

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	108.6406	108.2050	0.873	1.850
ZF	117.4906	117.1570	1.713	4.047
ZN	121.9375	121.3000	2.535	5.905
2y	99.9125	99.2920	0.916	1.902
5y	99.2875	99.0920	1.900	4.687
10y	98.2656	98.0850	2.953	8.473

Eurodollars (ED)						
	Last	Last Imp	Days til	Fraction	Month	
	Price	Yield	Expr.	of year		
EDAM09	99.0000	1.000	49	0.1336	JUN	
EDAU09	98.9350	1.065	140	0.3829	SEP	White Pack
EDAZ09	98.7200	1.280	231	0.6322	DEC	
EDAH10	98.5800	1.420	322	0.8815	MAR	
EDAM10	98.3500	1.650	413	1.1308	JUN	
EDAU10	98.1250	1.875	504	1.3802	SEP	Red Pack
EDAZ10	97.8600	2.140	595	1.6295	DEC	
EDAH11	97.6600	2.340	686	1.8788	MAR	
EDAM11	97.4300	2.570	777	2.1281	JUN	
EDAU11	97.2300	2.770	875	2.3966	SEP	Green Pack
EDAZ11	97.0350	2.965	966	2.6459	DEC	
EDAH12	96.9200	3.080	1,057	2.8952	MAR	
EDAM12	96.8150	3.185	1,148	3.1445	JUN	
EDAU12	96.7350	3.265	1,239	3.3939	SEP	Blue Pack
EDAZ12	96.6050	3.395	1,330	3.6432	DEC	
EDAH13	96.5600	3.440	1,421	3.8925	MAR	
EDAM13	96.5050	3.495	1,512	4.1418	JUN	
EDAU13	96.4350	3.565	1,603	4.3911	SEP	Gold Pack
EDAZ13	96.3300	3.670	1,694	4.6404	DEC	
EDAH14	96.2950	3.705	1,785	4.8897	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.211	4.000	9880.88	
Red Pack	2.039	7.375	9799.88	Pack Prices
Green Pack	2.907	5.750	9715.38	
Blue Pack	3.396	5.625	9667.88	
Gold Pack	3.692	4.875	9639.13	

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 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)

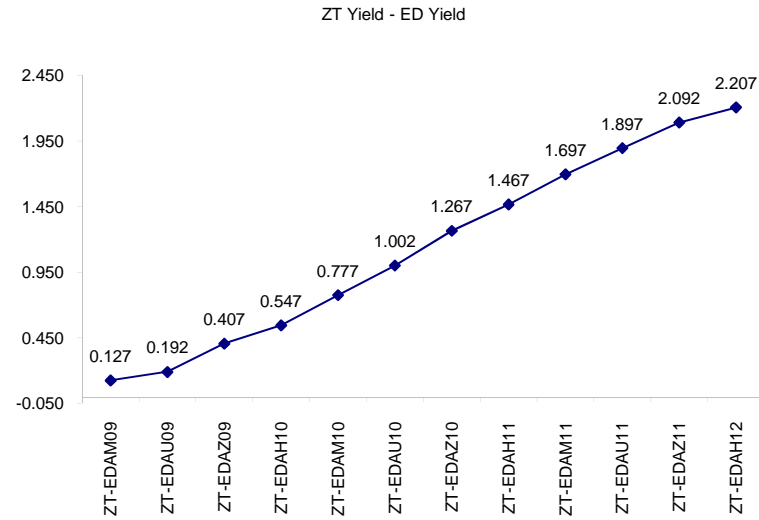
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.64	0.127	ZT-EDAM09	40
EDAU09	9.71	0.192	ZT-EDAU09	72
EDAZ09	9.92	0.407	ZT-EDAZ09	86
EDAH10	10.06	0.547	ZT-EDAH10	93
EDAM10	10.29	0.777	ZT-EDAM10	94
EDAU10	10.52	1.002	ZT-EDAU10	91
EDAZ10	10.78	1.267	ZT-EDAZ10	88
EDAH11	10.98	1.467	ZT-EDAH11	85
EDAM11	11.21	1.697	ZT-EDAM11	82
EDAU11	11.41	1.897	ZT-EDAU11	80
EDAZ11	11.61	2.092	ZT-EDAZ11	80
EDAH12	11.72	2.207	ZT-EDAH12	80

Price = Outright Decimal Price - Euro Contract Price

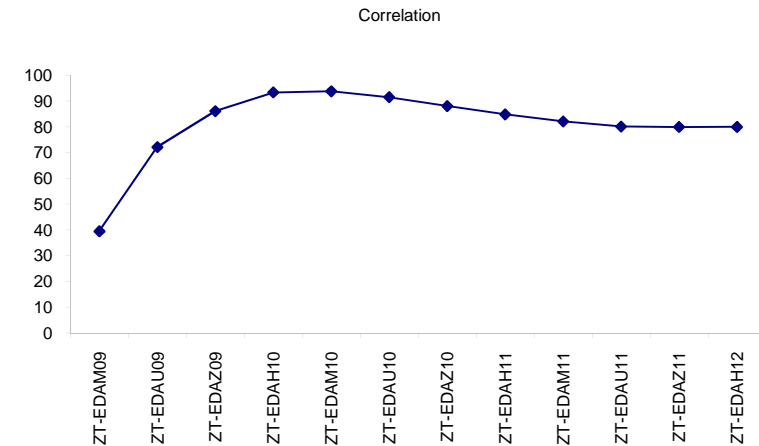
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



