

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	Last	Last	
	Decimal	€ 32.00	Yield*	MDuration
ZT	108.5938	108.1900	0.873	1.899
ZF	117.6250	117.2000	1.657	1.657
ZN	122.4375	122.1400	2.443	5.960
2y	99.8969	99.2870	0.927	1.951
5y	99.4906	99.1570	1.858	4.737
10y	98.9219	98.2950	2.876	8.531

Eurodollars (ED)						
	Last	Last Imp	Days til	Fraction	Month	
	Price	Yield	Expr.	of year		
EDAM09	98.9300	1.070	67	0.1829	JUN	
EDAU09	98.8850	1.115	158	0.4322	SEP	White Pack
EDAZ09	98.6650	1.335	249	0.6816	DEC	
EDAH10	98.5600	1.440	340	0.9309	MAR	
EDAM10	98.3750	1.625	431	1.1802	JUN	
EDAU10	98.1900	1.810	522	1.4295	SEP	Red Pack
EDAZ10	97.9700	2.030	613	1.6788	DEC	
EDAH11	97.8000	2.200	704	1.9281	MAR	
EDAM11	97.5850	2.415	795	2.1774	JUN	
EDAU11	97.3750	2.625	893	2.4459	SEP	Green Pack
EDAZ11	97.1550	2.845	984	2.6953	DEC	
EDAH12	97.0150	2.985	1,075	2.9446	MAR	
EDAM12	96.8650	3.135	1,166	3.1939	JUN	
EDAU12	96.7650	3.235	1,257	3.4432	SEP	Blue Pack
EDAZ12	96.6400	3.360	1,348	3.6925	DEC	
EDAH13	96.5900	3.410	1,439	3.9418	MAR	
EDAM13	96.5150	3.485	1,530	4.1911	JUN	
EDAU13	96.4500	3.550	1,621	4.4405	SEP	Gold Pack
EDAZ13	96.3450	3.655	1,712	4.6898	DEC	
EDAH14	96.3050	3.695	1,803	4.9391	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.261	0.250	9876.00	
Red Pack	1.952	-1.750	9808.38	Pack Prices
Green Pack	2.774	-3.375	9728.25	
Blue Pack	3.358	-2.375	9671.50	
Gold Pack		0.000	9640.50	

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)

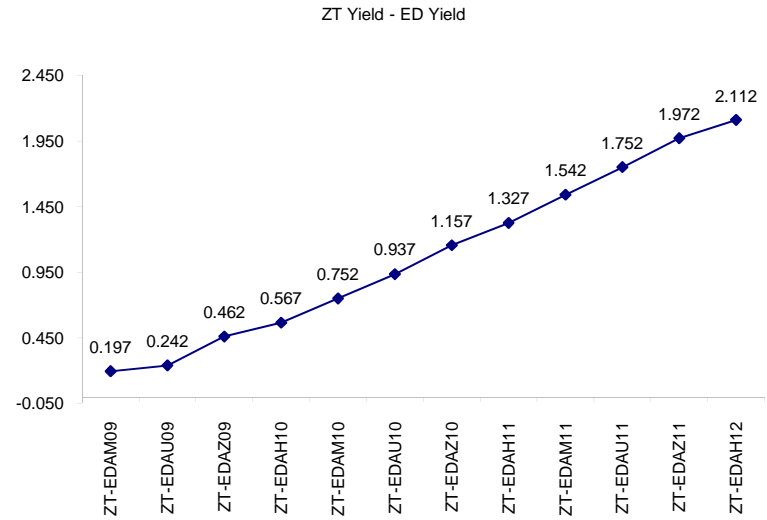
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.66	0.197	ZT-EDAM09	-16
EDAU09	9.71	0.242	ZT-EDAU09	73
EDAZ09	9.93	0.462	ZT-EDAZ09	94
EDAH10	10.03	0.567	ZT-EDAH10	96
EDAM10	10.22	0.752	ZT-EDAM10	96
EDAU10	10.40	0.937	ZT-EDAU10	96
EDAZ10	10.62	1.157	ZT-EDAZ10	96
EDAH11	10.79	1.327	ZT-EDAH11	96
EDAM11	11.01	1.542	ZT-EDAM11	96
EDAU11	11.22	1.752	ZT-EDAU11	96
EDAZ11	11.44	1.972	ZT-EDAZ11	96
EDAH12	11.58	2.112	ZT-EDAH12	95

Price = Outright Decimal Price - Euro Contract Price

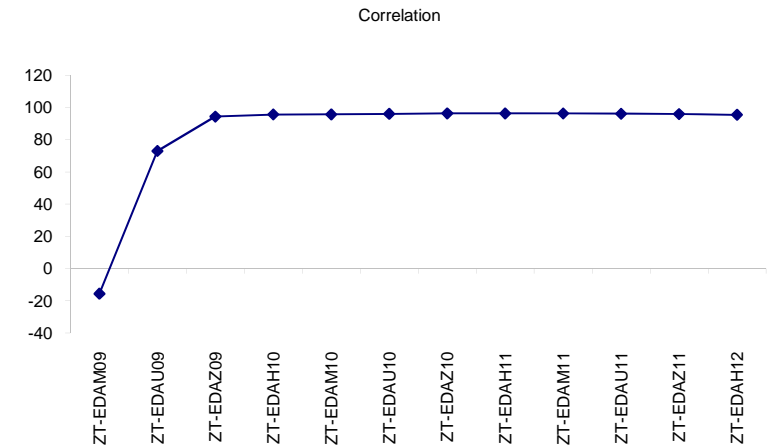
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



