

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 Feb-00	Last Yield*	MDuration
ZT	108.1719	108.0550	1.117	1.821
ZF	114.8438	114.2700	2.377	4.095
ZN	116.3281	116.1050	3.177	5.724
2y	99.6625	99.2120	1.168	1.960
5y	99.9125	99.2920	2.643	4.643
10y	95.9688	95.3100	3.616	8.258

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU09	99.5150	0.485	41	0.1117	SEP	
EDAZ09	99.2750	0.725	132	0.3610	DEC	White Pack
EDAH10	98.9550	1.045	223	0.6103	MAR	
EDAM10	98.5300	1.470	314	0.8596	JUN	
EDAU10	98.0950	1.905	405	1.1089	SEP	
EDAZ10	97.6700	2.330	496	1.3582	DEC	Red Pack
EDAH11	97.3200	2.680	587	1.6076	MAR	
EDAM11	96.9900	3.010	678	1.8569	JUN	
EDAU11	96.7100	3.290	776	2.1254	SEP	
EDAZ11	96.4300	3.570	867	2.3747	DEC	Green Pack
EDAH12	96.2250	3.775	958	2.6240	MAR	
EDAM12	96.0450	3.955	1,049	2.8733	JUN	
EDAU12	95.8800	4.120	1,140	3.1226	SEP	
EDAZ12	95.7200	4.280	1,231	3.3719	DEC	Blue Pack
EDAH13	95.6250	4.375	1,322	3.6213	MAR	
EDAM13	95.5050	4.495	1,413	3.8706	JUN	
EDAU13	95.3850	4.615	1,504	4.1199	SEP	
EDAZ13	95.2600	4.740	1,595	4.3692	DEC	Gold Pack
EDAH14	95.2200	4.780	1,686	4.6185	MAR	
EDAM14	95.1000	4.900	1,777	4.8678	JUN	

	Last Yield	Last Price	
White Pack	0.931	9906.88	
Red Pack	2.481	9751.88	Pack Prices
Green Pack	3.732	9635.25	
Blue Pack	4.318	9568.25	
Gold Pack	4.763	9523.75	

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.

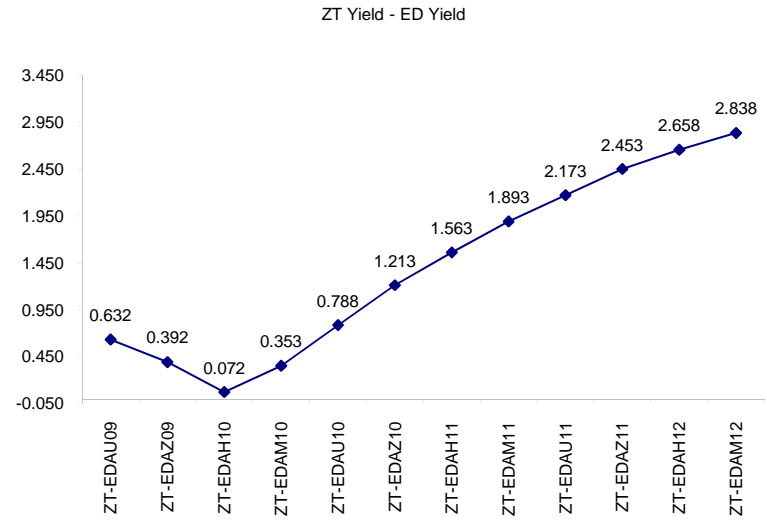
jgoulding@ghco.com

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.

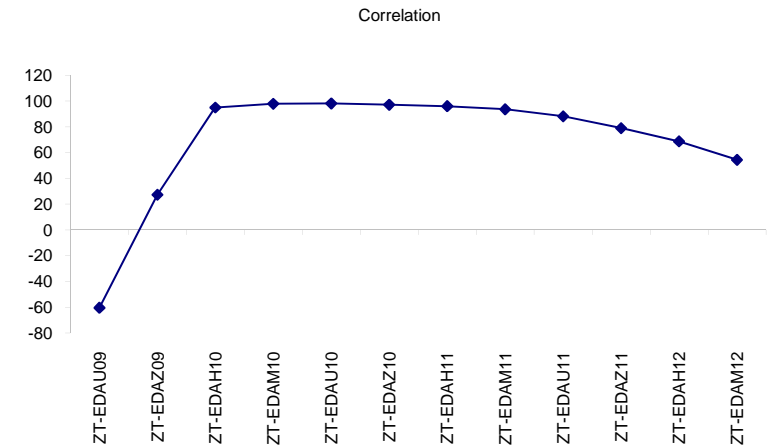
	ZT			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAU09	8.66	0.632	ZT-EDAU09	-60
EDAZ09	8.90	0.392	ZT-EDAZ09	27
EDAH10	9.22	0.072	ZT-EDAH10	95
EDAM10	9.64	0.353	ZT-EDAM10	98
EDAU10	10.08	0.788	ZT-EDAU10	98
EDAZ10	10.50	1.213	ZT-EDAZ10	97
EDAH11	10.85	1.563	ZT-EDAH11	96
EDAM11	11.18	1.893	ZT-EDAM11	94
EDAU11	11.46	2.173	ZT-EDAU11	88
EDAZ11	11.74	2.453	ZT-EDAZ11	79
EDAH12	11.95	2.658	ZT-EDAH12	69
EDAM12	12.13	2.838	ZT-EDAM12	54

