

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	105.6469	105.207	2.587	1.93
ZF	110.6938	110.222	3.210	4.06
ZN	114.1406	114.045	3.548	5.93
2y	100.553	100.1770	2.584	1.93
5y	100.319	100.1020	3.305	4.56
10y	99.375	99.1200	3.950	8.09

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	97.075	2.925	76	0.208	SEP	
EDAZ08	96.855	3.145	167	0.457	DEC	White
EDAH09	96.725	3.275	258	0.706	MAR	Pack
EDAM09	96.515	3.485	349	0.955	JUN	
EDAU09	96.255	3.745	440	1.205	SEP	
EDAZ09	95.970	4.030	531	1.454	DEC	Red
EDAH10	95.775	4.225	622	1.703	MAR	Pack
EDAM10	95.600	4.400	713	1.953	JUN	
EDAU10	95.475	4.525	804	2.202	SEP	
EDAZ10	95.360	4.640	895	2.451	DEC	Green
EDAH11	95.300	4.700	986	2.701	MAR	Pack
EDAM11	95.225	4.775	1077	2.950	JUN	
EDAU11	95.180	4.820	1175	3.218	SEP	
EDAZ11	95.120	4.880	1266	3.468	DEC	Blue
EDAH12	95.095	4.905	1357	3.717	MAR	Pack
EDAM12	95.060	4.940	1448	3.966	JUN	
EDAU12	95.055	4.945	1539	4.216	SEP	
EDAZ12	95.000	5.000	1630	4.465	DEC	Gold
EDAH13	94.910	5.090	1721	4.714	MAR	Pack
EDAM13	94.950	5.050	1812	4.964	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	3.280	3.125	9679.125	
Red Pack	4.201	3.125	9589.875	Pack
Green Pack	4.780	2.000	9534.000	Prices
Blue Pack	5.015	-1.125	9511.375	
Gold Pack	5.156	-1.125	9497.875	

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.

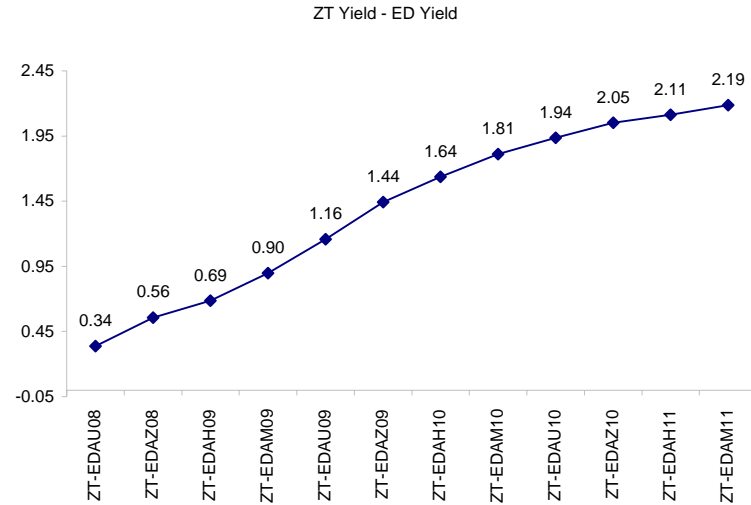
jgoulding@ghco.com

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.

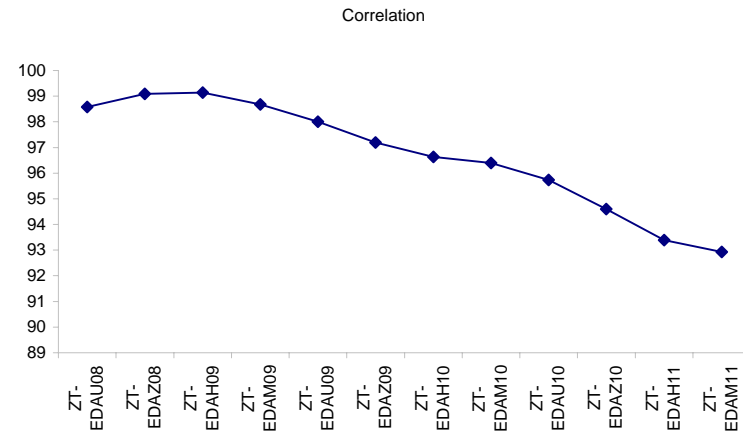
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	8.572	0.34	ZT-EDAU08	98.582
EDAZ08	8.792	0.56	ZT-EDAZ08	99.093
EDAH09	8.922	0.69	ZT-EDAH09	99.134
EDAM09	9.132	0.90	ZT-EDAM09	98.673
EDAU09	9.392	1.16	ZT-EDAU09	98.004
EDAZ09	9.677	1.44	ZT-EDAZ09	97.189
EDAH10	9.872	1.64	ZT-EDAH10	96.628
EDAM10	10.047	1.81	ZT-EDAM10	96.396
EDAU10	10.172	1.94	ZT-EDAU10	95.730
EDAZ10	10.287	2.05	ZT-EDAZ10	94.602
EDAH11	10.347	2.11	ZT-EDAH11	93.390
EDAM11	10.422	2.19	ZT-EDAM11	92.929

