

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	108.9594	108.3070	0.762	1.796
ZF	117.7250	117.2320	1.695	3.994
ZN	121.8125	121.2600	2.521	5.977
2y	100.0625	100.0200	0.843	1.930
5y	99.6250	99.2000	1.953	4.701
10y	100.3594	100.1150	3.081	8.529

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	99.2500	0.750	31	0.0843	JUN	
EDAU09	99.2200	0.780	122	0.3336	SEP	White Pack
EDAZ09	99.0400	0.960	213	0.5829	DEC	Pack
EDAH10	98.9350	1.065	304	0.8322	MAR	
EDAM10	98.7050	1.295	395	1.0815	JUN	
EDAU10	98.4600	1.540	486	1.3309	SEP	Red Pack
EDAZ10	98.1500	1.850	577	1.5802	DEC	Pack
EDAH11	97.8900	2.110	668	1.8295	MAR	
EDAM11	97.6000	2.400	759	2.0788	JUN	
EDAU11	97.3350	2.665	857	2.3473	SEP	Green Pack
EDAZ11	97.0750	2.925	948	2.5966	DEC	Pack
EDAH12	96.9100	3.090	1,039	2.8459	MAR	
EDAM12	96.7500	3.250	1,130	3.0952	JUN	
EDAU12	96.6300	3.370	1,221	3.3446	SEP	Blue Pack
EDAZ12	96.4850	3.515	1,312	3.5939	DEC	Pack
EDAH13	96.3950	3.605	1,403	3.8432	MAR	
EDAM13	96.3300	3.670	1,494	4.0925	JUN	
EDAU13	96.2150	3.785	1,585	4.3418	SEP	Gold Pack
EDAZ13	96.1050	3.895	1,676	4.5911	DEC	Pack
EDAH14	96.0750	3.925	1,767	4.8404	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	0.903	3.000	9911.13	
Red Pack	1.730	2.750	9830.13	Pack Prices
Green Pack	2.828	1.875	9723.00	
Blue Pack		0.625	9655.63	
Gold Pack		0.000	9616.38	

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)

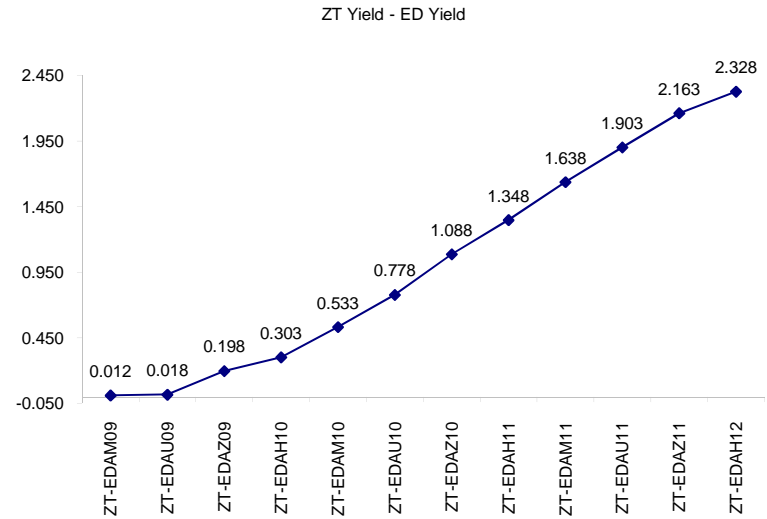
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.71	0.012	ZT-EDAM09	79
EDAU09	9.74	0.018	ZT-EDAU09	79
EDAZ09	9.92	0.198	ZT-EDAZ09	83
EDAH10	10.02	0.303	ZT-EDAH10	88
EDAM10	10.25	0.533	ZT-EDAM10	92
EDAU10	10.50	0.778	ZT-EDAU10	94
EDAZ10	10.81	1.088	ZT-EDAZ10	95
EDAH11	11.07	1.348	ZT-EDAH11	96
EDAM11	11.36	1.638	ZT-EDAM11	96
EDAU11	11.62	1.903	ZT-EDAU11	96
EDAZ11	11.88	2.163	ZT-EDAZ11	95
EDAH12	12.05	2.328	ZT-EDAH12	94

Price = Outright Decimal Price - Euro Contract Price

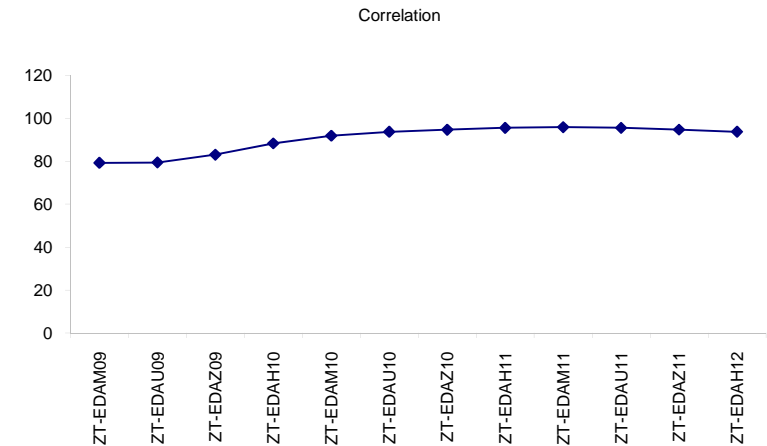
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



