

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	107.2094	107.067	1.602	1.91
ZF	112.0781	112.025	2.681	4.08
ZN	112.0156	112.005	4.047	6.17
2y	100.750	100.2400	1.605	1.84
5y	101.178	101.0570	2.863	4.56
10y	99.984	99.3150	3.996	8.01

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	97.295	2.705	60	0.164	DEC	
EDAH09	97.715	2.285	151	0.413	MAR	White Pack
EDAM09	97.720	2.280	242	0.662	JUN	
EDAU09	97.575	2.425	333	0.912	SEP	
EDAZ09	97.250	2.750	424	1.161	DEC	
EDAH10	97.015	2.985	515	1.410	MAR	Red Pack
EDAM10	96.620	3.380	606	1.660	JUN	
EDAU10	96.205	3.795	697	1.909	SEP	
EDAZ10	95.740	4.260	788	2.158	DEC	
EDAH11	95.470	4.530	879	2.408	MAR	Green Pack
EDAM11	95.240	4.760	970	2.657	JUN	
EDAU11	95.115	4.885	1068	2.925	SEP	
EDAZ11	95.060	4.940	1159	3.175	DEC	
EDAH12	95.065	4.935	1250	3.424	MAR	Blue Pack
EDAM12	95.060	4.940	1341	3.673	JUN	
EDAU12	94.995	5.005	1432	3.923	SEP	
EDAZ12	94.825	5.175	1523	4.172	DEC	
EDAH13	94.830	5.170	1614	4.421	MAR	Gold Pack
EDAM13	94.775	5.225	1705	4.671	JUN	
EDZU13	94.450	5.550	1887	5.169	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	2.472	4.750	9757.625	Pack Prices
Red Pack	3.299	5.375	9677.250	
Green Pack	4.727	2.000	9539.125	
Blue Pack		1.125	9503.125	
Gold Pack	5.360	2.875	9478.250	

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.

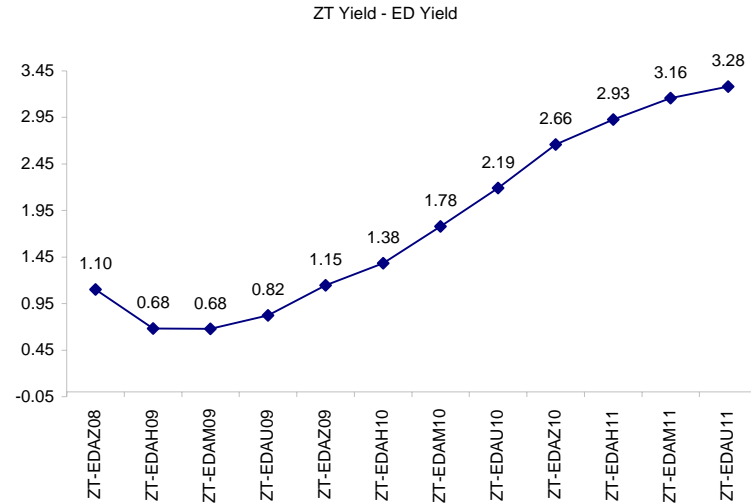
jgoulding@ghco.com

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.

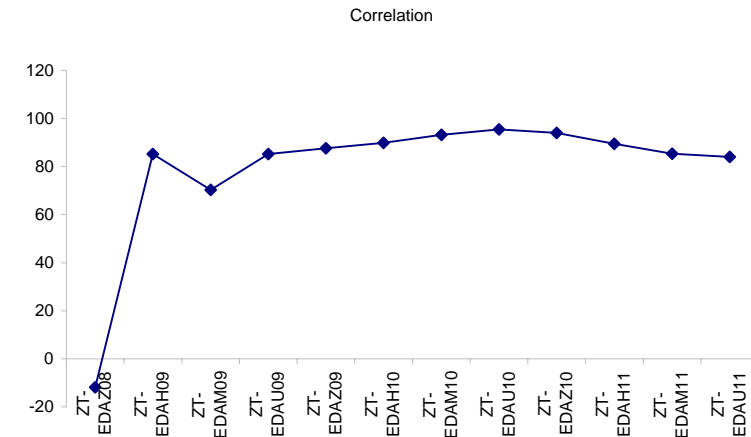
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	9.914	1.10	ZT-EDAZ08	-11.917
EDAH09	9.494	0.68	ZT-EDAH09	85.249
EDAM09	9.489	0.68	ZT-EDAM09	70.311
EDAU09	9.634	0.82	ZT-EDAU09	85.249
EDAZ09	9.959	1.15	ZT-EDAZ09	87.627
EDAH10	10.194	1.38	ZT-EDAH10	89.922
EDAM10	10.589	1.78	ZT-EDAM10	93.214
EDAU10	11.004	2.19	ZT-EDAU10	95.547
EDAZ10	11.469	2.66	ZT-EDAZ10	94.026
EDAH11	11.739	2.93	ZT-EDAH11	89.499
EDAM11	11.969	3.16	ZT-EDAM11	85.382
EDAU11	12.094	3.28	ZT-EDAU11	84.058