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	0.208	1.93	1.72	ZT-EDAU08		
EDAZ08	0.457	1.93	1.47	ZT-EDAZ08		
EDAH09	0.706	1.93	1.22	ZT-EDAH09		
EDAM09	0.955	1.93	0.97	ZT-EDAM09		
EDAU09	1.205	1.93	0.72	ZT-EDAU09		
EDAZ09	1.454	1.93	0.47	ZT-EDAZ09		
EDAH10	1.703	1.93	0.22	ZT-EDAH10		
EDAM10	1.953	1.93	(0.03)	ZT-EDAM10		
EDAU10	2.202	1.93	(0.27)	ZT-EDAU10		
EDAZ10	2.451	1.93	(0.52)	ZT-EDAZ10		
EDAH11	2.701	1.93	(0.77)	ZT-EDAH11		
EDAM11	2.950	1.93	(1.02)	ZT-EDAM11		

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

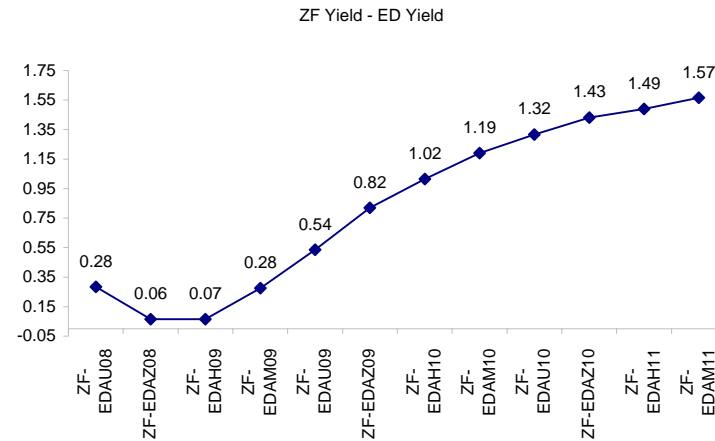


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	13.619	0.28	ZF-EDAU08	97.989
EDAZ08	13.839	0.06	ZF-EDAZ08	98.650
EDAH09	13.969	0.07	ZF-EDAH09	98.631
EDAM09	14.179	0.28	ZF-EDAM09	97.854
EDAU09	14.439	0.54	ZF-EDAU09	96.749
EDAZ09	14.724	0.82	ZF-EDAZ09	95.816
EDAH10	14.919	1.02	ZF-EDAH10	95.261
EDAM10	15.094	1.19	ZF-EDAM10	95.136
EDAU10	15.219	1.32	ZF-EDAU10	94.867
EDAZ10	15.334	1.43	ZF-EDAZ10	94.134
EDAH11	15.394	1.49	ZF-EDAH11	93.344
EDAM11	15.469	1.57	ZF-EDAM11	93.108

Price = Outright Decimal Price - Euro Contract Price

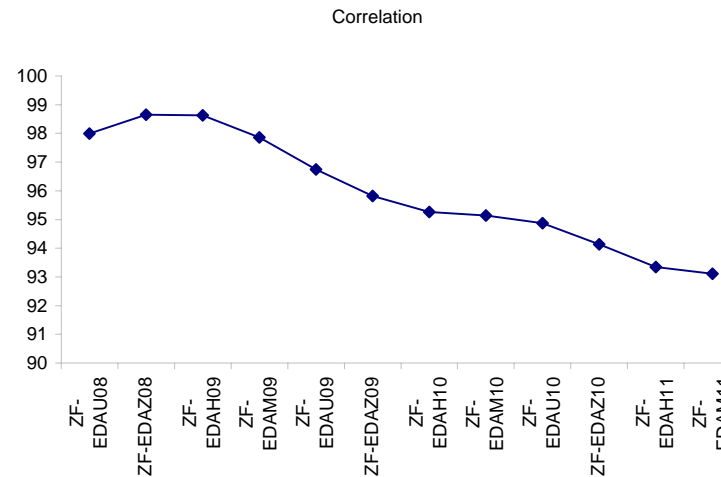
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



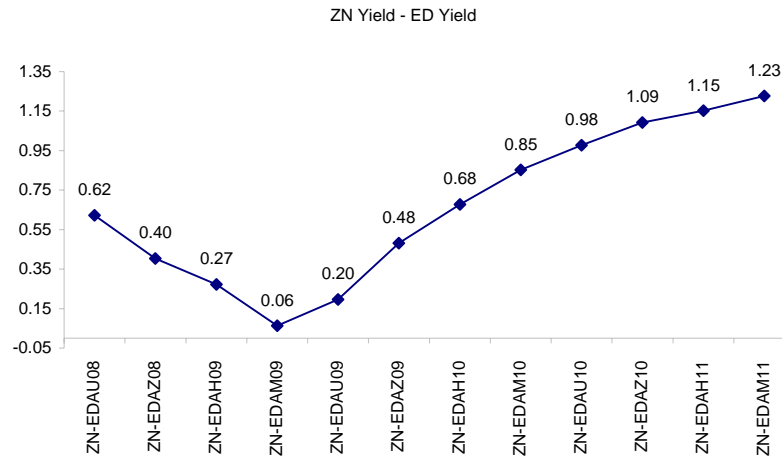
	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAU08	0.208	4.06	3.85	ZF-EDAU08	
EDAZ08	0.457	4.06	3.60	ZF-EDAZ08	
EDAH09	0.706	4.06	3.35	ZF-EDAH09	
EDAM09	0.955	4.06	3.11	ZF-EDAM09	
EDAU09	1.205	4.06	2.86	ZF-EDAU09	
EDAZ09	1.454	4.06	2.61	ZF-EDAZ09	
EDAH10	1.703	4.06	2.36	ZF-EDAH10	
EDAM10	1.953	4.06	2.11	ZF-EDAM10	
EDAU10	2.202	4.06	1.86	ZF-EDAU10	
EDAZ10	2.451	4.06	1.61	ZF-EDAZ10	
EDAH11	2.701	4.06	1.36	ZF-EDAH11	
EDAM11	2.950	4.06	1.11	ZF-EDAM11	

