

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	108.1313	108.0420	1.118	1.835
ZF	114.5781	114.1850	2.427	4.107
ZN	115.7500	115.2400	3.257	5.733
2y	99.6406	99.2050	1.183	1.973
5y	99.6563	99.2100	2.696	4.655
10y	95.3594	95.1150	3.690	8.263

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU09	99.4950	0.505	46	0.1254	SEP	
EDAZ09	99.2500	0.750	137	0.3747	DEC	White Pack
EDAH10	98.9450	1.055	228	0.6240	MAR	
EDAM10	98.5250	1.475	319	0.8733	JUN	
EDAU10	98.1100	1.890	410	1.1226	SEP	
EDAZ10	97.7000	2.300	501	1.3719	DEC	Red Pack
EDAH11	97.3500	2.650	592	1.6213	MAR	
EDAM11	97.0050	2.995	683	1.8706	JUN	
EDAU11	96.7000	3.300	781	2.1391	SEP	
EDAZ11	96.3950	3.605	872	2.3884	DEC	Green Pack
EDAH12	96.1750	3.825	963	2.6377	MAR	
EDAM12	95.9750	4.025	1,054	2.8870	JUN	
EDAU12	95.8050	4.195	1,145	3.1363	SEP	
EDAZ12	95.6400	4.360	1,236	3.3856	DEC	Blue Pack
EDAH13	95.5350	4.465	1,327	3.6350	MAR	
EDAM13	95.4200	4.580	1,418	3.8843	JUN	
EDAU13	95.3100	4.690	1,509	4.1336	SEP	
EDAZ13	95.1900	4.810	1,600	4.3829	DEC	Gold Pack
EDAH14	95.0950	4.905	1,691	4.6322	MAR	
EDAM14	95.0050	4.995	1,782	4.8815	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	0.962	-0.062	9905.38	
Red Pack	2.509	-0.313	9754.13	Pack Prices
Green Pack	3.775	-0.450	9631.13	
Blue Pack	4.511	-0.413	9560.00	
Gold Pack	4.978	-0.500	9515.00	

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.

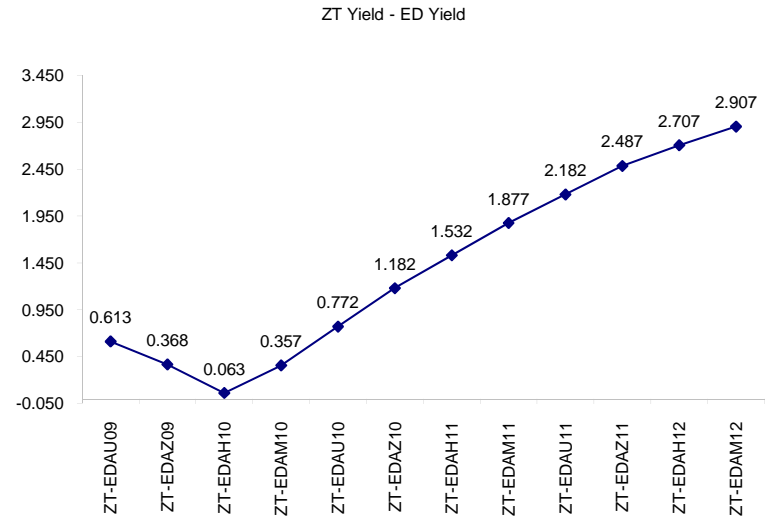
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Correlations (Important)

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.

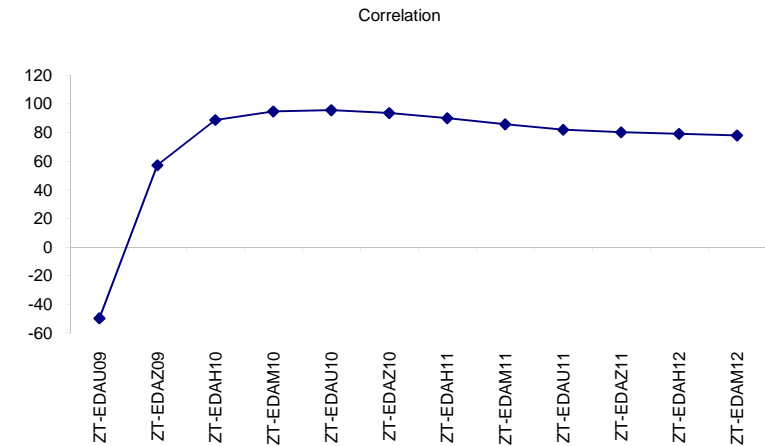
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	8.64	0.613	ZT-EDAU09	-50
EDAZ09	8.88	0.368	ZT-EDAZ09	57
EDAH10	9.19	0.063	ZT-EDAH10	89
EDAM10	9.61	0.357	ZT-EDAM10	95
EDAU10	10.02	0.772	ZT-EDAU10	96
EDAZ10	10.43	1.182	ZT-EDAZ10	94
EDAH11	10.78	1.532	ZT-EDAH11	90
EDAM11	11.13	1.877	ZT-EDAM11	86
EDAU11	11.43	2.182	ZT-EDAU11	82
EDAZ11	11.74	2.487	ZT-EDAZ11	80
EDAH12	11.96	2.707	ZT-EDAH12	79
EDAM12	12.16	2.907	ZT-EDAM12	78

