

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	Last Yield*	MDuration
ZT	108.8500	108.2720	0.812	1.769
ZF	116.2656	116.0850	2.038	3.958
ZN	118.4375	118.1400	3.004	5.920
2y	99.8594	99.2750	0.946	1.977
5y	98.0063	98.0020	2.304	4.664
10y	96.5781	96.1850	3.535	8.451

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	99.2775	0.722	19	0.0514	JUN	
EDAU09	99.2100	0.790	110	0.3007	SEP	White Pack
EDAZ09	98.9850	1.015	201	0.5500	DEC	
EDAH10	98.8450	1.155	292	0.7993	MAR	
EDAM10	98.5850	1.415	383	1.0487	JUN	
EDAU10	98.3050	1.695	474	1.2980	SEP	Red Pack
EDAZ10	97.9650	2.035	565	1.5473	DEC	
EDAH11	97.6750	2.325	656	1.7966	MAR	
EDAM11	97.3450	2.655	747	2.0459	JUN	
EDAU11	97.0200	2.980	845	2.3144	SEP	Green Pack
EDAZ11	96.6850	3.315	936	2.5637	DEC	
EDAH12	96.4400	3.560	1,027	2.8130	MAR	
EDAM12	96.2000	3.800	1,118	3.0624	JUN	
EDAU12	96.0050	3.995	1,209	3.3117	SEP	Blue Pack
EDAZ12	95.8300	4.170	1,300	3.5610	DEC	
EDAH13	95.7250	4.275	1,391	3.8103	MAR	
EDAM13	95.5950	4.405	1,482	4.0596	JUN	
EDAU13	95.4750	4.525	1,573	4.3089	SEP	Gold Pack
EDAZ13	95.3350	4.665	1,664	4.5582	DEC	
EDAH14	95.2700	4.730	1,755	4.8076	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	0.936	-0.875	9907.94	
Red Pack	1.903	-2.000	9813.25	Pack Prices
Green Pack	3.196	-3.625	9687.25	
Blue Pack	4.159	-9.375	9594.00	
Gold Pack		-9.500	9544.63	

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)

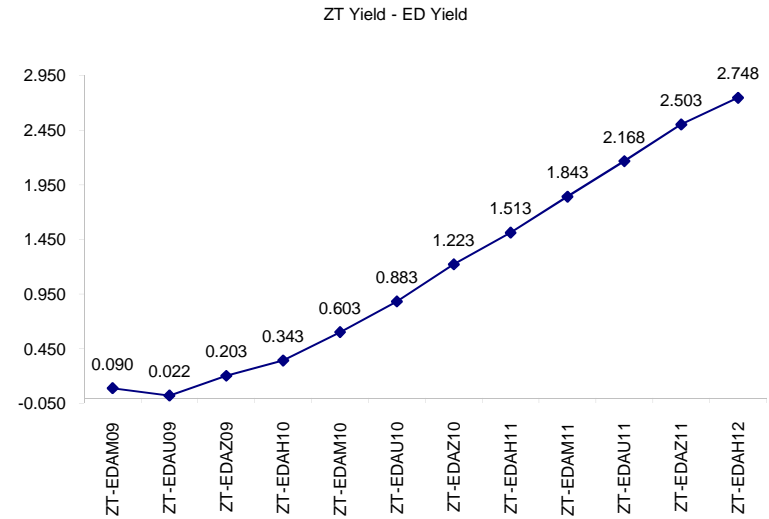
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based on yield than price.

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.57	0.090	ZT-EDAM09	27
EDAU09	9.64	0.022	ZT-EDAU09	38
EDAZ09	9.87	0.203	ZT-EDAZ09	50
EDAH10	10.01	0.343	ZT-EDAH10	61
EDAM10	10.27	0.603	ZT-EDAM10	69
EDAU10	10.55	0.883	ZT-EDAU10	74
EDAZ10	10.89	1.223	ZT-EDAZ10	75
EDAH11	11.18	1.513	ZT-EDAH11	73
EDAM11	11.51	1.843	ZT-EDAM11	70
EDAU11	11.83	2.168	ZT-EDAU11	61
EDAZ11	12.17	2.503	ZT-EDAZ11	56
EDAH12	12.41	2.748	ZT-EDAH12	52

Price = Outright Decimal Price - Euro Contract Price

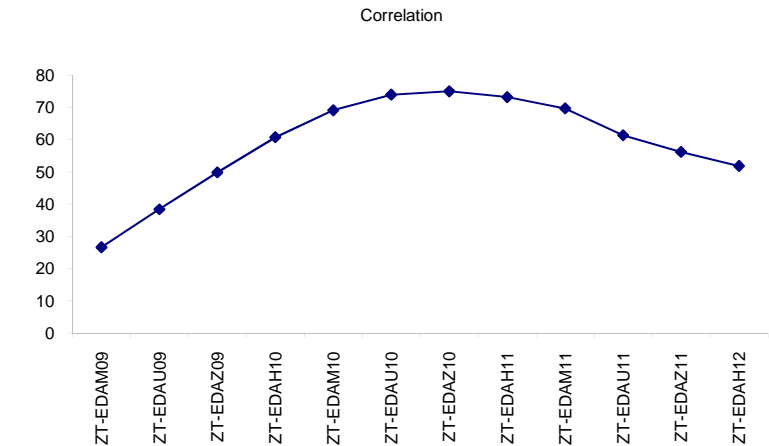
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



