

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	105.8125	105.260	2.570	1.85
ZF	110.8906	110.285	3.232	3.98
ZN	114.1563	114.050	3.818	6.40
2y	100.241	100.0770	2.625	1.93
5y	100.063	100.0200	3.358	4.56
10y	98.688	98.2200	4.038	8.00

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	97.160	2.840	46	0.125	SEP	
EDAZ08	96.955	3.045	137	0.375	DEC	White
EDAH09	96.845	3.155	228	0.624	MAR	Pack
EDAM09	96.655	3.345	319	0.873	JUN	
EDAU09	96.385	3.615	410	1.123	SEP	
EDAZ09	96.065	3.935	501	1.372	DEC	Red
EDAH10	95.820	4.180	592	1.621	MAR	Pack
EDAM10	95.625	4.375	683	1.871	JUN	
EDAU10	95.490	4.510	774	2.120	SEP	
EDAZ10	95.375	4.625	865	2.369	DEC	Green
EDAH11	95.330	4.670	956	2.618	MAR	Pack
EDAM11	95.280	4.720	1047	2.868	JUN	
EDAU11	95.245	4.755	1145	3.136	SEP	
EDAZ11	95.195	4.805	1236	3.386	DEC	Blue Pack
EDAH12	95.165	4.835	1327	3.635	MAR	
EDAM12	95.085	4.915	1418	3.884	JUN	
EDAU12	95.060	4.940	1509	4.134	SEP	
EDAZ12	95.010	4.990	1600	4.383	DEC	Gold Pack
EDAH13	94.970	5.030	1691	4.632	MAR	
EDAM13	94.920	5.080	1782	4.881	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	3.164	-1.750	9690.375	
Red Pack	4.124	1.250	9597.375	Pack
Green Pack	4.751	2.000	9536.875	Prices
Blue Pack		1.625	9517.625	
Gold Pack		0.500	9497.625	

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.

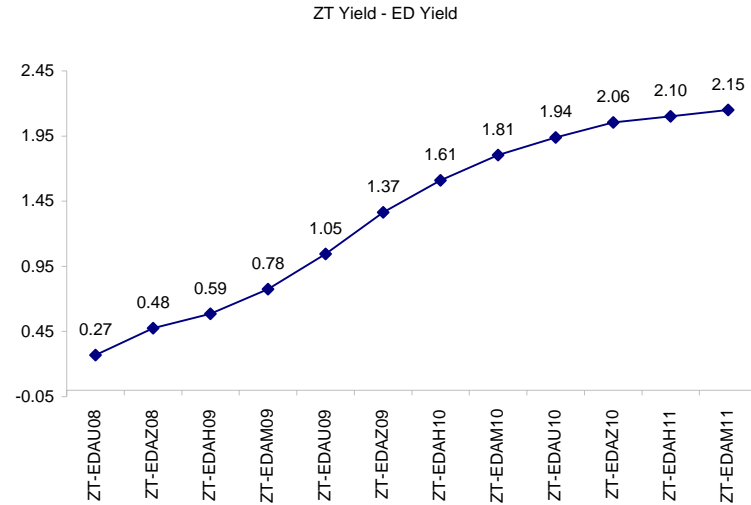
jgoulding@ghco.com

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.

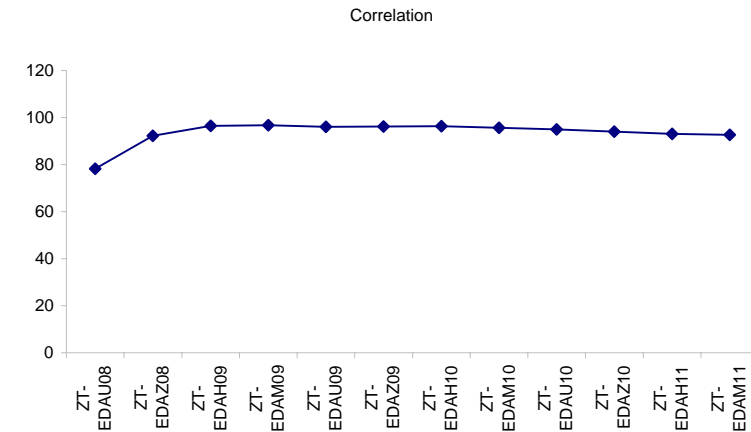
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	8.653	0.27	ZT-EDAU08	78.269
EDAZ08	8.858	0.48	ZT-EDAZ08	92.280
EDAH09	8.968	0.59	ZT-EDAH09	96.502
EDAM09	9.158	0.78	ZT-EDAM09	96.722
EDAU09	9.428	1.05	ZT-EDAU09	96.005
EDAZ09	9.748	1.37	ZT-EDAZ09	96.206
EDAH10	9.993	1.61	ZT-EDAH10	96.322
EDAM10	10.188	1.81	ZT-EDAM10	95.622
EDAU10	10.323	1.94	ZT-EDAU10	94.935
EDAZ10	10.438	2.06	ZT-EDAZ10	94.057
EDAH11	10.483	2.10	ZT-EDAH11	93.108
EDAM11	10.533	2.15	ZT-EDAM11	92.613

