

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	Last	Last	
	Decimal	€ 32.00	Yield*	MDuration
ZT	109.1938	109.0620	0.749	1.92
ZF	119.5531	119.1770	1.232	1.23
ZN	125.2656	125.0850	1.463	6.24
2y	100.2250	100.0720	0.749	1.92
5y	99.8188	99.2620	1.533	4.61
10y	111.5313	111.1700	2.422	8.25

Eurodollars (ED)						
	Last	Last Imp	Days til	Fraction	Month	
	Price	Yield	Expr.	of year		
EDAH09	99.025	0.975	55	0.150	MAR	
EDAM09	99.060	0.940	146	0.399	JUN	White Pack
EDAU09	98.980	1.020	237	0.649	SEP	
EDAZ09	98.795	1.205	328	0.898	DEC	
EDAH10	98.630	1.370	419	1.147	MAR	
EDAM10	98.365	1.635	510	1.397	JUN	Red Pack
EDAU10	98.110	1.890	601	1.646	SEP	
EDAZ10	97.855	2.145	692	1.895	DEC	
EDAH11	97.735	2.265	783	2.145	MAR	
EDAM11	97.610	2.390	874	2.394	JUN	Green Pack
EDAU11	97.510	2.490	972	2.662	SEP	
EDAZ11	97.420	2.580	1063	2.912	DEC	
EDAH12	97.390	2.610	1154	3.161	MAR	
EDAM12	97.350	2.650	1245	3.410	JUN	Blue Pack
EDAU12	97.325	2.675	1336	3.660	SEP	
EDAZ12	97.270	2.730	1427	3.909	DEC	
EDAH13	97.260	2.740	1518	4.158	MAR	
EDAM13	97.210	2.790	1609	4.408	JUN	Gold Pack
EDZU13	97.125	2.875	1700	4.657	SEP	
EDZZ13	97.070	2.930	1791	4.906	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.052	0.375	9896.500	
Red Pack	1.793	-4.000	9824.000	Pack Prices
Green Pack	2.480	-10.375	9756.875	
Blue Pack	2.721	-12.125	9733.375	
Gold Pack	2.894	-12.625	9716.625	

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.

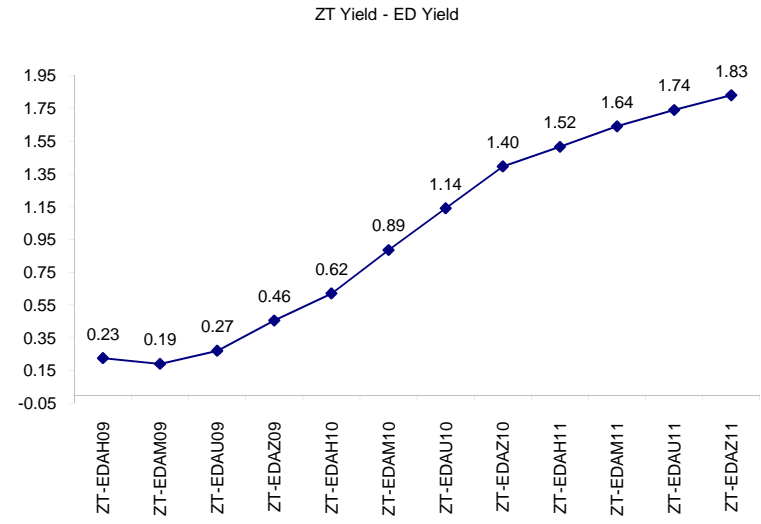
jgoulding@ghco.com

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.

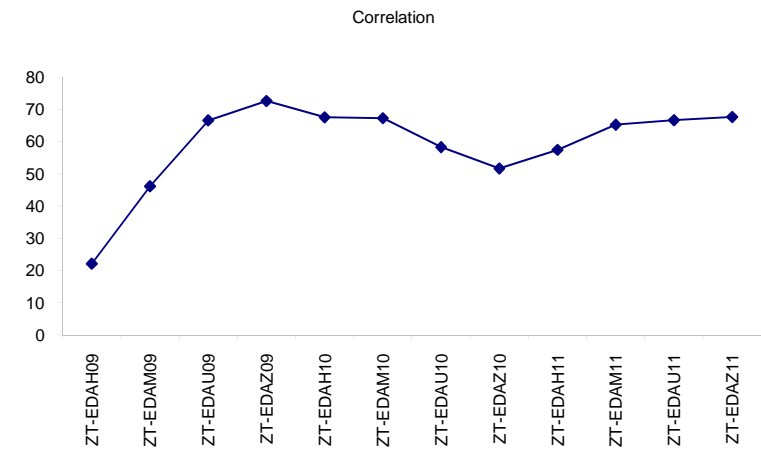
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	10.169	0.23	ZT-EDAH09	22.181
EDAM09	10.134	0.19	ZT-EDAM09	46.178
EDAU09	10.214	0.27	ZT-EDAU09	66.616
EDAZ09	10.399	0.46	ZT-EDAZ09	72.628
EDAH10	10.564	0.62	ZT-EDAH10	67.582
EDAM10	10.829	0.89	ZT-EDAM10	67.292
EDAU10	11.084	1.14	ZT-EDAU10	58.332
EDAZ10	11.339	1.40	ZT-EDAZ10	51.699
EDAH11	11.459	1.52	ZT-EDAH11	57.474
EDAM11	11.584	1.64	ZT-EDAM11	65.248
EDAU11	11.684	1.74	ZT-EDAU11	66.684
EDAZ11	11.774	1.83	ZT-EDAZ11	67.677

