

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

- Pg 14** 2y, 5y, 10y Basis Curves vs ED

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	106.5469	106.175	2.117	1.94
ZF	112.0063	112.002	2.932	4.14
ZN	115.2500	115.080	3.581	6.27
2y	100.469	100.1500	2.119	1.90
5y	100.500	100.1600	3.012	4.54
10y	101.516	101.1650	3.810	8.09

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	96.825	3.175	84	0.229	DEC	
EDAH09	97.030	2.970	175	0.479	MAR	White Pack
EDAM09	96.960	3.040	266	0.728	JUN	
EDAU09	96.880	3.120	357	0.977	SEP	
EDAZ09	96.605	3.395	448	1.227	DEC	
EDAH10	96.430	3.570	539	1.476	MAR	Red Pack
EDAM10	96.165	3.835	630	1.725	JUN	
EDAU10	95.890	4.110	721	1.975	SEP	
EDAZ10	95.645	4.355	812	2.224	DEC	
EDAH11	95.565	4.435	903	2.473	MAR	Green Pack
EDAM11	95.470	4.530	994	2.723	JUN	
EDAU11	95.430	4.570	1092	2.991	SEP	
EDAZ11	95.420	4.580	1183	3.240	DEC	
EDAH12	95.430	4.570	1274	3.490	MAR	Blue Pack
EDAM12	95.370	4.630	1365	3.739	JUN	
EDAU12	95.360	4.640	1456	3.988	SEP	
EDAZ12	#VALUE!	#VALUE!	1547	4.238	DEC	
EDAH13	#VALUE!	#VALUE!	1638	4.487	MAR	Gold Pack
EDAM13	#VALUE!	#VALUE!	1729	4.736	JUN	
EDZU13	95.230	4.770	1911	5.235	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	3.143	0.000	9692.375	
Red Pack	3.815	-2.750	9627.250	Pack Prices
Green Pack	4.586	-5.625	9552.750	
Blue Pack	4.723	-1.125	9539.500	
Gold Pack		0.000	9522.375	

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)

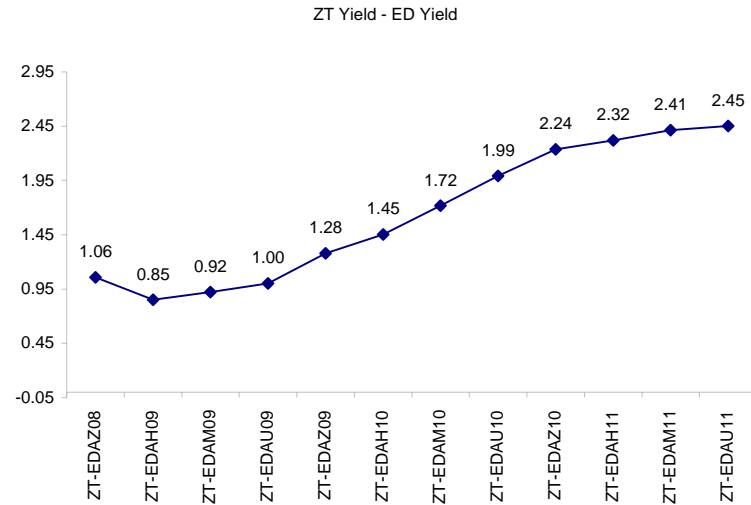
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	9.722	1.06	ZT-EDAZ08	-23.214
EDAH09	9.517	0.85	ZT-EDAH09	97.037
EDAM09	9.587	0.92	ZT-EDAM09	79.749
EDAU09	9.667	1.00	ZT-EDAU09	97.037
EDAZ09	9.942	1.28	ZT-EDAZ09	97.577
EDAH10	10.117	1.45	ZT-EDAH10	97.199
EDAM10	10.382	1.72	ZT-EDAM10	95.079
EDAU10	10.657	1.99	ZT-EDAU10	87.502
EDAZ10	10.902	2.24	ZT-EDAZ10	70.918
EDAH11	10.982	2.32	ZT-EDAH11	68.643
EDAM11	11.077	2.41	ZT-EDAM11	64.383
EDAU11	11.117	2.45	ZT-EDAU11	67.506

Price = Outright Decimal Price - Euro Contract Price

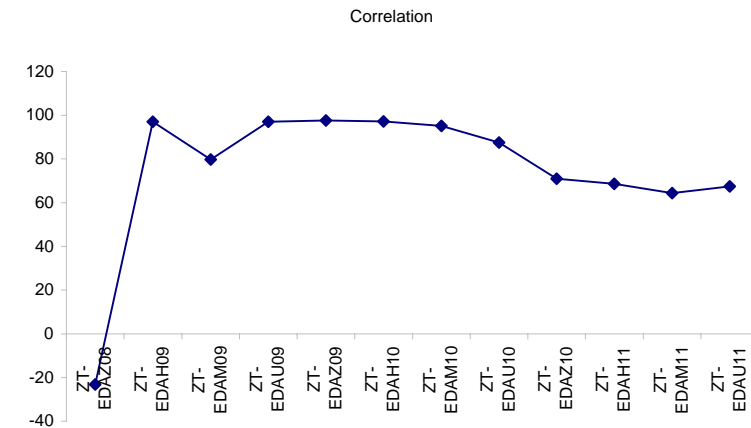
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			ZT Duration	Spread Duration	
EDAZ08	0.229	1.94	1.71	ZT-EDAZ08		
EDAH09	0.479	1.94	1.46	ZT-EDAH09		
EDAM09	0.728	1.94	1.21	ZT-EDAM09		
EDAU09	0.977	1.94	0.96	ZT-EDAU09		
EDAZ09	1.227	1.94	0.71	ZT-EDAZ09		
EDAH10	1.476	1.94	0.46	ZT-EDAH10		
EDAM10	1.725	1.94	0.22	ZT-EDAM10		
EDAU10	1.975	1.94	(0.03)	ZT-EDAU10		
EDAZ10	2.224	1.94	(0.28)	ZT-EDAZ10		
EDAH11	2.473	1.94	(0.53)	ZT-EDAH11		
EDAM11	2.723	1.94	(0.78)	ZT-EDAM11		
EDAU11	2.991	1.94	(1.05)	ZT-EDAU11		