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
EDAU09	0.1117	1.8214	1.7097	ZT-EDAU09	
EDAZ09	0.3610	1.8214	1.4604	ZT-EDAZ09	
EDAH10	0.6103	1.8214	1.2111	ZT-EDAH10	
EDAM10	0.8596	1.8214	0.9618	ZT-EDAM10	
EDAU10	1.1089	1.8214	0.7125	ZT-EDAU10	
EDAZ10	1.3582	1.8214	0.4632	ZT-EDAZ10	
EDAH11	1.6076	1.8214	0.2139	ZT-EDAH11	
EDAM11	1.8569	1.8214	-0.0355	ZT-EDAM11	
EDAU11	2.1254	1.8214	-0.3040	ZT-EDAU11	
EDAZ11	2.3747	1.8214	-0.5533	ZT-EDAZ11	
EDAH12	2.6240	1.8214	-0.8026	ZT-EDAH12	
EDAM12	2.8733	1.8214	-1.0519	ZT-EDAM12	

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

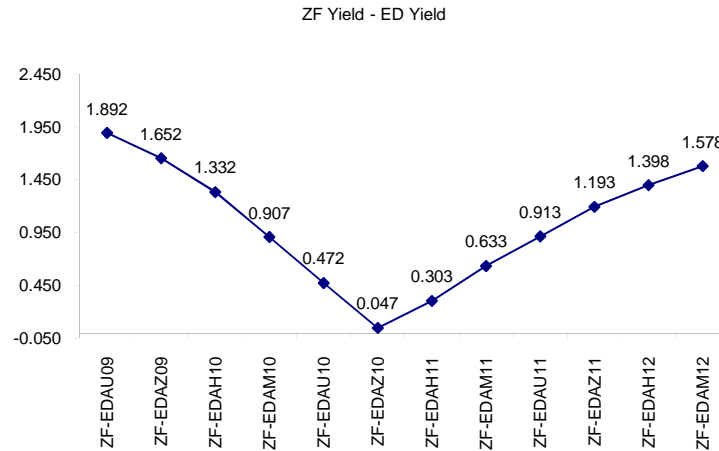


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	15.33	1.892	ZF-EDAU09	-33
EDAZ09	15.57	1.652	ZF-EDAZ09	51
EDAH10	15.89	1.332	ZF-EDAH10	91
EDAM10	16.31	0.907	ZF-EDAM10	89
EDAU10	16.75	0.472	ZF-EDAU10	88
EDAZ10	17.17	0.047	ZF-EDAZ10	84
EDAH11	17.52	0.303	ZF-EDAH11	85
EDAM11	17.85	0.633	ZF-EDAM11	89
EDAU11	18.13	0.913	ZF-EDAU11	93
EDAZ11	18.41	1.193	ZF-EDAZ11	95
EDAH12	18.62	1.398	ZF-EDAH12	93
EDAM12	18.80	1.578	ZF-EDAM12	87

Price = Outright Decimal Price - Euro Contract Price

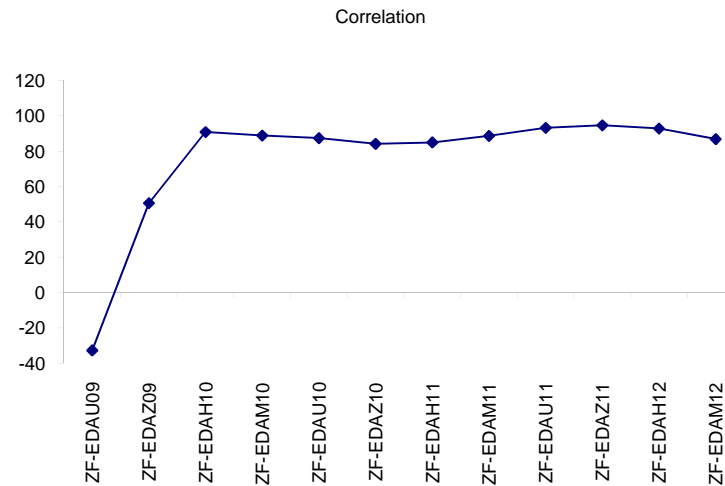
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAU09	0.1117	4.0951	3.9834	ZF-EDAU09	
EDAZ09	0.3610	4.0951	3.7341	ZF-EDAZ09	
EDAH10	0.6103	4.0951	3.4848	ZF-EDAH10	
EDAM10	0.8596	4.0951	3.2355	ZF-EDAM10	
EDAU10	1.1089	4.0951	2.9862	ZF-EDAU10	
EDAZ10	1.3582	4.0951	2.7368	ZF-EDAZ10	
EDAH11	1.6076	4.0951	2.4875	ZF-EDAH11	
EDAM11	1.8569	4.0951	2.2382	ZF-EDAM11	
EDAU11	2.1254	4.0951	1.9697	ZF-EDAU11	
EDAZ11	2.3747	4.0951	1.7204	ZF-EDAZ11	
EDAH12	2.6240	4.0951	1.4711	ZF-EDAH12	
EDAM12	2.8733	4.0951	1.2218	ZF-EDAM12	

