

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	104.9063	104.290	2.878	1.90
ZF	109.3125	109.100	3.538	4.07
ZN	112.2969	112.095	4.096	6.47
2y	99.491	99.1570	2.897	1.87
5y	99.594	99.1900	3.590	4.48
10y	97.688	97.2200	4.160	8.08

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	96.855	3.145	84	0.229	SEP	
EDAZ08	96.515	3.485	175	0.479	DEC	White Pack
EDAH09	96.335	3.665	266	0.728	MAR	
EDAM09	96.130	3.870	357	0.977	JUN	
EDAU09	95.910	4.090	448	1.227	SEP	
EDAZ09	95.655	4.345	539	1.476	DEC	Red Pack
EDAH10	95.480	4.520	630	1.725	MAR	
EDAM10	95.325	4.675	721	1.975	JUN	
EDAU10	95.210	4.790	812	2.224	SEP	
EDAZ10	95.115	4.885	903	2.473	DEC	Green Pack
EDAH11	95.075	4.925	994	2.723	MAR	
EDAM11	95.030	4.970	1085	2.972	JUN	
EDAU11	94.990	5.010	1183	3.240	SEP	
EDAZ11	94.950	5.050	1274	3.490	DEC	Blue Pack
EDAH12	#VALUE!	#VALUE!	1365	3.739	MAR	
EDAM12	#VALUE!	#VALUE!	1456	3.988	JUN	
EDAU12	#VALUE!	#VALUE!	1547	4.238	SEP	
EDAZ12	#VALUE!	#VALUE!	1638	4.487	DEC	Gold Pack
EDAH13	#VALUE!	#VALUE!	1729	4.736	MAR	
EDAM13	#VALUE!	#VALUE!	1820	4.986	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	3.623	-4.500	9645.875	
Red Pack	4.519	-6.250	9559.250	Pack Prices
Green Pack	5.022	-5.625	9510.750	
Blue Pack		-2.250	9496.125	
Gold Pack		0.000	9485.875	

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.

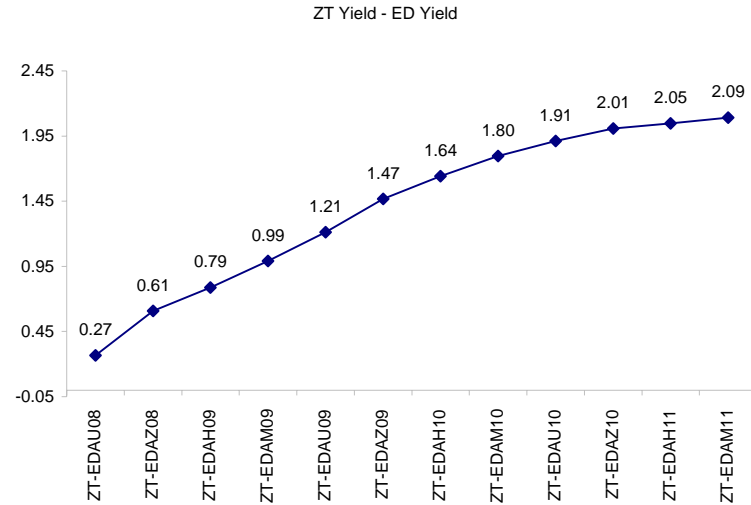
jgoulding@ghco.com

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.

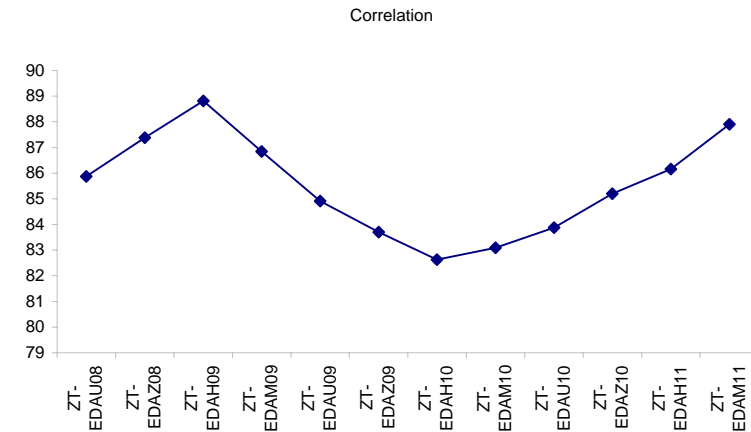
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	8.051	0.27	ZT-EDAU08	85.873
EDAZ08	8.391	0.61	ZT-EDAZ08	87.378
EDAH09	8.571	0.79	ZT-EDAH09	88.815
EDAM09	8.776	0.99	ZT-EDAM09	86.848
EDAU09	8.996	1.21	ZT-EDAU09	84.913
EDAZ09	9.251	1.47	ZT-EDAZ09	83.707
EDAH10	9.426	1.64	ZT-EDAH10	82.632
EDAM10	9.581	1.80	ZT-EDAM10	83.096
EDAU10	9.696	1.91	ZT-EDAU10	83.880
EDAZ10	9.791	2.01	ZT-EDAZ10	85.193
EDAH11	9.831	2.05	ZT-EDAH11	86.160
EDAM11	9.876	2.09	ZT-EDAM11	87.906

