

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

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Treasury Futures and Cash				
	Last Decimal	Last € 32.00	Last Yield*	MDuration
ZT	108.6875	108.2200	0.833	1.910
ZF	118.1000	118.0320	1.572	1.572
ZN	123.0781	123.0250	2.367	5.952
2y	99.9438	99.3020	0.899	1.962
5y	99.8438	99.2700	1.780	4.750
10y	99.6563	99.2100	2.786	8.551

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	98.8750	1.125	73	0.1994	JUN	
EDAU09	98.8450	1.155	164	0.4487	SEP	White Pack
EDAZ09	98.6600	1.340	255	0.6980	DEC	
EDAH10	98.5850	1.415	346	0.9473	MAR	
EDAM10	98.4250	1.575	437	1.1966	JUN	
EDAU10	98.2550	1.745	528	1.4459	SEP	Red Pack
EDAZ10	98.0450	1.955	619	1.6952	DEC	
EDAH11	97.8900	2.110	710	1.9446	MAR	
EDAM11	97.6800	2.320	801	2.1939	JUN	
EDAU11	97.4800	2.520	899	2.4624	SEP	Green Pack
EDAZ11	97.2600	2.740	990	2.7117	DEC	
EDAH12	97.1300	2.870	1,081	2.9610	MAR	
EDAM12	96.9900	3.010	1,172	3.2103	JUN	
EDAU12	96.8750	3.125	1,263	3.4596	SEP	Blue Pack
EDAZ12	96.7650	3.235	1,354	3.7089	DEC	
EDAH13	96.7000	3.300	1,445	3.9583	MAR	
EDAM13	96.6150	3.385	1,536	4.2076	JUN	
EDAU13	96.6050	3.395	1,627	4.4569	SEP	Gold Pack
EDAZ13	96.4500	3.550	1,718	4.7062	DEC	
EDAH14	96.4100	3.590	1,809	4.9555	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.280	-2.625	9874.13	
Red Pack	1.881	-6.375	9815.38	Pack Prices
Green Pack	2.666	-6.875	9738.75	
Blue Pack	3.237	-6.750	9683.25	
Gold Pack		-4.875	9652.13	

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:

- € 1.00 Regression
- € 2.00 Engineered
- € 3.00 Strip with and without Stubs
- € 4.00 Convexity Bias
- € 5.00 Weighted
- € 6.00 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)

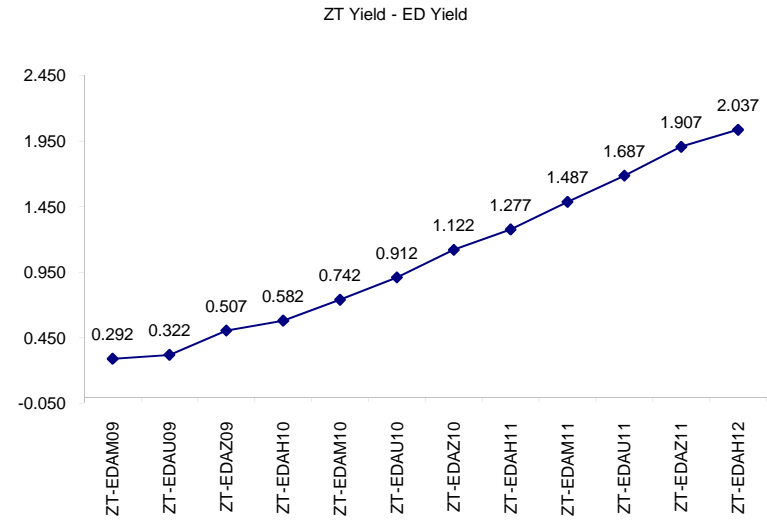
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

ZT				Correlation* (percent)
Spread Price	Spread Yield	Spread Name		
EDAM09	9.81	0.292	ZT-EDAM09	76
EDAU09	9.84	0.322	ZT-EDAU09	86
EDAZ09	10.03	0.507	ZT-EDAZ09	92
EDAH10	10.10	0.582	ZT-EDAH10	94
EDAM10	10.26	0.742	ZT-EDAM10	93
EDAU10	10.43	0.912	ZT-EDAU10	93
EDAZ10	10.64	1.122	ZT-EDAZ10	93
EDAH11	10.80	1.277	ZT-EDAH11	93
EDAM11	11.01	1.487	ZT-EDAM11	94
EDAU11	11.21	1.687	ZT-EDAU11	95
EDAZ11	11.43	1.907	ZT-EDAZ11	94
EDAH12	11.56	2.037	ZT-EDAH12	94