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	0.1254	1.8349	1.7096	ZT-EDAU09		
EDAZ09	0.3747	1.8349	1.4602	ZT-EDAZ09		
EDAH10	0.6240	1.8349	1.2109	ZT-EDAH10		
EDAM10	0.8733	1.8349	0.9616	ZT-EDAM10		
EDAU10	1.1226	1.8349	0.7123	ZT-EDAU10		
EDAZ10	1.3719	1.8349	0.4630	ZT-EDAZ10		
EDAH11	1.6213	1.8349	0.2137	ZT-EDAH11		
EDAM11	1.8706	1.8349	-0.0357	ZT-EDAM11		
EDAU11	2.1391	1.8349	-0.3041	ZT-EDAU11		
EDAZ11	2.3884	1.8349	-0.5535	ZT-EDAZ11		
EDAH12	2.6377	1.8349	-0.8028	ZT-EDAH12		
EDAM12	2.8870	1.8349	-1.0521	ZT-EDAM12		

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

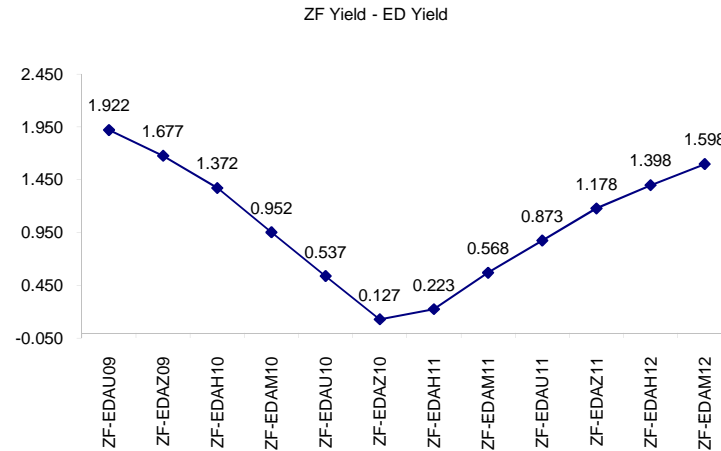


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	15.08	1.922	ZF-EDAU09	-40
EDAZ09	15.33	1.677	ZF-EDAZ09	62
EDAH10	15.63	1.372	ZF-EDAH10	88
EDAM10	16.05	0.952	ZF-EDAM10	93
EDAU10	16.47	0.537	ZF-EDAU10	93
EDAZ10	16.88	0.127	ZF-EDAZ10	91
EDAH11	17.23	0.223	ZF-EDAH11	88
EDAM11	17.57	0.568	ZF-EDAM11	86
EDAU11	17.88	0.873	ZF-EDAU11	85
EDAZ11	18.18	1.178	ZF-EDAZ11	85
EDAH12	18.40	1.398	ZF-EDAH12	86
EDAM12	18.60	1.598	ZF-EDAM12	87

Price = Outright Decimal Price - Euro Contract Price

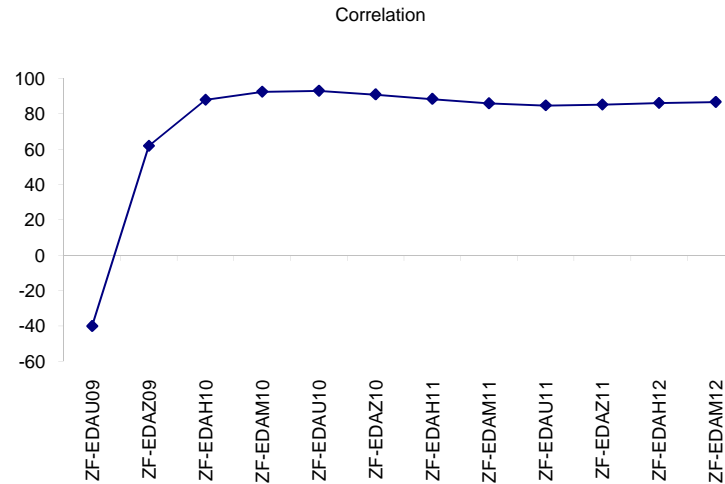
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAU09	0.1254	4.1074	3.9820	ZF-EDAU09	
EDAZ09	0.3747	4.1074	3.7327	ZF-EDAZ09	
EDAH10	0.6240	4.1074	3.4834	ZF-EDAH10	
EDAM10	0.8733	4.1074	3.2340	ZF-EDAM10	
EDAU10	1.1226	4.1074	2.9847	ZF-EDAU10	
EDAZ10	1.3719	4.1074	2.7354	ZF-EDAZ10	
EDAH11	1.6213	4.1074	2.4861	ZF-EDAH11	
EDAM11	1.8706	4.1074	2.2368	ZF-EDAM11	
EDAU11	2.1391	4.1074	1.9683	ZF-EDAU11	
EDAZ11	2.3884	4.1074	1.7190	ZF-EDAZ11	
EDAH12	2.6377	4.1074	1.4697	ZF-EDAH12	
EDAM12	2.8870	4.1074	1.2203	ZF-EDAM12	