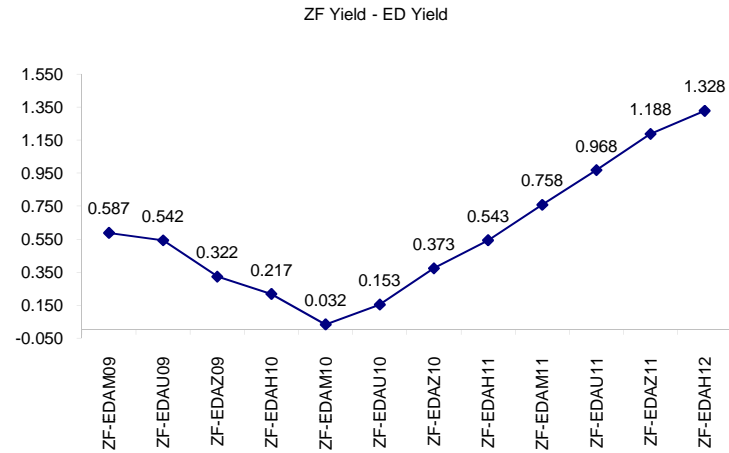
	ED Duration as Fraction of year			ZT Duration	Spread Duration	
EDAM09	0.1829	1.8987	1.7158	ZT-EDAM09		
EDAU09	0.4322	1.8987	1.4665	ZT-EDAU09		
EDAZ09	0.6816	1.8987	1.2171	ZT-EDAZ09		
EDAH10	0.9309	1.8987	0.9678	ZT-EDAH10		
EDAM10	1.1802	1.8987	0.7185	ZT-EDAM10		
EDAU10	1.4295	1.8987	0.4692	ZT-EDAU10		
EDAZ10	1.6788	1.8987	0.2199	ZT-EDAZ10		
EDAH11	1.9281	1.8987	-0.0294	ZT-EDAH11		
EDAM11	2.1774	1.8987	-0.2788	ZT-EDAM11		
EDAU11	2.4459	1.8987	-0.5472	ZT-EDAU11		
EDAZ11	2.6953	1.8987	-0.7966	ZT-EDAZ11		
EDAH12	2.9446	1.8987	-1.0459	ZT-EDAH12		

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



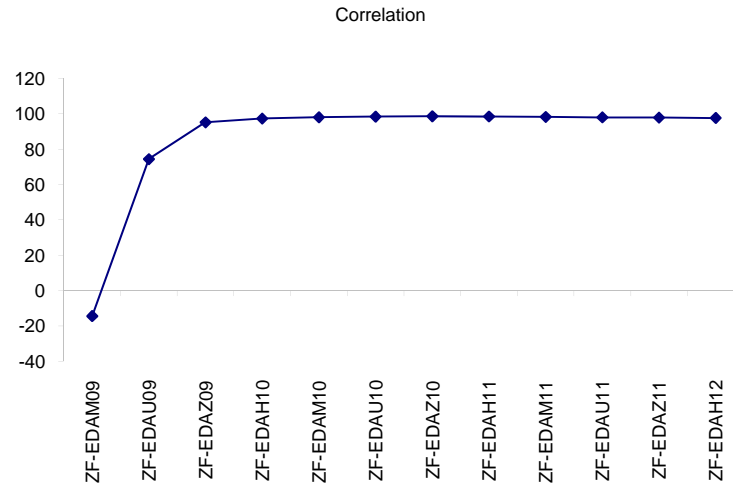
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	18.70	0.587	ZF-EDAM09	-14
EDAU09	18.74	0.542	ZF-EDAU09	74
EDAZ09	18.96	0.322	ZF-EDAZ09	95
EDAH10	19.07	0.217	ZF-EDAH10	97
EDAM10	19.25	0.032	ZF-EDAM10	98
EDAU10	19.44	0.153	ZF-EDAU10	98
EDAZ10	19.66	0.373	ZF-EDAZ10	99
EDAH11	19.83	0.543	ZF-EDAH11	99
EDAM11	20.04	0.758	ZF-EDAM11	98
EDAU11	20.25	0.968	ZF-EDAU11	98
EDAZ11	20.47	1.188	ZF-EDAZ11	98
EDAH12	20.61	1.328	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	0.1829	1.6573	1.4744	ZF-EDAM09	
EDAU09	0.4322	1.6573	1.2250	ZF-EDAU09	
EDAZ09	0.6816	1.6573	0.9757	ZF-EDAZ09	
EDAH10	0.9309	1.6573	0.7264	ZF-EDAH10	
EDAM10	1.1802	1.6573	0.4771	ZF-EDAM10	
EDAU10	1.4295	1.6573	0.2278	ZF-EDAU10	
EDAZ10	1.6788	1.6573	-0.0215	ZF-EDAZ10	
EDAH11	1.9281	1.6573	-0.2708	ZF-EDAH11	
EDAM11	2.1774	1.6573	-0.5202	ZF-EDAM11	
EDAU11	2.4459	1.6573	-0.7887	ZF-EDAU11	
EDAZ11	2.6953	1.6573	-1.0380	ZF-EDAZ11	
EDAH12	2.9446	1.6573	-1.2873	ZF-EDAH12	