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

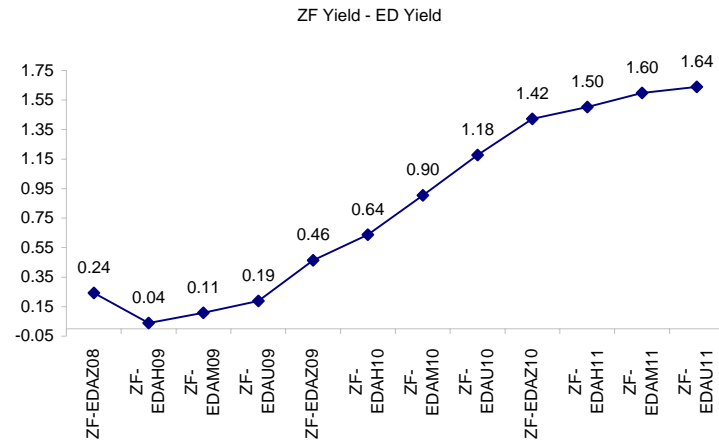


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	15.181	0.24	ZF-EDAZ08	-1.607
EDAH09	14.976	0.04	ZF-EDAH09	59.199
EDAM09	15.046	0.11	ZF-EDAM09	87.888
EDAU09	15.126	0.19	ZF-EDAU09	96.319
EDAZ09	15.401	0.46	ZF-EDAZ09	97.655
EDAH10	15.576	0.64	ZF-EDAH10	97.790
EDAM10	15.841	0.90	ZF-EDAM10	99.014
EDAU10	16.116	1.18	ZF-EDAU10	98.827
EDAZ10	16.361	1.42	ZF-EDAZ10	91.251
EDAH11	16.441	1.50	ZF-EDAH11	90.066
EDAM11	16.536	1.60	ZF-EDAM11	87.346
EDAU11	16.576	1.64	ZF-EDAU11	89.233

Price = Outright Decimal Price - Euro Contract Price

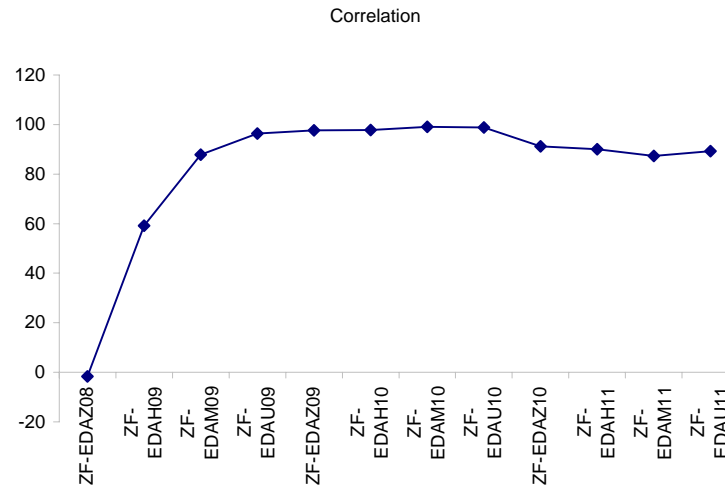
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	0.229	4.14	3.91	ZF-EDAZ08		
EDAH09	0.479	4.14	3.66	ZF-EDAH09		
EDAM09	0.728	4.14	3.41	ZF-EDAM09		
EDAU09	0.977	4.14	3.16	ZF-EDAU09		
EDAZ09	1.227	4.14	2.91	ZF-EDAZ09		
EDAH10	1.476	4.14	2.66	ZF-EDAH10		
EDAM10	1.725	4.14	2.41	ZF-EDAM10		
EDAU10	1.975	4.14	2.16	ZF-EDAU10		
EDAZ10	2.224	4.14	1.91	ZF-EDAZ10		
EDAH11	2.473	4.14	1.66	ZF-EDAH11		
EDAM11	2.723	4.14	1.42	ZF-EDAM11		
EDAU11	2.991	4.14	1.15	ZF-EDAU11		