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	0.164	1.91	1.74	ZT-EDAZ08		
EDAH09	0.413	1.91	1.50	ZT-EDAH09		
EDAM09	0.662	1.91	1.25	ZT-EDAM09		
EDAU09	0.912	1.91	1.00	ZT-EDAU09		
EDAZ09	1.161	1.91	0.75	ZT-EDAZ09		
EDAH10	1.410	1.91	0.50	ZT-EDAH10		
EDAM10	1.660	1.91	0.25	ZT-EDAM10		
EDAU10	1.909	1.91	(0.00)	ZT-EDAU10		
EDAZ10	2.158	1.91	(0.25)	ZT-EDAZ10		
EDAH11	2.408	1.91	(0.50)	ZT-EDAH11		
EDAM11	2.657	1.91	(0.75)	ZT-EDAM11		
EDAU11	2.925	1.91	(1.02)	ZT-EDAU11		

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

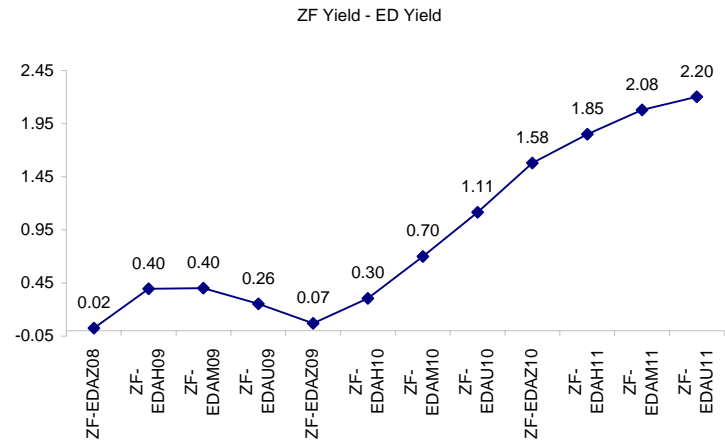


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	14.783	0.02	ZF-EDAZ08	-31.498
EDAH09	14.363	0.40	ZF-EDAH09	36.863
EDAM09	14.358	0.40	ZF-EDAM09	51.144
EDAU09	14.503	0.26	ZF-EDAU09	67.368
EDAZ09	14.828	0.07	ZF-EDAZ09	70.310
EDAH10	15.063	0.30	ZF-EDAH10	75.052
EDAM10	15.458	0.70	ZF-EDAM10	83.238
EDAU10	15.873	1.11	ZF-EDAU10	91.803
EDAZ10	16.338	1.58	ZF-EDAZ10	98.126
EDAH11	16.608	1.85	ZF-EDAH11	99.512
EDAM11	16.838	2.08	ZF-EDAM11	98.987
EDAU11	16.963	2.20	ZF-EDAU11	98.675

Price = Outright Decimal Price - Euro Contract Price

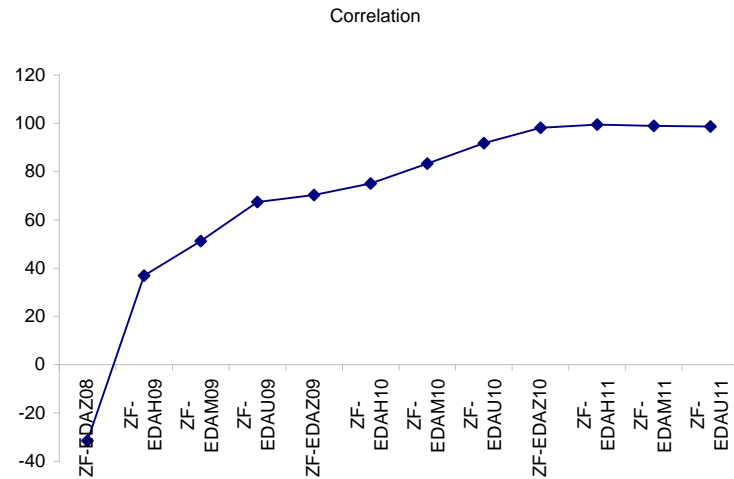
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



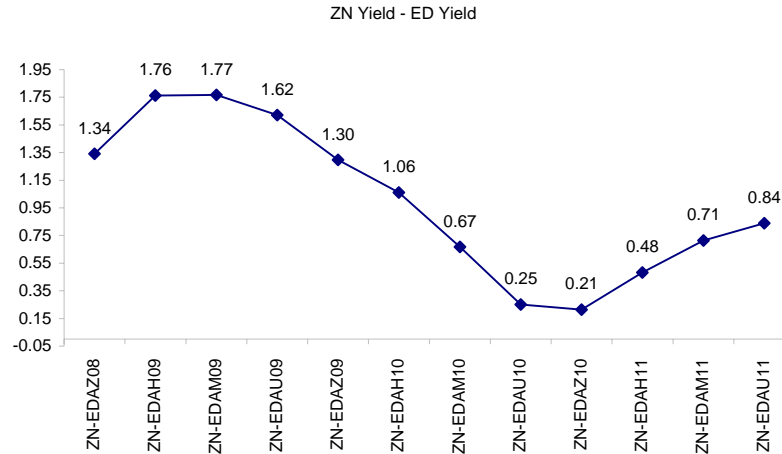
ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	0.164	4.08	3.92	ZF-EDAZ08		
EDAH09	0.413	4.08	3.67	ZF-EDAH09		
EDAM09	0.662	4.08	3.42	ZF-EDAM09		
EDAU09	0.912	4.08	3.17	ZF-EDAU09		
EDAZ09	1.161	4.08	2.92	ZF-EDAZ09		
EDAH10	1.410	4.08	2.67	ZF-EDAH10		
EDAM10	1.660	4.08	2.42	ZF-EDAM10		
EDAU10	1.909	4.08	2.17	ZF-EDAU10		
EDAZ10	2.158	4.08	1.92	ZF-EDAZ10		
EDAH11	2.408	4.08	1.67	ZF-EDAH11		
EDAM11	2.657	4.08	1.42	ZF-EDAM11		
EDAU11	2.925	4.08	1.15	ZF-EDAU11		