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

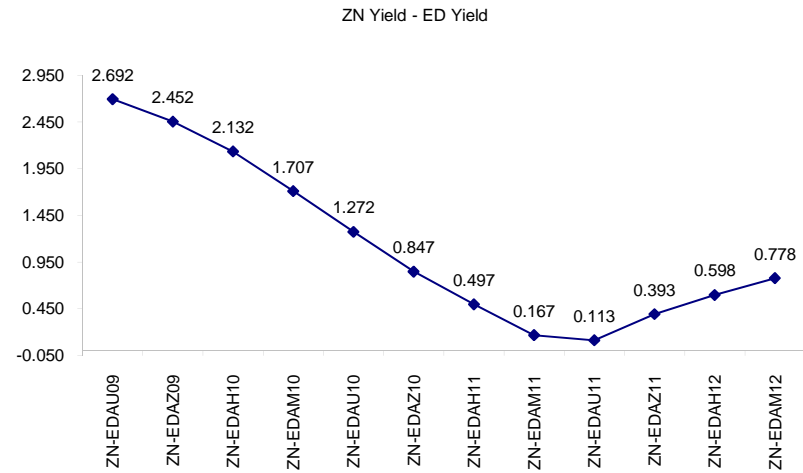


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	16.81	2.692	ZN-EDAU09	5
EDAZ09	17.05	2.452	ZN-EDAZ09	66
EDAH10	17.37	2.132	ZN-EDAH10	67
EDAM10	17.80	1.707	ZN-EDAM10	60
EDAU10	18.23	1.272	ZN-EDAU10	57
EDAZ10	18.66	0.847	ZN-EDAZ10	52
EDAH11	19.01	0.497	ZN-EDAH11	55
EDAM11	19.34	0.167	ZN-EDAM11	64
EDAU11	19.62	0.113	ZN-EDAU11	77
EDAZ11	19.90	0.393	ZN-EDAZ11	88
EDAH12	20.10	0.598	ZN-EDAH12	95
EDAM12	20.28	0.778	ZN-EDAM12	98

Price = Outright Decimal Price - Euro Contract Price

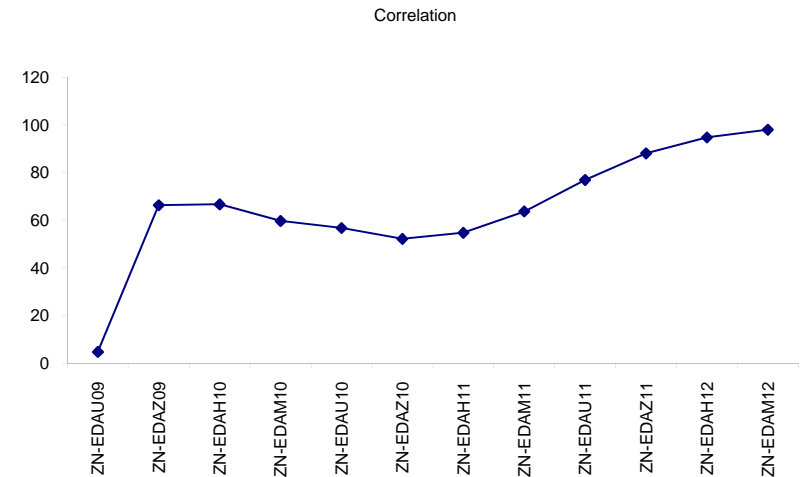
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as			
	Fraction of year	ZN Duration	Spread Duration
EDAU09	0.1117	5.7241	5.6124
EDAZ09	0.3610	5.7241	5.3631
EDAH10	0.6103	5.7241	5.1138
EDAM10	0.8596	5.7241	4.8645
EDAU10	1.1089	5.7241	4.6152
EDAZ10	1.3582	5.7241	4.3659
EDAH11	1.6076	5.7241	4.1165
EDAM11	1.8569	5.7241	3.8672
EDAU11	2.1254	5.7241	3.5987
EDAZ11	2.3747	5.7241	3.3494
EDAH12	2.6240	5.7241	3.1001
EDAM12	2.8733	5.7241	2.8508

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



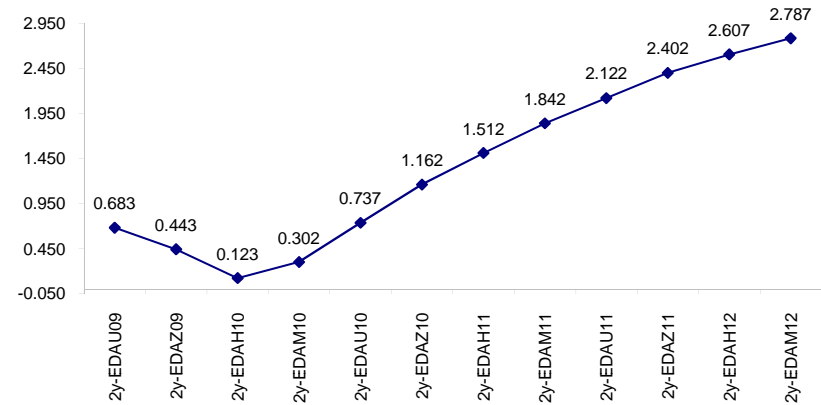
	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.15	0.683	2y-EDAU09	79
EDAZ09	0.39	0.443	2y-EDAZ09	-1
EDAH10	0.71	0.123	2y-EDAH10	-86
EDAM10	1.13	0.302	2y-EDAM10	-93
EDAU10	1.57	0.737	2y-EDAU10	-94
EDAZ10	1.99	1.162	2y-EDAZ10	-95
EDAH11	2.34	1.512	2y-EDAH11	-92
EDAM11	2.67	1.842	2y-EDAM11	-87
EDAU11	2.95	2.122	2y-EDAU11	-78
EDAZ11	3.23	2.402	2y-EDAZ11	-65
EDAH12	3.44	2.607	2y-EDAH12	-52
EDAM12	3.62	2.787	2y-EDAM12	-36

