

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	108.8906	108.2850	0.763	1.922
ZF	118.6781	118.2170	1.466	1.466
ZN	123.9688	123.3100	2.267	5.969
2y	100.0938	100.0300	0.827	1.973
5y	100.2875	100.0920	1.689	4.764
10y	100.5313	100.1700	2.686	8.572

Eurodollars (ED)						
	Last	Last Imp	Days til	Fraction	Month	
	Price	Yield	Expr.	of year		
EDAM09	98.8950	1.105	75	0.2048	JUN	
EDAU09	98.8950	1.105	166	0.4541	SEP	White Pack
EDAZ09	98.7500	1.250	257	0.7035	DEC	
EDAH10	98.6950	1.305	348	0.9528	MAR	
EDAM10	98.5450	1.455	439	1.2021	JUN	
EDAU10	98.3800	1.620	530	1.4514	SEP	Red Pack
EDAZ10	98.1700	1.830	621	1.7007	DEC	
EDAH11	98.0150	1.985	712	1.9500	MAR	
EDAM11	97.8100	2.190	803	2.1993	JUN	
EDAU11	97.6100	2.390	901	2.4678	SEP	Green Pack
EDAZ11	97.3900	2.610	992	2.7172	DEC	
EDAH12	97.2500	2.750	1,083	2.9665	MAR	
EDAM12	97.0950	2.905	1,174	3.2158	JUN	
EDAU12	96.9750	3.025	1,265	3.4651	SEP	Blue Pack
EDAZ12	96.8500	3.150	1,356	3.7144	DEC	
EDAH13	96.8050	3.195	1,447	3.9637	MAR	
EDAM13	96.7200	3.280	1,538	4.2130	JUN	
EDAU13	96.6350	3.365	1,629	4.4624	SEP	Gold Pack
EDAZ13	96.5450	3.455	1,720	4.7117	DEC	
EDAH14	96.5450	3.455	1,811	4.9610	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.211	-0.750	9880.88	
Red Pack	1.754	-1.125	9827.75	Pack Prices
Green Pack	2.535	-3.125	9751.50	
Blue Pack	3.135	-4.875	9693.13	
Gold Pack		-1.875	9661.13	

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:

- € 1.00 Regression
- € 2.00 Engineered
- € 3.00 Strip with and without Stubs
- € 4.00 Convexity Bias
- € 5.00 Weighted
- € 6.00 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)

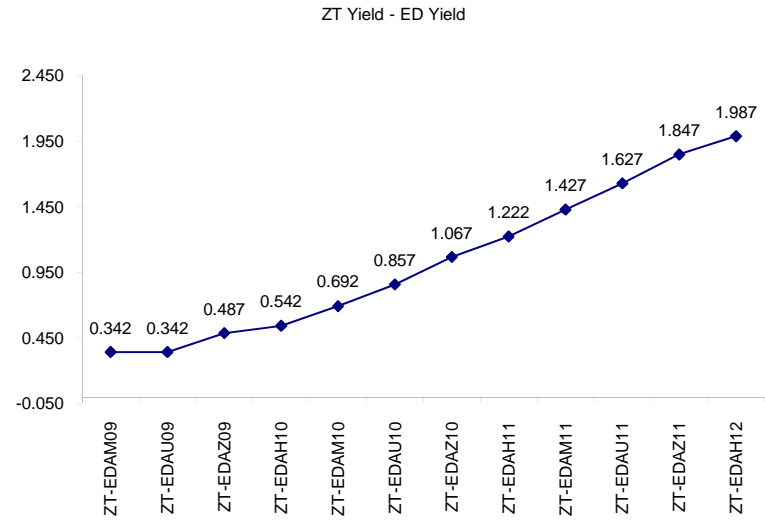
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	10.00	0.342	ZT-EDAM09	94
EDAU09	10.00	0.342	ZT-EDAU09	91
EDAZ09	10.14	0.487	ZT-EDAZ09	90
EDAH10	10.20	0.542	ZT-EDAH10	89
EDAM10	10.35	0.692	ZT-EDAM10	89
EDAU10	10.51	0.857	ZT-EDAU10	88
EDAZ10	10.72	1.067	ZT-EDAZ10	88
EDAH11	10.88	1.222	ZT-EDAH11	87
EDAM11	11.08	1.427	ZT-EDAM11	87
EDAU11	11.28	1.627	ZT-EDAU11	88
EDAZ11	11.50	1.847	ZT-EDAZ11	89
EDAH12	11.64	1.987	ZT-EDAH12	91

Price = Outright Decimal Price - Euro Contract Price

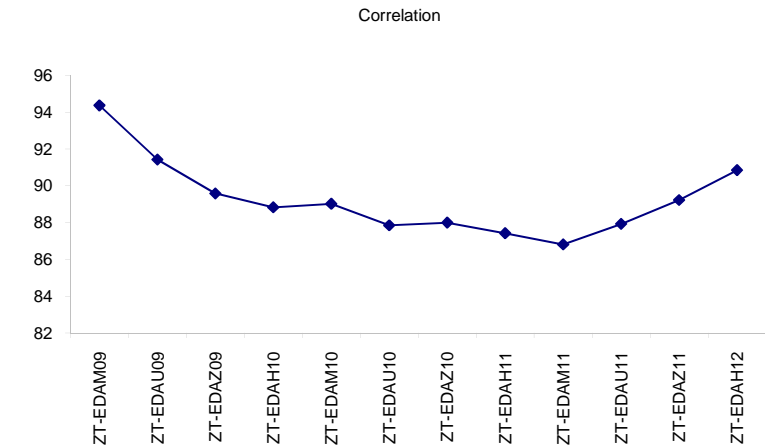
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



