

The Morning Email: TERM TEDS & Dirty TEDS

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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	105.9219	105.295	2.513	1.85
ZF	111.1094	111.035	3.170	3.99
ZN	114.3906	114.125	3.811	6.40
2y	100.350	100.1120	2.569	1.91
5y	100.281	100.0900	3.312	4.49
10y	98.922	98.2950	4.007	8.01

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	97.135	2.865	48	0.131	SEP	
EDAZ08	96.960	3.040	139	0.380	DEC	White Pack
EDAH09	96.885	3.115	230	0.629	MAR	
EDAM09	96.685	3.315	321	0.879	JUN	
EDAU09	96.405	3.595	412	1.128	SEP	
EDAZ09	96.085	3.915	503	1.377	DEC	Red Pack
EDAH10	95.845	4.155	594	1.627	MAR	
EDAM10	95.645	4.355	685	1.876	JUN	
EDAU10	95.515	4.485	776	2.125	SEP	
EDAZ10	95.400	4.600	867	2.375	DEC	Green Pack
EDAH11	95.350	4.650	958	2.624	MAR	
EDAM11	95.295	4.705	1049	2.873	JUN	
EDAU11	95.240	4.760	1147	3.142	SEP	
EDAZ11	95.210	4.790	1238	3.391	DEC	Blue Pack
EDAH12	95.175	4.825	1329	3.640	MAR	
EDAM12	95.135	4.865	1420	3.890	JUN	
EDAU12	95.100	4.900	1511	4.139	SEP	
EDAZ12	95.015	4.985	1602	4.388	DEC	Gold Pack
EDAH13	94.985	5.015	1693	4.638	MAR	
EDAM13	94.950	5.050	1784	4.887	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	3.151	1.375	9691.625	
Red Pack	4.102	1.875	9599.500	Pack Prices
Green Pack	4.729	2.125	9539.000	
Blue Pack		0.500	9518.500	
Gold Pack		0.500	9500.000	

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.

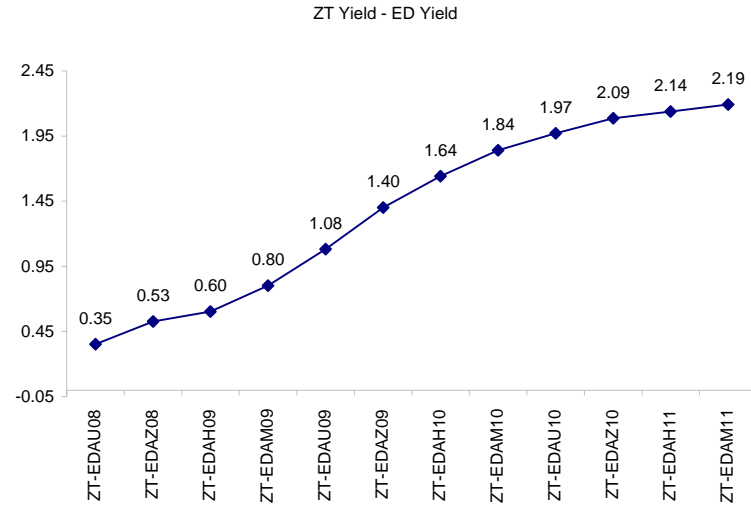
jgoulding@ghco.com

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.

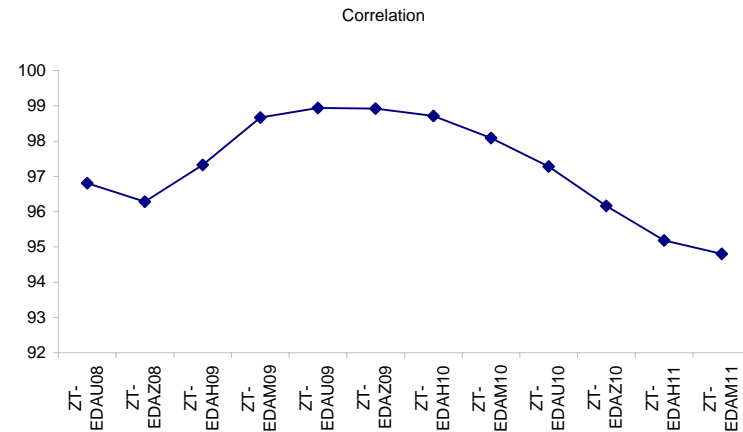
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	8.787	0.35	ZT-EDAU08	96.809
EDAZ08	8.962	0.53	ZT-EDAZ08	96.277
EDAH09	9.037	0.60	ZT-EDAH09	97.328
EDAM09	9.237	0.80	ZT-EDAM09	98.665
EDAU09	9.517	1.08	ZT-EDAU09	98.937
EDAZ09	9.837	1.40	ZT-EDAZ09	98.923
EDAH10	10.077	1.64	ZT-EDAH10	98.714
EDAM10	10.277	1.84	ZT-EDAM10	98.087
EDAU10	10.407	1.97	ZT-EDAU10	97.283
EDAZ10	10.522	2.09	ZT-EDAZ10	96.164
EDAH11	10.572	2.14	ZT-EDAH11	95.181
EDAM11	10.627	2.19	ZT-EDAM11	94.800