Price = Outright Decimal Price - Euro Contract Price

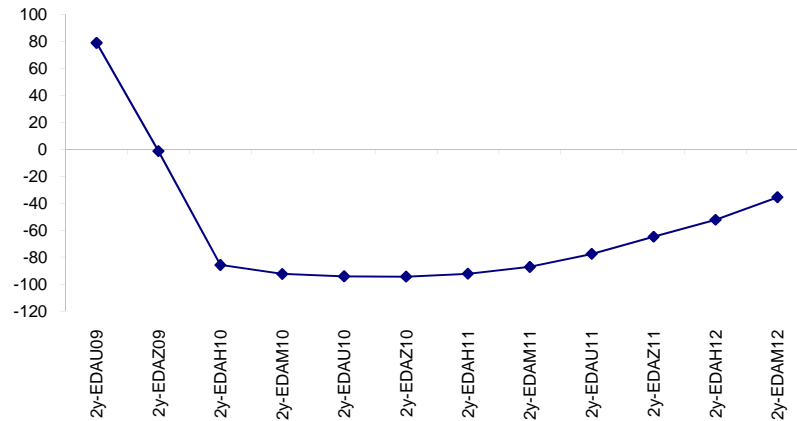
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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

ZT Yield - ED Yield



Correlation



ED Duration as

	Fraction of year	2Y Duration	Spread Duration	
EDAU09	0.1117	1.9601	1.8484	2y-EDAU09
EDAZ09	0.3610	1.9601	1.5991	2y-EDAZ09
EDAH10	0.6103	1.9601	1.3498	2y-EDAH10
EDAM10	0.8596	1.9601	1.1005	2y-EDAM10
EDAU10	1.1089	1.9601	0.8511	2y-EDAU10
EDAZ10	1.3582	1.9601	0.6018	2y-EDAZ10
EDAH11	1.6076	1.9601	0.3525	2y-EDAH11
EDAM11	1.8569	1.9601	0.1032	2y-EDAM11
EDAU11	2.1254	1.9601	-0.1653	2y-EDAU11
EDAZ11	2.3747	1.9601	-0.4146	2y-EDAZ11
EDAH12	2.6240	1.9601	-0.6639	2y-EDAH12
EDAM12	2.8733	1.9601	-0.9132	2y-EDAM12

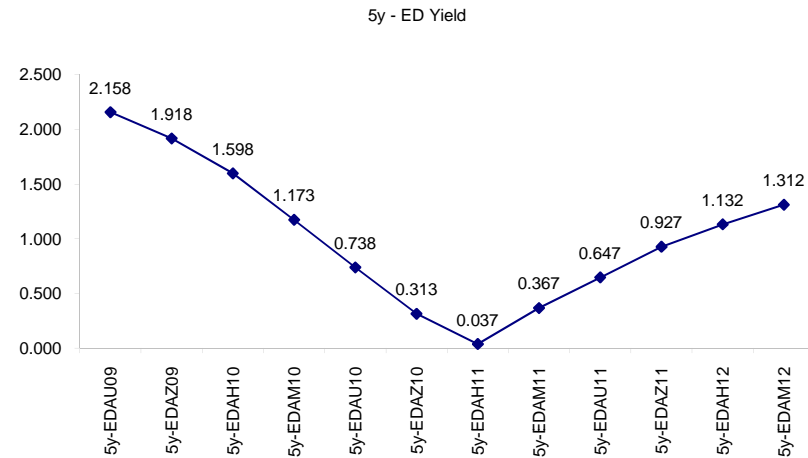
The farther away from 0 the spread duration is the riskier the trade.

5y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.40	2.158	5y-EDAU09	60
EDAZ09	0.64	1.918	5y-EDAZ09	-21
EDAH10	0.96	1.598	5y-EDAH10	-88
EDAM10	1.38	1.173	5y-EDAM10	-91
EDAU10	1.82	0.738	5y-EDAU10	-92
EDAZ10	2.24	0.313	5y-EDAZ10	-90
EDAH11	2.59	0.037	5y-EDAH11	-89
EDAM11	2.92	0.367	5y-EDAM11	-90
EDAU11	3.20	0.647	5y-EDAU11	-89
EDAZ11	3.48	0.927	5y-EDAZ11	-86
EDAH12	3.69	1.132	5y-EDAH12	-81
EDAM12	3.87	1.312	5y-EDAM12	-71

Price = Outright Decimal Price - Euro Contract Price

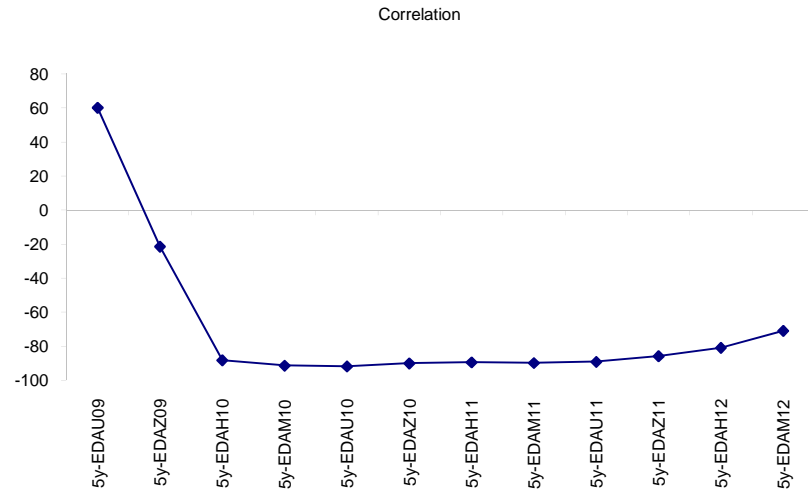
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