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	0.229	1.90	1.67	ZT-EDAU08		
EDAZ08	0.479	1.90	1.42	ZT-EDAZ08		
EDAH09	0.728	1.90	1.17	ZT-EDAH09		
EDAM09	0.977	1.90	0.92	ZT-EDAM09		
EDAU09	1.227	1.90	0.67	ZT-EDAU09		
EDAZ09	1.476	1.90	0.42	ZT-EDAZ09		
EDAH10	1.725	1.90	0.17	ZT-EDAH10		
EDAM10	1.975	1.90	(0.08)	ZT-EDAM10		
EDAU10	2.224	1.90	(0.33)	ZT-EDAU10		
EDAZ10	2.473	1.90	(0.58)	ZT-EDAZ10		
EDAH11	2.723	1.90	(0.83)	ZT-EDAH11		
EDAM11	2.972	1.90	(1.08)	ZT-EDAM11		

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

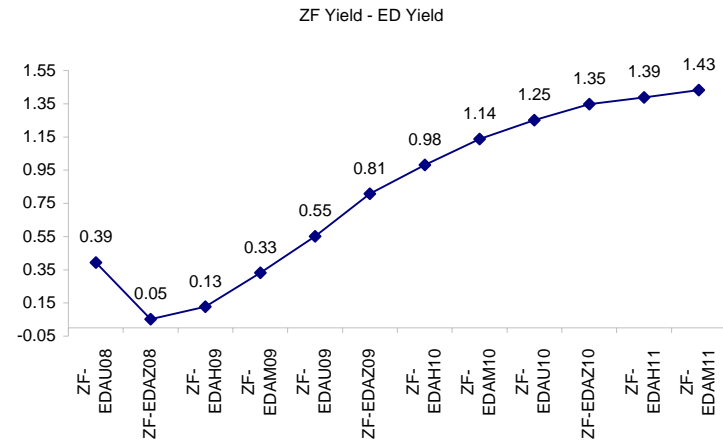


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	12.458	0.39	ZF-EDAU08	87.311
EDAZ08	12.798	0.05	ZF-EDAZ08	86.804
EDAH09	12.978	0.13	ZF-EDAH09	87.342
EDAM09	13.183	0.33	ZF-EDAM09	84.924
EDAU09	13.403	0.55	ZF-EDAU09	83.558
EDAZ09	13.658	0.81	ZF-EDAZ09	83.631
EDAH10	13.833	0.98	ZF-EDAH10	83.310
EDAM10	13.988	1.14	ZF-EDAM10	84.578
EDAU10	14.103	1.25	ZF-EDAU10	85.937
EDAZ10	14.198	1.35	ZF-EDAZ10	88.198
EDAH11	14.238	1.39	ZF-EDAH11	89.482
EDAM11	14.283	1.43	ZF-EDAM11	91.217

Price = Outright Decimal Price - Euro Contract Price

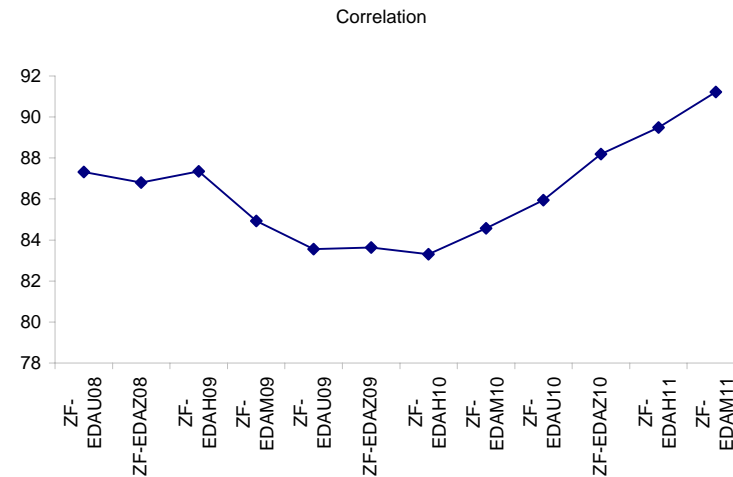
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			ZF Duration	Spread Duration	
EDAU08	0.229	4.07	3.84	ZF-EDAU08		
EDAZ08	0.479	4.07	3.59	ZF-EDAZ08		
EDAH09	0.728	4.07	3.35	ZF-EDAH09		
EDAM09	0.977	4.07	3.10	ZF-EDAM09		
EDAU09	1.227	4.07	2.85	ZF-EDAU09		
EDAZ09	1.476	4.07	2.60	ZF-EDAZ09		
EDAH10	1.725	4.07	2.35	ZF-EDAH10		
EDAM10	1.975	4.07	2.10	ZF-EDAM10		
EDAU10	2.224	4.07	1.85	ZF-EDAU10		
EDAZ10	2.473	4.07	1.60	ZF-EDAZ10		
EDAH11	2.723	4.07	1.35	ZF-EDAH11		
EDAM11	2.972	4.07	1.10	ZF-EDAM11		