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



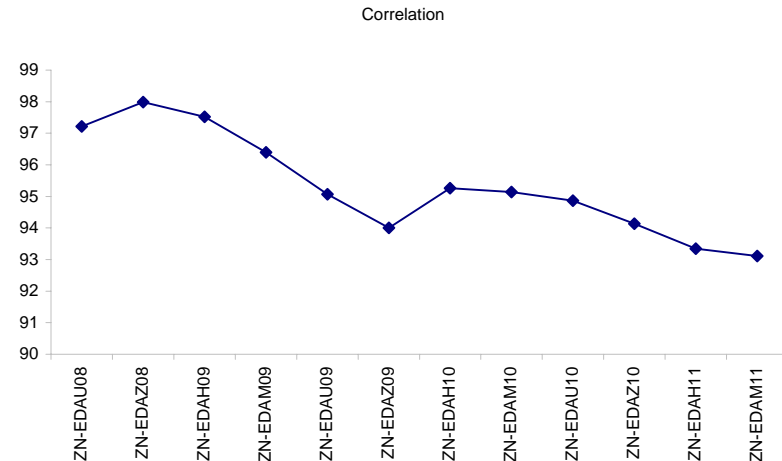
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	17.066	0.62	ZN-EDAU08	97.212
EDAZ08	17.286	0.40	ZN-EDAZ08	97.985
EDAH09	17.416	0.27	ZN-EDAH09	97.518
EDAM09	17.626	0.06	ZN-EDAM09	96.392
EDAU09	17.886	0.20	ZN-EDAU09	95.070
EDAZ09	18.171	0.48	ZN-EDAZ09	94.004
EDAH10	18.366	0.68	ZN-EDAH10	95.261
EDAM10	18.541	0.85	ZN-EDAM10	95.136
EDAU10	18.666	0.98	ZN-EDAU10	94.867
EDAZ10	18.781	1.09	ZN-EDAZ10	94.134
EDAH11	18.841	1.15	ZN-EDAH11	93.344
EDAM11	18.916	1.23	ZN-EDAM11	93.108

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	0.208	5.93	5.73	ZN-EDAU08		
EDAZ08	0.457	5.93	5.48	ZN-EDAZ08		
EDAH09	0.706	5.93	5.23	ZN-EDAH09		
EDAM09	0.955	5.93	4.98	ZN-EDAM09		
EDAU09	1.205	5.93	4.73	ZN-EDAU09		
EDAZ09	1.454	5.93	4.48	ZN-EDAZ09		
EDAH10	1.703	5.93	4.23	ZN-EDAH10		
EDAM10	1.953	5.93	3.98	ZN-EDAM10		
EDAU10	2.202	5.93	3.73	ZN-EDAU10		
EDAZ10	2.451	5.93	3.48	ZN-EDAZ10		
EDAH11	2.701	5.93	3.23	ZN-EDAH11		
EDAM11	2.950	5.93	2.98	ZN-EDAM11		

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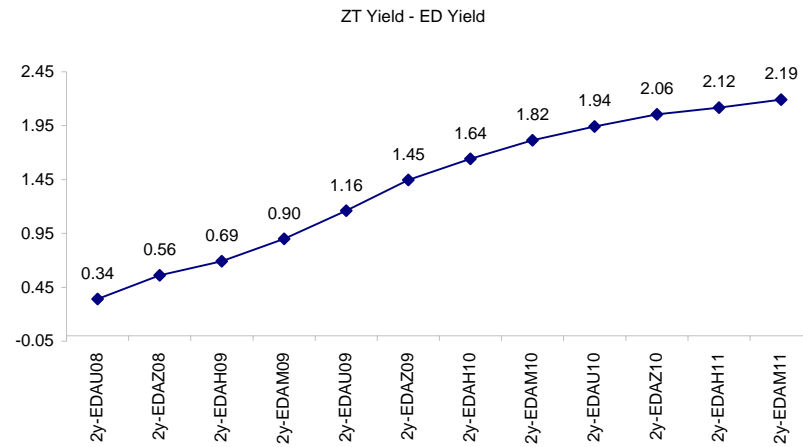


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.478	0.34	2y-EDAU08	-98.129
EDAZ08	3.698	0.56	2y-EDAZ08	-98.977
EDAH09	3.828	0.69	2y-EDAH09	-99.153
EDAM09	4.038	0.90	2y-EDAM09	-98.762
EDAU09	4.298	1.16	2y-EDAU09	-98.221
EDAZ09	4.583	1.45	2y-EDAZ09	-97.701
EDAH10	4.778	1.64	2y-EDAH10	-97.343
EDAM10	4.953	1.82	2y-EDAM10	-97.123
EDAU10	5.078	1.94	2y-EDAU10	-96.600
EDAZ10	5.193	2.06	2y-EDAZ10	-95.595
EDAH11	5.253	2.12	2y-EDAH11	-94.456
EDAM11	5.328	2.19	2y-EDAM11	-94.028

