

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	108.7031	108.2250	0.835	1.904
ZF	118.4531	118.1450	1.499	1.499
ZN	124.5156	124.1650	2.203	5.998
2y	99.9844	99.3150	0.879	1.913
5y	100.9906	100.3170	1.663	4.693
10y	100.9063	100.2900	2.643	8.601

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	98.8000	1.200	84	0.2295	JUN	
EDAU09	98.7900	1.210	175	0.4788	SEP	White Pack
EDAZ09	98.6250	1.375	266	0.7281	DEC	
EDAH10	98.5700	1.430	357	0.9774	MAR	
EDAM10	98.4000	1.600	448	1.2267	JUN	
EDAU10	98.2150	1.785	539	1.4760	SEP	Red Pack
EDAZ10	98.0000	2.000	630	1.7254	DEC	
EDAH11	97.8400	2.160	721	1.9747	MAR	
EDAM11	97.6300	2.370	812	2.2240	JUN	
EDAU11	97.4400	2.560	910	2.4925	SEP	Green Pack
EDAZ11	97.2450	2.755	1,001	2.7418	DEC	
EDAH12	97.1450	2.855	1,092	2.9911	MAR	
EDAM12	97.0200	2.980	1,183	3.2404	JUN	
EDAU12	96.9200	3.080	1,274	3.4897	SEP	Blue Pack
EDAZ12	96.8450	3.155	1,365	3.7391	DEC	
EDAH13	96.7750	3.225	1,456	3.9884	MAR	
EDAM13	96.7050	3.295	1,547	4.2377	JUN	
EDAU13	96.6350	3.365	1,638	4.4870	SEP	Gold Pack
EDAZ13	96.5500	3.450	1,729	4.7363	DEC	
EDAH14	96.5200	3.480	1,820	4.9856	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.326	1.250	9869.63	
Red Pack	1.922	0.625	9811.38	Pack Prices
Green Pack	2.689	-1.000	9736.50	
Blue Pack		-0.625	9690.63	
Gold Pack		0.000	9664.00	

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)

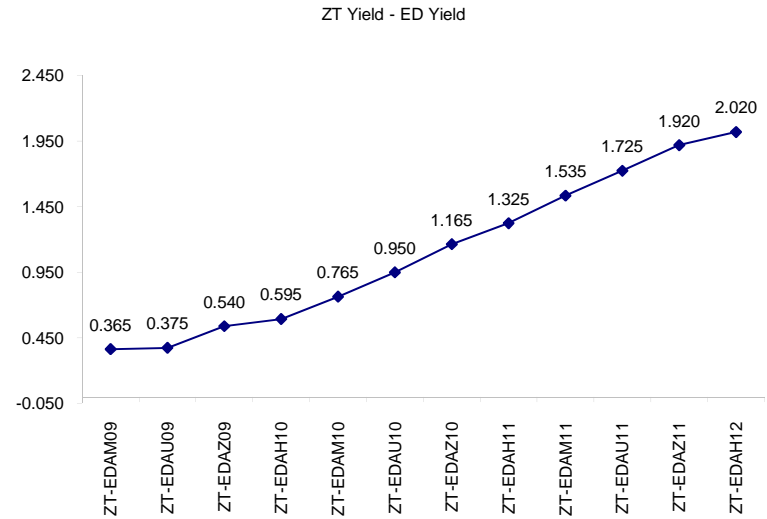
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.90	0.365	ZT-EDAM09	95
EDAU09	9.91	0.375	ZT-EDAU09	95
EDAZ09	10.08	0.540	ZT-EDAZ09	97
EDAH10	10.13	0.595	ZT-EDAH10	97
EDAM10	10.30	0.765	ZT-EDAM10	95
EDAU10	10.49	0.950	ZT-EDAU10	93
EDAZ10	10.70	1.165	ZT-EDAZ10	93
EDAH11	10.86	1.325	ZT-EDAH11	94
EDAM11	11.07	1.535	ZT-EDAM11	94
EDAU11	11.26	1.725	ZT-EDAU11	95
EDAZ11	11.46	1.920	ZT-EDAZ11	95
EDAH12	11.56	2.020	ZT-EDAH12	95

Price = Outright Decimal Price - Euro Contract Price

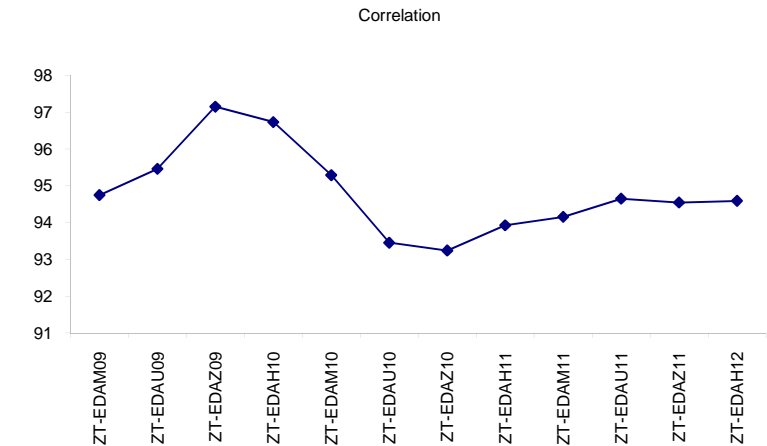
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			ZT Duration	Spread Duration	
EDAM09	0.2295	1.9039	1.6744	ZT-EDAM09		
EDAU09	0.4788	1.9039	1.4251	ZT-EDAU09		
EDAZ09	0.7281	1.9039	1.1758	ZT-EDAZ09		
EDAH10	0.9774	1.9039	0.9265	ZT-EDAH10		
EDAM10	1.2267	1.9039	0.6772	ZT-EDAM10		
EDAU10	1.4760	1.9039	0.4279	ZT-EDAU10		
EDAZ10	1.7254	1.9039	0.1785	ZT-EDAZ10		
EDAH11	1.9747	1.9039	-0.0708	ZT-EDAH11		
EDAM11	2.2240	1.9039	-0.3201	ZT-EDAM11		
EDAU11	2.4925	1.9039	-0.5886	ZT-EDAU11		
EDAZ11	2.7418	1.9039	-0.8379	ZT-EDAZ11		
EDAH12	2.9911	1.9039	-1.0872	ZT-EDAH12		

