

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	108.8031	108.2570	0.837	1.809
ZF	117.1563	117.0500	1.800	4.005
ZN	121.1719	121.0550	2.590	5.857
2y	99.9375	99.3000	0.903	1.943
5y	99.2188	99.0700	2.040	4.712
10y	99.4531	99.1450	3.187	8.398

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	99.1900	0.810	34	0.0925	JUN	
EDAU09	99.1450	0.855	125	0.3418	SEP	White Pack
EDAZ09	98.9350	1.065	216	0.5911	DEC	
EDAH10	98.8000	1.200	307	0.8404	MAR	
EDAM10	98.5550	1.445	398	1.0898	JUN	
EDAU10	98.2950	1.705	489	1.3391	SEP	Red Pack
EDAZ10	97.9850	2.015	580	1.5884	DEC	
EDAH11	97.7250	2.275	671	1.8377	MAR	
EDAM11	97.4400	2.560	762	2.0870	JUN	
EDAU11	97.1850	2.815	860	2.3555	SEP	Green Pack
EDAZ11	96.9350	3.065	951	2.6048	DEC	
EDAH12	96.7800	3.220	1,042	2.8541	MAR	
EDAM12	96.6150	3.385	1,133	3.1035	JUN	
EDAU12	96.4750	3.525	1,224	3.3528	SEP	Blue Pack
EDAZ12	96.3500	3.650	1,315	3.6021	DEC	
EDAH13	96.2800	3.720	1,406	3.8514	MAR	
EDAM13	96.1900	3.810	1,497	4.1007	JUN	
EDAU13	96.1250	3.875	1,588	4.3500	SEP	Gold Pack
EDAZ13	96.0200	3.980	1,679	4.5993	DEC	
EDAH14	95.9700	4.030	1,770	4.8487	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	0.999	-0.250	9901.75	
Red Pack	1.895	-0.750	9814.00	Pack Prices
Green Pack	2.977	-1.125	9708.50	
Blue Pack	3.652	-2.125	9643.00	
Gold Pack		-0.375	9607.25	

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)

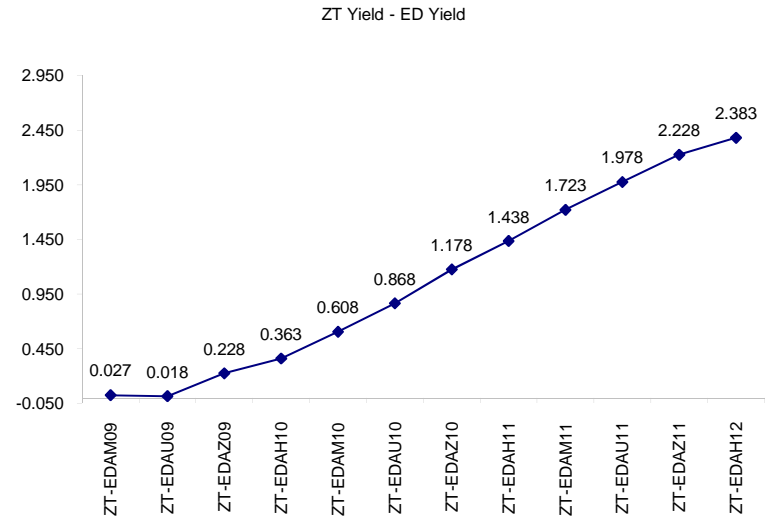
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.61	0.027	ZT-EDAM09	20
EDAU09	9.66	0.018	ZT-EDAU09	17
EDAZ09	9.87	0.228	ZT-EDAZ09	21
EDAH10	10.00	0.363	ZT-EDAH10	31
EDAM10	10.25	0.608	ZT-EDAM10	43
EDAU10	10.51	0.868	ZT-EDAU10	55
EDAZ10	10.82	1.178	ZT-EDAZ10	65
EDAH11	11.08	1.438	ZT-EDAH11	75
EDAM11	11.36	1.723	ZT-EDAM11	79
EDAU11	11.62	1.978	ZT-EDAU11	79
EDAZ11	11.87	2.228	ZT-EDAZ11	76
EDAH12	12.02	2.383	ZT-EDAH12	72

Price = Outright Decimal Price - Euro Contract Price

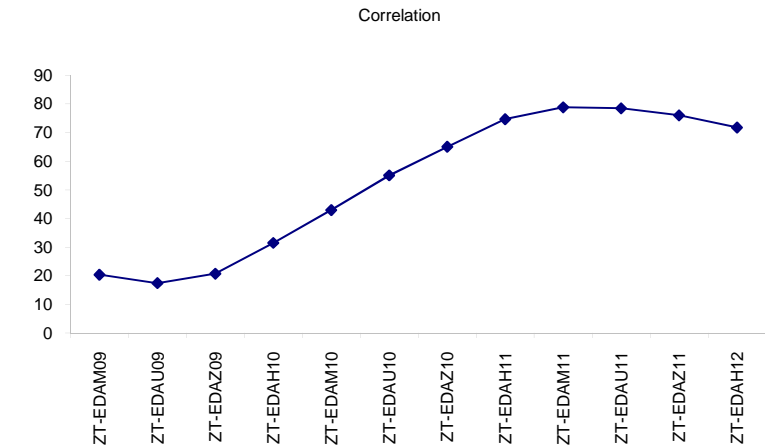
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZT Duration	Spread Duration	
EDAM09	0.0925	1.8093	1.7168	ZT-EDAM09	
EDAU09	0.3418	1.8093	1.4675	ZT-EDAU09	
EDAZ09	0.5911	1.8093	1.2181	ZT-EDAZ09	
EDAH10	0.8404	1.8093	0.9688	ZT-EDAH10	
EDAM10	1.0898	1.8093	0.7195	ZT-EDAM10	
EDAU10	1.3391	1.8093	0.4702	ZT-EDAU10	
EDAZ10	1.5884	1.8093	0.2209	ZT-EDAZ10	
EDAH11	1.8377	1.8093	-0.0284	ZT-EDAH11	
EDAM11	2.0870	1.8093	-0.2778	ZT-EDAM11	
EDAU11	2.3555	1.8093	-0.5462	ZT-EDAU11	
EDAZ11	2.6048	1.8093	-0.7956	ZT-EDAZ11	
EDAH12	2.8541	1.8093	-1.0449	ZT-EDAH12	