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

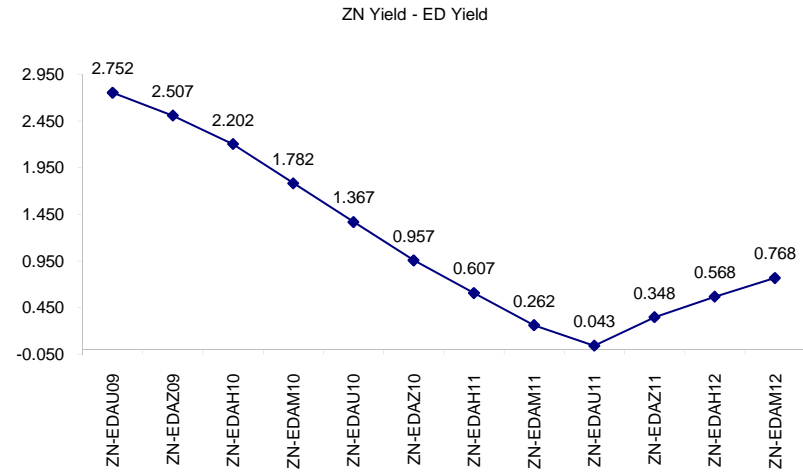


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAU09	16.26	2.752	ZN-EDAU09	-32
EDAZ09	16.50	2.507	ZN-EDAZ09	66
EDAH10	16.81	2.202	ZN-EDAH10	87
EDAM10	17.23	1.782	ZN-EDAM10	90
EDAU10	17.64	1.367	ZN-EDAU10	90
EDAZ10	18.05	0.957	ZN-EDAZ10	89
EDAH11	18.40	0.607	ZN-EDAH11	88
EDAM11	18.75	0.262	ZN-EDAM11	87
EDAU11	19.05	0.043	ZN-EDAU11	87
EDAZ11	19.36	0.348	ZN-EDAZ11	89
EDAH12	19.58	0.568	ZN-EDAH12	90
EDAM12	19.78	0.768	ZN-EDAM12	92

Price = Outright Decimal Price - Euro Contract Price

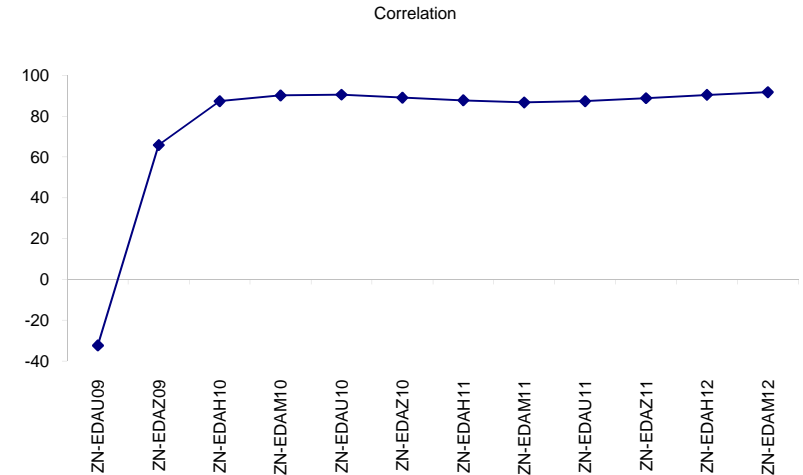
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			ZN Spread Duration
	Fraction of year	Duration	Duration	
EDAU09	0.1254	5.7326	5.6072	ZN-EDAU09
EDAZ09	0.3747	5.7326	5.3579	ZN-EDAZ09
EDAH10	0.6240	5.7326	5.1086	ZN-EDAH10
EDAM10	0.8733	5.7326	4.8592	ZN-EDAM10
EDAU10	1.1226	5.7326	4.6099	ZN-EDAU10
EDAZ10	1.3719	5.7326	4.3606	ZN-EDAZ10
EDAH11	1.6213	5.7326	4.1113	ZN-EDAH11
EDAM11	1.8706	5.7326	3.8620	ZN-EDAM11
EDAU11	2.1391	5.7326	3.5935	ZN-EDAU11
EDAZ11	2.3884	5.7326	3.3442	ZN-EDAZ11
EDAH12	2.6377	5.7326	3.0949	ZN-EDAH12
EDAM12	2.8870	5.7326	2.8455	ZN-EDAM12

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	0.678	2y-EDAU09	67
EDAZ09	0.39	0.433	2y-EDAZ09	-40
EDAH10	0.70	0.128	2y-EDAH10	-80
EDAM10	1.12	0.292	2y-EDAM10	-89
EDAU10	1.53	0.707	2y-EDAU10	-91
EDAZ10	1.94	1.117	2y-EDAZ10	-88
EDAH11	2.29	1.467	2y-EDAH11	-83
EDAM11	2.64	1.812	2y-EDAM11	-77
EDAU11	2.94	2.117	2y-EDAU11	-71
EDAZ11	3.25	2.422	2y-EDAZ11	-69
EDAH12	3.47	2.642	2y-EDAH12	-67
EDAM12	3.67	2.842	2y-EDAM12	-65

Price = Outright Decimal Price - Euro Contract Price

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

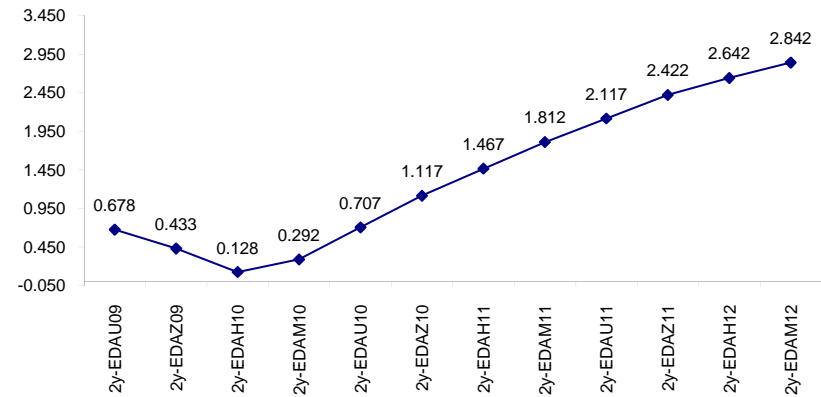
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