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	
EDAH09	0.150	1.92	1.77	ZT-EDAH09
EDAM09	0.399	1.92	1.52	ZT-EDAM09
EDAU09	0.649	1.92	1.27	ZT-EDAU09
EDAZ09	0.898	1.92	1.02	ZT-EDAZ09
EDAH10	1.147	1.92	0.77	ZT-EDAH10
EDAM10	1.397	1.92	0.53	ZT-EDAM10
EDAU10	1.646	1.92	0.28	ZT-EDAU10
EDAZ10	1.895	1.92	0.03	ZT-EDAZ10
EDAH11	2.145	1.92	(0.22)	ZT-EDAH11
EDAM11	2.394	1.92	(0.47)	ZT-EDAM11
EDAU11	2.662	1.92	(0.74)	ZT-EDAU11
EDAZ11	2.912	1.92	(0.99)	ZT-EDAZ11

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

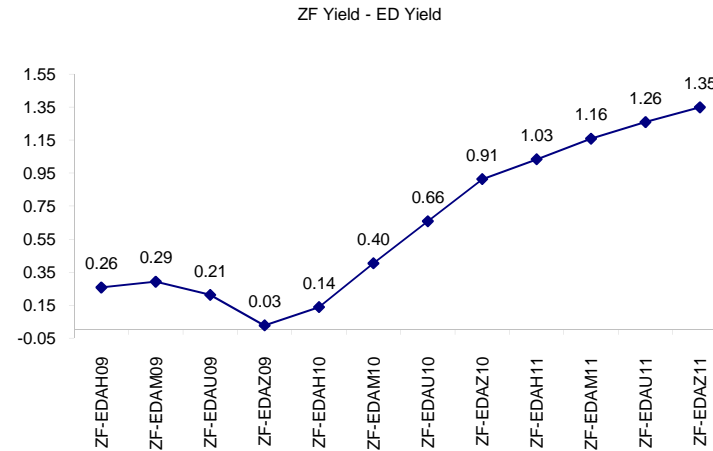


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	20.528	0.26	ZF-EDAH09	24.862
EDAM09	20.493	0.29	ZF-EDAM09	40.293
EDAU09	20.573	0.21	ZF-EDAU09	55.403
EDAZ09	20.758	0.03	ZF-EDAZ09	67.161
EDAH10	20.923	0.14	ZF-EDAH10	76.434
EDAM10	21.188	0.40	ZF-EDAM10	89.209
EDAU10	21.443	0.66	ZF-EDAU10	93.109
EDAZ10	21.698	0.91	ZF-EDAZ10	92.355
EDAH11	21.818	1.03	ZF-EDAH11	94.872
EDAM11	21.943	1.16	ZF-EDAM11	96.747
EDAU11	22.043	1.26	ZF-EDAU11	97.614
EDAZ11	22.133	1.35	ZF-EDAZ11	98.448

Price = Outright Decimal Price - Euro Contract Price

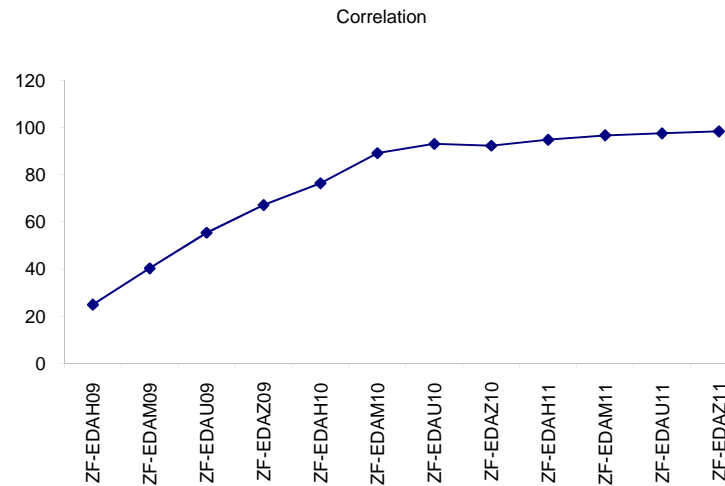
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAH09	0.150	1.23	1.08	1.08	ZF-EDAH09
EDAM09	0.399	1.23	0.83	0.83	ZF-EDAM09
EDAU09	0.649	1.23	0.58	0.58	ZF-EDAU09
EDAZ09	0.898	1.23	0.33	0.33	ZF-EDAZ09
EDAH10	1.147	1.23	0.08	0.08	ZF-EDAH10
EDAM10	1.397	1.23	(0.16)	(0.16)	ZF-EDAM10
EDAU10	1.646	1.23	(0.41)	(0.41)	ZF-EDAU10
EDAZ10	1.895	1.23	(0.66)	(0.66)	ZF-EDAZ10
EDAH11	2.145	1.23	(0.91)	(0.91)	ZF-EDAH11
EDAM11	2.394	1.23	(1.16)	(1.16)	ZF-EDAM11
EDAU11	2.662	1.23	(1.43)	(1.43)	ZF-EDAU11
EDAZ11	2.912	1.23	(1.68)	(1.68)	ZF-EDAZ11