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

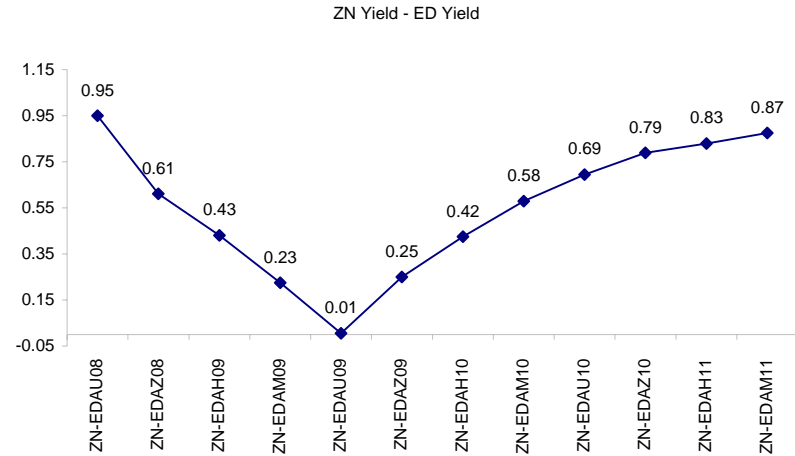


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	15.442	0.95	ZN-EDAU08	93.253
EDAZ08	15.782	0.61	ZN-EDAZ08	92.894
EDAH09	15.962	0.43	ZN-EDAH09	94.158
EDAM09	16.167	0.23	ZN-EDAM09	93.197
EDAU09	16.387	0.01	ZN-EDAU09	92.412
EDAZ09	16.642	0.25	ZN-EDAZ09	92.049
EDAH10	16.817	0.42	ZN-EDAH10	83.310
EDAM10	16.972	0.58	ZN-EDAM10	84.578
EDAU10	17.087	0.69	ZN-EDAU10	85.937
EDAZ10	17.182	0.79	ZN-EDAZ10	88.198
EDAH11	17.222	0.83	ZN-EDAH11	89.482
EDAM11	17.267	0.87	ZN-EDAM11	91.217

Price = Outright Decimal Price - Euro Contract Price

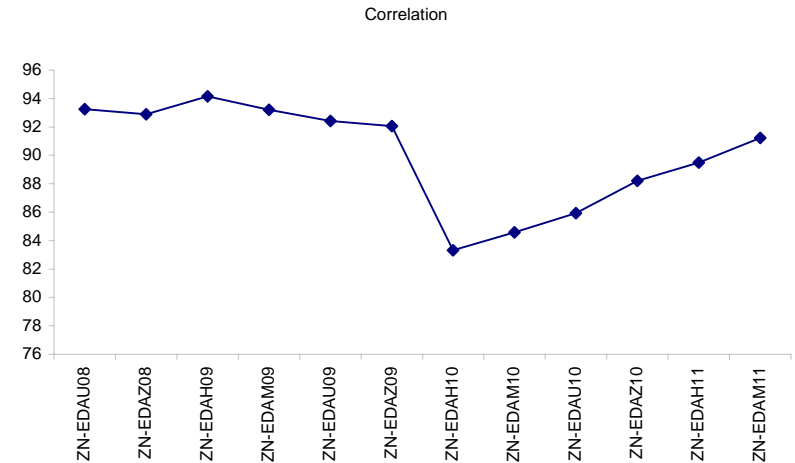
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAU08	0.229	6.47	6.24	ZN-EDAU08		
EDAZ08	0.479	6.47	6.00	ZN-EDAZ08		
EDAH09	0.728	6.47	5.75	ZN-EDAH09		
EDAM09	0.977	6.47	5.50	ZN-EDAM09		
EDAU09	1.227	6.47	5.25	ZN-EDAU09		
EDAZ09	1.476	6.47	5.00	ZN-EDAZ09		
EDAH10	1.725	6.47	4.75	ZN-EDAH10		
EDAM10	1.975	6.47	4.50	ZN-EDAM10		
EDAU10	2.224	6.47	4.25	ZN-EDAU10		
EDAZ10	2.473	6.47	4.00	ZN-EDAZ10		
EDAH11	2.723	6.47	3.75	ZN-EDAH11		
EDAM11	2.972	6.47	3.50	ZN-EDAM11		

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

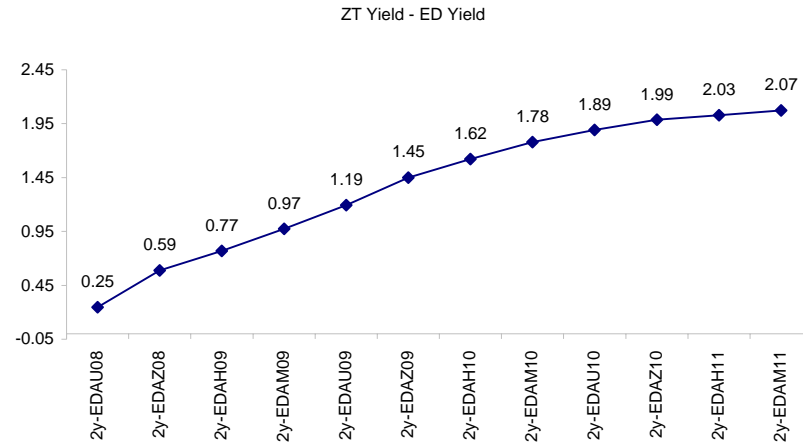


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.636	0.25	2y-EDAU08	-87.829
EDAZ08	2.976	0.59	2y-EDAZ08	-87.004
EDAH09	3.156	0.77	2y-EDAH09	-88.892
EDAM09	3.361	0.97	2y-EDAM09	-89.236
EDAU09	3.581	1.19	2y-EDAU09	-88.436
EDAZ09	3.836	1.45	2y-EDAZ09	-87.287
EDAH10	4.011	1.62	2y-EDAH10	-85.380
EDAM10	4.166	1.78	2y-EDAM10	-84.399
EDAU10	4.281	1.89	2y-EDAU10	-84.552
EDAZ10	4.376	1.99	2y-EDAZ10	-84.569
EDAH11	4.416	2.03	2y-EDAH11	-85.061
EDAM11	4.461	2.07	2y-EDAM11	-85.747