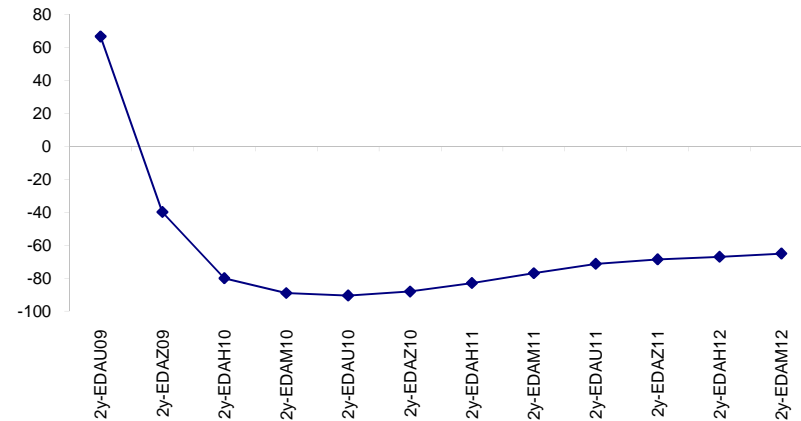
	Fraction of year	2Y Duration	Spread Duration	
EDAU09	0.1254	1.9734	1.8481	2y-EDAU09
EDAZ09	0.3747	1.9734	1.5987	2y-EDAZ09
EDAH10	0.6240	1.9734	1.3494	2y-EDAH10
EDAM10	0.8733	1.9734	1.1001	2y-EDAM10
EDAU10	1.1226	1.9734	0.8508	2y-EDAU10
EDAZ10	1.3719	1.9734	0.6015	2y-EDAZ10
EDAH11	1.6213	1.9734	0.3522	2y-EDAH11
EDAM11	1.8706	1.9734	0.1028	2y-EDAM11
EDAU11	2.1391	1.9734	-0.1656	2y-EDAU11
EDAZ11	2.3884	1.9734	-0.4150	2y-EDAZ11
EDAH12	2.6377	1.9734	-0.6643	2y-EDAH12
EDAM12	2.8870	1.9734	-0.9136	2y-EDAM12

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

ZT Yield - ED Yield



Correlation

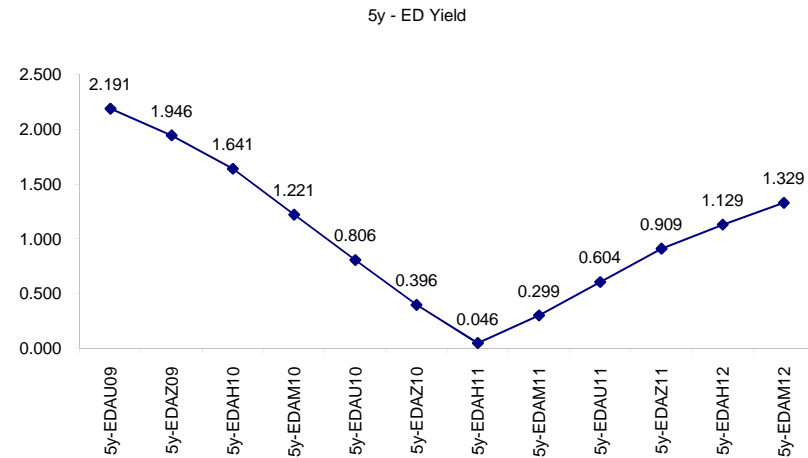


5y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.16	2.191	5y-EDAU09	56
EDAZ09	0.41	1.946	5y-EDAZ09	-49
EDAH10	0.71	1.641	5y-EDAH10	-85
EDAM10	1.13	1.221	5y-EDAM10	-92
EDAU10	1.55	0.806	5y-EDAU10	-93
EDAZ10	1.96	0.396	5y-EDAZ10	-91
EDAH11	2.31	0.046	5y-EDAH11	-87
EDAM11	2.65	0.299	5y-EDAM11	-83
EDAU11	2.96	0.604	5y-EDAU11	-81
EDAZ11	3.26	0.909	5y-EDAZ11	-81
EDAH12	3.48	1.129	5y-EDAH12	-82
EDAM12	3.68	1.329	5y-EDAM12	-82

