

The Morning Email: TERM TEDS & Dirty TEDS

Table of Contents

- Pg 1** Quotes
- Pg 2** Dirty TED: ZT vs Eurodollar Contracts
- Pg 3** Dirty TED: ZF vs Eurodollar Contracts
- Pg 4** Dirty TED: ZN vs Eurodollar Contracts
- Pg 5** TERM TED: 2y vs Eurodollar Contracts
- Pg 6** TERM TED: 5y vs Eurodollar Contracts
- Pg 7** TERM TED: 10y vs Eurodollar Contracts
- Pg 8** Dirty TED Curve
- Pg 9** TED Curve
- Pg 10** 2y Basis TED Curve
- Pg 11** 5y Basis TED Curve
- Pg 12** 10y Basis TED Curve
- Pg 13** Packs

Want something added? Let me know: jgoulding@ghco.com

Disclaimer: All information within this newsletter is meant for internal use at GH Trader's LLC, only. All information has been recorded to the best of my ability. This material is based upon information that I consider reliable, but I do not represent that it is accurate or complete.

Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	108.4125	108.1320	0.920	1.945
ZF	114.9594	114.3070	2.236	4.263
ZN	116.0469	116.0150	3.126	5.891
2y	99.8969	99.2870	0.923	1.964
5y	99.1094	99.0350	2.439	4.685
10y	96.2813	96.0900	3.573	8.426

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	99.3800	0.620	11	0.0295	JUN	
EDAU09	99.3000	0.700	102	0.2788	SEP	White Pack
EDAZ09	99.0900	0.910	193	0.5281	DEC	Pack
EDAH10	98.9250	1.075	284	0.7774	MAR	
EDAM10	98.6350	1.365	375	1.0267	JUN	
EDAU10	98.3250	1.675	466	1.2760	SEP	Red Pack
EDAZ10	97.9500	2.050	557	1.5254	DEC	Pack
EDAH11	97.6150	2.385	648	1.7747	MAR	
EDAM11	97.2450	2.755	739	2.0240	JUN	
EDAU11	96.8900	3.110	837	2.2925	SEP	Green Pack
EDAZ11	96.5300	3.470	928	2.5418	DEC	Pack
EDAH12	96.2550	3.745	1,019	2.7911	MAR	
EDAM12	96.0050	3.995	1,110	3.0404	JUN	
EDAU12	95.7900	4.210	1,201	3.2897	SEP	Blue Pack
EDAZ12	95.5950	4.405	1,292	3.5391	DEC	Pack
EDAH13	95.4950	4.505	1,383	3.7884	MAR	
EDAM13	95.3750	4.625	1,474	4.0377	JUN	
EDAU13	95.2700	4.730	1,565	4.2870	SEP	Gold Pack
EDAZ13	95.1450	4.855	1,656	4.5363	DEC	Pack
EDAH14	95.0850	4.915	1,747	4.7856	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	0.840	-0.437	9917.38	Pack Prices
Red Pack	1.904	-1.500	9813.13	
Green Pack	3.343	-1.500	9673.00	
Blue Pack	4.385	-1.750	9572.13	
Gold Pack	4.906	1.125	9521.88	

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)

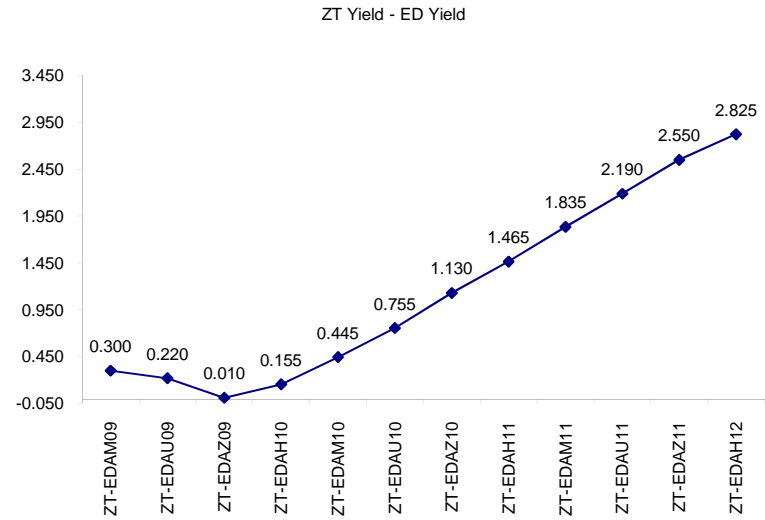
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.03	0.300	ZT-EDAM09	72
EDAU09	9.11	0.220	ZT-EDAU09	94
EDAZ09	9.32	0.010	ZT-EDAZ09	96
EDAH10	9.49	0.155	ZT-EDAH10	91
EDAM10	9.78	0.445	ZT-EDAM10	82
EDAU10	10.09	0.755	ZT-EDAU10	77
EDAZ10	10.46	1.130	ZT-EDAZ10	70
EDAH11	10.80	1.465	ZT-EDAH11	62
EDAM11	11.17	1.835	ZT-EDAM11	56
EDAU11	11.52	2.190	ZT-EDAU11	51
EDAZ11	11.88	2.550	ZT-EDAZ11	48
EDAH12	12.16	2.825	ZT-EDAH12	45