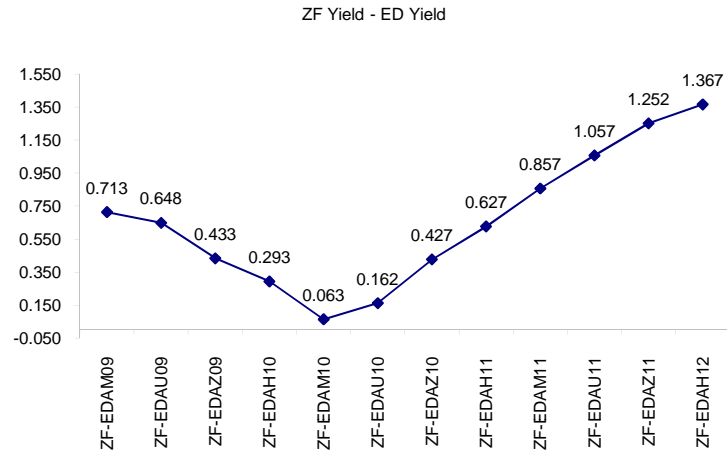
	ED Duration as Fraction of year			ZT Duration	Spread Duration	
EDAM09	0.1336	1.8497	1.7161	ZT-EDAM09		
EDAU09	0.3829	1.8497	1.4668	ZT-EDAU09		
EDAZ09	0.6322	1.8497	1.2175	ZT-EDAZ09		
EDAH10	0.8815	1.8497	0.9682	ZT-EDAH10		
EDAM10	1.1308	1.8497	0.7189	ZT-EDAM10		
EDAU10	1.3802	1.8497	0.4696	ZT-EDAU10		
EDAZ10	1.6295	1.8497	0.2203	ZT-EDAZ10		
EDAH11	1.8788	1.8497	-0.0291	ZT-EDAH11		
EDAM11	2.1281	1.8497	-0.2784	ZT-EDAM11		
EDAU11	2.3966	1.8497	-0.5469	ZT-EDAU11		
EDAZ11	2.6459	1.8497	-0.7962	ZT-EDAZ11		
EDAH12	2.8952	1.8497	-1.0455	ZT-EDAH12		

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



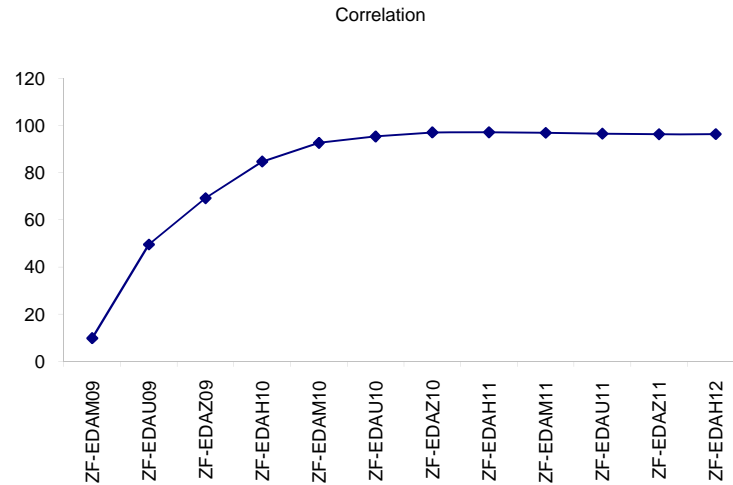
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	18.49	0.713	ZF-EDAM09	10
EDAU09	18.56	0.648	ZF-EDAU09	50
EDAZ09	18.77	0.433	ZF-EDAZ09	69
EDAH10	18.91	0.293	ZF-EDAH10	85
EDAM10	19.14	0.063	ZF-EDAM10	93
EDAU10	19.37	0.162	ZF-EDAU10	95
EDAZ10	19.63	0.427	ZF-EDAZ10	97
EDAH11	19.83	0.627	ZF-EDAH11	97
EDAM11	20.06	0.857	ZF-EDAM11	97
EDAU11	20.26	1.057	ZF-EDAU11	97
EDAZ11	20.46	1.252	ZF-EDAZ11	96
EDAH12	20.57	1.367	ZF-EDAH12	96

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS (Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



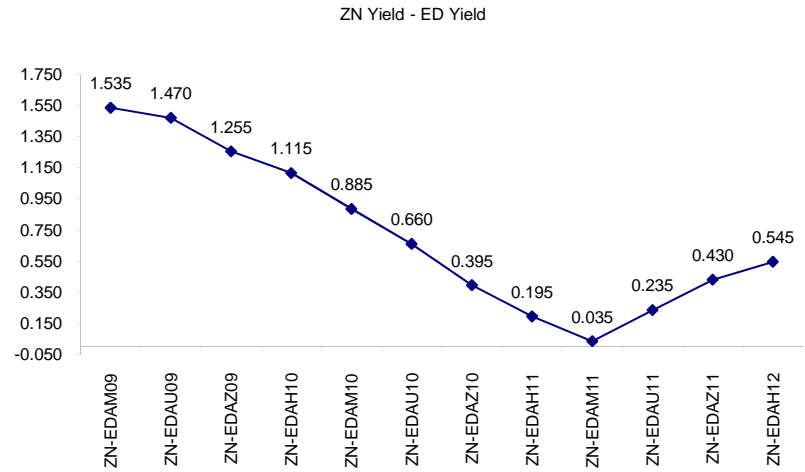
	ED Duration as Fraction of year			ZF Duration	Spread Duration	
EDAM09	0.1336	4.0473	3.9137	ZF-EDAM09		
EDAU09	0.3829	4.0473	3.6644	ZF-EDAU09		
EDAZ09	0.6322	4.0473	3.4151	ZF-EDAZ09		
EDAH10	0.8815	4.0473	3.1658	ZF-EDAH10		
EDAM10	1.1308	4.0473	2.9165	ZF-EDAM10		
EDAU10	1.3802	4.0473	2.6671	ZF-EDAU10		
EDAZ10	1.6295	4.0473	2.4178	ZF-EDAZ10		
EDAH11	1.8788	4.0473	2.1685	ZF-EDAH11		
EDAM11	2.1281	4.0473	1.9192	ZF-EDAM11		
EDAU11	2.3966	4.0473	1.6507	ZF-EDAU11		
EDAZ11	2.6459	4.0473	1.4014	ZF-EDAZ11		
EDAH12	2.8952	4.0473	1.1521	ZF-EDAH12		