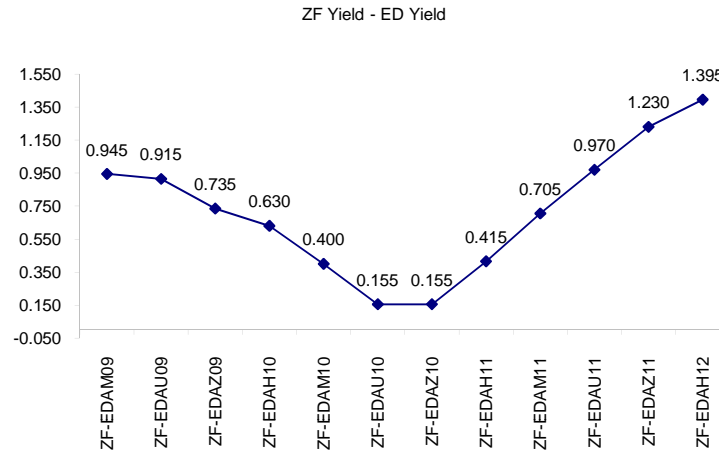
	ED Duration as Fraction of year			
	ZT Duration	Spread Duration		
EDAM09	0.0843	1.7964	1.7121	ZT-EDAM09
EDAU09	0.3336	1.7964	1.4628	ZT-EDAU09
EDAZ09	0.5829	1.7964	1.2135	ZT-EDAZ09
EDAH10	0.8322	1.7964	0.9642	ZT-EDAH10
EDAM10	1.0815	1.7964	0.7149	ZT-EDAM10
EDAU10	1.3309	1.7964	0.4655	ZT-EDAU10
EDAZ10	1.5802	1.7964	0.2162	ZT-EDAZ10
EDAH11	1.8295	1.7964	-0.0331	ZT-EDAH11
EDAM11	2.0788	1.7964	-0.2824	ZT-EDAM11
EDAU11	2.3473	1.7964	-0.5509	ZT-EDAU11
EDAZ11	2.5966	1.7964	-0.8002	ZT-EDAZ11
EDAH12	2.8459	1.7964	-1.0495	ZT-EDAH12

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



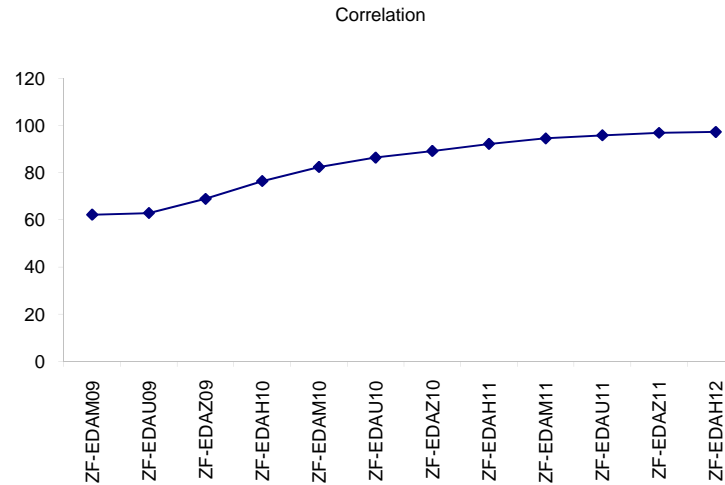
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	18.48	0.945	ZF-EDAM09	62
EDAU09	18.51	0.915	ZF-EDAU09	63
EDAZ09	18.69	0.735	ZF-EDAZ09	69
EDAH10	18.79	0.630	ZF-EDAH10	77
EDAM10	19.02	0.400	ZF-EDAM10	83
EDAU10	19.27	0.155	ZF-EDAU10	86
EDAZ10	19.58	0.155	ZF-EDAZ10	89
EDAH11	19.84	0.415	ZF-EDAH11	92
EDAM11	20.13	0.705	ZF-EDAM11	95
EDAU11	20.39	0.970	ZF-EDAU11	96
EDAZ11	20.65	1.230	ZF-EDAZ11	97
EDAH12	20.82	1.395	ZF-EDAH12	97

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



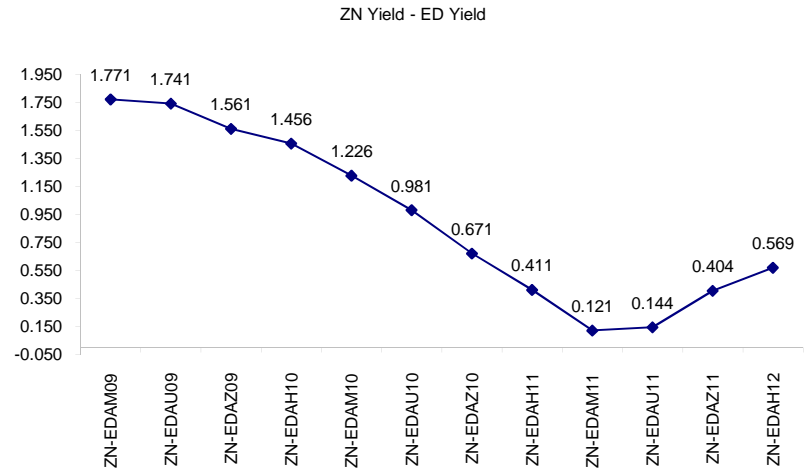
	ED Duration as Fraction of year			
	ZF Duration	Spread Duration		
EDAM09	0.0843	3.9939	3.9096	ZF-EDAM09
EDAU09	0.3336	3.9939	3.6603	ZF-EDAU09
EDAZ09	0.5829	3.9939	3.4110	ZF-EDAZ09
EDAH10	0.8322	3.9939	3.1617	ZF-EDAH10
EDAM10	1.0815	3.9939	2.9124	ZF-EDAM10
EDAU10	1.3309	3.9939	2.6630	ZF-EDAU10
EDAZ10	1.5802	3.9939	2.4137	ZF-EDAZ10
EDAH11	1.8295	3.9939	2.1644	ZF-EDAH11
EDAM11	2.0788	3.9939	1.9151	ZF-EDAM11
EDAU11	2.3473	3.9939	1.6466	ZF-EDAU11
EDAZ11	2.5966	3.9939	1.3973	ZF-EDAZ11
EDAH12	2.8459	3.9939	1.1480	ZF-EDAH12