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

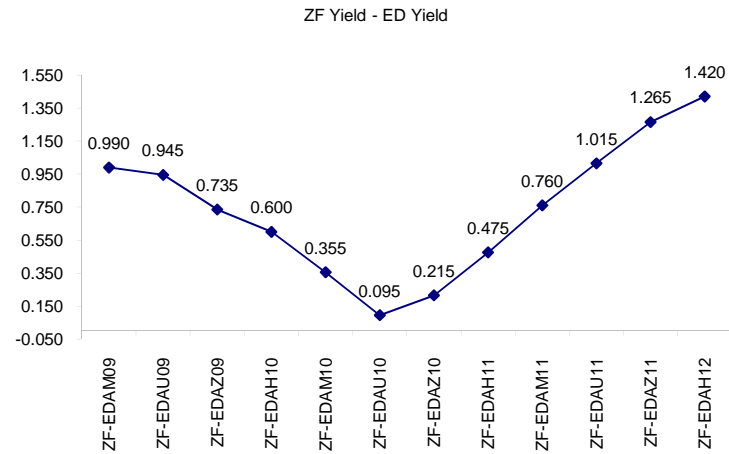


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	17.97	0.990	ZF-EDAM09	-25
EDAU09	18.01	0.945	ZF-EDAU09	-27
EDAZ09	18.22	0.735	ZF-EDAZ09	-22
EDAH10	18.36	0.600	ZF-EDAH10	-11
EDAM10	18.60	0.355	ZF-EDAM10	3
EDAU10	18.86	0.095	ZF-EDAU10	21
EDAZ10	19.17	0.215	ZF-EDAZ10	39
EDAH11	19.43	0.475	ZF-EDAH11	60
EDAM11	19.72	0.760	ZF-EDAM11	75
EDAU11	19.97	1.015	ZF-EDAU11	84
EDAZ11	20.22	1.265	ZF-EDAZ11	90
EDAH12	20.38	1.420	ZF-EDAH12	91

Price = Outright Decimal Price - Euro Contract Price

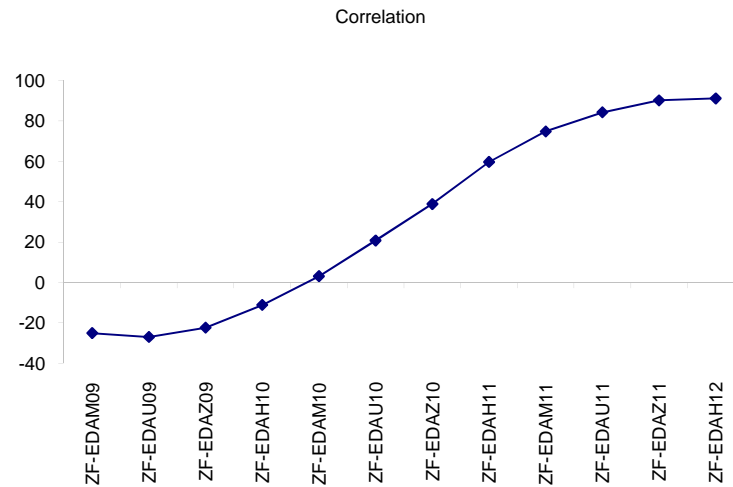
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



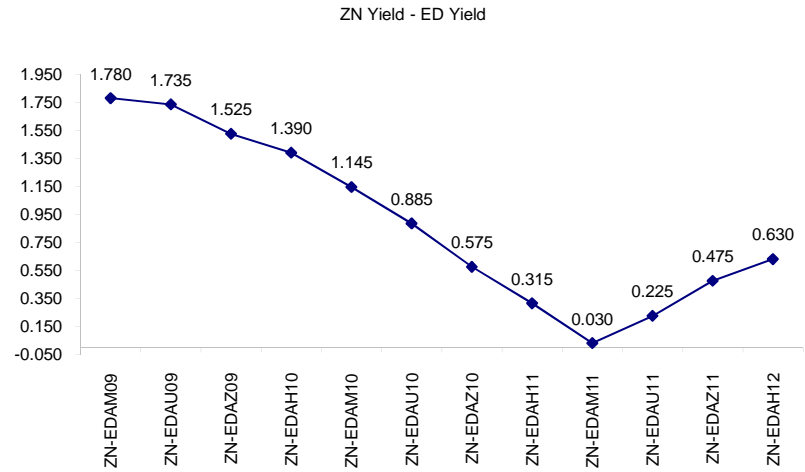
	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM09	0.0925	4.0046	3.9121	ZF-EDAM09	
EDAU09	0.3418	4.0046	3.6628	ZF-EDAU09	
EDAZ09	0.5911	4.0046	3.4135	ZF-EDAZ09	
EDAH10	0.8404	4.0046	3.1641	ZF-EDAH10	
EDAM10	1.0898	4.0046	2.9148	ZF-EDAM10	
EDAU10	1.3391	4.0046	2.6655	ZF-EDAU10	
EDAZ10	1.5884	4.0046	2.4162	ZF-EDAZ10	
EDAH11	1.8377	4.0046	2.1669	ZF-EDAH11	
EDAM11	2.0870	4.0046	1.9176	ZF-EDAM11	
EDAU11	2.3555	4.0046	1.6491	ZF-EDAU11	
EDAZ11	2.6048	4.0046	1.3998	ZF-EDAZ11	
EDAH12	2.8541	4.0046	1.1504	ZF-EDAH12	