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

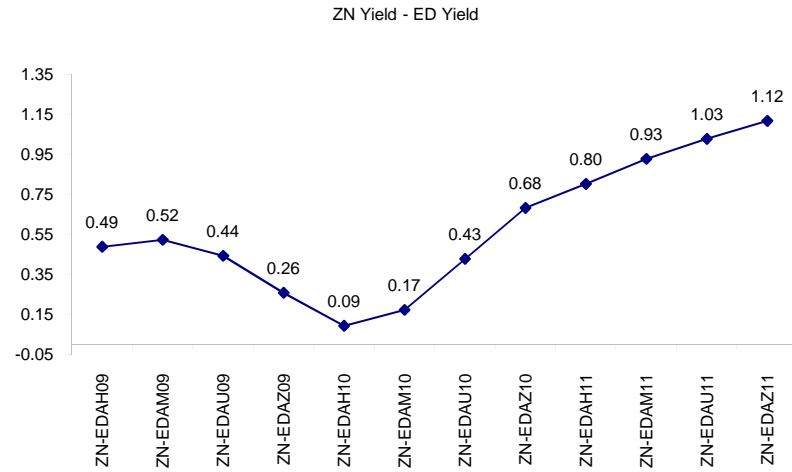


	ZN			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAH09	26.241	0.49	ZN-EDAH09	19.553
EDAM09	26.206	0.52	ZN-EDAM09	34.038
EDAU09	26.286	0.44	ZN-EDAU09	48.151
EDAZ09	26.471	0.26	ZN-EDAZ09	59.930
EDAH10	26.636	0.09	ZN-EDAH10	70.375
EDAM10	26.901	0.17	ZN-EDAM10	84.816
EDAU10	27.156	0.43	ZN-EDAU10	91.263
EDAZ10	27.411	0.68	ZN-EDAZ10	92.323
EDAH11	27.531	0.80	ZN-EDAH11	95.066
EDAM11	27.656	0.93	ZN-EDAM11	96.920
EDAU11	27.756	1.03	ZN-EDAU11	97.889
EDAZ11	27.846	1.12	ZN-EDAZ11	98.471

Price = Outright Decimal Price - Euro Contract Price

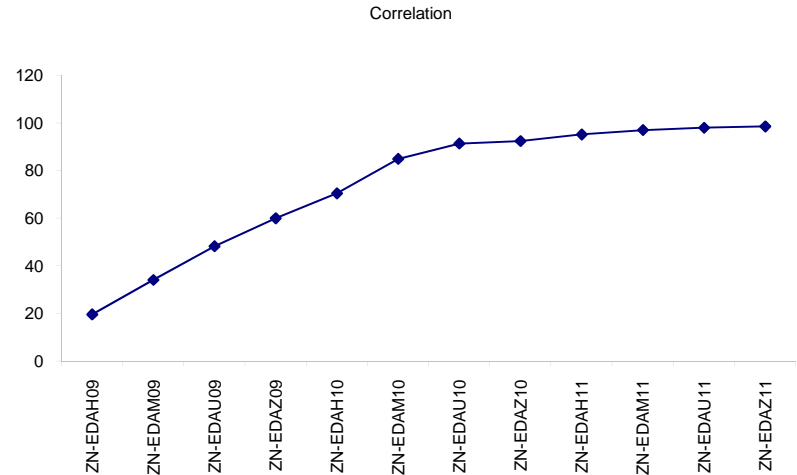
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			ZN Duration	Spread Duration	
EDAH09	0.150	6.24	6.09	6.09	ZN-EDAH09	
EDAM09	0.399	6.24	5.84	5.84	ZN-EDAM09	
EDAU09	0.649	6.24	5.59	5.59	ZN-EDAU09	
EDAZ09	0.898	6.24	5.34	5.34	ZN-EDAZ09	
EDAH10	1.147	6.24	5.09	5.09	ZN-EDAH10	
EDAM10	1.397	6.24	4.84	4.84	ZN-EDAM10	
EDAU10	1.646	6.24	4.60	4.60	ZN-EDAU10	
EDAZ10	1.895	6.24	4.35	4.35	ZN-EDAZ10	
EDAH11	2.145	6.24	4.10	4.10	ZN-EDAH11	
EDAM11	2.394	6.24	3.85	3.85	ZN-EDAM11	
EDAU11	2.662	6.24	3.58	3.58	ZN-EDAU11	
EDAZ11	2.912	6.24	3.33	3.33	ZN-EDAZ11	