Price = Outright Decimal Price - Euro Contract Price

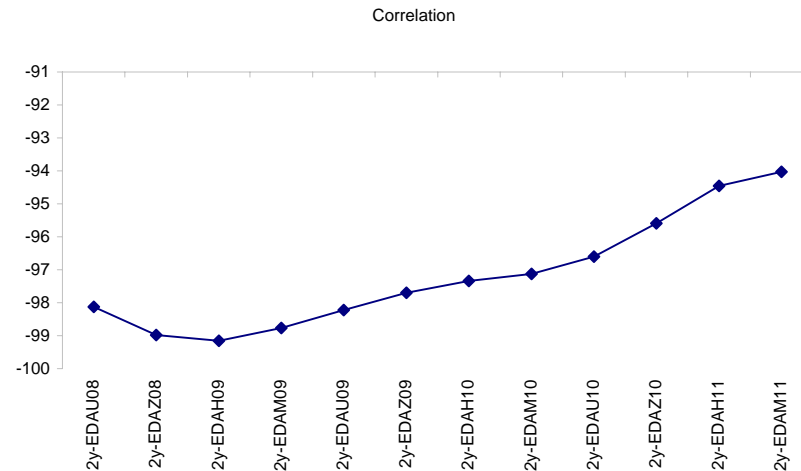
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAU08	0.208	1.93	1.72	2y-EDAU08
EDAZ08	0.457	1.93	1.47	2y-EDAZ08
EDAH09	0.706	1.93	1.22	2y-EDAH09
EDAM09	0.955	1.93	0.97	2y-EDAM09
EDAU09	1.205	1.93	0.72	2y-EDAU09
EDAZ09	1.454	1.93	0.47	2y-EDAZ09
EDAH10	1.703	1.93	0.22	2y-EDAH10
EDAM10	1.953	1.93	(0.03)	2y-EDAM10
EDAU10	2.202	1.93	(0.27)	2y-EDAU10
EDAZ10	2.451	1.93	(0.52)	2y-EDAZ10
EDAH11	2.701	1.93	(0.77)	2y-EDAH11
EDAM11	2.950	1.93	(1.02)	2y-EDAM11

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

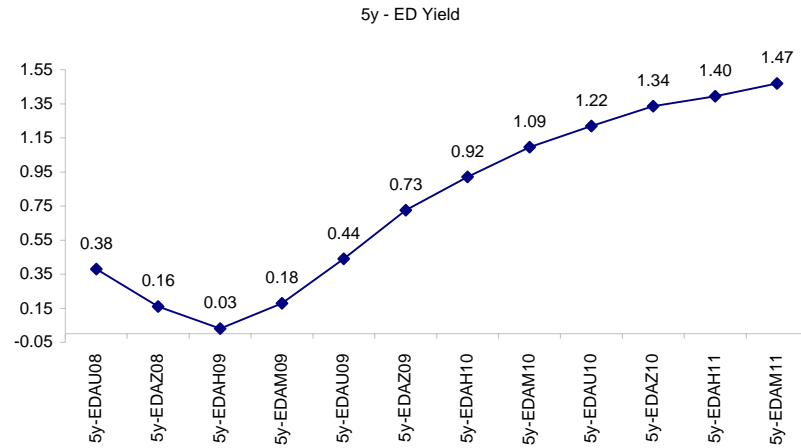


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.244	0.38	5y-EDAU08	-98.082
EDAZ08	3.464	0.16	5y-EDAZ08	-98.765
EDAH09	3.594	0.03	5y-EDAH09	-98.767
EDAM09	3.804	0.18	5y-EDAM09	-98.038
EDAU09	4.064	0.44	5y-EDAU09	-97.162
EDAZ09	4.349	0.73	5y-EDAZ09	-96.556
EDAH10	4.544	0.92	5y-EDAH10	-96.256
EDAM10	4.719	1.09	5y-EDAM10	-96.115
EDAU10	4.844	1.22	5y-EDAU10	-95.819
EDAZ10	4.959	1.34	5y-EDAZ10	-95.097
EDAH11	5.019	1.40	5y-EDAH11	-94.295
EDAM11	5.094	1.47	5y-EDAM11	-94.112

Price = Outright Decimal Price - Euro Contract Price

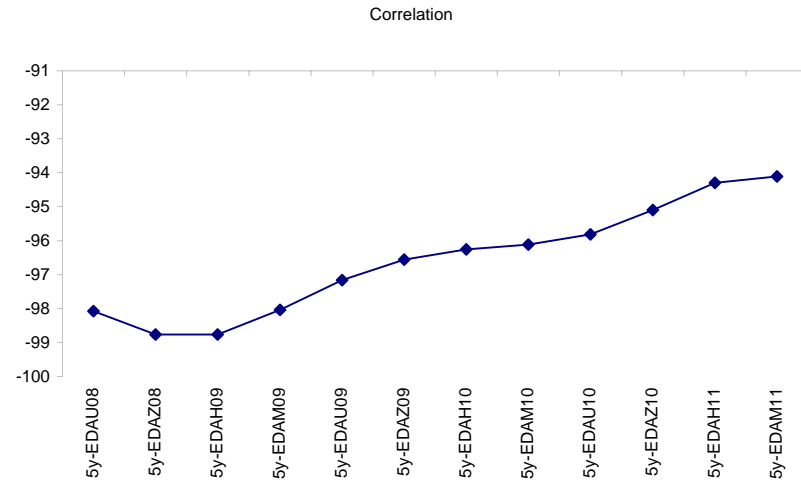
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAU08	0.208	4.56	4.36	5y-EDAU08
EDAZ08	0.457	4.56	4.11	5y-EDAZ08
EDAH09	0.706	4.56	3.86	5y-EDAH09
EDAM09	0.955	4.56	3.61	5y-EDAM09
EDAU09	1.205	4.56	3.36	5y-EDAU09
EDAZ09	1.454	4.56	3.11	5y-EDAZ09
EDAH10	1.703	4.56	2.86	5y-EDAH10
EDAM10	1.953	4.56	2.61	5y-EDAM10
EDAU10	2.202	4.56	2.36	5y-EDAU10
EDAZ10	2.451	4.56	2.11	5y-EDAZ10
EDAH11	2.701	4.56	1.86	5y-EDAH11
EDAM11	2.950	4.56	1.61	5y-EDAM11