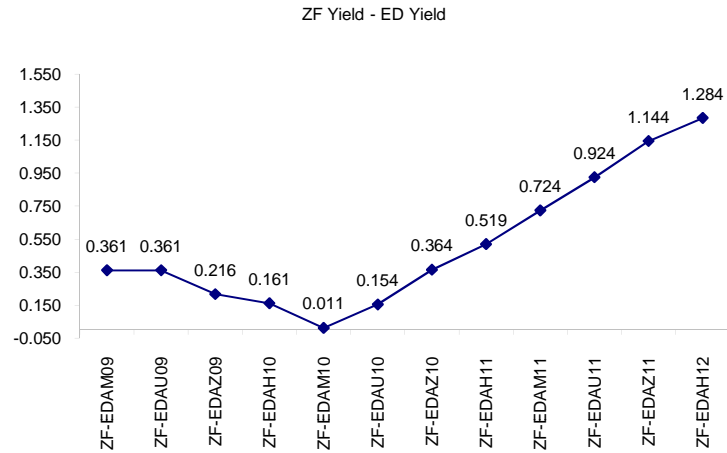
	ED Duration as Fraction of year			ZT Duration	Spread Duration	
EDAM09	0.2048	1.9216	1.7168	ZT-EDAM09		
EDAU09	0.4541	1.9216	1.4675	ZT-EDAU09		
EDAZ09	0.7035	1.9216	1.2181	ZT-EDAZ09		
EDAH10	0.9528	1.9216	0.9688	ZT-EDAH10		
EDAM10	1.2021	1.9216	0.7195	ZT-EDAM10		
EDAU10	1.4514	1.9216	0.4702	ZT-EDAU10		
EDAZ10	1.7007	1.9216	0.2209	ZT-EDAZ10		
EDAH11	1.9500	1.9216	-0.0284	ZT-EDAH11		
EDAM11	2.1993	1.9216	-0.2778	ZT-EDAM11		
EDAU11	2.4678	1.9216	-0.5462	ZT-EDAU11		
EDAZ11	2.7172	1.9216	-0.7956	ZT-EDAZ11		
EDAH12	2.9665	1.9216	-1.0449	ZT-EDAH12		

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



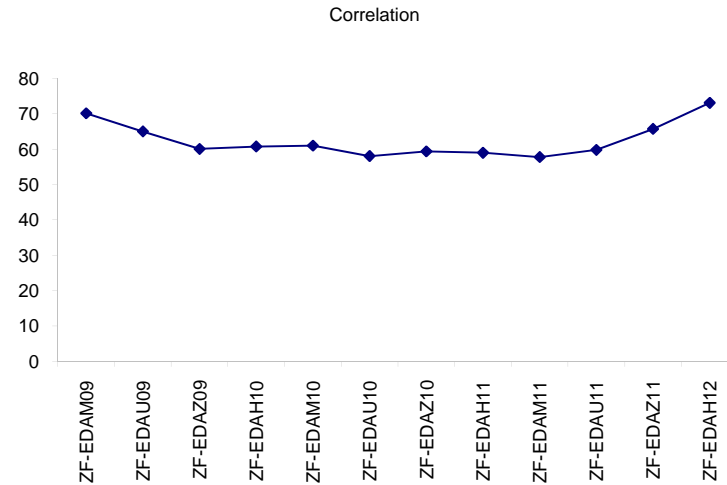
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	19.78	0.361	ZF-EDAM09	70
EDAU09	19.78	0.361	ZF-EDAU09	65
EDAZ09	19.93	0.216	ZF-EDAZ09	60
EDAH10	19.98	0.161	ZF-EDAH10	61
EDAM10	20.13	0.011	ZF-EDAM10	61
EDAU10	20.30	0.154	ZF-EDAU10	58
EDAZ10	20.51	0.364	ZF-EDAZ10	59
EDAH11	20.66	0.519	ZF-EDAH11	59
EDAM11	20.87	0.724	ZF-EDAM11	58
EDAU11	21.07	0.924	ZF-EDAU11	60
EDAZ11	21.29	1.144	ZF-EDAZ11	66
EDAH12	21.43	1.284	ZF-EDAH12	73

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	0.2048	1.4661	1.2613	ZF-EDAM09
EDAU09	0.4541	1.4661	1.0120	ZF-EDAU09
EDAZ09	0.7035	1.4661	0.7626	ZF-EDAZ09
EDAH10	0.9528	1.4661	0.5133	ZF-EDAH10
EDAM10	1.2021	1.4661	0.2640	ZF-EDAM10
EDAU10	1.4514	1.4661	0.0147	ZF-EDAU10
EDAZ10	1.7007	1.4661	-0.2346	ZF-EDAZ10
EDAH11	1.9500	1.4661	-0.4839	ZF-EDAH11
EDAM11	2.1993	1.4661	-0.7332	ZF-EDAM11
EDAU11	2.4678	1.4661	-1.0017	ZF-EDAU11
EDAZ11	2.7172	1.4661	-1.2511	ZF-EDAZ11
EDAH12	2.9665	1.4661	-1.5004	ZF-EDAH12