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

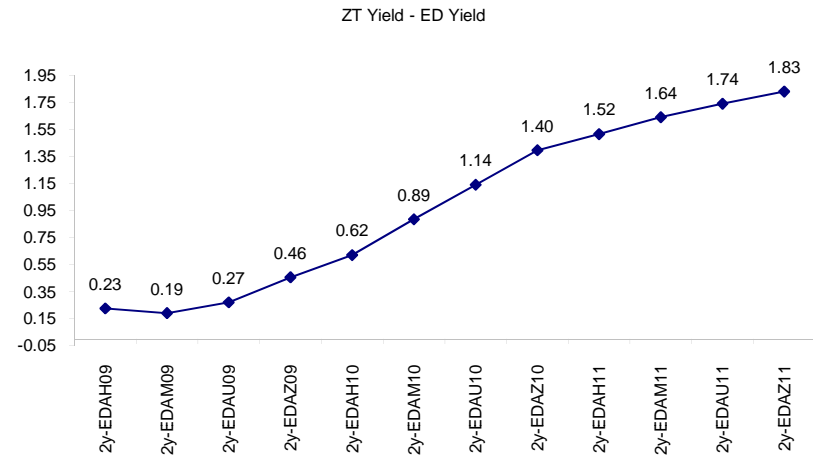


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.200	0.23	2y-EDAH09	-15.183
EDAM09	1.165	0.19	2y-EDAM09	-34.057
EDAU09	1.245	0.27	2y-EDAU09	-49.635
EDAZ09	1.430	0.46	2y-EDAZ09	-55.727
EDAH10	1.595	0.62	2y-EDAH10	-56.292
EDAM10	1.860	0.89	2y-EDAM10	-65.232
EDAU10	2.115	1.14	2y-EDAU10	-72.180
EDAZ10	2.370	1.40	2y-EDAZ10	-73.856
EDAH11	2.490	1.52	2y-EDAH11	-76.457
EDAM11	2.615	1.64	2y-EDAM11	-78.422
EDAU11	2.715	1.74	2y-EDAU11	-77.076
EDAZ11	2.805	1.83	2y-EDAZ11	-76.440

Price = Outright Decimal Price - Euro Contract Price

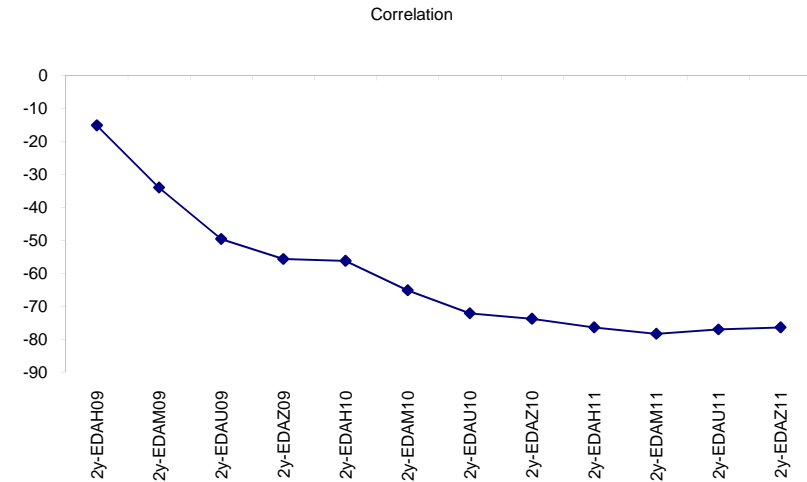
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAH09	0.150	1.92	1.77	2y-EDAH09	
EDAM09	0.399	1.92	1.52	2y-EDAM09	
EDAU09	0.649	1.92	1.27	2y-EDAU09	
EDAZ09	0.898	1.92	1.02	2y-EDAZ09	
EDAH10	1.147	1.92	0.77	2y-EDAH10	
EDAM10	1.397	1.92	0.53	2y-EDAM10	
EDAU10	1.646	1.92	0.28	2y-EDAU10	
EDAZ10	1.895	1.92	0.03	2y-EDAZ10	
EDAH11	2.145	1.92	(0.22)	2y-EDAH11	
EDAM11	2.394	1.92	(0.47)	2y-EDAM11	
EDAU11	2.662	1.92	(0.74)	2y-EDAU11	
EDAZ11	2.912	1.92	(0.99)	2y-EDAZ11	

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



	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	0.794	0.56	5y-EDAH09	-45.589
EDAM09	0.759	0.59	5y-EDAM09	-60.148
EDAU09	0.839	0.51	5y-EDAU09	-70.496
EDAZ09	1.024	0.33	5y-EDAZ09	-76.386
EDAH10	1.189	0.16	5y-EDAH10	-79.948
EDAM10	1.454	0.10	5y-EDAM10	-88.158
EDAU10	1.709	0.36	5y-EDAU10	-94.489
EDAZ10	1.964	0.61	5y-EDAZ10	-95.504
EDAH11	2.084	0.73	5y-EDAH11	-96.099
EDAM11	2.209	0.86	5y-EDAM11	-96.422
EDAU11	2.309	0.96	5y-EDAU11	-96.933
EDAZ11	2.399	1.05	5y-EDAZ11	-97.437

Price = Outright Decimal Price - Euro Contract Price

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

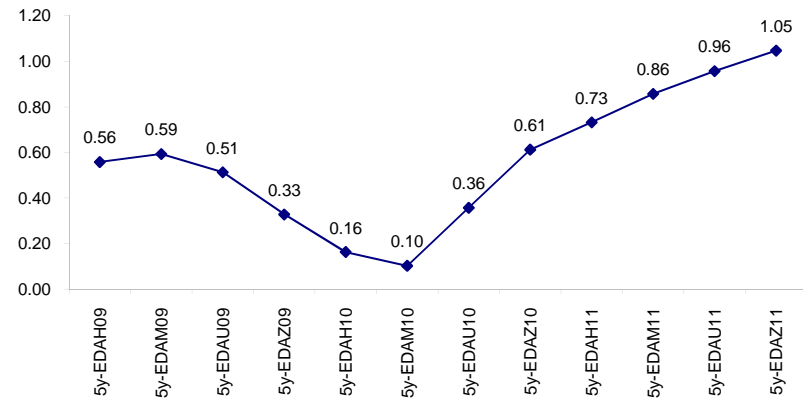
*Correlation = ED Correlation to Treasury Future over 10 days

