

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	105.8281	105.265	2.558	1.85
ZF	110.8438	110.270	3.236	3.98
ZN	114.1875	114.060	3.842	6.40
2y	100.256	100.0820	2.614	1.93
5y	100.063	100.0200	3.362	4.57
10y	98.703	98.2250	4.036	8.00

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	97.110	2.890	47	0.128	SEP	
EDAZ08	96.925	3.075	138	0.377	DEC	White
EDAH09	96.845	3.155	229	0.627	MAR	Pack
EDAM09	96.650	3.350	320	0.876	JUN	
EDAU09	96.365	3.635	411	1.125	SEP	
EDAZ09	96.040	3.960	502	1.375	DEC	Red
EDAH10	95.795	4.205	593	1.624	MAR	Pack
EDAM10	95.595	4.405	684	1.873	JUN	
EDAU10	95.455	4.545	775	2.123	SEP	
EDAZ10	95.340	4.660	866	2.372	DEC	Green
EDAH11	95.290	4.710	957	2.621	MAR	Pack
EDAM11	95.240	4.760	1048	2.871	JUN	
EDAU11	95.215	4.785	1146	3.139	SEP	
EDAZ11	95.150	4.850	1237	3.388	DEC	Blue
EDAH12	95.130	4.870	1328	3.638	MAR	Pack
EDAM12	95.080	4.920	1419	3.887	JUN	
EDAU12	95.000	5.000	1510	4.136	SEP	
EDAZ12	94.960	5.040	1601	4.386	DEC	Gold
EDAH13	94.900	5.100	1692	4.635	MAR	Pack
EDAM13	94.860	5.140	1783	4.884	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	3.186	1.375	9688.250	
Red Pack	4.150	1.500	9594.875	Pack
Green Pack	4.789	-0.625	9533.125	Prices
Blue Pack		0.000	9515.000	
Gold Pack		0.000	9496.125	

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.

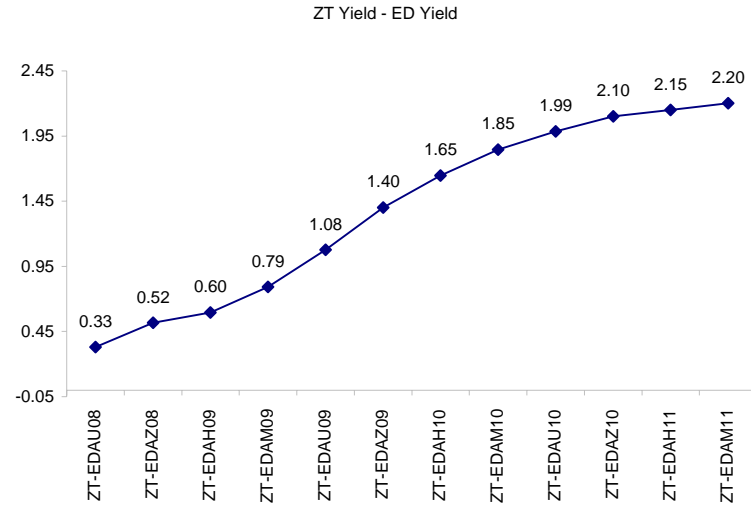
jgoulding@ghco.com

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.

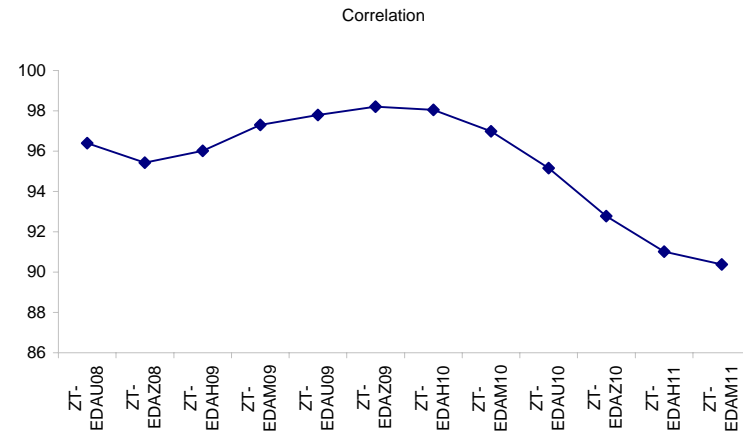
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	8.718	0.33	ZT-EDAU08	96.392
EDAZ08	8.903	0.52	ZT-EDAZ08	95.427
EDAH09	8.983	0.60	ZT-EDAH09	96.019
EDAM09	9.178	0.79	ZT-EDAM09	97.294
EDAU09	9.463	1.08	ZT-EDAU09	97.791
EDAZ09	9.788	1.40	ZT-EDAZ09	98.201
EDAH10	10.033	1.65	ZT-EDAH10	98.047
EDAM10	10.233	1.85	ZT-EDAM10	96.981
EDAU10	10.373	1.99	ZT-EDAU10	95.151
EDAZ10	10.488	2.10	ZT-EDAZ10	92.784
EDAH11	10.538	2.15	ZT-EDAH11	91.016
EDAM11	10.588	2.20	ZT-EDAM11	90.377