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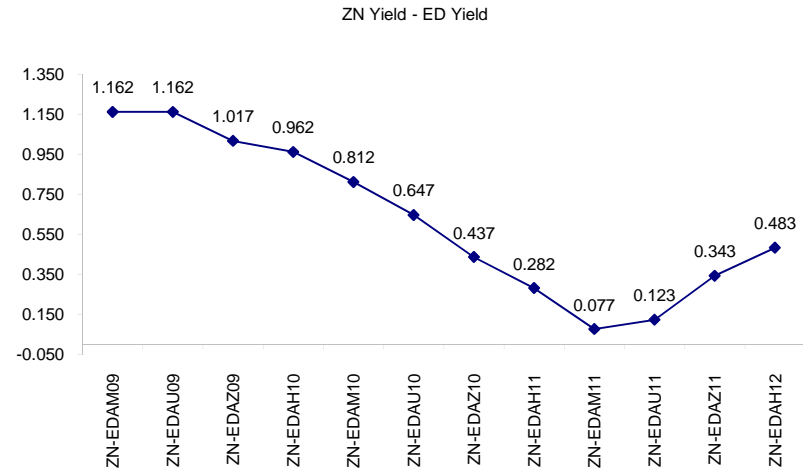


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAM09	25.07	1.162	ZN-EDAM09	3
EDAU09	25.07	1.162	ZN-EDAU09	-6
EDAZ09	25.22	1.017	ZN-EDAZ09	-13
EDAH10	25.27	0.962	ZN-EDAH10	-12
EDAM10	25.42	0.812	ZN-EDAM10	-12
EDAU10	25.59	0.647	ZN-EDAU10	-15
EDAZ10	25.80	0.437	ZN-EDAZ10	-13
EDAH11	25.95	0.282	ZN-EDAH11	-13
EDAM11	26.16	0.077	ZN-EDAM11	-15
EDAU11	26.36	0.123	ZN-EDAU11	-13
EDAZ11	26.58	0.343	ZN-EDAZ11	-5
EDAH12	26.72	0.483	ZN-EDAH12	7

Price = Outright Decimal Price - Euro Contract Price

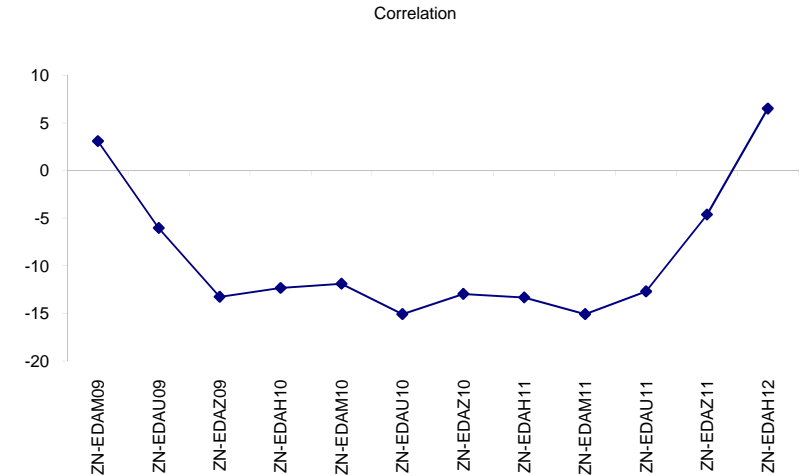
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			ZN Spread Duration
	Fraction of year	ZN Duration	Spread Duration	
EDAM09	0.2048	5.9692	5.7644	ZN-EDAM09
EDAU09	0.4541	5.9692	5.5151	ZN-EDAU09
EDAZ09	0.7035	5.9692	5.2657	ZN-EDAZ09
EDAH10	0.9528	5.9692	5.0164	ZN-EDAH10
EDAM10	1.2021	5.9692	4.7671	ZN-EDAM10
EDAU10	1.4514	5.9692	4.5178	ZN-EDAU10
EDAZ10	1.7007	5.9692	4.2685	ZN-EDAZ10
EDAH11	1.9500	5.9692	4.0192	ZN-EDAH11
EDAM11	2.1993	5.9692	3.7698	ZN-EDAM11
EDAU11	2.4678	5.9692	3.5014	ZN-EDAU11
EDAZ11	2.7172	5.9692	3.2520	ZN-EDAZ11
EDAH12	2.9665	5.9692	3.0027	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	1.20	0.278	2y-EDAM09	-82
EDAU09	1.20	0.278	2y-EDAU09	-74
EDAZ09	1.34	0.423	2y-EDAZ09	-69
EDAH10	1.40	0.478	2y-EDAH10	-69
EDAM10	1.55	0.628	2y-EDAM10	-70
EDAU10	1.71	0.793	2y-EDAU10	-69
EDAZ10	1.92	1.003	2y-EDAZ10	-70
EDAH11	2.08	1.158	2y-EDAH11	-69
EDAM11	2.28	1.363	2y-EDAM11	-68
EDAU11	2.48	1.563	2y-EDAU11	-70
EDAZ11	2.70	1.783	2y-EDAZ11	-74
EDAH12	2.84	1.923	2y-EDAH12	-79