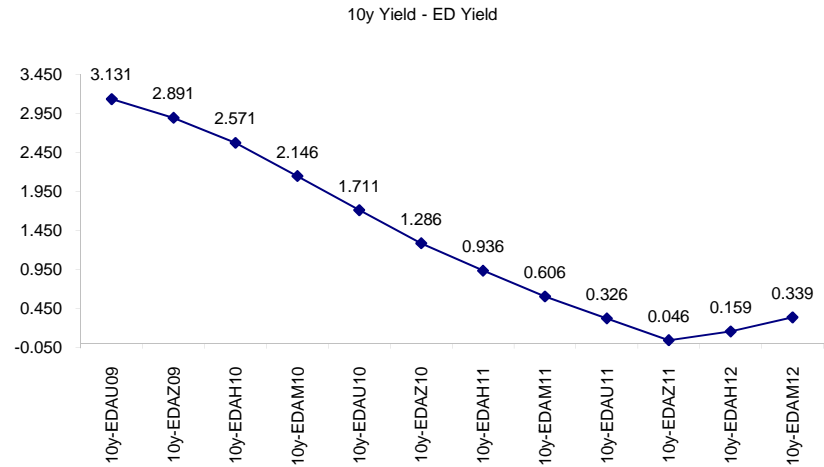
ED Duration as Fraction of year				5Y Duration	Spread Duration	
EDAU09	0.1117	4.6433	4.5316	5y-EDAU09		
EDAZ09	0.3610	4.6433	4.2823	5y-EDAZ09		
EDAH10	0.6103	4.6433	4.0330	5y-EDAH10		
EDAM10	0.8596	4.6433	3.7836	5y-EDAM10		
EDAU10	1.1089	4.6433	3.5343	5y-EDAU10		
EDAZ10	1.3582	4.6433	3.2850	5y-EDAZ10		
EDAH11	1.6076	4.6433	3.0357	5y-EDAH11		
EDAM11	1.8569	4.6433	2.7864	5y-EDAM11		
EDAU11	2.1254	4.6433	2.5179	5y-EDAU11		
EDAZ11	2.3747	4.6433	2.2686	5y-EDAZ11		
EDAH12	2.6240	4.6433	2.0193	5y-EDAH12		
EDAM12	2.8733	4.6433	1.7699	5y-EDAM12		

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



	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.40	3.131	10y-EDAU09	-25
EDAZ09	0.64	2.891	10y-EDAZ09	-53
EDAH10	0.96	2.571	10y-EDAH10	-30
EDAM10	1.38	2.146	10y-EDAM10	-22
EDAU10	1.82	1.711	10y-EDAU10	-19
EDAZ10	2.24	1.286	10y-EDAZ10	-14
EDAH11	2.59	0.936	10y-EDAH11	-17
EDAM11	2.92	0.606	10y-EDAM11	-28
EDAU11	3.20	0.326	10y-EDAU11	-46
EDAZ11	3.48	0.046	10y-EDAZ11	-63
EDAH12	3.69	0.159	10y-EDAH12	-76
EDAM12	3.87	0.339	10y-EDAM12	-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			
	10Y Duration	Spread Duration		
EDAU09	0.1117	8.2581	8.1464	10y-EDAU09
EDAZ09	0.3610	8.2581	7.8971	10y-EDAZ09
EDAH10	0.6103	8.2581	7.6478	10y-EDAH10
EDAM10	0.8596	8.2581	7.3985	10y-EDAM10
EDAU10	1.1089	8.2581	7.1492	10y-EDAU10
EDAZ10	1.3582	8.2581	6.8999	10y-EDAZ10
EDAH11	1.6076	8.2581	6.6505	10y-EDAH11
EDAM11	1.8569	8.2581	6.4012	10y-EDAM11
EDAU11	2.1254	8.2581	6.1327	10y-EDAU11
EDAZ11	2.3747	8.2581	5.8834	10y-EDAZ11
EDAH12	2.6240	8.2581	5.6341	10y-EDAH12
EDAM12	2.8733	8.2581	5.3848	10y-EDAM12