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	
EDAU08	0.128	1.85	1.72	ZT-EDAU08	
EDAZ08	0.377	1.85	1.47	ZT-EDAZ08	
EDAH09	0.627	1.85	1.22	ZT-EDAH09	
EDAM09	0.876	1.85	0.97	ZT-EDAM09	
EDAU09	1.125	1.85	0.72	ZT-EDAU09	
EDAZ09	1.375	1.85	0.48	ZT-EDAZ09	
EDAH10	1.624	1.85	0.23	ZT-EDAH10	
EDAM10	1.873	1.85	(0.02)	ZT-EDAM10	
EDAU10	2.123	1.85	(0.27)	ZT-EDAU10	
EDAZ10	2.372	1.85	(0.52)	ZT-EDAZ10	
EDAH11	2.621	1.85	(0.77)	ZT-EDAH11	
EDAM11	2.871	1.85	(1.02)	ZT-EDAM11	

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

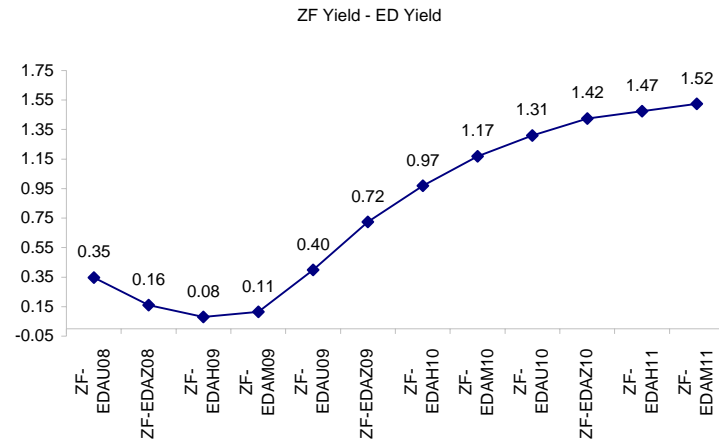


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	13.734	0.35	ZF-EDAU08	96.192
EDAZ08	13.919	0.16	ZF-EDAZ08	95.501
EDAH09	13.999	0.08	ZF-EDAH09	96.415
EDAM09	14.194	0.11	ZF-EDAM09	97.584
EDAU09	14.479	0.40	ZF-EDAU09	97.902
EDAZ09	14.804	0.72	ZF-EDAZ09	98.200
EDAH10	15.049	0.97	ZF-EDAH10	98.001
EDAM10	15.249	1.17	ZF-EDAM10	97.154
EDAU10	15.389	1.31	ZF-EDAU10	95.486
EDAZ10	15.504	1.42	ZF-EDAZ10	93.073
EDAH11	15.554	1.47	ZF-EDAH11	91.303
EDAM11	15.604	1.52	ZF-EDAM11	90.641

Price = Outright Decimal Price - Euro Contract Price

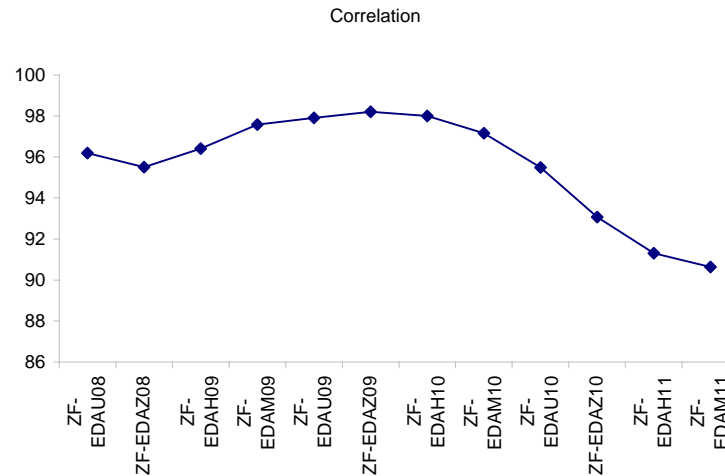
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAU08	0.128	3.98	3.85	ZF-EDAU08		
EDAZ08	0.377	3.98	3.61	ZF-EDAZ08		
EDAH09	0.627	3.98	3.36	ZF-EDAH09		
EDAM09	0.876	3.98	3.11	ZF-EDAM09		
EDAU09	1.125	3.98	2.86	ZF-EDAU09		
EDAZ09	1.375	3.98	2.61	ZF-EDAZ09		
EDAH10	1.624	3.98	2.36	ZF-EDAH10		
EDAM10	1.873	3.98	2.11	ZF-EDAM10		
EDAU10	2.123	3.98	1.86	ZF-EDAU10		
EDAZ10	2.372	3.98	1.61	ZF-EDAZ10		
EDAH11	2.621	3.98	1.36	ZF-EDAH11		
EDAM11	2.871	3.98	1.11	ZF-EDAM11		