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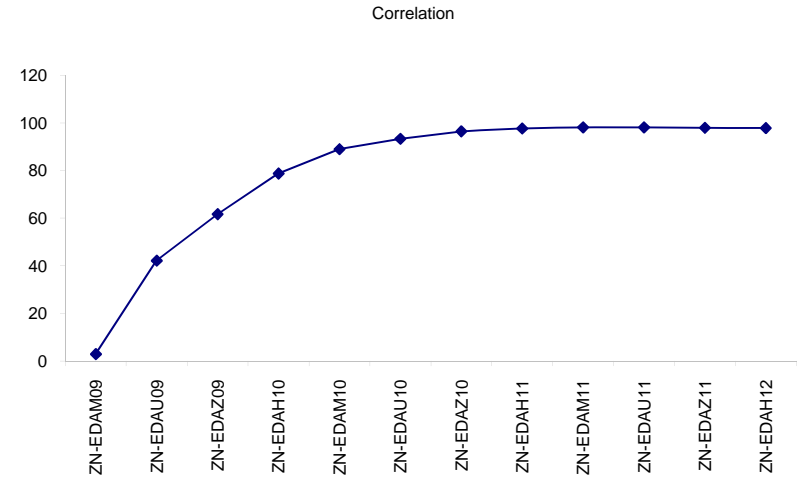
	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAM09	22.94	1.535	ZN-EDAM09	3
EDAU09	23.00	1.470	ZN-EDAU09	42
EDAZ09	23.22	1.255	ZN-EDAZ09	62
EDAH10	23.36	1.115	ZN-EDAH10	79
EDAM10	23.59	0.885	ZN-EDAM10	89
EDAU10	23.81	0.660	ZN-EDAU10	93
EDAZ10	24.08	0.395	ZN-EDAZ10	96
EDAH11	24.28	0.195	ZN-EDAH11	98
EDAM11	24.51	0.035	ZN-EDAM11	98
EDAU11	24.71	0.235	ZN-EDAU11	98
EDAZ11	24.90	0.430	ZN-EDAZ11	98
EDAH12	25.02	0.545	ZN-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			ZN Duration	Spread Duration	ZN-Contract
	Fraction of year	Duration	Duration			
EDAM09	0.1336	5.9048	5.7712	5.9048	5.7712	ZN-EDAM09
EDAU09	0.3829	5.9048	5.5219	5.9048	5.5219	ZN-EDAU09
EDAZ09	0.6322	5.9048	5.2726	5.9048	5.2726	ZN-EDAZ09
EDAH10	0.8815	5.9048	5.0233	5.9048	5.0233	ZN-EDAH10
EDAM10	1.1308	5.9048	4.7740	5.9048	4.7740	ZN-EDAM10
EDAU10	1.3802	5.9048	4.5246	5.9048	4.5246	ZN-EDAU10
EDAZ10	1.6295	5.9048	4.2753	5.9048	4.2753	ZN-EDAZ10
EDAH11	1.8788	5.9048	4.0260	5.9048	4.0260	ZN-EDAH11
EDAM11	2.1281	5.9048	3.7767	5.9048	3.7767	ZN-EDAM11
EDAU11	2.3966	5.9048	3.5082	5.9048	3.5082	ZN-EDAU11
EDAZ11	2.6459	5.9048	3.2589	5.9048	3.2589	ZN-EDAZ11
EDAH12	2.8952	5.9048	3.0096	5.9048	3.0096	ZN-EDAH12