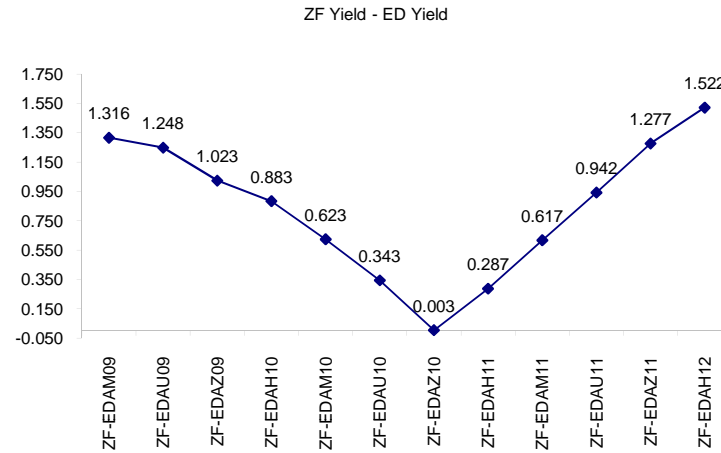
	ED Duration as Fraction of year		ZT Duration	Spread Duration	
EDAM09	0.0514	1.7687	1.7173	ZT-EDAM09	
EDAU09	0.3007	1.7687	1.4680	ZT-EDAU09	
EDAZ09	0.5500	1.7687	1.2187	ZT-EDAZ09	
EDAH10	0.7993	1.7687	0.9694	ZT-EDAH10	
EDAM10	1.0487	1.7687	0.7200	ZT-EDAM10	
EDAU10	1.2980	1.7687	0.4707	ZT-EDAU10	
EDAZ10	1.5473	1.7687	0.2214	ZT-EDAZ10	
EDAH11	1.7966	1.7687	-0.0279	ZT-EDAH11	
EDAM11	2.0459	1.7687	-0.2772	ZT-EDAM11	
EDAU11	2.3144	1.7687	-0.5457	ZT-EDAU11	
EDAZ11	2.5637	1.7687	-0.7950	ZT-EDAZ11	
EDAH12	2.8130	1.7687	-1.0443	ZT-EDAH12	

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



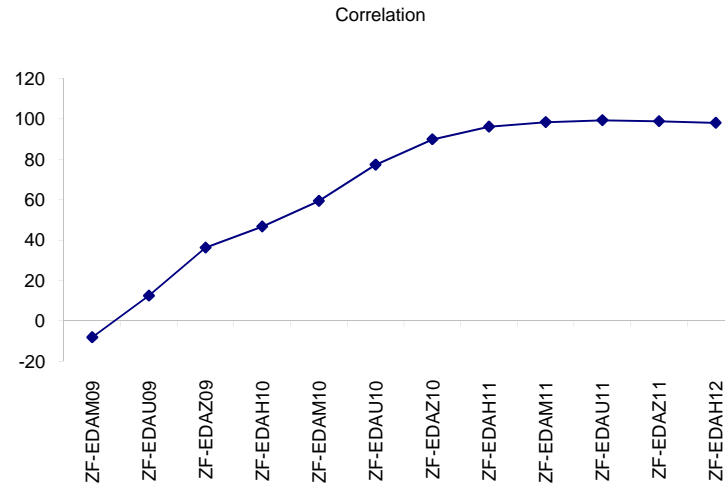
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	16.99	1.316	ZF-EDAM09	-8
EDAU09	17.06	1.248	ZF-EDAU09	12
EDAZ09	17.28	1.023	ZF-EDAZ09	36
EDAH10	17.42	0.883	ZF-EDAH10	47
EDAM10	17.68	0.623	ZF-EDAM10	59
EDAU10	17.96	0.343	ZF-EDAU10	77
EDAZ10	18.30	0.003	ZF-EDAZ10	90
EDAH11	18.59	0.287	ZF-EDAH11	96
EDAM11	18.92	0.617	ZF-EDAM11	98
EDAU11	19.25	0.942	ZF-EDAU11	99
EDAZ11	19.58	1.277	ZF-EDAZ11	99
EDAH12	19.83	1.522	ZF-EDAH12	98

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	
EDAM09	0.0514	3.9579	3.9065	ZF-EDAM09		
EDAU09	0.3007	3.9579	3.6572	ZF-EDAU09		
EDAZ09	0.5500	3.9579	3.4079	ZF-EDAZ09		
EDAH10	0.7993	3.9579	3.1586	ZF-EDAH10		
EDAM10	1.0487	3.9579	2.9093	ZF-EDAM10		
EDAU10	1.2980	3.9579	2.6600	ZF-EDAU10		
EDAZ10	1.5473	3.9579	2.4107	ZF-EDAZ10		
EDAH11	1.7966	3.9579	2.1613	ZF-EDAH11		
EDAM11	2.0459	3.9579	1.9120	ZF-EDAM11		
EDAU11	2.3144	3.9579	1.6435	ZF-EDAU11		
EDAZ11	2.5637	3.9579	1.3942	ZF-EDAZ11		
EDAH12	2.8130	3.9579	1.1449	ZF-EDAH12		