ED Duration as

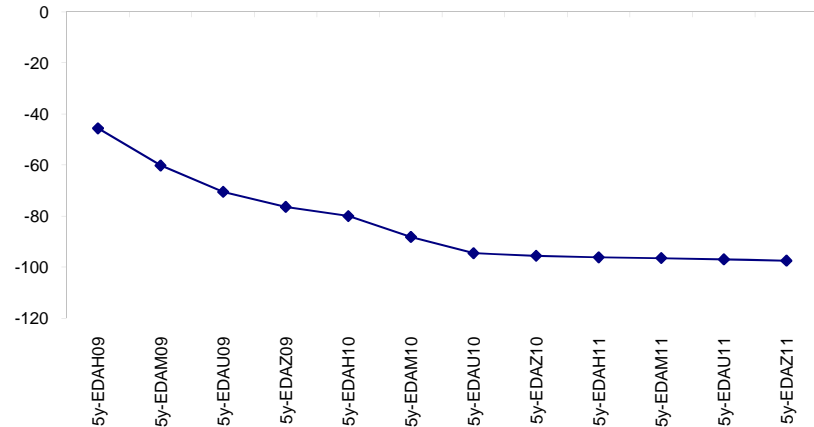
	Fraction of year	5Y Duration	Spread Duration	
EDAH09	0.150	4.61	4.46	5y-EDAH09
EDAM09	0.399	4.61	4.21	5y-EDAM09
EDAU09	0.649	4.61	3.96	5y-EDAU09
EDAZ09	0.898	4.61	3.71	5y-EDAZ09
EDAH10	1.147	4.61	3.46	5y-EDAH10
EDAM10	1.397	4.61	3.21	5y-EDAM10
EDAU10	1.646	4.61	2.96	5y-EDAU10
EDAZ10	1.895	4.61	2.71	5y-EDAZ10
EDAH11	2.145	4.61	2.47	5y-EDAH11
EDAM11	2.394	4.61	2.22	5y-EDAM11
EDAU11	2.662	4.61	1.95	5y-EDAU11
EDAZ11	2.912	4.61	1.70	5y-EDAZ11

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

5y - ED Yield

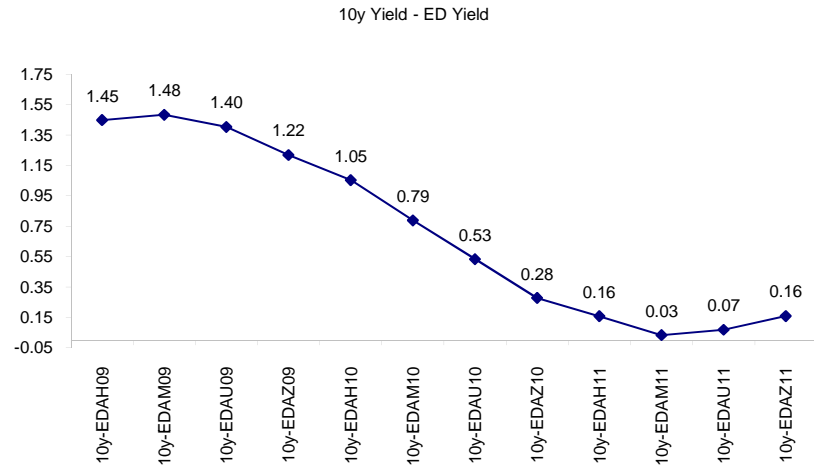


Correlation



	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	0.794	1.45	10y-EDAH09	-31.215
EDAM09	0.759	1.48	10y-EDAM09	-44.955
EDAU09	0.839	1.40	10y-EDAU09	-55.232
EDAZ09	1.024	1.22	10y-EDAZ09	-61.476
EDAH10	1.189	1.05	10y-EDAH10	-65.532
EDAM10	1.454	0.79	10y-EDAM10	-76.006
EDAU10	1.709	0.53	10y-EDAU10	-87.806
EDAZ10	1.964	0.28	10y-EDAZ10	-93.514
EDAH11	2.084	0.16	10y-EDAH11	-94.957
EDAM11	2.209	0.03	10y-EDAM11	-94.676
EDAU11	2.309	0.07	10y-EDAU11	-94.315
EDAZ11	2.399	0.16	10y-EDAZ11	-93.996

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		
EDAH09	0.150	8.25	8.10	10y-EDAH09
EDAM09	0.399	8.25	7.85	10y-EDAM09
EDAU09	0.649	8.25	7.60	10y-EDAU09
EDAZ09	0.898	8.25	7.35	10y-EDAZ09
EDAH10	1.147	8.25	7.10	10y-EDAH10
EDAM10	1.397	8.25	6.85	10y-EDAM10
EDAU10	1.646	8.25	6.60	10y-EDAU10
EDAZ10	1.895	8.25	6.35	10y-EDAZ10
EDAH11	2.145	8.25	6.10	10y-EDAH11
EDAM11	2.394	8.25	5.85	10y-EDAM11
EDAU11	2.662	8.25	5.59	10y-EDAU11
EDAZ11	2.912	8.25	5.34	10y-EDAZ11