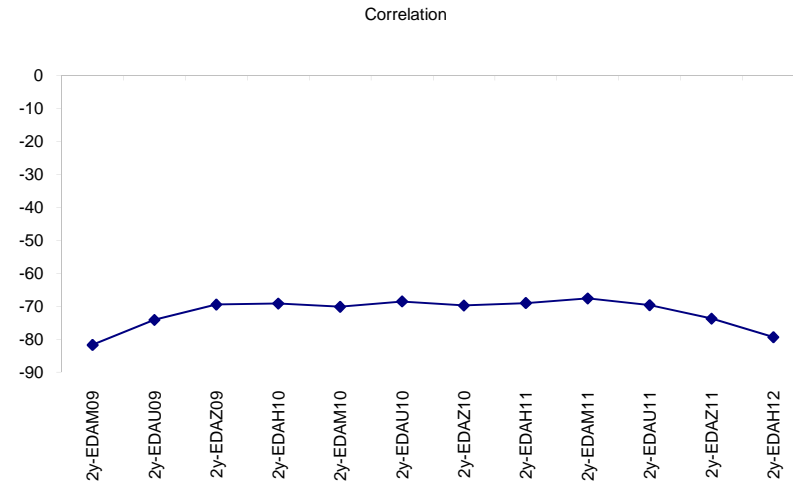
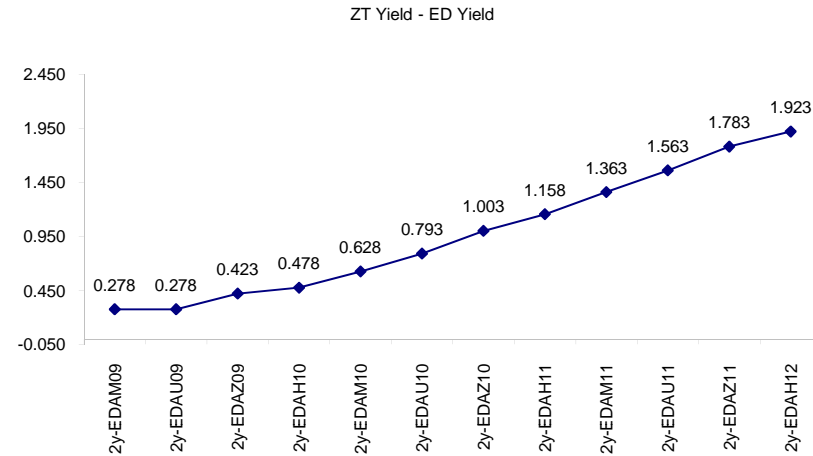
Price = Outright Decimal Price - Euro Contract Price

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	2Y Duration		
EDAM09	0.2048	1.9733	1.7685	2y-EDAM09
EDAU09	0.4541	1.9733	1.5192	2y-EDAU09
EDAZ09	0.7035	1.9733	1.2699	2y-EDAZ09
EDAH10	0.9528	1.9733	1.0206	2y-EDAH10
EDAM10	1.2021	1.9733	0.7713	2y-EDAM10
EDAU10	1.4514	1.9733	0.5220	2y-EDAU10
EDAZ10	1.7007	1.9733	0.2726	2y-EDAZ10
EDAH11	1.9500	1.9733	0.0233	2y-EDAH11
EDAM11	2.1993	1.9733	-0.2260	2y-EDAM11
EDAU11	2.4678	1.9733	-0.4945	2y-EDAU11
EDAZ11	2.7172	1.9733	-0.7438	2y-EDAZ11
EDAH12	2.9665	1.9733	-0.9931	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	1.39	0.584	5y-EDAM09	-29
EDAU09	1.39	0.584	5y-EDAU09	-18
EDAZ09	1.54	0.439	5y-EDAZ09	-9
EDAH10	1.59	0.384	5y-EDAH10	-10
EDAM10	1.74	0.234	5y-EDAM10	-11
EDAU10	1.91	0.069	5y-EDAU10	-8
EDAZ10	2.12	0.141	5y-EDAZ10	-9
EDAH11	2.27	0.296	5y-EDAH11	-8
EDAM11	2.48	0.501	5y-EDAM11	-6
EDAU11	2.68	0.701	5y-EDAU11	-9
EDAZ11	2.90	0.921	5y-EDAZ11	-16
EDAH12	3.04	1.061	5y-EDAH12	-26

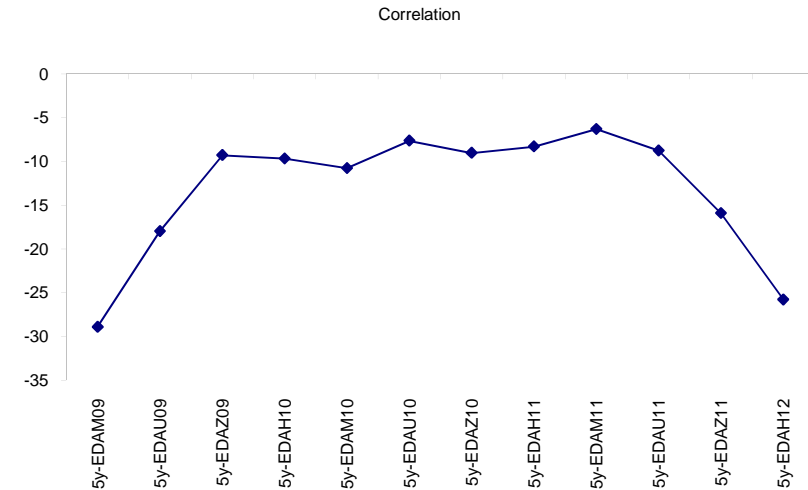
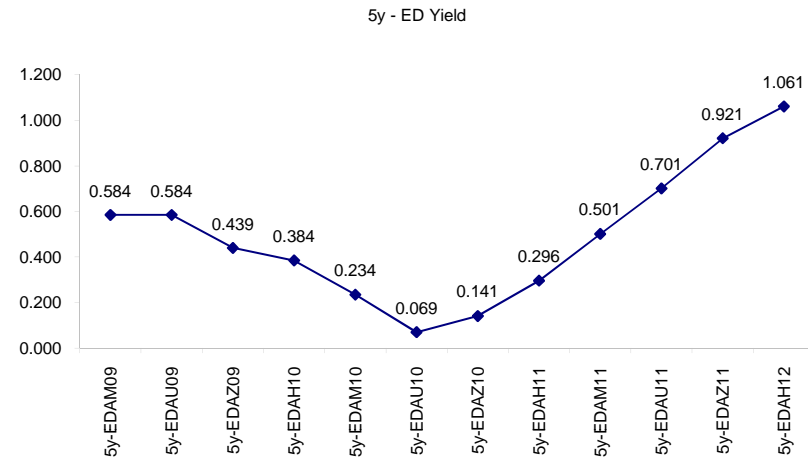
Price = Outright Decimal Price - Euro Contract Price