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	0.131	1.85	1.72	ZT-EDAU08		
EDAZ08	0.380	1.85	1.47	ZT-EDAZ08		
EDAH09	0.629	1.85	1.22	ZT-EDAH09		
EDAM09	0.879	1.85	0.97	ZT-EDAM09		
EDAU09	1.128	1.85	0.73	ZT-EDAU09		
EDAZ09	1.377	1.85	0.48	ZT-EDAZ09		
EDAH10	1.627	1.85	0.23	ZT-EDAH10		
EDAM10	1.876	1.85	(0.02)	ZT-EDAM10		
EDAU10	2.125	1.85	(0.27)	ZT-EDAU10		
EDAZ10	2.375	1.85	(0.52)	ZT-EDAZ10		
EDAH11	2.624	1.85	(0.77)	ZT-EDAH11		
EDAM11	2.873	1.85	(1.02)	ZT-EDAM11		

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

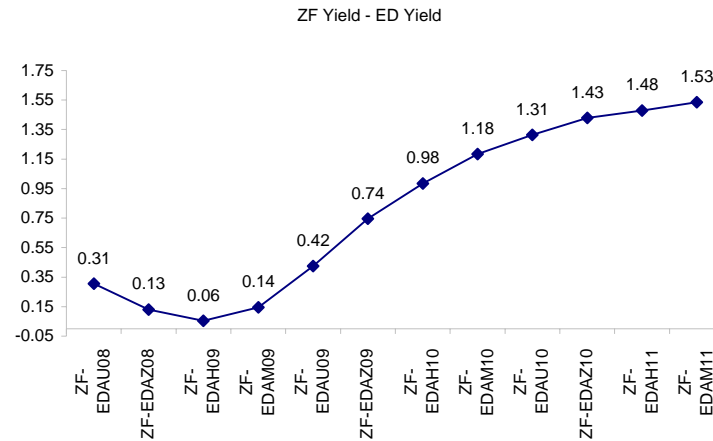


ZF				Correlation* (percent)
Spread Price	Spread Yield	Spread Name		
EDAU08	13.974	0.31	ZF-EDAU08	96.695
EDAZ08	14.149	0.13	ZF-EDAZ08	96.477
EDAH09	14.224	0.06	ZF-EDAH09	97.639
EDAM09	14.424	0.14	ZF-EDAM09	98.913
EDAU09	14.704	0.42	ZF-EDAU09	99.107
EDAZ09	15.024	0.74	ZF-EDAZ09	99.052
EDAH10	15.264	0.98	ZF-EDAH10	98.788
EDAM10	15.464	1.18	ZF-EDAM10	98.252
EDAU10	15.594	1.31	ZF-EDAU10	97.523
EDAZ10	15.709	1.43	ZF-EDAZ10	96.500
EDAH11	15.759	1.48	ZF-EDAH11	95.521
EDAM11	15.814	1.53	ZF-EDAM11	95.124

Price = Outright Decimal Price - Euro Contract Price

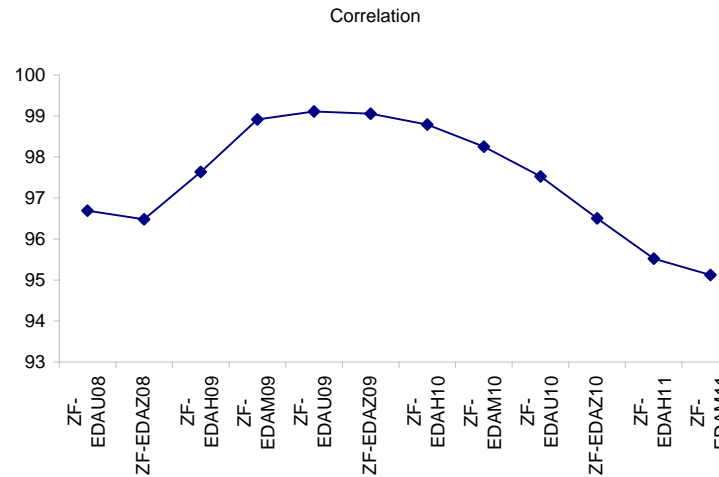
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAU08	0.131	3.99	3.86	ZF-EDAU08	
EDAZ08	0.380	3.99	3.61	ZF-EDAZ08	
EDAH09	0.629	3.99	3.36	ZF-EDAH09	
EDAM09	0.879	3.99	3.11	ZF-EDAM09	
EDAU09	1.128	3.99	2.86	ZF-EDAU09	
EDAZ09	1.377	3.99	2.61	ZF-EDAZ09	
EDAH10	1.627	3.99	2.36	ZF-EDAH10	
EDAM10	1.876	3.99	2.11	ZF-EDAM10	
EDAU10	2.125	3.99	1.86	ZF-EDAU10	
EDAZ10	2.375	3.99	1.61	ZF-EDAZ10	
EDAH11	2.624	3.99	1.36	ZF-EDAH11	
EDAM11	2.873	3.99	1.11	ZF-EDAM11	

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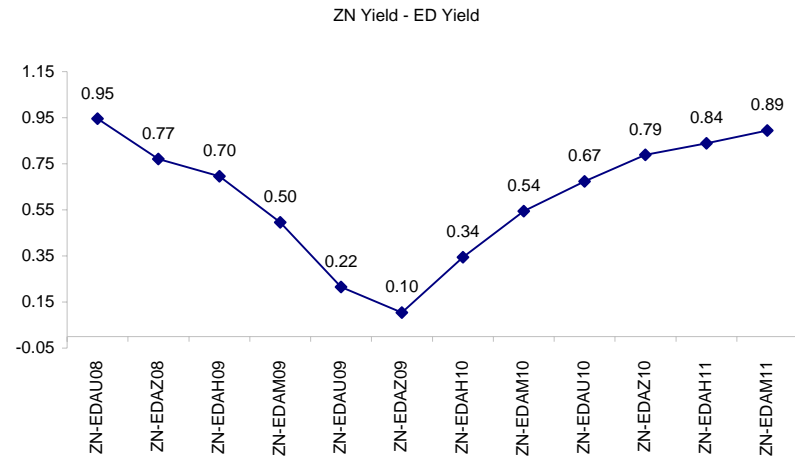