Price = Outright Decimal Price - Euro Contract Price

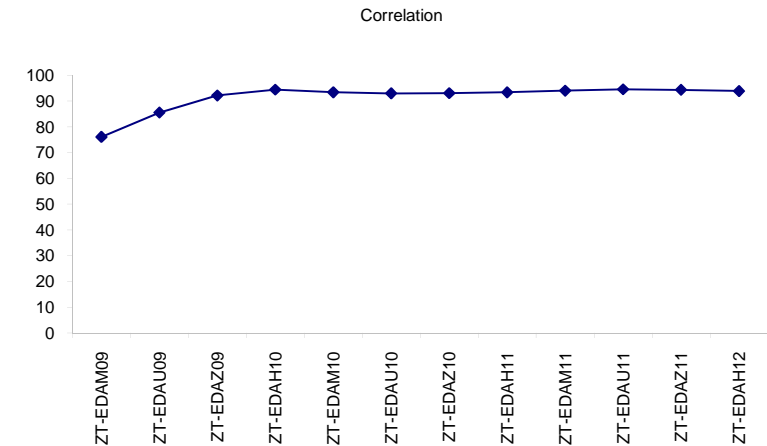
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZT Duration	Spread Duration	
EDAM09	0.1994	1.9100	1.7106	ZT-EDAM09	
EDAU09	0.4487	1.9100	1.4613	ZT-EDAU09	
EDAZ09	0.6980	1.9100	1.2120	ZT-EDAZ09	
EDAH10	0.9473	1.9100	0.9627	ZT-EDAH10	
EDAM10	1.1966	1.9100	0.7134	ZT-EDAM10	
EDAU10	1.4459	1.9100	0.4641	ZT-EDAU10	
EDAZ10	1.6952	1.9100	0.2147	ZT-EDAZ10	
EDAH11	1.9446	1.9100	-0.0346	ZT-EDAH11	
EDAM11	2.1939	1.9100	-0.2839	ZT-EDAM11	
EDAU11	2.4624	1.9100	-0.5524	ZT-EDAU11	
EDAZ11	2.7117	1.9100	-0.8017	ZT-EDAZ11	
EDAH12	2.9610	1.9100	-1.0510	ZT-EDAH12	

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



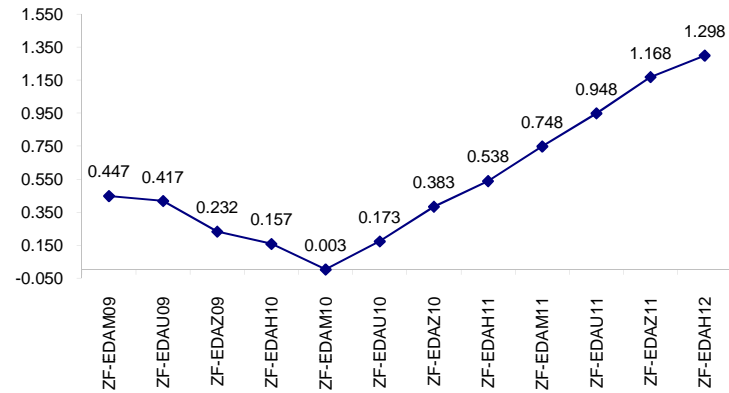
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	19.23	0.447	ZF-EDAM09	63
EDAU09	19.26	0.417	ZF-EDAU09	73
EDAZ09	19.44	0.232	ZF-EDAZ09	78
EDAH10	19.52	0.157	ZF-EDAH10	84
EDAM10	19.68	0.003	ZF-EDAM10	83
EDAU10	19.85	0.173	ZF-EDAU10	82
EDAZ10	20.06	0.383	ZF-EDAZ10	83
EDAH11	20.21	0.538	ZF-EDAH11	84
EDAM11	20.42	0.748	ZF-EDAM11	84
EDAU11	20.62	0.948	ZF-EDAU11	85
EDAZ11	20.84	1.168	ZF-EDAZ11	88
EDAH12	20.97	1.298	ZF-EDAH12	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

ZF Yield - ED Yield

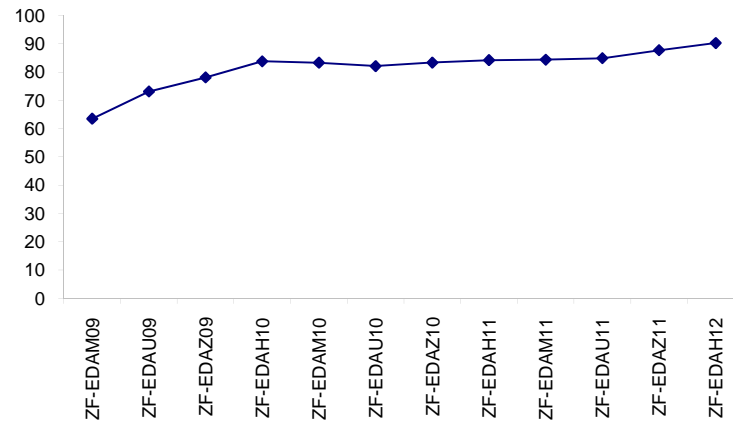


ED Duration as

	Fraction of year	ZF Duration	Spread Duration	
EDAM09	0.1994	1.5723	1.3729	ZF-EDAM09
EDAU09	0.4487	1.5723	1.1236	ZF-EDAU09
EDAZ09	0.6980	1.5723	0.8743	ZF-EDAZ09
EDAH10	0.9473	1.5723	0.6250	ZF-EDAH10
EDAM10	1.1966	1.5723	0.3757	ZF-EDAM10
EDAU10	1.4459	1.5723	0.1264	ZF-EDAU10
EDAZ10	1.6952	1.5723	-0.1230	ZF-EDAZ10
EDAH11	1.9446	1.5723	-0.3723	ZF-EDAH11
EDAM11	2.1939	1.5723	-0.6216	ZF-EDAM11
EDAU11	2.4624	1.5723	-0.8901	ZF-EDAU11
EDAZ11	2.7117	1.5723	-1.1394	ZF-EDAZ11
EDAH12	2.9610	1.5723	-1.3887	ZF-EDAH12