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

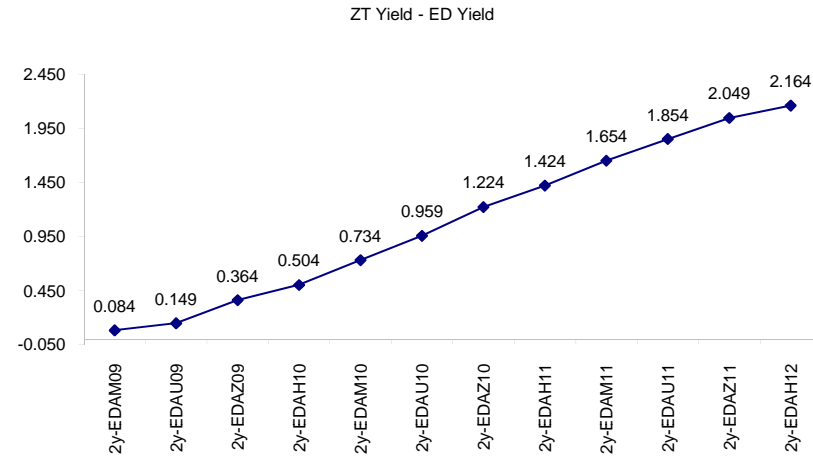


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.91	0.084	2y-EDAM09	-28
EDAU09	0.98	0.149	2y-EDAU09	-64
EDAZ09	1.19	0.364	2y-EDAZ09	-81
EDAH10	1.33	0.504	2y-EDAH10	-91
EDAM10	1.56	0.734	2y-EDAM10	-94
EDAU10	1.79	0.959	2y-EDAU10	-92
EDAZ10	2.05	1.224	2y-EDAZ10	-90
EDAH11	2.25	1.424	2y-EDAH11	-88
EDAM11	2.48	1.654	2y-EDAM11	-86
EDAU11	2.68	1.854	2y-EDAU11	-85
EDAZ11	2.88	2.049	2y-EDAZ11	-85
EDAH12	2.99	2.164	2y-EDAH12	-85

Price = Outright Decimal Price - Euro Contract Price

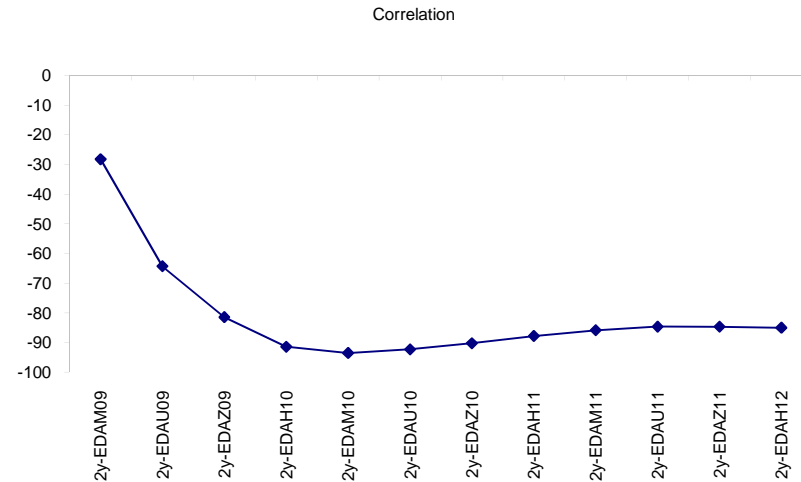
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as		Spread Duration	
	Fraction of year	2Y Duration		
EDAM09	0.1336	1.9018	1.7682	2y-EDAM09
EDAU09	0.3829	1.9018	1.5189	2y-EDAU09
EDAZ09	0.6322	1.9018	1.2695	2y-EDAZ09
EDAH10	0.8815	1.9018	1.0202	2y-EDAH10
EDAM10	1.1308	1.9018	0.7709	2y-EDAM10
EDAU10	1.3802	1.9018	0.5216	2y-EDAU10
EDAZ10	1.6295	1.9018	0.2723	2y-EDAZ10
EDAH11	1.8788	1.9018	0.0230	2y-EDAH11
EDAM11	2.1281	1.9018	-0.2264	2y-EDAM11
EDAU11	2.3966	1.9018	-0.4948	2y-EDAU11
EDAZ11	2.6459	1.9018	-0.7442	2y-EDAZ11
EDAH12	2.8952	1.9018	-0.9935	2y-EDAH12

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

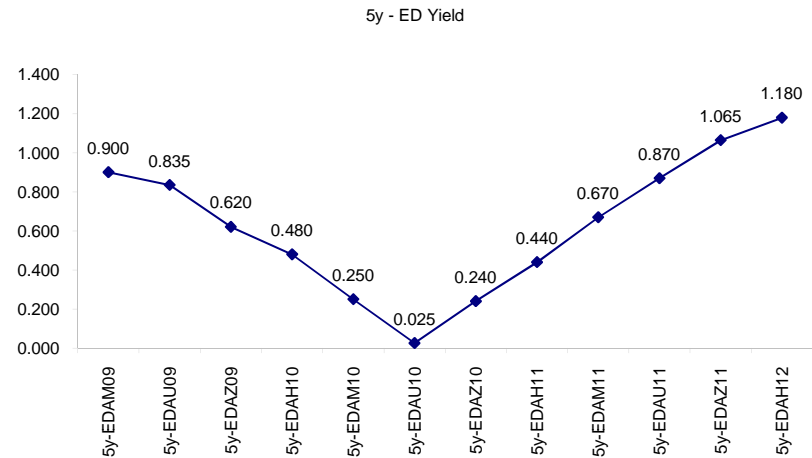


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.29	0.900	5y-EDAM09	-5
EDAU09	0.35	0.835	5y-EDAU09	-45
EDAZ09	0.57	0.620	5y-EDAZ09	-66
EDAH10	0.71	0.480	5y-EDAH10	-82
EDAM10	0.94	0.250	5y-EDAM10	-91
EDAU10	1.16	0.025	5y-EDAU10	-94
EDAZ10	1.43	0.240	5y-EDAZ10	-97
EDAH11	1.63	0.440	5y-EDAH11	-97
EDAM11	1.86	0.670	5y-EDAM11	-98
EDAU11	2.06	0.870	5y-EDAU11	-98
EDAZ11	2.25	1.065	5y-EDAZ11	-97
EDAH12	2.37	1.180	5y-EDAH12	-97