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

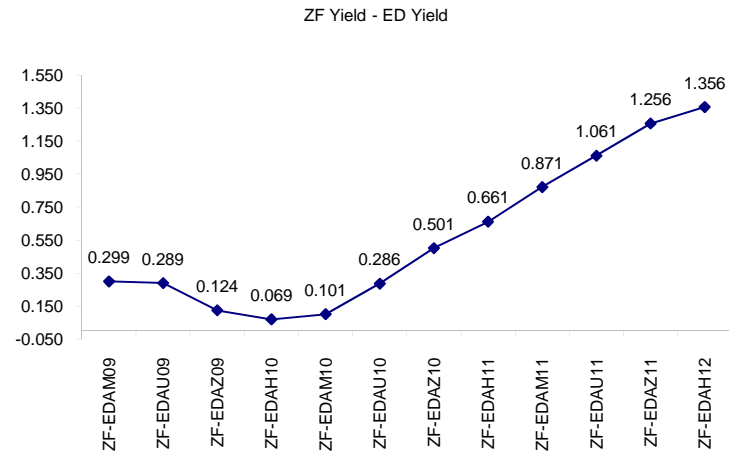


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	19.65	0.299	ZF-EDAM09	97
EDAU09	19.66	0.289	ZF-EDAU09	98
EDAZ09	19.83	0.124	ZF-EDAZ09	99
EDAH10	19.88	0.069	ZF-EDAH10	99
EDAM10	20.05	0.101	ZF-EDAM10	99
EDAU10	20.24	0.286	ZF-EDAU10	98
EDAZ10	20.45	0.501	ZF-EDAZ10	97
EDAH11	20.61	0.661	ZF-EDAH11	97
EDAM11	20.82	0.871	ZF-EDAM11	97
EDAU11	21.01	1.061	ZF-EDAU11	97
EDAZ11	21.21	1.256	ZF-EDAZ11	97
EDAH12	21.31	1.356	ZF-EDAH12	97

Price = Outright Decimal Price - Euro Contract Price

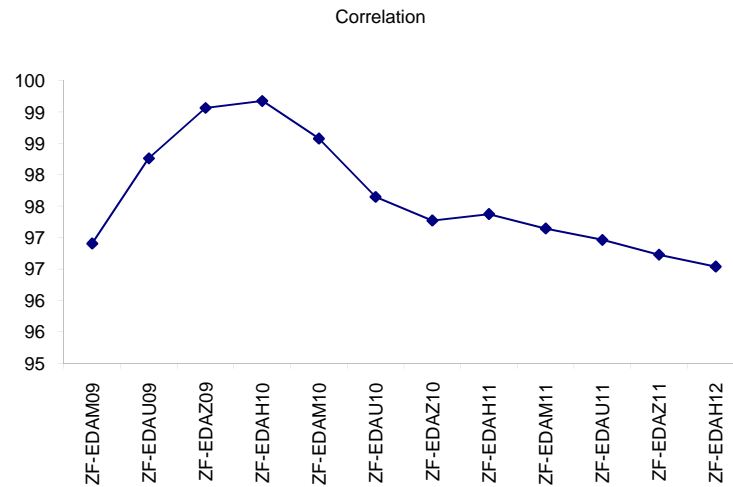
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			ZF Duration	Spread Duration	
EDAM09	0.2295	1.4993	1.2698	ZF-EDAM09		
EDAU09	0.4788	1.4993	1.0205	ZF-EDAU09		
EDAZ09	0.7281	1.4993	0.7712	ZF-EDAZ09		
EDAH10	0.9774	1.4993	0.5219	ZF-EDAH10		
EDAM10	1.2267	1.4993	0.2725	ZF-EDAM10		
EDAU10	1.4760	1.4993	0.0232	ZF-EDAU10		
EDAZ10	1.7254	1.4993	-0.2261	ZF-EDAZ10		
EDAH11	1.9747	1.4993	-0.4754	ZF-EDAH11		
EDAM11	2.2240	1.4993	-0.7247	ZF-EDAM11		
EDAU11	2.4925	1.4993	-0.9932	ZF-EDAU11		
EDAZ11	2.7418	1.4993	-1.2425	ZF-EDAZ11		
EDAH12	2.9911	1.4993	-1.4918	ZF-EDAH12		