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

Correlation

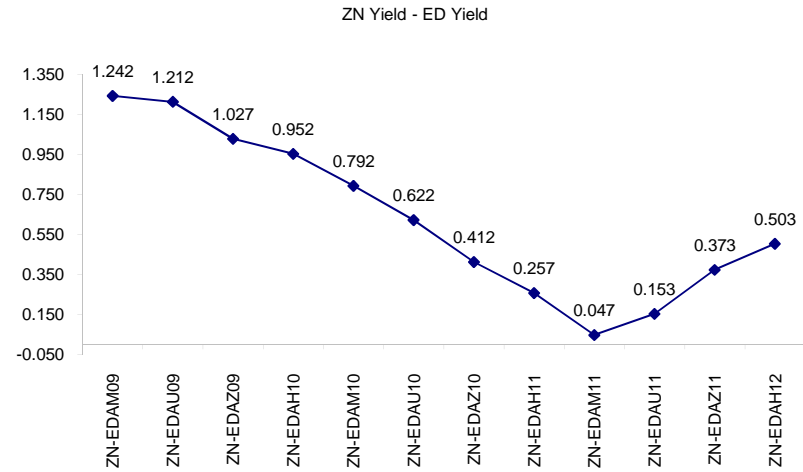


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	24.20	1.242	ZN-EDAM09	6
EDAU09	24.23	1.212	ZN-EDAU09	19
EDAZ09	24.42	1.027	ZN-EDAZ09	28
EDAH10	24.49	0.952	ZN-EDAH10	39
EDAM10	24.65	0.792	ZN-EDAM10	37
EDAU10	24.82	0.622	ZN-EDAU10	35
EDAZ10	25.03	0.412	ZN-EDAZ10	37
EDAH11	25.19	0.257	ZN-EDAH11	38
EDAM11	25.40	0.047	ZN-EDAM11	40
EDAU11	25.60	0.153	ZN-EDAU11	42
EDAZ11	25.82	0.373	ZN-EDAZ11	49
EDAH12	25.95	0.503	ZN-EDAH12	55

Price = Outright Decimal Price - Euro Contract Price

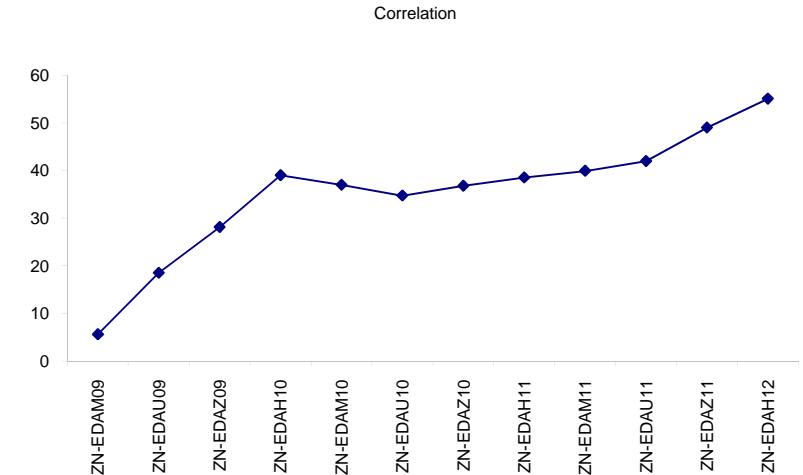
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



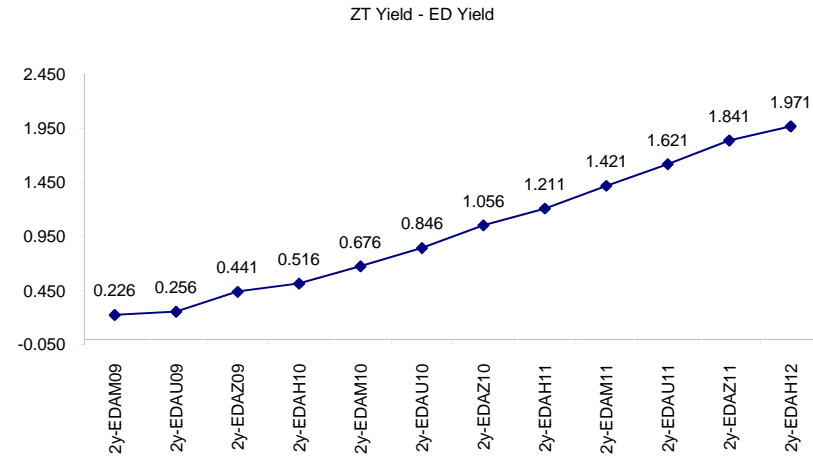
ED Duration as Fraction of year			
	Fraction of year	ZN Duration	Spread Duration
EDAM09	0.1994	5.9523	5.7530
EDAU09	0.4487	5.9523	5.5036
EDAZ09	0.6980	5.9523	5.2543
EDAH10	0.9473	5.9523	5.0050
EDAM10	1.1966	5.9523	4.7557
EDAU10	1.4459	5.9523	4.5064
EDAZ10	1.6952	5.9523	4.2571
EDAH11	1.9446	5.9523	4.0078
EDAM11	2.1939	5.9523	3.7584
EDAU11	2.4624	5.9523	3.4900
EDAZ11	2.7117	5.9523	3.2406
EDAH12	2.9610	5.9523	2.9913