Price = Outright Decimal Price - Euro Contract Price

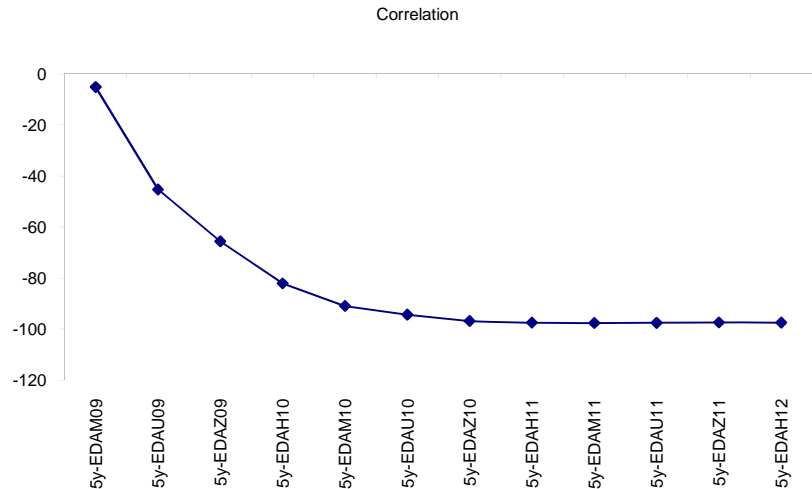
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



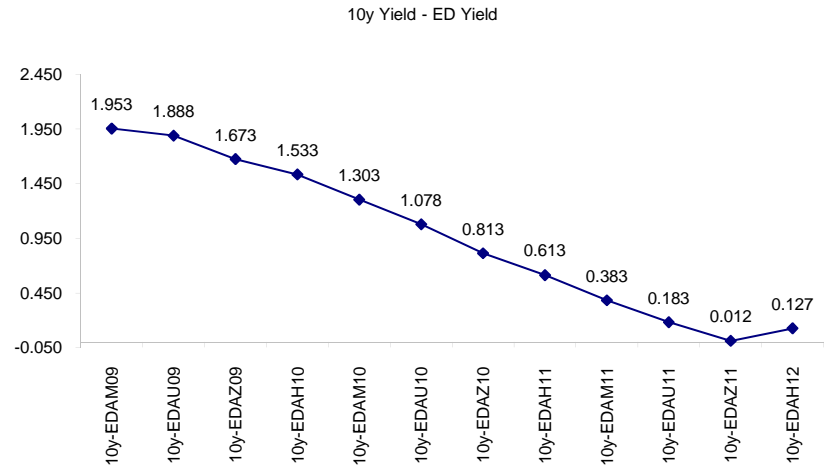
	ED Duration as Fraction of year			
	of year	5Y Duration	Spread Duration	
EDAM09	0.1336	4.6874	4.5538	5y-EDAM09
EDAU09	0.3829	4.6874	4.3045	5y-EDAU09
EDAZ09	0.6322	4.6874	4.0552	5y-EDAZ09
EDAH10	0.8815	4.6874	3.8059	5y-EDAH10
EDAM10	1.1308	4.6874	3.5565	5y-EDAM10
EDAU10	1.3802	4.6874	3.3072	5y-EDAU10
EDAZ10	1.6295	4.6874	3.0579	5y-EDAZ10
EDAH11	1.8788	4.6874	2.8086	5y-EDAH11
EDAM11	2.1281	4.6874	2.5593	5y-EDAM11
EDAU11	2.3966	4.6874	2.2908	5y-EDAU11
EDAZ11	2.6459	4.6874	2.0415	5y-EDAZ11
EDAH12	2.8952	4.6874	1.7922	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	0.29	1.953	10y-EDAM09	-1
EDAU09	0.35	1.888	10y-EDAU09	-41
EDAZ09	0.57	1.673	10y-EDAZ09	-62
EDAH10	0.71	1.533	10y-EDAH10	-79
EDAM10	0.94	1.303	10y-EDAM10	-88
EDAU10	1.16	1.078	10y-EDAU10	-92
EDAZ10	1.43	0.813	10y-EDAZ10	-94
EDAH11	1.63	0.613	10y-EDAH11	-95
EDAM11	1.86	0.383	10y-EDAM11	-96
EDAU11	2.06	0.183	10y-EDAU11	-96
EDAZ11	2.25	0.012	10y-EDAZ11	-96
EDAH12	2.37	0.127	10y-EDAH12	-96

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS (Proxy Yield - Implied Euro Contract yield)
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	ED Duration as Fraction of year			
	10Y Duration	Spread Duration		
EDAM09	0.1336	8.4735	8.3399	10y-EDAM09
EDAU09	0.3829	8.4735	8.0906	10y-EDAU09
EDAZ09	0.6322	8.4735	7.8413	10y-EDAZ09
EDAH10	0.8815	8.4735	7.5920	10y-EDAH10
EDAM10	1.1308	8.4735	7.3426	10y-EDAM10
EDAU10	1.3802	8.4735	7.0933	10y-EDAU10
EDAZ10	1.6295	8.4735	6.8440	10y-EDAZ10
EDAH11	1.8788	8.4735	6.5947	10y-EDAH11
EDAM11	2.1281	8.4735	6.3454	10y-EDAM11
EDAU11	2.3966	8.4735	6.0769	10y-EDAU11
EDAZ11	2.6459	8.4735	5.8276	10y-EDAZ11
EDAH12	2.8952	8.4735	5.5783	10y-EDAH12