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

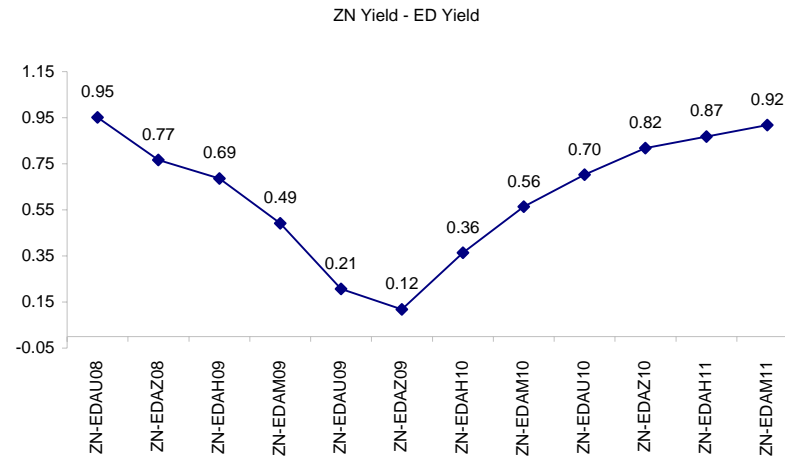


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	17.078	0.95	ZN-EDAU08	90.381
EDAZ08	17.263	0.77	ZN-EDAZ08	94.266
EDAH09	17.343	0.69	ZN-EDAH09	94.922
EDAM09	17.538	0.49	ZN-EDAM09	95.335
EDAU09	17.823	0.21	ZN-EDAU09	95.263
EDAZ09	18.148	0.12	ZN-EDAZ09	95.677
EDAH10	18.393	0.36	ZN-EDAH10	98.001
EDAM10	18.593	0.56	ZN-EDAM10	97.154
EDAU10	18.733	0.70	ZN-EDAU10	95.486
EDAZ10	18.848	0.82	ZN-EDAZ10	93.073
EDAH11	18.898	0.87	ZN-EDAH11	91.303
EDAM11	18.948	0.92	ZN-EDAM11	90.641

Price = Outright Decimal Price - Euro Contract Price

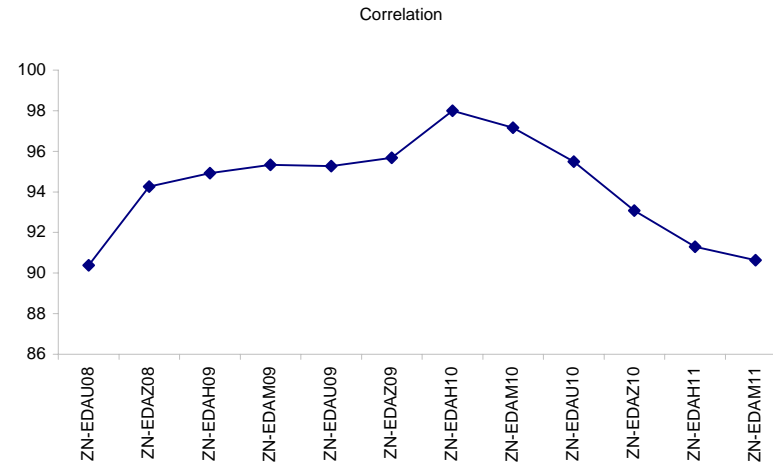
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAU08	0.128	6.40	6.27	ZN-EDAU08		
EDAZ08	0.377	6.40	6.02	ZN-EDAZ08		
EDAH09	0.627	6.40	5.77	ZN-EDAH09		
EDAM09	0.876	6.40	5.52	ZN-EDAM09		
EDAU09	1.125	6.40	5.27	ZN-EDAU09		
EDAZ09	1.375	6.40	5.02	ZN-EDAZ09		
EDAH10	1.624	6.40	4.77	ZN-EDAH10		
EDAM10	1.873	6.40	4.52	ZN-EDAM10		
EDAU10	2.123	6.40	4.27	ZN-EDAU10		
EDAZ10	2.372	6.40	4.02	ZN-EDAZ10		
EDAH11	2.621	6.40	3.77	ZN-EDAH11		
EDAM11	2.871	6.40	3.53	ZN-EDAM11		

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

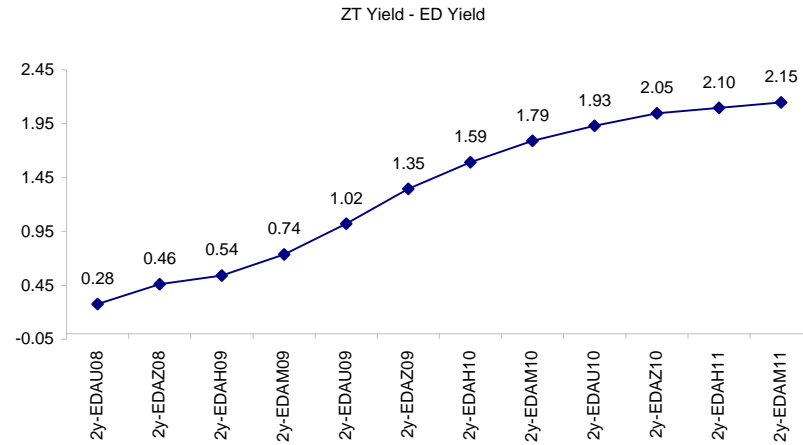


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.146	0.28	2y-EDAU08	-76.841
EDAZ08	3.331	0.46	2y-EDAZ08	-56.036
EDAH09	3.411	0.54	2y-EDAH09	-57.120
EDAM09	3.606	0.74	2y-EDAM09	-61.129
EDAU09	3.891	1.02	2y-EDAU09	-64.388
EDAZ09	4.216	1.35	2y-EDAZ09	-66.798
EDAH10	4.461	1.59	2y-EDAH10	-67.089
EDAM10	4.661	1.79	2y-EDAM10	-63.579
EDAU10	4.801	1.93	2y-EDAU10	-57.583
EDAZ10	4.916	2.05	2y-EDAZ10	-50.714
EDAH11	4.966	2.10	2y-EDAH11	-47.019
EDAM11	5.016	2.15	2y-EDAM11	-45.978

