

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	106.6156	106.197	2.034	1.94
ZF	112.1000	112.032	2.890	4.13
ZN	115.2656	115.085	3.527	6.27
2y	100.553	100.1770	2.077	1.90
5y	100.641	100.2050	2.983	4.53
10y	101.766	101.2450	3.782	8.09

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	96.455	3.545	82	0.224	DEC	
EDAH09	96.835	3.165	173	0.473	MAR	White Pack
EDAM09	96.825	3.175	264	0.723	JUN	
EDAU09	96.770	3.230	355	0.972	SEP	
EDAZ09	96.520	3.480	446	1.221	DEC	
EDAH10	96.370	3.630	537	1.471	MAR	Red Pack
EDAM10	96.120	3.880	628	1.720	JUN	
EDAU10	95.880	4.120	719	1.969	SEP	
EDAZ10	95.635	4.365	810	2.219	DEC	
EDAH11	95.560	4.440	901	2.468	MAR	Green Pack
EDAM11	95.470	4.530	992	2.717	JUN	
EDAU11	95.430	4.570	1090	2.986	SEP	
EDAZ11	95.385	4.615	1181	3.235	DEC	
EDAH12	95.395	4.605	1272	3.484	MAR	Blue Pack
EDAM12	95.365	4.635	1363	3.734	JUN	
EDAU12	95.305	4.695	1454	3.983	SEP	
EDAZ12	95.280	4.720	1545	4.232	DEC	
EDAH13	95.220	4.780	1636	4.482	MAR	Gold Pack
EDAM13	95.195	4.805	1727	4.731	JUN	
EDZU13	95.010	4.990	1909	5.229	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	3.352	-6.625	9672.125	Pack Prices
Red Pack	3.867	7.125	9622.250	
Green Pack	4.590	7.125	9552.375	
Blue Pack	4.757	6.125	9536.250	
Gold Pack	4.910	6.500	9521.500	

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.

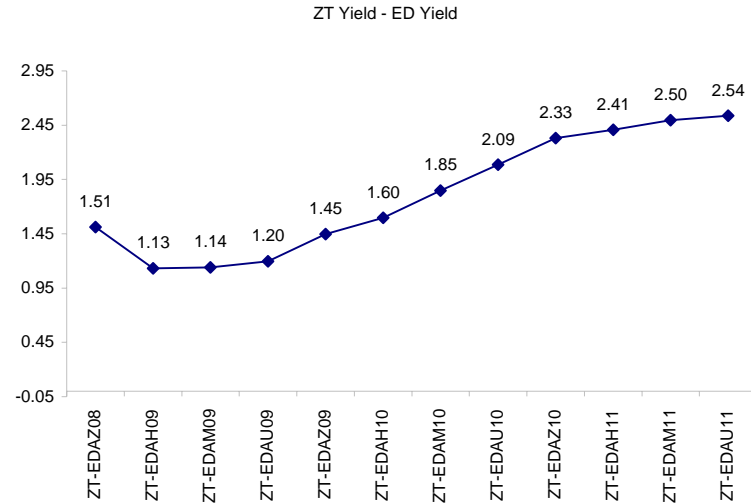
jgoulding@ghco.com

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.

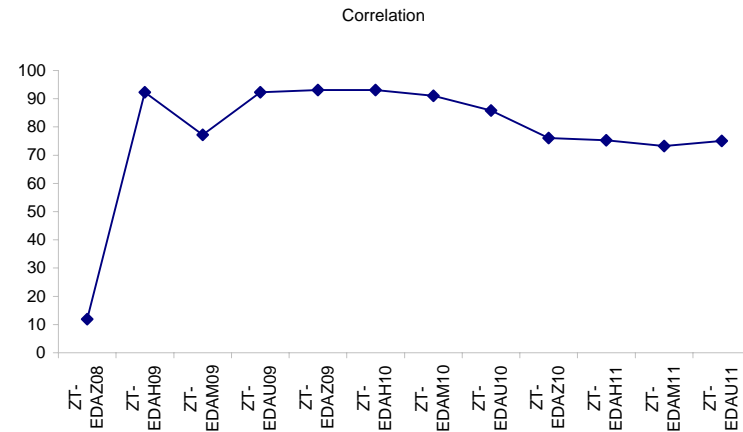
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.161	1.51	ZT-EDAZ08	11.916
EDAH09	9.781	1.13	ZT-EDAH09	92.336
EDAM09	9.791	1.14	ZT-EDAM09	77.216
EDAU09	9.846	1.20	ZT-EDAU09	92.336
EDAZ09	10.096	1.45	ZT-EDAZ09	93.140
EDAH10	10.246	1.60	ZT-EDAH10	93.100
EDAM10	10.496	1.85	ZT-EDAM10	91.014
EDAU10	10.736	2.09	ZT-EDAU10	85.845
EDAZ10	10.981	2.33	ZT-EDAZ10	76.039
EDAH11	11.056	2.41	ZT-EDAH11	75.340
EDAM11	11.146	2.50	ZT-EDAM11	73.256
EDAU11	11.186	2.54	ZT-EDAU11	75.013