Price = Outright Decimal Price - Euro Contract Price

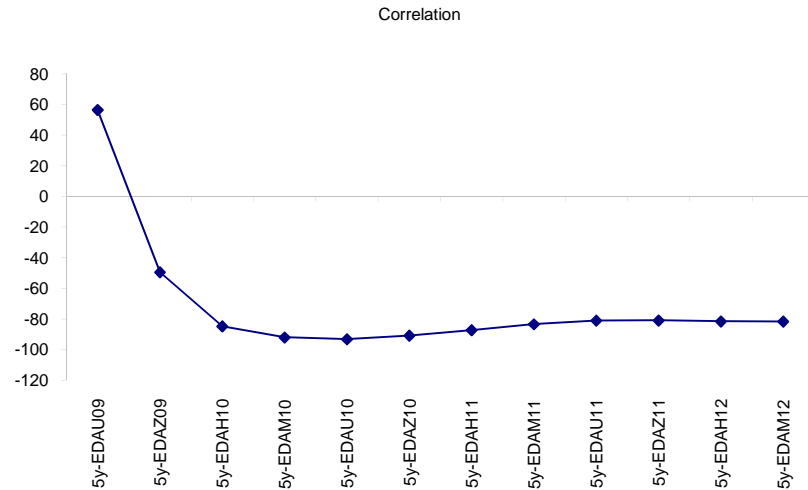
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				5Y Duration	Spread Duration	
EDAU09	0.1254	4.6550	4.5297	5y-EDAU09		
EDAZ09	0.3747	4.6550	4.2804	5y-EDAZ09		
EDAH10	0.6240	4.6550	4.0310	5y-EDAH10		
EDAM10	0.8733	4.6550	3.7817	5y-EDAM10		
EDAU10	1.1226	4.6550	3.5324	5y-EDAU10		
EDAZ10	1.3719	4.6550	3.2831	5y-EDAZ10		
EDAH11	1.6213	4.6550	3.0338	5y-EDAH11		
EDAM11	1.8706	4.6550	2.7845	5y-EDAM11		
EDAU11	2.1391	4.6550	2.5160	5y-EDAU11		
EDAZ11	2.3884	4.6550	2.2667	5y-EDAZ11		
EDAH12	2.6377	4.6550	2.0173	5y-EDAH12		
EDAM12	2.8870	4.6550	1.7680	5y-EDAM12		

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

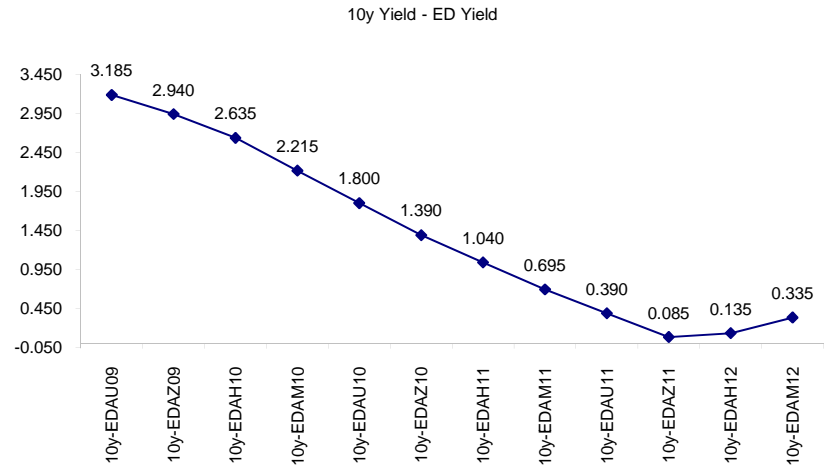


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.16	3.185	10y-EDAU09	33
EDAZ09	0.41	2.940	10y-EDAZ09	-55
EDAH10	0.71	2.635	10y-EDAH10	-76
EDAM10	1.13	2.215	10y-EDAM10	-80
EDAU10	1.55	1.800	10y-EDAU10	-80
EDAZ10	1.96	1.390	10y-EDAZ10	-79
EDAH11	2.31	1.040	10y-EDAH11	-78
EDAM11	2.65	0.695	10y-EDAM11	-78
EDAU11	2.96	0.390	10y-EDAU11	-81
EDAZ11	3.26	0.085	10y-EDAZ11	-84
EDAH12	3.48	0.135	10y-EDAH12	-87
EDAM12	3.68	0.335	10y-EDAM12	-90

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	0.1254	8.2632	8.1379	10y-EDAU09
EDAZ09	0.3747	8.2632	7.8886	10y-EDAZ09
EDAH10	0.6240	8.2632	7.6392	10y-EDAH10
EDAM10	0.8733	8.2632	7.3899	10y-EDAM10
EDAU10	1.1226	8.2632	7.1406	10y-EDAU10
EDAZ10	1.3719	8.2632	6.8913	10y-EDAZ10
EDAH11	1.6213	8.2632	6.6420	10y-EDAH11
EDAM11	1.8706	8.2632	6.3927	10y-EDAM11
EDAU11	2.1391	8.2632	6.1242	10y-EDAU11
EDAZ11	2.3884	8.2632	5.8749	10y-EDAZ11
EDAH12	2.6377	8.2632	5.6255	10y-EDAH12
EDAM12	2.8870	8.2632	5.3762	10y-EDAM12