Price = Outright Decimal Price - Euro Contract Price

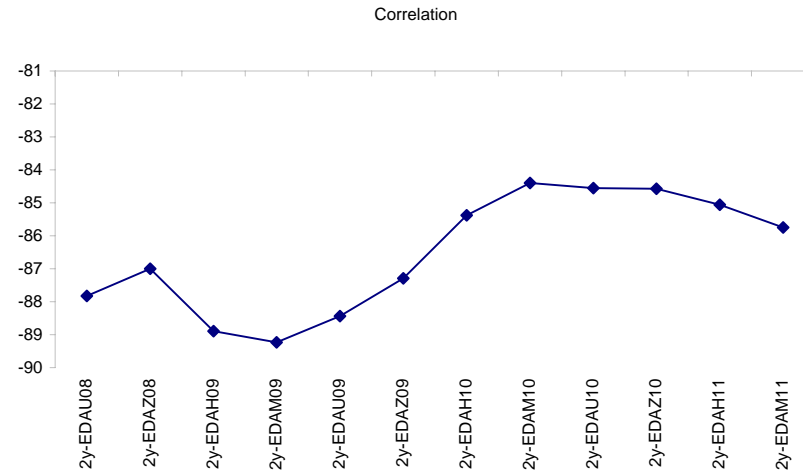
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAU08	0.229	1.87	1.64	2y-EDAU08
EDAZ08	0.479	1.87	1.39	2y-EDAZ08
EDAH09	0.728	1.87	1.14	2y-EDAH09
EDAM09	0.977	1.87	0.89	2y-EDAM09
EDAU09	1.227	1.87	0.64	2y-EDAU09
EDAZ09	1.476	1.87	0.39	2y-EDAZ09
EDAH10	1.725	1.87	0.14	2y-EDAH10
EDAM10	1.975	1.87	(0.11)	2y-EDAM10
EDAU10	2.224	1.87	(0.36)	2y-EDAU10
EDAZ10	2.473	1.87	(0.60)	2y-EDAZ10
EDAH11	2.723	1.87	(0.85)	2y-EDAH11
EDAM11	2.972	1.87	(1.10)	2y-EDAM11

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

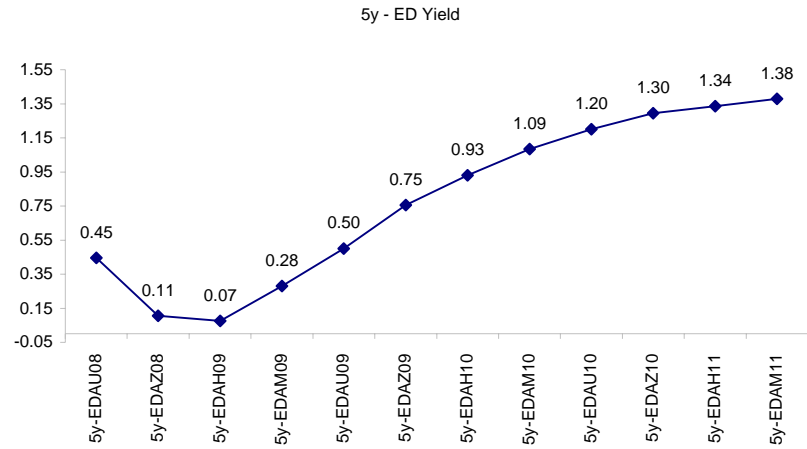


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.739	0.45	5y-EDAU08	-87.782
EDAZ08	3.079	0.11	5y-EDAZ08	-85.541
EDAH09	3.259	0.07	5y-EDAH09	-86.010
EDAM09	3.464	0.28	5y-EDAM09	-84.502
EDAU09	3.684	0.50	5y-EDAU09	-83.557
EDAZ09	3.939	0.75	5y-EDAZ09	-83.753
EDAH10	4.114	0.93	5y-EDAH10	-82.927
EDAM10	4.269	1.09	5y-EDAM10	-83.447
EDAU10	4.384	1.20	5y-EDAU10	-84.547
EDAZ10	4.479	1.30	5y-EDAZ10	-86.116
EDAH11	4.519	1.34	5y-EDAH11	-87.285
EDAM11	4.564	1.38	5y-EDAM11	-89.071

Price = Outright Decimal Price - Euro Contract Price

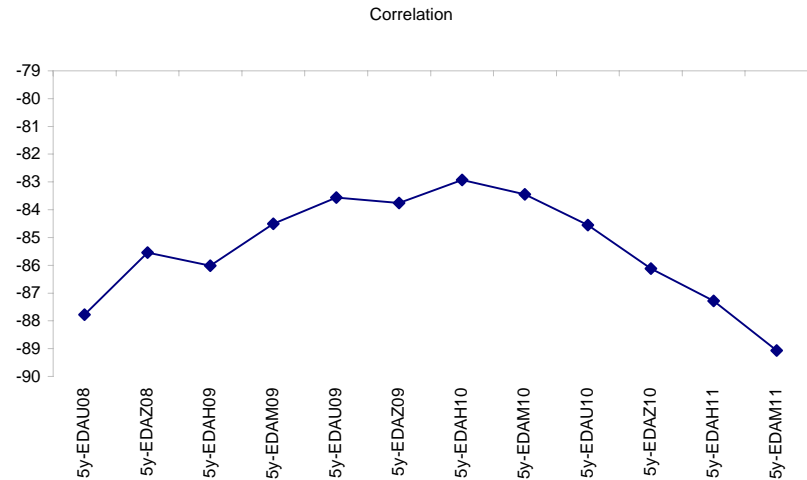
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAU08	0.229	4.48	4.25	5y-EDAU08
EDAZ08	0.479	4.48	4.00	5y-EDAZ08
EDAH09	0.728	4.48	3.76	5y-EDAH09
EDAM09	0.977	4.48	3.51	5y-EDAM09
EDAU09	1.227	4.48	3.26	5y-EDAU09
EDAZ09	1.476	4.48	3.01	5y-EDAZ09
EDAH10	1.725	4.48	2.76	5y-EDAH10
EDAM10	1.975	4.48	2.51	5y-EDAM10
EDAU10	2.224	4.48	2.26	5y-EDAU10
EDAZ10	2.473	4.48	2.01	5y-EDAZ10
EDAH11	2.723	4.48	1.76	5y-EDAH11
EDAM11	2.972	4.48	1.51	5y-EDAM11