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

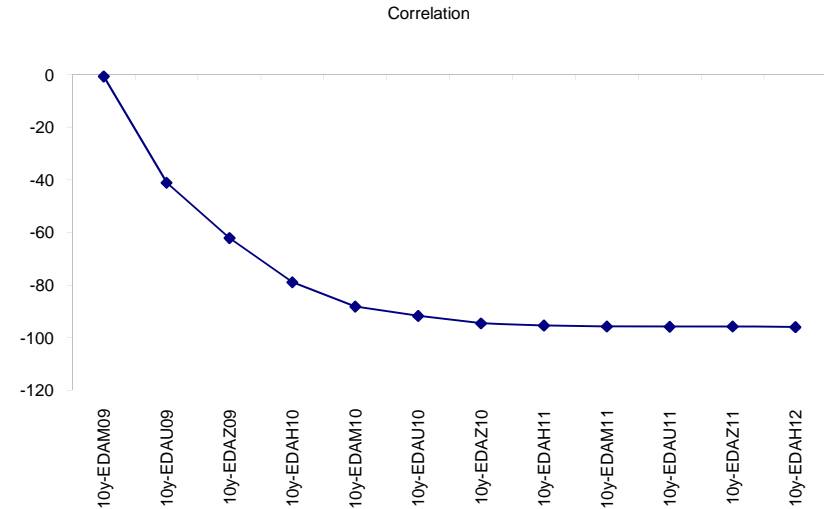


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