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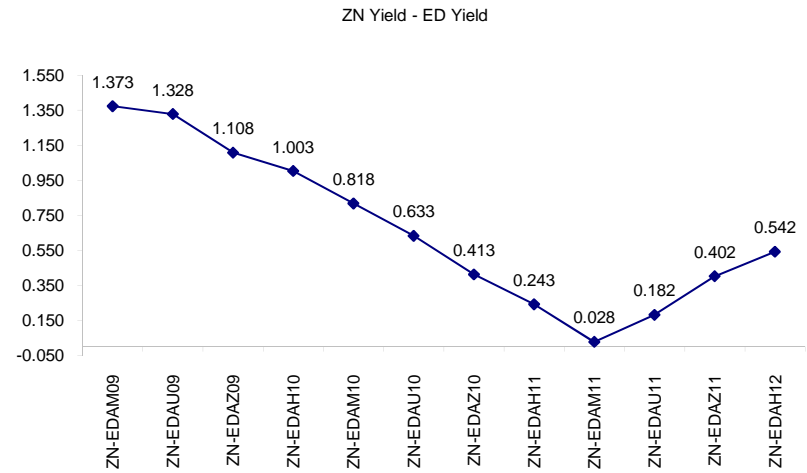


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAM09	23.51	1.373	ZN-EDAM09	-12
EDAU09	23.55	1.328	ZN-EDAU09	78
EDAZ09	23.77	1.108	ZN-EDAZ09	97
EDAH10	23.88	1.003	ZN-EDAH10	99
EDAM10	24.06	0.818	ZN-EDAM10	99
EDAU10	24.25	0.633	ZN-EDAU10	99
EDAZ10	24.47	0.413	ZN-EDAZ10	99
EDAH11	24.64	0.243	ZN-EDAH11	98
EDAM11	24.85	0.028	ZN-EDAM11	98
EDAU11	25.06	0.182	ZN-EDAU11	97
EDAZ11	25.28	0.402	ZN-EDAZ11	97
EDAH12	25.42	0.542	ZN-EDAH12	97

Price = Outright Decimal Price - Euro Contract Price

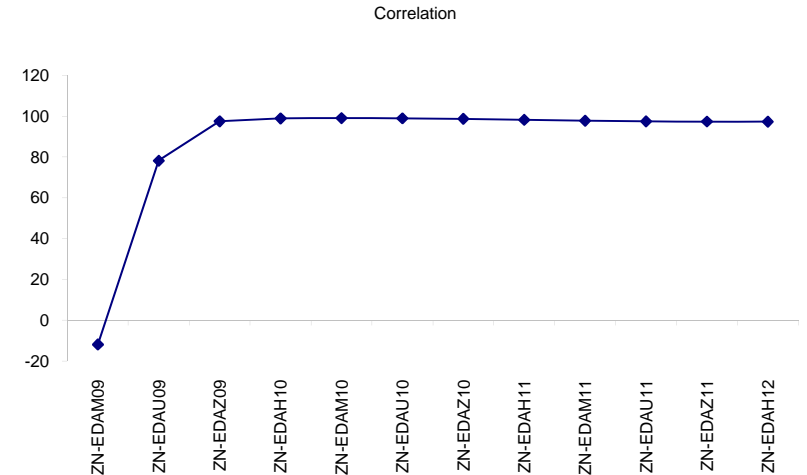
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			ZN Spread Duration
	Fraction of year	ZN Duration	Spread Duration	
EDAM09	0.1829	5.9602	5.7773	ZN-EDAM09
EDAU09	0.4322	5.9602	5.5280	ZN-EDAU09
EDAZ09	0.6816	5.9602	5.2787	ZN-EDAZ09
EDAH10	0.9309	5.9602	5.0293	ZN-EDAH10
EDAM10	1.1802	5.9602	4.7800	ZN-EDAM10
EDAU10	1.4295	5.9602	4.5307	ZN-EDAU10
EDAZ10	1.6788	5.9602	4.2814	ZN-EDAZ10
EDAH11	1.9281	5.9602	4.0321	ZN-EDAH11
EDAM11	2.1774	5.9602	3.7828	ZN-EDAM11
EDAU11	2.4459	5.9602	3.5143	ZN-EDAU11
EDAZ11	2.6953	5.9602	3.2650	ZN-EDAZ11
EDAH12	2.9446	5.9602	3.0156	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	0.97	0.143	2y-EDAM09	-6
EDAU09	1.01	0.188	2y-EDAU09	-80
EDAZ09	1.23	0.408	2y-EDAZ09	-91
EDAH10	1.34	0.513	2y-EDAH10	-91
EDAM10	1.52	0.698	2y-EDAM10	-90
EDAU10	1.71	0.883	2y-EDAU10	-90
EDAZ10	1.93	1.103	2y-EDAZ10	-91
EDAH11	2.10	1.273	2y-EDAH11	-90
EDAM11	2.31	1.488	2y-EDAM11	-89
EDAU11	2.52	1.698	2y-EDAU11	-89
EDAZ11	2.74	1.918	2y-EDAZ11	-88
EDAH12	2.88	2.058	2y-EDAH12	-87