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



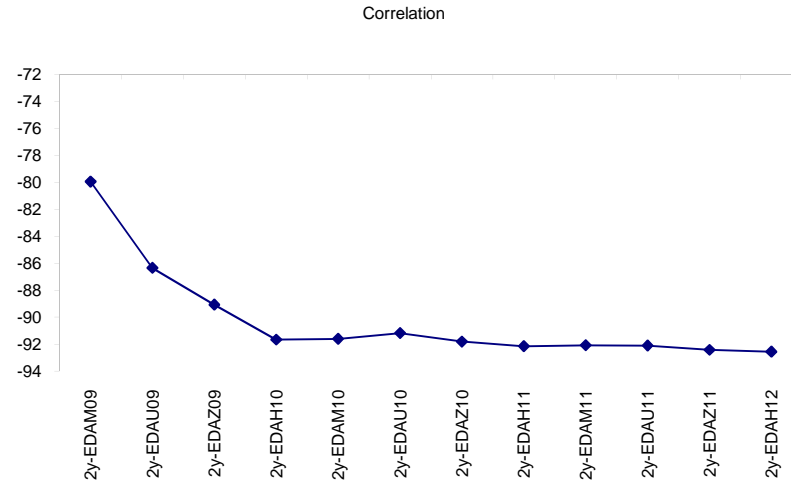
	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	1.07	0.226	2y-EDAM09	-80
EDAU09	1.10	0.256	2y-EDAU09	-86
EDAZ09	1.28	0.441	2y-EDAZ09	-89
EDAH10	1.36	0.516	2y-EDAH10	-92
EDAM10	1.52	0.676	2y-EDAM10	-92
EDAU10	1.69	0.846	2y-EDAU10	-91
EDAZ10	1.90	1.056	2y-EDAZ10	-92
EDAH11	2.05	1.211	2y-EDAH11	-92
EDAM11	2.26	1.421	2y-EDAM11	-92
EDAU11	2.46	1.621	2y-EDAU11	-92
EDAZ11	2.68	1.841	2y-EDAZ11	-92
EDAH12	2.81	2y-EDAH12	-93	

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	0.1994	1.9618	1.7624	2y-EDAM09
EDAU09	0.4487	1.9618	1.5131	2y-EDAU09
EDAZ09	0.6980	1.9618	1.2638	2y-EDAZ09
EDAH10	0.9473	1.9618	1.0145	2y-EDAH10
EDAM10	1.1966	1.9618	0.7651	2y-EDAM10
EDAU10	1.4459	1.9618	0.5158	2y-EDAU10
EDAZ10	1.6952	1.9618	0.2665	2y-EDAZ10
EDAH11	1.9446	1.9618	0.0172	2y-EDAH11
EDAM11	2.1939	1.9618	-0.2321	2y-EDAM11
EDAU11	2.4624	1.9618	-0.5006	2y-EDAU11
EDAZ11	2.7117	1.9618	-0.7499	2y-EDAZ11
EDAH12	2.9610	1.9618	-0.9992	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	0.97	0.655	5y-EDAM09	-47
EDAU09	1.00	0.625	5y-EDAU09	-53
EDAZ09	1.18	0.440	5y-EDAZ09	-54
EDAH10	1.26	0.365	5y-EDAH10	-61
EDAM10	1.42	0.205	5y-EDAM10	-61
EDAU10	1.59	0.035	5y-EDAU10	-59
EDAZ10	1.80	0.175	5y-EDAZ10	-60
EDAH11	1.95	0.330	5y-EDAH11	-61
EDAM11	2.16	0.540	5y-EDAM11	-61
EDAU11	2.36	0.740	5y-EDAU11	-61
EDAZ11	2.58	0.960	5y-EDAZ11	-65
EDAH12	2.71	1.090	5y-EDAH12	-69

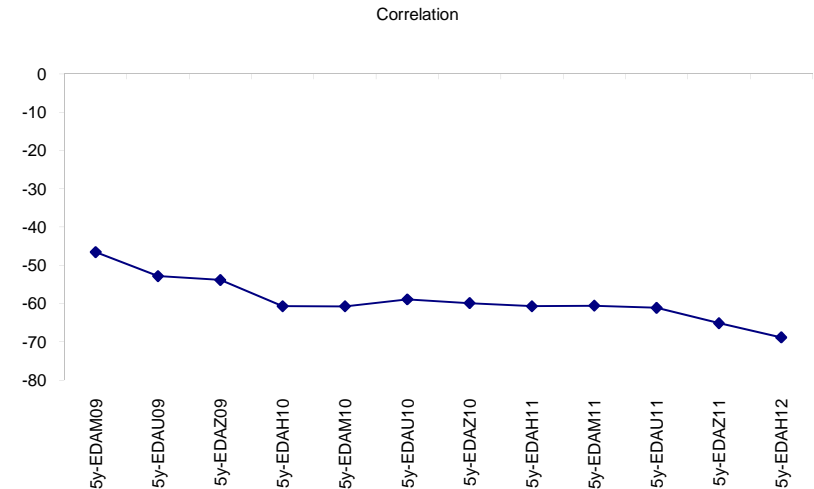
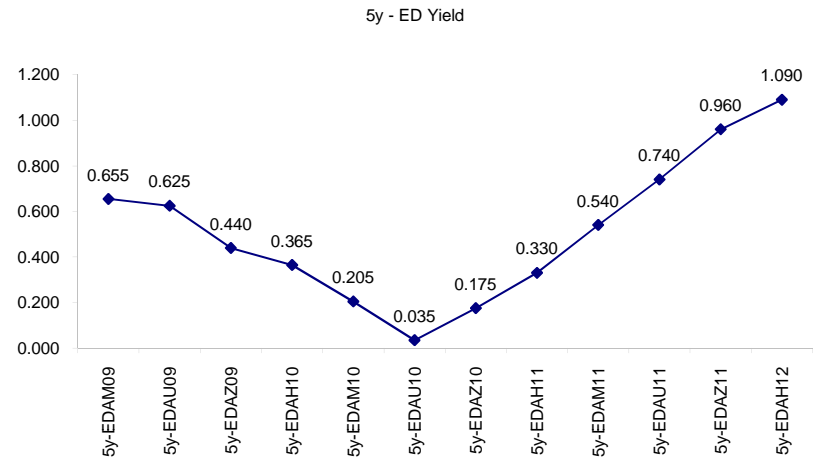
Price = Outright Decimal Price - Euro Contract Price