Price = Outright Decimal Price - Euro Contract Price

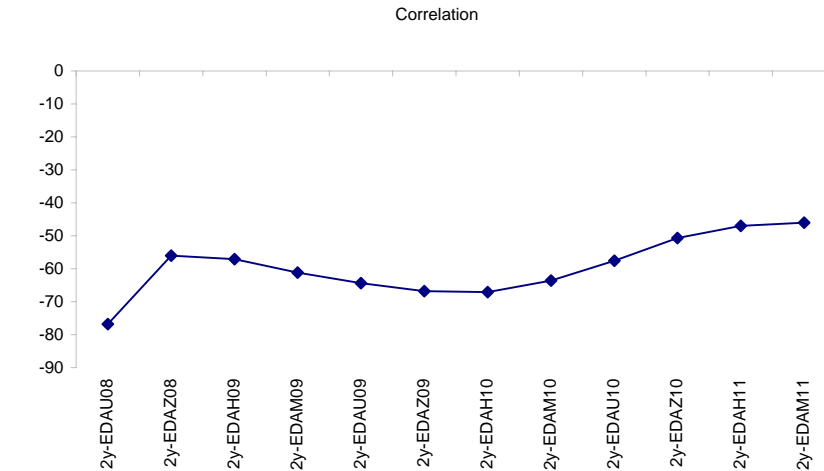
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAU08	0.128	1.93	1.81	2y-EDAU08	
EDAZ08	0.377	1.93	1.56	2y-EDAZ08	
EDAH09	0.627	1.93	1.31	2y-EDAH09	
EDAM09	0.876	1.93	1.06	2y-EDAM09	
EDAU09	1.125	1.93	0.81	2y-EDAU09	
EDAZ09	1.375	1.93	0.56	2y-EDAZ09	
EDAH10	1.624	1.93	0.31	2y-EDAH10	
EDAM10	1.873	1.93	0.06	2y-EDAM10	
EDAU10	2.123	1.93	(0.19)	2y-EDAU10	
EDAZ10	2.372	1.93	(0.44)	2y-EDAZ10	
EDAH11	2.621	1.93	(0.69)	2y-EDAH11	
EDAM11	2.871	1.93	(0.94)	2y-EDAM11	

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

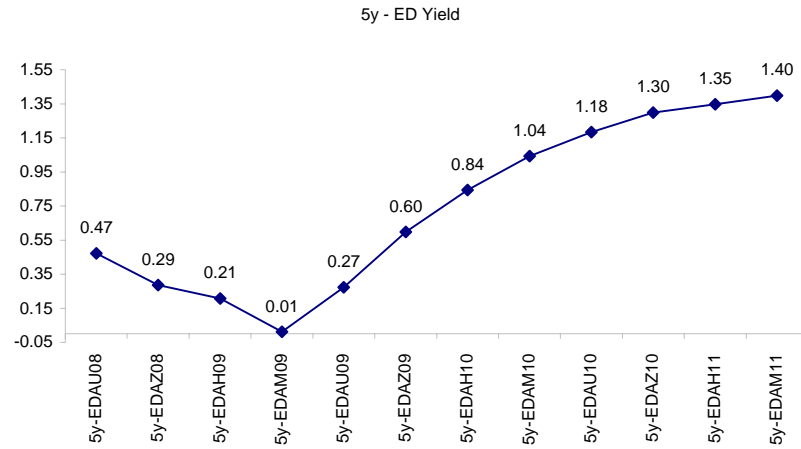


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.952	0.47	5y-EDAU08	-88.533
EDAZ08	3.137	0.29	5y-EDAZ08	-74.515
EDAH09	3.217	0.21	5y-EDAH09	-74.646
EDAM09	3.412	0.01	5y-EDAM09	-76.682
EDAU09	3.697	0.27	5y-EDAU09	-78.532
EDAZ09	4.022	0.60	5y-EDAZ09	-80.640
EDAH10	4.267	0.84	5y-EDAH10	-81.378
EDAM10	4.467	1.04	5y-EDAM10	-79.568
EDAU10	4.607	1.18	5y-EDAU10	-75.420
EDAZ10	4.722	1.30	5y-EDAZ10	-69.933
EDAH11	4.772	1.35	5y-EDAH11	-67.190
EDAM11	4.822	1.40	5y-EDAM11	-66.371

Price = Outright Decimal Price - Euro Contract Price

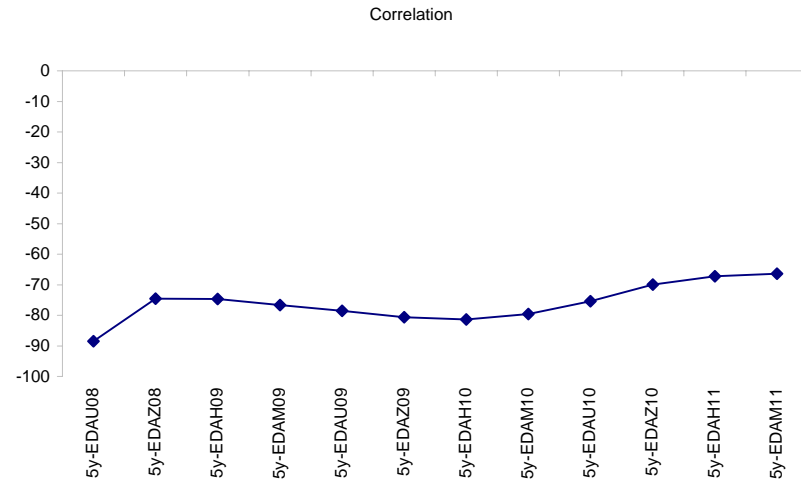
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	5Y Duration	Spread Duration	
EDAU08	0.128	4.57	4.44	5y-EDAU08
EDAZ08	0.377	4.57	4.19	5y-EDAZ08
EDAH09	0.627	4.57	3.94	5y-EDAH09
EDAM09	0.876	4.57	3.69	5y-EDAM09
EDAU09	1.125	4.57	3.44	5y-EDAU09
EDAZ09	1.375	4.57	3.19	5y-EDAZ09
EDAH10	1.624	4.57	2.94	5y-EDAH10
EDAM10	1.873	4.57	2.69	5y-EDAM10
EDAU10	2.123	4.57	2.44	5y-EDAU10
EDAZ10	2.372	4.57	2.19	5y-EDAZ10
EDAH11	2.621	4.57	1.94	5y-EDAH11
EDAM11	2.871	4.57	1.70	5y-EDAM11