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



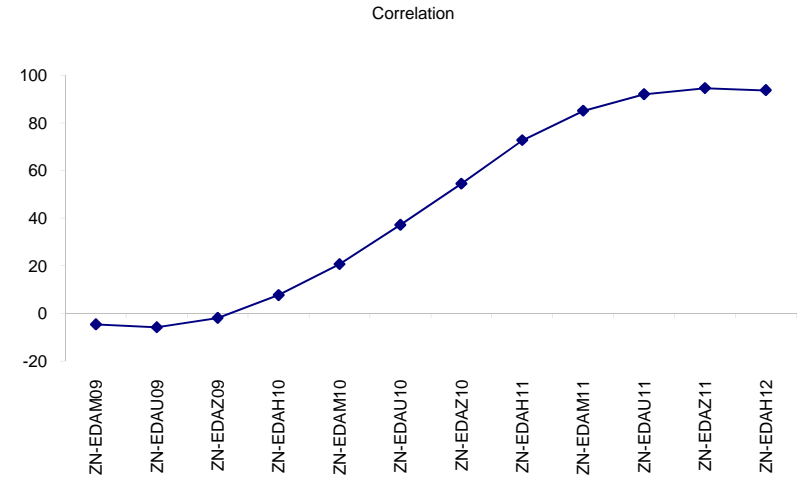
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	21.98	1.780	ZN-EDAM09	-5
EDAU09	22.03	1.735	ZN-EDAU09	-6
EDAZ09	22.24	1.525	ZN-EDAZ09	-2
EDAH10	22.37	1.390	ZN-EDAH10	8
EDAM10	22.62	1.145	ZN-EDAM10	21
EDAU10	22.88	0.885	ZN-EDAU10	37
EDAZ10	23.19	0.575	ZN-EDAZ10	54
EDAH11	23.45	0.315	ZN-EDAH11	73
EDAM11	23.73	0.030	ZN-EDAM11	85
EDAU11	23.99	0.225	ZN-EDAU11	92
EDAZ11	24.24	0.475	ZN-EDAZ11	95
EDAH12	24.39	0.630	ZN-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	ZN Duration	Spread Duration
EDAM09	0.0925	5.8567	5.7642
EDAU09	0.3418	5.8567	5.5149
EDAZ09	0.5911	5.8567	5.2656
EDAH10	0.8404	5.8567	5.0163
EDAM10	1.0898	5.8567	4.7670
EDAU10	1.3391	5.8567	4.5177
EDAZ10	1.5884	5.8567	4.2683
EDAH11	1.8377	5.8567	4.0190
EDAM11	2.0870	5.8567	3.7697
EDAU11	2.3555	5.8567	3.5012
EDAZ11	2.6048	5.8567	3.2519
EDAH12	2.8541	5.8567	3.0026

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



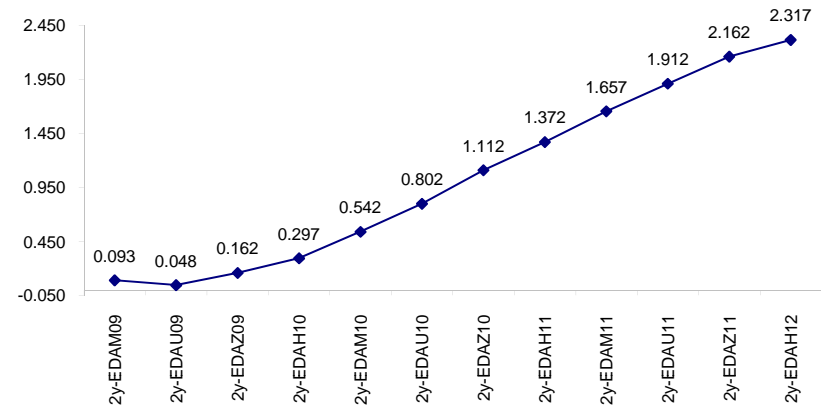
	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.75	0.093	2y-EDAM09	2
EDAU09	0.79	0.048	2y-EDAU09	6
EDAZ09	1.00	0.162	2y-EDAZ09	4
EDAH10	1.14	0.297	2y-EDAH10	-6
EDAM10	1.38	0.542	2y-EDAM10	-17
EDAU10	1.64	0.802	2y-EDAU10	-28
EDAZ10	1.95	1.112	2y-EDAZ10	-37
EDAH11	2.21	1.372	2y-EDAH11	-48
EDAM11	2.50	1.657	2y-EDAM11	-54
EDAU11	2.75	1.912	2y-EDAU11	-57
EDAZ11	3.00	2.162	2y-EDAZ11	-59
EDAH12	3.16	2.317	2y-EDAH12	-57