Price = Outright Decimal Price - Euro Contract Price

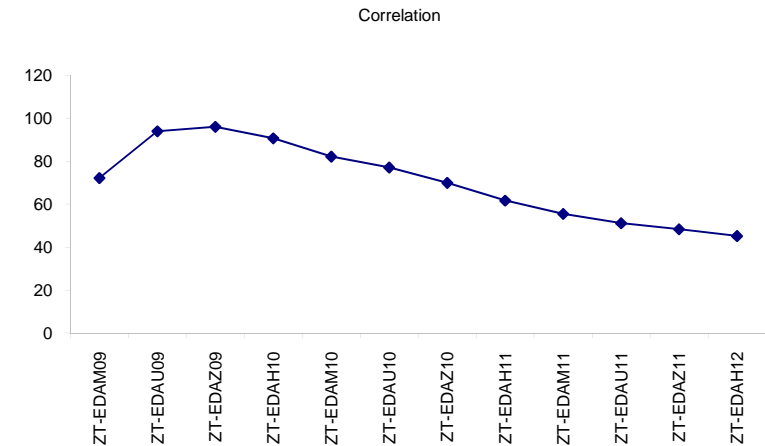
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			ZT Duration	Spread Duration	
EDAM09	0.0295	1.9451	1.9156	ZT-EDAM09		
EDAU09	0.2788	1.9451	1.6663	ZT-EDAU09		
EDAZ09	0.5281	1.9451	1.4170	ZT-EDAZ09		
EDAH10	0.7774	1.9451	1.1677	ZT-EDAH10		
EDAM10	1.0267	1.9451	0.9184	ZT-EDAM10		
EDAU10	1.2760	1.9451	0.6690	ZT-EDAU10		
EDAZ10	1.5254	1.9451	0.4197	ZT-EDAZ10		
EDAH11	1.7747	1.9451	0.1704	ZT-EDAH11		
EDAM11	2.0240	1.9451	-0.0789	ZT-EDAM11		
EDAU11	2.2925	1.9451	-0.3474	ZT-EDAU11		
EDAZ11	2.5418	1.9451	-0.5967	ZT-EDAZ11		
EDAH12	2.7911	1.9451	-0.8460	ZT-EDAH12		

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

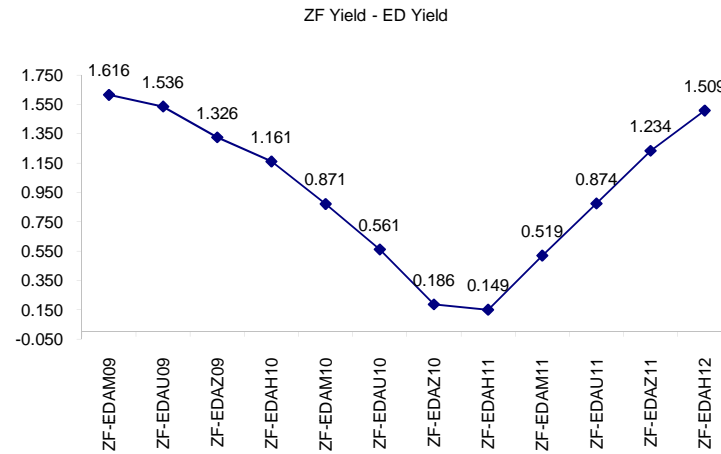


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	15.58	1.616	ZF-EDAM09	-30
EDAU09	15.66	1.536	ZF-EDAU09	20
EDAZ09	15.87	1.326	ZF-EDAZ09	43
EDAH10	16.03	1.161	ZF-EDAH10	69
EDAM10	16.32	0.871	ZF-EDAM10	83
EDAU10	16.63	0.561	ZF-EDAU10	88
EDAZ10	17.01	0.186	ZF-EDAZ10	93
EDAH11	17.34	0.149	ZF-EDAH11	96
EDAM11	17.71	0.519	ZF-EDAM11	97
EDAU11	18.07	0.874	ZF-EDAU11	98
EDAZ11	18.43	1.234	ZF-EDAZ11	99
EDAH12	18.70	1.509	ZF-EDAH12	99

Price = Outright Decimal Price - Euro Contract Price

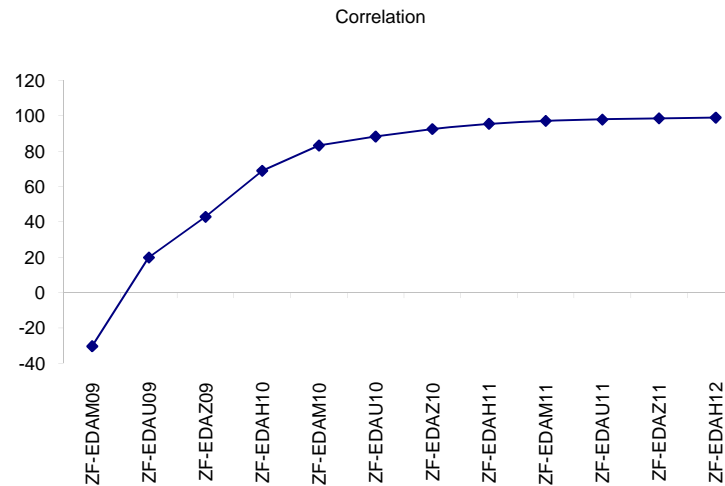
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