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



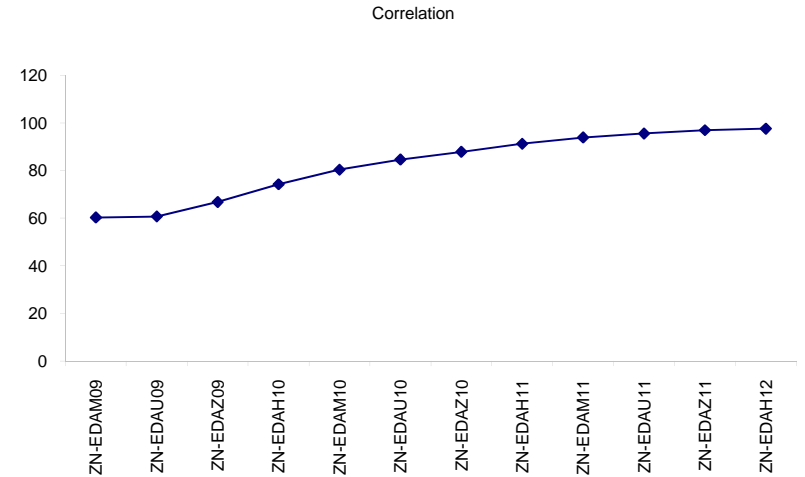
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	22.56	1.771	ZN-EDAM09	60
EDAU09	22.59	1.741	ZN-EDAU09	61
EDAZ09	22.77	1.561	ZN-EDAZ09	67
EDAH10	22.88	1.456	ZN-EDAH10	74
EDAM10	23.11	1.226	ZN-EDAM10	80
EDAU10	23.35	0.981	ZN-EDAU10	85
EDAZ10	23.66	0.671	ZN-EDAZ10	88
EDAH11	23.92	0.411	ZN-EDAH11	91
EDAM11	24.21	0.121	ZN-EDAM11	94
EDAU11	24.48	0.144	ZN-EDAU11	96
EDAZ11	24.74	0.404	ZN-EDAZ11	97
EDAH12	24.90	0.569	ZN-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			
	Fraction of year	ZN Duration	Spread Duration
EDAM09	0.0843	5.9767	5.8924
EDAU09	0.3336	5.9767	5.6431
EDAZ09	0.5829	5.9767	5.3938
EDAH10	0.8322	5.9767	5.1445
EDAM10	1.0815	5.9767	4.8951
EDAU10	1.3309	5.9767	4.6458
EDAZ10	1.5802	5.9767	4.3965
EDAH11	1.8295	5.9767	4.1472
EDAM11	2.0788	5.9767	3.8979
EDAU11	2.3473	5.9767	3.6294
EDAZ11	2.5966	5.9767	3.3801
EDAH12	2.8459	5.9767	3.1308

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



	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.81	0.093	2y-EDAM09	-73
EDAU09	0.84	0.063	2y-EDAU09	-72
EDAZ09	1.02	0.117	2y-EDAZ09	-75
EDAH10	1.13	0.222	2y-EDAH10	-81
EDAM10	1.36	0.452	2y-EDAM10	-85
EDAU10	1.60	0.697	2y-EDAU10	-86
EDAZ10	1.91	1.007	2y-EDAZ10	-88
EDAH11	2.17	1.267	2y-EDAH11	-89
EDAM11	2.46	1.557	2y-EDAM11	-90
EDAU11	2.73	1.822	2y-EDAU11	-90
EDAZ11	2.99	2.082	2y-EDAZ11	-89
EDAH12	3.15	2.247	2y-EDAH12	-89