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

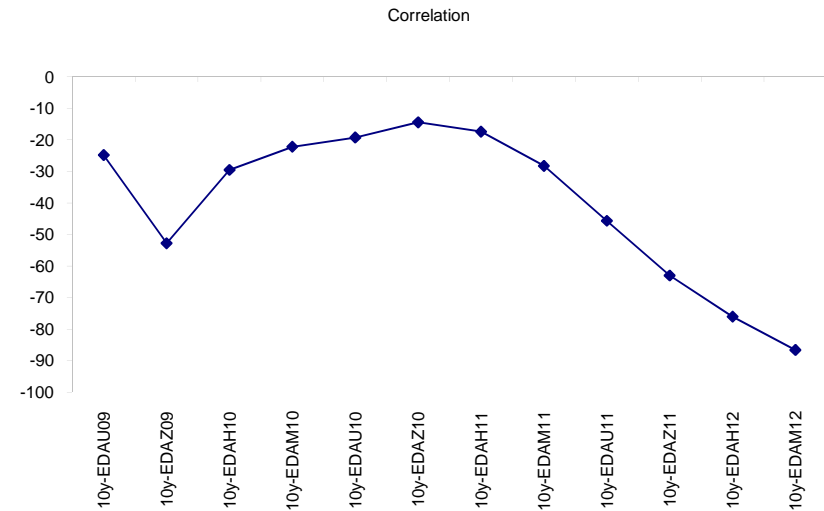


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