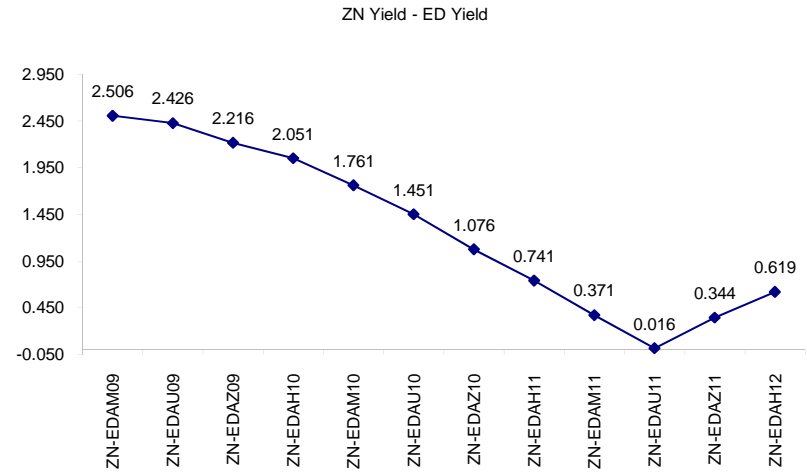
	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM09	0.0295	4.2634	4.2339	ZF-EDAM09	
EDAU09	0.2788	4.2634	3.9846	ZF-EDAU09	
EDAZ09	0.5281	4.2634	3.7353	ZF-EDAZ09	
EDAH10	0.7774	4.2634	3.4860	ZF-EDAH10	
EDAM10	1.0267	4.2634	3.2367	ZF-EDAM10	
EDAU10	1.2760	4.2634	2.9874	ZF-EDAU10	
EDAZ10	1.5254	4.2634	2.7381	ZF-EDAZ10	
EDAH11	1.7747	4.2634	2.4887	ZF-EDAH11	
EDAM11	2.0240	4.2634	2.2394	ZF-EDAM11	
EDAU11	2.2925	4.2634	1.9709	ZF-EDAU11	
EDAZ11	2.5418	4.2634	1.7216	ZF-EDAZ11	
EDAH12	2.7911	4.2634	1.4723	ZF-EDAH12	

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



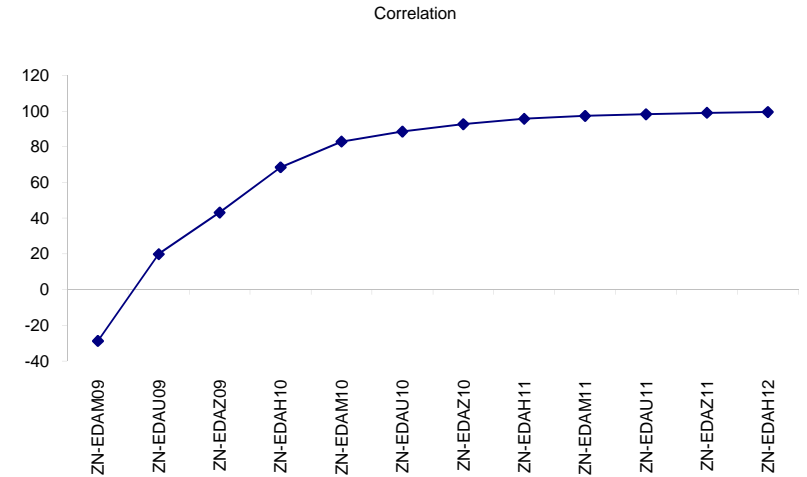
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	16.67	2.506	ZN-EDAM09	-29
EDAU09	16.75	2.426	ZN-EDAU09	20
EDAZ09	16.96	2.216	ZN-EDAZ09	43
EDAH10	17.12	2.051	ZN-EDAH10	68
EDAM10	17.41	1.761	ZN-EDAM10	83
EDAU10	17.72	1.451	ZN-EDAU10	88
EDAZ10	18.10	1.076	ZN-EDAZ10	93
EDAH11	18.43	0.741	ZN-EDAH11	96
EDAM11	18.80	0.371	ZN-EDAM11	97
EDAU11	19.16	0.016	ZN-EDAU11	98
EDAZ11	19.52	0.344	ZN-EDAZ11	99
EDAH12	19.79	0.619	ZN-EDAH12	99

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	0.0295	5.8905	5.8610
EDAU09	0.2788	5.8905	5.6117
EDAZ09	0.5281	5.8905	5.3624
EDAH10	0.7774	5.8905	5.1131
EDAM10	1.0267	5.8905	4.8638
EDAU10	1.2760	5.8905	4.6145
EDAZ10	1.5254	5.8905	4.3651
EDAH11	1.7747	5.8905	4.1158
EDAM11	2.0240	5.8905	3.8665
EDAU11	2.2925	5.8905	3.5980
EDAZ11	2.5418	5.8905	3.3487
EDAH12	2.7911	5.8905	3.0994

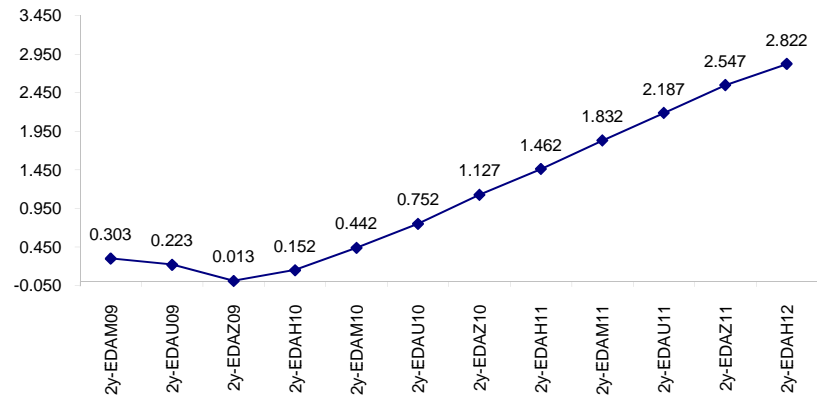
The farther away from 0 the spread duration is the riskier the trade.