Price = Outright Decimal Price - Euro Contract Price

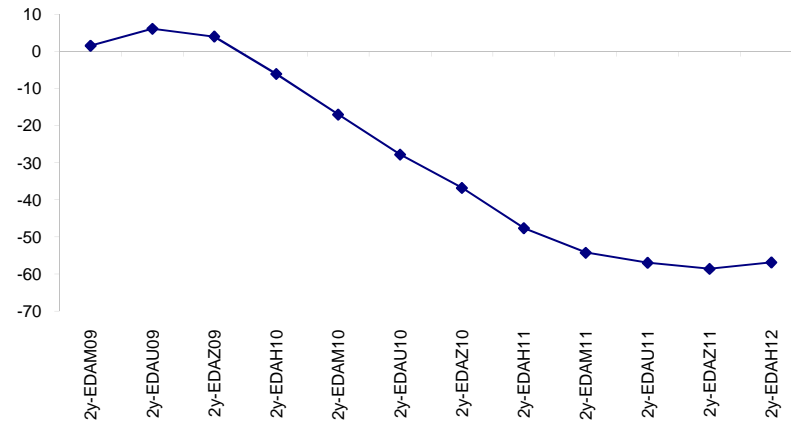
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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

ZT Yield - ED Yield



Correlation



ED Duration as

	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.0925	1.9429	1.8504	2y-EDAM09
EDAU09	0.3418	1.9429	1.6011	2y-EDAU09
EDAZ09	0.5911	1.9429	1.3517	2y-EDAZ09
EDAH10	0.8404	1.9429	1.1024	2y-EDAH10
EDAM10	1.0898	1.9429	0.8531	2y-EDAM10
EDAU10	1.3391	1.9429	0.6038	2y-EDAU10
EDAZ10	1.5884	1.9429	0.3545	2y-EDAZ10
EDAH11	1.8377	1.9429	0.1052	2y-EDAH11
EDAM11	2.0870	1.9429	-0.1442	2y-EDAM11
EDAU11	2.3555	1.9429	-0.4126	2y-EDAU11
EDAZ11	2.6048	1.9429	-0.6620	2y-EDAZ11
EDAH12	2.8541	1.9429	-0.9113	2y-EDAH12

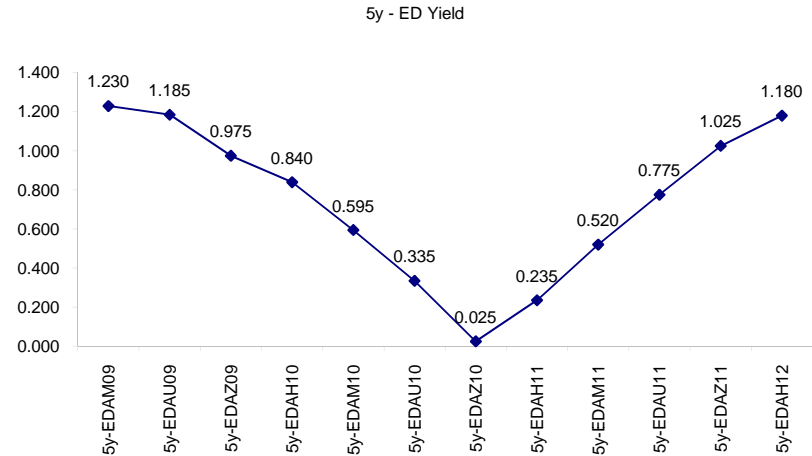
The farther away from 0 the spread duration is the riskier the trade.

	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.03	1.230	5y-EDAM09	42
EDAU09	0.07	1.185	5y-EDAU09	45
EDAZ09	0.28	0.975	5y-EDAZ09	41
EDAH10	0.42	0.840	5y-EDAH10	32
EDAM10	0.66	0.595	5y-EDAM10	19
EDAU10	0.92	0.335	5y-EDAU10	3
EDAZ10	1.23	0.025	5y-EDAZ10	-14
EDAH11	1.49	0.235	5y-EDAH11	-36
EDAM11	1.78	0.520	5y-EDAM11	-52
EDAU11	2.03	0.775	5y-EDAU11	-64
EDAZ11	2.28	1.025	5y-EDAZ11	-74
EDAH12	2.44	1.180	5y-EDAH12	-77