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	17.256	0.95	ZN-EDAU08	92.905
EDAZ08	17.431	0.77	ZN-EDAZ08	95.028
EDAH09	17.506	0.70	ZN-EDAH09	96.243
EDAM09	17.706	0.50	ZN-EDAM09	97.265
EDAU09	17.986	0.22	ZN-EDAU09	97.408
EDAZ09	18.306	0.10	ZN-EDAZ09	97.579
EDAH10	18.546	0.34	ZN-EDAH10	98.788
EDAM10	18.746	0.54	ZN-EDAM10	98.252
EDAU10	18.876	0.67	ZN-EDAU10	97.523
EDAZ10	18.991	0.79	ZN-EDAZ10	96.500
EDAH11	19.041	0.84	ZN-EDAH11	95.521
EDAM11	19.096	0.89	ZN-EDAM11	95.124

Price = Outright Decimal Price - Euro Contract Price

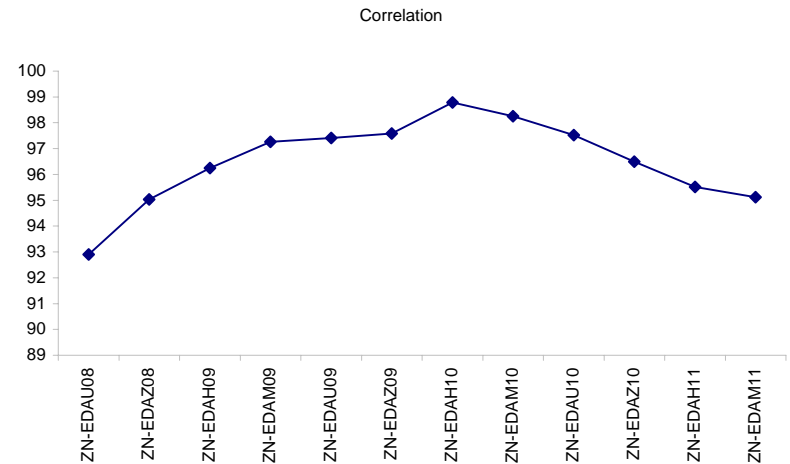
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAU08	0.131	6.40	6.27	ZN-EDAU08
EDAZ08	0.380	6.40	6.02	ZN-EDAZ08
EDAH09	0.629	6.40	5.77	ZN-EDAH09
EDAM09	0.879	6.40	5.52	ZN-EDAM09
EDAU09	1.128	6.40	5.27	ZN-EDAU09
EDAZ09	1.377	6.40	5.02	ZN-EDAZ09
EDAH10	1.627	6.40	4.77	ZN-EDAH10
EDAM10	1.876	6.40	4.52	ZN-EDAM10
EDAU10	2.125	6.40	4.28	ZN-EDAU10
EDAZ10	2.375	6.40	4.03	ZN-EDAZ10
EDAH11	2.624	6.40	3.78	ZN-EDAH11
EDAM11	2.873	6.40	3.53	ZN-EDAM11

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

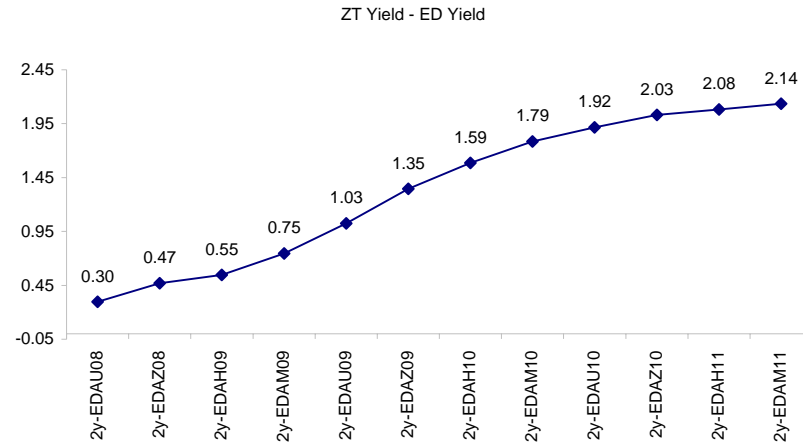


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.215	0.30	2y-EDAU08	-84.495
EDAZ08	3.390	0.47	2y-EDAZ08	-73.112
EDAH09	3.465	0.55	2y-EDAH09	-75.742
EDAM09	3.665	0.75	2y-EDAM09	-80.623
EDAU09	3.945	1.03	2y-EDAU09	-83.335
EDAZ09	4.265	1.35	2y-EDAZ09	-84.466
EDAH10	4.505	1.59	2y-EDAH10	-84.344
EDAM10	4.705	1.79	2y-EDAM10	-82.301
EDAU10	4.835	1.92	2y-EDAU10	-78.687
EDAZ10	4.950	2.03	2y-EDAZ10	-75.244
EDAH11	5.000	2.08	2y-EDAH11	-72.988
EDAM11	5.055	2.14	2y-EDAM11	-72.206