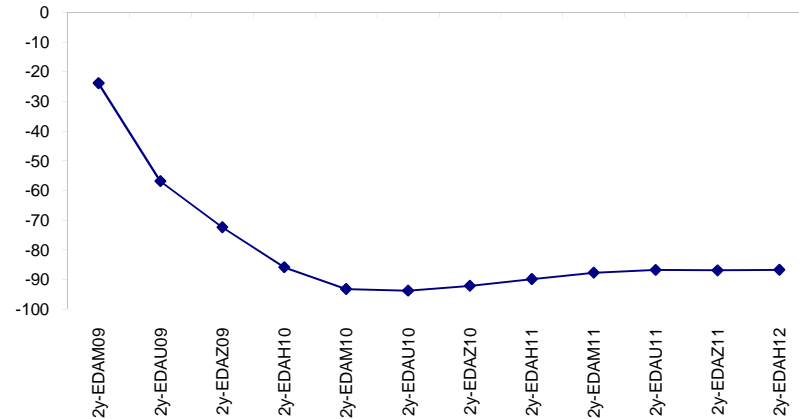
	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.52	0.303	2y-EDAM09	-24
EDAU09	0.60	0.223	2y-EDAU09	-57
EDAZ09	0.81	0.013	2y-EDAZ09	-72
EDAH10	0.97	0.152	2y-EDAH10	-86
EDAM10	1.26	0.442	2y-EDAM10	-93
EDAU10	1.57	0.752	2y-EDAU10	-94
EDAZ10	1.95	1.127	2y-EDAZ10	-92
EDAH11	2.28	1.462	2y-EDAH11	-90
EDAM11	2.65	1.832	2y-EDAM11	-88
EDAU11	3.01	2.187	2y-EDAU11	-87
EDAZ11	3.37	2.547	2y-EDAZ11	-87
EDAH12	3.64	2.822	2y-EDAH12	-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.

ZT Yield - ED Yield



Correlation



ED Duration as

	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.0295	1.9643	1.9348	2y-EDAM09
EDAU09	0.2788	1.9643	1.6855	2y-EDAU09
EDAZ09	0.5281	1.9643	1.4362	2y-EDAZ09
EDAH10	0.7774	1.9643	1.1868	2y-EDAH10
EDAM10	1.0267	1.9643	0.9375	2y-EDAM10
EDAU10	1.2760	1.9643	0.6882	2y-EDAU10
EDAZ10	1.5254	1.9643	0.4389	2y-EDAZ10
EDAH11	1.7747	1.9643	0.1896	2y-EDAH11
EDAM11	2.0240	1.9643	-0.0597	2y-EDAM11
EDAU11	2.2925	1.9643	-0.3282	2y-EDAU11
EDAZ11	2.5418	1.9643	-0.5775	2y-EDAZ11
EDAH12	2.7911	1.9643	-0.8268	2y-EDAH12

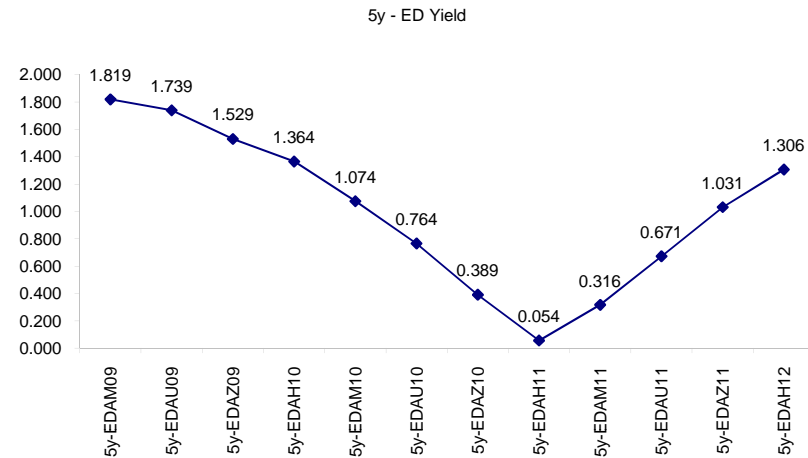
The farther away from 0 the spread duration is the riskier the trade.

	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	-0.27	1.819	5y-EDAM09	19
EDAU09	-0.19	1.739	5y-EDAU09	-24
EDAZ09	0.02	1.529	5y-EDAZ09	-44
EDAH10	0.18	1.364	5y-EDAH10	-69
EDAM10	0.47	1.074	5y-EDAM10	-85
EDAU10	0.78	0.764	5y-EDAU10	-89
EDAZ10	1.16	0.389	5y-EDAZ10	-92
EDAH11	1.49	0.054	5y-EDAH11	-95
EDAM11	1.86	0.316	5y-EDAM11	-96
EDAU11	2.22	0.671	5y-EDAU11	-96
EDAZ11	2.58	1.031	5y-EDAZ11	-97
EDAH12	2.85	1.306	5y-EDAH12	-98