Price = Outright Decimal Price - Euro Contract Price

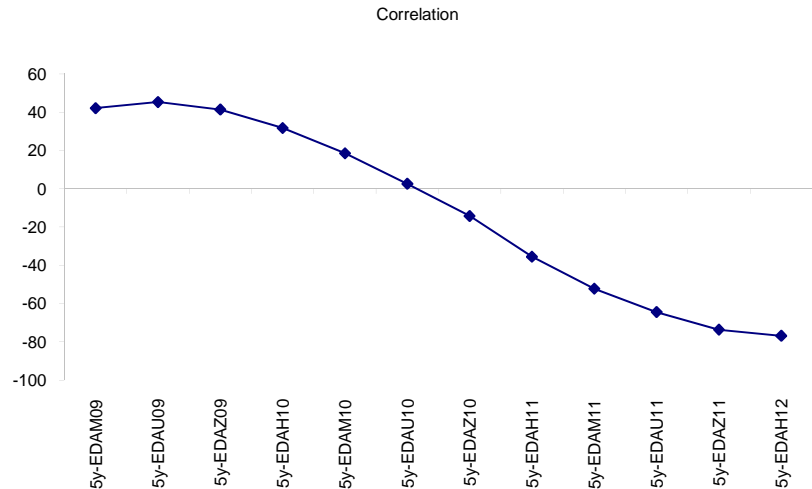
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAM09	0.0925	4.7117	4.6192	5y-EDAM09	
EDAU09	0.3418	4.7117	4.3699	5y-EDAU09	
EDAZ09	0.5911	4.7117	4.1206	5y-EDAZ09	
EDAH10	0.8404	4.7117	3.8713	5y-EDAH10	
EDAM10	1.0898	4.7117	3.6220	5y-EDAM10	
EDAU10	1.3391	4.7117	3.3727	5y-EDAU10	
EDAZ10	1.5884	4.7117	3.1234	5y-EDAZ10	
EDAH11	1.8377	4.7117	2.8740	5y-EDAH11	
EDAM11	2.0870	4.7117	2.6247	5y-EDAM11	
EDAU11	2.3555	4.7117	2.3562	5y-EDAU11	
EDAZ11	2.6048	4.7117	2.1069	5y-EDAZ11	
EDAH12	2.8541	4.7117	1.8576	5y-EDAH12	

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

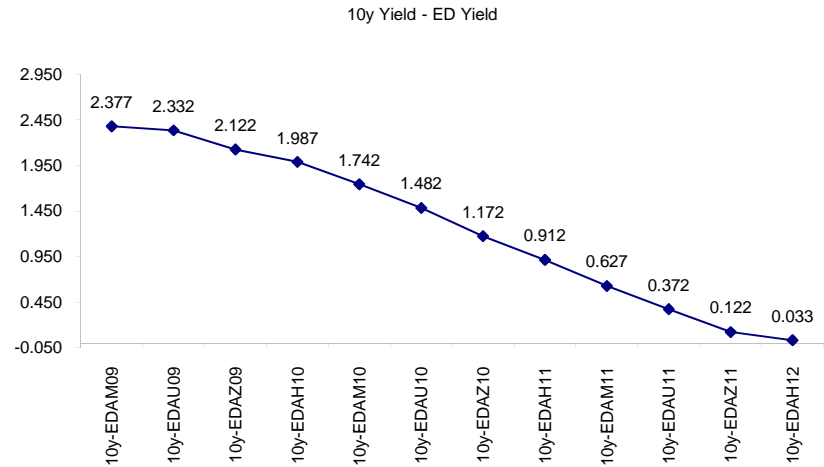


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.03	2.377	10y-EDAM09	56
EDAU09	0.07	2.332	10y-EDAU09	58
EDAZ09	0.28	2.122	10y-EDAZ09	54
EDAH10	0.42	1.987	10y-EDAH10	46
EDAM10	0.66	1.742	10y-EDAM10	33
EDAU10	0.92	1.482	10y-EDAU10	16
EDAZ10	1.23	1.172	10y-EDAZ10	-4
EDAH11	1.49	0.912	10y-EDAH11	-29
EDAM11	1.78	0.627	10y-EDAM11	-49
EDAU11	2.03	0.372	10y-EDAU11	-65
EDAZ11	2.28	0.122	10y-EDAZ11	-77
EDAH12	2.44	0.033	10y-EDAH12	-83

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	0.0925	8.3984	8.3059	10y-EDAM09
EDAU09	0.3418	8.3984	8.0566	10y-EDAU09
EDAZ09	0.5911	8.3984	7.8073	10y-EDAZ09
EDAH10	0.8404	8.3984	7.5579	10y-EDAH10
EDAM10	1.0898	8.3984	7.3086	10y-EDAM10
EDAU10	1.3391	8.3984	7.0593	10y-EDAU10
EDAZ10	1.5884	8.3984	6.8100	10y-EDAZ10
EDAH11	1.8377	8.3984	6.5607	10y-EDAH11
EDAM11	2.0870	8.3984	6.3114	10y-EDAM11
EDAU11	2.3555	8.3984	6.0429	10y-EDAU11
EDAZ11	2.6048	8.3984	5.7936	10y-EDAZ11
EDAH12	2.8541	8.3984	5.5442	10y-EDAH12