Price = Outright Decimal Price - Euro Contract Price

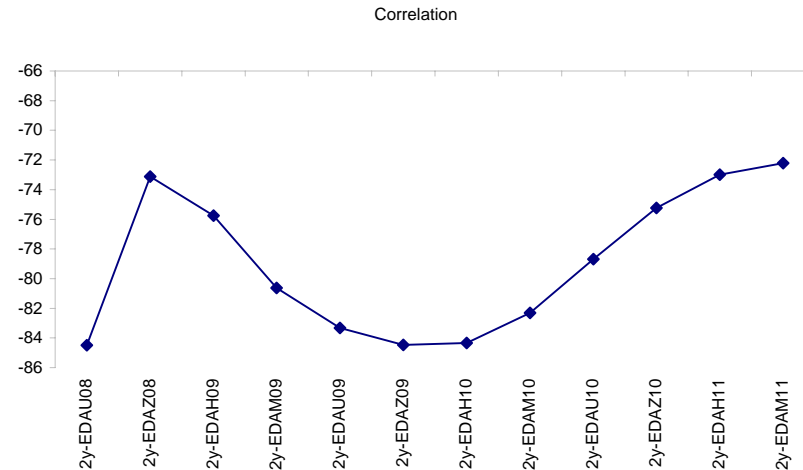
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			2Y Duration	Spread Duration	
EDAU08	0.131	1.91	1.78	2y-EDAU08		
EDAZ08	0.380	1.91	1.53	2y-EDAZ08		
EDAH09	0.629	1.91	1.28	2y-EDAH09		
EDAM09	0.879	1.91	1.03	2y-EDAM09		
EDAU09	1.128	1.91	0.78	2y-EDAU09		
EDAZ09	1.377	1.91	0.53	2y-EDAZ09		
EDAH10	1.627	1.91	0.28	2y-EDAH10		
EDAM10	1.876	1.91	0.04	2y-EDAM10		
EDAU10	2.125	1.91	(0.21)	2y-EDAU10		
EDAZ10	2.375	1.91	(0.46)	2y-EDAZ10		
EDAH11	2.624	1.91	(0.71)	2y-EDAH11		
EDAM11	2.873	1.91	(0.96)	2y-EDAM11		

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

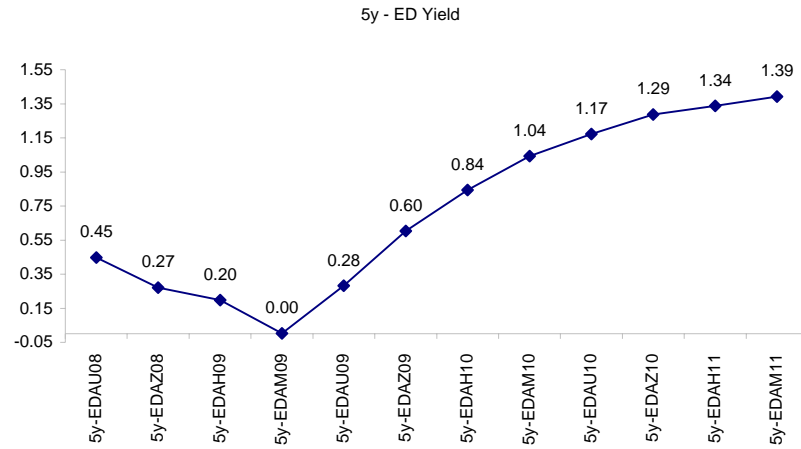


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.146	0.45	5y-EDAU08	-92.284
EDAZ08	3.321	0.27	5y-EDAZ08	-85.196
EDAH09	3.396	0.20	5y-EDAH09	-86.812
EDAM09	3.596	0.00	5y-EDAM09	-89.798
EDAU09	3.876	0.28	5y-EDAU09	-91.249
EDAZ09	4.196	0.60	5y-EDAZ09	-92.006
EDAH10	4.436	0.84	5y-EDAH10	-92.067
EDAM10	4.636	1.04	5y-EDAM10	-90.930
EDAU10	4.766	1.17	5y-EDAU10	-88.507
EDAZ10	4.881	1.29	5y-EDAZ10	-86.079
EDAH11	4.931	1.34	5y-EDAH11	-84.514
EDAM11	4.986	1.39	5y-EDAM11	-84.036

Price = Outright Decimal Price - Euro Contract Price

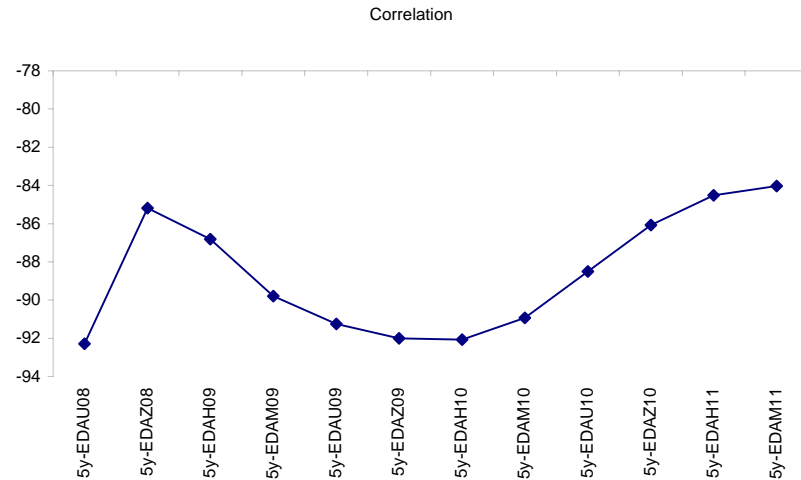
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAU08	0.131	4.49	4.36	5y-EDAU08
EDAZ08	0.380	4.49	4.11	5y-EDAZ08
EDAH09	0.629	4.49	3.87	5y-EDAH09
EDAM09	0.879	4.49	3.62	5y-EDAM09
EDAU09	1.128	4.49	3.37	5y-EDAU09
EDAZ09	1.377	4.49	3.12	5y-EDAZ09
EDAH10	1.627	4.49	2.87	5y-EDAH10
EDAM10	1.876	4.49	2.62	5y-EDAM10
EDAU10	2.125	4.49	2.37	5y-EDAU10
EDAZ10	2.375	4.49	2.12	5y-EDAZ10
EDAH11	2.624	4.49	1.87	5y-EDAH11
EDAM11	2.873	4.49	1.62	5y-EDAM11