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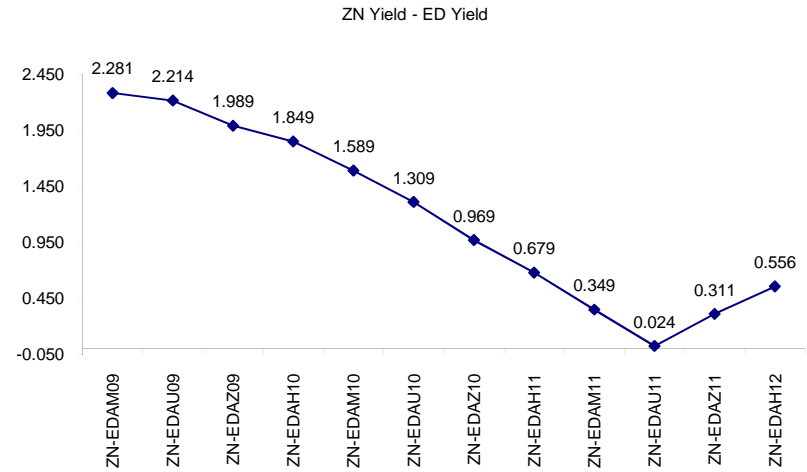


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAM09	19.16	2.281	ZN-EDAM09	-11
EDAU09	19.23	2.214	ZN-EDAU09	9
EDAZ09	19.45	1.989	ZN-EDAZ09	33
EDAH10	19.59	1.849	ZN-EDAH10	41
EDAM10	19.85	1.589	ZN-EDAM10	52
EDAU10	20.13	1.309	ZN-EDAU10	71
EDAZ10	20.47	0.969	ZN-EDAZ10	84
EDAH11	20.76	0.679	ZN-EDAH11	92
EDAM11	21.09	0.349	ZN-EDAM11	95
EDAU11	21.42	0.024	ZN-EDAU11	98
EDAZ11	21.75	0.311	ZN-EDAZ11	99
EDAH12	22.00	0.556	ZN-EDAH12	99

Price = Outright Decimal Price - Euro Contract Price

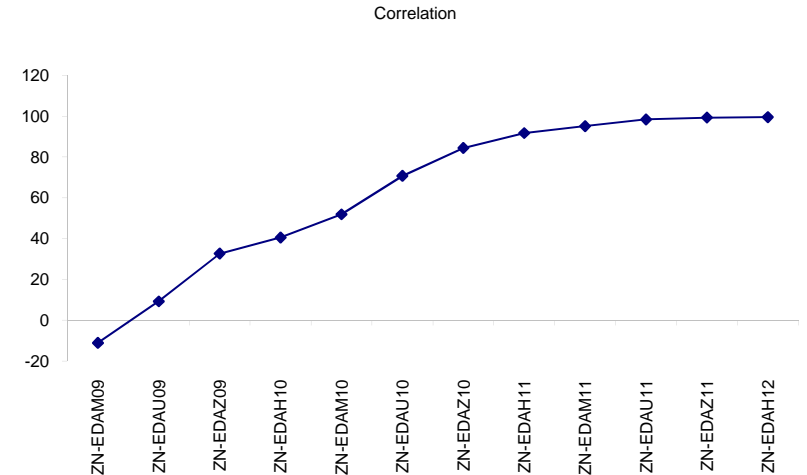
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			Spread Duration
	Fraction of year	ZN Duration	Spread Duration	
EDAM09	0.0514	5.9196	5.8682	ZN-EDAM09
EDAU09	0.3007	5.9196	5.6189	ZN-EDAU09
EDAZ09	0.5500	5.9196	5.3695	ZN-EDAZ09
EDAH10	0.7993	5.9196	5.1202	ZN-EDAH10
EDAM10	1.0487	5.9196	4.8709	ZN-EDAM10
EDAU10	1.2980	5.9196	4.6216	ZN-EDAU10
EDAZ10	1.5473	5.9196	4.3723	ZN-EDAZ10
EDAH11	1.7966	5.9196	4.1230	ZN-EDAH11
EDAM11	2.0459	5.9196	3.8737	ZN-EDAM11
EDAU11	2.3144	5.9196	3.6052	ZN-EDAU11
EDAZ11	2.5637	5.9196	3.3558	ZN-EDAZ11
EDAH12	2.8130	5.9196	3.1065	ZN-EDAH12

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



	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.58	0.223	2y-EDAM09	-18
EDAU09	0.65	0.156	2y-EDAU09	-34
EDAZ09	0.87	0.069	2y-EDAZ09	-51
EDAH10	1.01	0.209	2y-EDAH10	-65
EDAM10	1.27	0.469	2y-EDAM10	-81
EDAU10	1.55	0.749	2y-EDAU10	-88
EDAZ10	1.89	1.089	2y-EDAZ10	-87
EDAH11	2.18	1.379	2y-EDAH11	-83
EDAM11	2.51	1.709	2y-EDAM11	-78
EDAU11	2.84	2.034	2y-EDAU11	-75
EDAZ11	3.17	2.369	2y-EDAZ11	-74
EDAH12	3.42	2.614	2y-EDAH12	-74