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	0.125	1.85	1.72	ZT-EDAU08	
EDAZ08	0.375	1.85	1.47	ZT-EDAZ08	
EDAH09	0.624	1.85	1.22	ZT-EDAH09	
EDAM09	0.873	1.85	0.97	ZT-EDAM09	
EDAU09	1.123	1.85	0.72	ZT-EDAU09	
EDAZ09	1.372	1.85	0.48	ZT-EDAZ09	
EDAH10	1.621	1.85	0.23	ZT-EDAH10	
EDAM10	1.871	1.85	(0.02)	ZT-EDAM10	
EDAU10	2.120	1.85	(0.27)	ZT-EDAU10	
EDAZ10	2.369	1.85	(0.52)	ZT-EDAZ10	
EDAH11	2.618	1.85	(0.77)	ZT-EDAH11	
EDAM11	2.868	1.85	(1.02)	ZT-EDAM11	

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

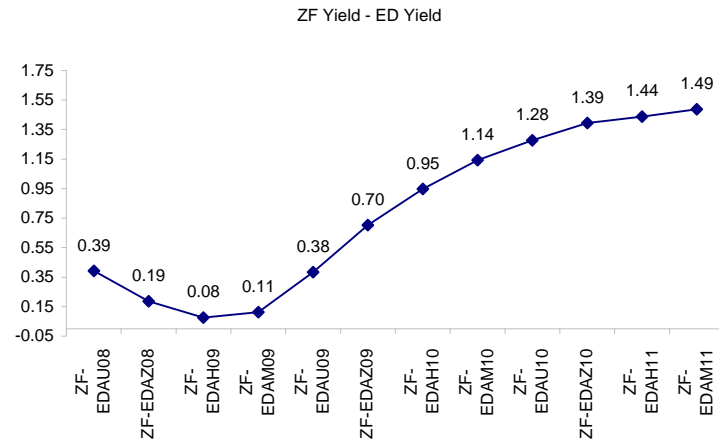


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	13.731	0.39	ZF-EDAU08	81.891
EDAZ08	13.936	0.19	ZF-EDAZ08	94.317
EDAH09	14.046	0.08	ZF-EDAH09	97.707
EDAM09	14.236	0.11	ZF-EDAM09	98.066
EDAU09	14.506	0.38	ZF-EDAU09	97.535
EDAZ09	14.826	0.70	ZF-EDAZ09	97.654
EDAH10	15.071	0.95	ZF-EDAH10	97.569
EDAM10	15.266	1.14	ZF-EDAM10	96.973
EDAU10	15.401	1.28	ZF-EDAU10	96.230
EDAZ10	15.516	1.39	ZF-EDAZ10	95.433
EDAH11	15.561	1.44	ZF-EDAH11	94.464
EDAM11	15.611	1.49	ZF-EDAM11	93.961

Price = Outright Decimal Price - Euro Contract Price

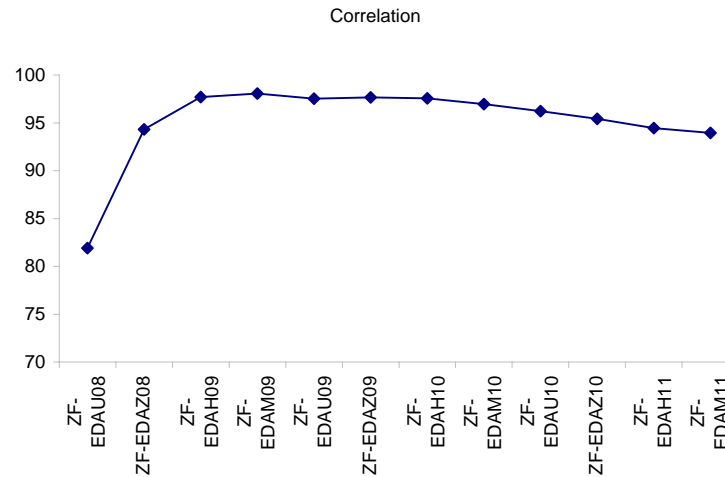
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAU08	0.125	3.98	3.85	ZF-EDAU08		
EDAZ08	0.375	3.98	3.61	ZF-EDAZ08		
EDAH09	0.624	3.98	3.36	ZF-EDAH09		
EDAM09	0.873	3.98	3.11	ZF-EDAM09		
EDAU09	1.123	3.98	2.86	ZF-EDAU09		
EDAZ09	1.372	3.98	2.61	ZF-EDAZ09		
EDAH10	1.621	3.98	2.36	ZF-EDAH10		
EDAM10	1.871	3.98	2.11	ZF-EDAM10		
EDAU10	2.120	3.98	1.86	ZF-EDAU10		
EDAZ10	2.369	3.98	1.61	ZF-EDAZ10		
EDAH11	2.618	3.98	1.36	ZF-EDAH11		
EDAM11	2.868	3.98	1.11	ZF-EDAM11		