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

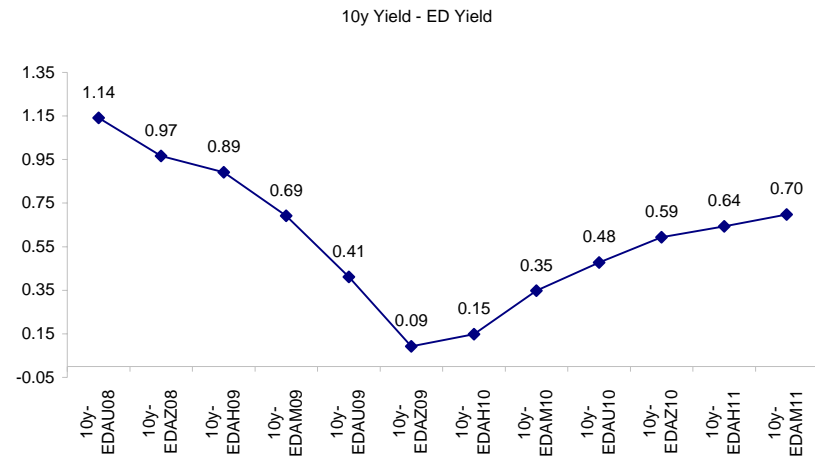


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.146	1.14	10y-EDAU08	-89.826
EDAZ08	3.321	0.97	10y-EDAZ08	-85.438
EDAH09	3.396	0.89	10y-EDAH09	-86.416
EDAM09	3.596	0.69	10y-EDAM09	-88.615
EDAU09	3.876	0.41	10y-EDAU09	-89.811
EDAZ09	4.196	0.09	10y-EDAZ09	-90.635
EDAH10	4.436	0.15	10y-EDAH10	-90.926
EDAM10	4.636	0.35	10y-EDAM10	-90.501
EDAU10	4.766	0.48	10y-EDAU10	-88.737
EDAZ10	4.881	0.59	10y-EDAZ10	-86.847
EDAH11	4.931	0.64	10y-EDAH11	-85.613
EDAM11	4.986	0.70	10y-EDAM11	-85.232

Price = Outright Decimal Price - Euro Contract Price

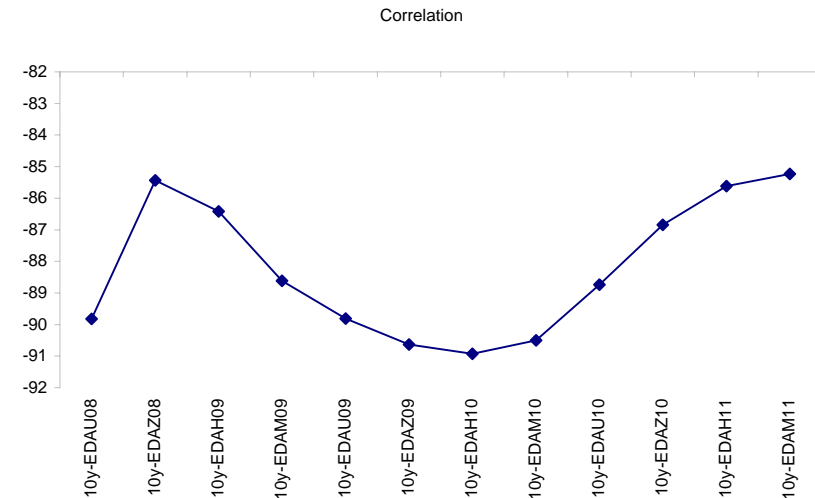
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.131	8.01	7.88	10y-EDAU08
EDAZ08	0.380	8.01	7.63	10y-EDAZ08
EDAH09	0.629	8.01	7.38	10y-EDAH09
EDAM09	0.879	8.01	7.13	10y-EDAM09
EDAU09	1.128	8.01	6.88	10y-EDAU09
EDAZ09	1.377	8.01	6.63	10y-EDAZ09
EDAH10	1.627	8.01	6.38	10y-EDAH10
EDAM10	1.876	8.01	6.13	10y-EDAM10
EDAU10	2.125	8.01	5.88	10y-EDAU10
EDAZ10	2.375	8.01	5.63	10y-EDAZ10
EDAH11	2.624	8.01	5.38	10y-EDAH11
EDAM11	2.873	8.01	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.