Price = Outright Decimal Price - Euro Contract Price

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

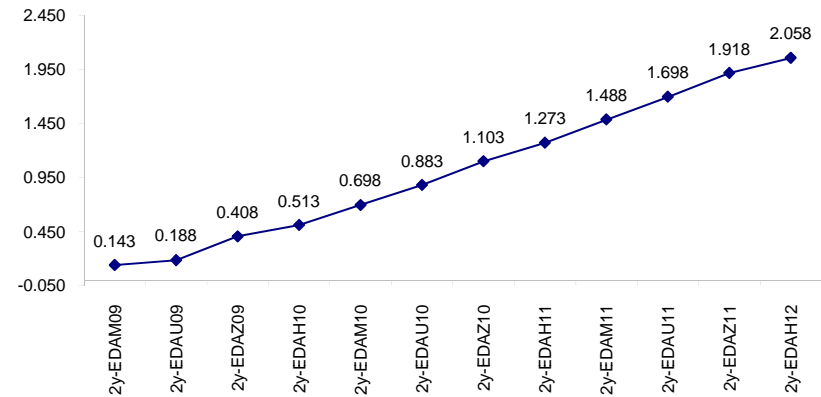
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

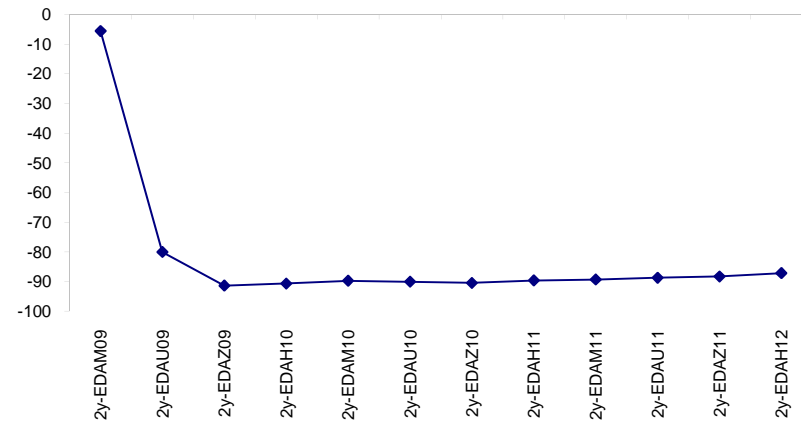
	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.1829	1.9506	1.7677	2y-EDAM09
EDAU09	0.4322	1.9506	1.5184	2y-EDAU09
EDAZ09	0.6816	1.9506	1.2690	2y-EDAZ09
EDAH10	0.9309	1.9506	1.0197	2y-EDAH10
EDAM10	1.1802	1.9506	0.7704	2y-EDAM10
EDAU10	1.4295	1.9506	0.5211	2y-EDAU10
EDAZ10	1.6788	1.9506	0.2718	2y-EDAZ10
EDAH11	1.9281	1.9506	0.0225	2y-EDAH11
EDAM11	2.1774	1.9506	-0.2268	2y-EDAM11
EDAU11	2.4459	1.9506	-0.4953	2y-EDAU11
EDAZ11	2.6953	1.9506	-0.7447	2y-EDAZ11
EDAH12	2.9446	1.9506	-0.9940	2y-EDAH12

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

ZT Yield - ED Yield

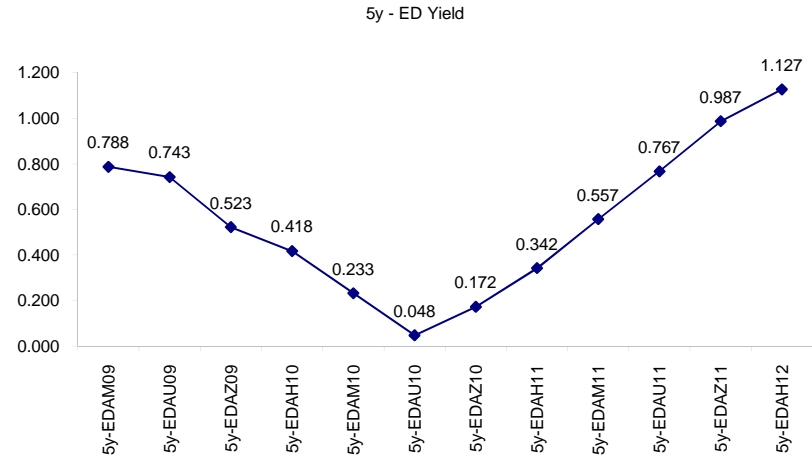


Correlation



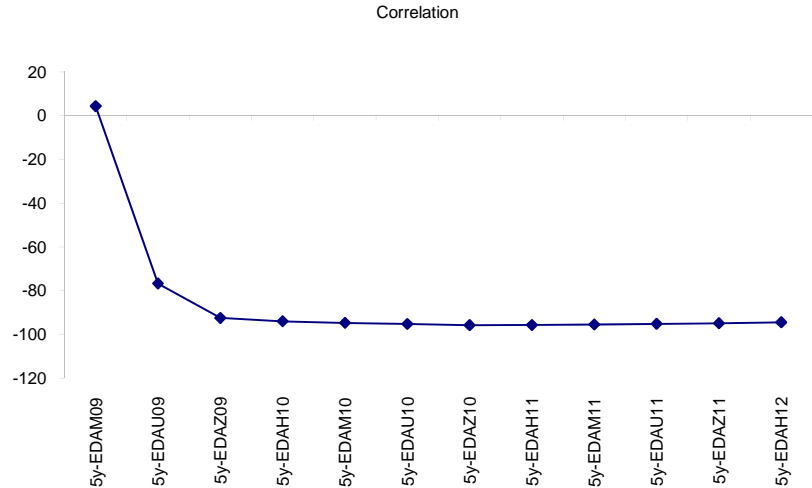
5y				Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAM09	0.56	0.788	5y-EDAM09	4
EDAU09	0.61	0.743	5y-EDAU09	-77
EDAZ09	0.83	0.523	5y-EDAZ09	-92
EDAH10	0.93	0.418	5y-EDAH10	-94
EDAM10	1.12	0.233	5y-EDAM10	-95
EDAU10	1.30	0.048	5y-EDAU10	-95
EDAZ10	1.52	0.172	5y-EDAZ10	-96
EDAH11	1.69	0.342	5y-EDAH11	-96
EDAM11	1.91	0.557	5y-EDAM11	-95
EDAU11	2.12	0.767	5y-EDAU11	-95
EDAZ11	2.34	0.987	5y-EDAZ11	-95
EDAH12	2.48	1.127	5y-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