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



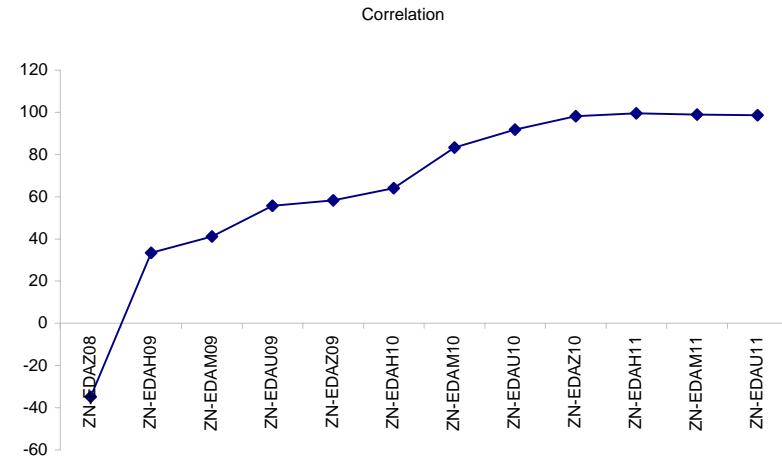
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	14.721	1.34	ZN-EDAZ08	-34.859
EDAH09	14.301	1.76	ZN-EDAH09	33.421
EDAM09	14.296	1.77	ZN-EDAM09	41.109
EDAU09	14.441	1.62	ZN-EDAU09	55.738
EDAZ09	14.766	1.30	ZN-EDAZ09	58.344
EDAH10	15.001	1.06	ZN-EDAH10	64.017
EDAM10	15.396	0.67	ZN-EDAM10	83.238
EDAU10	15.811	0.25	ZN-EDAU10	91.803
EDAZ10	16.276	0.21	ZN-EDAZ10	98.126
EDAH11	16.546	0.48	ZN-EDAH11	99.512
EDAM11	16.776	0.71	ZN-EDAM11	98.987
EDAU11	16.901	0.84	ZN-EDAU11	98.675

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	0.164	6.17	6.01	ZN-EDAZ08		
EDAH09	0.413	6.17	5.76	ZN-EDAH09		
EDAM09	0.662	6.17	5.51	ZN-EDAM09		
EDAU09	0.912	6.17	5.26	ZN-EDAU09		
EDAZ09	1.161	6.17	5.01	ZN-EDAZ09		
EDAH10	1.410	6.17	4.76	ZN-EDAH10		
EDAM10	1.660	6.17	4.51	ZN-EDAM10		
EDAU10	1.909	6.17	4.26	ZN-EDAU10		
EDAZ10	2.158	6.17	4.01	ZN-EDAZ10		
EDAH11	2.408	6.17	3.76	ZN-EDAH11		
EDAM11	2.657	6.17	3.51	ZN-EDAM11		
EDAU11	2.925	6.17	3.25	ZN-EDAU11		

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

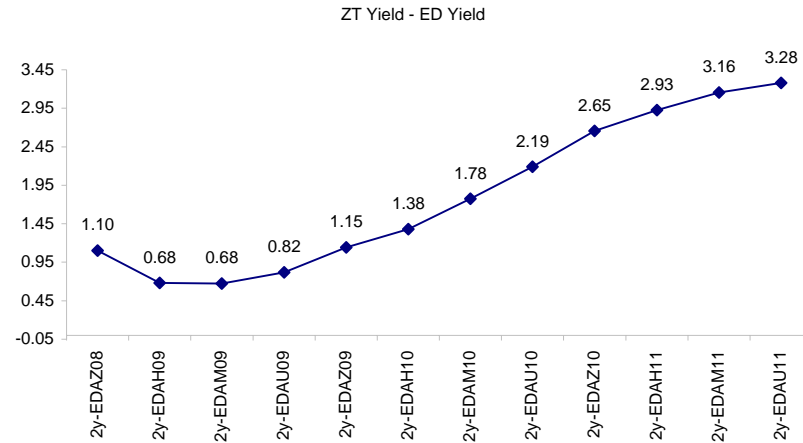


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.455	1.10	2y-EDAZ08	11.475
EDAH09	3.035	0.68	2y-EDAH09	-19.491
EDAM09	3.030	0.68	2y-EDAM09	-33.378
EDAU09	3.175	0.82	2y-EDAU09	-50.782
EDAZ09	3.500	1.15	2y-EDAZ09	-56.541
EDAH10	3.735	1.38	2y-EDAH10	-60.232
EDAM10	4.130	1.78	2y-EDAM10	-66.496
EDAU10	4.545	2.19	2y-EDAU10	-72.133
EDAZ10	5.010	2.65	2y-EDAZ10	-72.526
EDAH11	5.280	2.93	2y-EDAH11	-69.097
EDAM11	5.510	3.16	2y-EDAM11	-65.576
EDAU11	5.635	3.28	2y-EDAU11	-63.926