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

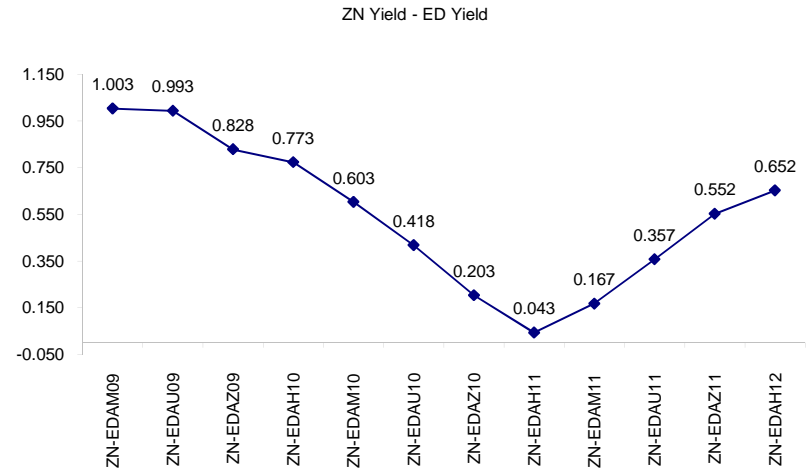


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAM09	25.72	1.003	ZN-EDAM09	97
EDAU09	25.73	0.993	ZN-EDAU09	97
EDAZ09	25.89	0.828	ZN-EDAZ09	99
EDAH10	25.95	0.773	ZN-EDAH10	99
EDAM10	26.12	0.603	ZN-EDAM10	99
EDAU10	26.30	0.418	ZN-EDAU10	97
EDAZ10	26.52	0.203	ZN-EDAZ10	97
EDAH11	26.68	0.043	ZN-EDAH11	98
EDAM11	26.89	0.167	ZN-EDAM11	98
EDAU11	27.08	0.357	ZN-EDAU11	98
EDAZ11	27.27	0.552	ZN-EDAZ11	98
EDAH12	27.37	0.652	ZN-EDAH12	98

Price = Outright Decimal Price - Euro Contract Price

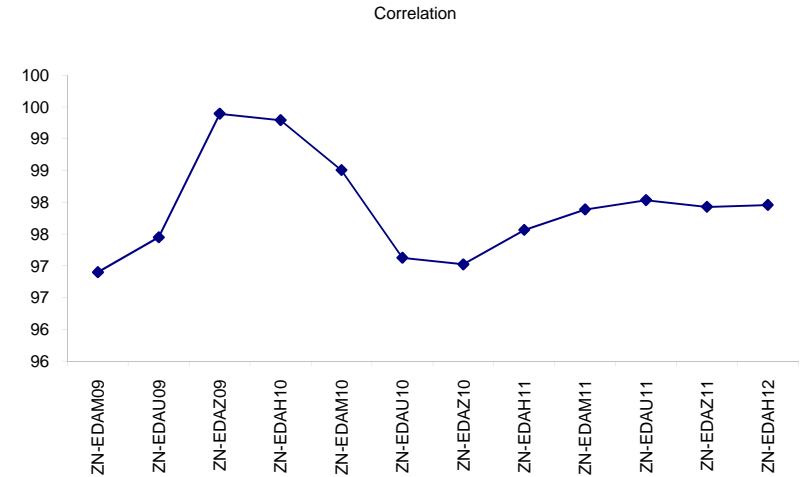
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	ZN Duration	Spread Duration	
EDAM09	0.2295	5.9978	5.7683	ZN-EDAM09
EDAU09	0.4788	5.9978	5.5190	ZN-EDAU09
EDAZ09	0.7281	5.9978	5.2697	ZN-EDAZ09
EDAH10	0.9774	5.9978	5.0204	ZN-EDAH10
EDAM10	1.2267	5.9978	4.7711	ZN-EDAM10
EDAU10	1.4760	5.9978	4.5218	ZN-EDAU10
EDAZ10	1.7254	5.9978	4.2724	ZN-EDAZ10
EDAH11	1.9747	5.9978	4.0231	ZN-EDAH11
EDAM11	2.2240	5.9978	3.7738	ZN-EDAM11
EDAU11	2.4925	5.9978	3.5053	ZN-EDAU11
EDAZ11	2.7418	5.9978	3.2560	ZN-EDAZ11
EDAH12	2.9911	5.9978	3.0067	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	1.18	0.321	2y-EDAM09	-96
EDAU09	1.19	0.331	2y-EDAU09	-97
EDAZ09	1.36	0.496	2y-EDAZ09	-98
EDAH10	1.41	0.551	2y-EDAH10	-98
EDAM10	1.58	0.721	2y-EDAM10	-98
EDAU10	1.77	0.906	2y-EDAU10	-97
EDAZ10	1.98	1.121	2y-EDAZ10	-97
EDAH11	2.14	1.281	2y-EDAH11	-97
EDAM11	2.35	1.491	2y-EDAM11	-97
EDAU11	2.54	1.681	2y-EDAU11	-97
EDAZ11	2.74	1.876	2y-EDAZ11	-97
EDAH12	2.84	1.976	2y-EDAH12	-96