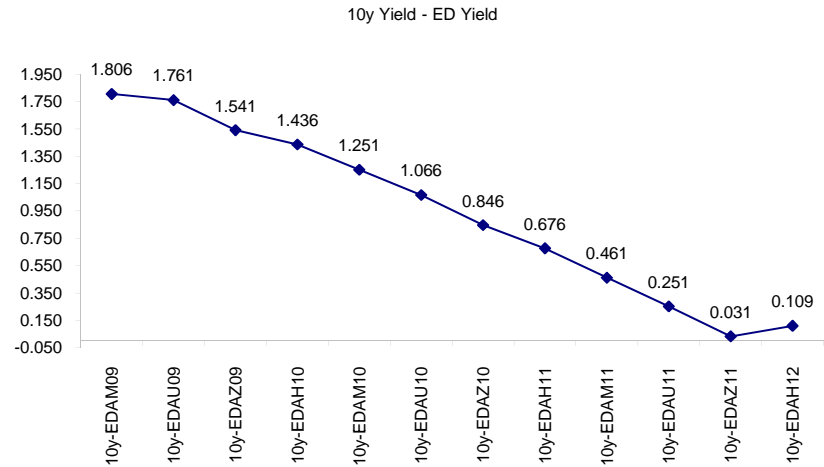
ED Duration as Fraction of year				5Y Duration	Spread Duration	
EDAM09	0.1829	4.7373	4.5544	5y-EDAM09		
EDAU09	0.4322	4.7373	4.3051	5y-EDAU09		
EDAZ09	0.6816	4.7373	4.0558	5y-EDAZ09		
EDAH10	0.9309	4.7373	3.8065	5y-EDAH10		
EDAM10	1.1802	4.7373	3.5572	5y-EDAM10		
EDAU10	1.4295	4.7373	3.3078	5y-EDAU10		
EDAZ10	1.6788	4.7373	3.0585	5y-EDAZ10		
EDAH11	1.9281	4.7373	2.8092	5y-EDAH11		
EDAM11	2.1774	4.7373	2.5599	5y-EDAM11		
EDAU11	2.4459	4.7373	2.2914	5y-EDAU11		
EDAZ11	2.6953	4.7373	2.0421	5y-EDAZ11		
EDAH12	2.9446	4.7373	1.7928	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	0.56	1.806	10y-EDAM09	18
EDAU09	0.61	1.761	10y-EDAU09	-74
EDAZ09	0.83	1.541	10y-EDAZ09	-96
EDAH10	0.93	1.436	10y-EDAH10	-98
EDAM10	1.12	1.251	10y-EDAM10	-98
EDAU10	1.30	1.066	10y-EDAU10	-99
EDAZ10	1.52	0.846	10y-EDAZ10	-99
EDAH11	1.69	0.676	10y-EDAH11	-99
EDAM11	1.91	0.461	10y-EDAM11	-99
EDAU11	2.12	0.251	10y-EDAU11	-99
EDAZ11	2.34	0.031	10y-EDAZ11	-99
EDAH12	2.48	0.109	10y-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				10Y Duration	Spread Duration	
EDAM09	0.1829	8.5306	8.3477	10y-EDAM09		
EDAU09	0.4322	8.5306	8.0983	10y-EDAU09		
EDAZ09	0.6816	8.5306	7.8490	10y-EDAZ09		
EDAH10	0.9309	8.5306	7.5997	10y-EDAH10		
EDAM10	1.1802	8.5306	7.3504	10y-EDAM10		
EDAU10	1.4295	8.5306	7.1011	10y-EDAU10		
EDAZ10	1.6788	8.5306	6.8518	10y-EDAZ10		
EDAH11	1.9281	8.5306	6.6024	10y-EDAH11		
EDAM11	2.1774	8.5306	6.3531	10y-EDAM11		
EDAU11	2.4459	8.5306	6.0846	10y-EDAU11		
EDAZ11	2.6953	8.5306	5.8353	10y-EDAZ11		
EDAH12	2.9446	8.5306	5.5860	10y-EDAH12		