Price = Outright Decimal Price - Euro Contract Price

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

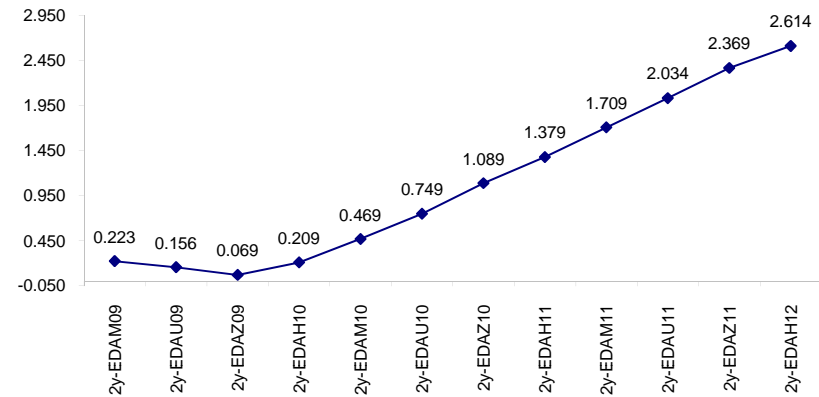
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

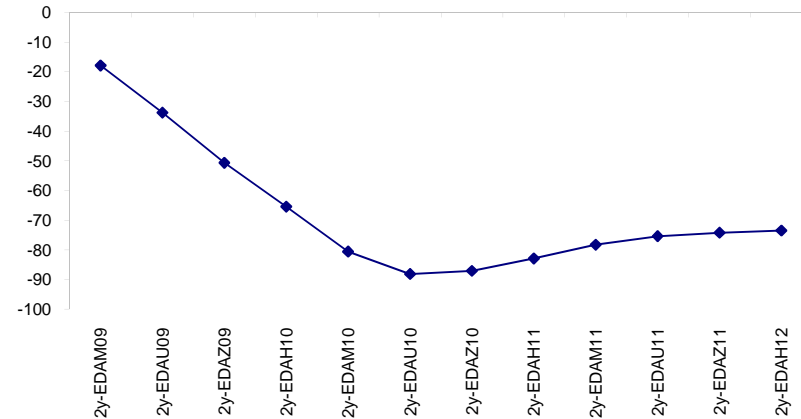
	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.0514	1.9772	1.9258	2y-EDAM09
EDAU09	0.3007	1.9772	1.6765	2y-EDAU09
EDAZ09	0.5500	1.9772	1.4272	2y-EDAZ09
EDAH10	0.7993	1.9772	1.1778	2y-EDAH10
EDAM10	1.0487	1.9772	0.9285	2y-EDAM10
EDAU10	1.2980	1.9772	0.6792	2y-EDAU10
EDAZ10	1.5473	1.9772	0.4299	2y-EDAZ10
EDAH11	1.7966	1.9772	0.1806	2y-EDAH11
EDAM11	2.0459	1.9772	-0.0687	2y-EDAM11
EDAU11	2.3144	1.9772	-0.3372	2y-EDAU11
EDAZ11	2.5637	1.9772	-0.5865	2y-EDAZ11
EDAH12	2.8130	1.9772	-0.8359	2y-EDAH12

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

ZT Yield - ED Yield

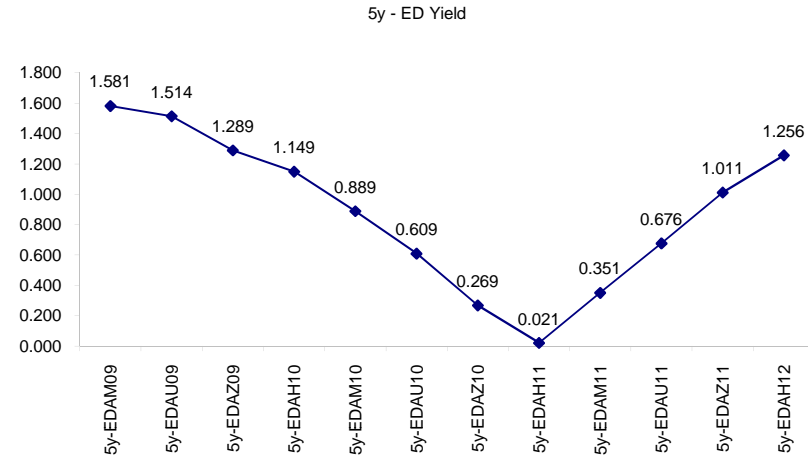


Correlation



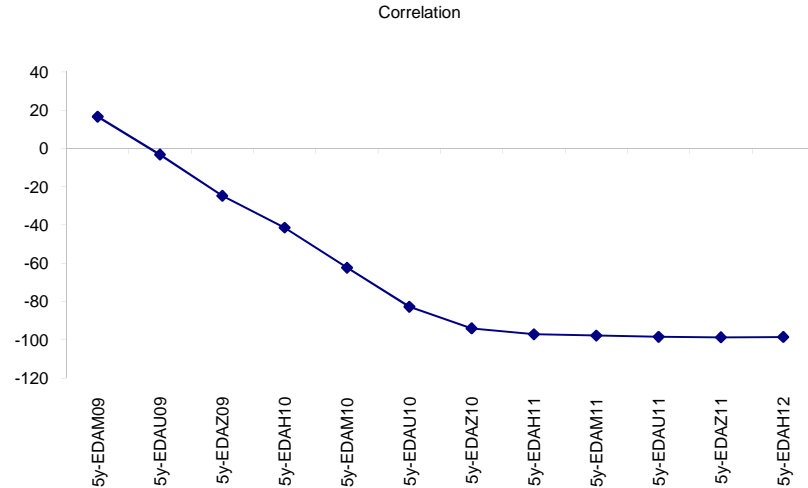
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	-1.27	1.581	5y-EDAM09	17
EDAU09	-1.20	1.514	5y-EDAU09	-3
EDAZ09	-0.98	1.289	5y-EDAZ09	-25
EDAH10	-0.84	1.149	5y-EDAH10	-41
EDAM10	-0.58	0.889	5y-EDAM10	-62
EDAU10	-0.30	0.609	5y-EDAU10	-83
EDAZ10	0.04	0.269	5y-EDAZ10	-94
EDAH11	0.33	0.021	5y-EDAH11	-97
EDAM11	0.66	0.351	5y-EDAM11	-98
EDAU11	0.99	0.676	5y-EDAU11	-98
EDAZ11	1.32	1.011	5y-EDAZ11	-99
EDAH12	1.57	1.256	5y-EDAH12	-98