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

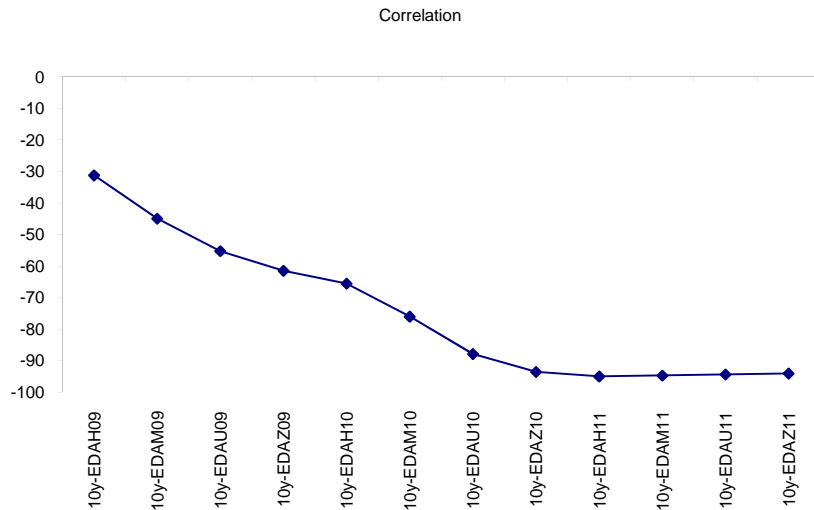


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