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

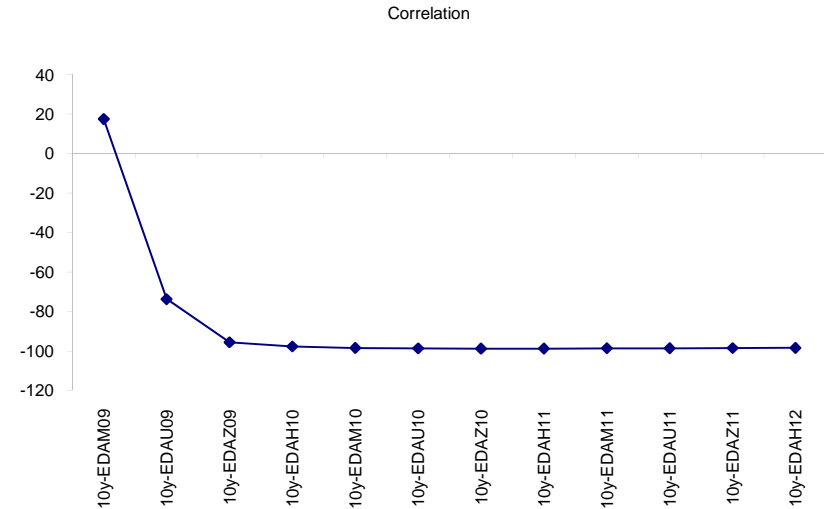


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