Price = Outright Decimal Price - Euro Contract Price

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

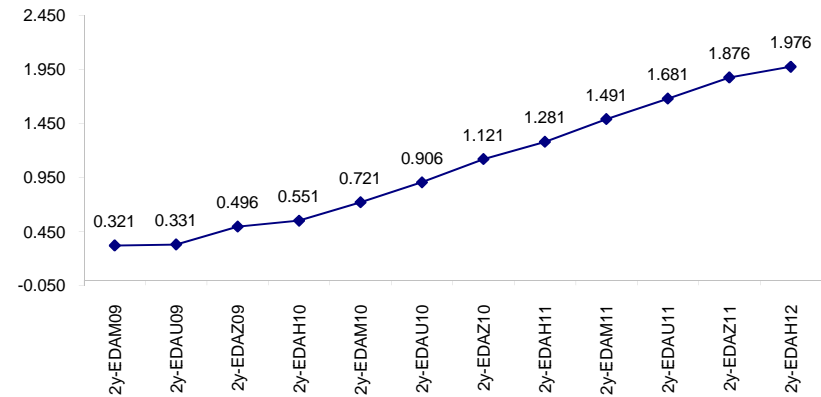
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

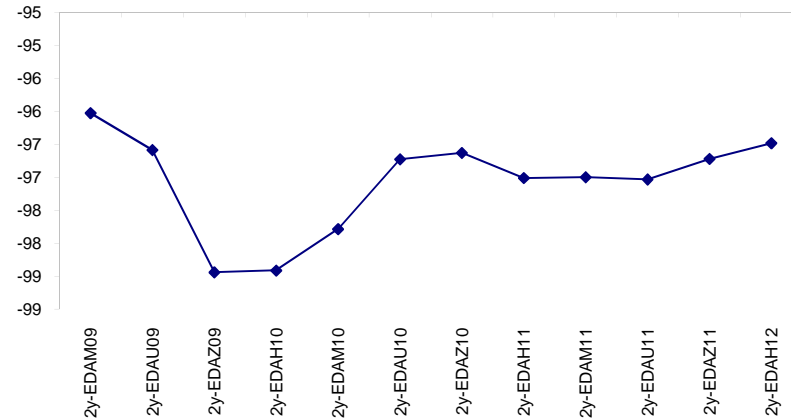
	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.2295	1.9133	1.6839	2y-EDAM09
EDAU09	0.4788	1.9133	1.4346	2y-EDAU09
EDAZ09	0.7281	1.9133	1.1852	2y-EDAZ09
EDAH10	0.9774	1.9133	0.9359	2y-EDAH10
EDAM10	1.2267	1.9133	0.6866	2y-EDAM10
EDAU10	1.4760	1.9133	0.4373	2y-EDAU10
EDAZ10	1.7254	1.9133	0.1880	2y-EDAZ10
EDAH11	1.9747	1.9133	-0.0613	2y-EDAH11
EDAM11	2.2240	1.9133	-0.3107	2y-EDAM11
EDAU11	2.4925	1.9133	-0.5791	2y-EDAU11
EDAZ11	2.7418	1.9133	-0.8285	2y-EDAZ11
EDAH12	2.9911	1.9133	-1.0778	2y-EDAH12

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

ZT Yield - ED Yield



Correlation

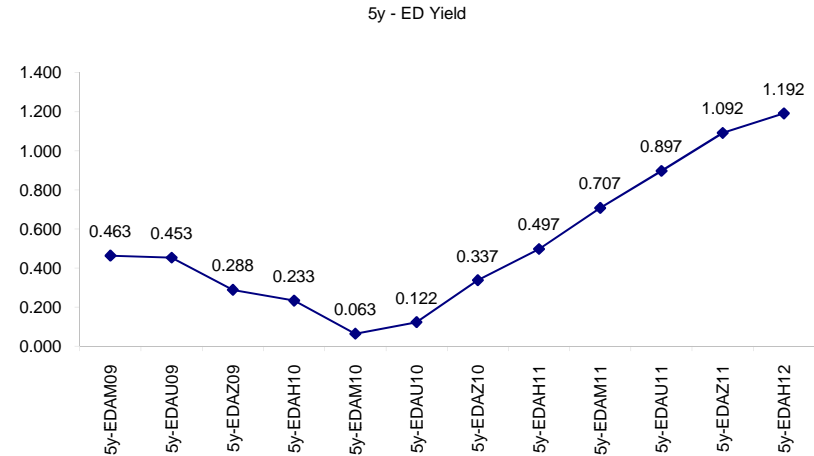


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	2.19	0.463	5y-EDAM09	-97
EDAU09	2.20	0.453	5y-EDAU09	-98
EDAZ09	2.37	0.288	5y-EDAZ09	-99
EDAH10	2.42	0.233	5y-EDAH10	-99
EDAM10	2.59	0.063	5y-EDAM10	-99
EDAU10	2.78	0.122	5y-EDAU10	-98
EDAZ10	2.99	0.337	5y-EDAZ10	-98
EDAH11	3.15	0.497	5y-EDAH11	-98
EDAM11	3.36	0.707	5y-EDAM11	-98
EDAU11	3.55	0.897	5y-EDAU11	-99
EDAZ11	3.75	1.092	5y-EDAZ11	-98
EDAH12	3.85	1.192	5y-EDAH12	-98