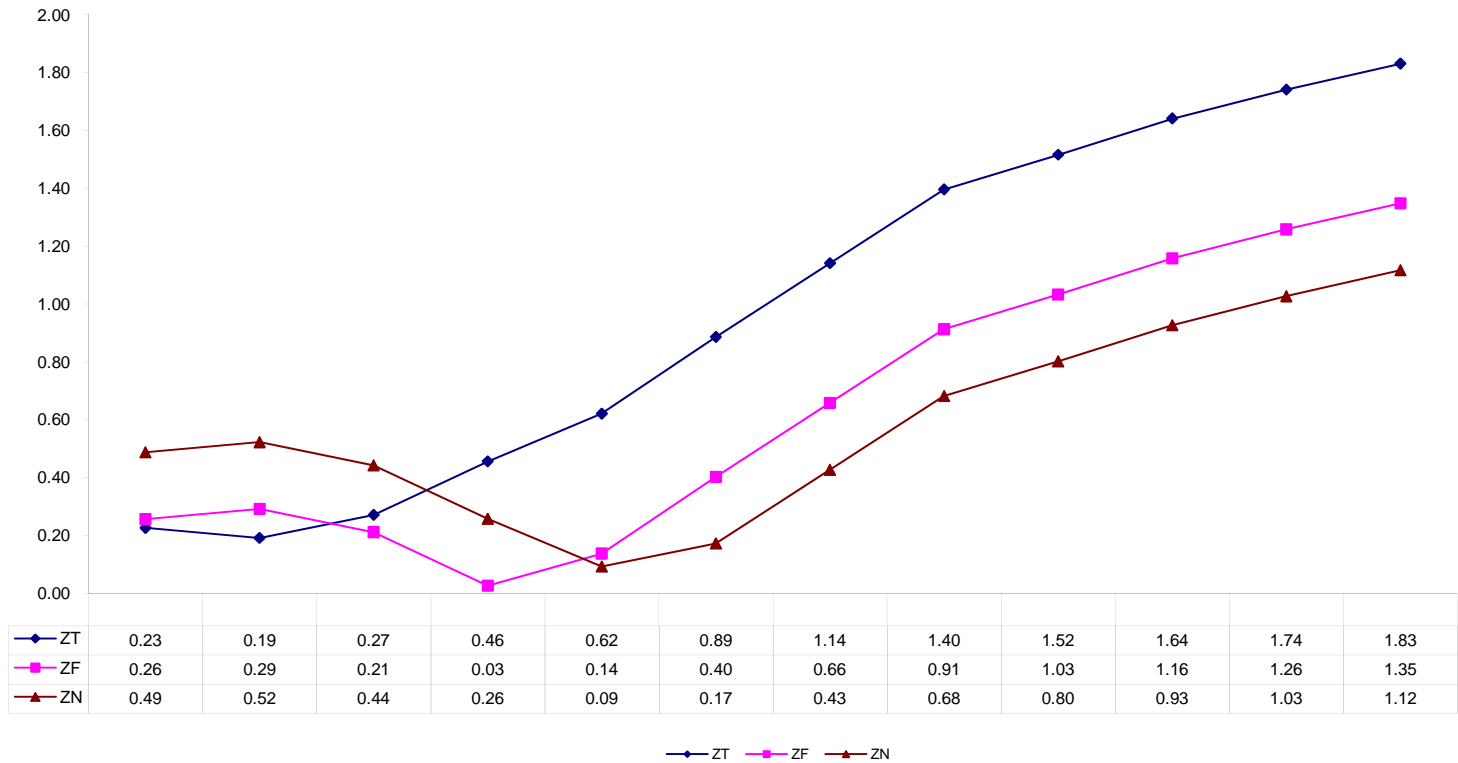
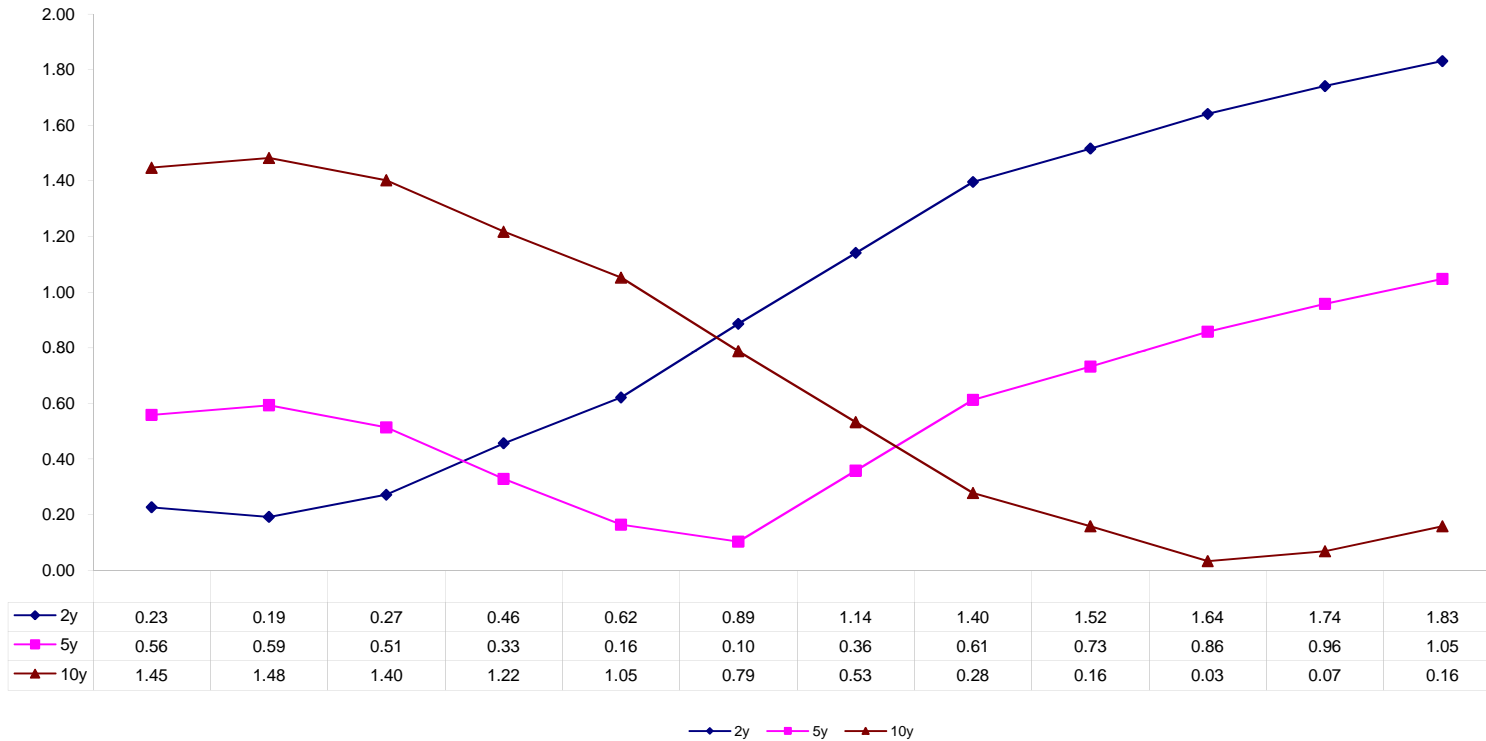
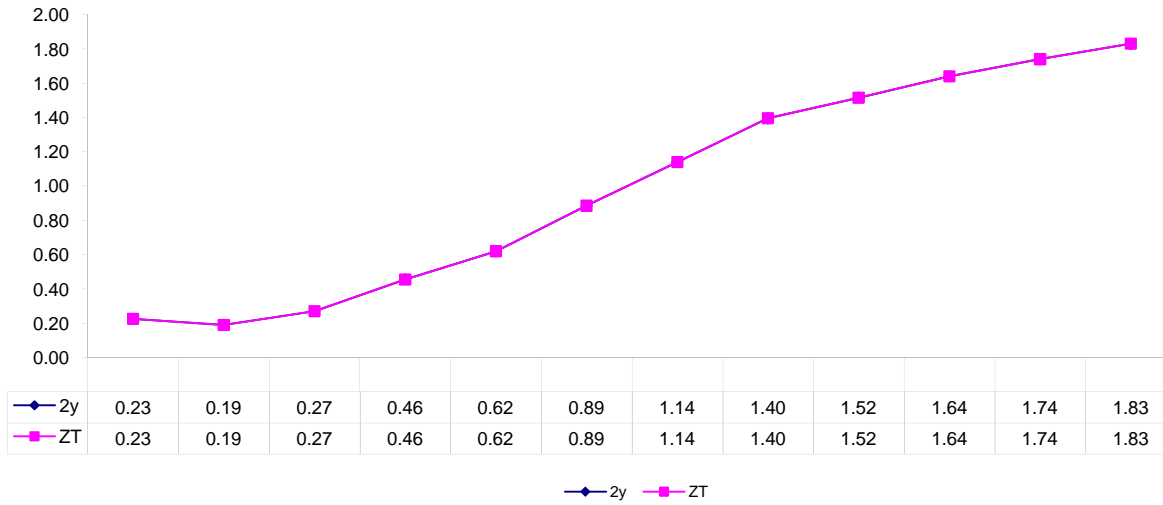
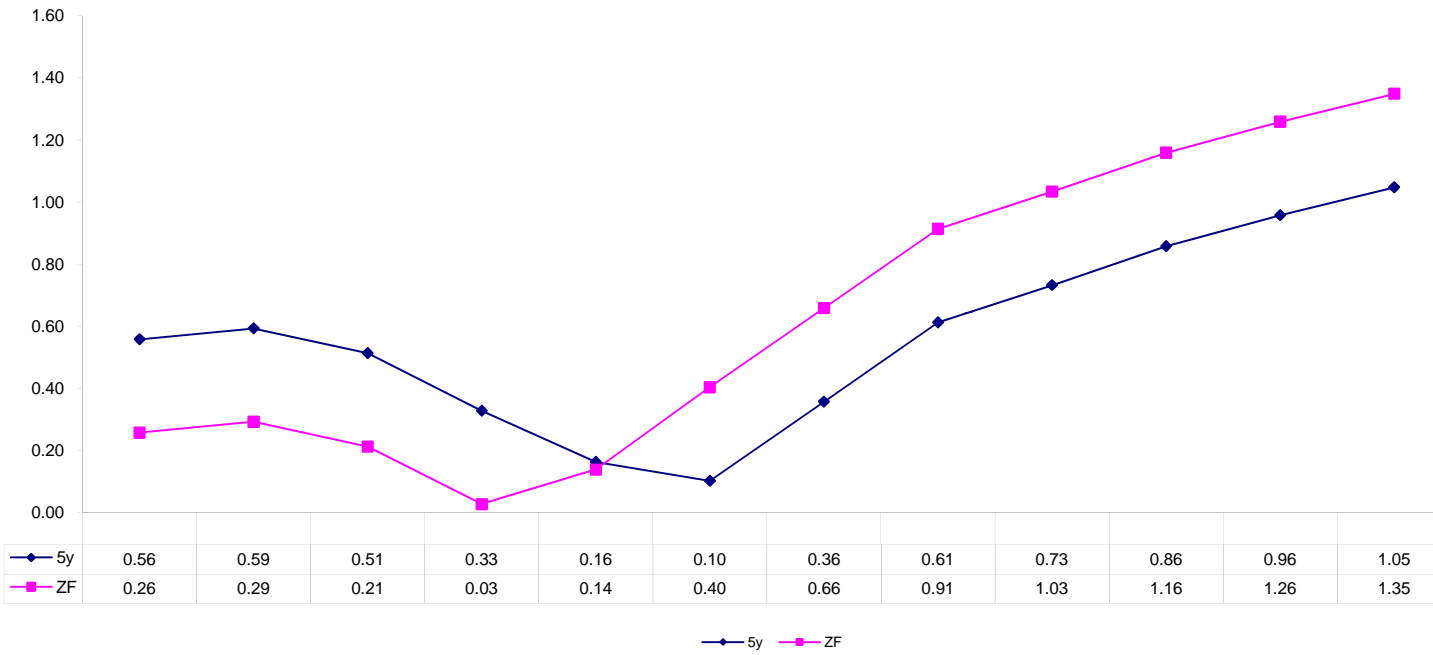