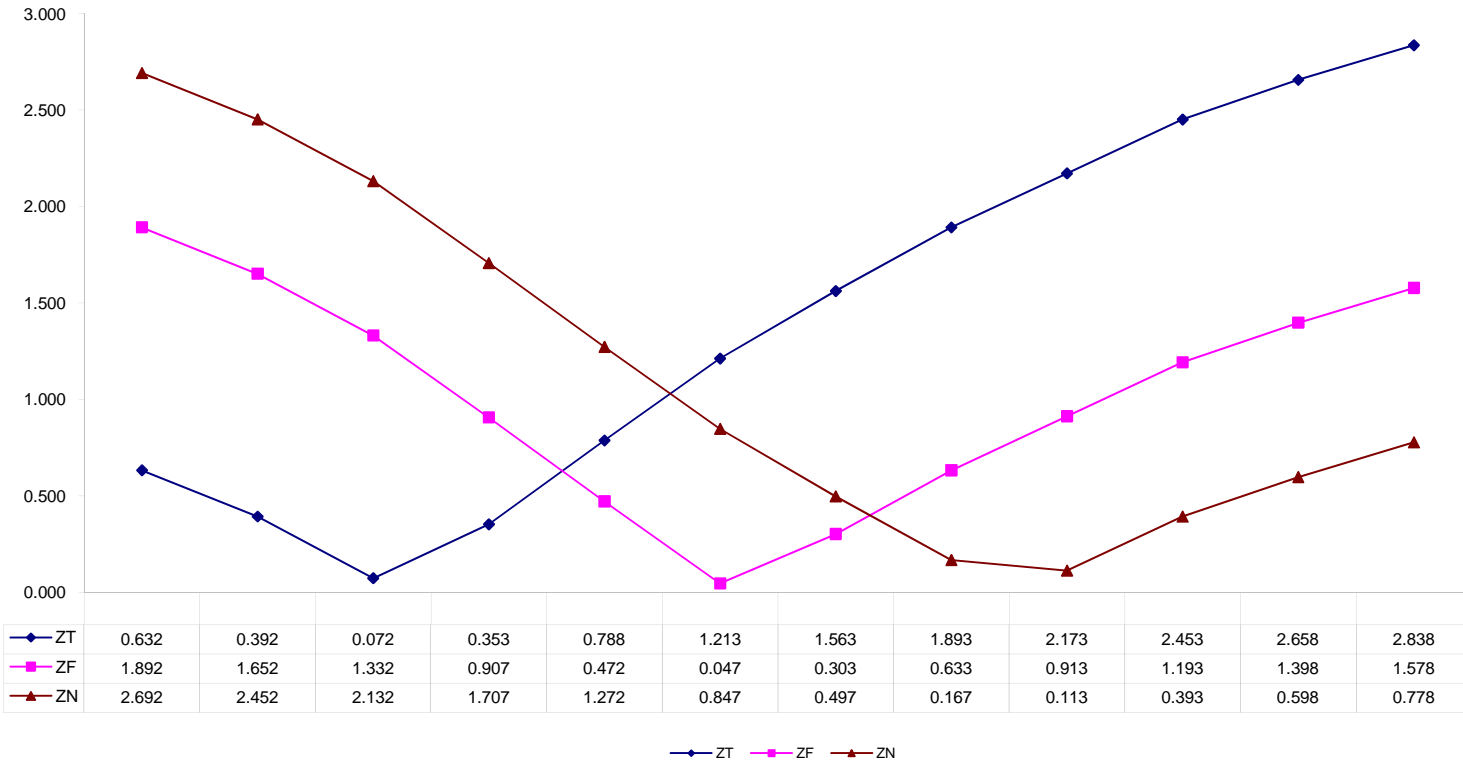
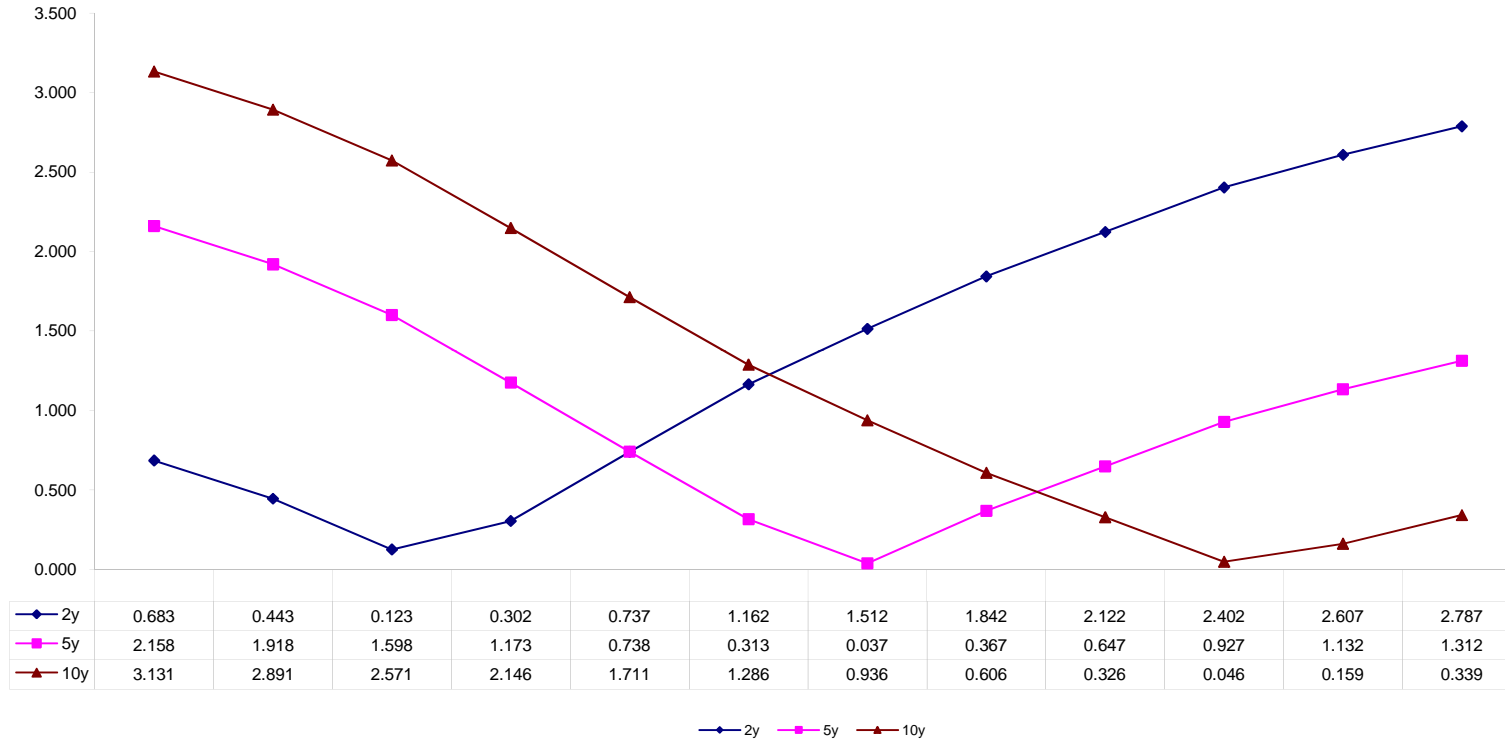
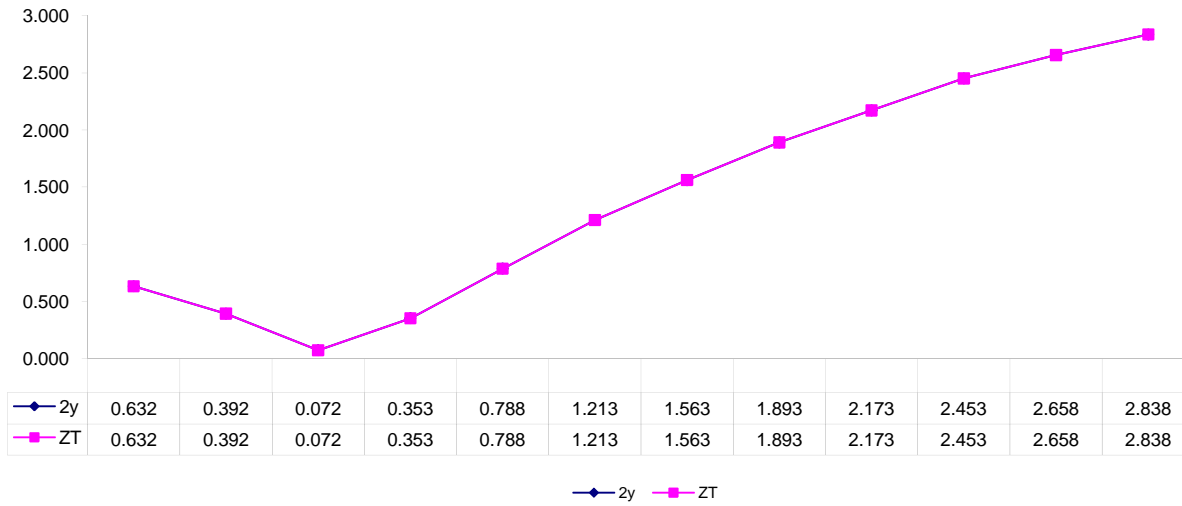
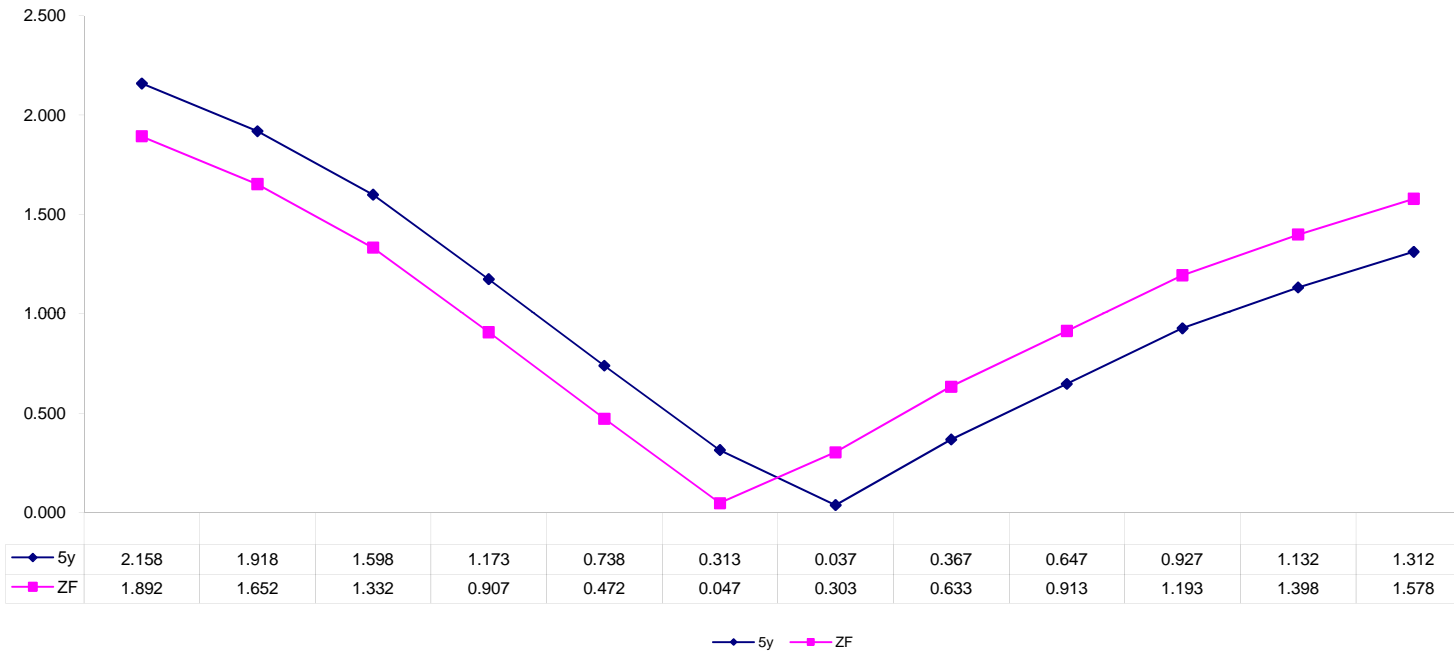