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

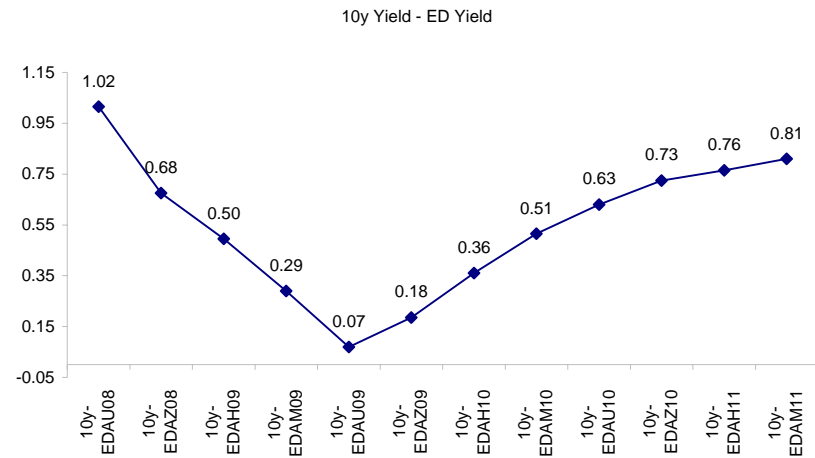


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.739	1.02	10y-EDAU08	-78.329
EDAZ08	3.079	0.68	10y-EDAZ08	-75.969
EDAH09	3.259	0.50	10y-EDAH09	-75.821
EDAM09	3.464	0.29	10y-EDAM09	-72.326
EDAU09	3.684	0.07	10y-EDAU09	-70.596
EDAZ09	3.939	0.18	10y-EDAZ09	-70.876
EDAH10	4.114	0.36	10y-EDAH10	-70.229
EDAM10	4.269	0.51	10y-EDAM10	-71.733
EDAU10	4.384	0.63	10y-EDAU10	-73.909
EDAZ10	4.479	0.73	10y-EDAZ10	-77.039
EDAH11	4.519	0.76	10y-EDAH11	-79.100
EDAM11	4.564	0.81	10y-EDAM11	-81.972

Price = Outright Decimal Price - Euro Contract Price

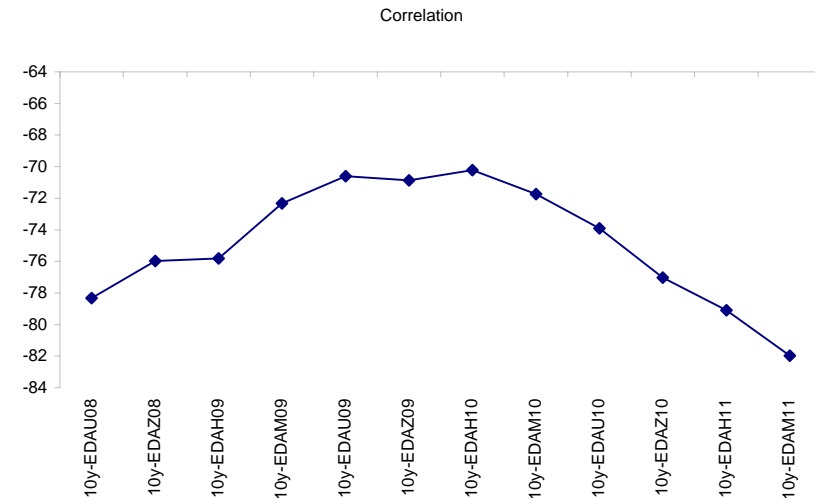
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.229	8.08	7.85	10y-EDAU08
EDAZ08	0.479	8.08	7.61	10y-EDAZ08
EDAH09	0.728	8.08	7.36	10y-EDAH09
EDAM09	0.977	8.08	7.11	10y-EDAM09
EDAU09	1.227	8.08	6.86	10y-EDAU09
EDAZ09	1.476	8.08	6.61	10y-EDAZ09
EDAH10	1.725	8.08	6.36	10y-EDAH10
EDAM10	1.975	8.08	6.11	10y-EDAM10
EDAU10	2.224	8.08	5.86	10y-EDAU10
EDAZ10	2.473	8.08	5.61	10y-EDAZ10
EDAH11	2.723	8.08	5.36	10y-EDAH11
EDAM11	2.972	8.08	5.11	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.