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

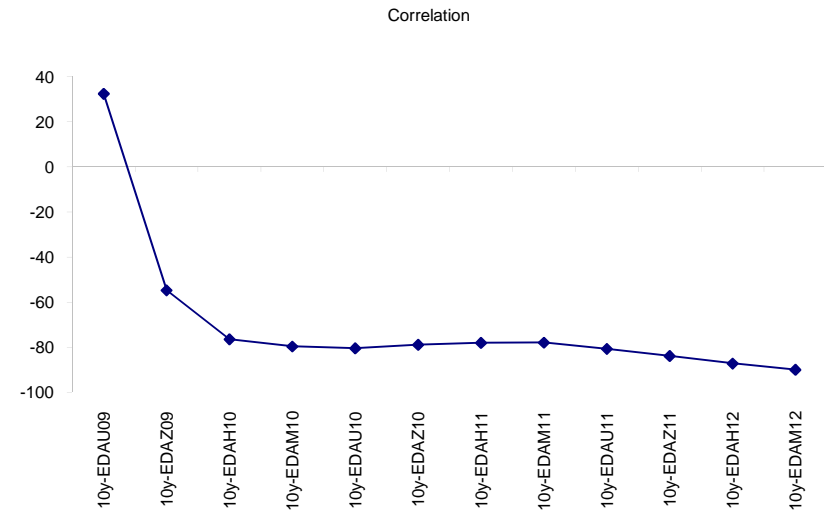


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