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

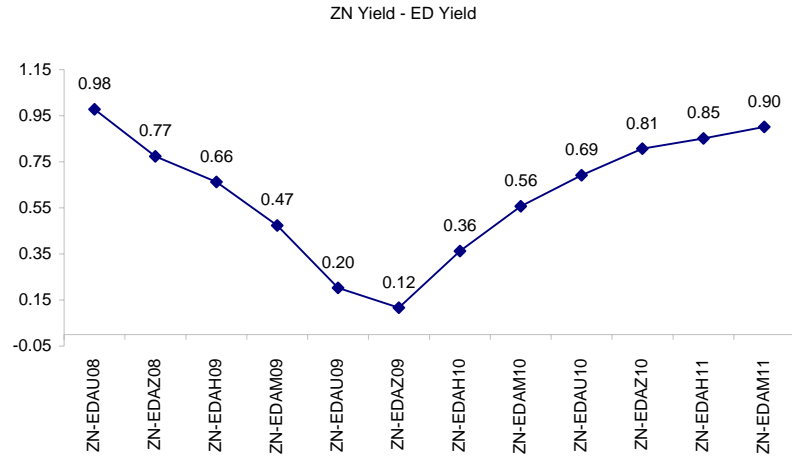


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	16.996	0.98	ZN-EDAU08	79.736
EDAZ08	17.201	0.77	ZN-EDAZ08	92.211
EDAH09	17.311	0.66	ZN-EDAH09	95.096
EDAM09	17.501	0.47	ZN-EDAM09	95.205
EDAU09	17.771	0.20	ZN-EDAU09	94.800
EDAZ09	18.091	0.12	ZN-EDAZ09	95.259
EDAH10	18.336	0.36	ZN-EDAH10	97.569
EDAM10	18.531	0.56	ZN-EDAM10	96.973
EDAU10	18.666	0.69	ZN-EDAU10	96.230
EDAZ10	18.781	0.81	ZN-EDAZ10	95.433
EDAH11	18.826	0.85	ZN-EDAH11	94.464
EDAM11	18.876	0.90	ZN-EDAM11	93.961

Price = Outright Decimal Price - Euro Contract Price

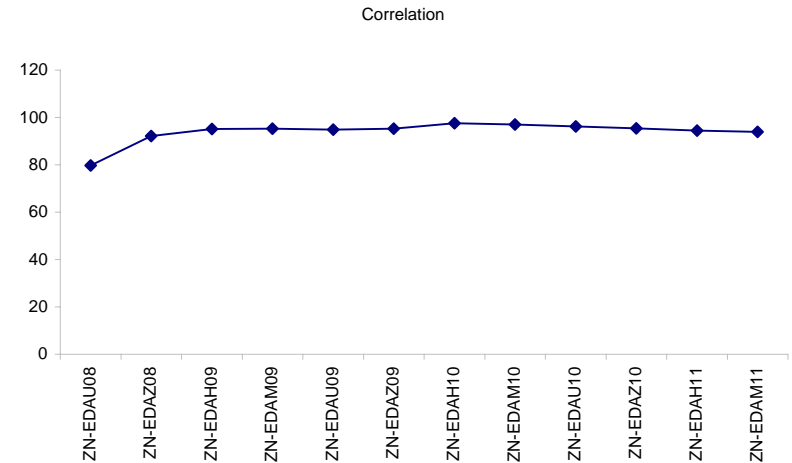
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAU08	0.125	6.40	6.27	ZN-EDAU08		
EDAZ08	0.375	6.40	6.02	ZN-EDAZ08		
EDAH09	0.624	6.40	5.77	ZN-EDAH09		
EDAM09	0.873	6.40	5.52	ZN-EDAM09		
EDAU09	1.123	6.40	5.27	ZN-EDAU09		
EDAZ09	1.372	6.40	5.02	ZN-EDAZ09		
EDAH10	1.621	6.40	4.77	ZN-EDAH10		
EDAM10	1.871	6.40	4.52	ZN-EDAM10		
EDAU10	2.120	6.40	4.28	ZN-EDAU10		
EDAZ10	2.369	6.40	4.03	ZN-EDAZ10		
EDAH11	2.618	6.40	3.78	ZN-EDAH11		
EDAM11	2.868	6.40	3.53	ZN-EDAM11		

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

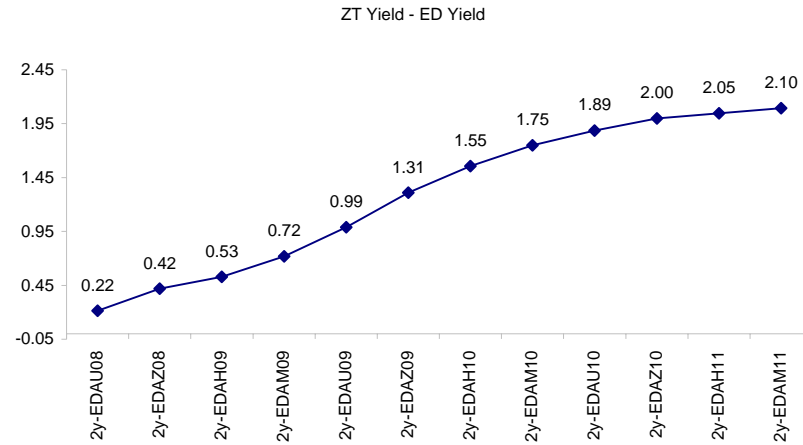


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.081	0.22	2y-EDAU08	-52.257
EDAZ08	3.286	0.42	2y-EDAZ08	-63.944
EDAH09	3.396	0.53	2y-EDAH09	-71.665
EDAM09	3.586	0.72	2y-EDAM09	-71.448
EDAU09	3.856	0.99	2y-EDAU09	-69.997
EDAZ09	4.176	1.31	2y-EDAZ09	-70.760
EDAH10	4.421	1.55	2y-EDAH10	-70.811
EDAM10	4.616	1.75	2y-EDAM10	-69.575
EDAU10	4.751	1.89	2y-EDAU10	-67.429
EDAZ10	4.866	2.00	2y-EDAZ10	-65.830
EDAH11	4.911	2.05	2y-EDAH11	-63.888
EDAM11	4.961	2.10	2y-EDAM11	-62.962