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

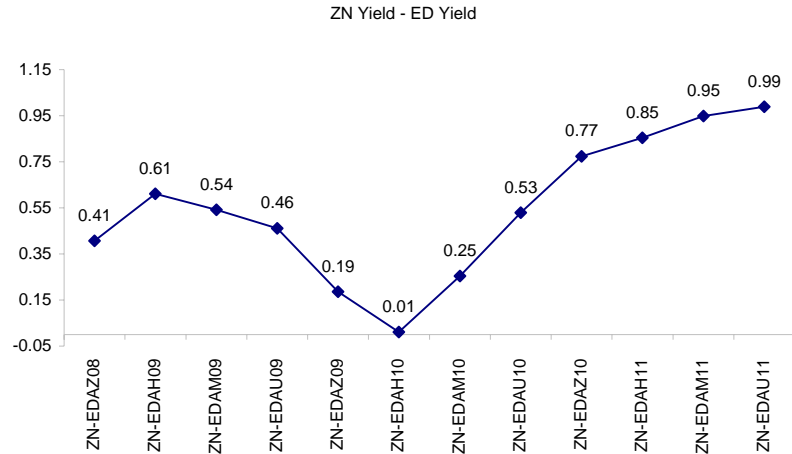


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	18.425	0.41	ZN-EDAZ08	2.078
EDAH09	18.220	0.61	ZN-EDAH09	60.542
EDAM09	18.290	0.54	ZN-EDAM09	87.143
EDAU09	18.370	0.46	ZN-EDAU09	93.285
EDAZ09	18.645	0.19	ZN-EDAZ09	94.490
EDAH10	18.820	0.01	ZN-EDAH10	94.742
EDAM10	19.085	0.25	ZN-EDAM10	99.014
EDAU10	19.360	0.53	ZN-EDAU10	98.827
EDAZ10	19.605	0.77	ZN-EDAZ10	91.251
EDAH11	19.685	0.85	ZN-EDAH11	90.066
EDAM11	19.780	0.95	ZN-EDAM11	87.346
EDAU11	19.820	0.99	ZN-EDAU11	89.233

Price = Outright Decimal Price - Euro Contract Price

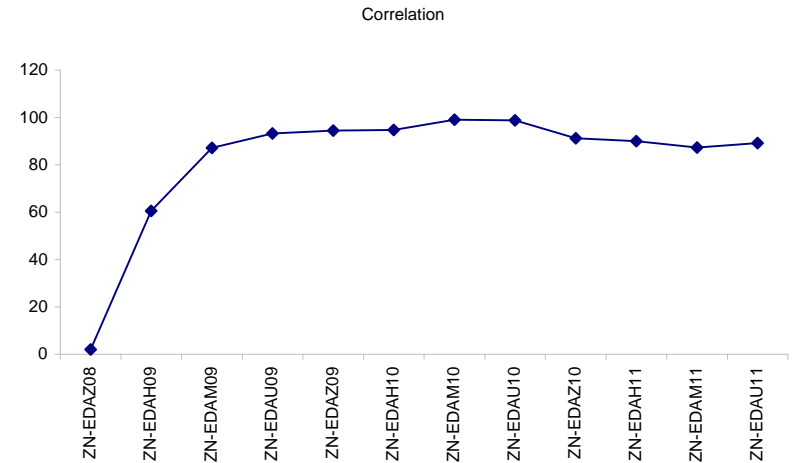
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.229	6.27	6.04	ZN-EDAZ08		
EDAH09	0.479	6.27	5.79	ZN-EDAH09		
EDAM09	0.728	6.27	5.54	ZN-EDAM09		
EDAU09	0.977	6.27	5.30	ZN-EDAU09		
EDAZ09	1.227	6.27	5.05	ZN-EDAZ09		
EDAH10	1.476	6.27	4.80	ZN-EDAH10		
EDAM10	1.725	6.27	4.55	ZN-EDAM10		
EDAU10	1.975	6.27	4.30	ZN-EDAU10		
EDAZ10	2.224	6.27	4.05	ZN-EDAZ10		
EDAH11	2.473	6.27	3.80	ZN-EDAH11		
EDAM11	2.723	6.27	3.55	ZN-EDAM11		
EDAU11	2.991	6.27	3.28	ZN-EDAU11		

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

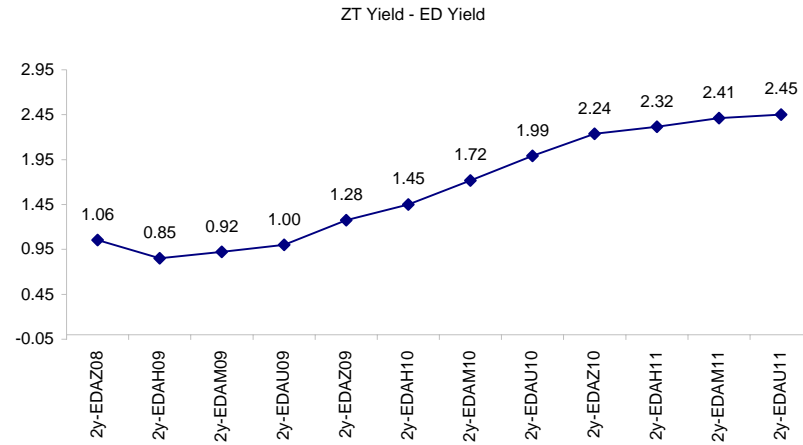


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.644	1.06	2y-EDAZ08	17.252
EDAH09	3.439	0.85	2y-EDAH09	-49.809
EDAM09	3.509	0.92	2y-EDAM09	-82.389
EDAU09	3.589	1.00	2y-EDAU09	-96.840
EDAZ09	3.864	1.28	2y-EDAZ09	-96.021
EDAH10	4.039	1.45	2y-EDAH10	-94.667
EDAM10	4.304	1.72	2y-EDAM10	-92.291
EDAU10	4.579	1.99	2y-EDAU10	-85.246
EDAZ10	4.824	2.24	2y-EDAZ10	-70.429
EDAH11	4.904	2.32	2y-EDAH11	-67.754
EDAM11	4.999	2.41	2y-EDAM11	-64.468
EDAU11	5.039	2.45	2y-EDAU11	-67.899