Price = Outright Decimal Price - Euro Contract Price

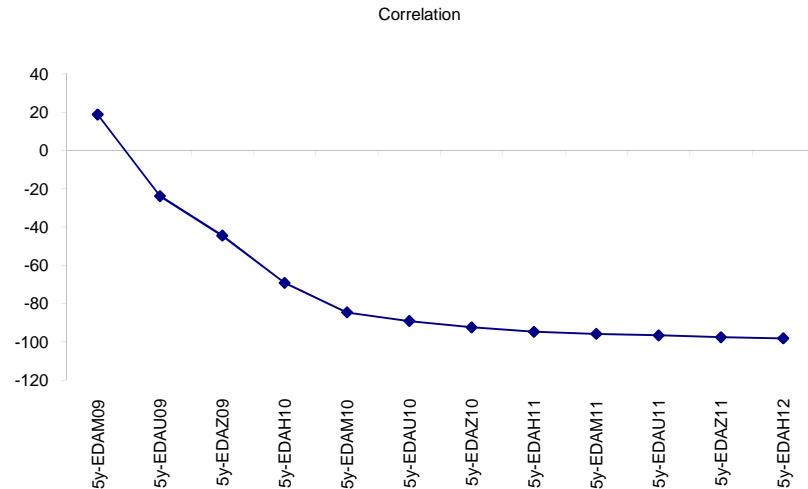
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM09	0.0295	4.6855	4.6560	5y-EDAM09
EDAU09	0.2788	4.6855	4.4067	5y-EDAU09
EDAZ09	0.5281	4.6855	4.1574	5y-EDAZ09
EDAH10	0.7774	4.6855	3.9081	5y-EDAH10
EDAM10	1.0267	4.6855	3.6587	5y-EDAM10
EDAU10	1.2760	4.6855	3.4094	5y-EDAU10
EDAZ10	1.5254	4.6855	3.1601	5y-EDAZ10
EDAH11	1.7747	4.6855	2.9108	5y-EDAH11
EDAM11	2.0240	4.6855	2.6615	5y-EDAM11
EDAU11	2.2925	4.6855	2.3930	5y-EDAU11
EDAZ11	2.5418	4.6855	2.1437	5y-EDAZ11
EDAH12	2.7911	4.6855	1.8944	5y-EDAH12

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

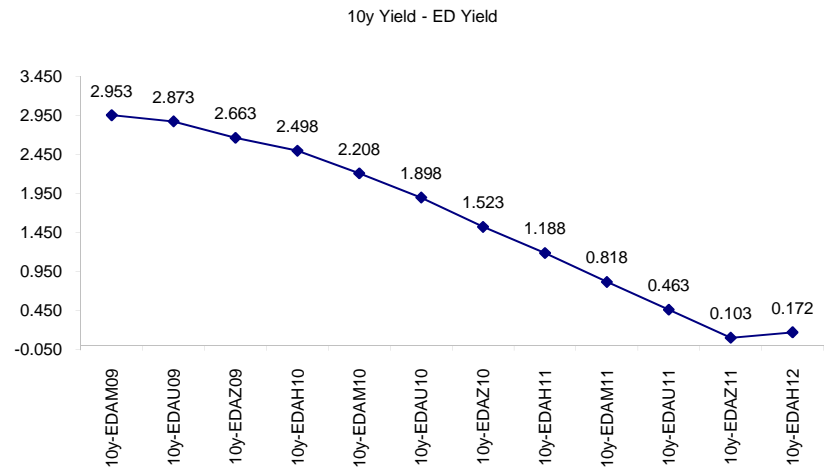


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	-0.27	2.953	10y-EDAM09	-23
EDAU09	-0.19	2.873	10y-EDAU09	-55
EDAZ09	0.02	2.663	10y-EDAZ09	-72
EDAH10	0.18	2.498	10y-EDAH10	-86
EDAM10	0.47	2.208	10y-EDAM10	-92
EDAU10	0.78	1.898	10y-EDAU10	-93
EDAZ10	1.16	1.523	10y-EDAZ10	-91
EDAH11	1.49	1.188	10y-EDAH11	-88
EDAM11	1.86	0.818	10y-EDAM11	-86
EDAU11	2.22	0.463	10y-EDAU11	-86
EDAZ11	2.58	0.103	10y-EDAZ11	-86
EDAH12	2.85	0.172	10y-EDAH12	-86

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	0.0295	8.4258	8.3964	10y-EDAM09		
EDAU09	0.2788	8.4258	8.1470	10y-EDAU09		
EDAZ09	0.5281	8.4258	7.8977	10y-EDAZ09		
EDAH10	0.7774	8.4258	7.6484	10y-EDAH10		
EDAM10	1.0267	8.4258	7.3991	10y-EDAM10		
EDAU10	1.2760	8.4258	7.1498	10y-EDAU10		
EDAZ10	1.5254	8.4258	6.9005	10y-EDAZ10		
EDAH11	1.7747	8.4258	6.6512	10y-EDAH11		
EDAM11	2.0240	8.4258	6.4018	10y-EDAM11		
EDAU11	2.2925	8.4258	6.1333	10y-EDAU11		
EDAZ11	2.5418	8.4258	5.8840	10y-EDAZ11		
EDAH12	2.7911	8.4258	5.6347	10y-EDAH12		