Price = Outright Decimal Price - Euro Contract Price

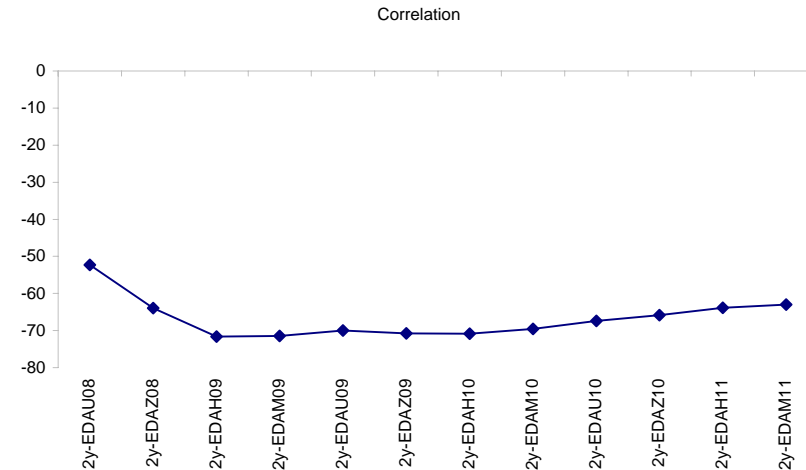
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAU08	0.125	1.93	1.81	2y-EDAU08	
EDAZ08	0.375	1.93	1.56	2y-EDAZ08	
EDAH09	0.624	1.93	1.31	2y-EDAH09	
EDAM09	0.873	1.93	1.06	2y-EDAM09	
EDAU09	1.123	1.93	0.81	2y-EDAU09	
EDAZ09	1.372	1.93	0.56	2y-EDAZ09	
EDAH10	1.621	1.93	0.31	2y-EDAH10	
EDAM10	1.871	1.93	0.06	2y-EDAM10	
EDAU10	2.120	1.93	(0.19)	2y-EDAU10	
EDAZ10	2.369	1.93	(0.44)	2y-EDAZ10	
EDAH11	2.618	1.93	(0.69)	2y-EDAH11	
EDAM11	2.868	1.93	(0.94)	2y-EDAM11	

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

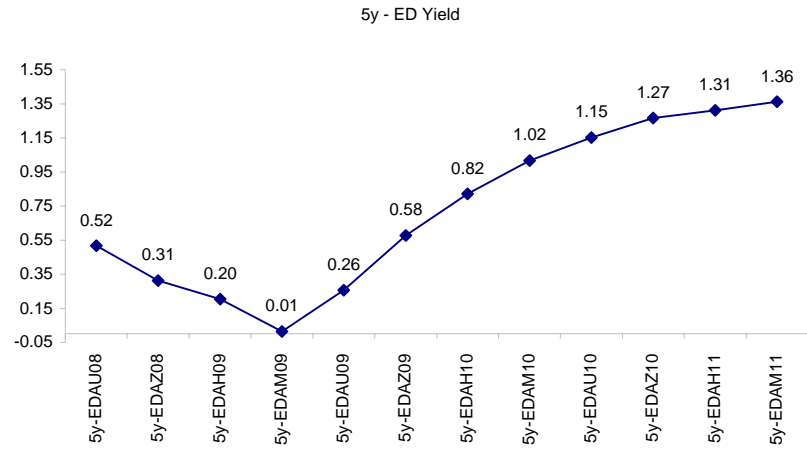


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.902	0.52	5y-EDAU08	-65.955
EDAZ08	3.107	0.31	5y-EDAZ08	-80.208
EDAH09	3.217	0.20	5y-EDAH09	-85.855
EDAM09	3.407	0.01	5y-EDAM09	-84.681
EDAU09	3.677	0.26	5y-EDAU09	-82.993
EDAZ09	3.997	0.58	5y-EDAZ09	-83.877
EDAH10	4.242	0.82	5y-EDAH10	-84.502
EDAM10	4.437	1.02	5y-EDAM10	-84.406
EDAU10	4.572	1.15	5y-EDAU10	-83.373
EDAZ10	4.687	1.27	5y-EDAZ10	-82.464
EDAH11	4.732	1.31	5y-EDAH11	-81.373
EDAM11	4.782	1.36	5y-EDAM11	-80.756

Price = Outright Decimal Price - Euro Contract Price

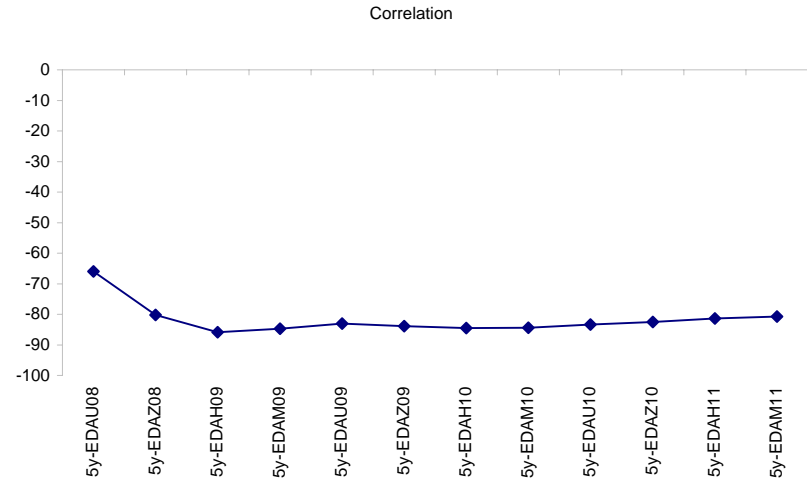
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	5Y Duration	Spread Duration	
EDAU08	0.125	4.56	4.44	5y-EDAU08
EDAZ08	0.375	4.56	4.19	5y-EDAZ08
EDAH09	0.624	4.56	3.94	5y-EDAH09
EDAM09	0.873	4.56	3.69	5y-EDAM09
EDAU09	1.123	4.56	3.44	5y-EDAU09
EDAZ09	1.372	4.56	3.19	5y-EDAZ09
EDAH10	1.621	4.56	2.94	5y-EDAH10
EDAM10	1.871	4.56	2.69	5y-EDAM10
EDAU10	2.120	4.56	2.44	5y-EDAU10
EDAZ10	2.369	4.56	2.19	5y-EDAZ10
EDAH11	2.618	4.56	1.94	5y-EDAH11
EDAM11	2.868	4.56	1.70	5y-EDAM11