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	0.2048	4.7639	4.5591	5y-EDAM09	
EDAU09	0.4541	4.7639	4.3098	5y-EDAU09	
EDAZ09	0.7035	4.7639	4.0605	5y-EDAZ09	
EDAH10	0.9528	4.7639	3.8112	5y-EDAH10	
EDAM10	1.2021	4.7639	3.5618	5y-EDAM10	
EDAU10	1.4514	4.7639	3.3125	5y-EDAU10	
EDAZ10	1.7007	4.7639	3.0632	5y-EDAZ10	
EDAH11	1.9500	4.7639	2.8139	5y-EDAH11	
EDAM11	2.1993	4.7639	2.5646	5y-EDAM11	
EDAU11	2.4678	4.7639	2.2961	5y-EDAU11	
EDAZ11	2.7172	4.7639	2.0468	5y-EDAZ11	
EDAH12	2.9665	4.7639	1.7975	5y-EDAH12	

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

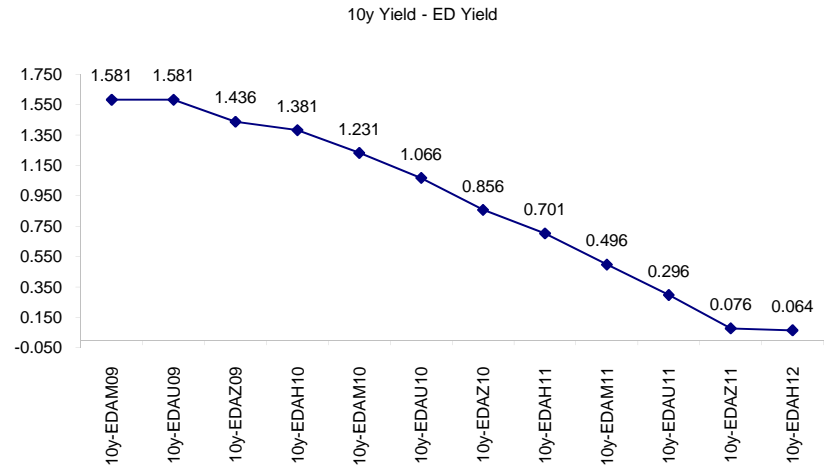


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	1.39	1.581	10y-EDAM09	-20
EDAU09	1.39	1.581	10y-EDAU09	-9
EDAZ09	1.54	1.436	10y-EDAZ09	0
EDAH10	1.59	1.381	10y-EDAH10	0
EDAM10	1.74	1.231	10y-EDAM10	-1
EDAU10	1.91	1.066	10y-EDAU10	2
EDAZ10	2.12	0.856	10y-EDAZ10	1
EDAH11	2.27	0.701	10y-EDAH11	2
EDAM11	2.48	0.496	10y-EDAM11	4
EDAU11	2.68	0.296	10y-EDAU11	2
EDAZ11	2.90	0.076	10y-EDAZ11	-6
EDAH12	3.04	0.064	10y-EDAH12	-16

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	0.2048	8.5724	8.3676	10y-EDAM09		
EDAU09	0.4541	8.5724	8.1183	10y-EDAU09		
EDAZ09	0.7035	8.5724	7.8689	10y-EDAZ09		
EDAH10	0.9528	8.5724	7.6196	10y-EDAH10		
EDAM10	1.2021	8.5724	7.3703	10y-EDAM10		
EDAU10	1.4514	8.5724	7.1210	10y-EDAU10		
EDAZ10	1.7007	8.5724	6.8717	10y-EDAZ10		
EDAH11	1.9500	8.5724	6.6224	10y-EDAH11		
EDAM11	2.1993	8.5724	6.3730	10y-EDAM11		
EDAU11	2.4678	8.5724	6.1046	10y-EDAU11		
EDAZ11	2.7172	8.5724	5.8552	10y-EDAZ11		
EDAH12	2.9665	8.5724	5.6059	10y-EDAH12		