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	0.1994	4.7504	4.5511	5y-EDAM09
EDAU09	0.4487	4.7504	4.3018	5y-EDAU09
EDAZ09	0.6980	4.7504	4.0525	5y-EDAZ09
EDAH10	0.9473	4.7504	3.8031	5y-EDAH10
EDAM10	1.1966	4.7504	3.5538	5y-EDAM10
EDAU10	1.4459	4.7504	3.3045	5y-EDAU10
EDAZ10	1.6952	4.7504	3.0552	5y-EDAZ10
EDAH11	1.9446	4.7504	2.8059	5y-EDAH11
EDAM11	2.1939	4.7504	2.5566	5y-EDAM11
EDAU11	2.4624	4.7504	2.2881	5y-EDAU11
EDAZ11	2.7117	4.7504	2.0388	5y-EDAZ11
EDAH12	2.9610	4.7504	1.7895	5y-EDAH12

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

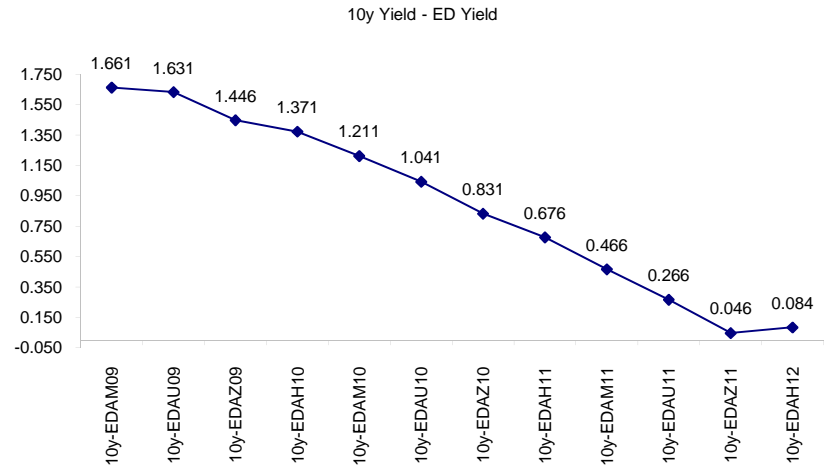


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.97	1.661	10y-EDAM09	-26
EDAU09	1.00	1.631	10y-EDAU09	-38
EDAZ09	1.18	1.446	10y-EDAZ09	-45
EDAH10	1.26	1.371	10y-EDAH10	-54
EDAM10	1.42	1.211	10y-EDAM10	-52
EDAU10	1.59	1.041	10y-EDAU10	-50
EDAZ10	1.80	0.831	10y-EDAZ10	-51
EDAH11	1.95	0.676	10y-EDAH11	-52
EDAM11	2.16	0.466	10y-EDAM11	-52
EDAU11	2.36	0.266	10y-EDAU11	-54
EDAZ11	2.58	0.046	10y-EDAZ11	-60
EDAH12	2.71	0.084	10y-EDAH12	-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			
	10Y Duration	Spread Duration		
EDAM09	0.1994	8.3510	8.3516	10y-EDAM09
EDAU09	0.4487	8.5510	8.1023	10y-EDAU09
EDAZ09	0.6980	8.5510	7.8530	10y-EDAZ09
EDAH10	0.9473	8.5510	7.6037	10y-EDAH10
EDAM10	1.1966	8.5510	7.3544	10y-EDAM10
EDAU10	1.4459	8.5510	7.1050	10y-EDAU10
EDAZ10	1.6952	8.5510	6.8557	10y-EDAZ10
EDAH11	1.9446	8.5510	6.6064	10y-EDAH11
EDAM11	2.1939	8.5510	6.3571	10y-EDAM11
EDAU11	2.4624	8.5510	6.0886	10y-EDAU11
EDAZ11	2.7117	8.5510	5.8393	10y-EDAZ11
EDAH12	2.9610	8.5510	5.5900	10y-EDAH12