Price = Outright Decimal Price - Euro Contract Price

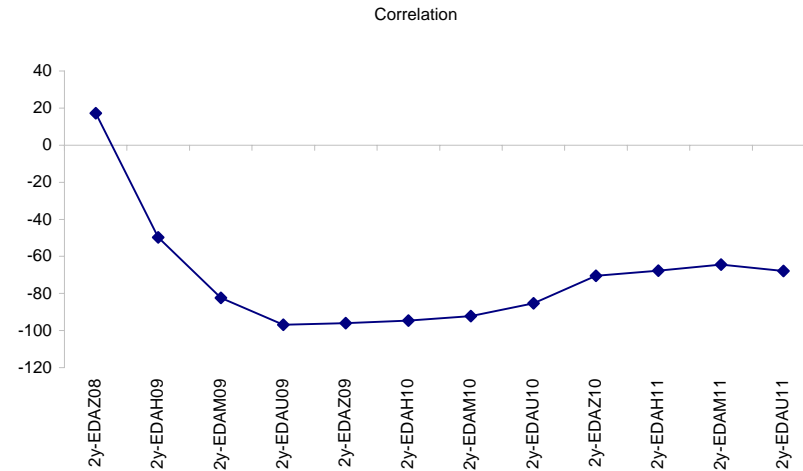
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.229	1.90	1.67	2y-EDAZ08	
EDAH09	0.479	1.90	1.42	2y-EDAH09	
EDAM09	0.728	1.90	1.18	2y-EDAM09	
EDAU09	0.977	1.90	0.93	2y-EDAU09	
EDAZ09	1.227	1.90	0.68	2y-EDAZ09	
EDAH10	1.476	1.90	0.43	2y-EDAH10	
EDAM10	1.725	1.90	0.18	2y-EDAM10	
EDAU10	1.975	1.90	(0.07)	2y-EDAU10	
EDAZ10	2.224	1.90	(0.32)	2y-EDAZ10	
EDAH11	2.473	1.90	(0.57)	2y-EDAH11	
EDAM11	2.723	1.90	(0.82)	2y-EDAM11	
EDAU11	2.991	1.90	(1.09)	2y-EDAU11	

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

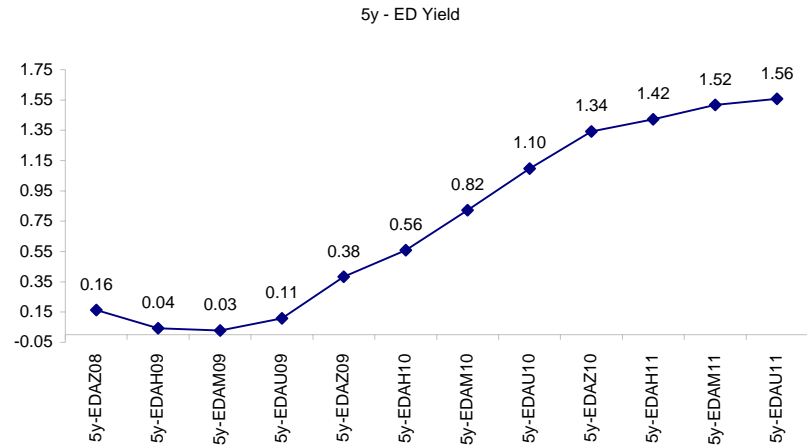


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.675	0.16	5y-EDAZ08	-12.703
EDAH09	3.470	0.04	5y-EDAH09	-71.333
EDAM09	3.540	0.03	5y-EDAM09	-93.615
EDAU09	3.620	0.11	5y-EDAU09	-95.801
EDAZ09	3.895	0.38	5y-EDAZ09	-94.571
EDAH10	4.070	0.56	5y-EDAH10	-92.640
EDAM10	4.335	0.82	5y-EDAM10	-93.111
EDAU10	4.610	1.10	5y-EDAU10	-93.330
EDAZ10	4.855	1.34	5y-EDAZ10	-88.391
EDAH11	4.935	1.42	5y-EDAH11	-86.525
EDAM11	5.030	1.52	5y-EDAM11	-85.205
EDAU11	5.070	1.56	5y-EDAU11	-87.416

Price = Outright Decimal Price - Euro Contract Price

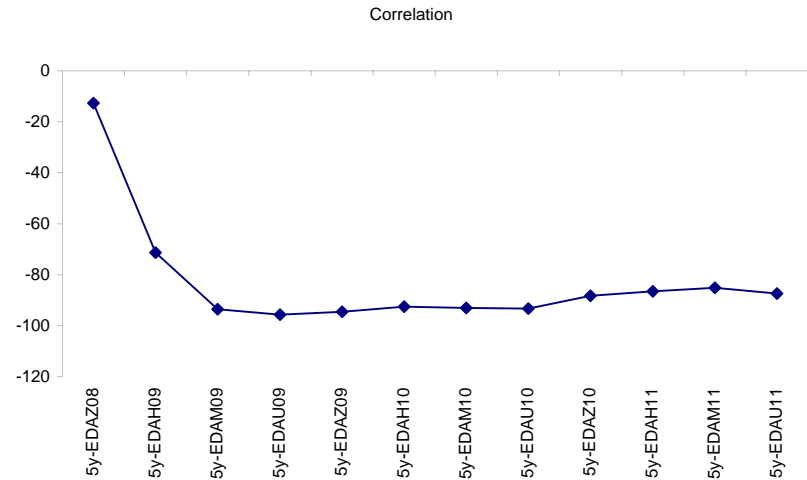
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAZ08	0.229	4.54	4.31	5y-EDAZ08
EDAH09	0.479	4.54	4.06	5y-EDAH09
EDAM09	0.728	4.54	3.81	5y-EDAM09
EDAU09	0.977	4.54	3.56	5y-EDAU09
EDAZ09	1.227	4.54	3.31	5y-EDAZ09
EDAH10	1.476	4.54	3.06	5y-EDAH10
EDAM10	1.725	4.54	2.81	5y-EDAM10
EDAU10	1.975	4.54	2.56	5y-EDAU10
EDAZ10	2.224	4.54	2.31	5y-EDAZ10
EDAH11	2.473	4.54	2.06	5y-EDAH11
EDAM11	2.723	4.54	1.81	5y-EDAM11
EDAU11	2.991	4.54	1.55	5y-EDAU11