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

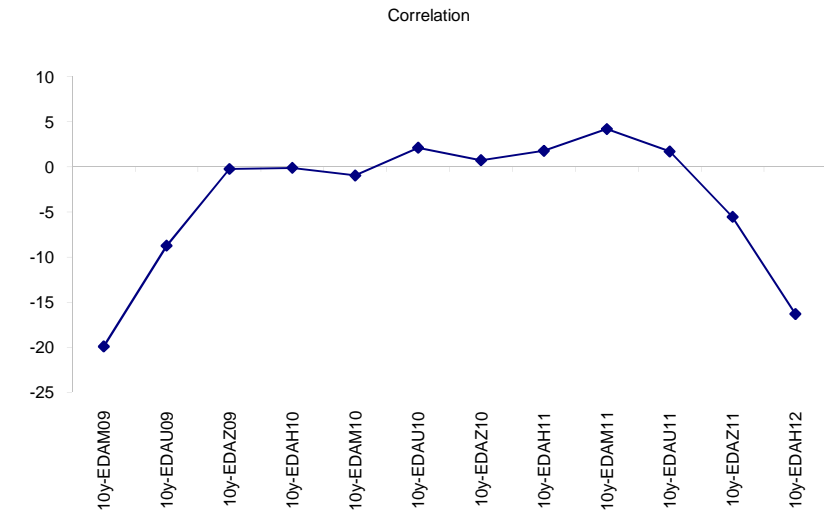


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