Price = Outright Decimal Price - Euro Contract Price

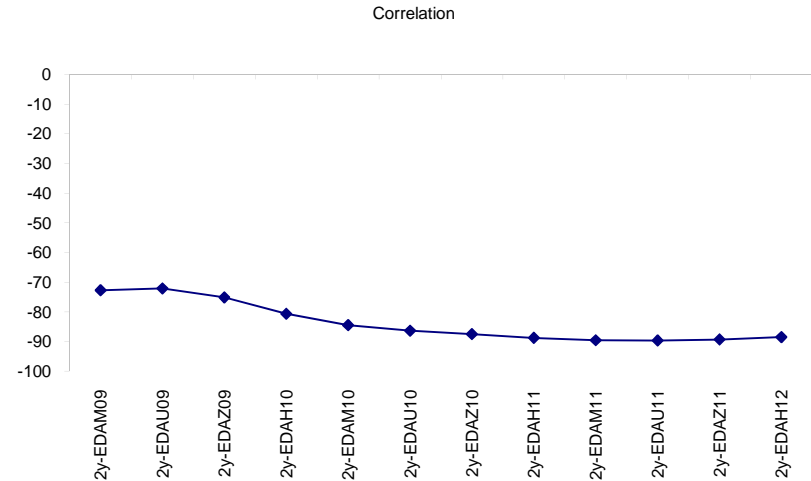
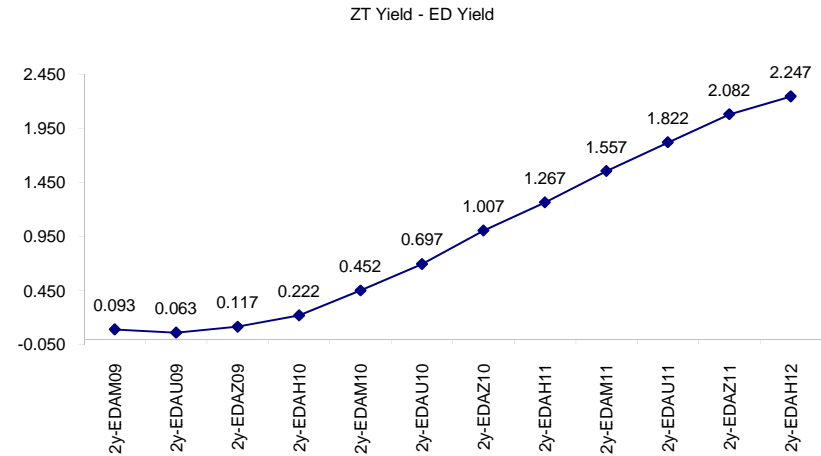
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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

ED Duration as

	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.0843	1.9299	1.8457	2y-EDAM09
EDAU09	0.3336	1.9299	1.5963	2y-EDAU09
EDAZ09	0.5829	1.9299	1.3470	2y-EDAZ09
EDAH10	0.8322	1.9299	1.0977	2y-EDAH10
EDAM10	1.0815	1.9299	0.8484	2y-EDAM10
EDAU10	1.3309	1.9299	0.5991	2y-EDAU10
EDAZ10	1.5802	1.9299	0.3498	2y-EDAZ10
EDAH11	1.8295	1.9299	0.1004	2y-EDAH11
EDAM11	2.0788	1.9299	-0.1489	2y-EDAM11
EDAU11	2.3473	1.9299	-0.4174	2y-EDAU11
EDAZ11	2.5966	1.9299	-0.6667	2y-EDAZ11
EDAH12	2.8459	1.9299	-0.9160	2y-EDAH12

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

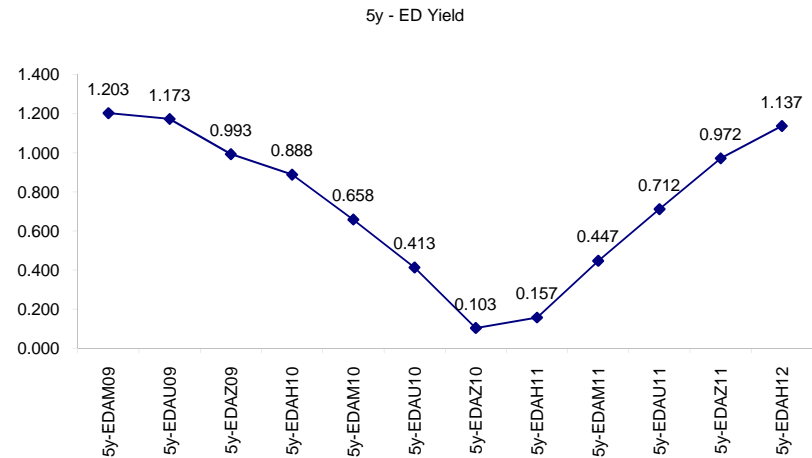


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.38	1.203	5y-EDAM09	-44
EDAU09	0.41	1.173	5y-EDAU09	-43
EDAZ09	0.59	0.993	5y-EDAZ09	-49
EDAH10	0.69	0.888	5y-EDAH10	-58
EDAM10	0.92	0.658	5y-EDAM10	-65
EDAU10	1.17	0.413	5y-EDAU10	-70
EDAZ10	1.48	0.103	5y-EDAZ10	-74
EDAH11	1.74	0.157	5y-EDAH11	-78
EDAM11	2.03	0.447	5y-EDAM11	-82
EDAU11	2.29	0.712	5y-EDAU11	-85
EDAZ11	2.55	0.972	5y-EDAZ11	-87
EDAH12	2.72	1.137	5y-EDAH12	-89