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS (Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



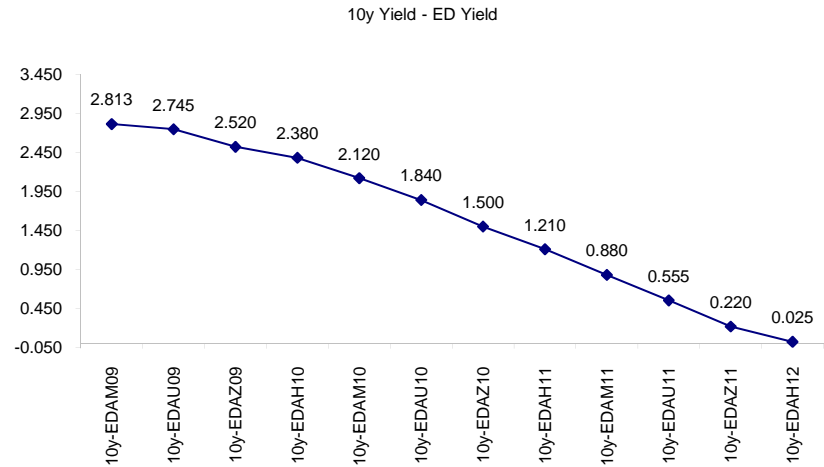
	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAM09	0.0514	4.6637	4.6123	5y-EDAM09	
EDAU09	0.3007	4.6637	4.3630	5y-EDAU09	
EDAZ09	0.5500	4.6637	4.1137	5y-EDAZ09	
EDAH10	0.7993	4.6637	3.8644	5y-EDAH10	
EDAM10	1.0487	4.6637	3.6151	5y-EDAM10	
EDAU10	1.2980	4.6637	3.3657	5y-EDAU10	
EDAZ10	1.5473	4.6637	3.1164	5y-EDAZ10	
EDAH11	1.7966	4.6637	2.8671	5y-EDAH11	
EDAM11	2.0459	4.6637	2.6178	5y-EDAM11	
EDAU11	2.3144	4.6637	2.3493	5y-EDAU11	
EDAZ11	2.5637	4.6637	2.1000	5y-EDAZ11	
EDAH12	2.8130	4.6637	1.8507	5y-EDAH12	

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



10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	-1.27	2.813	10y-EDAM09	20
EDAU09	-1.20	2.745	10y-EDAU09	0
EDAZ09	-0.98	2.520	10y-EDAZ09	-22
EDAH10	-0.84	2.380	10y-EDAH10	-38
EDAM10	-0.58	2.120	10y-EDAM10	-57
EDAU10	-0.30	1.840	10y-EDAU10	-78
EDAZ10	0.04	1.500	10y-EDAZ10	-90
EDAH11	0.33	1.210	10y-EDAH11	-94
EDAM11	0.66	0.880	10y-EDAM11	-96
EDAU11	0.99	0.555	10y-EDAU11	-97
EDAZ11	1.32	0.220	10y-EDAZ11	-98
EDAH12	1.57	0.025	10y-EDAH12	-99

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	
EDAM09	0.0514	8.4513	8.3999	10y-EDAM09		
EDAU09	0.3007	8.4513	8.1506	10y-EDAU09		
EDAZ09	0.5500	8.4513	7.9013	10y-EDAZ09		
EDAH10	0.7993	8.4513	7.6520	10y-EDAH10		
EDAM10	1.0487	8.4513	7.4027	10y-EDAM10		
EDAU10	1.2980	8.4513	7.1533	10y-EDAU10		
EDAZ10	1.5473	8.4513	6.9040	10y-EDAZ10		
EDAH11	1.7966	8.4513	6.6547	10y-EDAH11		
EDAM11	2.0459	8.4513	6.4054	10y-EDAM11		
EDAU11	2.3144	8.4513	6.1369	10y-EDAU11		
EDAZ11	2.5637	8.4513	5.8876	10y-EDAZ11		
EDAH12	2.8130	8.4513	5.6383	10y-EDAH12		

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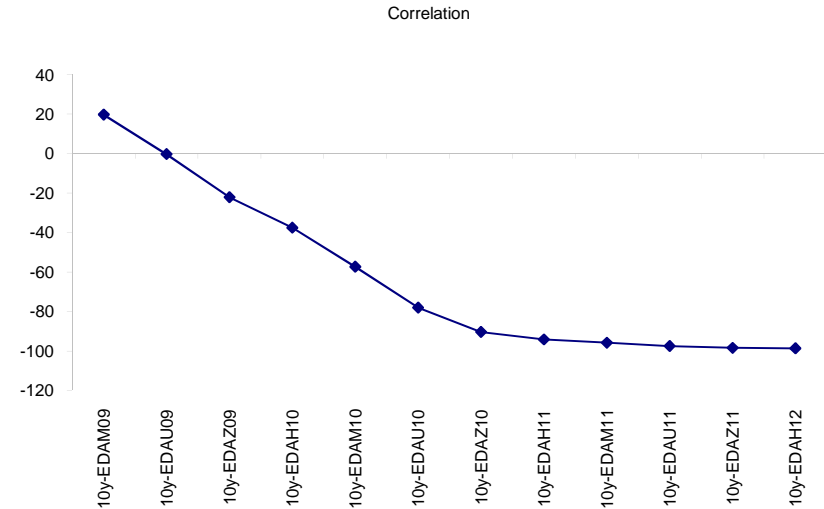