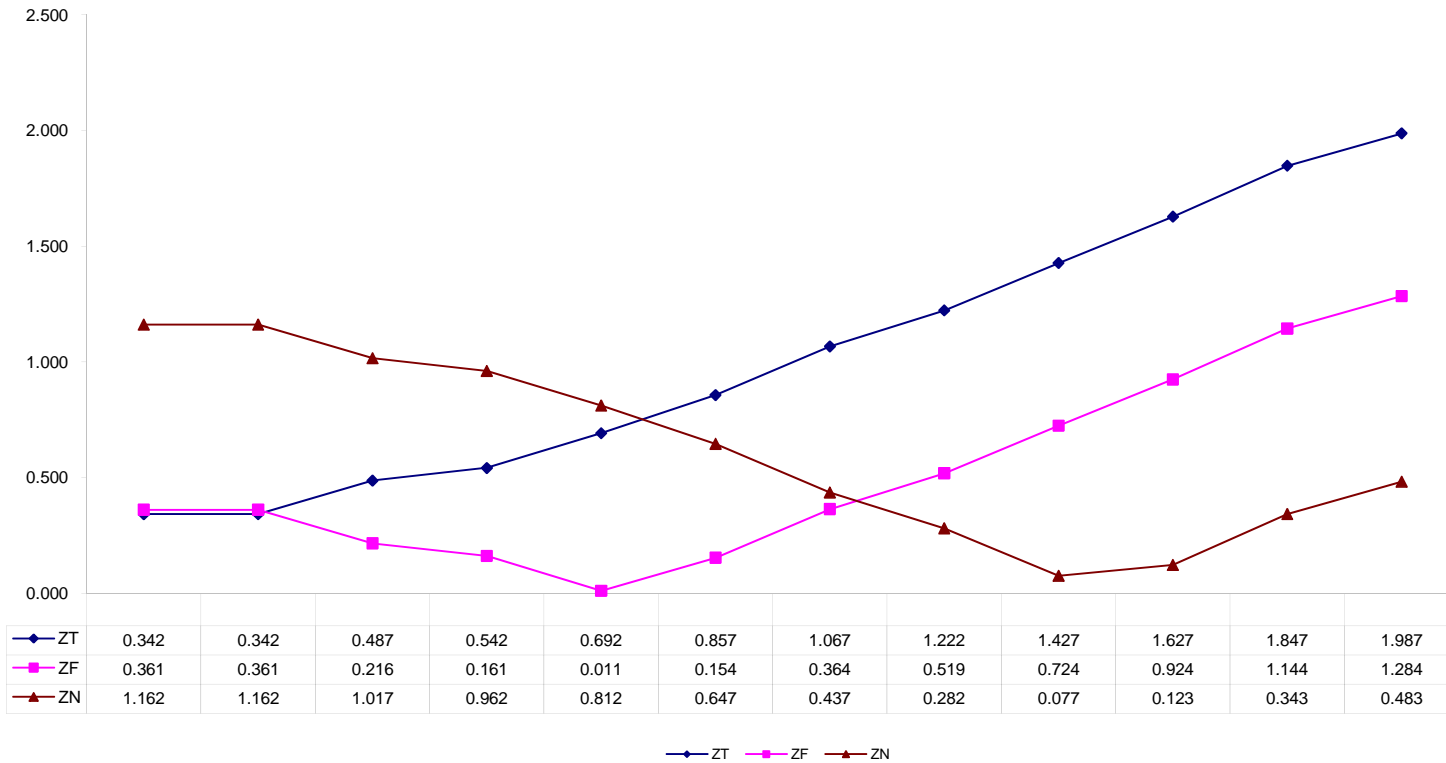
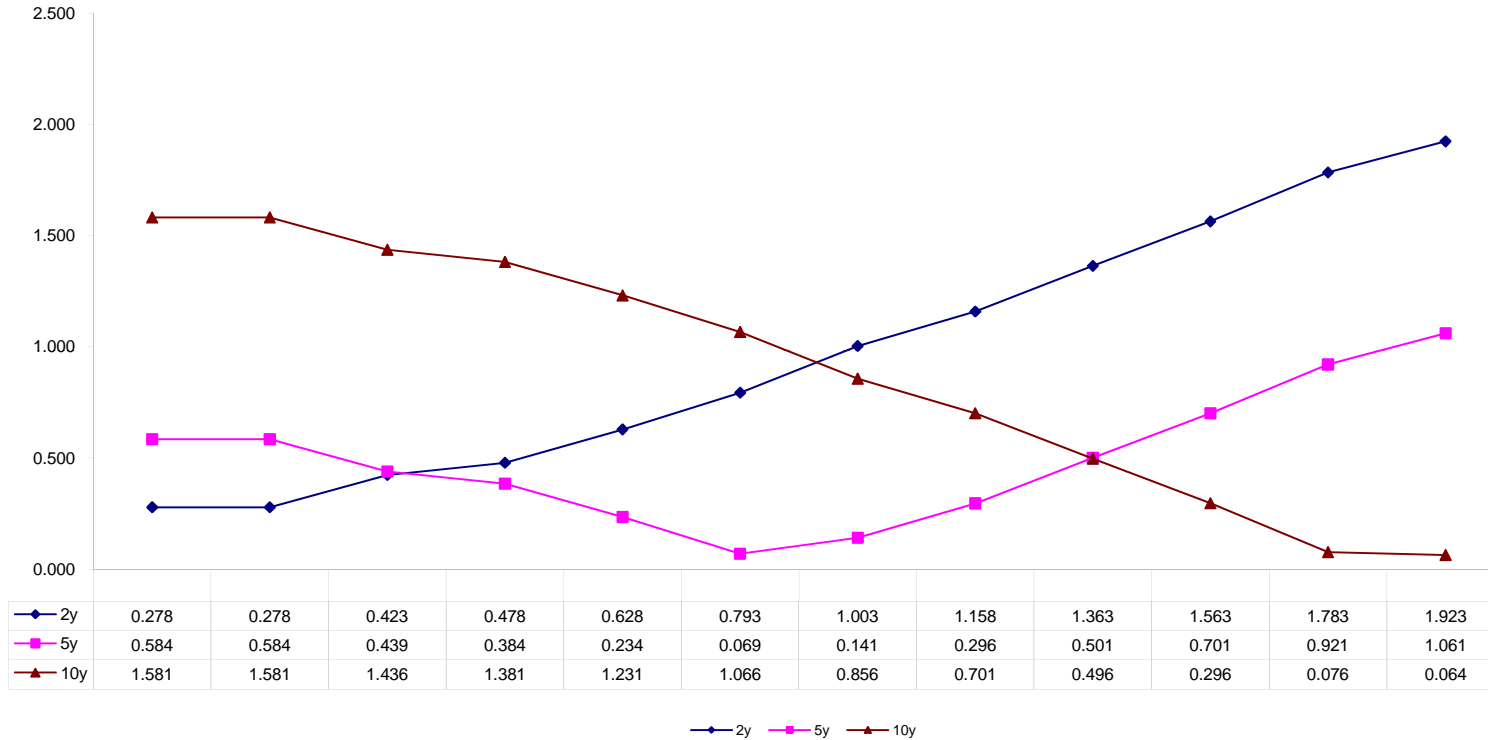
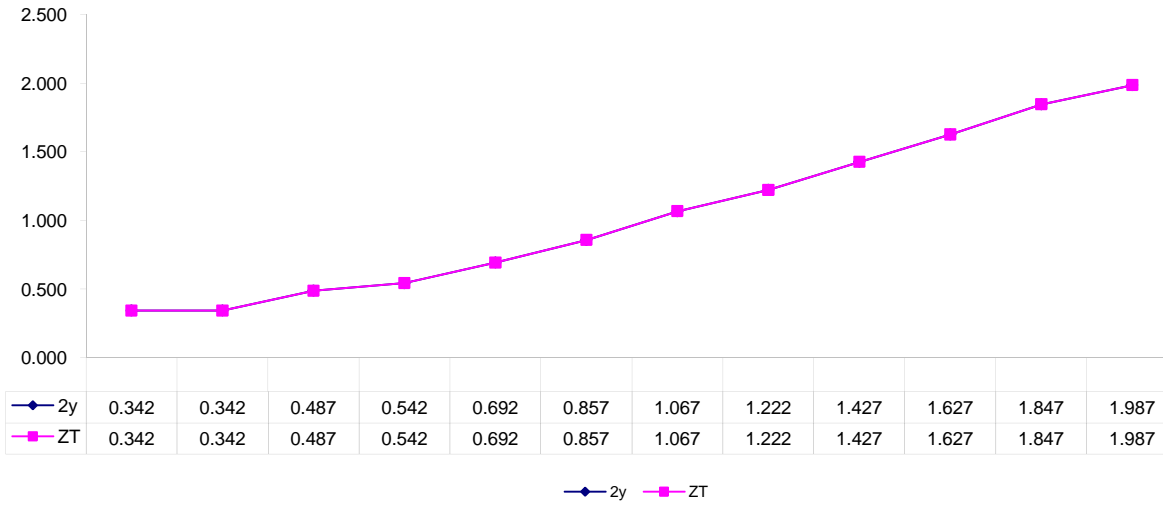
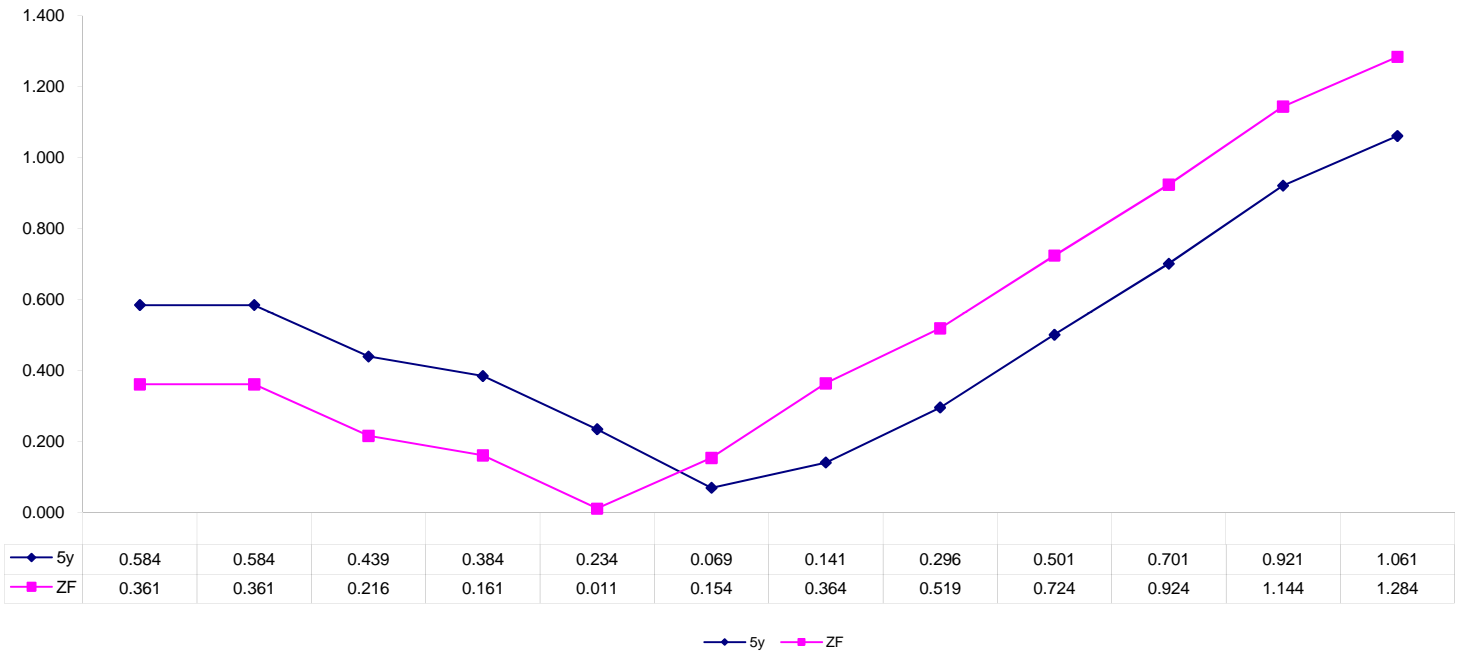