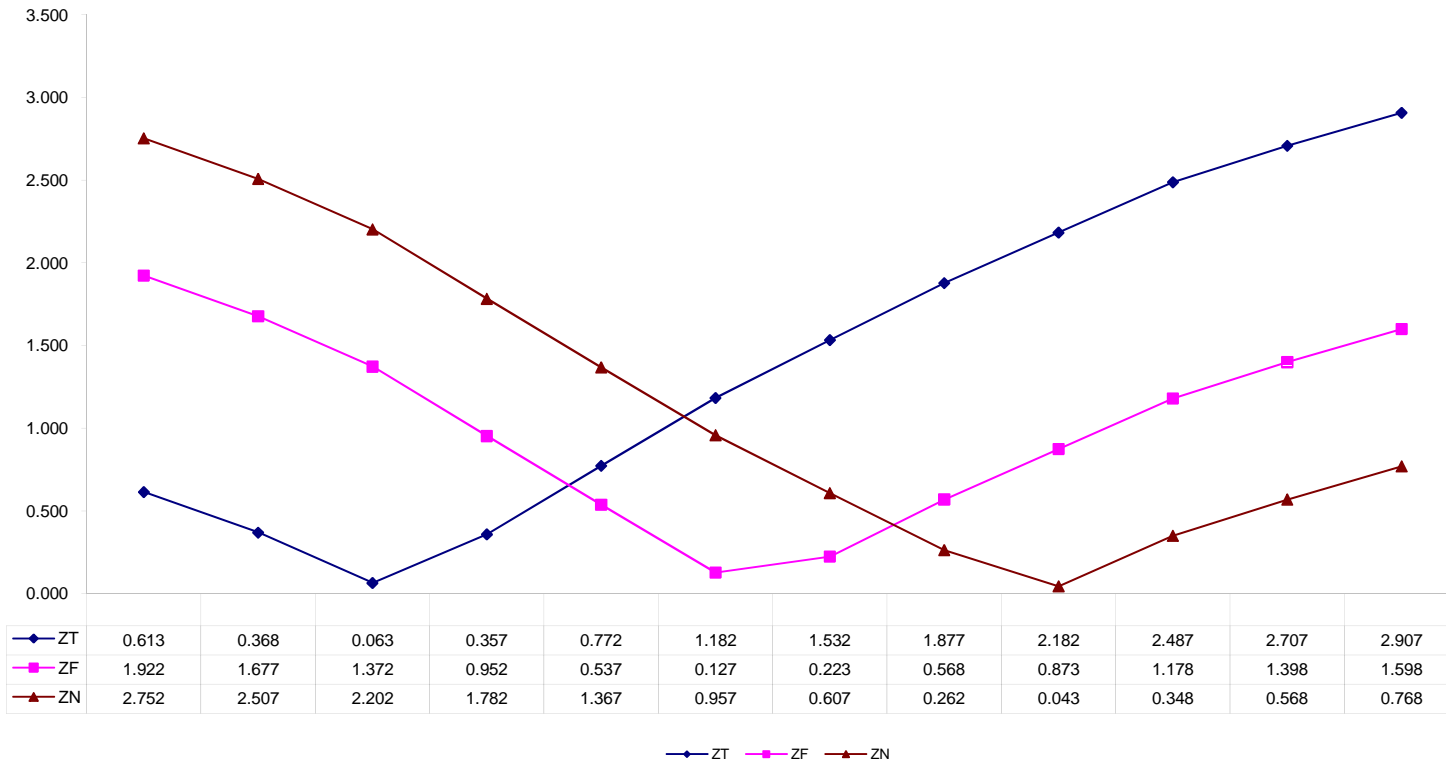
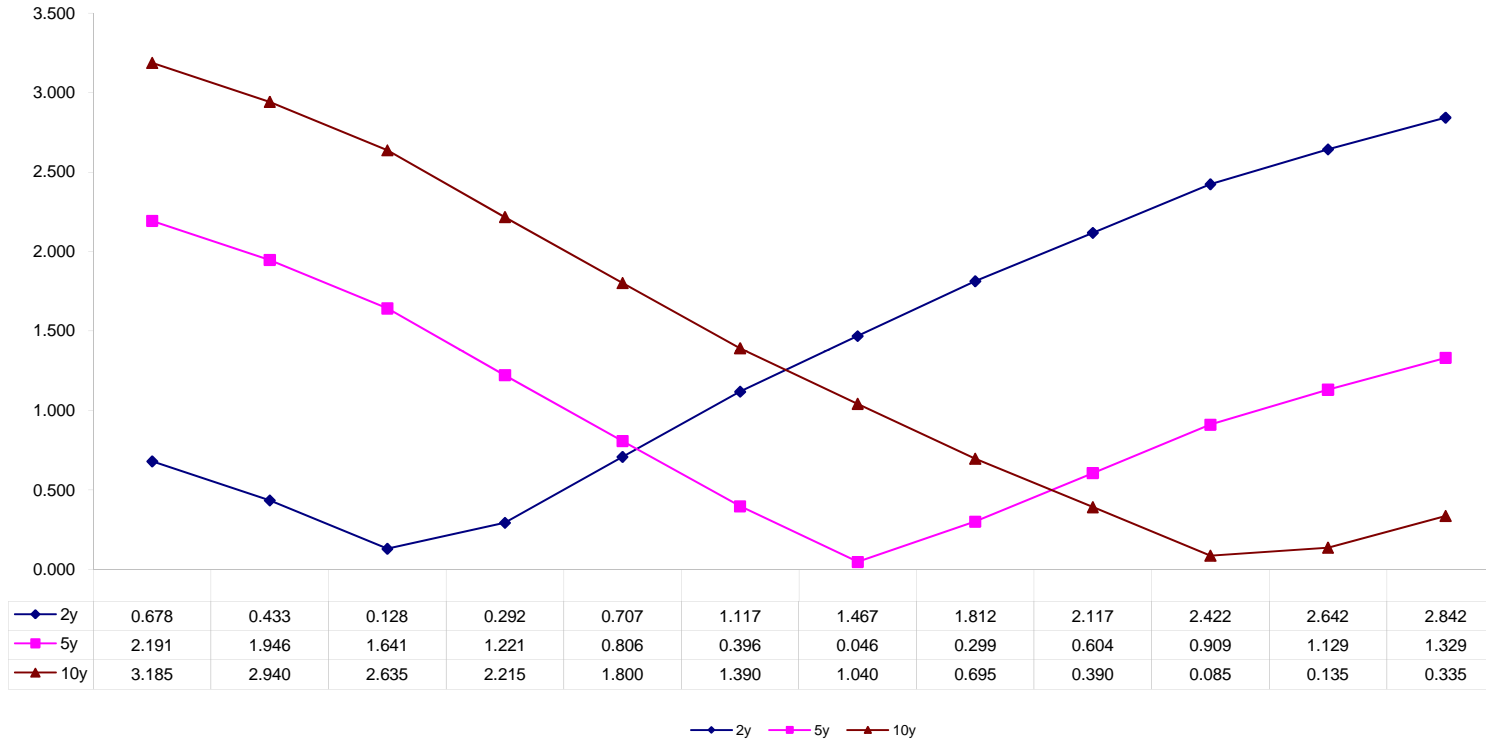
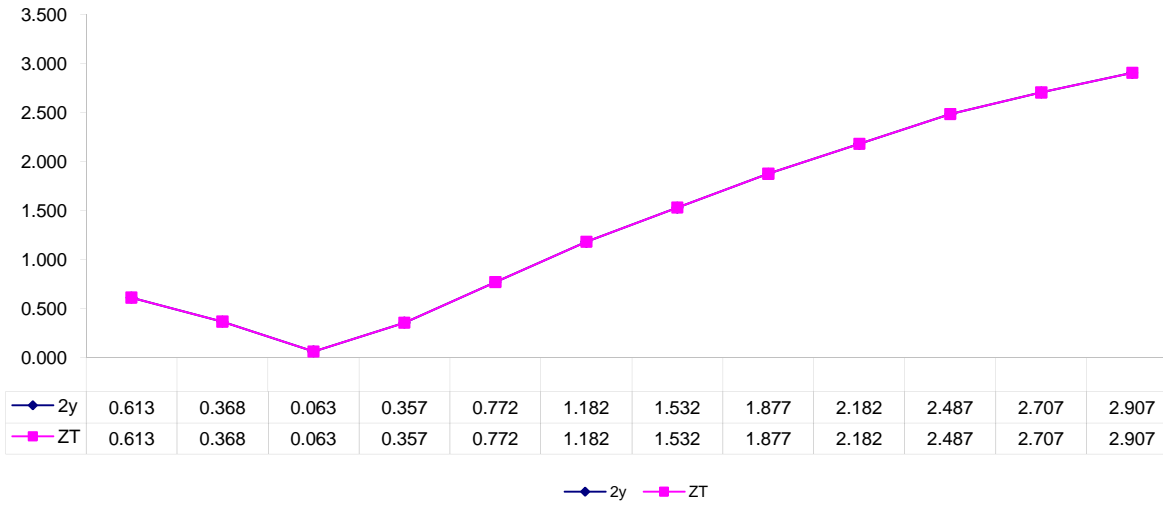
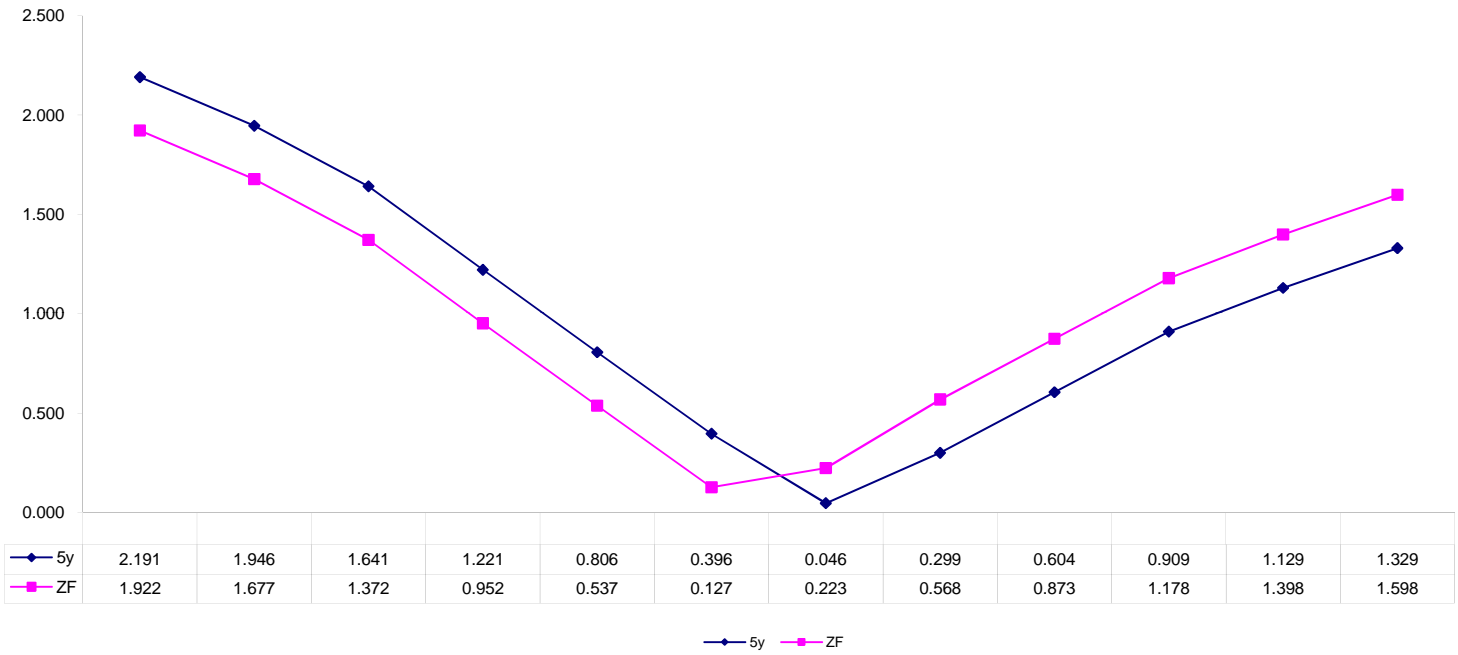