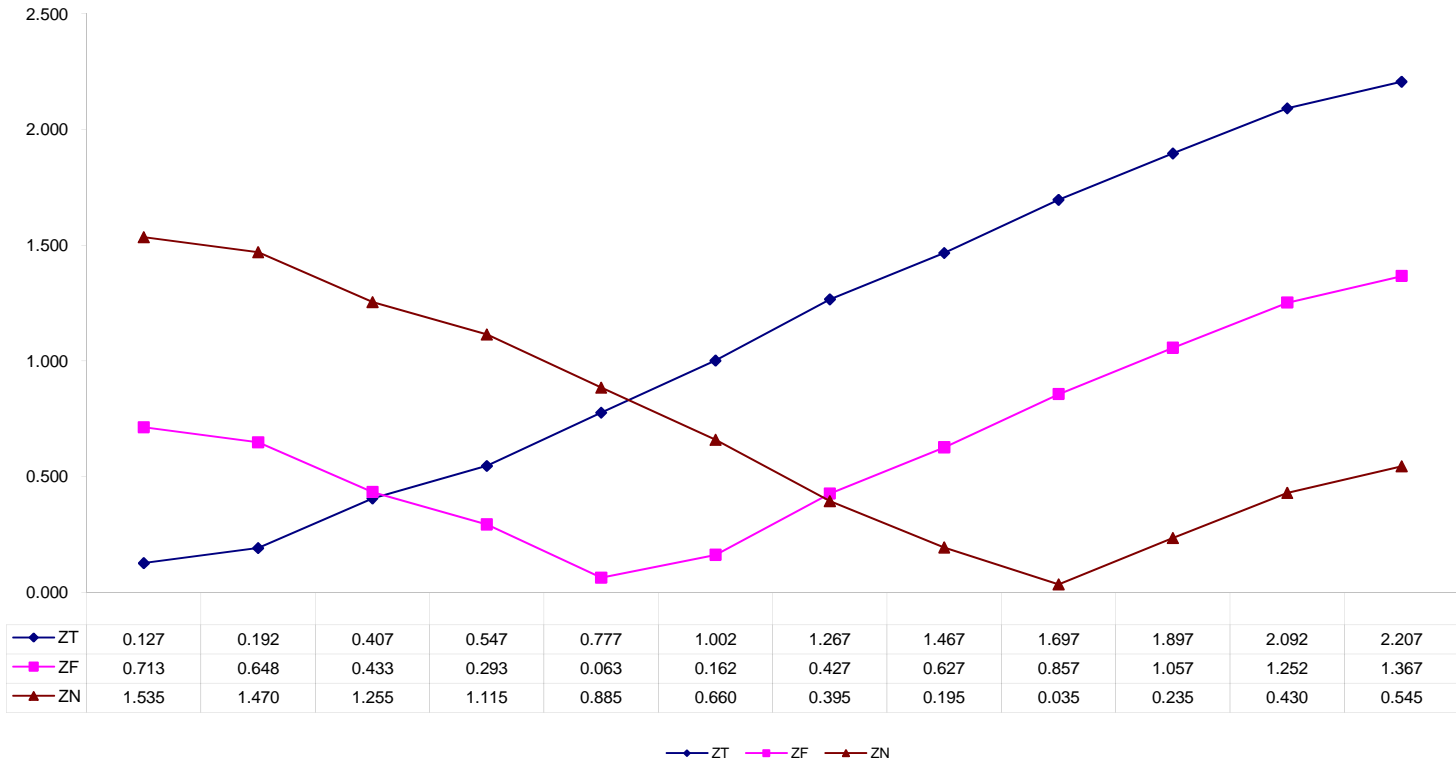
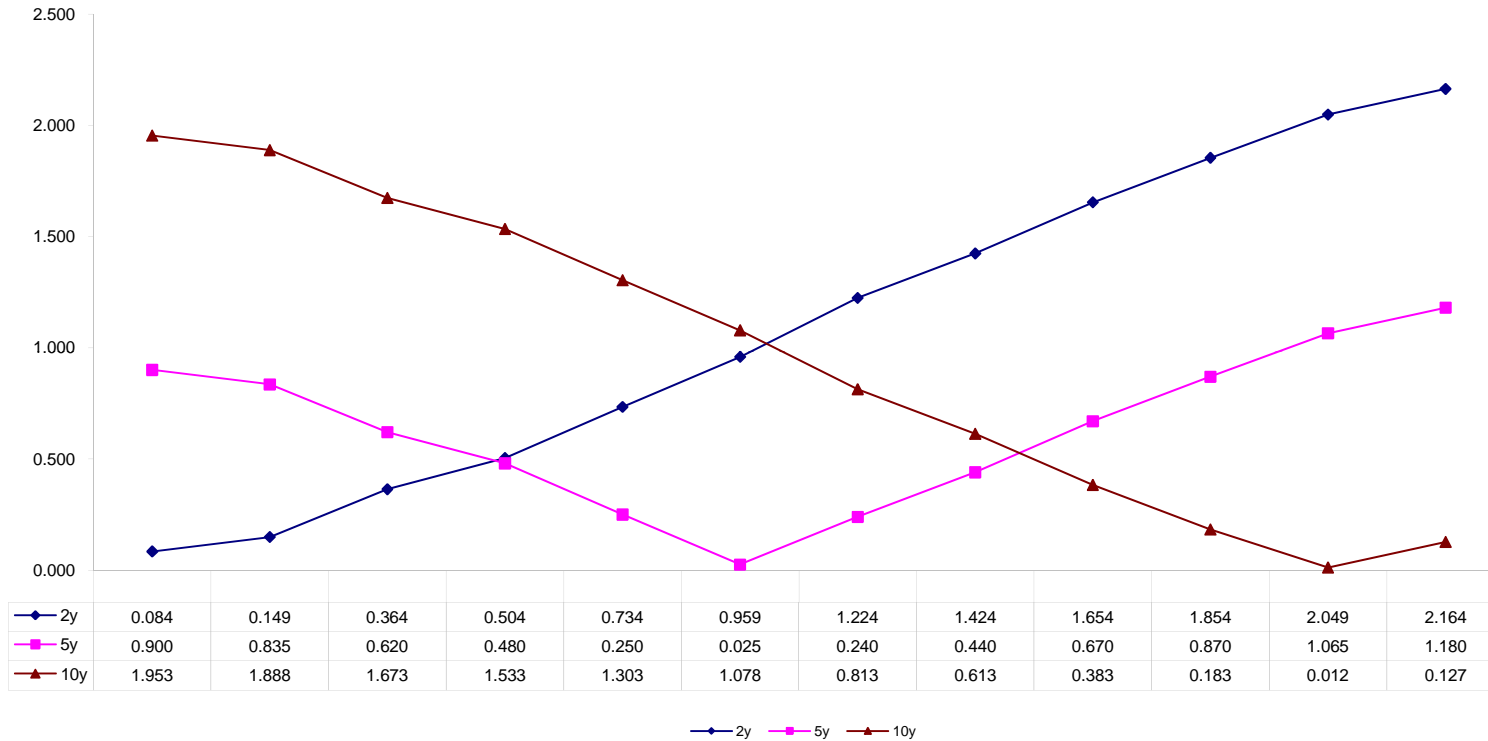
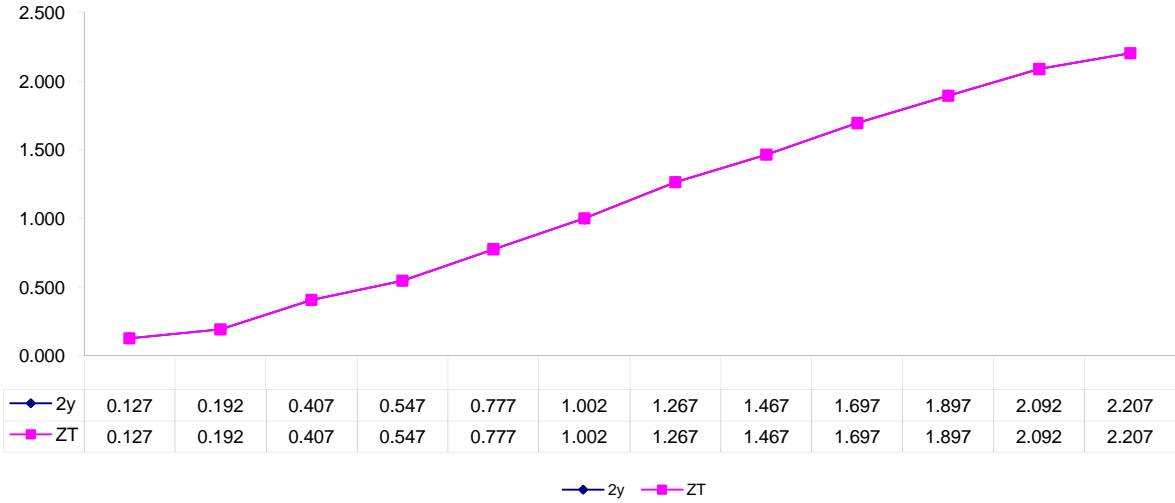
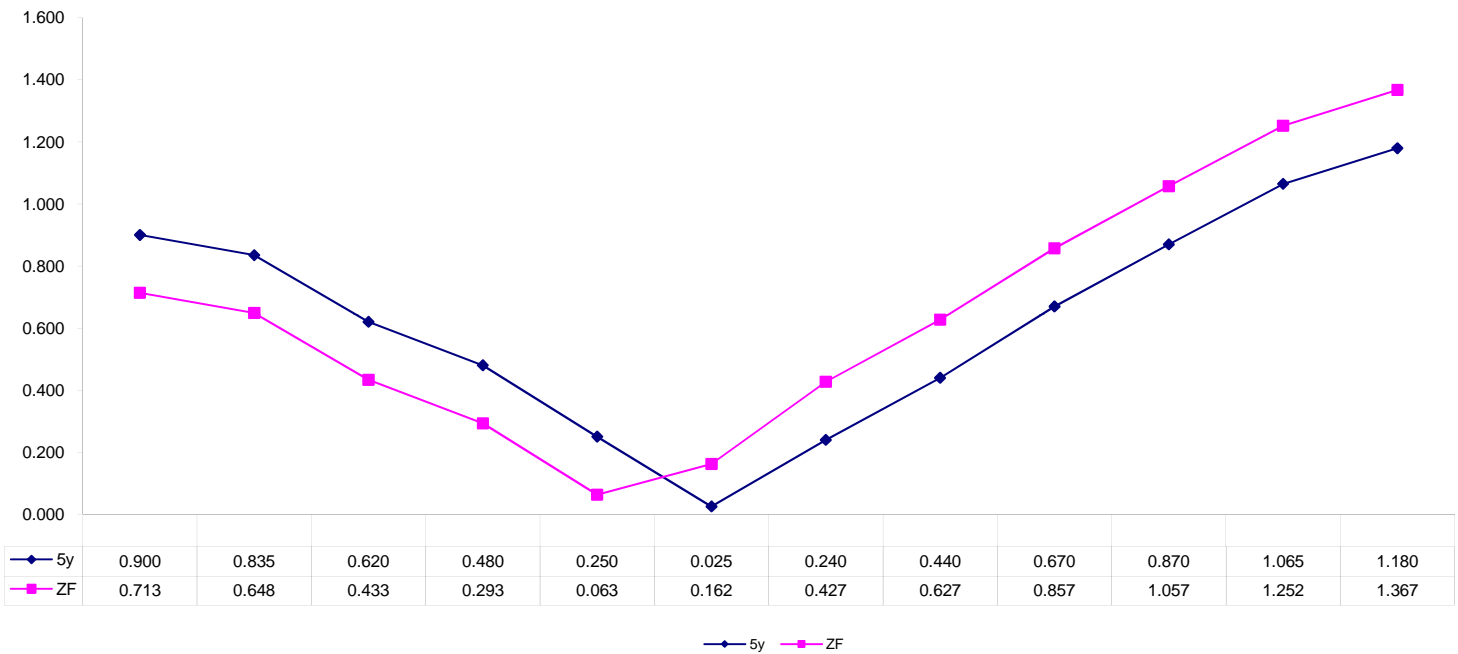