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

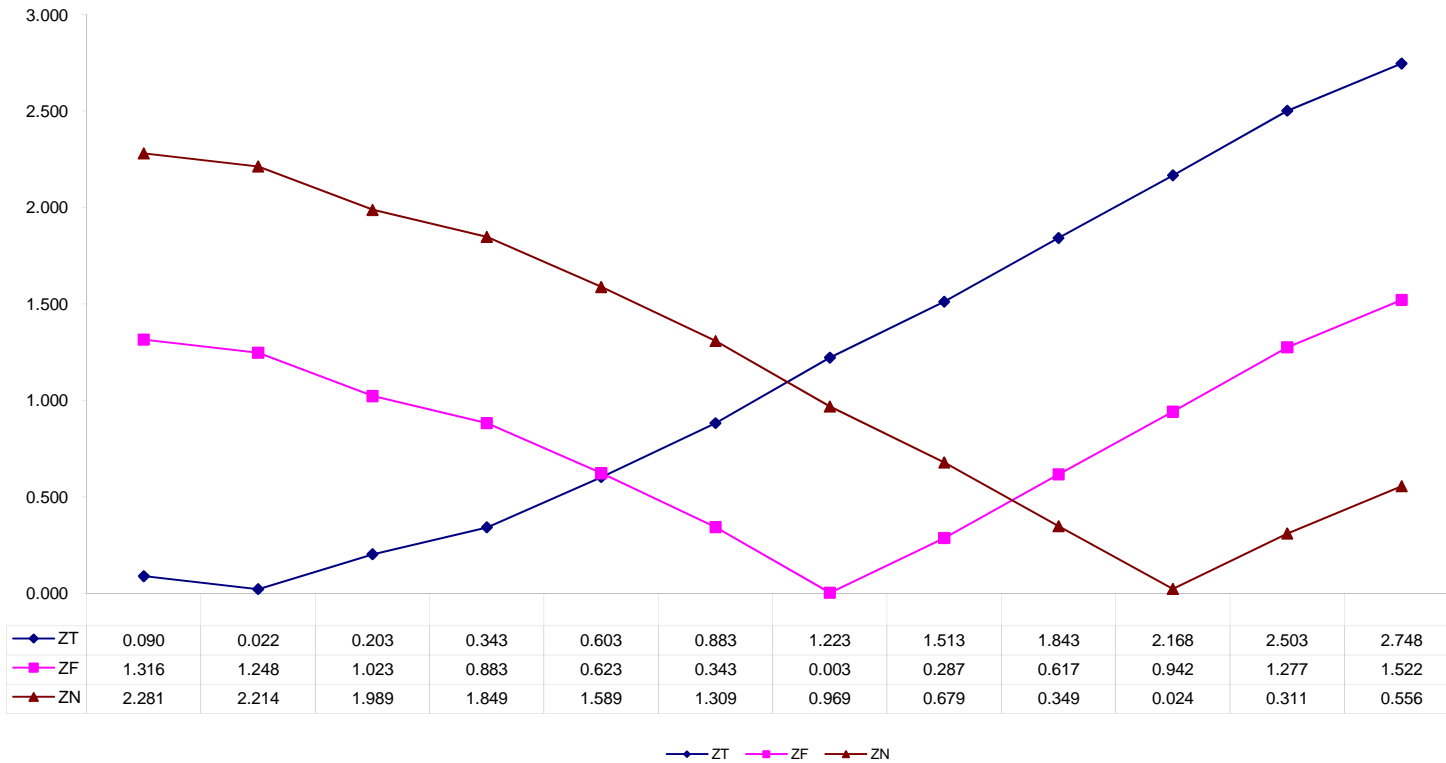