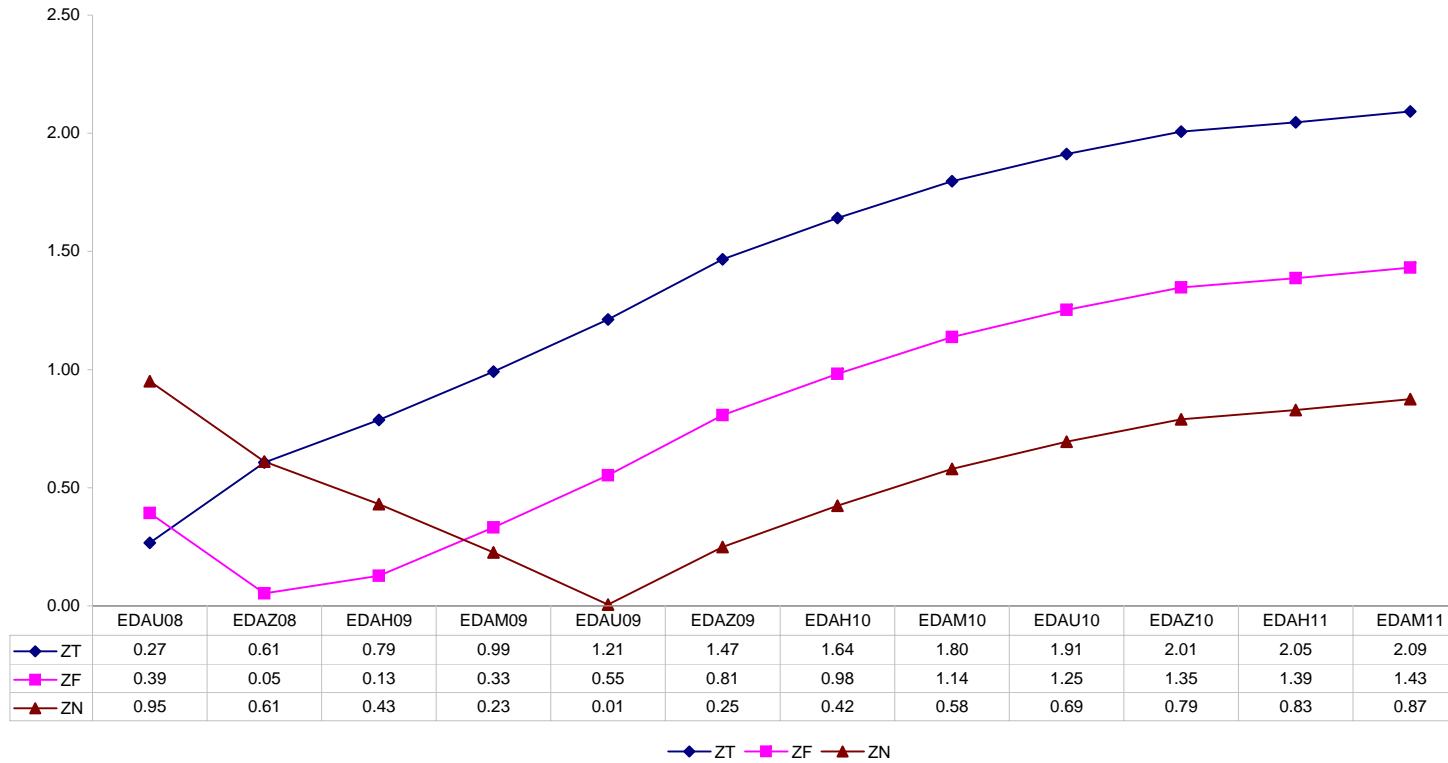
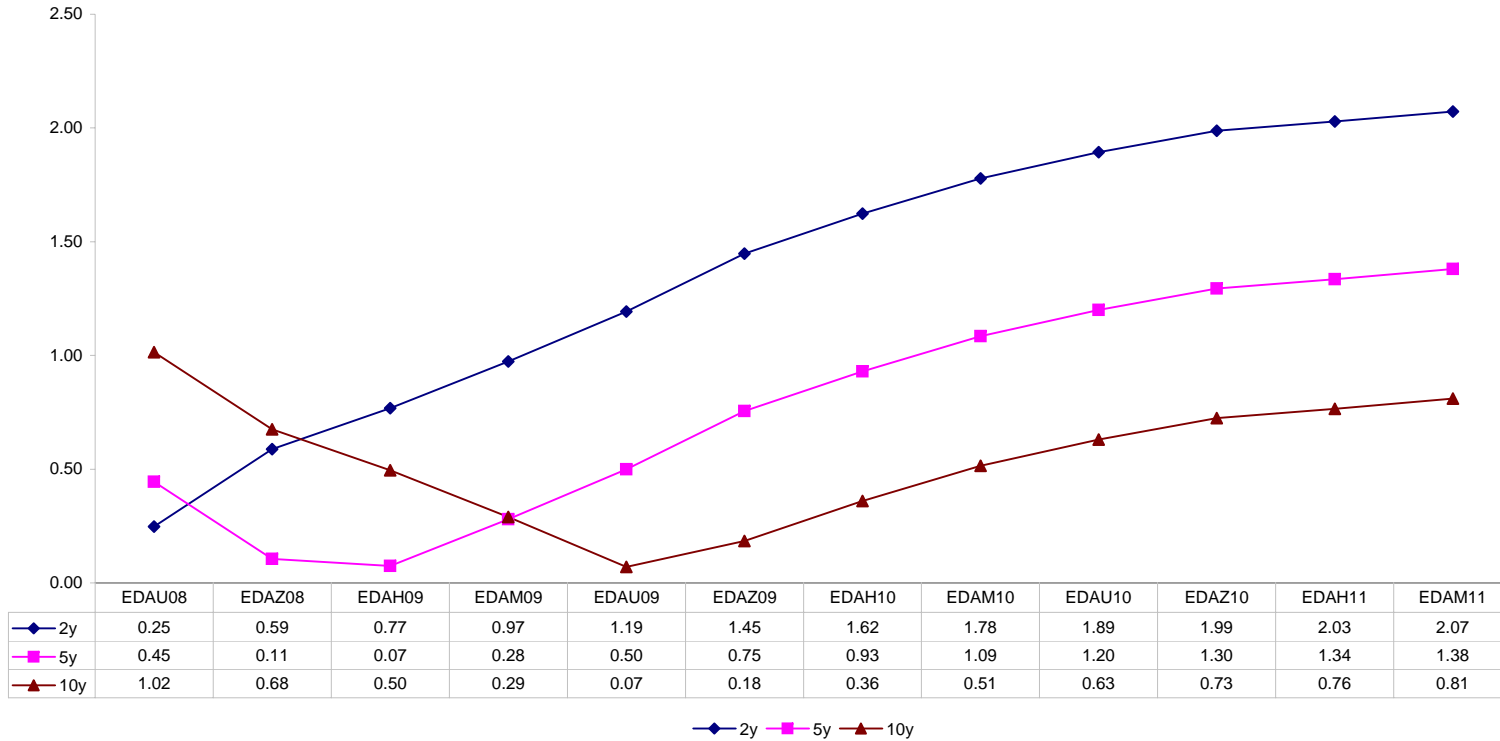
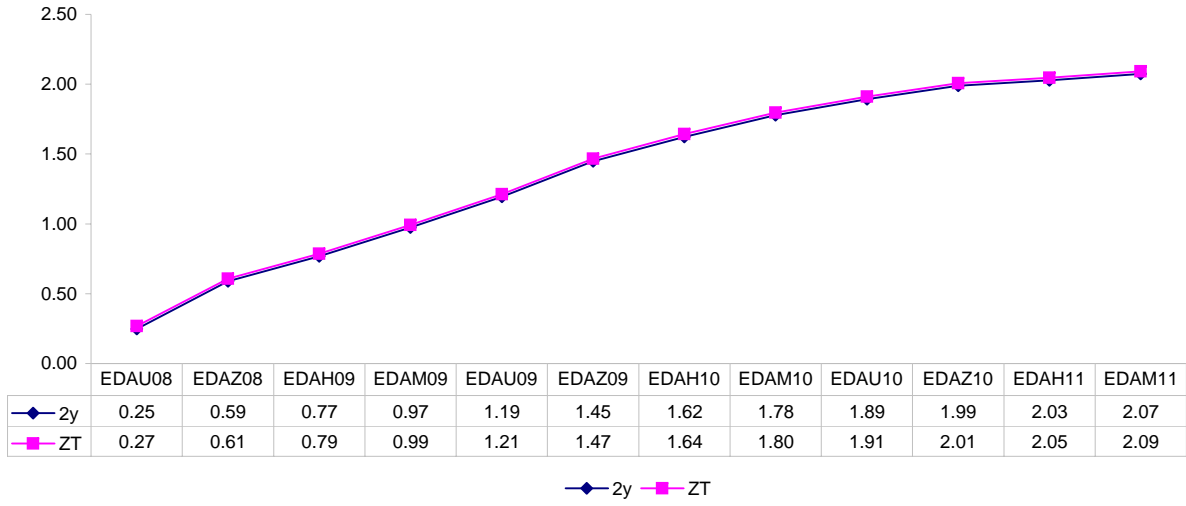