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	
EDAZ08	0.224	1.94	1.71
EDAH09	0.473	1.94	1.46
EDAM09	0.723	1.94	1.21
EDAU09	0.972	1.94	0.96
EDAZ09	1.221	1.94	0.71
EDAH10	1.471	1.94	0.47
EDAM10	1.720	1.94	0.22
EDAU10	1.969	1.94	(0.03)
EDAZ10	2.219	1.94	(0.28)
EDAH11	2.468	1.94	(0.53)
EDAM11	2.717	1.94	(0.78)
EDAU11	2.986	1.94	(1.05)

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

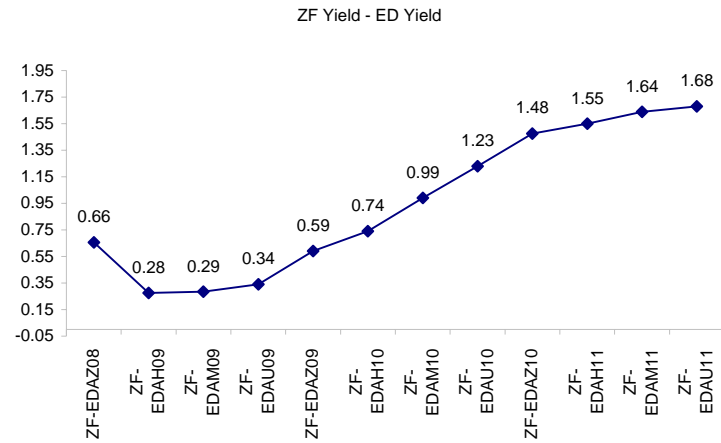


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	15.645	0.66	ZF-EDAZ08	36.456
EDAH09	15.265	0.28	ZF-EDAH09	71.845
EDAM09	15.275	0.29	ZF-EDAM09	90.108
EDAU09	15.330	0.34	ZF-EDAU09	98.191
EDAZ09	15.580	0.59	ZF-EDAZ09	99.318
EDAH10	15.730	0.74	ZF-EDAH10	99.410
EDAM10	15.980	0.99	ZF-EDAM10	99.349
EDAU10	16.220	1.23	ZF-EDAU10	98.370
EDAZ10	16.465	1.48	ZF-EDAZ10	93.967
EDAH11	16.540	1.55	ZF-EDAH11	93.569
EDAM11	16.630	1.64	ZF-EDAM11	92.338
EDAU11	16.670	1.68	ZF-EDAU11	93.266

Price = Outright Decimal Price - Euro Contract Price

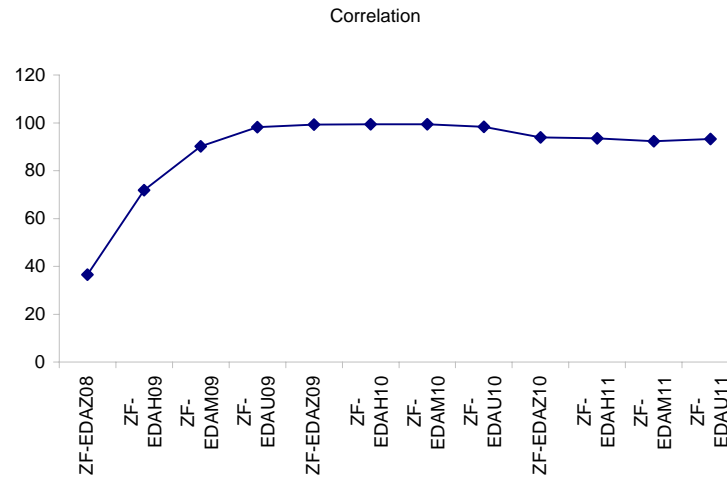
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				
	ZF Duration	Spread Duration		
EDAZ08	0.224	4.13	3.91	ZF-EDAZ08
EDAH09	0.473	4.13	3.66	ZF-EDAH09
EDAM09	0.723	4.13	3.41	ZF-EDAM09
EDAU09	0.972	4.13	3.16	ZF-EDAU09
EDAZ09	1.221	4.13	2.91	ZF-EDAZ09
EDAH10	1.471	4.13	2.66	ZF-EDAH10
EDAM10	1.720	4.13	2.41	ZF-EDAM10
EDAU10	1.969	4.13	2.16	ZF-EDAU10
EDAZ10	2.219	4.13	1.92	ZF-EDAZ10
EDAH11	2.468	4.13	1.67	ZF-EDAH11
EDAM11	2.717	4.13	1.42	ZF-EDAM11
EDAU11	2.986	4.13	1.15	ZF-EDAU11