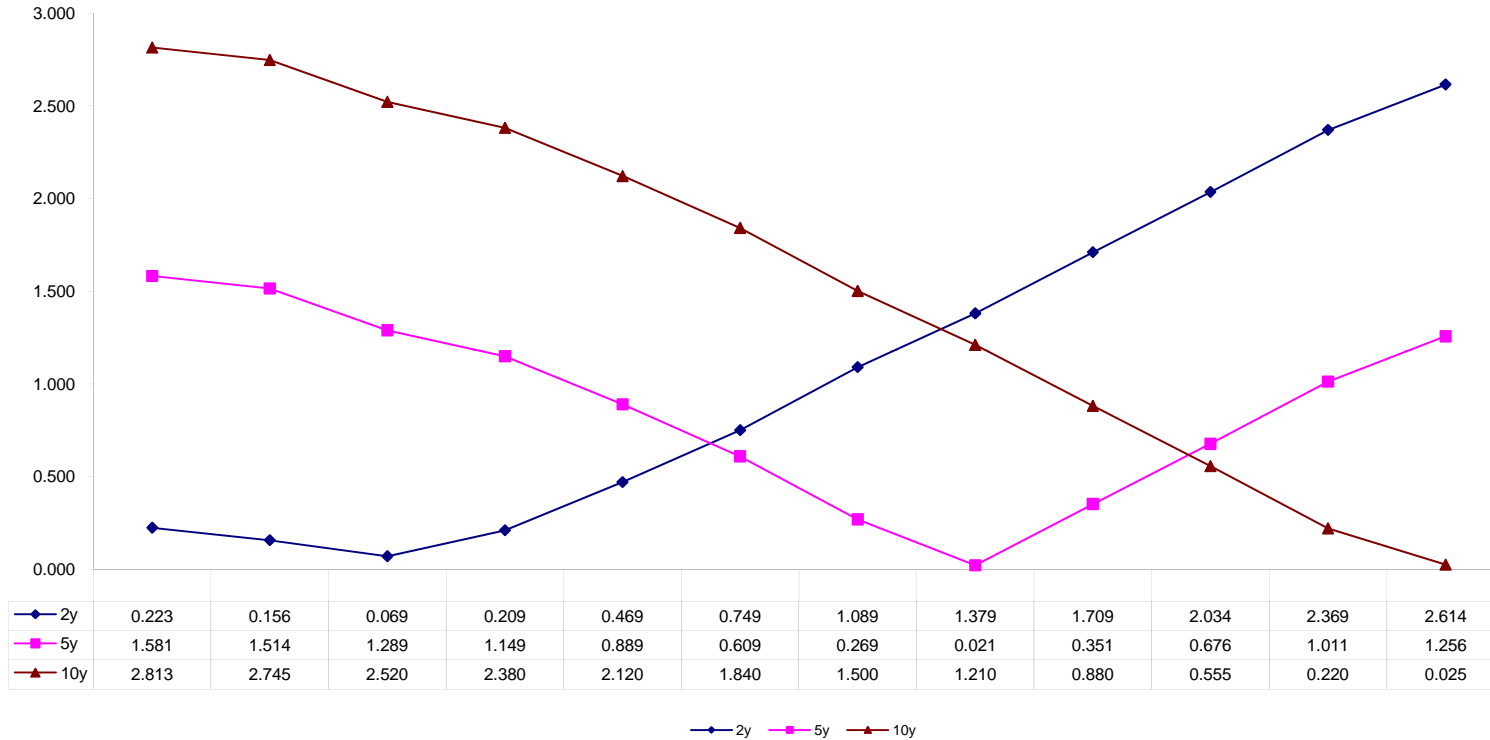
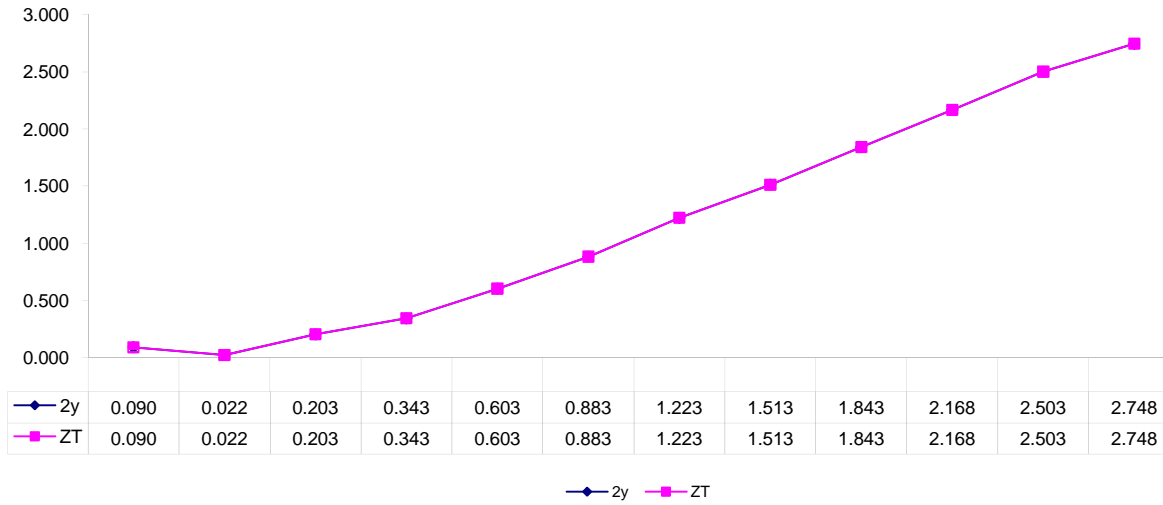
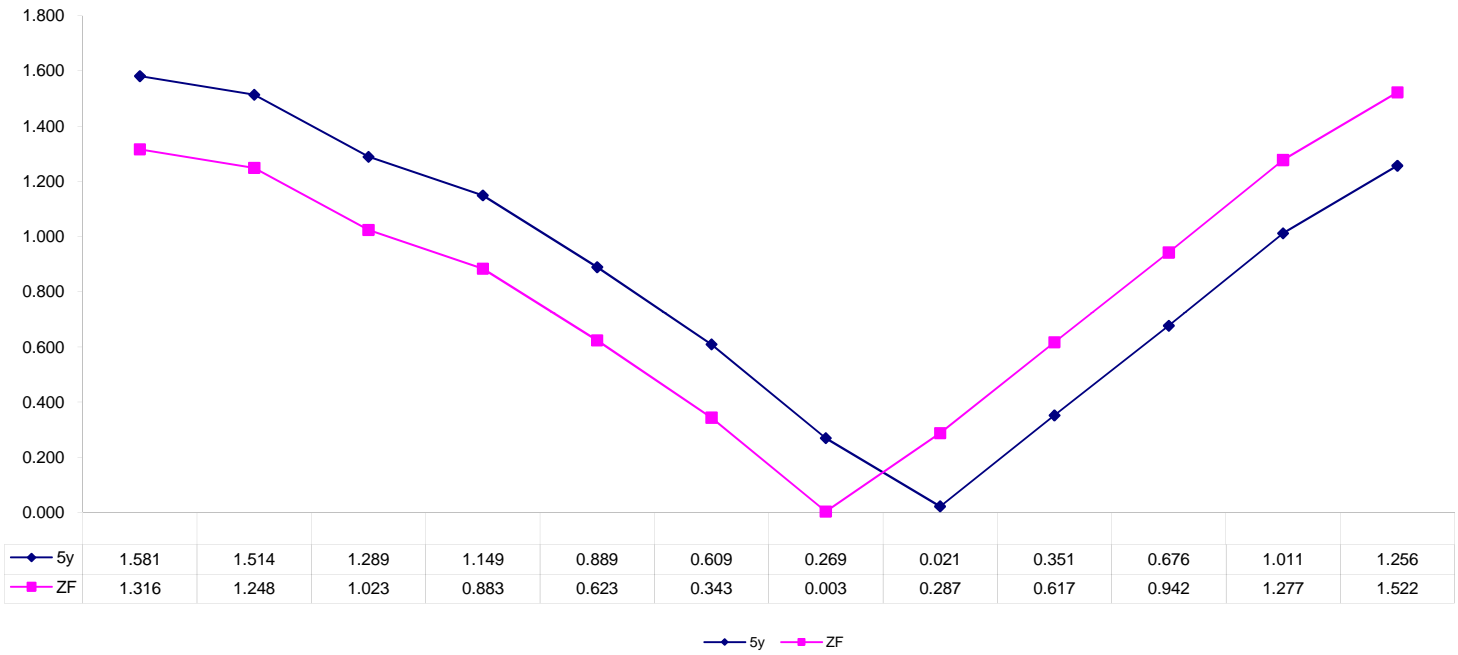