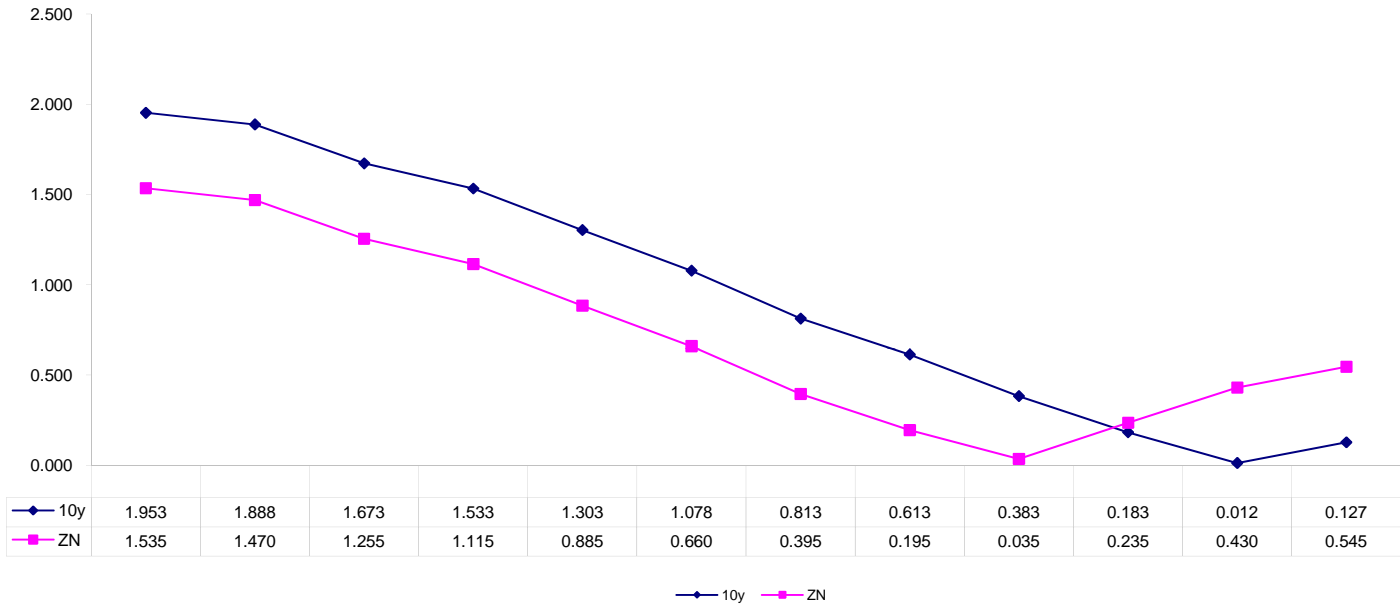
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.211	4.000	9880.8750
Red Pack	2.039	7.375	9799.8750
Green Pack	2.907	5.750	9715.3750
Blue Pack	3.396	5.625	9667.8750
Gold Pack	3.692	4.875	9639.1250