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

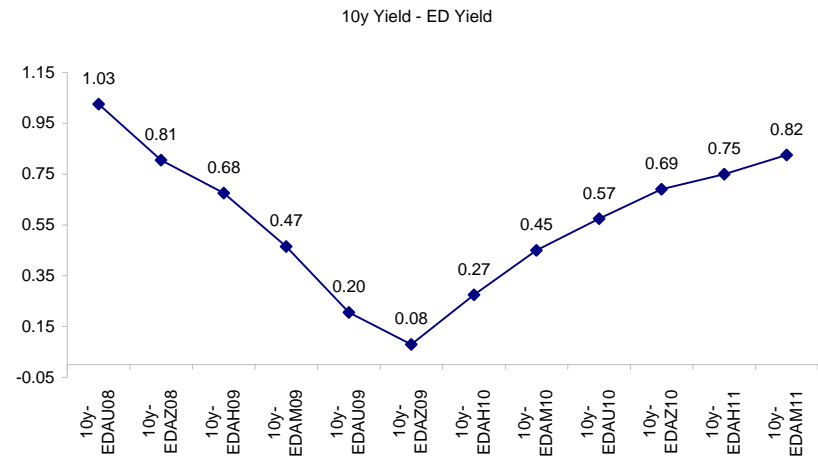


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.244	1.03	10y-EDAU08	-98.114
EDAZ08	3.464	0.81	10y-EDAZ08	-98.193
EDAH09	3.594	0.68	10y-EDAH09	-97.313
EDAM09	3.804	0.47	10y-EDAM09	-95.742
EDAU09	4.064	0.20	10y-EDAU09	-94.151
EDAZ09	4.349	0.08	10y-EDAZ09	-93.009
EDAH10	4.544	0.27	10y-EDAH10	-92.415
EDAM10	4.719	0.45	10y-EDAM10	-92.195
EDAU10	4.844	0.57	10y-EDAU10	-91.849
EDAZ10	4.959	0.69	10y-EDAZ10	-91.116
EDAH11	5.019	0.75	10y-EDAH11	-90.330
EDAM11	5.094	0.82	10y-EDAM11	-90.229

Price = Outright Decimal Price - Euro Contract Price

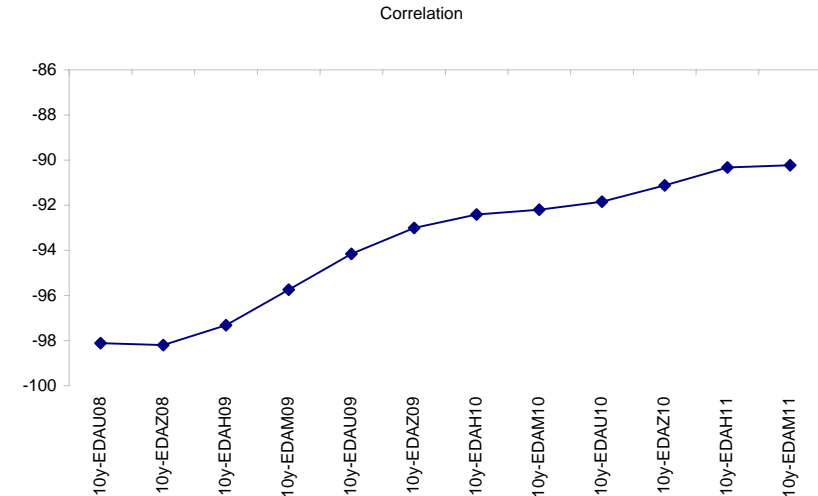
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.208	8.09	7.88	10y-EDAU08
EDAZ08	0.457	8.09	7.63	10y-EDAZ08
EDAH09	0.706	8.09	7.38	10y-EDAH09
EDAM09	0.955	8.09	7.13	10y-EDAM09
EDAU09	1.205	8.09	6.88	10y-EDAU09
EDAZ09	1.454	8.09	6.63	10y-EDAZ09
EDAH10	1.703	8.09	6.38	10y-EDAH10
EDAM10	1.953	8.09	6.14	10y-EDAM10
EDAU10	2.202	8.09	5.89	10y-EDAU10
EDAZ10	2.451	8.09	5.64	10y-EDAZ10
EDAH11	2.701	8.09	5.39	10y-EDAH11
EDAM11	2.950	8.09	5.14	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.