Price = Outright Decimal Price - Euro Contract Price

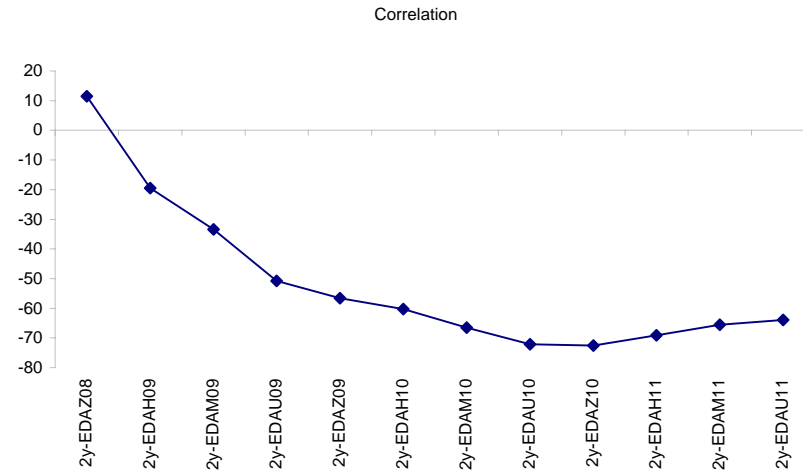
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.164	1.84	1.68	2y-EDAZ08	
EDAH09	0.413	1.84	1.43	2y-EDAH09	
EDAM09	0.662	1.84	1.18	2y-EDAM09	
EDAU09	0.912	1.84	0.93	2y-EDAU09	
EDAZ09	1.161	1.84	0.68	2y-EDAZ09	
EDAH10	1.410	1.84	0.43	2y-EDAH10	
EDAM10	1.660	1.84	0.18	2y-EDAM10	
EDAU10	1.909	1.84	(0.06)	2y-EDAU10	
EDAZ10	2.158	1.84	(0.31)	2y-EDAZ10	
EDAH11	2.408	1.84	(0.56)	2y-EDAH11	
EDAM11	2.657	1.84	(0.81)	2y-EDAM11	
EDAU11	2.925	1.84	(1.08)	2y-EDAU11	

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

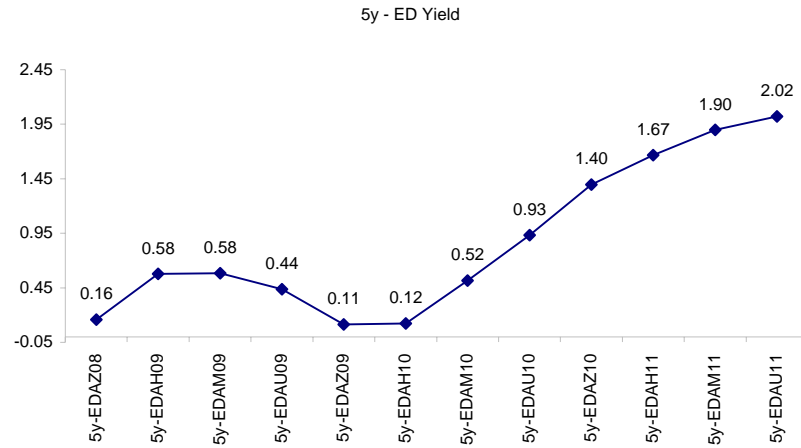


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.883	0.16	5y-EDAZ08	31.641
EDAH09	3.463	0.58	5y-EDAH09	-8.198
EDAM09	3.458	0.58	5y-EDAM09	-16.229
EDAU09	3.603	0.44	5y-EDAU09	-36.449
EDAZ09	3.928	0.11	5y-EDAZ09	-44.602
EDAH10	4.163	0.12	5y-EDAH10	-53.247
EDAM10	4.558	0.52	5y-EDAM10	-67.516
EDAU10	4.973	0.93	5y-EDAU10	-82.496
EDAZ10	5.438	1.40	5y-EDAZ10	-93.173
EDAH11	5.708	1.67	5y-EDAH11	-95.321
EDAM11	5.938	1.90	5y-EDAM11	-94.821
EDAU11	6.063	2.02	5y-EDAU11	-94.339