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

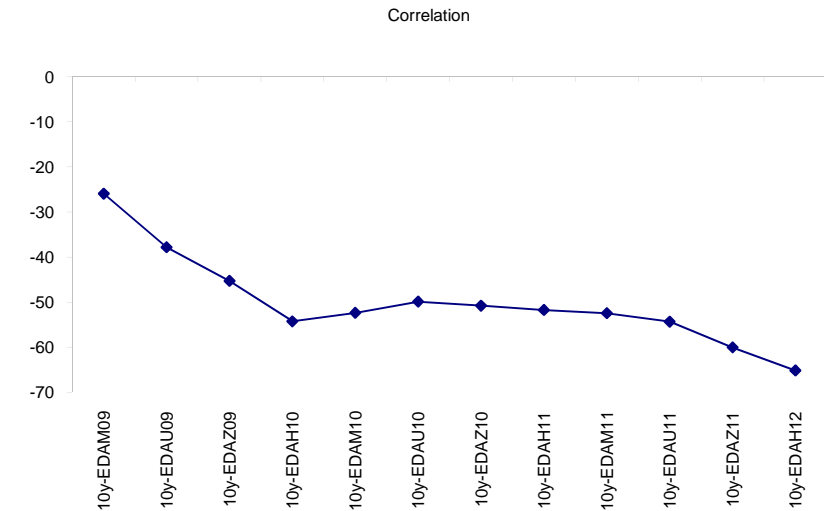


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