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

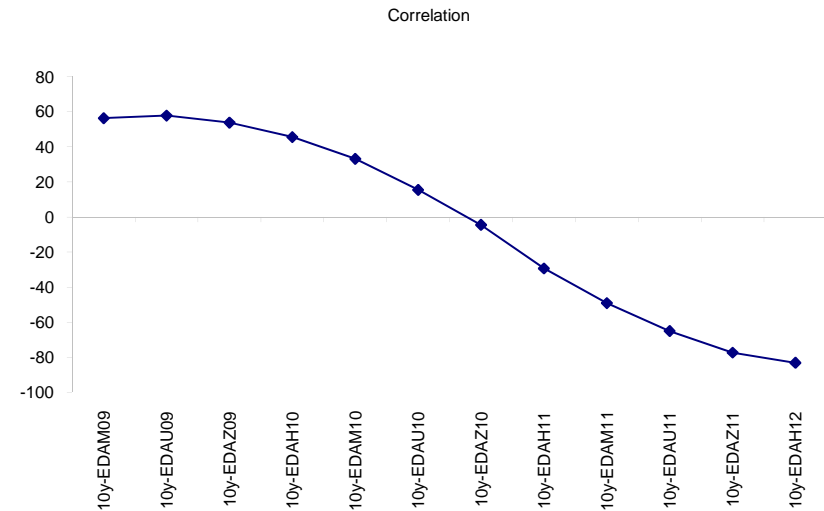


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