Price = Outright Decimal Price - Euro Contract Price

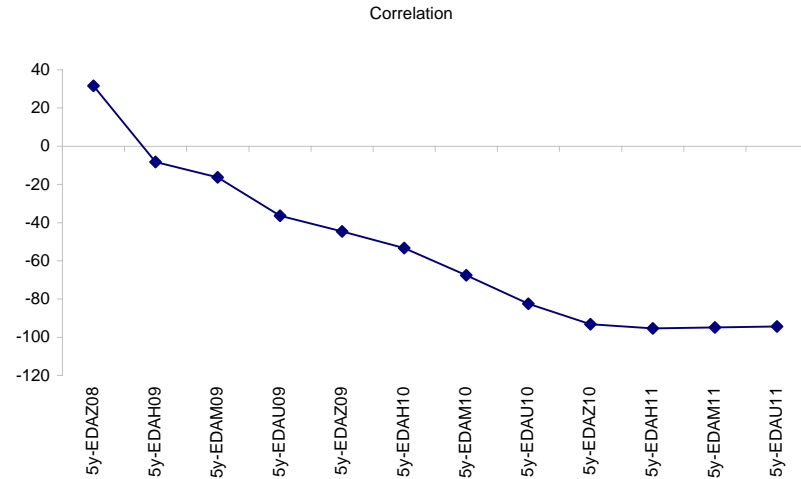
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAZ08	0.164	4.56	4.39	5y-EDAZ08	
EDAH09	0.413	4.56	4.15	5y-EDAH09	
EDAM09	0.662	4.56	3.90	5y-EDAM09	
EDAU09	0.912	4.56	3.65	5y-EDAU09	
EDAZ09	1.161	4.56	3.40	5y-EDAZ09	
EDAH10	1.410	4.56	3.15	5y-EDAH10	
EDAM10	1.660	4.56	2.90	5y-EDAM10	
EDAU10	1.909	4.56	2.65	5y-EDAU10	
EDAZ10	2.158	4.56	2.40	5y-EDAZ10	
EDAH11	2.408	4.56	2.15	5y-EDAH11	
EDAM11	2.657	4.56	1.90	5y-EDAM11	
EDAU11	2.925	4.56	1.63	5y-EDAU11	

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

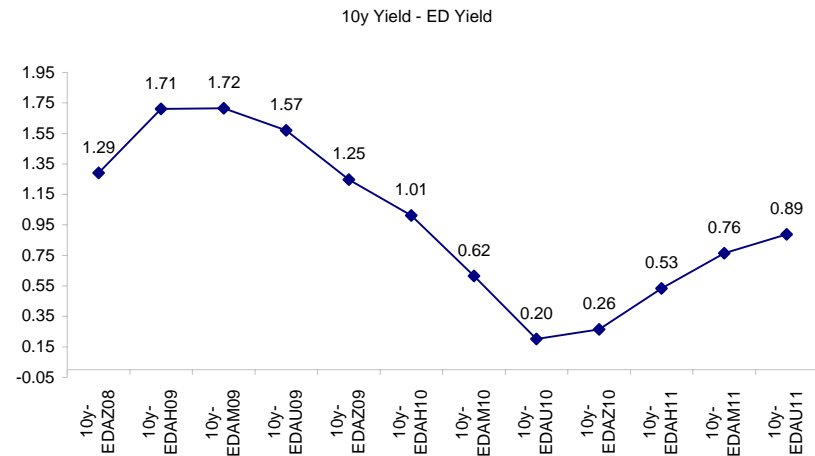


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.883	1.29	10y-EDAZ08	44.616
EDAH09	3.463	1.71	10y-EDAH09	3.699
EDAM09	3.458	1.72	10y-EDAM09	-2.308
EDAU09	3.603	1.57	10y-EDAU09	-23.118
EDAZ09	3.928	1.25	10y-EDAZ09	-31.446
EDAH10	4.163	1.01	10y-EDAH10	-40.946
EDAM10	4.558	0.62	10y-EDAM10	-57.781
EDAU10	4.973	0.20	10y-EDAU10	-76.278
EDAZ10	5.438	0.26	10y-EDAZ10	-91.950
EDAH11	5.708	0.53	10y-EDAH11	-96.759
EDAM11	5.938	0.76	10y-EDAM11	-97.937
EDAU11	6.063	0.89	10y-EDAU11	-98.265

Price = Outright Decimal Price - Euro Contract Price

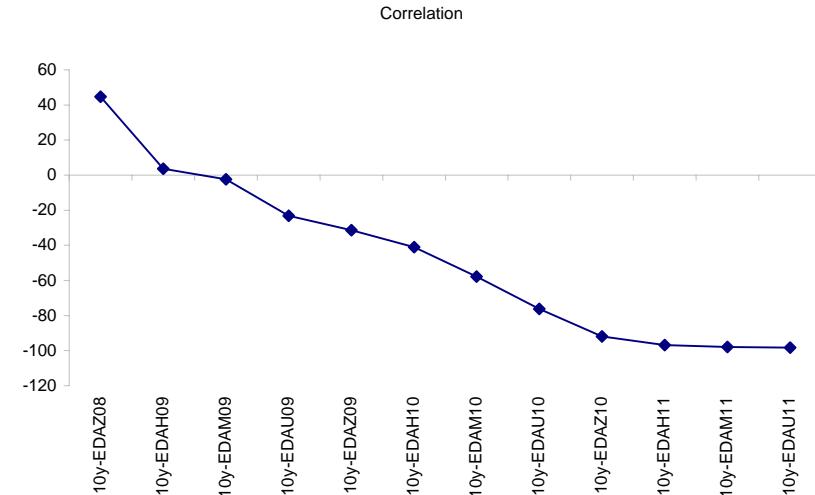
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as				
	Fraction of year	10Y Duration	Spread Duration	
EDAZ08	0.164	8.01	7.84	10y-EDAZ08
EDAH09	0.413	8.01	7.59	10y-EDAH09
EDAM09	0.662	8.01	7.35	10y-EDAM09
EDAU09	0.912	8.01	7.10	10y-EDAU09
EDAZ09	1.161	8.01	6.85	10y-EDAZ09
EDAH10	1.410	8.01	6.60	10y-EDAH10
EDAM10	1.660	8.01	6.35	10y-EDAM10
EDAU10	1.909	8.01	6.10	10y-EDAU10
EDAZ10	2.158	8.01	5.85	10y-EDAZ10
EDAH11	2.408	8.01	5.60	10y-EDAH11
EDAM11	2.657	8.01	5.35	10y-EDAM11
EDAU11	2.925	8.01	5.08	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.