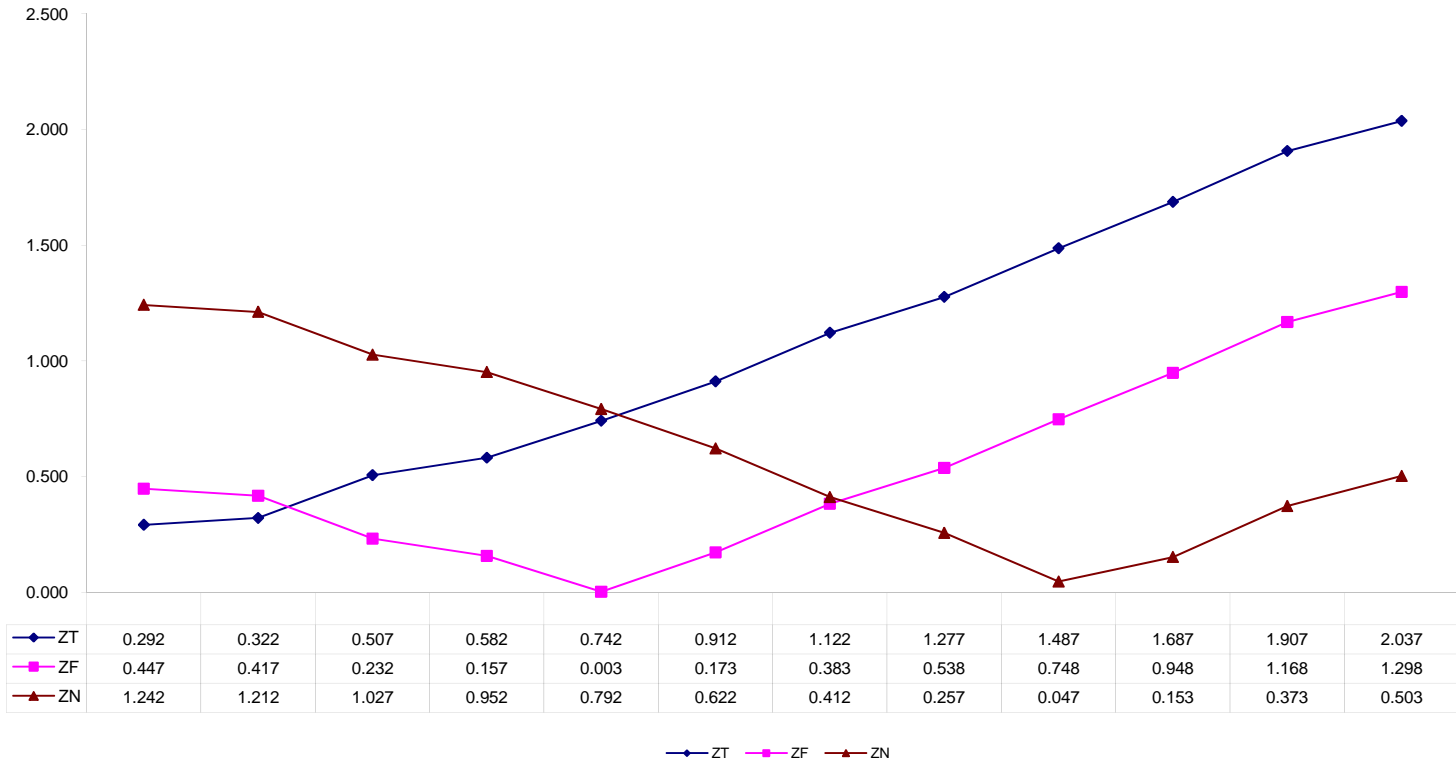
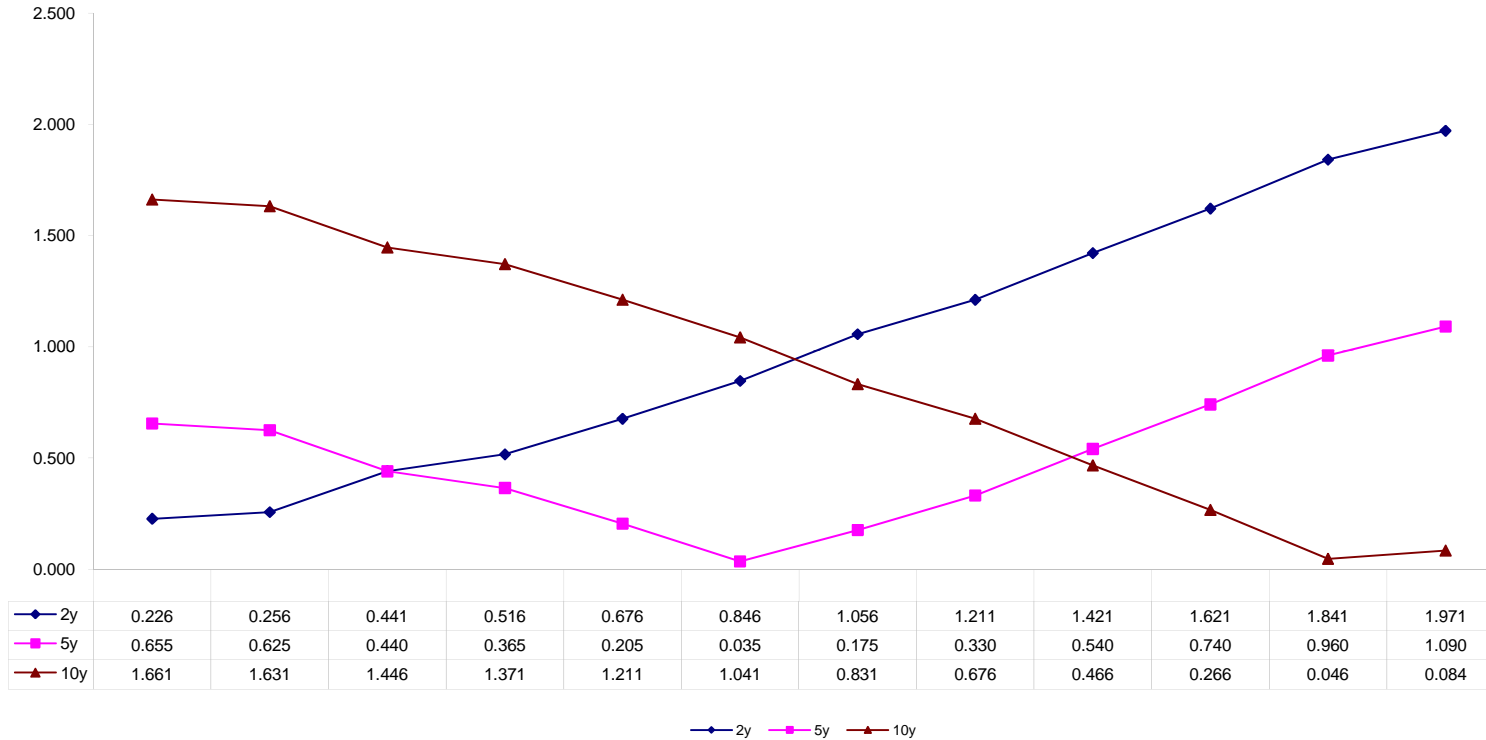
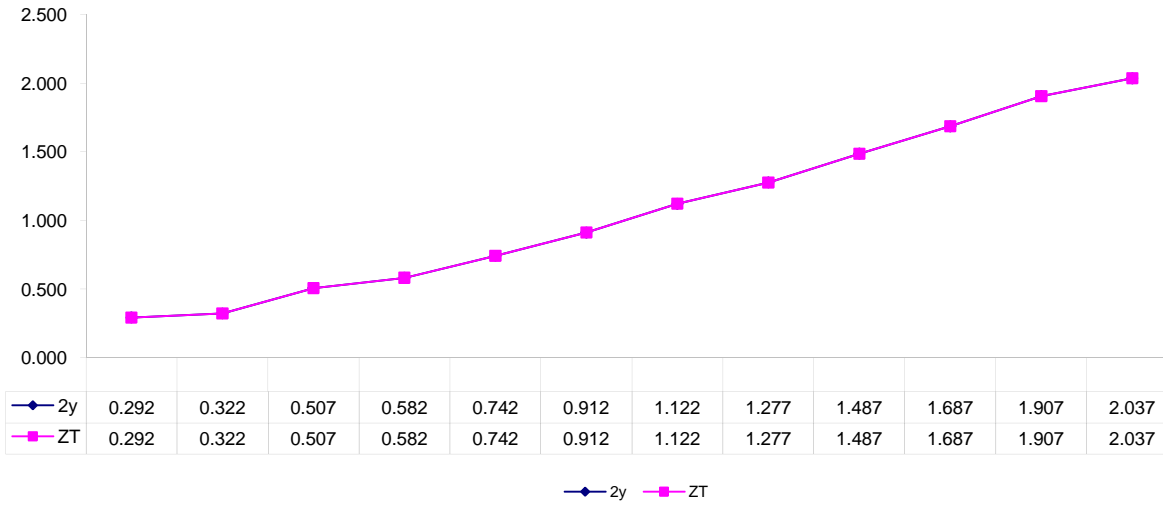
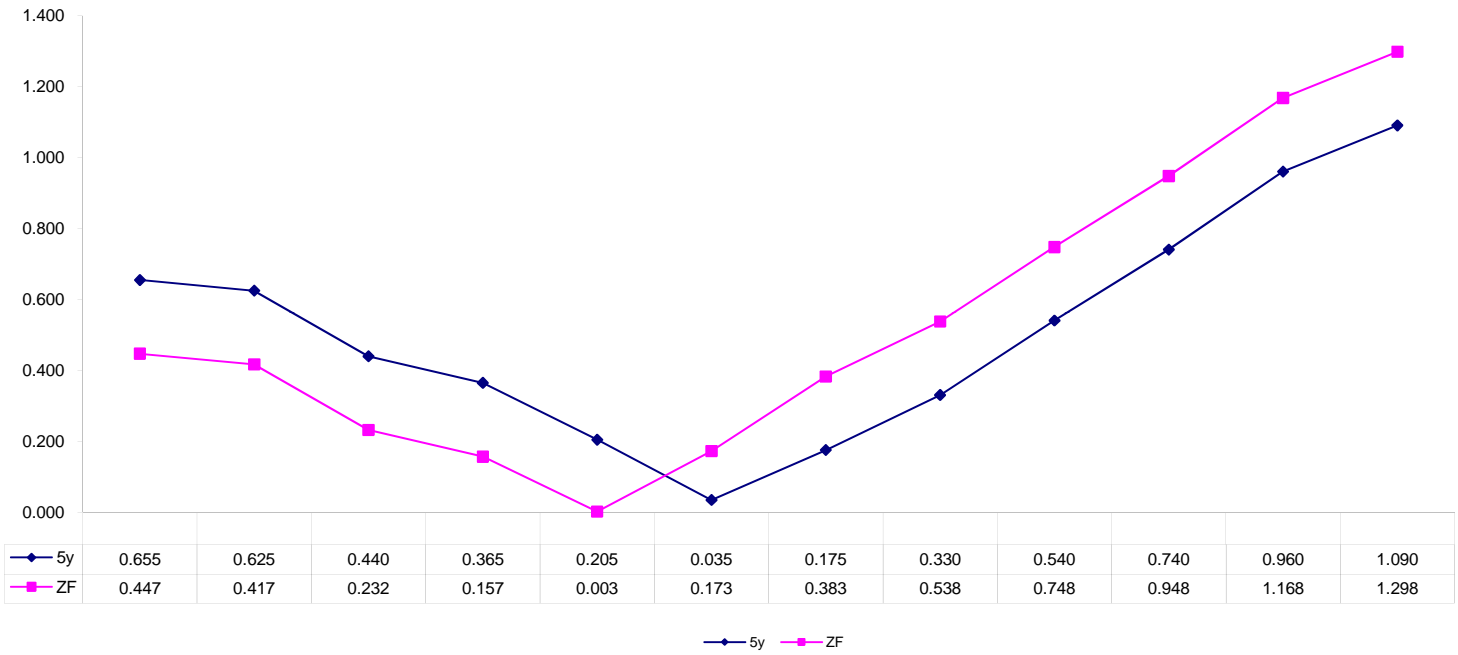