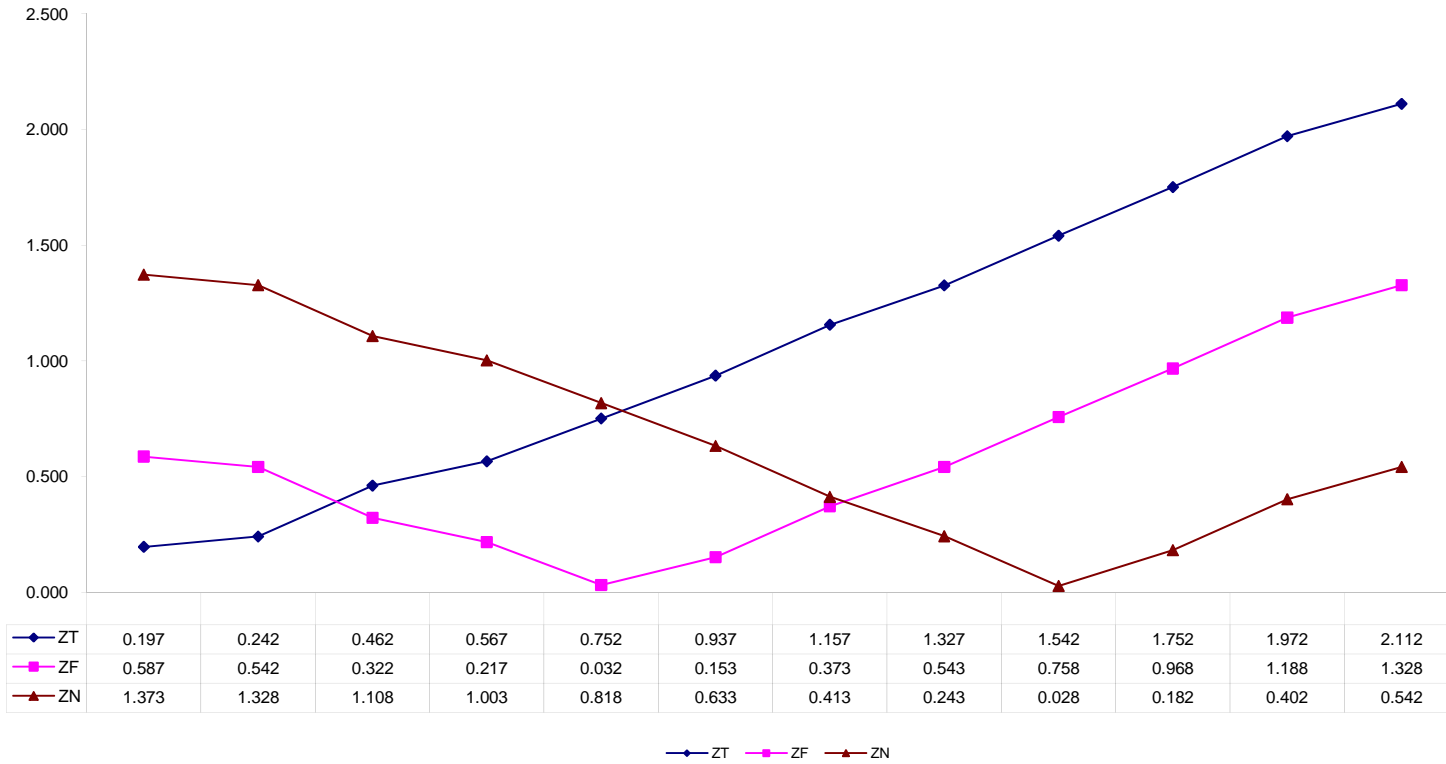
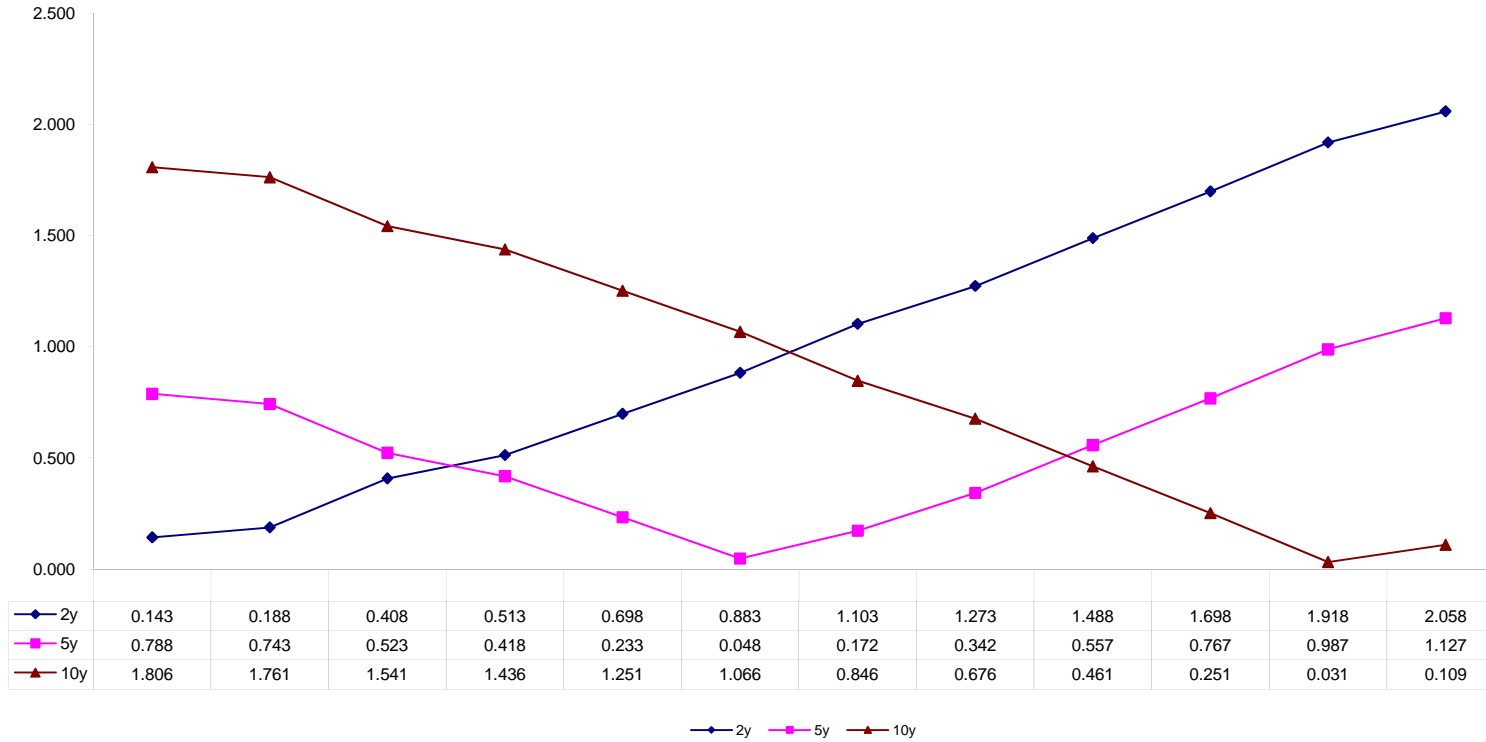
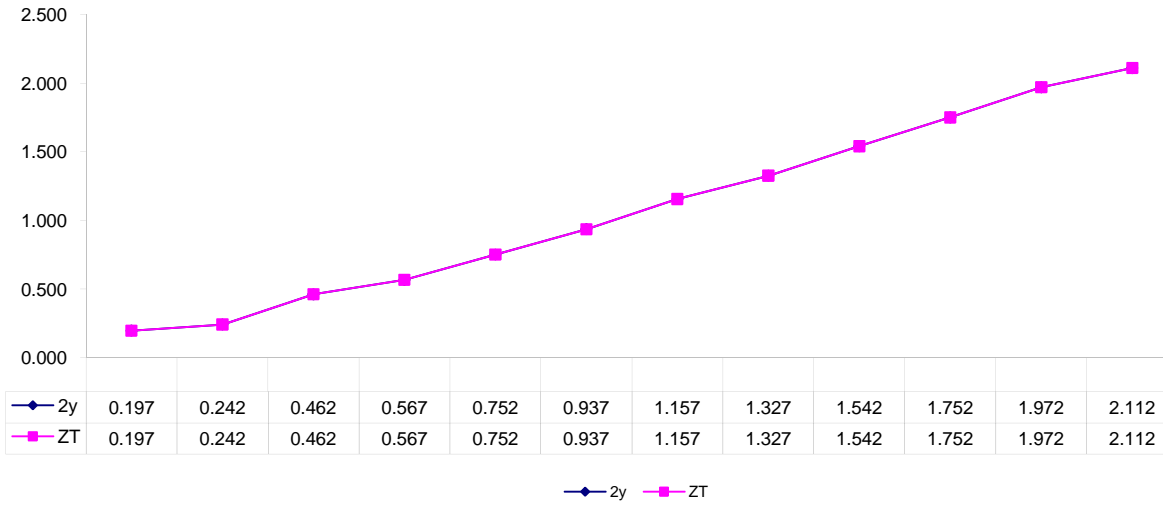
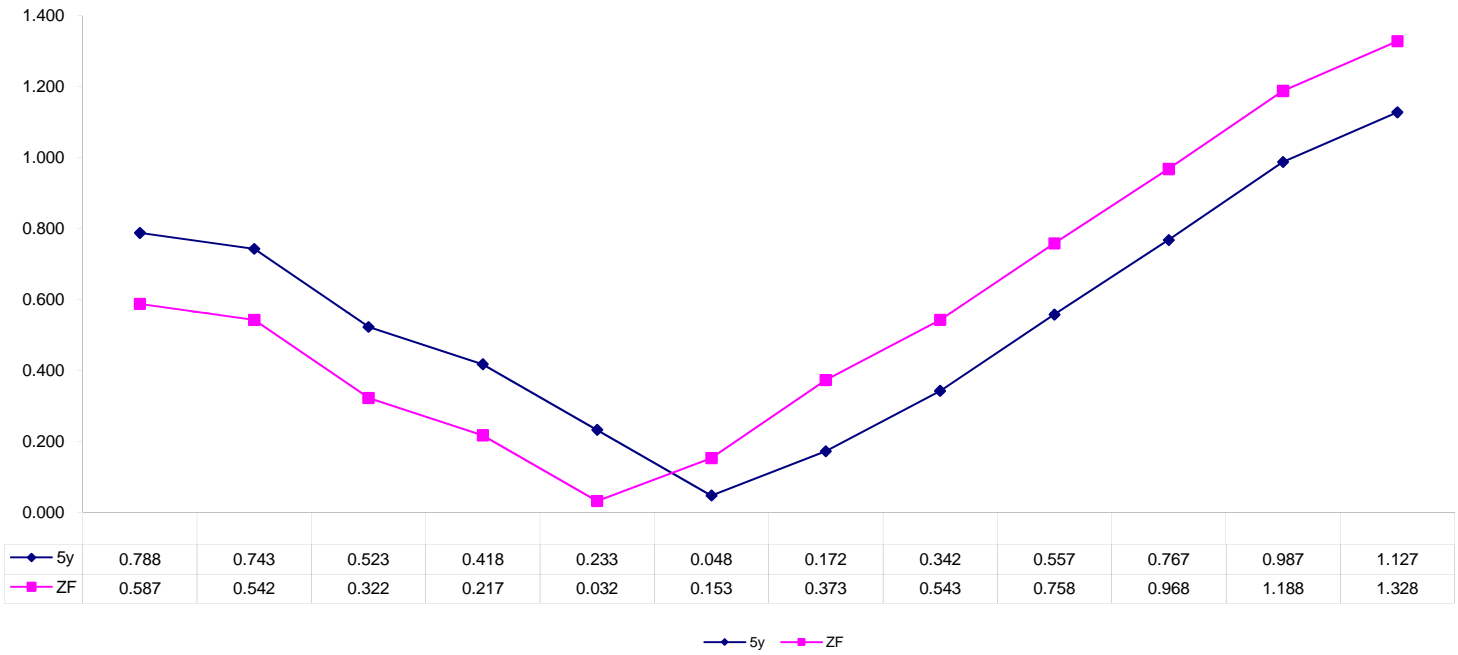