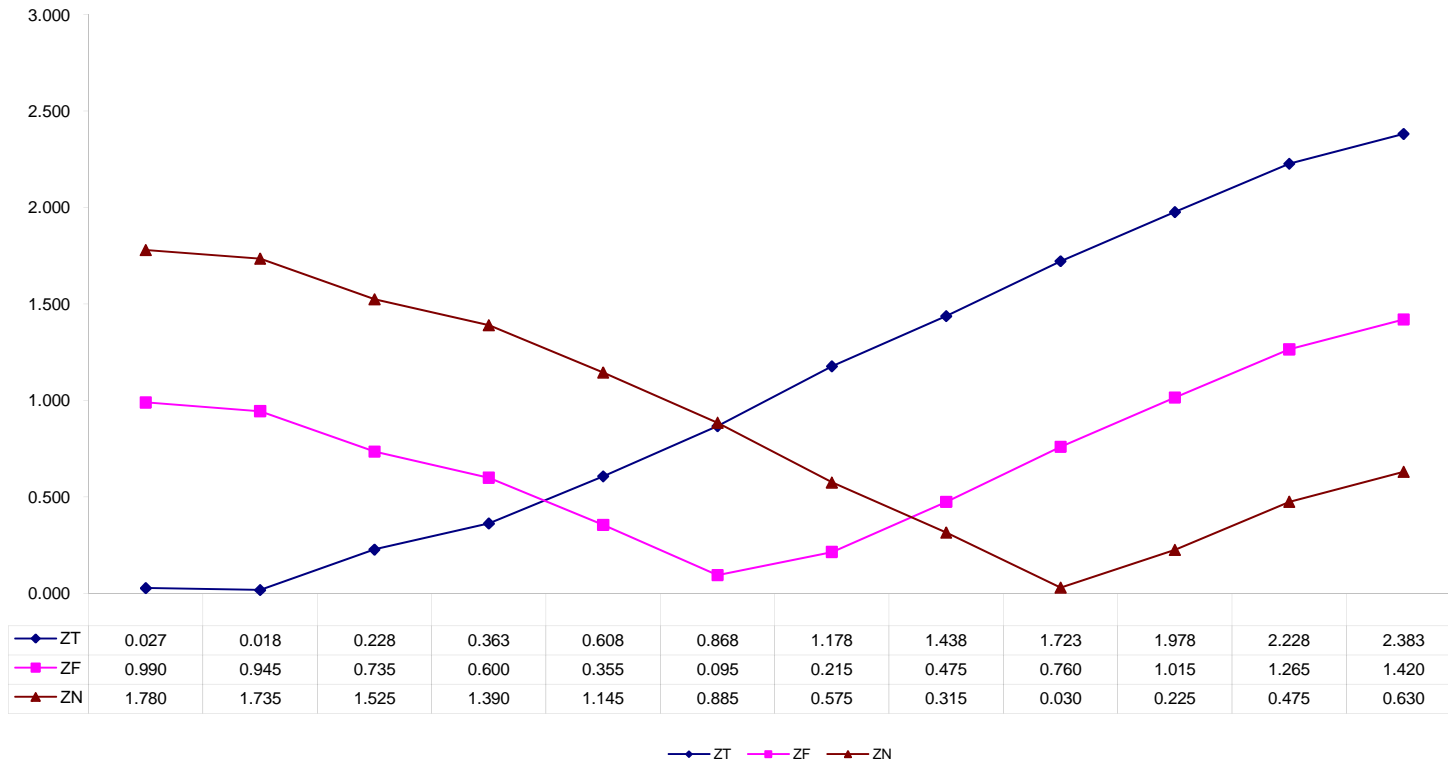
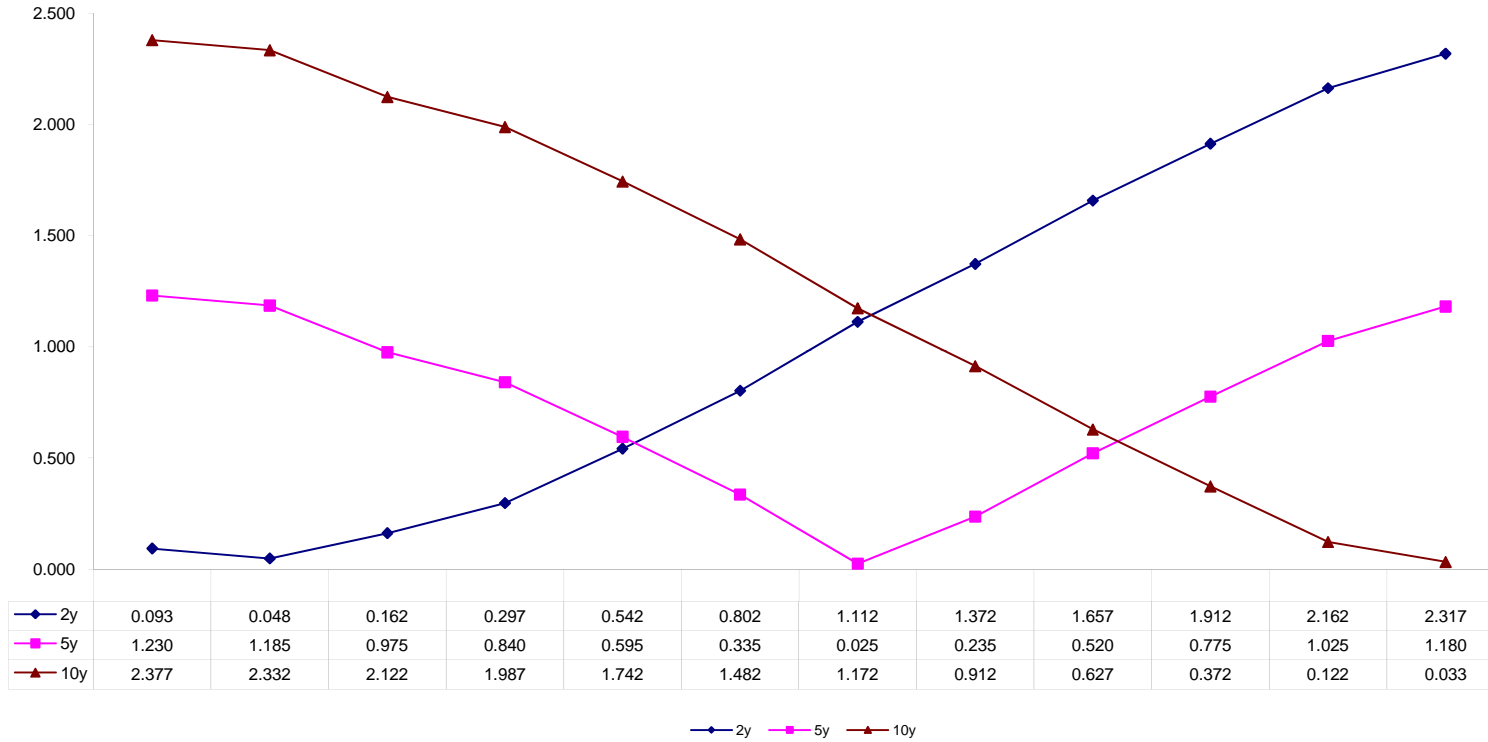
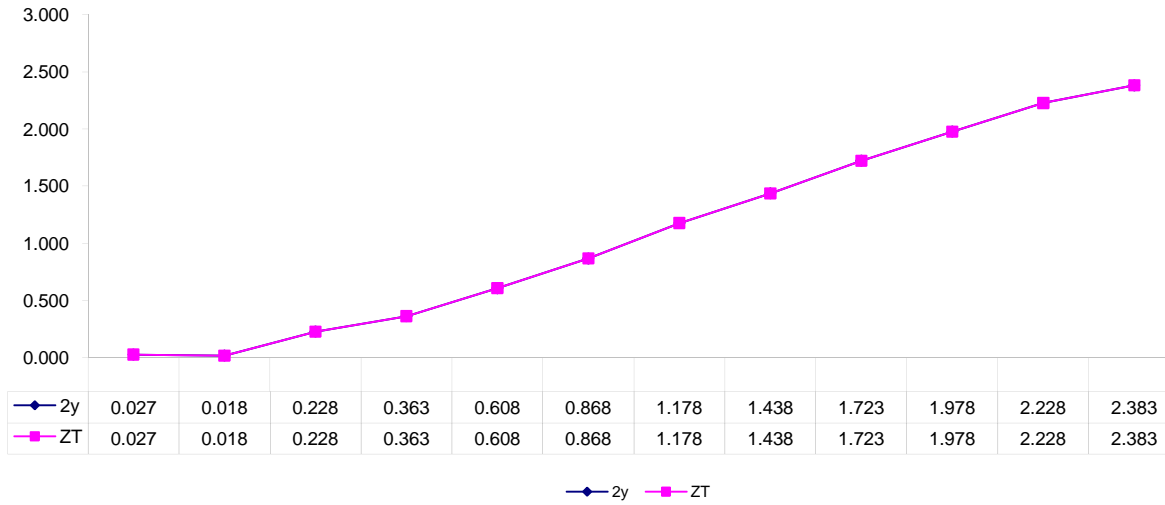
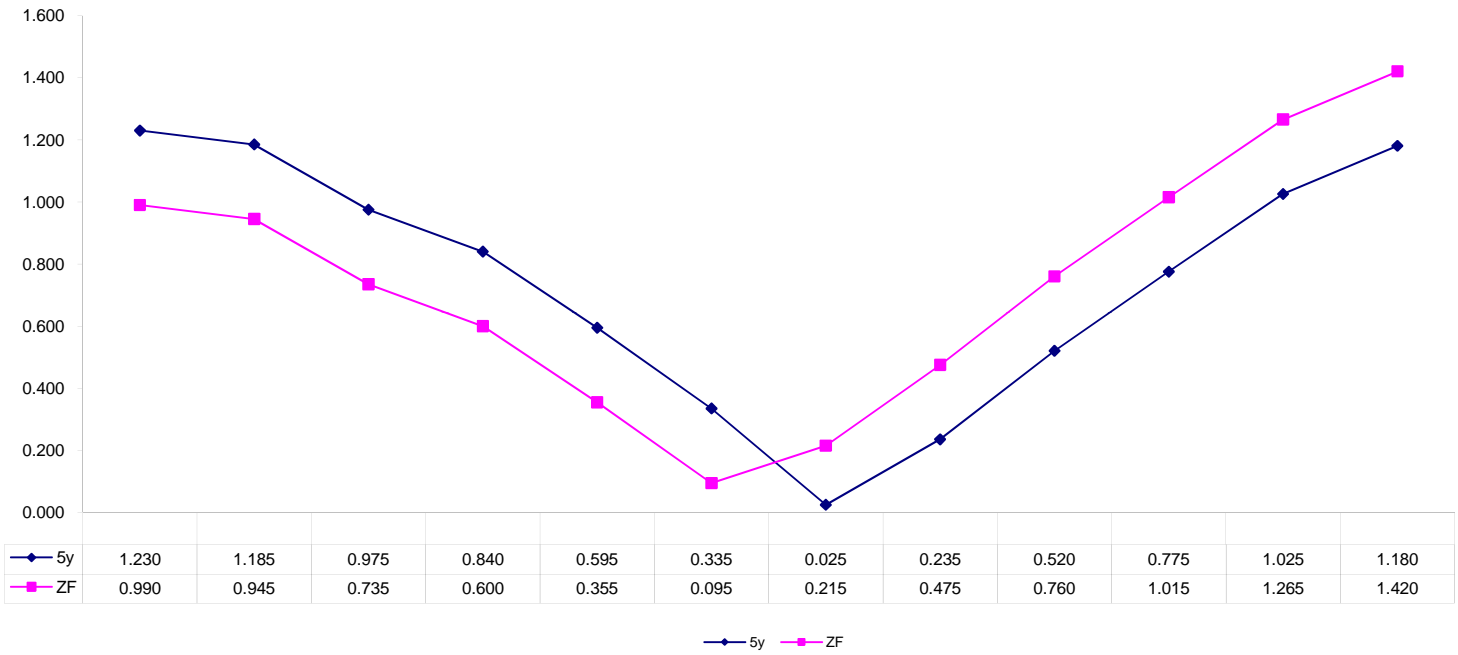