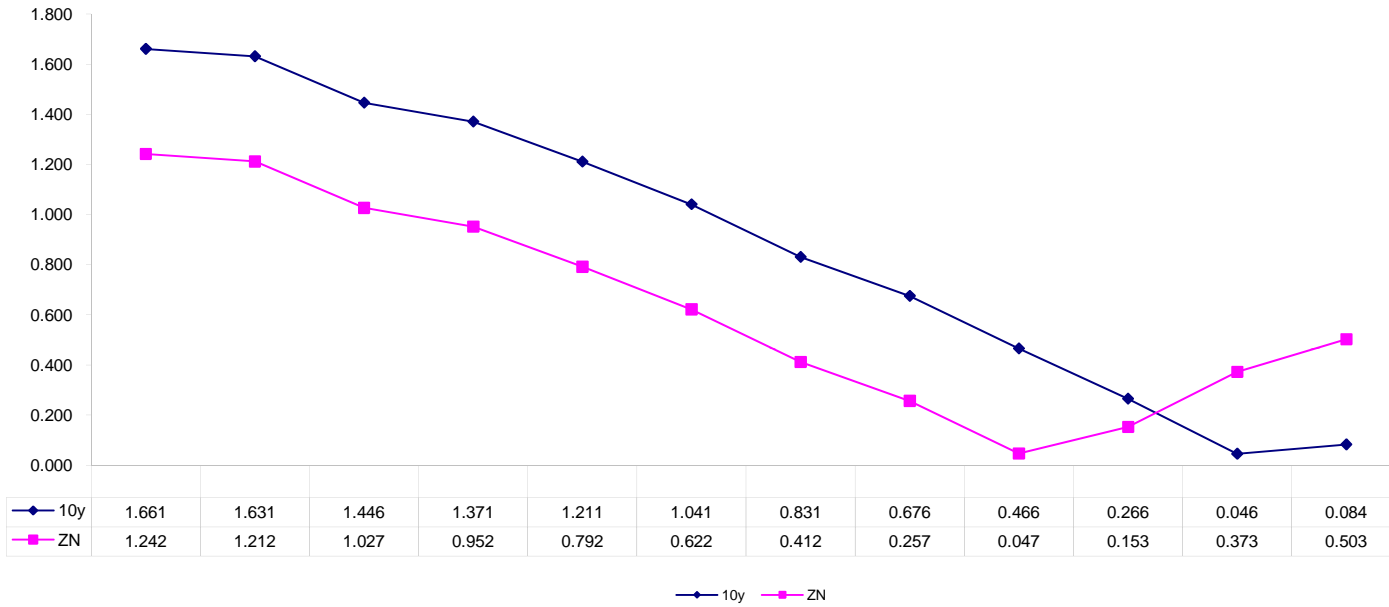
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.280	-2.625	9874.1250
Red Pack	1.881	-6.375	9815.3750
Green Pack	2.666	-6.875	9738.7500
Blue Pack	3.237	-6.750	9683.2500
Gold Pack		-4.875	9652.1250