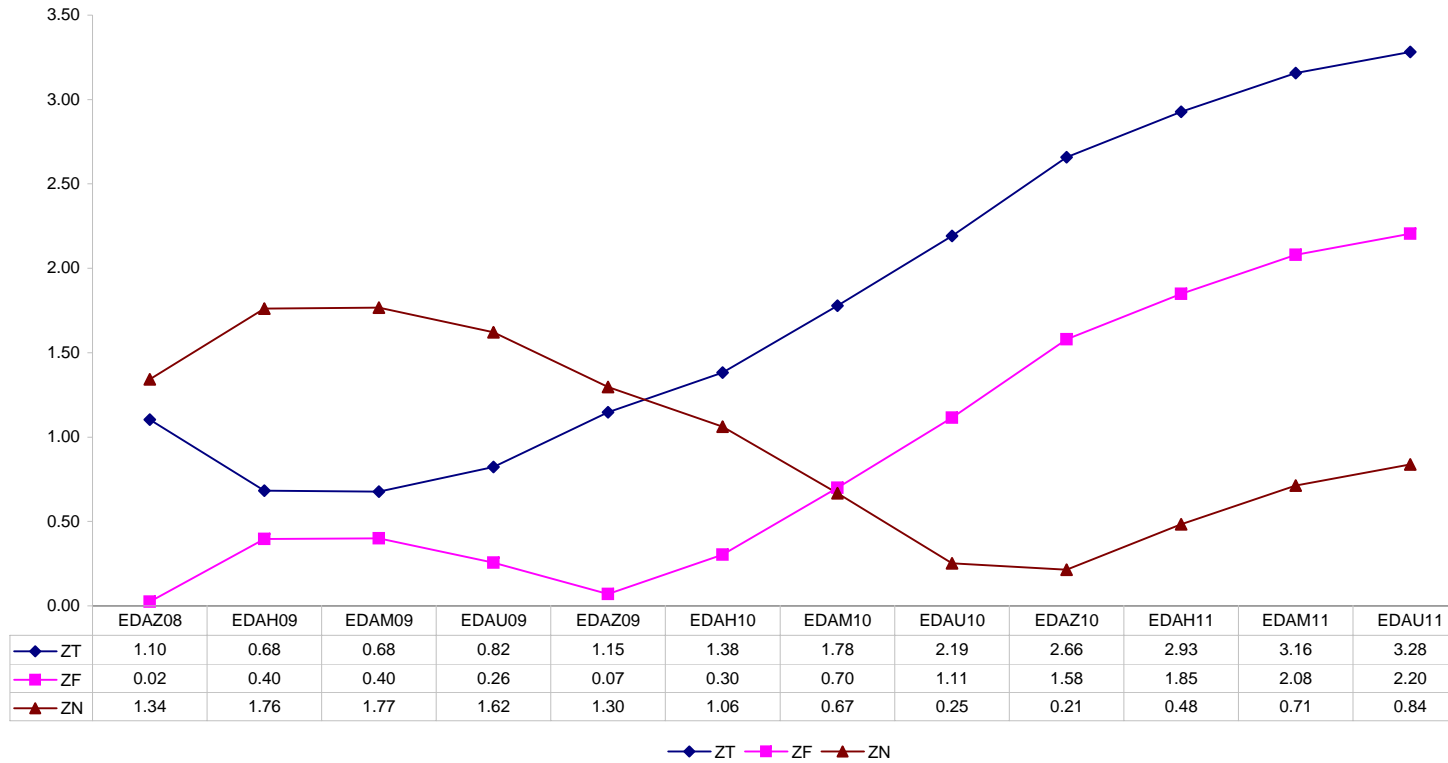
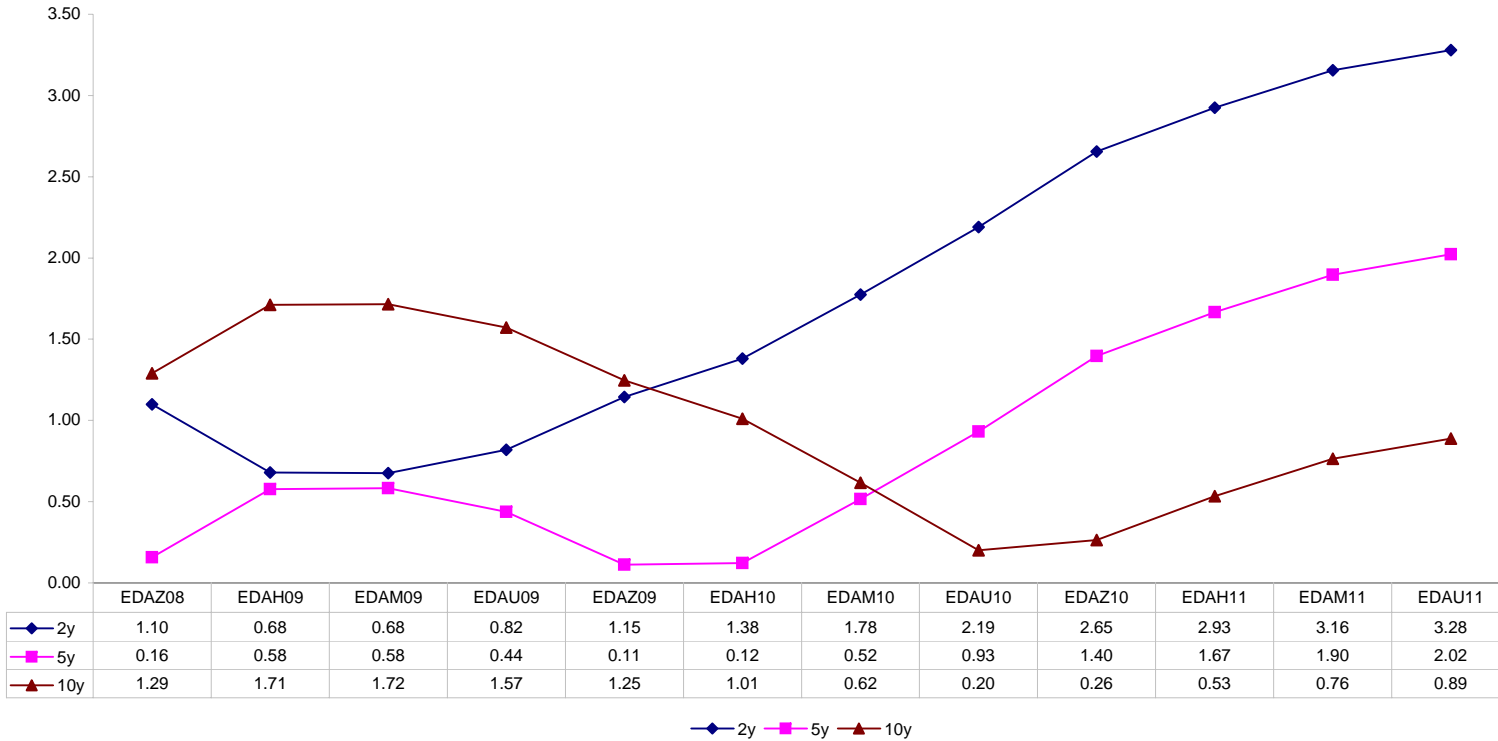
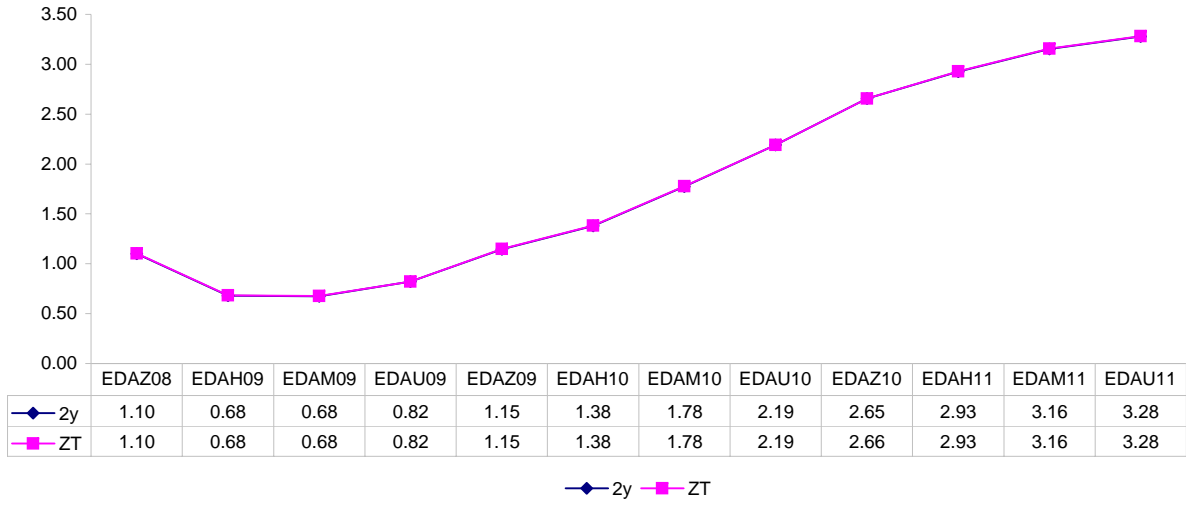