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

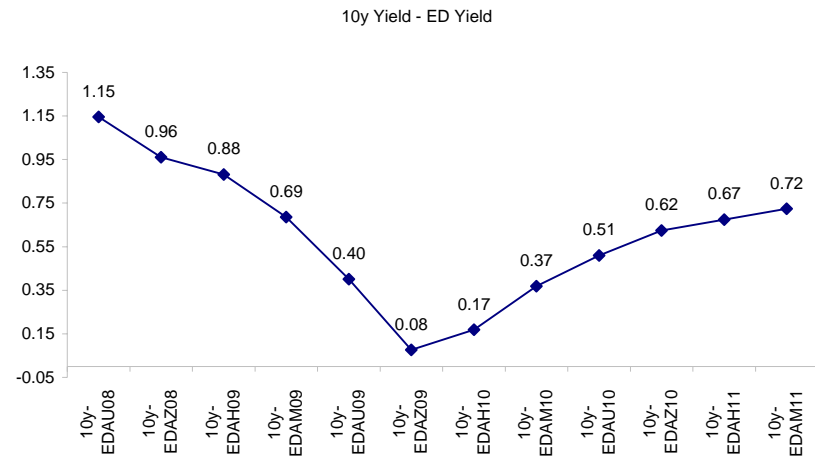


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.952	1.15	10y-EDAU08	-85.490
EDAZ08	3.137	0.96	10y-EDAZ08	-76.178
EDAH09	3.217	0.88	10y-EDAH09	-75.588
EDAM09	3.412	0.69	10y-EDAM09	-76.710
EDAU09	3.697	0.40	10y-EDAU09	-78.350
EDAZ09	4.022	0.08	10y-EDAZ09	-80.572
EDAH10	4.267	0.17	10y-EDAH10	-81.719
EDAM10	4.467	0.37	10y-EDAM10	-81.243
EDAU10	4.607	0.51	10y-EDAU10	-78.436
EDAZ10	4.722	0.62	10y-EDAZ10	-73.911
EDAH11	4.772	0.67	10y-EDAH11	-71.673
EDAM11	4.822	0.72	10y-EDAM11	-70.879

Price = Outright Decimal Price - Euro Contract Price

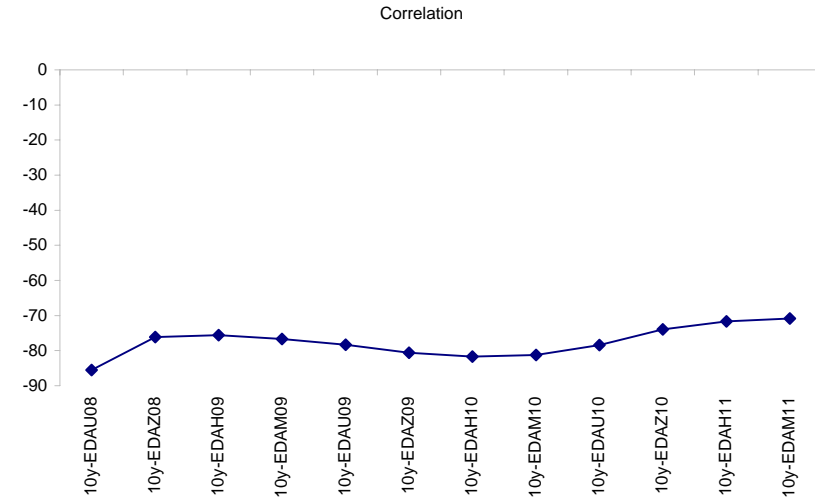
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.128	8.00	7.87	10y-EDAU08
EDAZ08	0.377	8.00	7.62	10y-EDAZ08
EDAH09	0.627	8.00	7.37	10y-EDAH09
EDAM09	0.876	8.00	7.12	10y-EDAM09
EDAU09	1.125	8.00	6.88	10y-EDAU09
EDAZ09	1.375	8.00	6.63	10y-EDAZ09
EDAH10	1.624	8.00	6.38	10y-EDAH10
EDAM10	1.873	8.00	6.13	10y-EDAM10
EDAU10	2.123	8.00	5.88	10y-EDAU10
EDAZ10	2.372	8.00	5.63	10y-EDAZ10
EDAH11	2.621	8.00	5.38	10y-EDAH11
EDAM11	2.871	8.00	5.13	10y-EDAM11

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.