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

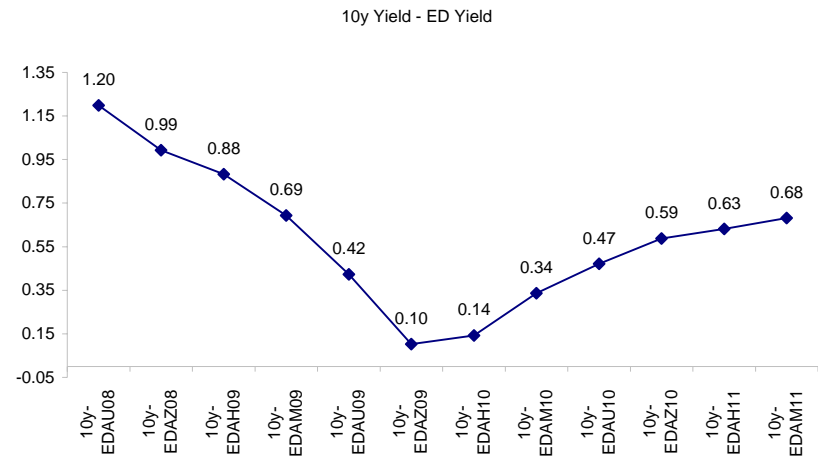


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.902	1.20	10y-EDAU08	-57.987
EDAZ08	3.107	0.99	10y-EDAZ08	-75.233
EDAH09	3.217	0.88	10y-EDAH09	-80.914
EDAM09	3.407	0.69	10y-EDAM09	-79.178
EDAU09	3.677	0.42	10y-EDAU09	-77.507
EDAZ09	3.997	0.10	10y-EDAZ09	-78.669
EDAH10	4.242	0.14	10y-EDAH10	-79.850
EDAM10	4.437	0.34	10y-EDAM10	-80.749
EDAU10	4.572	0.47	10y-EDAU10	-80.650
EDAZ10	4.687	0.59	10y-EDAZ10	-80.303
EDAH11	4.732	0.63	10y-EDAH11	-79.563
EDAM11	4.782	0.68	10y-EDAM11	-78.962

Price = Outright Decimal Price - Euro Contract Price

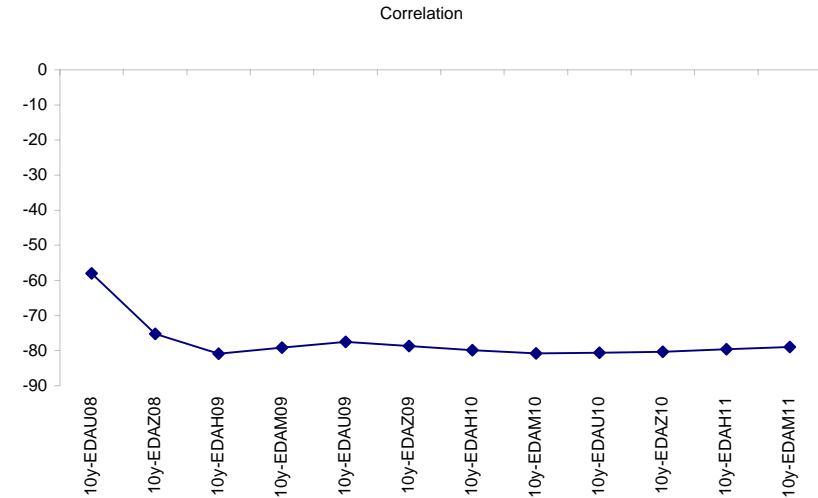
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.125	8.00	7.87	10y-EDAU08
EDAZ08	0.375	8.00	7.62	10y-EDAZ08
EDAH09	0.624	8.00	7.37	10y-EDAH09
EDAM09	0.873	8.00	7.12	10y-EDAM09
EDAU09	1.123	8.00	6.88	10y-EDAU09
EDAZ09	1.372	8.00	6.63	10y-EDAZ09
EDAH10	1.621	8.00	6.38	10y-EDAH10
EDAM10	1.871	8.00	6.13	10y-EDAM10
EDAU10	2.120	8.00	5.88	10y-EDAU10
EDAZ10	2.369	8.00	5.63	10y-EDAZ10
EDAH11	2.618	8.00	5.38	10y-EDAH11
EDAM11	2.868	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.