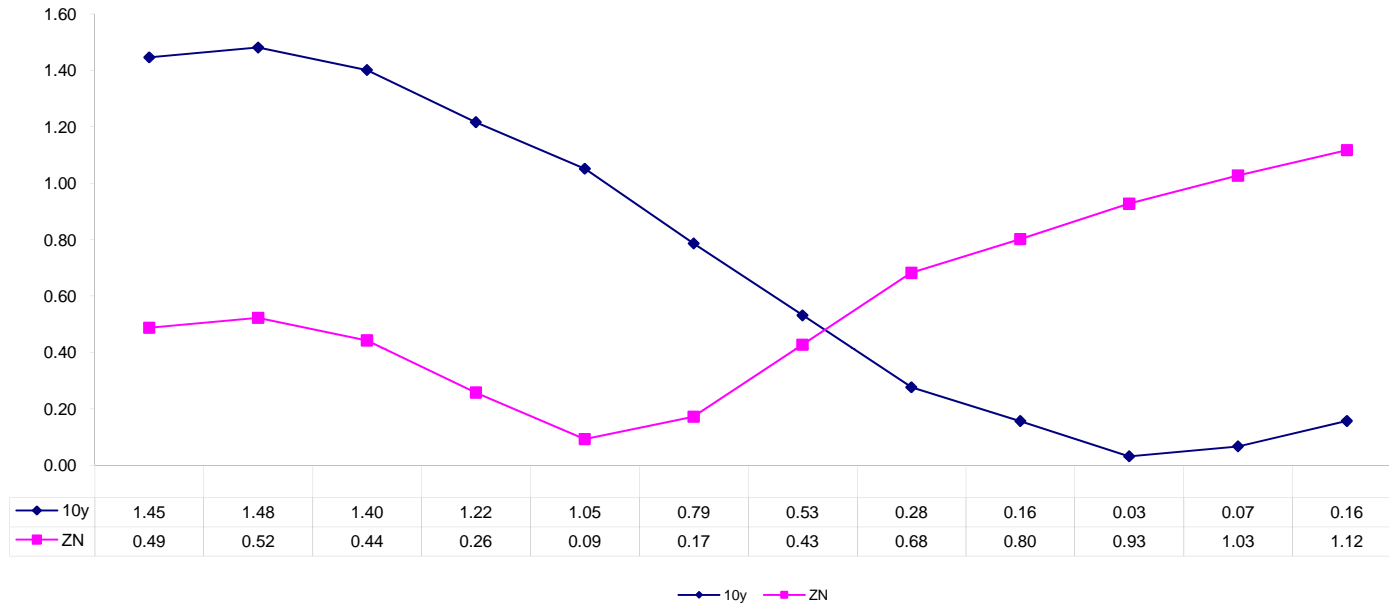
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.052	0.375	9896.500
Red Pack	1.793	-4.000	9824.000
Green Pack	2.480	-10.375	9756.875
Blue Pack	2.721	-12.125	9733.375
Gold Pack	2.894	-12.625	9716.625