Price = Outright Decimal Price - Euro Contract Price

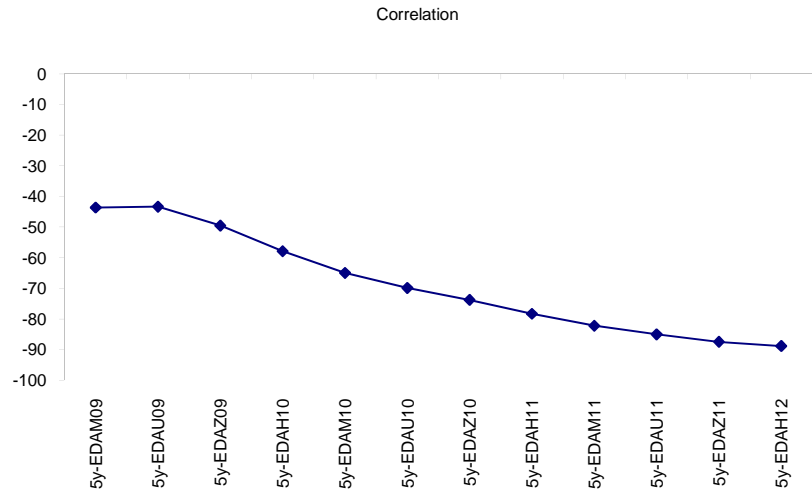
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



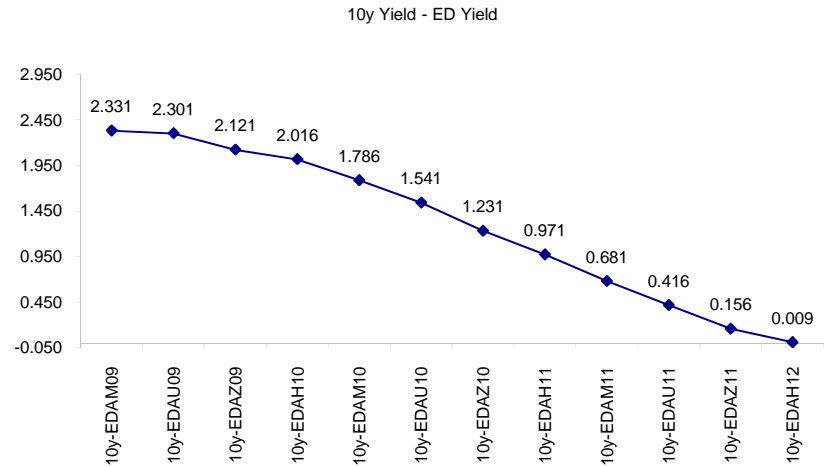
	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAM09	0.0843	4.7008	4.6165	5y-EDAM09	
EDAU09	0.3336	4.7008	4.3672	5y-EDAU09	
EDAZ09	0.5829	4.7008	4.1179	5y-EDAZ09	
EDAH10	0.8322	4.7008	3.8686	5y-EDAH10	
EDAM10	1.0815	4.7008	3.6193	5y-EDAM10	
EDAU10	1.3309	4.7008	3.3700	5y-EDAU10	
EDAZ10	1.5802	4.7008	3.1207	5y-EDAZ10	
EDAH11	1.8295	4.7008	2.8713	5y-EDAH11	
EDAM11	2.0788	4.7008	2.6220	5y-EDAM11	
EDAU11	2.3473	4.7008	2.3535	5y-EDAU11	
EDAZ11	2.5966	4.7008	2.1042	5y-EDAZ11	
EDAH12	2.8459	4.7008	1.8549	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	0.38	2.331	10y-EDAM09	-30
EDAU09	0.41	2.301	10y-EDAU09	-30
EDAZ09	0.59	2.121	10y-EDAZ09	-38
EDAH10	0.69	2.016	10y-EDAH10	-47
EDAM10	0.92	1.786	10y-EDAM10	-55
EDAU10	1.17	1.541	10y-EDAU10	-60
EDAZ10	1.48	1.231	10y-EDAZ10	-65
EDAH11	1.74	0.971	10y-EDAH11	-70
EDAM11	2.03	0.681	10y-EDAM11	-75
EDAU11	2.29	0.416	10y-EDAU11	-78
EDAZ11	2.55	0.156	10y-EDAZ11	-82
EDAH12	2.72	0.009	10y-EDAH12	-84

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	0.0843	8.5285	8.4442
EDAU09	0.3336	8.5285	8.1949
EDAZ09	0.5829	8.5285	7.9456
EDAH10	0.8322	8.5285	7.6963
EDAM10	1.0815	8.5285	7.4470
EDAU10	1.3309	8.5285	7.1977
EDAZ10	1.5802	8.5285	6.9483
EDAH11	1.8295	8.5285	6.6990
EDAM11	2.0788	8.5285	6.4497
EDAU11	2.3473	8.5285	6.1812
EDAZ11	2.5966	8.5285	5.9319
EDAH12	2.8459	8.5285	5.6826