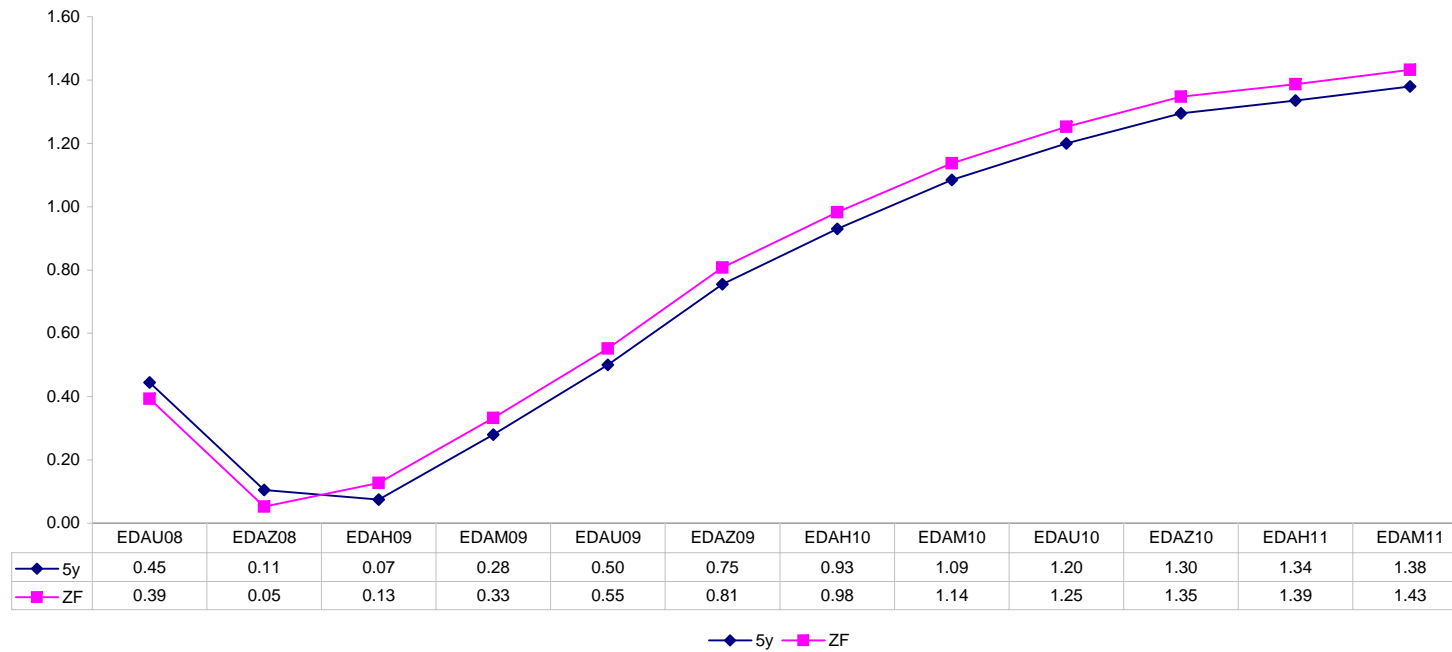
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