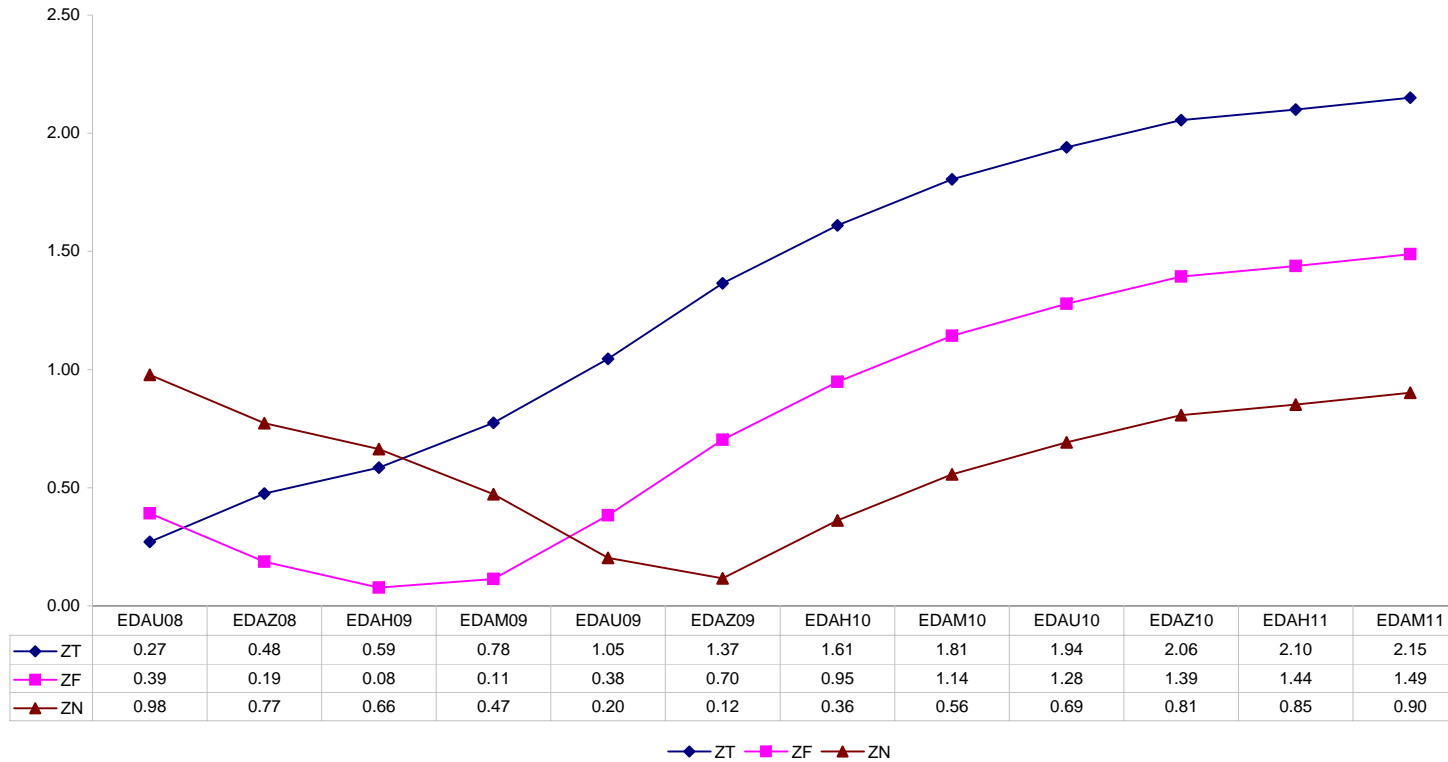
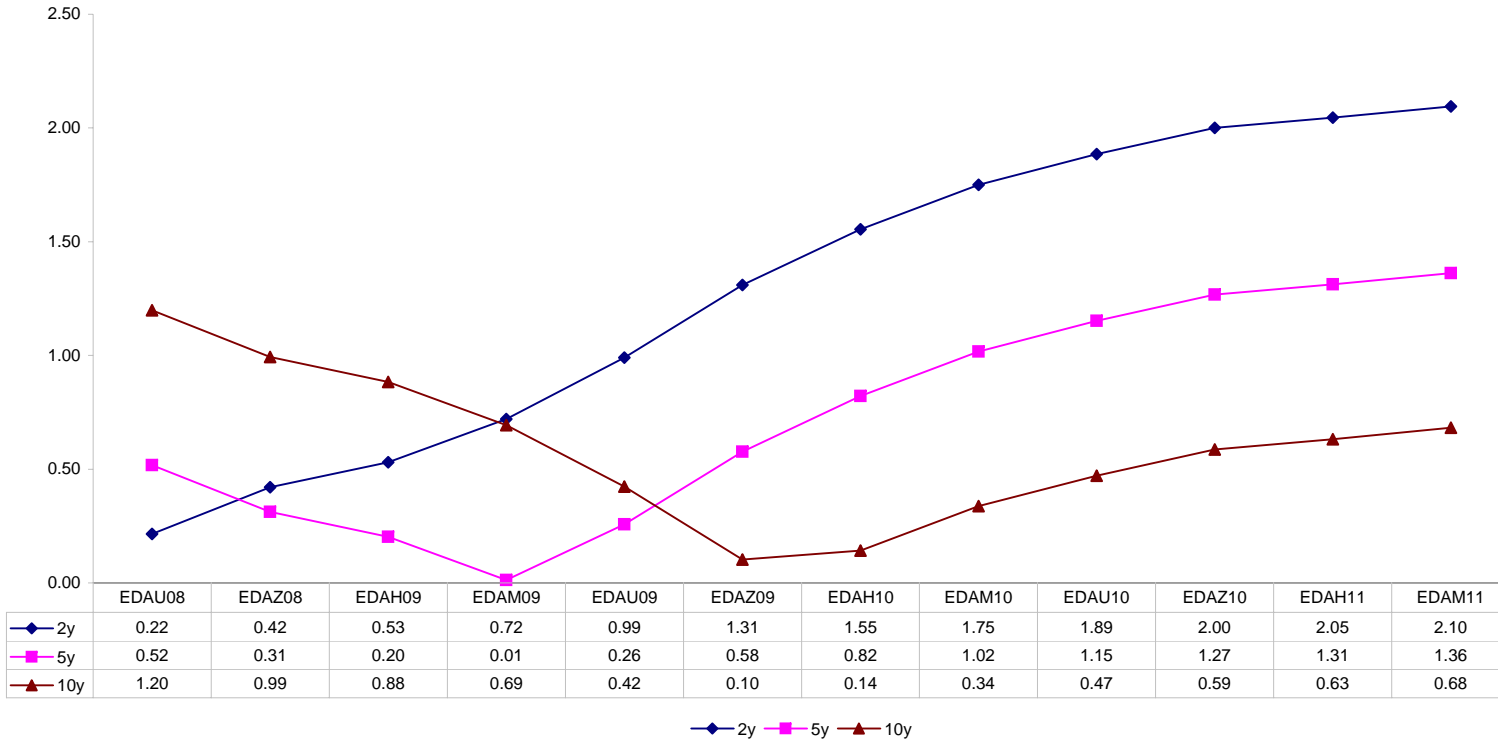
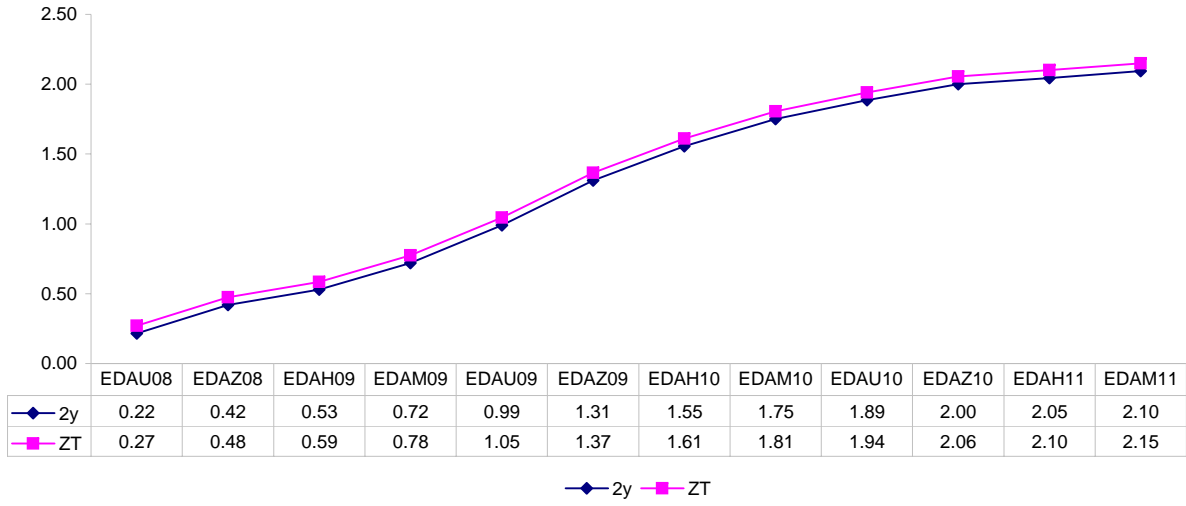