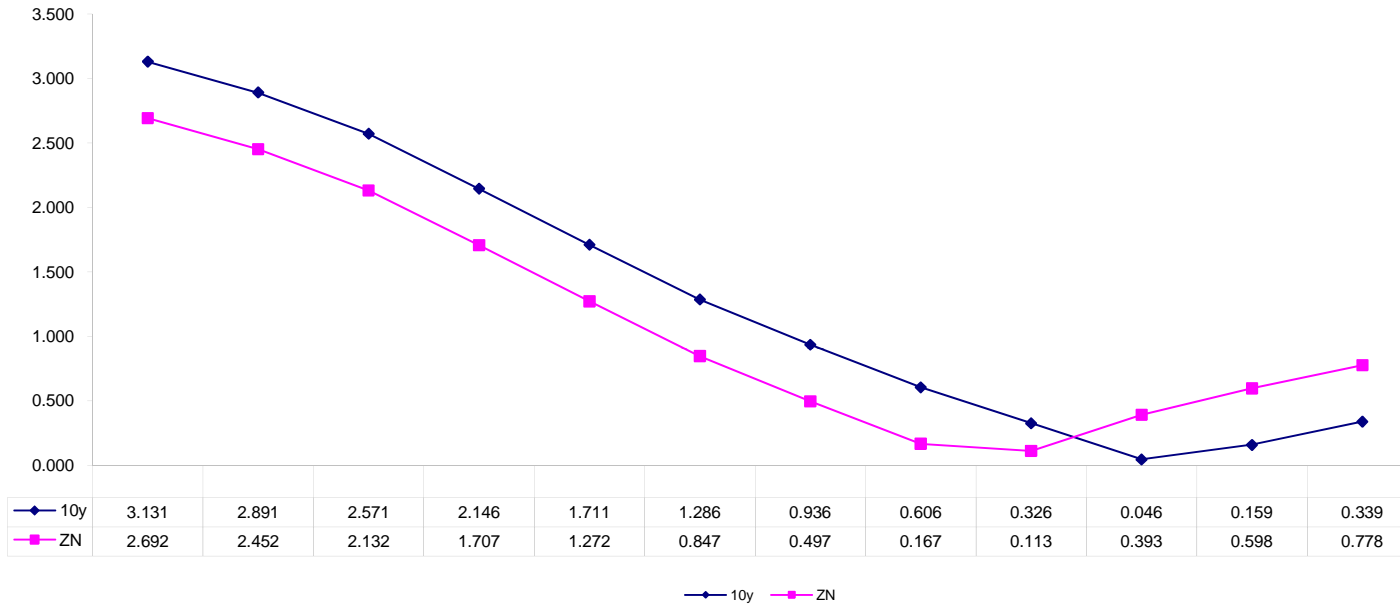
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Last Price
White Pack	0.931	9906.875
Red Pack	2.481	9751.875
Green Pack	3.732	9635.250
Blue Pack	4.318	9568.250
Gold Pack	4.763	9523.750