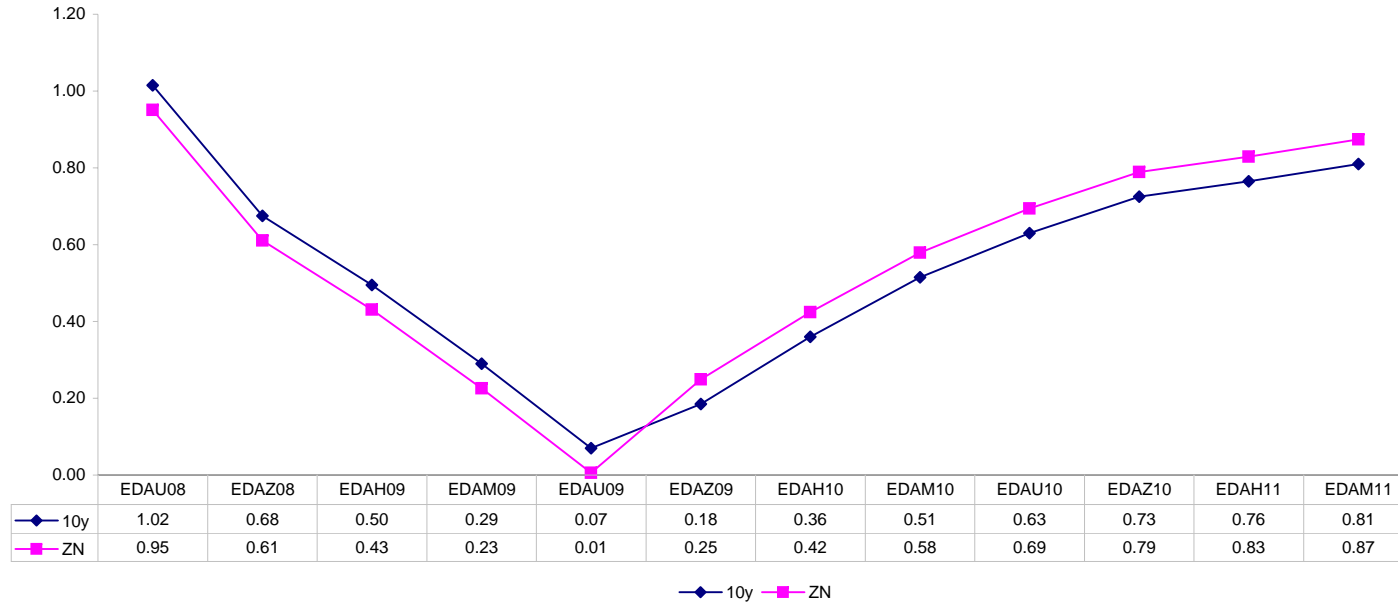
2y Basis TED Curve



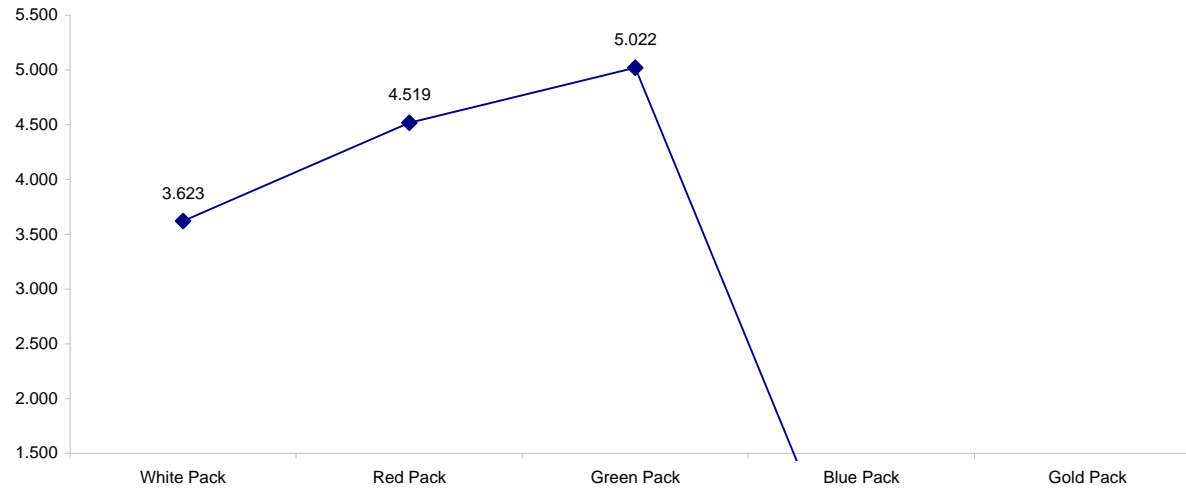
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	3.623	-4.500	9645.875
Red Pack	4.519	-6.250	9559.250
Green Pack	5.022	-5.625	9510.750
Blue Pack		-2.250	9496.125
Gold Pack		0.000	9485.875



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