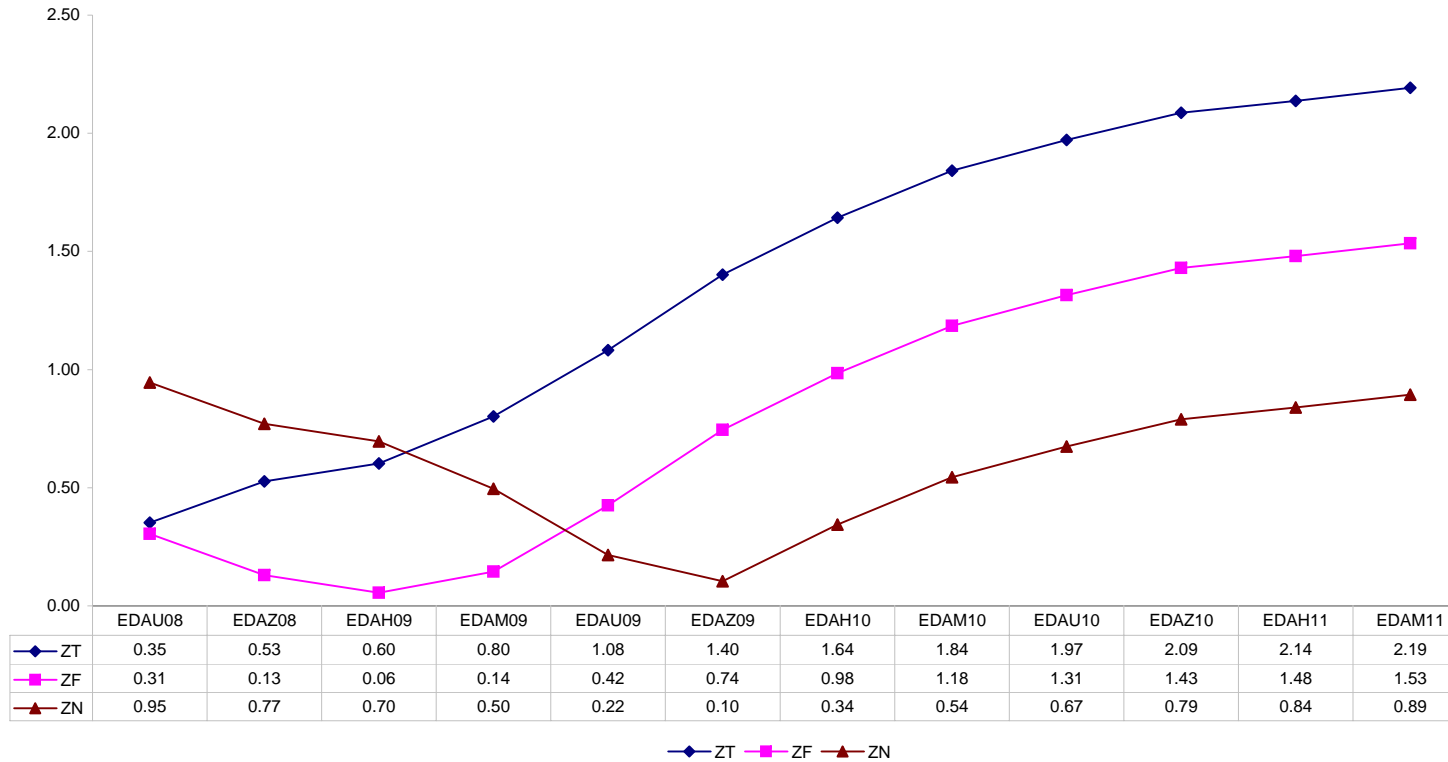
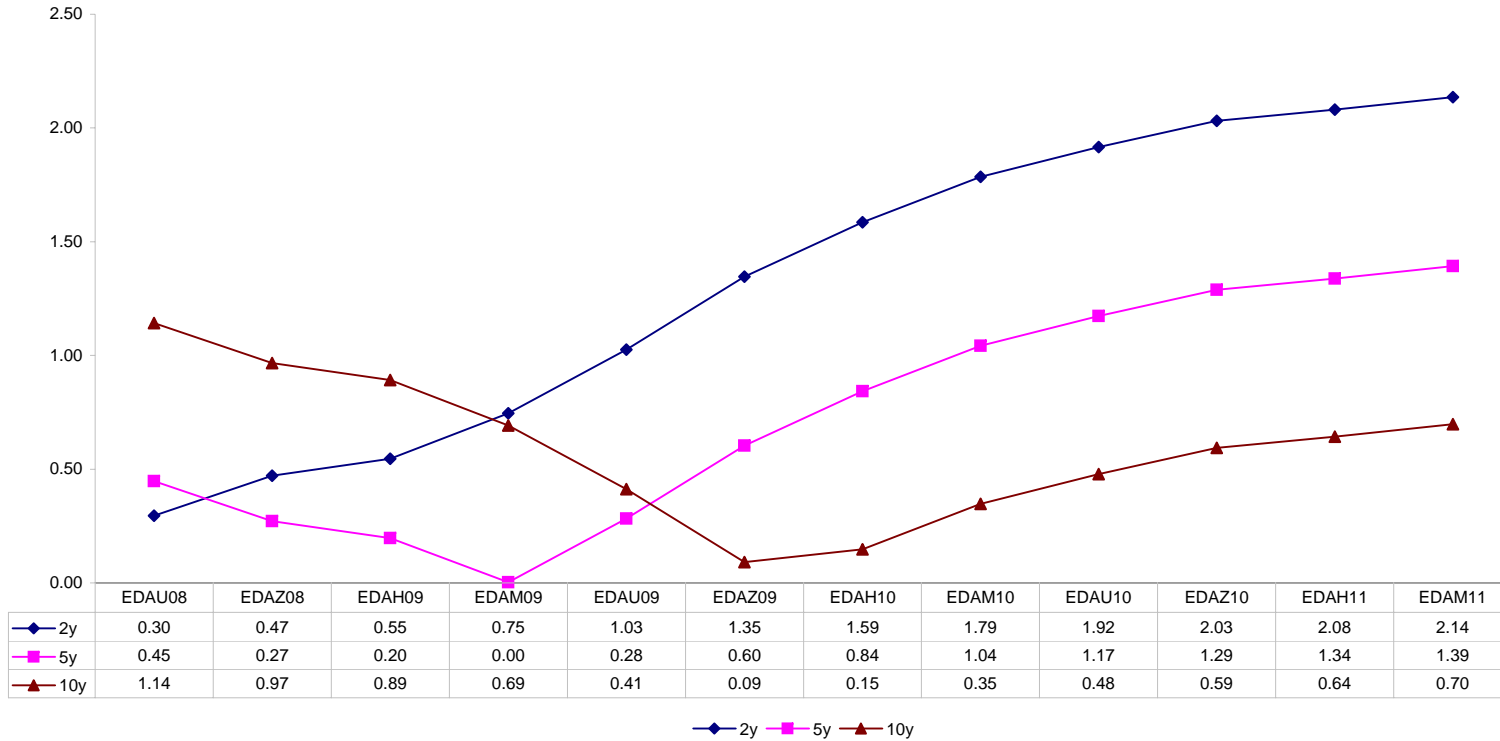
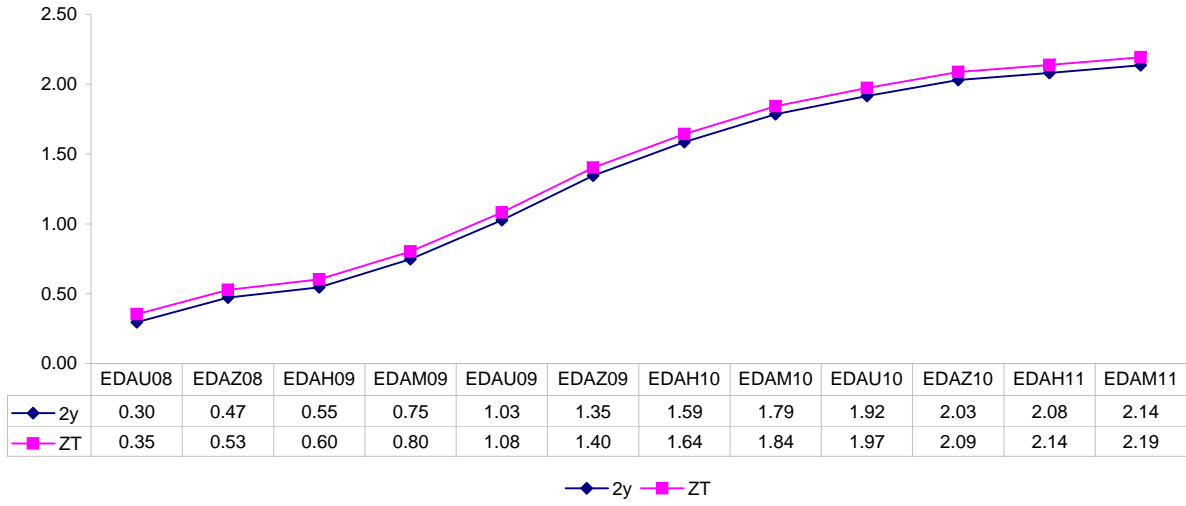