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

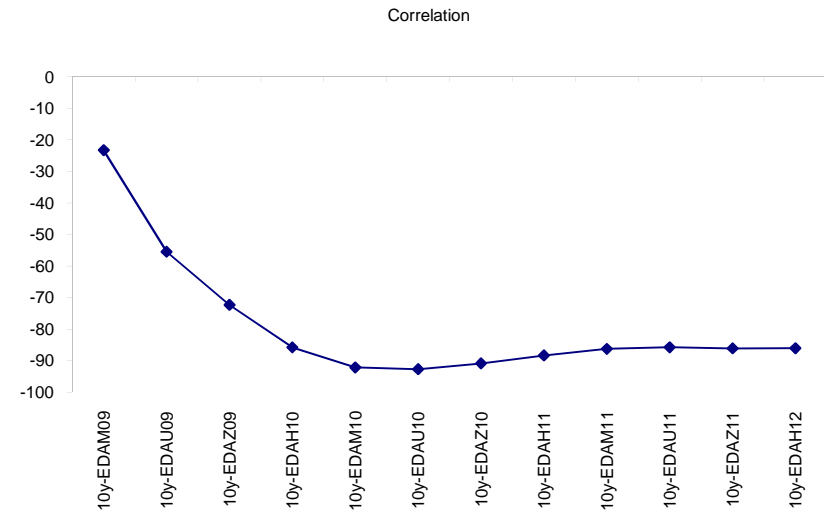


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