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

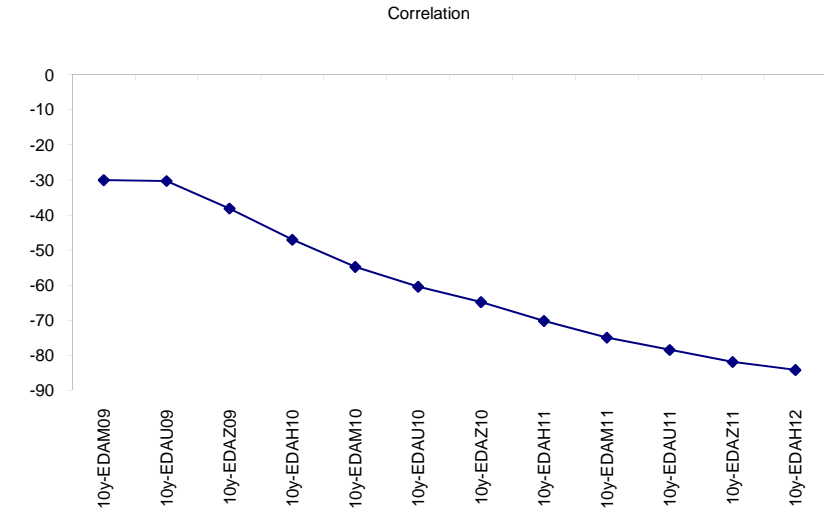


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