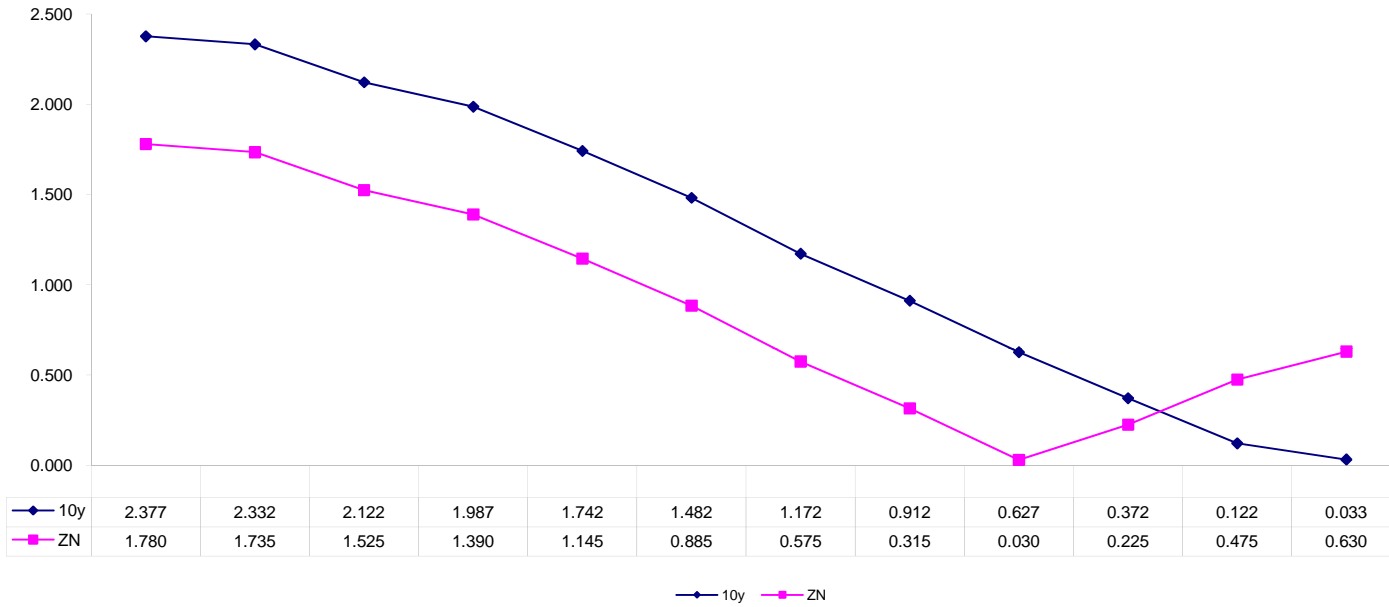
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	0.999	-0.250	9901.7500
Red Pack	1.895	-0.750	9814.0000
Green Pack	2.977	-1.125	9708.5000
Blue Pack	3.652	-2.125	9643.0000
Gold Pack		-0.375	9607.2500