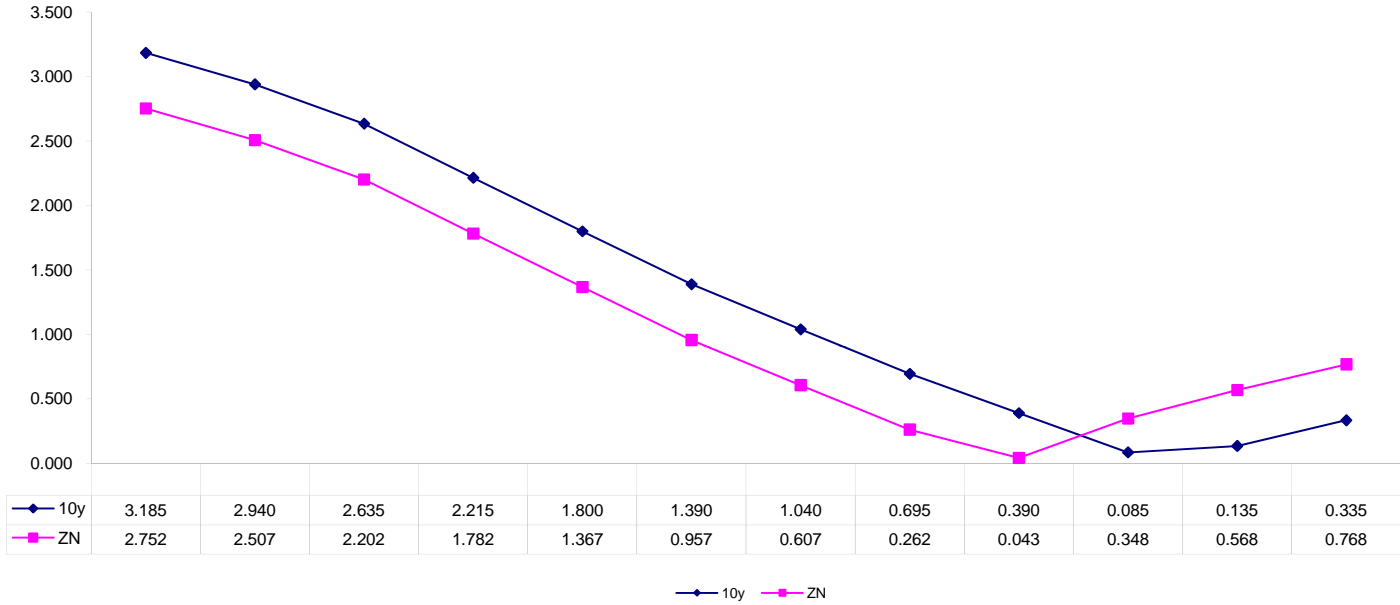
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	0.962	-0.062	9905.3750
Red Pack	2.509	-0.313	9754.1250
Green Pack	3.775	-0.450	9631.1250
Blue Pack	4.511	-0.413	9560.0000
Gold Pack	4.978	-0.500	9515.0000