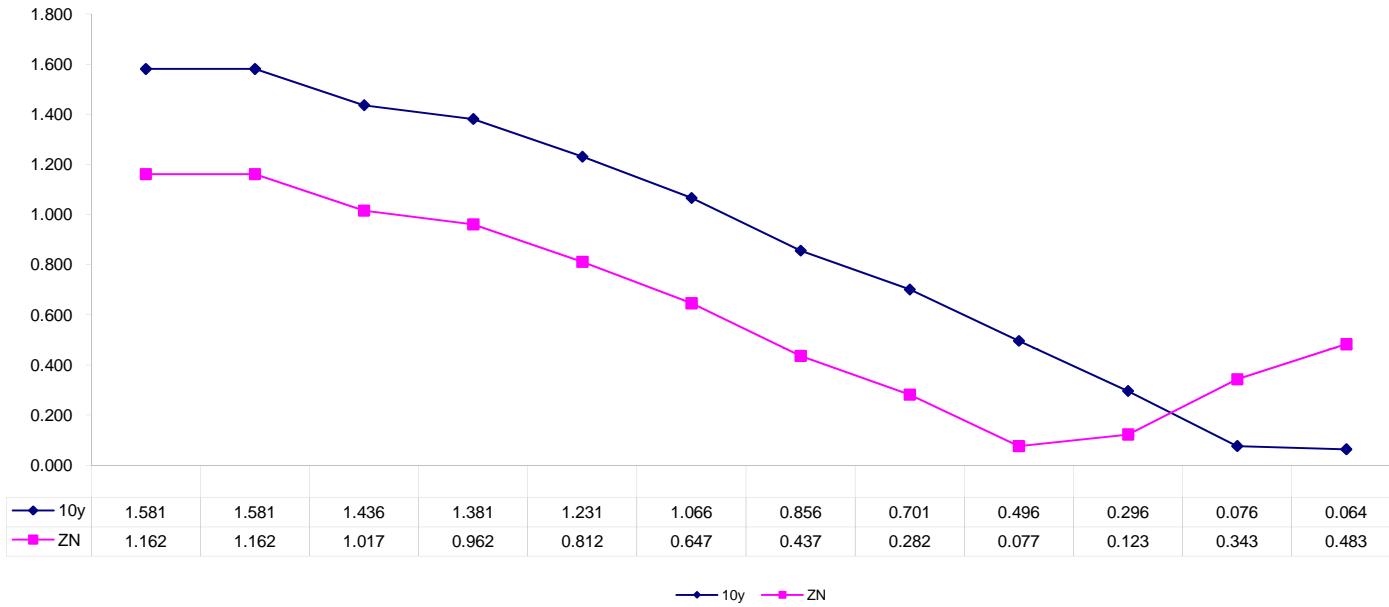
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.211	-0.750	9880.8750
Red Pack	1.754	-1.125	9827.7500
Green Pack	2.535	-3.125	9751.5000
Blue Pack	3.135	-4.875	9693.1250
Gold Pack		-1.875	9661.1250