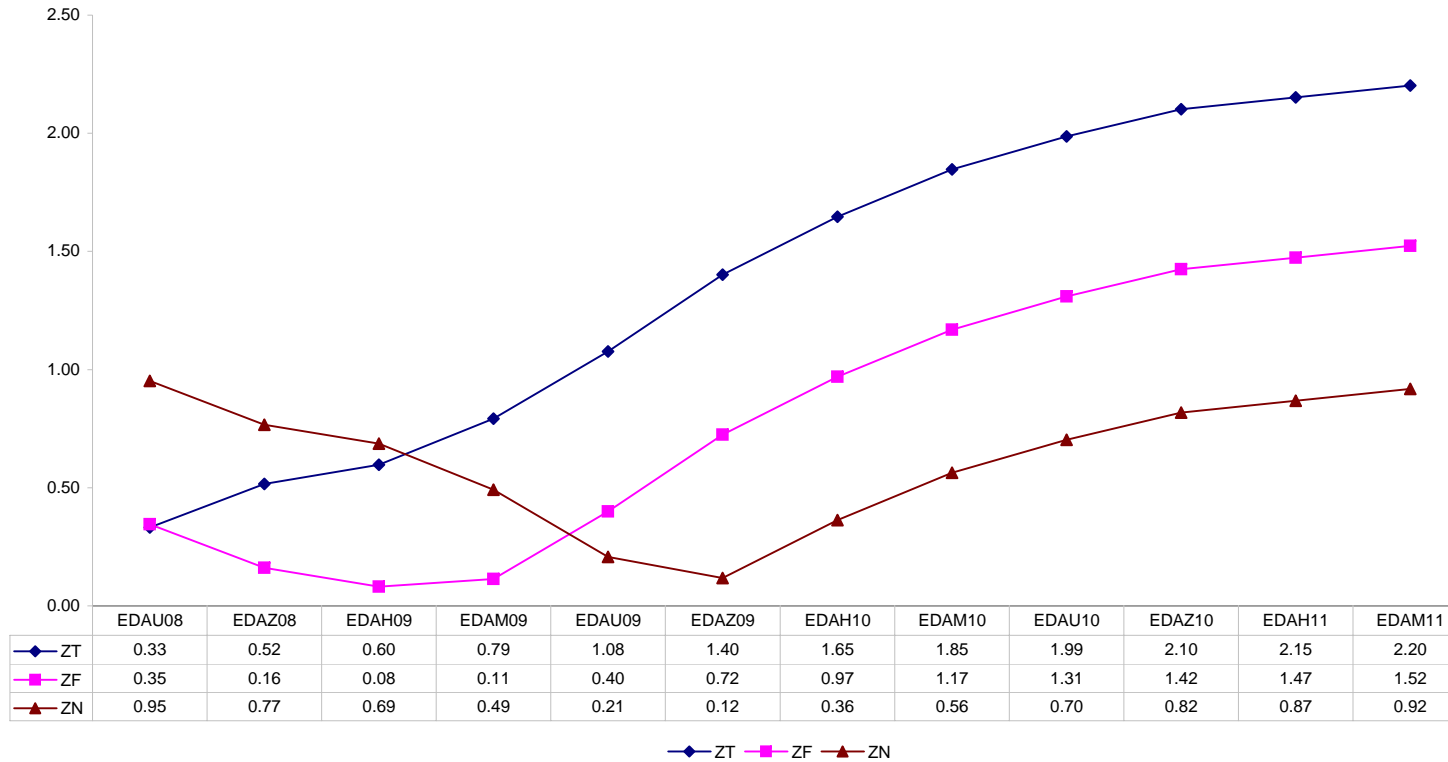
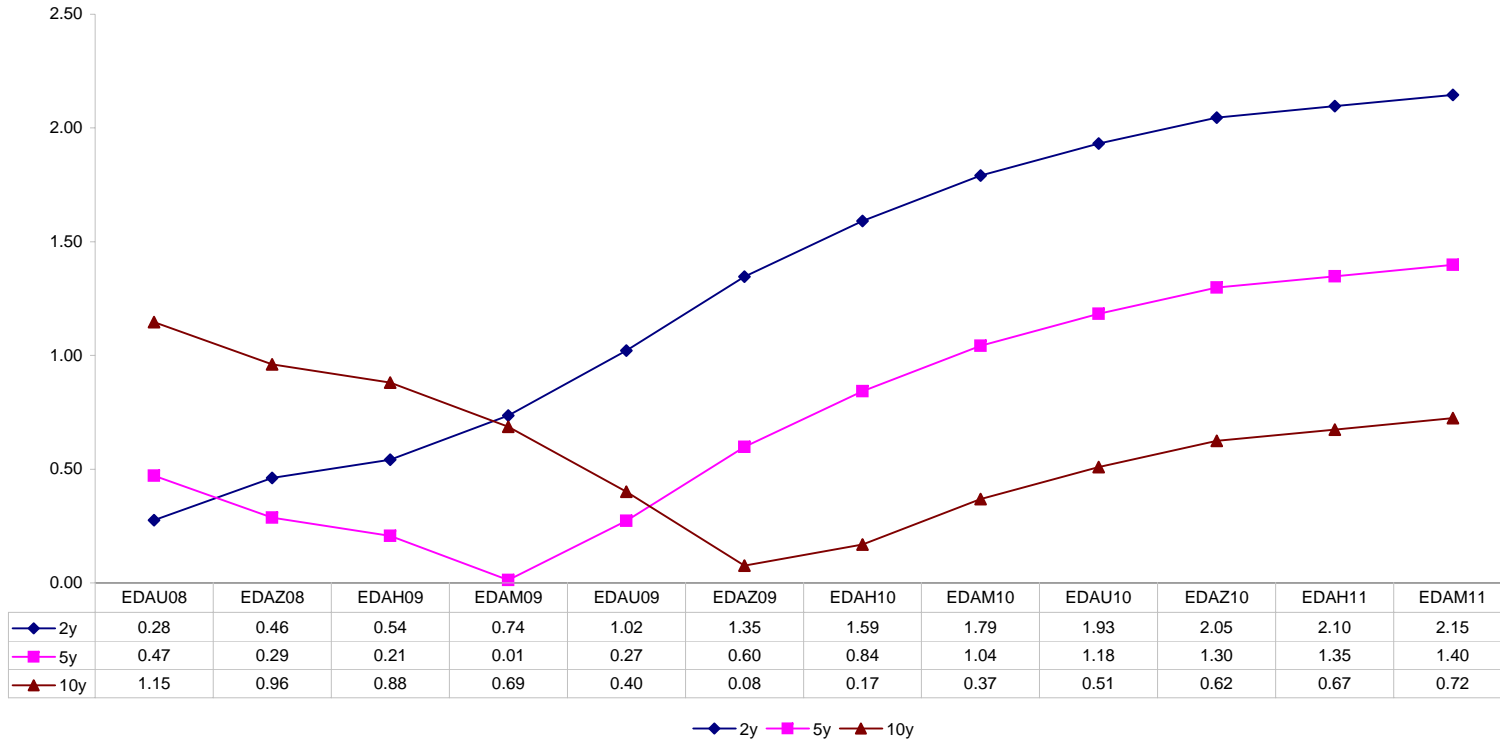
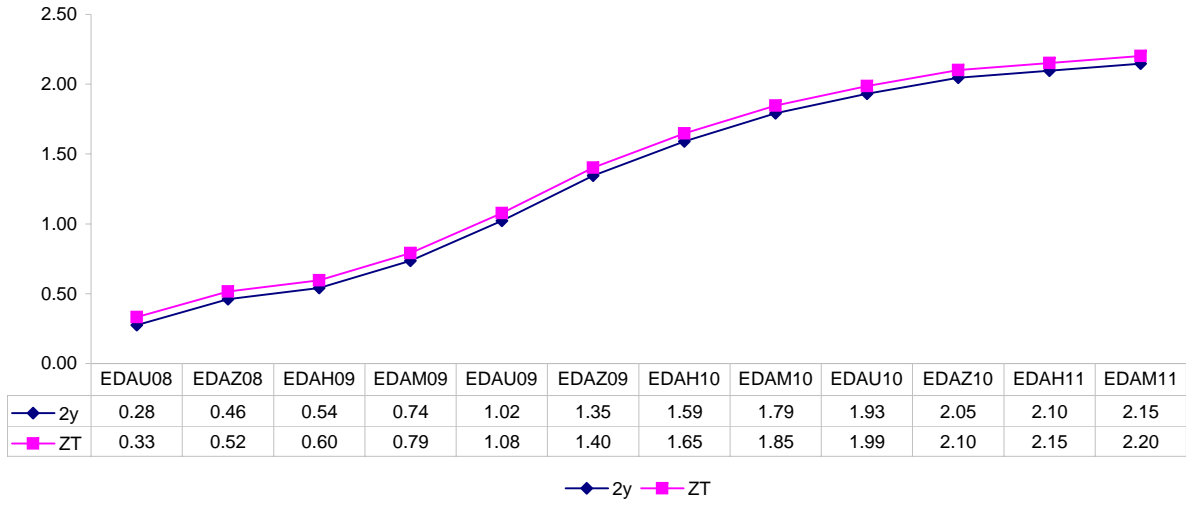