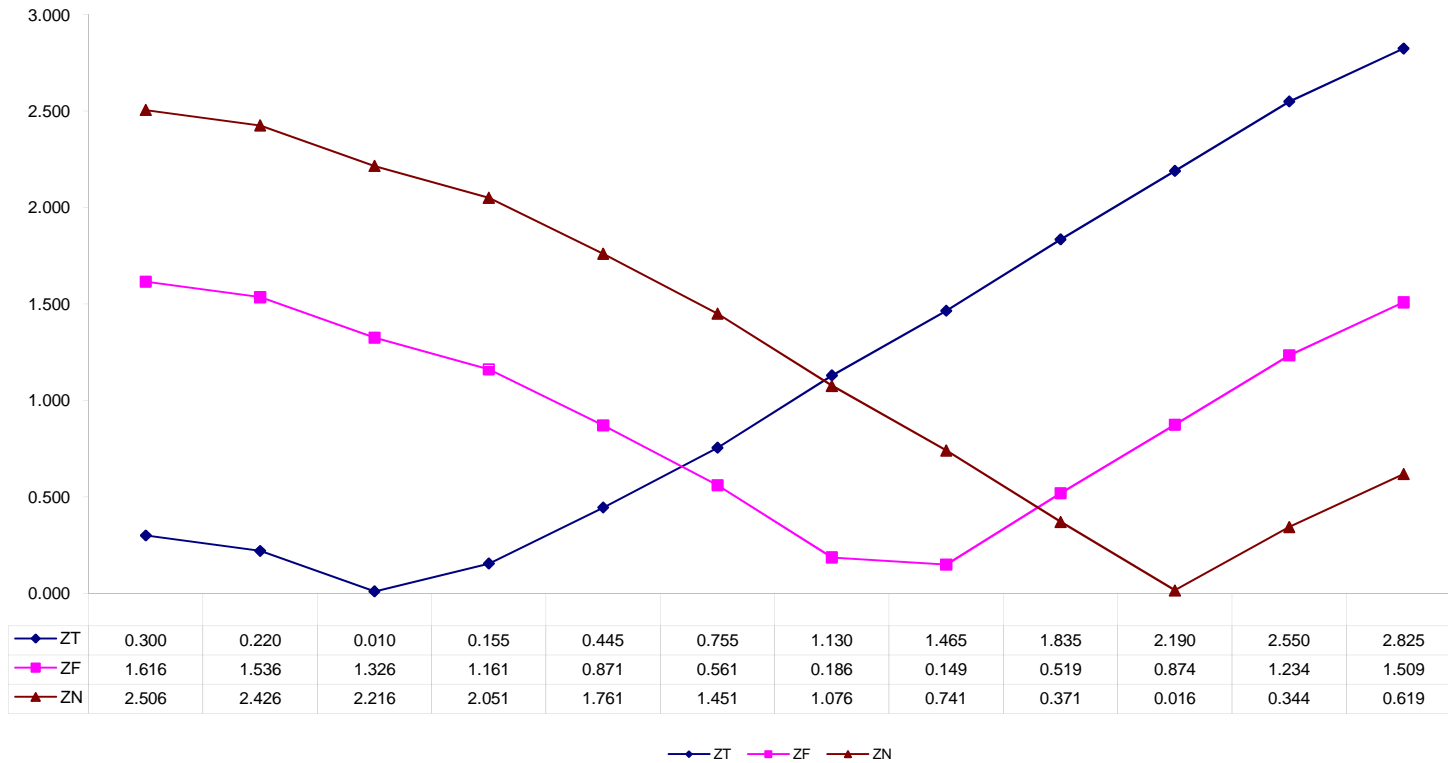
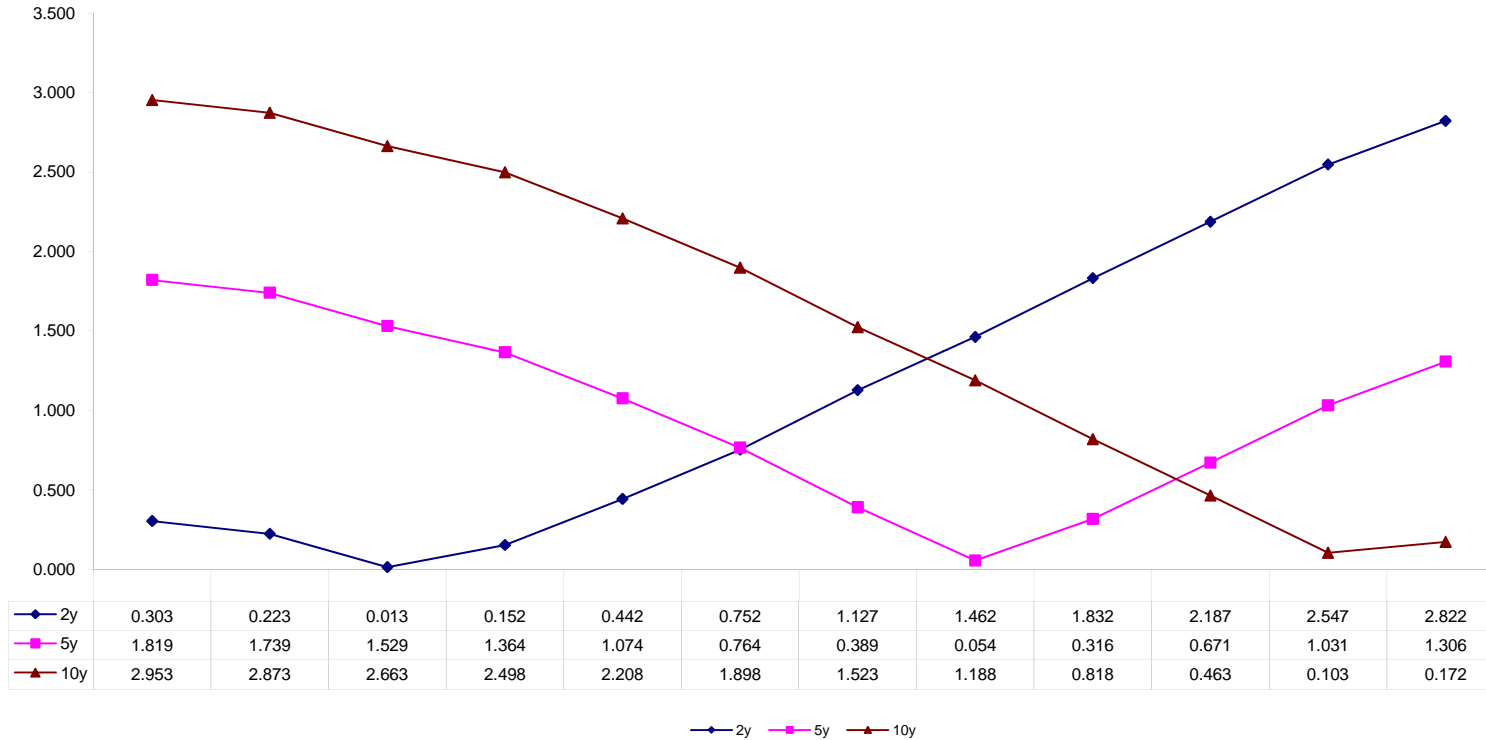
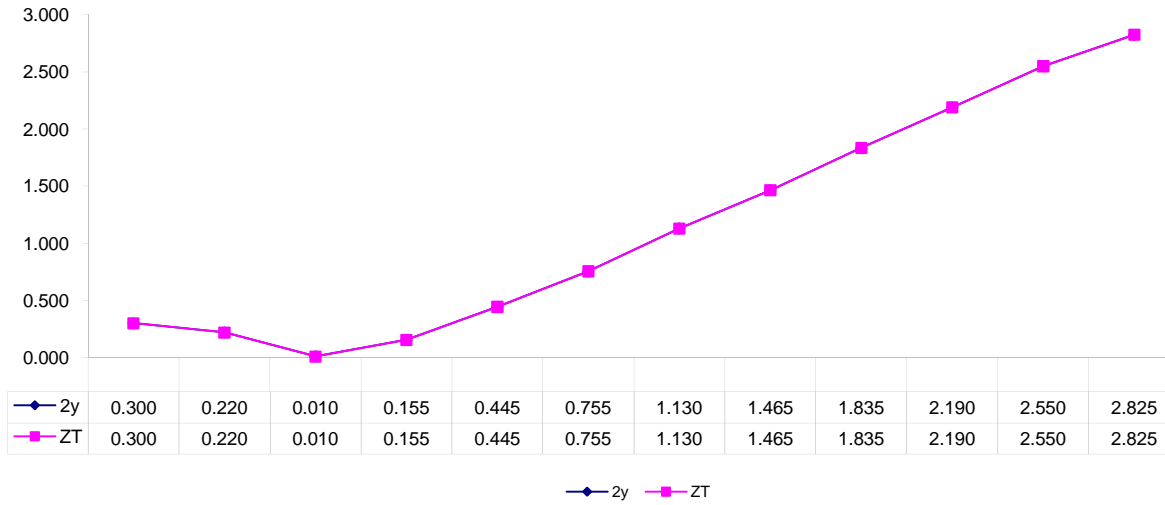
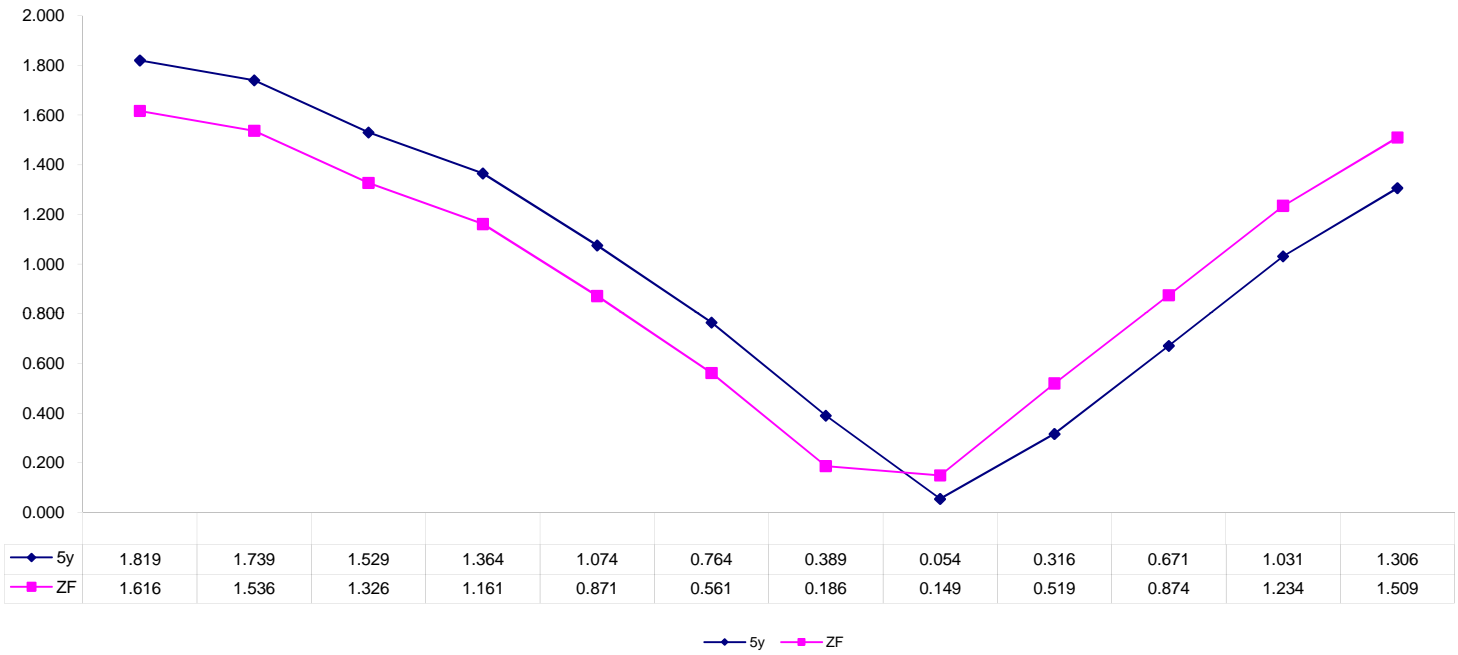