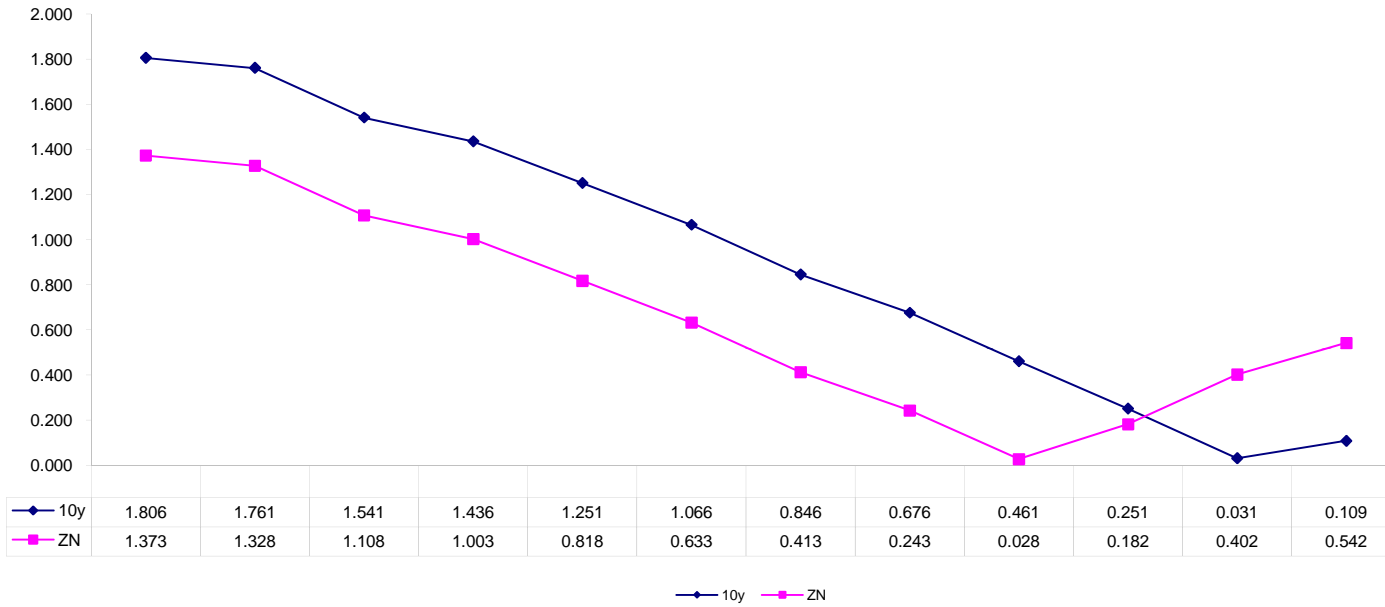
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.261	0.250	9876.0000
Red Pack	1.952	-1.750	9808.3750
Green Pack	2.774	-3.375	9728.2500
Blue Pack	3.358	-2.375	9671.5000
Gold Pack		0.000	9640.5000