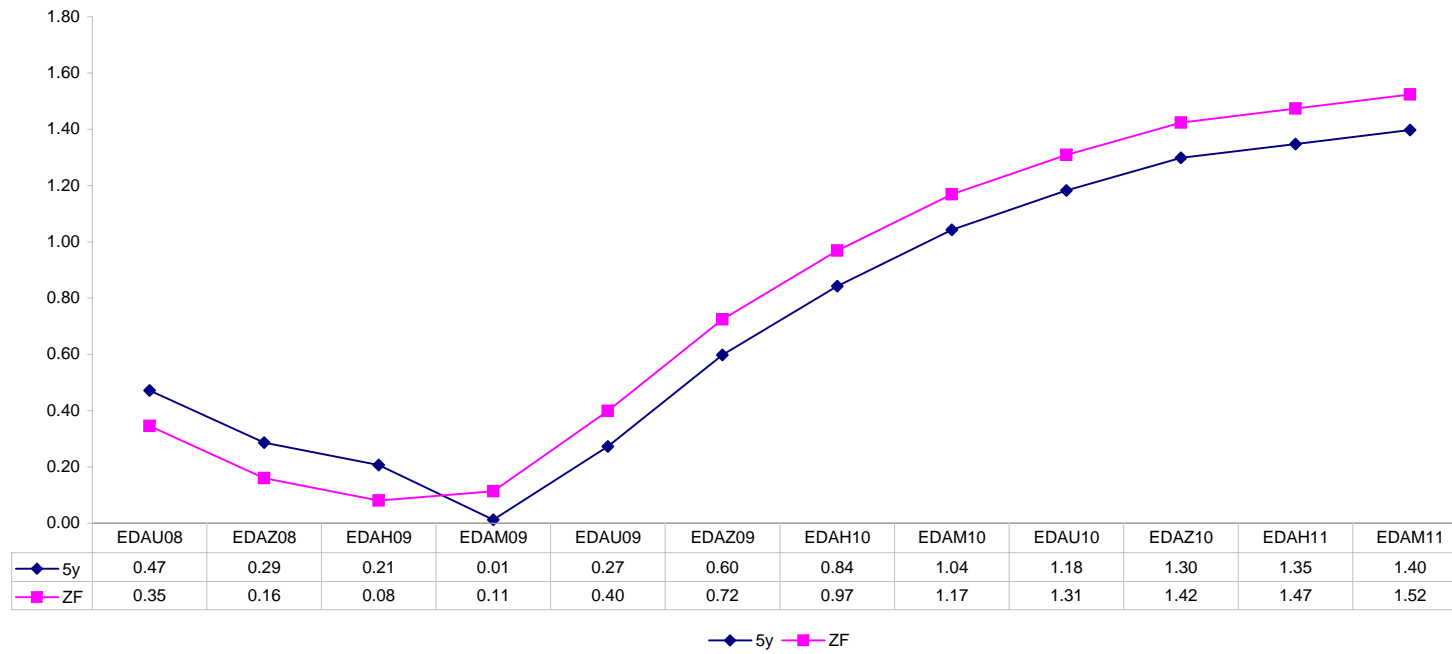
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



