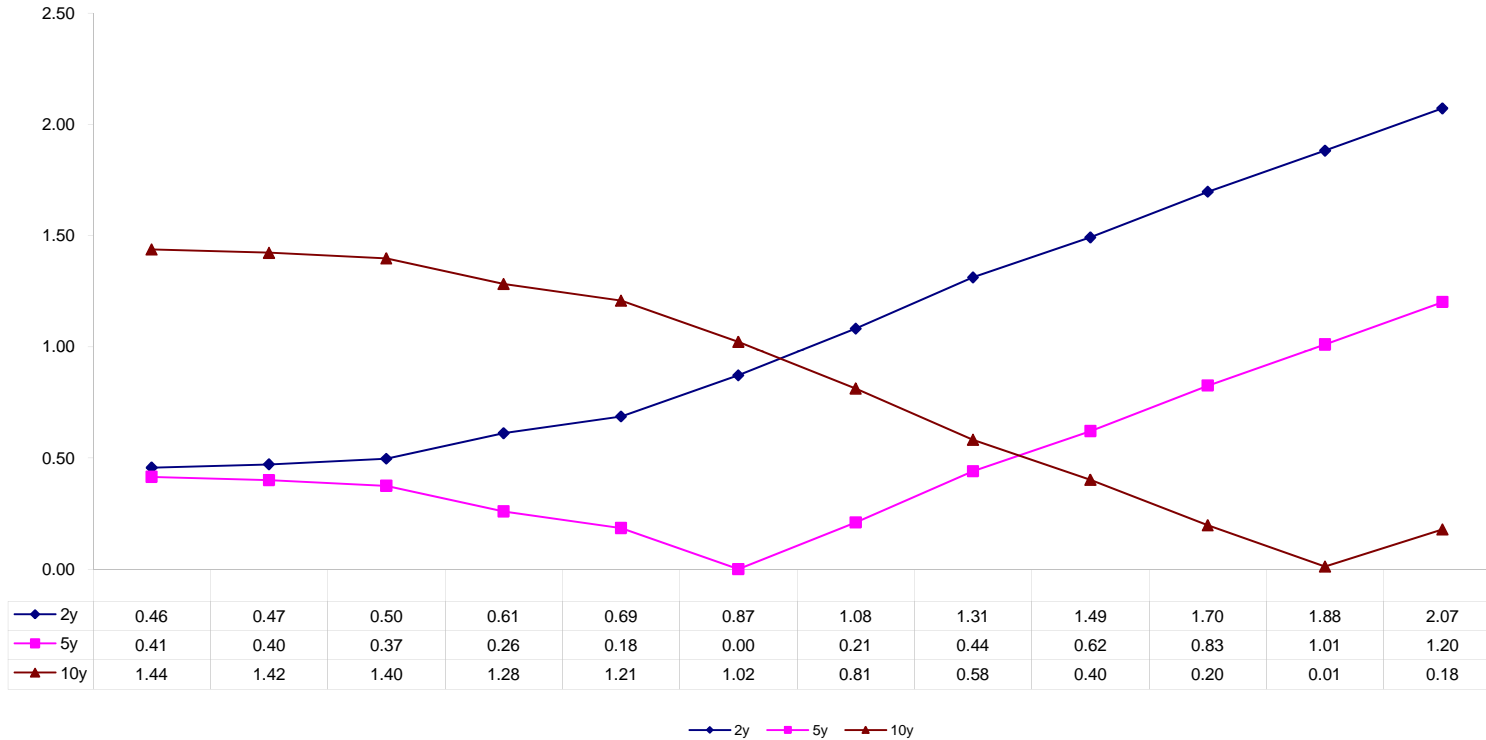
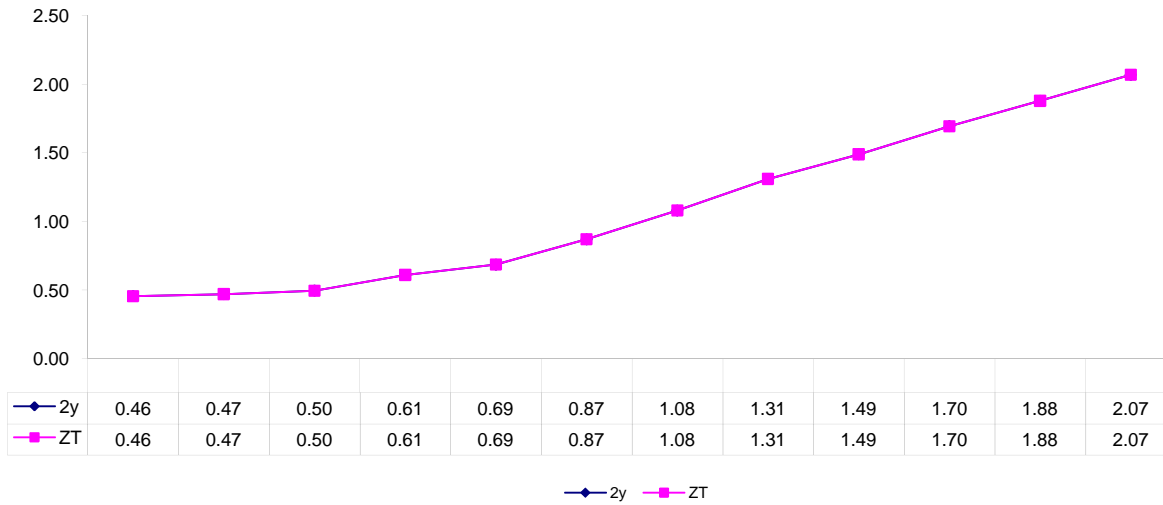
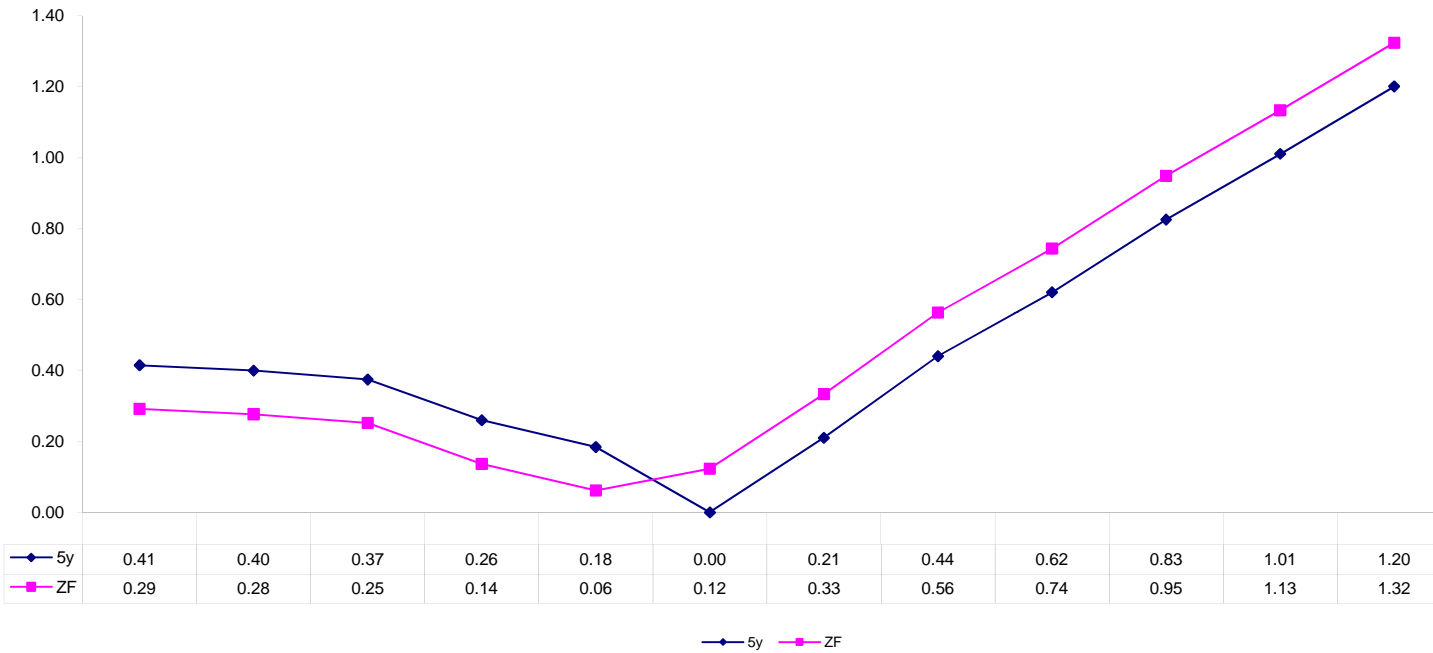