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

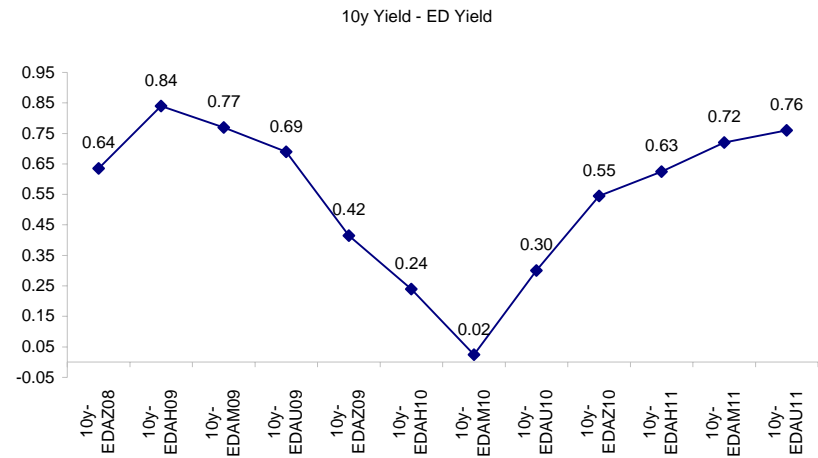


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.675	0.64	10y-EDAZ08	-37.970
EDAH09	3.470	0.84	10y-EDAH09	-82.856
EDAM09	3.540	0.77	10y-EDAM09	-93.637
EDAU09	3.620	0.69	10y-EDAU09	-84.851
EDAZ09	3.895	0.42	10y-EDAZ09	-83.167
EDAH10	4.070	0.24	10y-EDAH10	-80.716
EDAM10	4.335	0.02	10y-EDAM10	-83.390
EDAU10	4.610	0.30	10y-EDAU10	-89.508
EDAZ10	4.855	0.55	10y-EDAZ10	-93.380
EDAH11	4.935	0.63	10y-EDAH11	-92.372
EDAM11	5.030	0.72	10y-EDAM11	-93.041
EDAU11	5.070	0.76	10y-EDAU11	-94.090

Price = Outright Decimal Price - Euro Contract Price

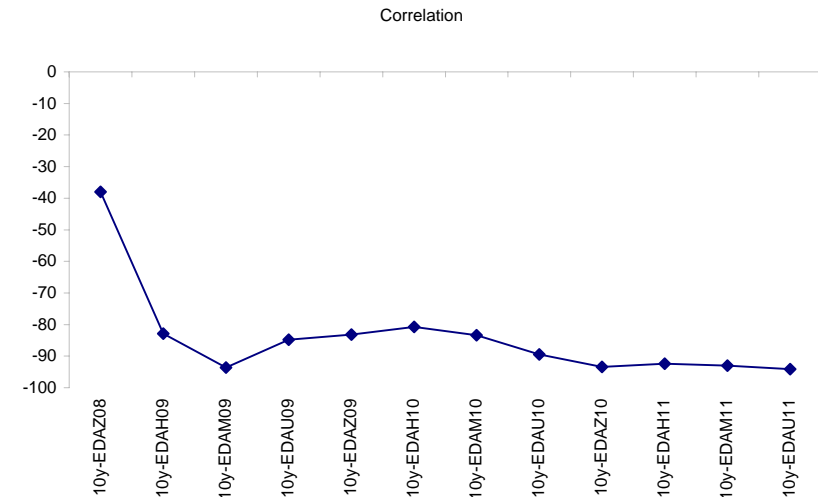
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAZ08	0.229	8.09	7.86	10y-EDAZ08
EDAH09	0.479	8.09	7.62	10y-EDAH09
EDAM09	0.728	8.09	7.37	10y-EDAM09
EDAU09	0.977	8.09	7.12	10y-EDAU09
EDAZ09	1.227	8.09	6.87	10y-EDAZ09
EDAH10	1.476	8.09	6.62	10y-EDAH10
EDAM10	1.725	8.09	6.37	10y-EDAM10
EDAU10	1.975	8.09	6.12	10y-EDAU10
EDAZ10	2.224	8.09	5.87	10y-EDAZ10
EDAH11	2.473	8.09	5.62	10y-EDAH11
EDAM11	2.723	8.09	5.37	10y-EDAM11
EDAU11	2.991	8.09	5.10	10y-EDAU11

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



Dirty TED Curve

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.