Price = Outright Decimal Price - Euro Contract Price

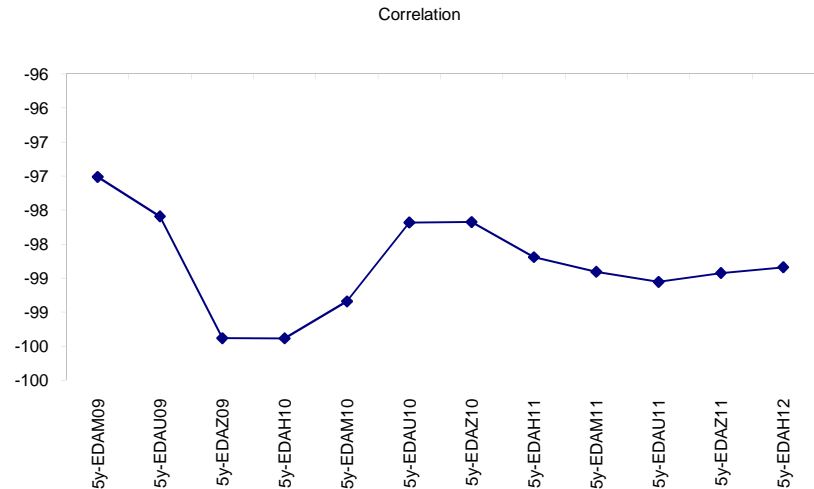
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAM09	0.2295	4.6932	4.4637	5y-EDAM09	
EDAU09	0.4788	4.6932	4.2144	5y-EDAU09	
EDAZ09	0.7281	4.6932	3.9651	5y-EDAZ09	
EDAH10	0.9774	4.6932	3.7157	5y-EDAH10	
EDAM10	1.2267	4.6932	3.4664	5y-EDAM10	
EDAU10	1.4760	4.6932	3.2171	5y-EDAU10	
EDAZ10	1.7254	4.6932	2.9678	5y-EDAZ10	
EDAH11	1.9747	4.6932	2.7185	5y-EDAH11	
EDAM11	2.2240	4.6932	2.4692	5y-EDAM11	
EDAU11	2.4925	4.6932	2.2007	5y-EDAU11	
EDAZ11	2.7418	4.6932	1.9514	5y-EDAZ11	
EDAH12	2.9911	4.6932	1.7020	5y-EDAH12	

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

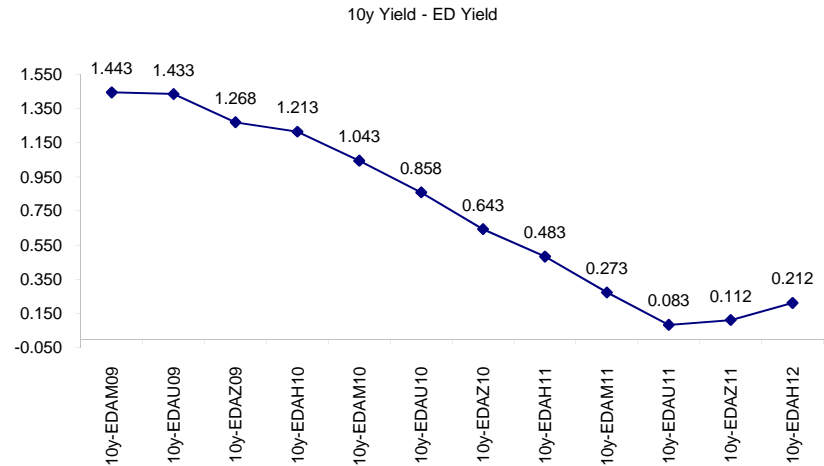


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	2.19	1.443	10y-EDAM09	-95
EDAU09	2.20	1.433	10y-EDAU09	-95
EDAZ09	2.37	1.268	10y-EDAZ09	-98
EDAH10	2.42	1.213	10y-EDAH10	-98
EDAM10	2.59	1.043	10y-EDAM10	-97
EDAU10	2.78	0.858	10y-EDAU10	-96
EDAZ10	2.99	0.643	10y-EDAZ10	-96
EDAH11	3.15	0.483	10y-EDAH11	-97
EDAM11	3.36	0.273	10y-EDAM11	-97
EDAU11	3.55	0.083	10y-EDAU11	-98
EDAZ11	3.75	0.112	10y-EDAZ11	-97
EDAH12	3.85	0.212	10y-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				10Y Duration	Spread Duration	
EDAM09	0.2295	8.6015	8.3720	10y-EDAM09		
EDAU09	0.4788	8.6015	8.1227	10y-EDAU09		
EDAZ09	0.7281	8.6015	7.8733	10y-EDAZ09		
EDAH10	0.9774	8.6015	7.6240	10y-EDAH10		
EDAM10	1.2267	8.6015	7.3747	10y-EDAM10		
EDAU10	1.4760	8.6015	7.1254	10y-EDAU10		
EDAZ10	1.7254	8.6015	6.8761	10y-EDAZ10		
EDAH11	1.9747	8.6015	6.6268	10y-EDAH11		
EDAM11	2.2240	8.6015	6.3775	10y-EDAM11		
EDAU11	2.4925	8.6015	6.1090	10y-EDAU11		
EDAZ11	2.7418	8.6015	5.8597	10y-EDAZ11		
EDAH12	2.9911	8.6015	5.6103	10y-EDAH12		