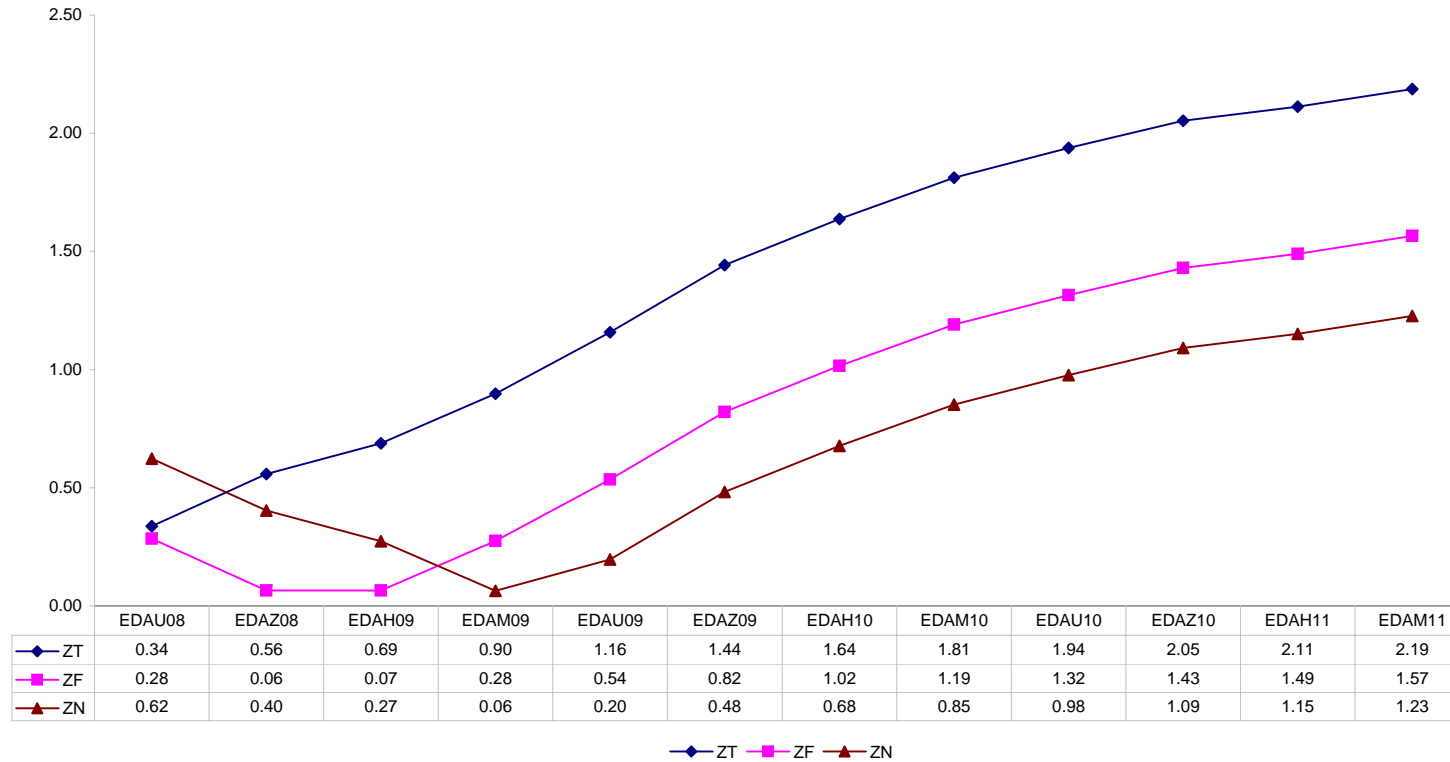
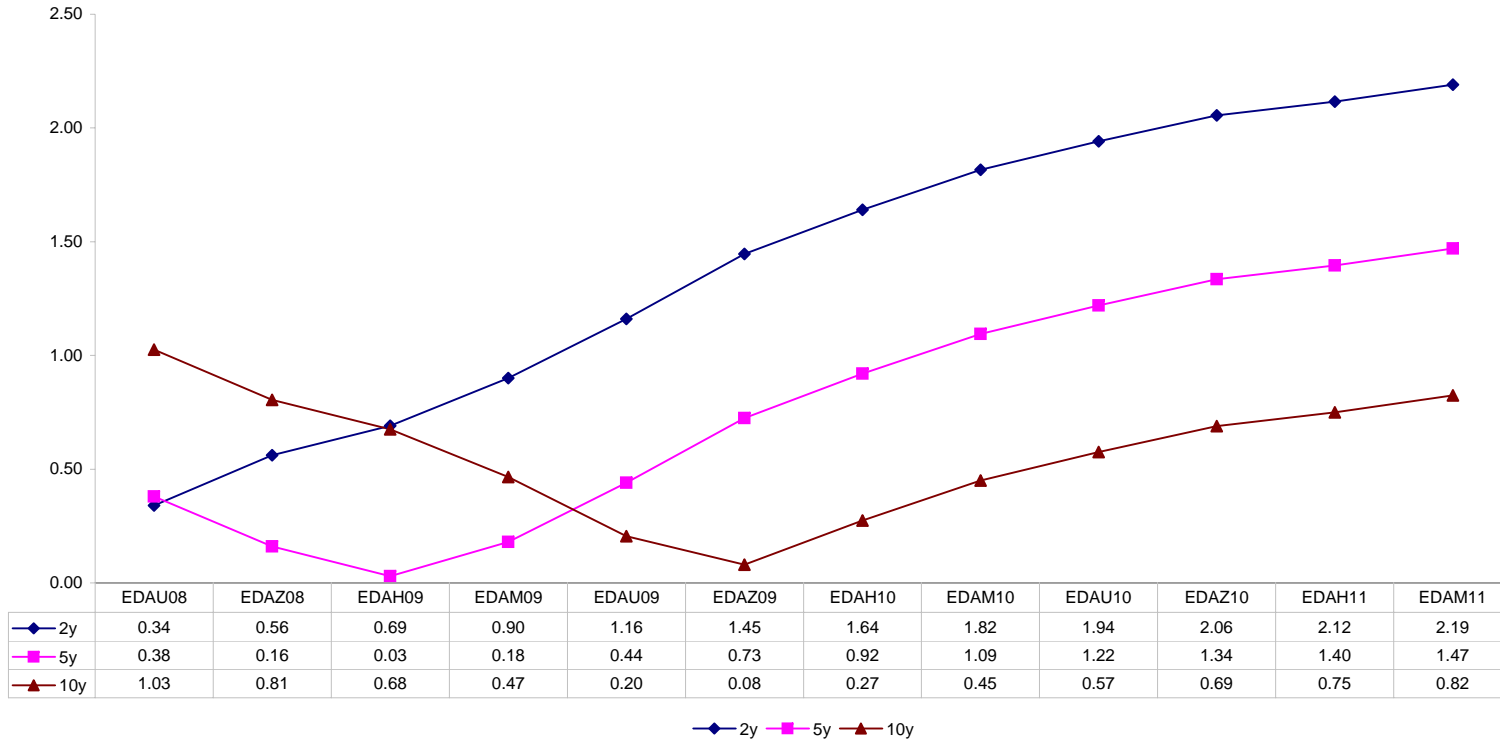
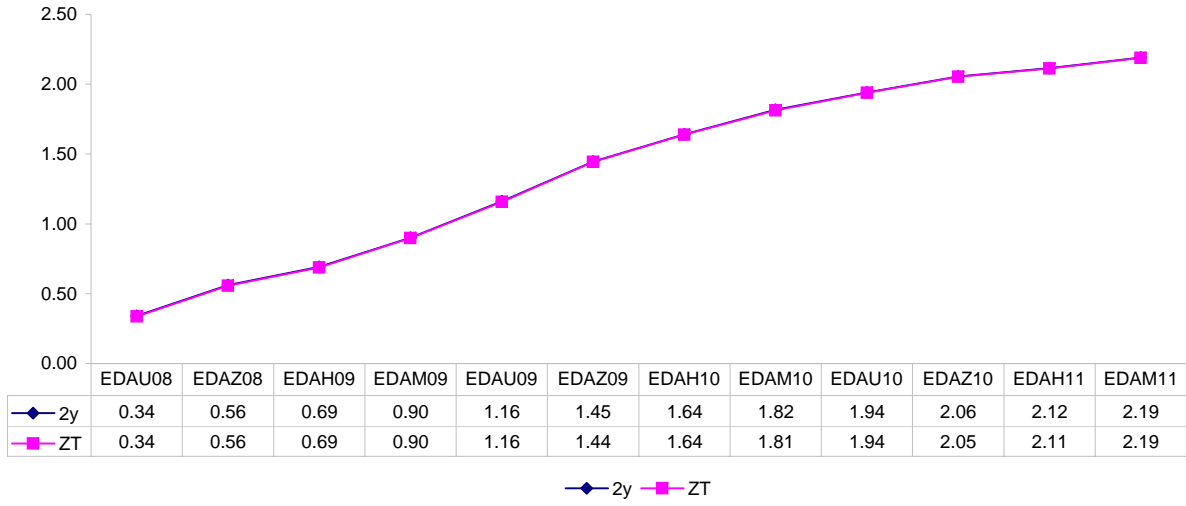