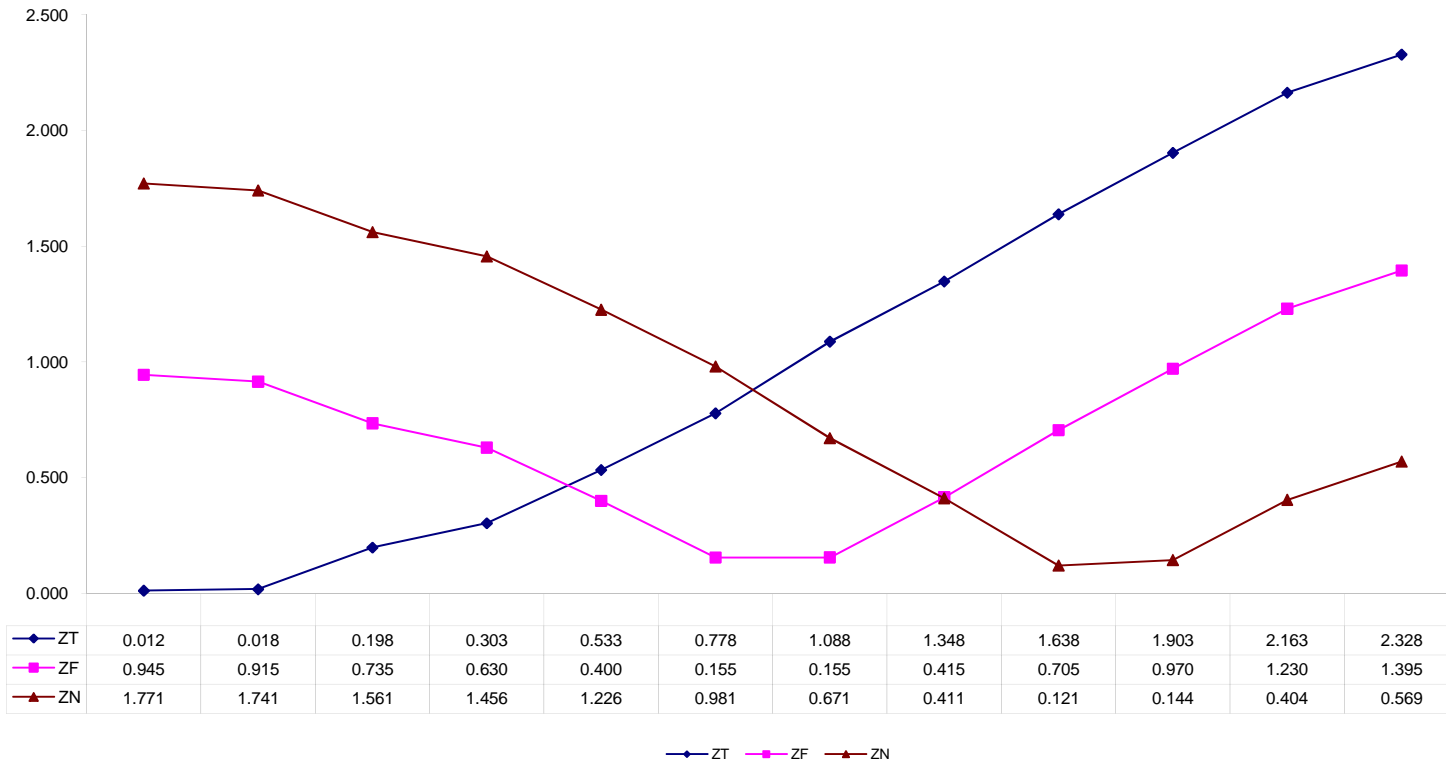
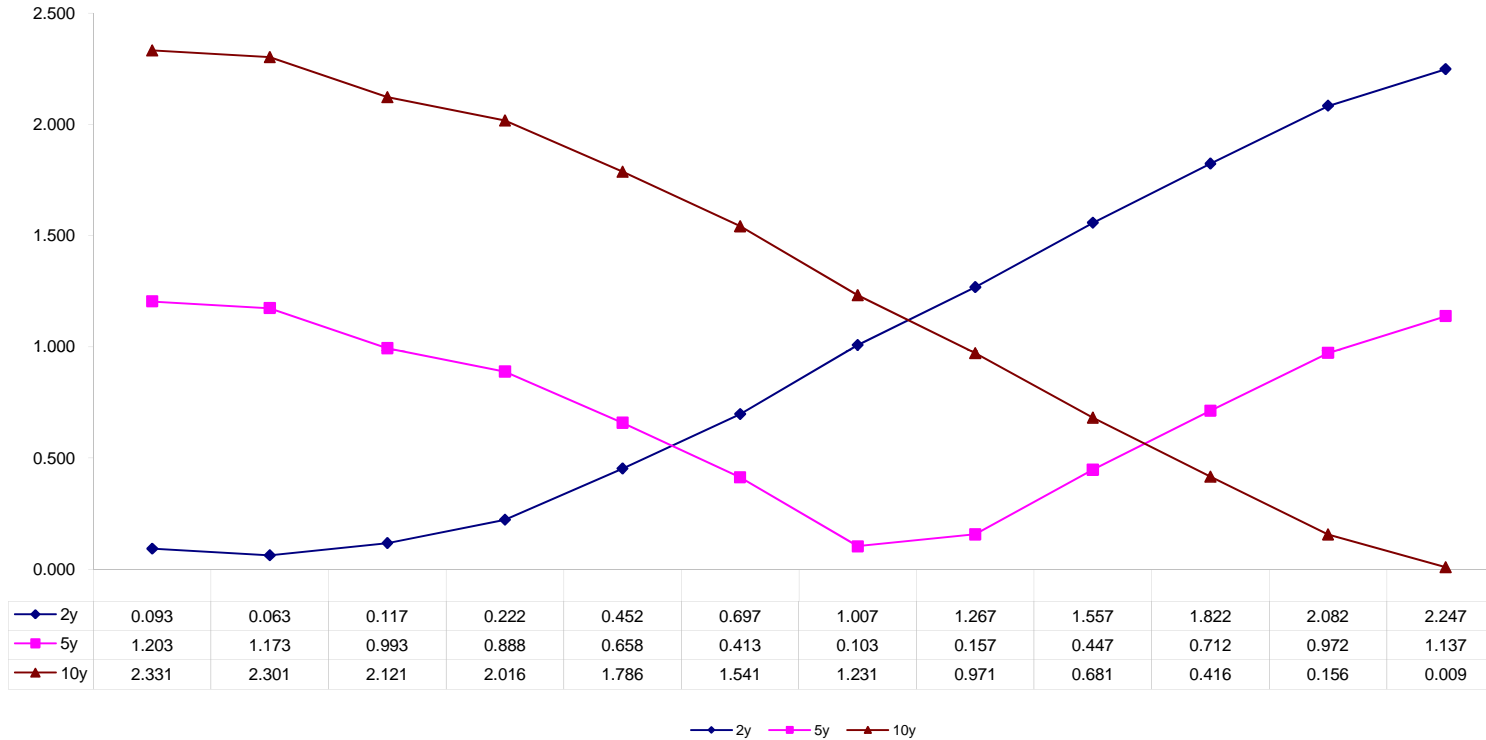
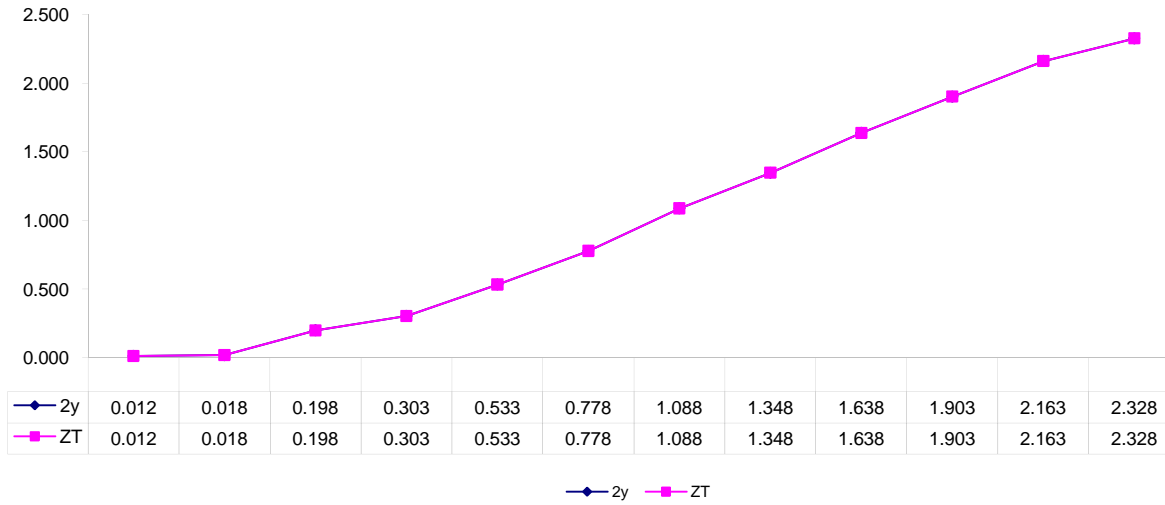
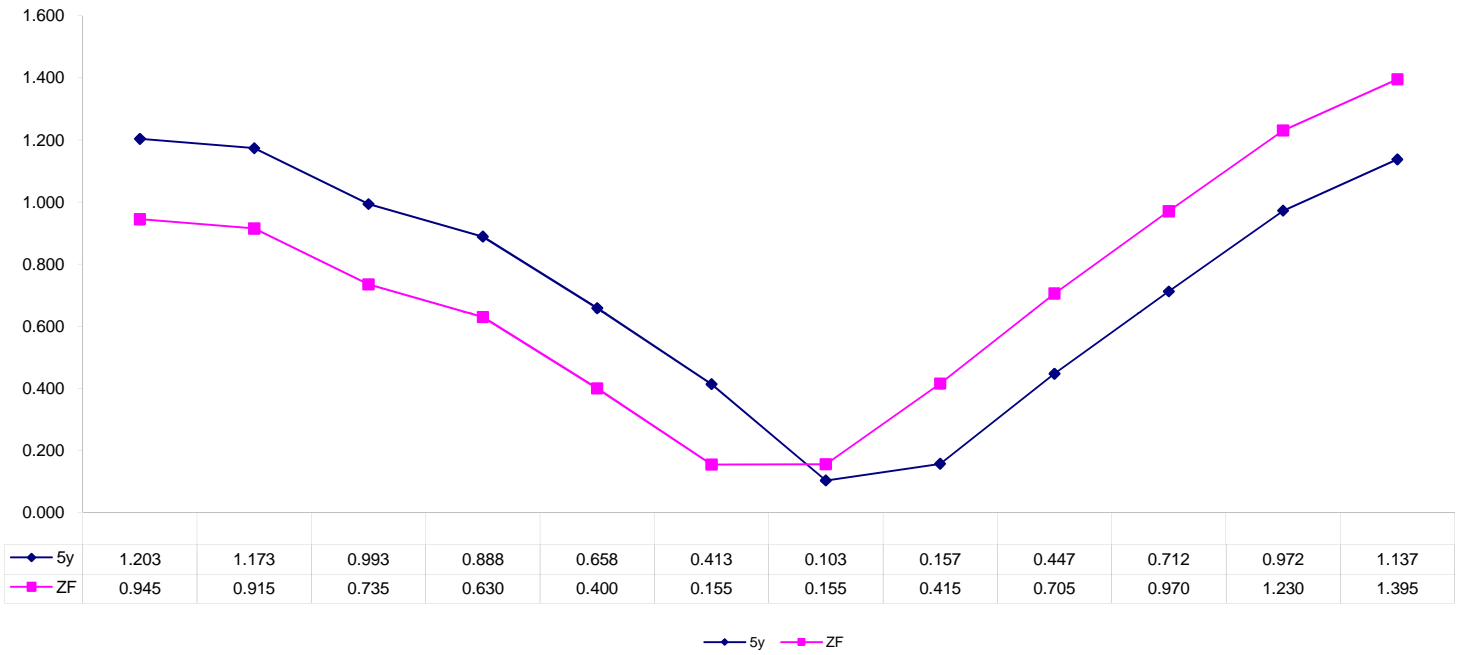