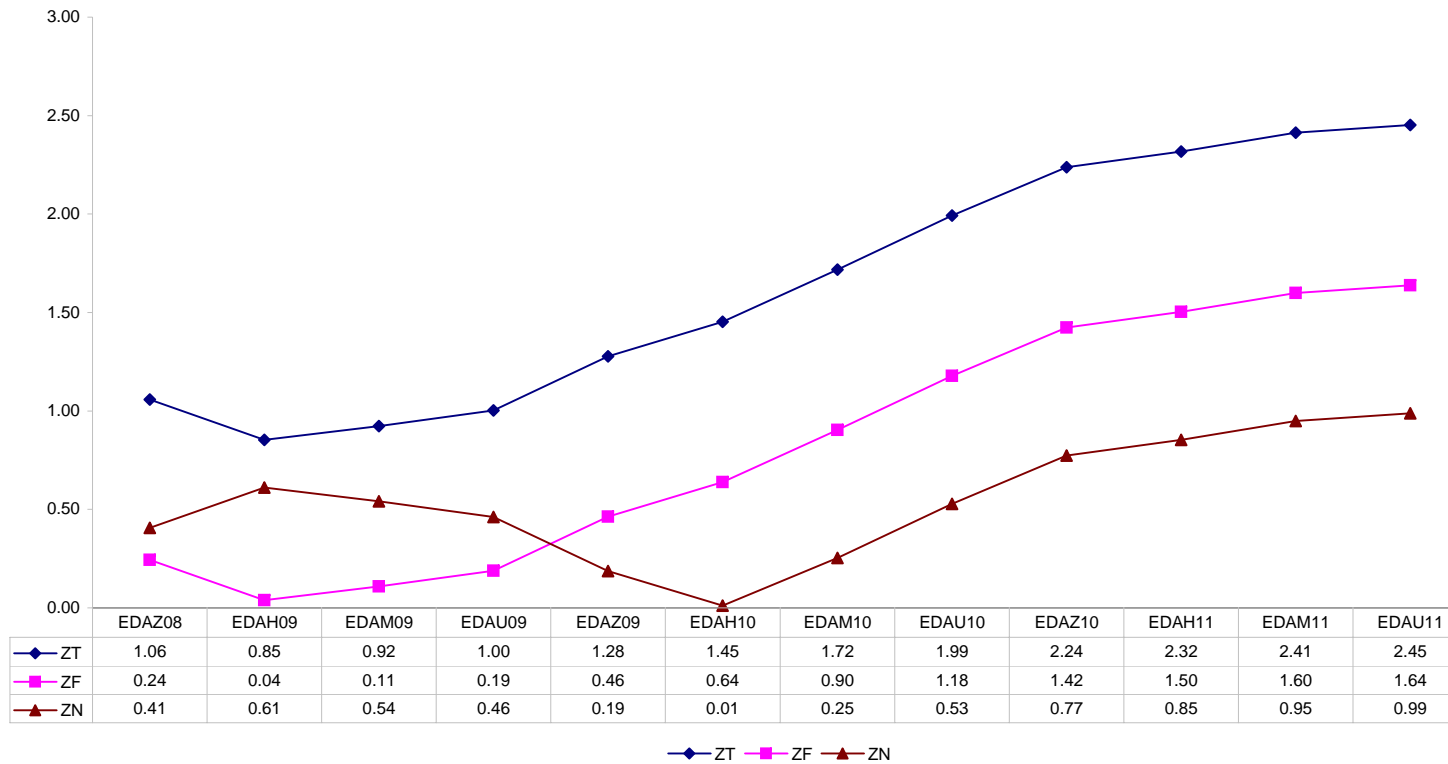
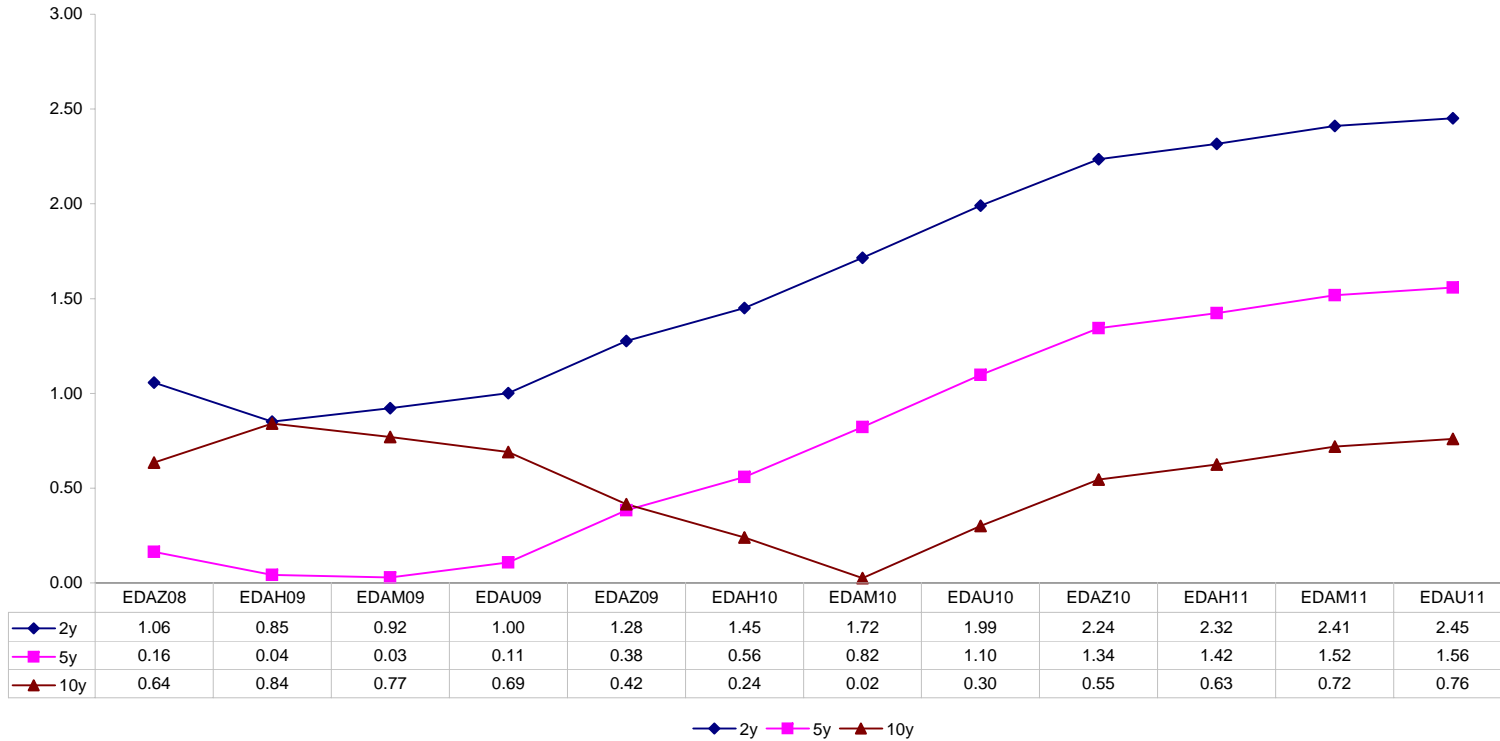
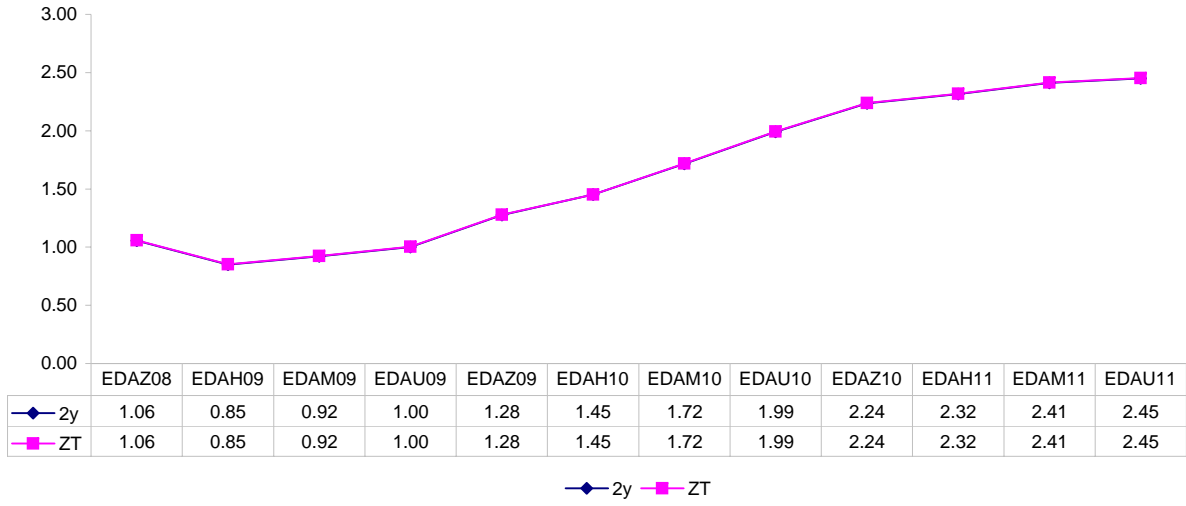