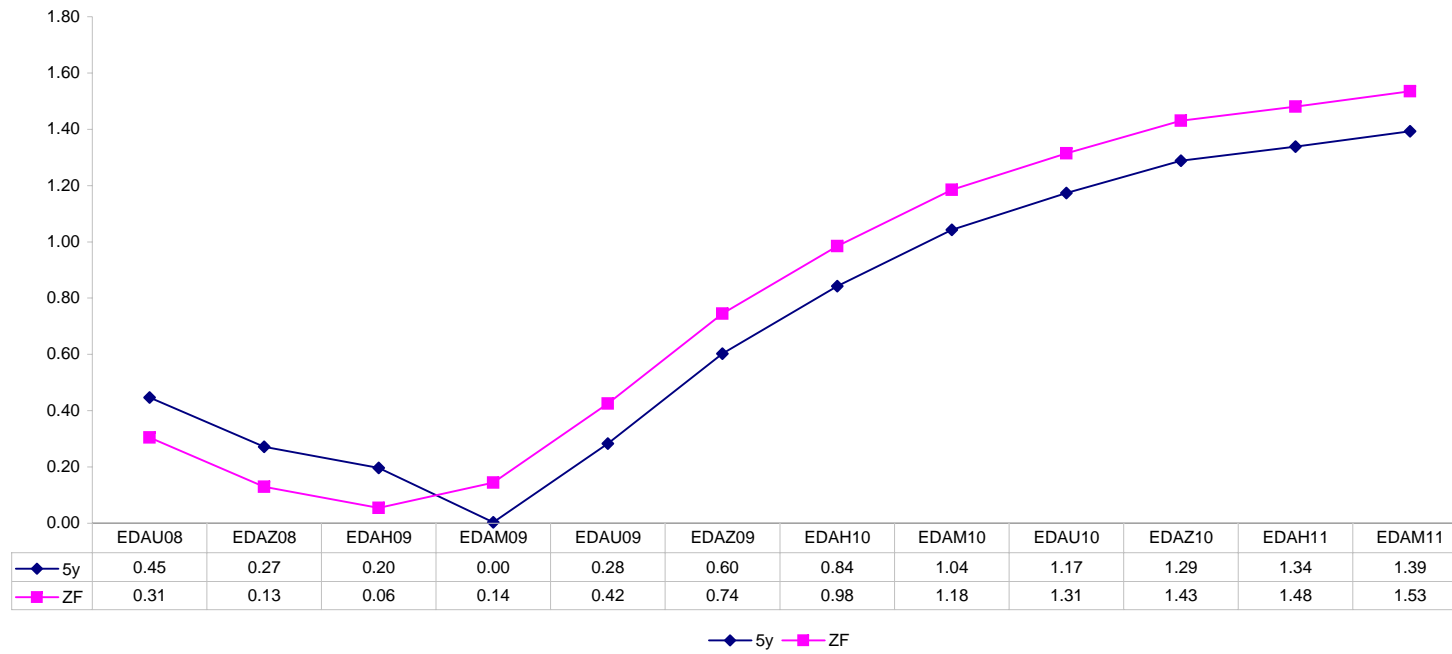
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