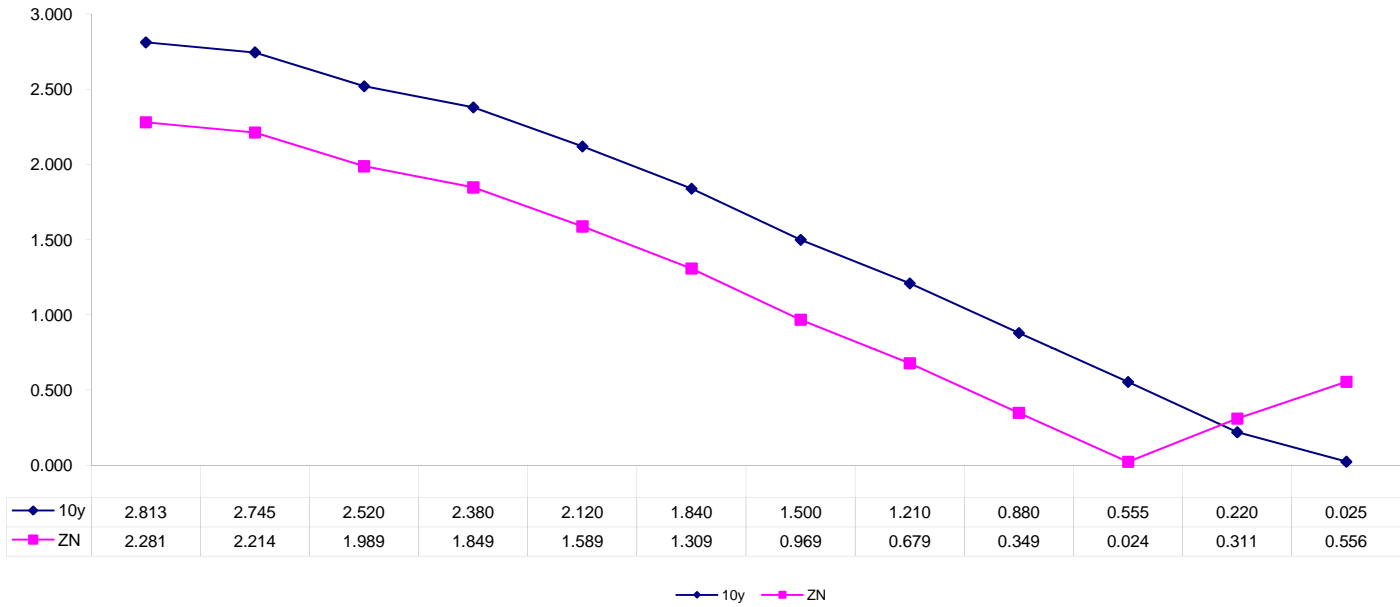
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	0.936	-0.875	9907.9375
Red Pack	1.903	-2.000	9813.2500
Green Pack	3.196	-3.625	9687.2500
Blue Pack	4.159	-9.375	9594.0000
Gold Pack		-9.500	9544.6250