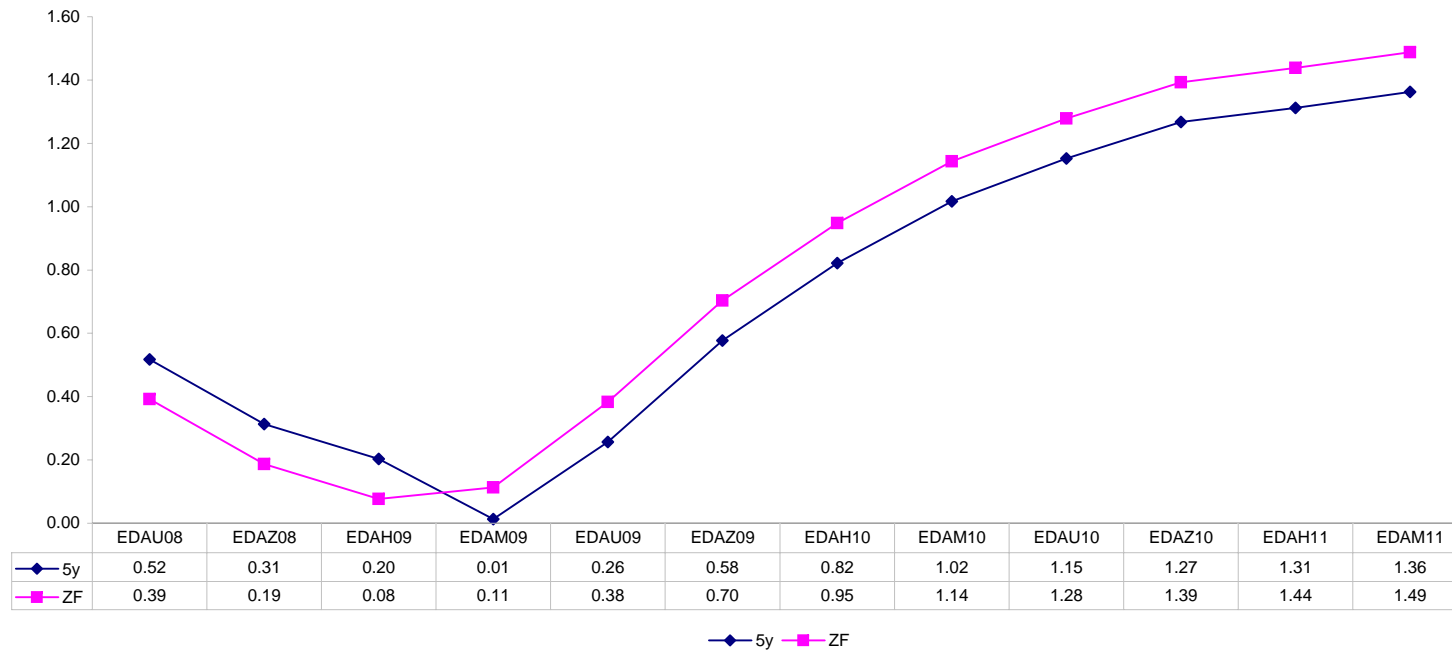
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