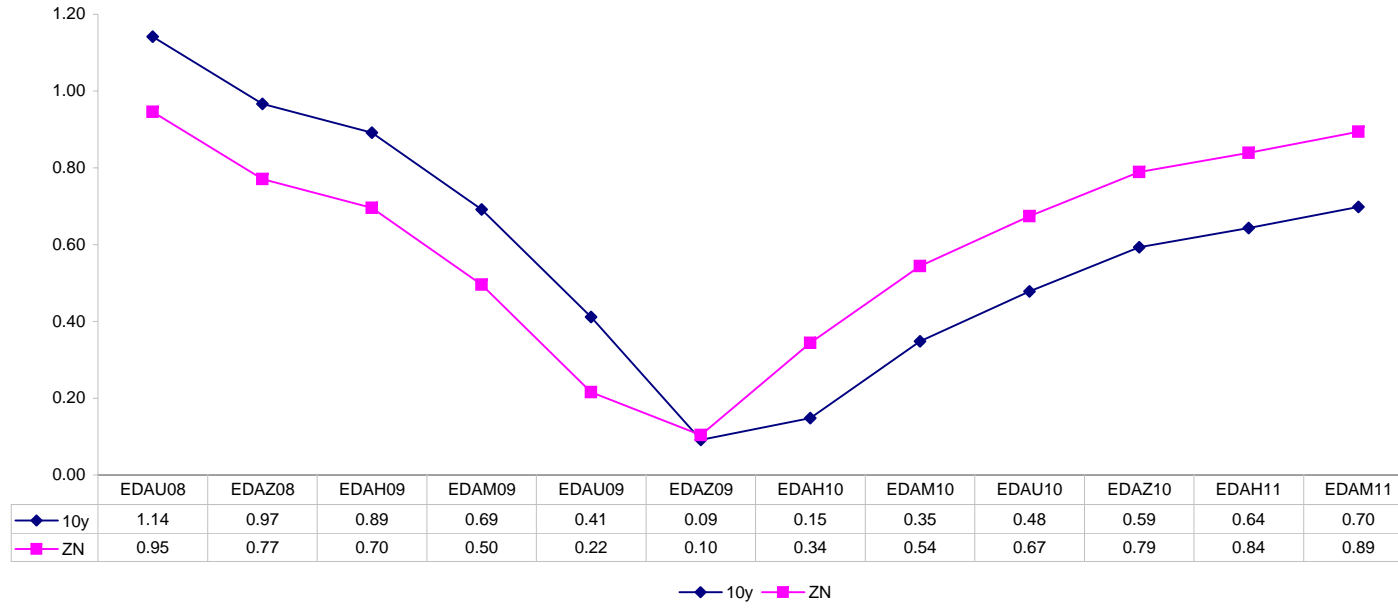
2y Basis TED Curve



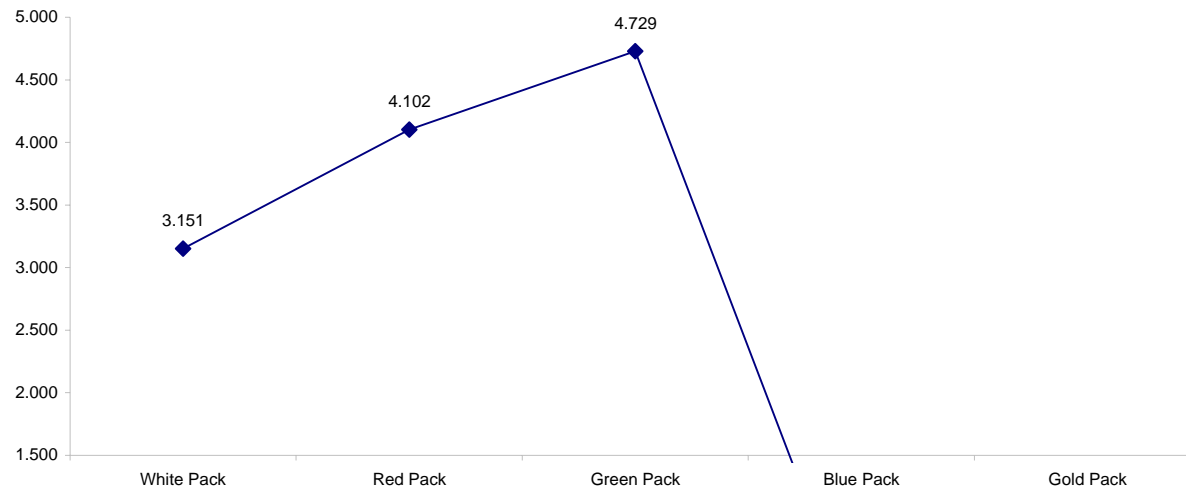
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	3.151	1.375	9691.625
Red Pack	4.102	1.875	9599.500
Green Pack	4.729	2.125	9539.000
Blue Pack		0.500	9518.500
Gold Pack		0.500	9500.000



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