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

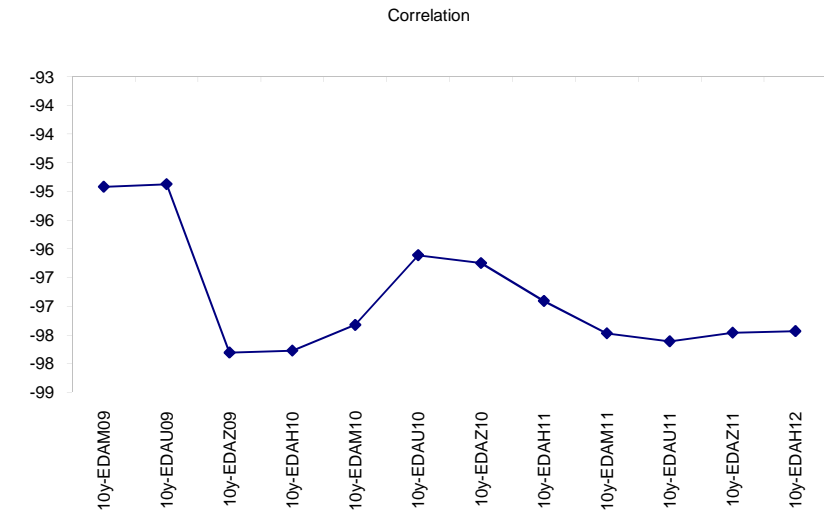


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