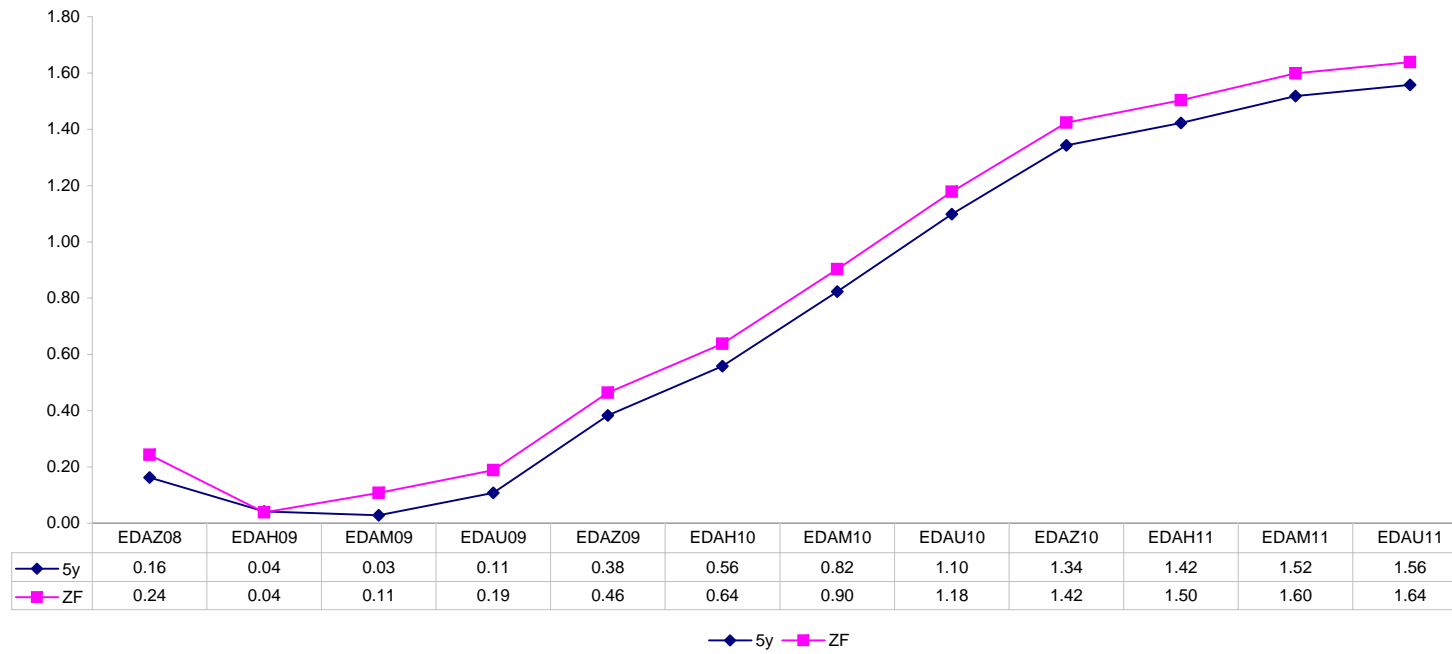
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