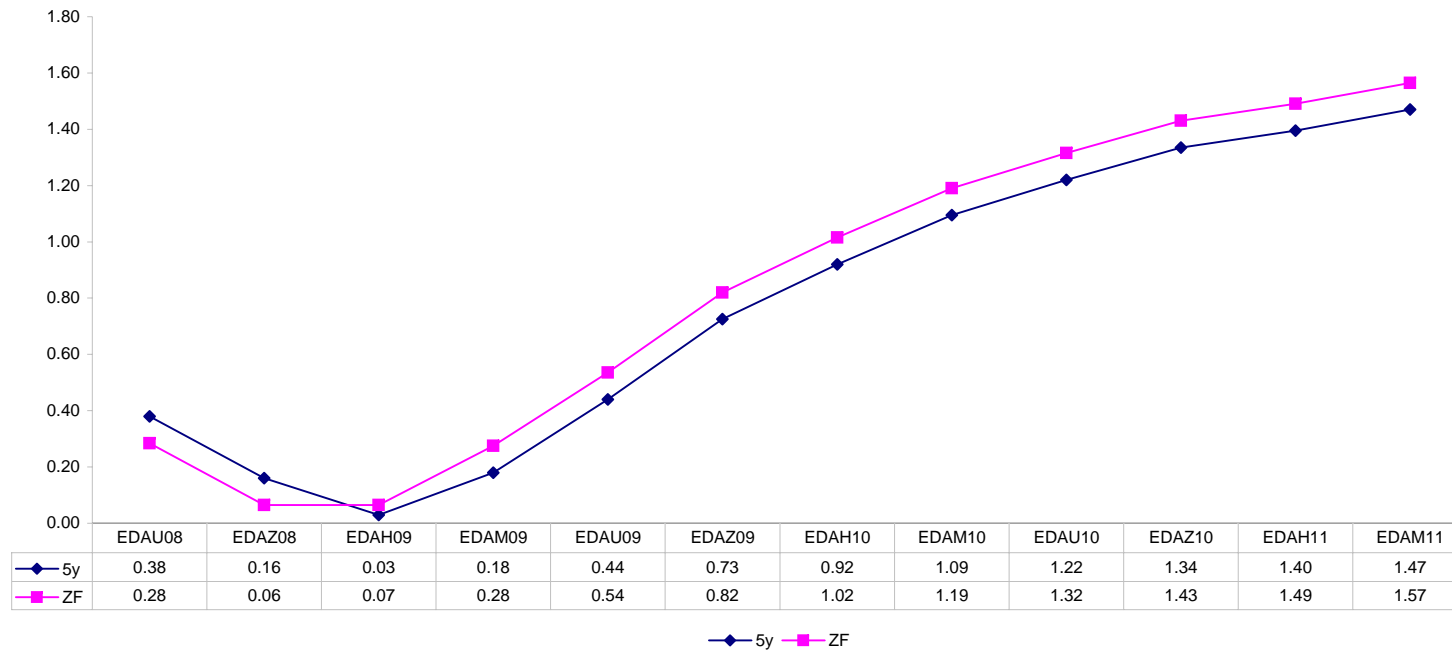
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