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

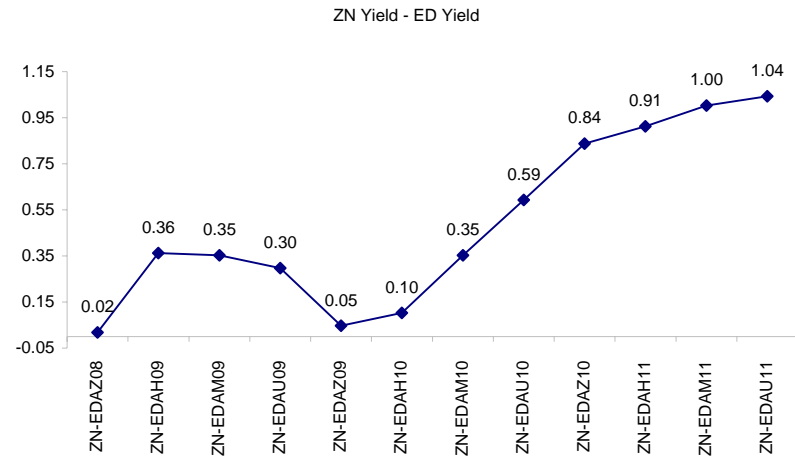


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	18.811	0.02	ZN-EDAZ08	40.989
EDAH09	18.431	0.36	ZN-EDAH09	74.676
EDAM09	18.441	0.35	ZN-EDAM09	91.644
EDAU09	18.496	0.30	ZN-EDAU09	97.998
EDAZ09	18.746	0.05	ZN-EDAZ09	98.937
EDAH10	18.896	0.10	ZN-EDAH10	99.017
EDAM10	19.146	0.35	ZN-EDAM10	99.349
EDAU10	19.386	0.59	ZN-EDAU10	98.370
EDAZ10	19.631	0.84	ZN-EDAZ10	93.967
EDAH11	19.706	0.91	ZN-EDAH11	93.569
EDAM11	19.796	1.00	ZN-EDAM11	92.338
EDAU11	19.836	1.04	ZN-EDAU11	93.266

Price = Outright Decimal Price - Euro Contract Price

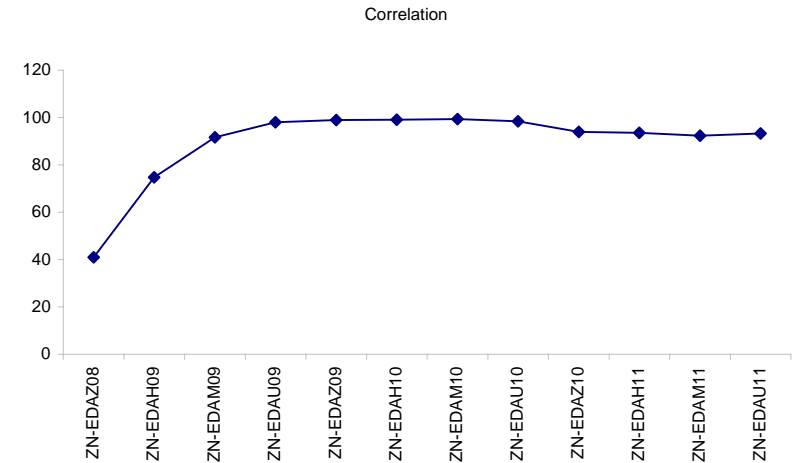
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.224	6.27	6.05	ZN-EDAZ08		
EDAH09	0.473	6.27	5.80	ZN-EDAH09		
EDAM09	0.723	6.27	5.55	ZN-EDAM09		
EDAU09	0.972	6.27	5.30	ZN-EDAU09		
EDAZ09	1.221	6.27	5.05	ZN-EDAZ09		
EDAH10	1.471	6.27	4.80	ZN-EDAH10		
EDAM10	1.720	6.27	4.55	ZN-EDAM10		
EDAU10	1.969	6.27	4.30	ZN-EDAU10		
EDAZ10	2.219	6.27	4.05	ZN-EDAZ10		
EDAH11	2.468	6.27	3.80	ZN-EDAH11		
EDAM11	2.717	6.27	3.55	ZN-EDAM11		
EDAU11	2.986	6.27	3.29	ZN-EDAU11		