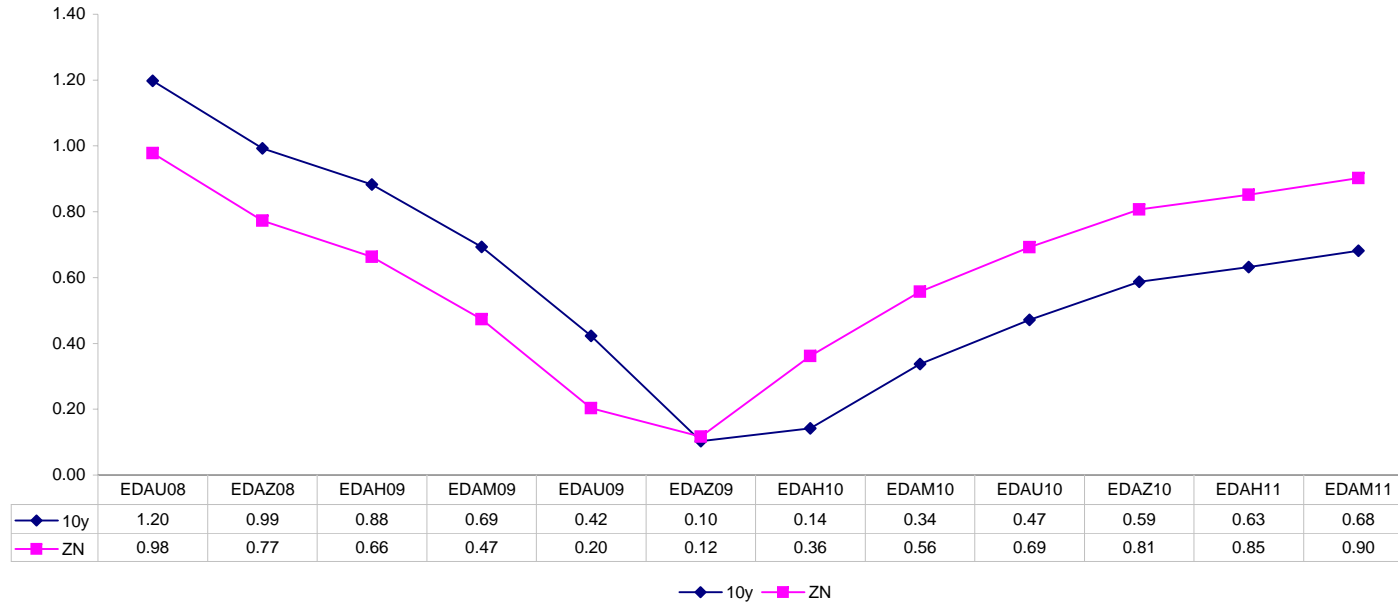
2y Basis TED Curve



5y Basis TED Curve

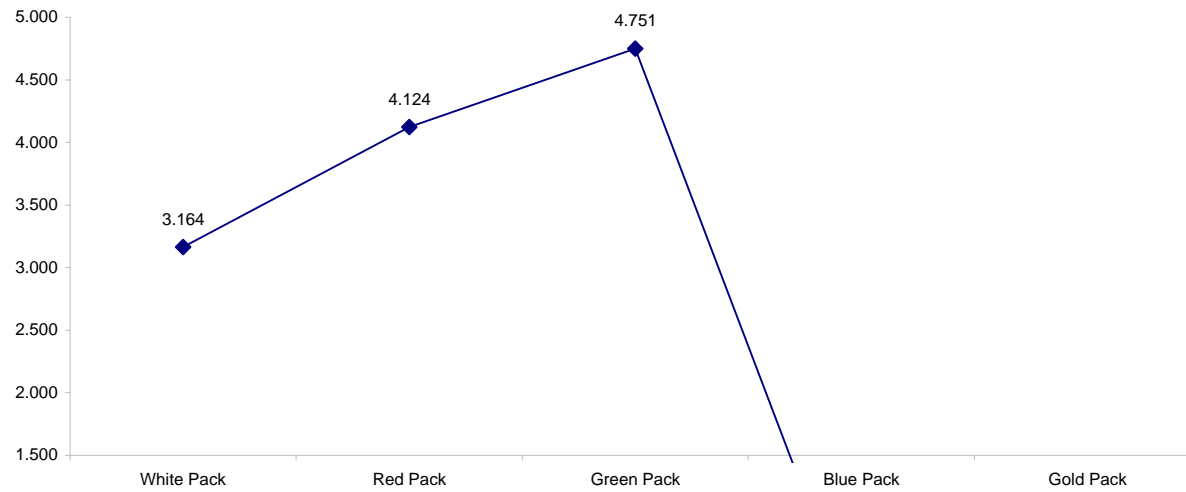


10y Basis TED Curve



Packs

	Last Yield	Net Last Yield	Last Price
White Pack	3.164	-1.750	9690.375
Red Pack	4.124	1.250	9597.375
Green Pack	4.751	2.000	9536.875
Blue Pack		1.625	9517.625
Gold Pack		0.500	9497.625



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