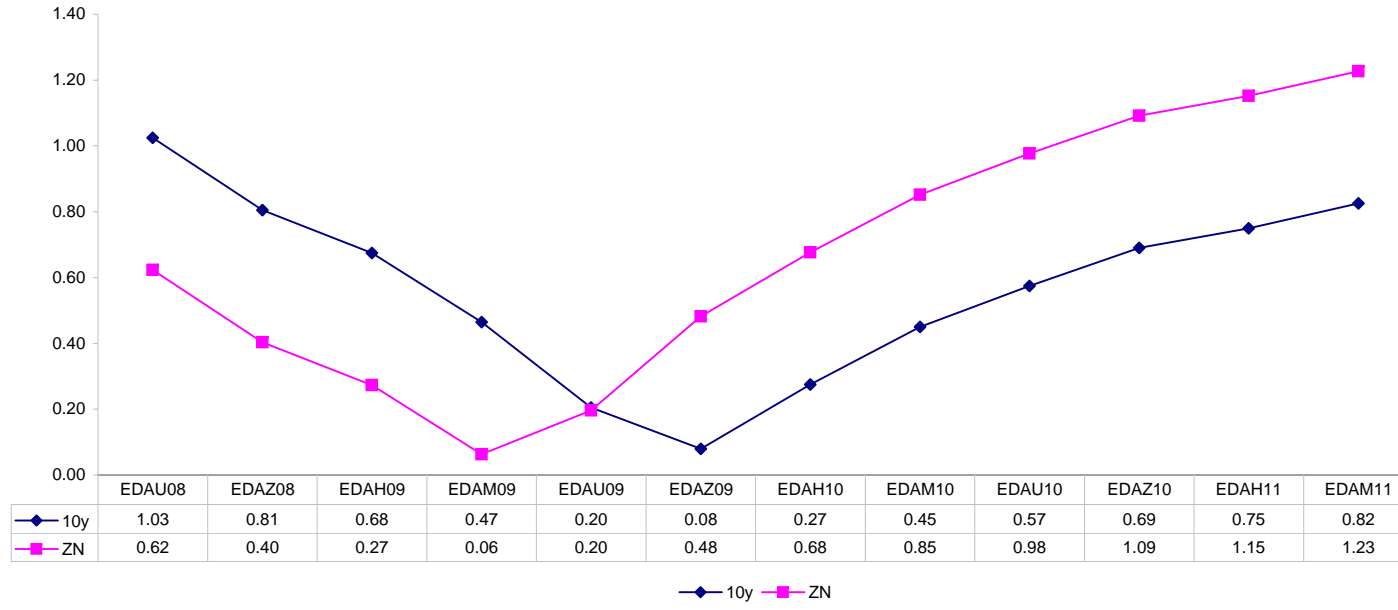
2y Basis TED Curve



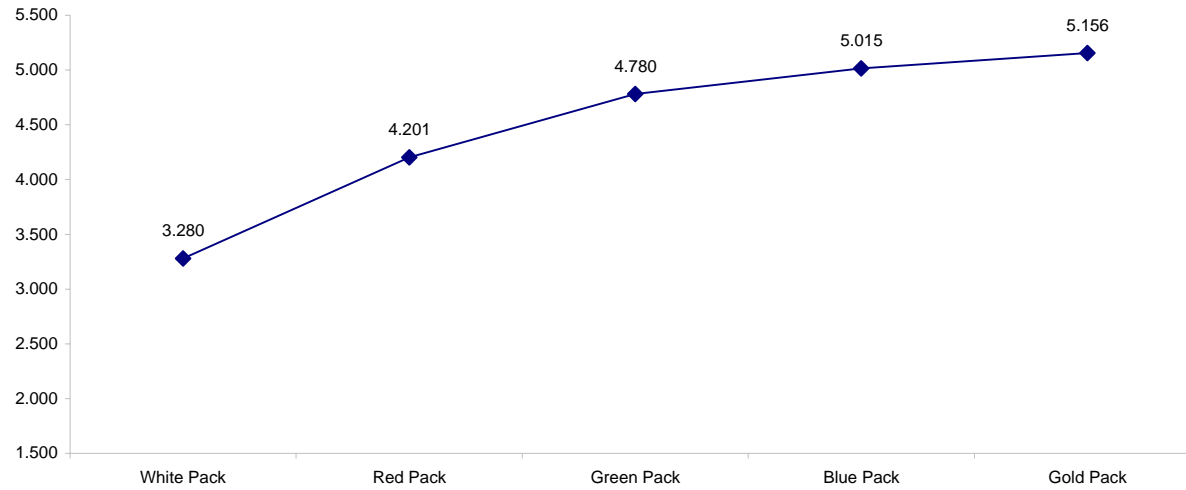
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	3.280	3.125	9679.125
Red Pack	4.201	3.125	9589.875
Green Pack	4.780	2.000	9534.000
Blue Pack	5.015	-1.125	9511.375
Gold Pack	5.156	-1.125	9497.875



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