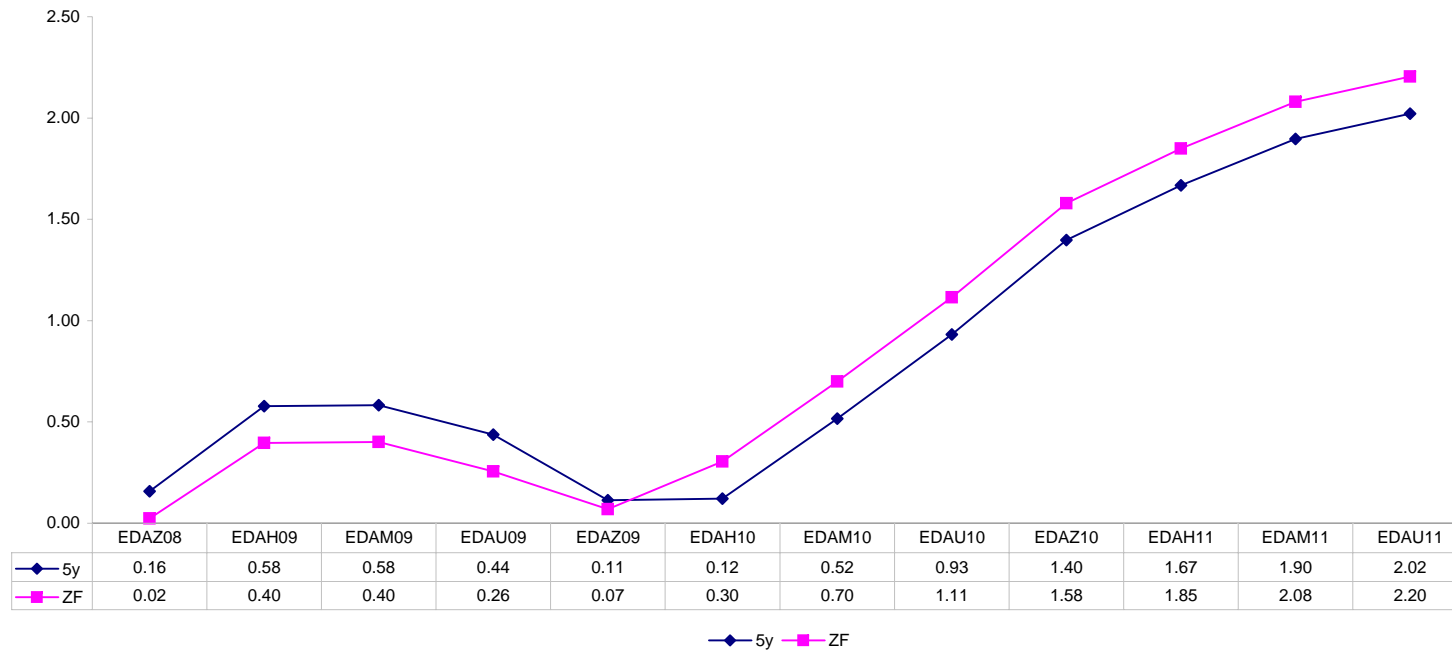
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve