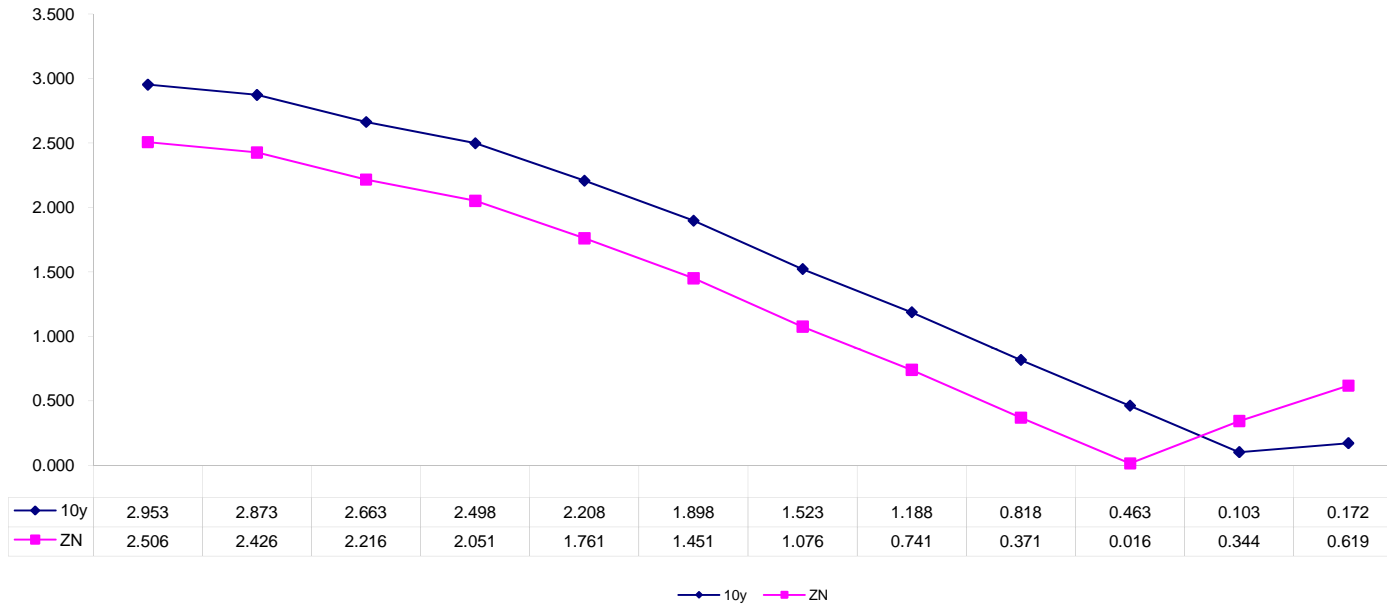
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	0.840	-0.437	9917.3750
Red Pack	1.904	-1.500	9813.1250
Green Pack	3.343	-1.500	9673.0000
Blue Pack	4.385	-1.750	9572.1250
Gold Pack	4.906	1.125	9521.8750