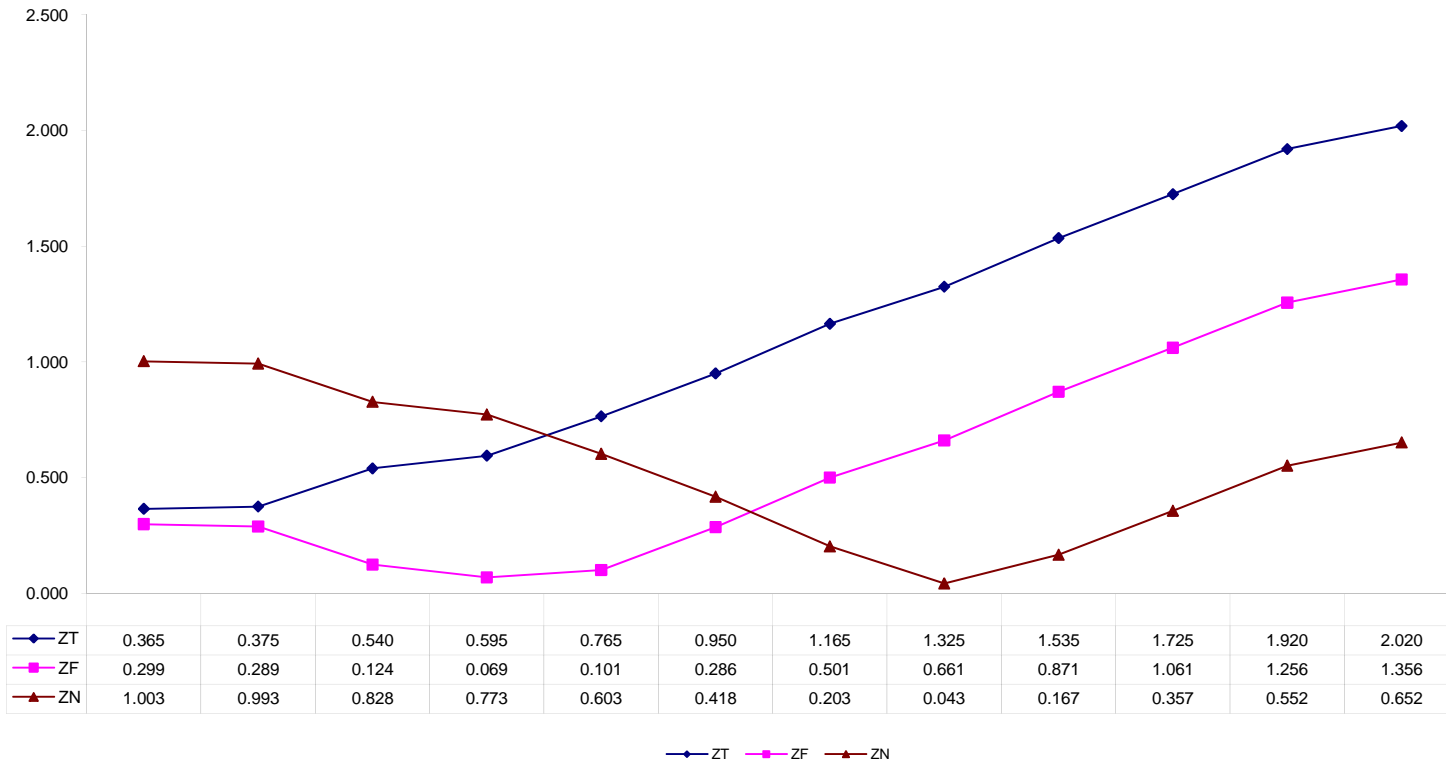
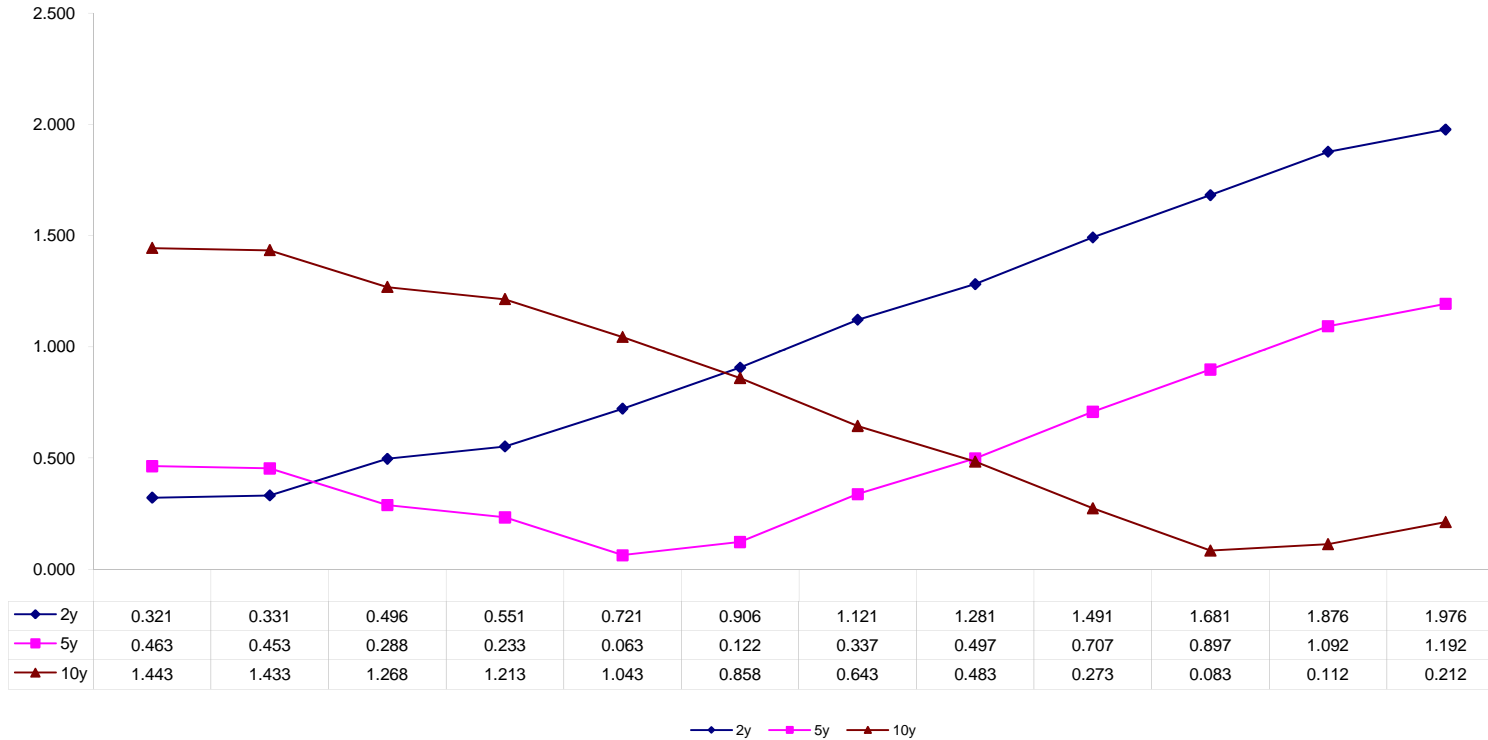
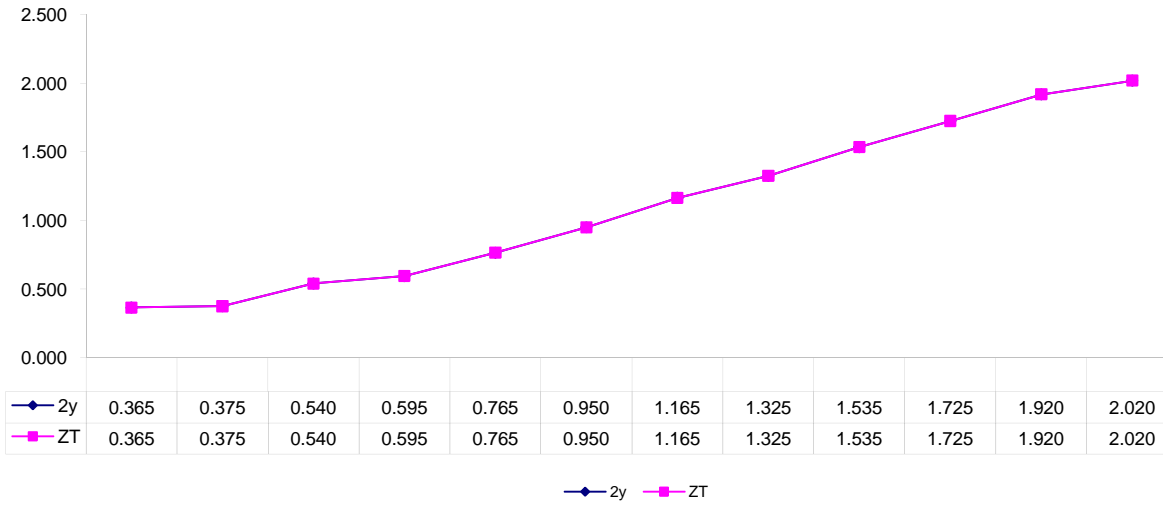
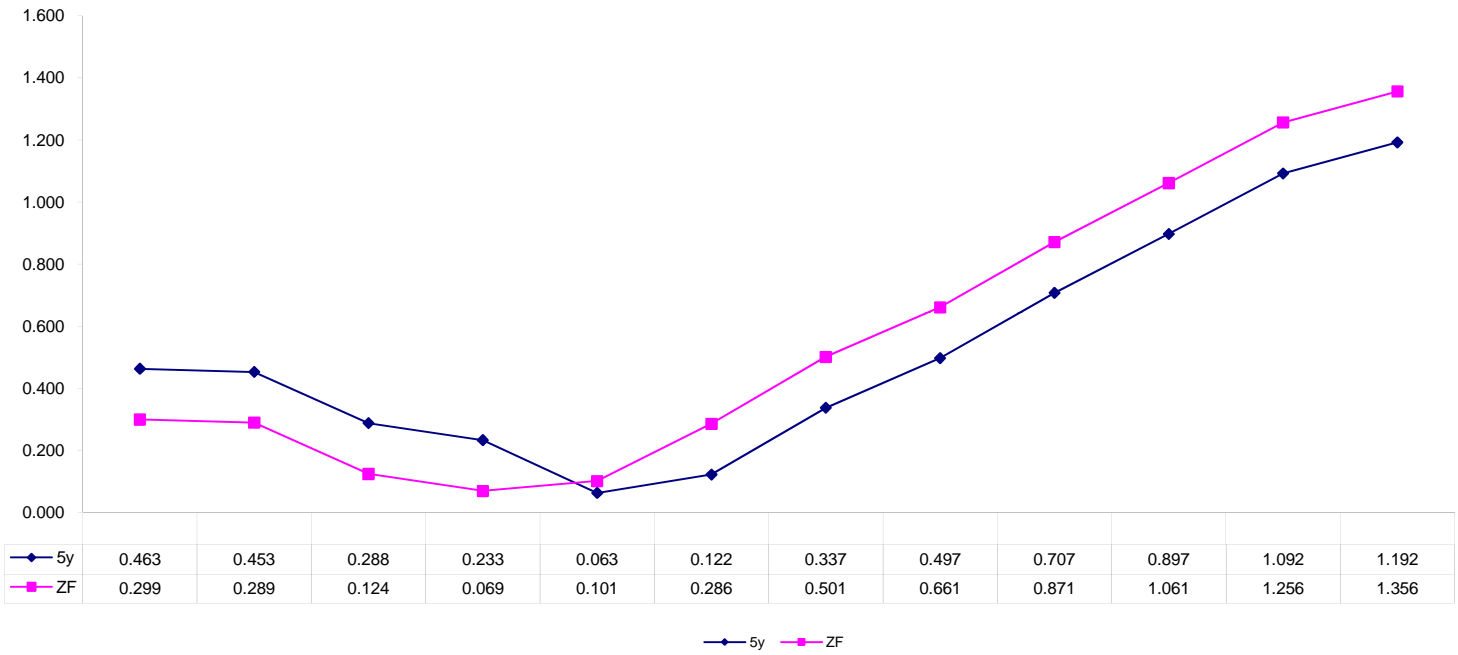