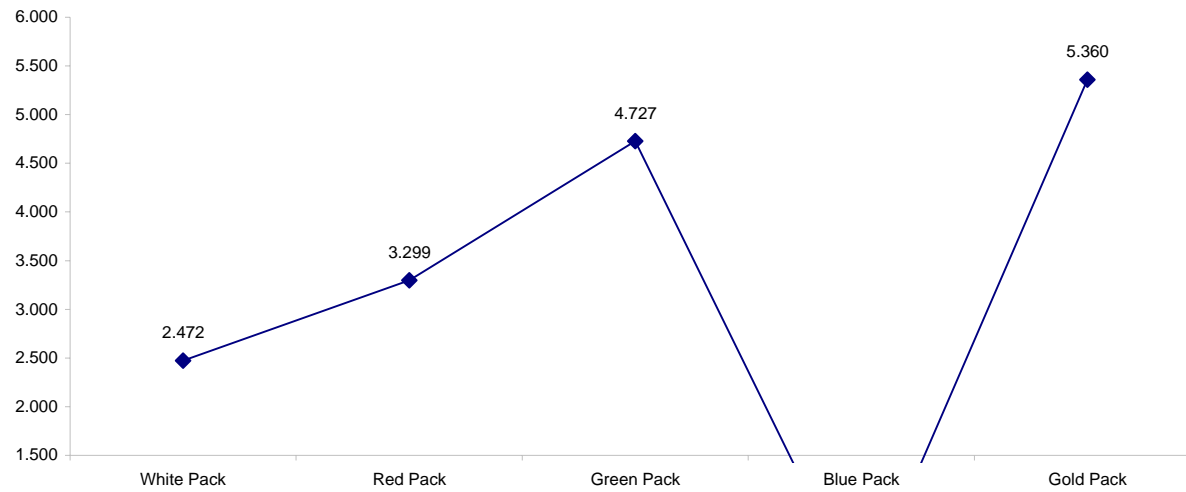
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.472	4.750	9757.625
Red Pack	3.299	5.375	9677.250
Green Pack	4.727	2.000	9539.125
Blue Pack		1.125	9503.125
Gold Pack	5.360	2.875	9478.250



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