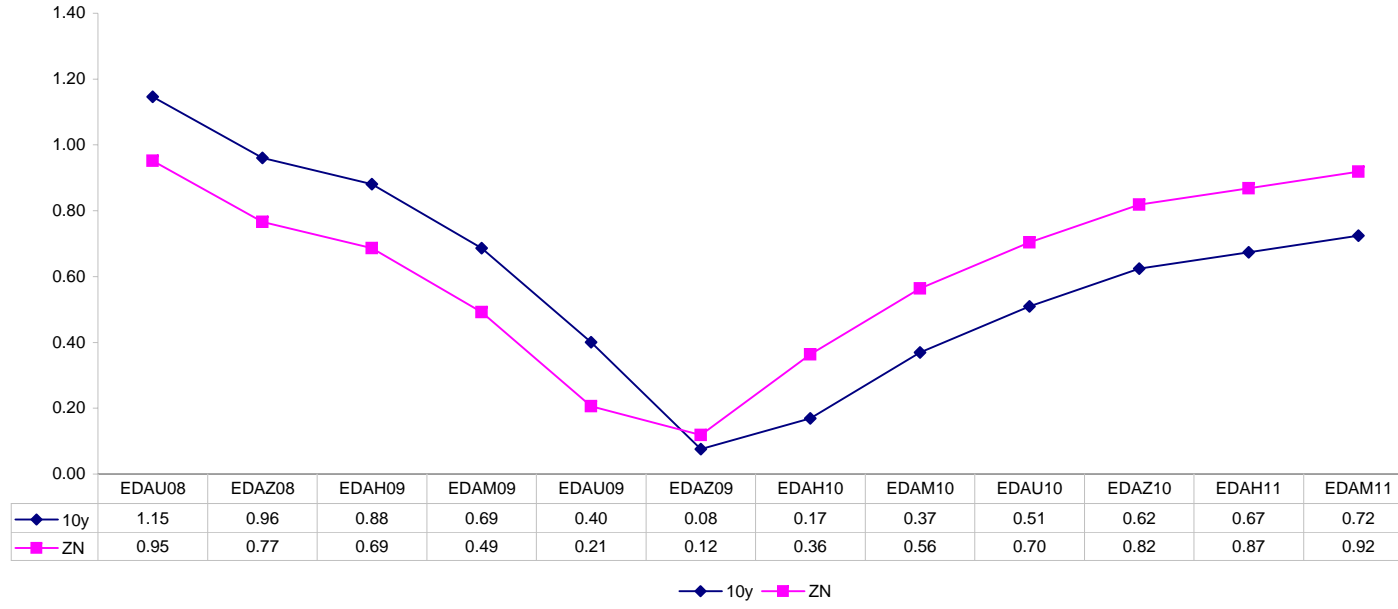
2y Basis TED Curve



5y Basis TED Curve

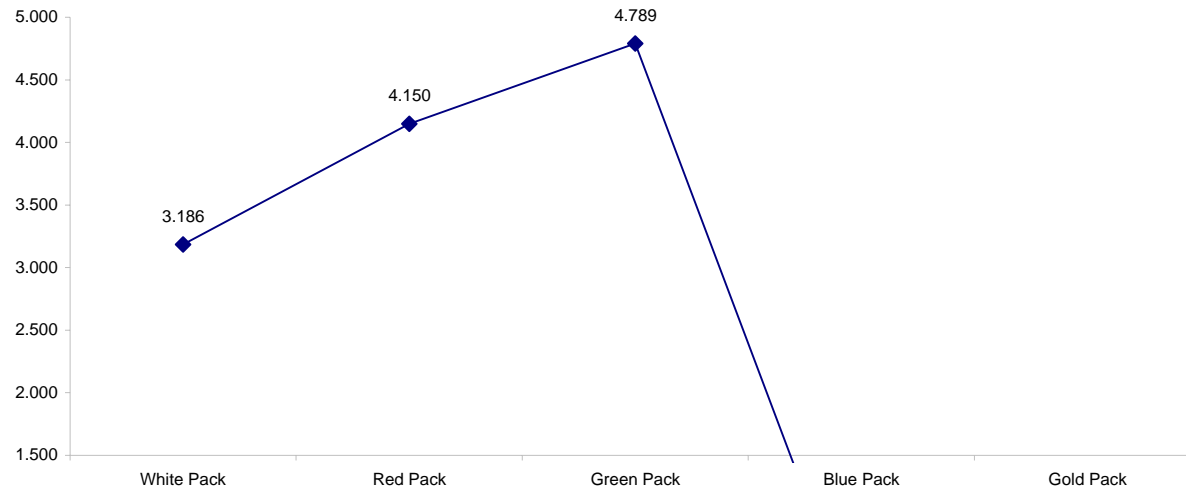


10y Basis TED Curve



Packs

	Last Yield	Net Last Yield	Last Price
White Pack	3.186	1.375	9688.250
Red Pack	4.150	1.500	9594.875
Green Pack	4.789	-0.625	9533.125
Blue Pack		0.000	9515.000
Gold Pack		0.000	9496.125



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