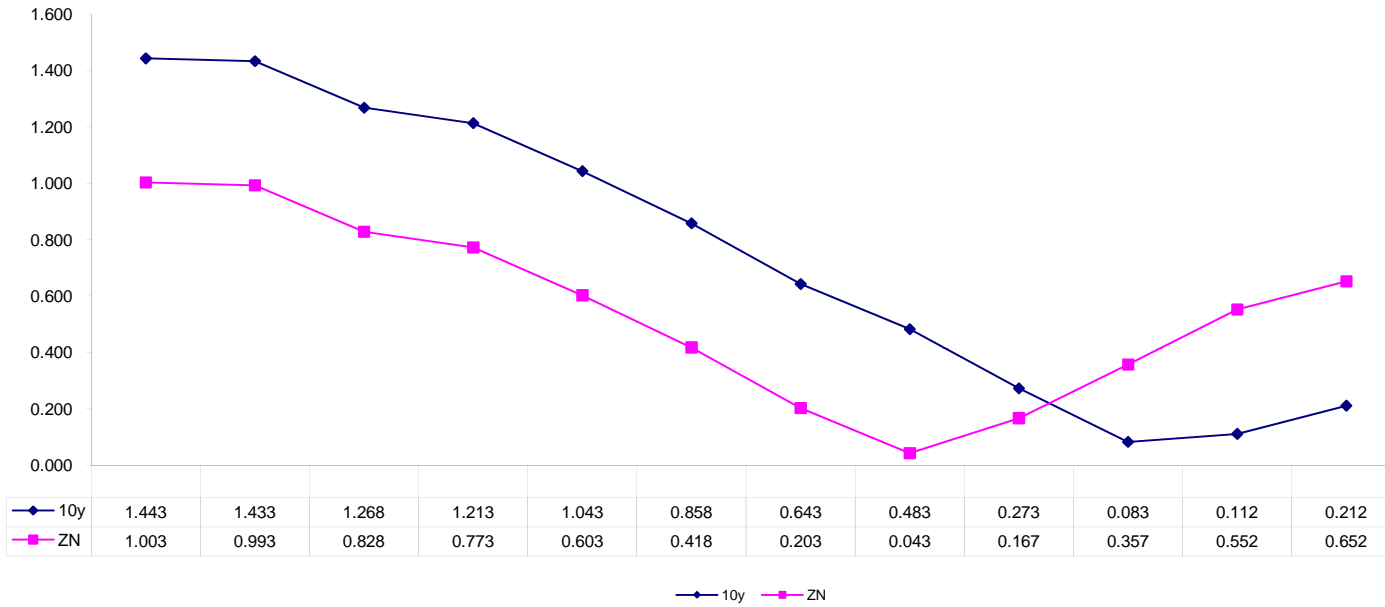
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.326	1.250	9869.6250
Red Pack	1.922	0.625	9811.3750
Green Pack	2.689	-1.000	9736.5000
Blue Pack		-0.625	9690.6250
Gold Pack		0.000	9664.0000