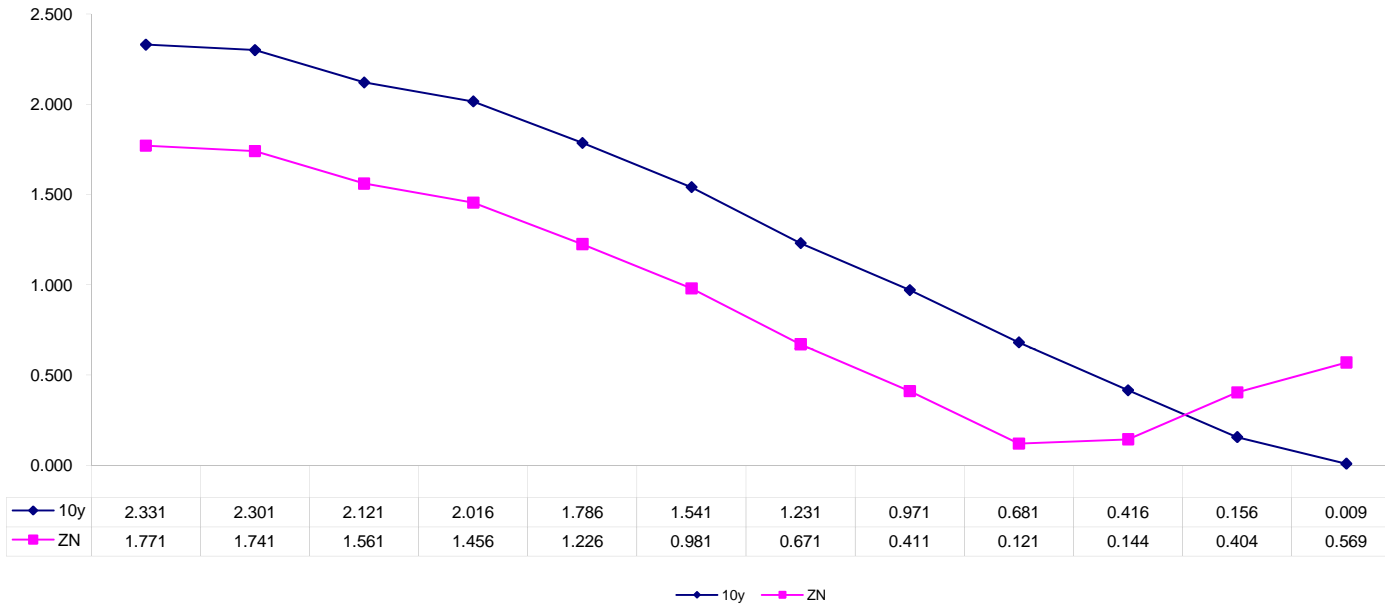
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	0.903	3.000	9911.1250
Red Pack	1.730	2.750	9830.1250
Green Pack	2.828	1.875	9723.0000
Blue Pack	0.625	0.625	9655.6250
Gold Pack		0.000	9616.3750