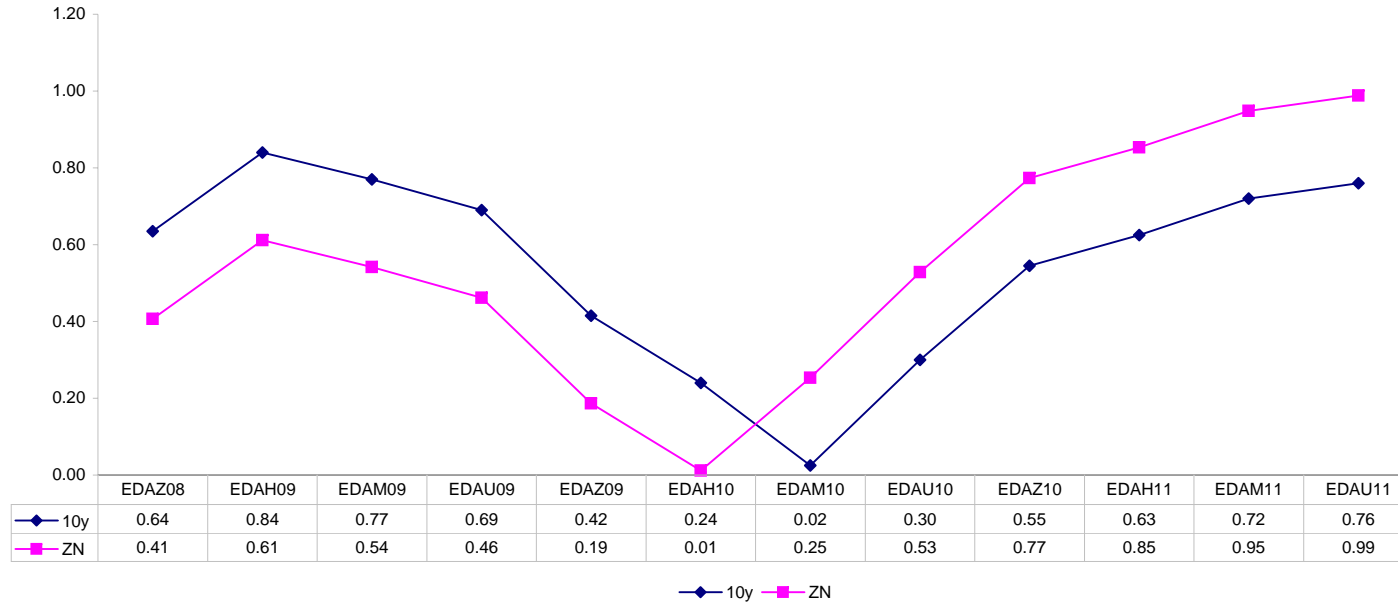
2y Basis TED Curve



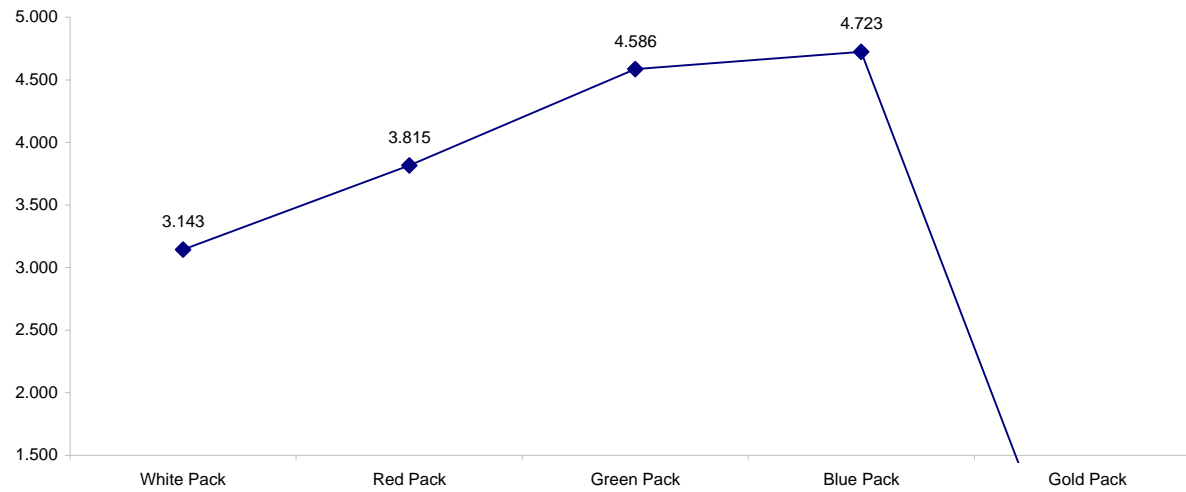
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	3.143	0.000	9692.375
Red Pack	3.815	-2.750	9627.250
Green Pack	4.586	-5.625	9552.750
Blue Pack	4.723	-1.125	9539.500
Gold Pack		0.000	9522.375



2y, 5y, 10y Basis Curves vs ED