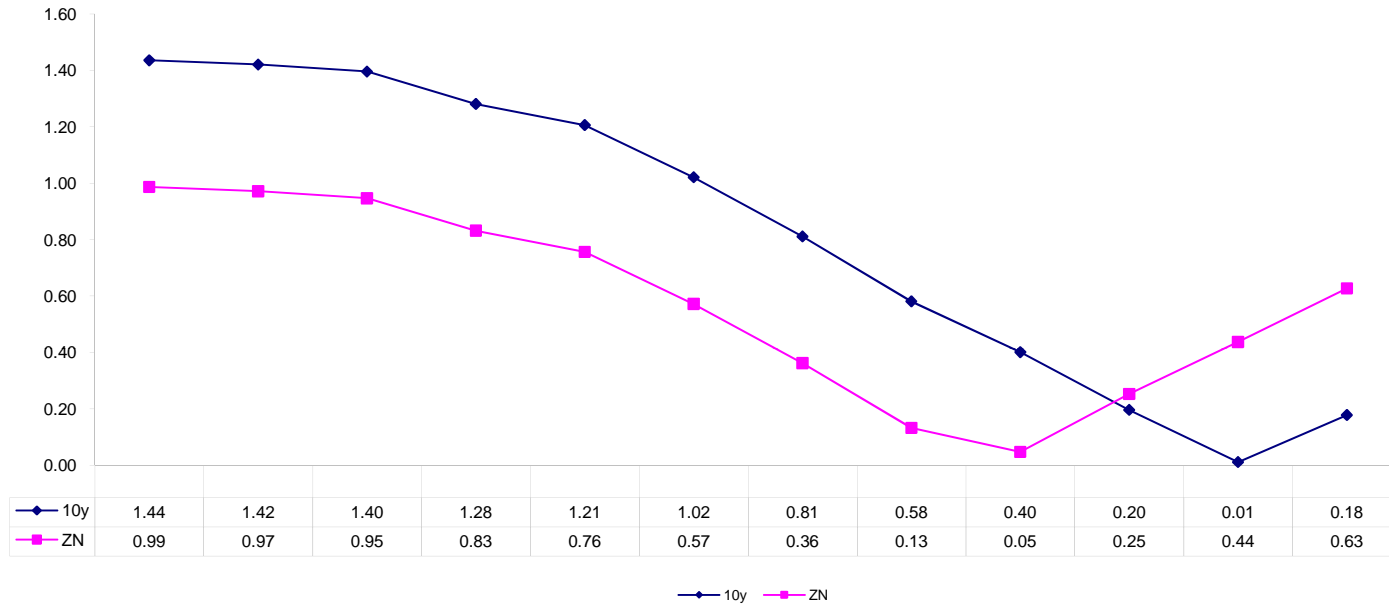
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.412	-0.062	9861.250
Red Pack	1.901	2.875	9813.375
Green Pack	2.719	4.125	9733.625
Blue Pack	3.299	3.125	9677.250
Gold Pack	3.629	2.875	9645.250