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

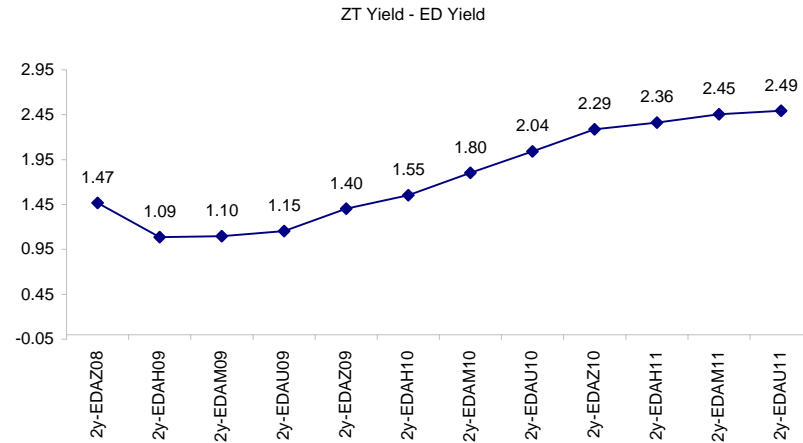


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	4.098	1.47	2y-EDAZ08	-11.013
EDAH09	3.718	1.09	2y-EDAH09	-53.650
EDAM09	3.728	1.10	2y-EDAM09	-75.339
EDAU09	3.783	1.15	2y-EDAU09	-89.177
EDAZ09	4.033	1.40	2y-EDAZ09	-88.629
EDAH10	4.183	1.55	2y-EDAH10	-87.740
EDAM10	4.433	1.80	2y-EDAM10	-85.069
EDAU10	4.673	2.04	2y-EDAU10	-79.804
EDAZ10	4.918	2.29	2y-EDAZ10	-70.827
EDAH11	4.993	2.36	2y-EDAH11	-69.579
EDAM11	5.083	2.45	2y-EDAM11	-68.158
EDAU11	5.123	2.49	2y-EDAU11	-70.269

Price = Outright Decimal Price - Euro Contract Price

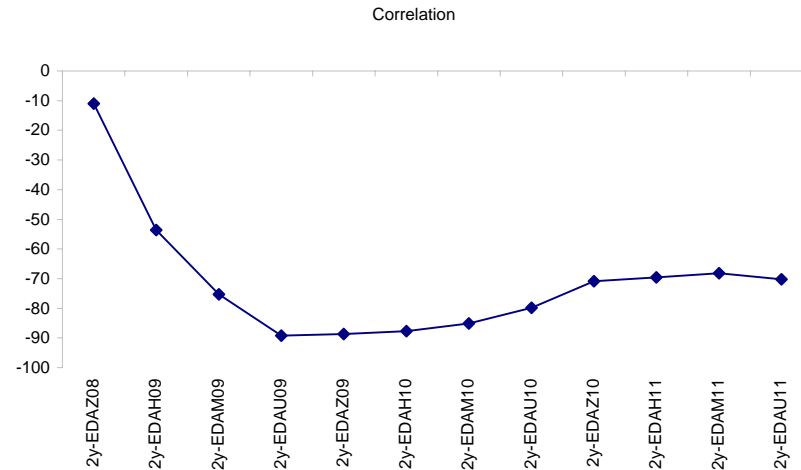
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.224	1.90	1.68	2y-EDAZ08	
EDAH09	0.473	1.90	1.43	2y-EDAH09	
EDAM09	0.723	1.90	1.18	2y-EDAM09	
EDAU09	0.972	1.90	0.93	2y-EDAU09	
EDAZ09	1.221	1.90	0.68	2y-EDAZ09	
EDAH10	1.471	1.90	0.43	2y-EDAH10	
EDAM10	1.720	1.90	0.18	2y-EDAM10	
EDAU10	1.969	1.90	(0.07)	2y-EDAU10	
EDAZ10	2.219	1.90	(0.32)	2y-EDAZ10	
EDAH11	2.468	1.90	(0.57)	2y-EDAH11	
EDAM11	2.717	1.90	(0.82)	2y-EDAM11	
EDAU11	2.986	1.90	(1.09)	2y-EDAU11	

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

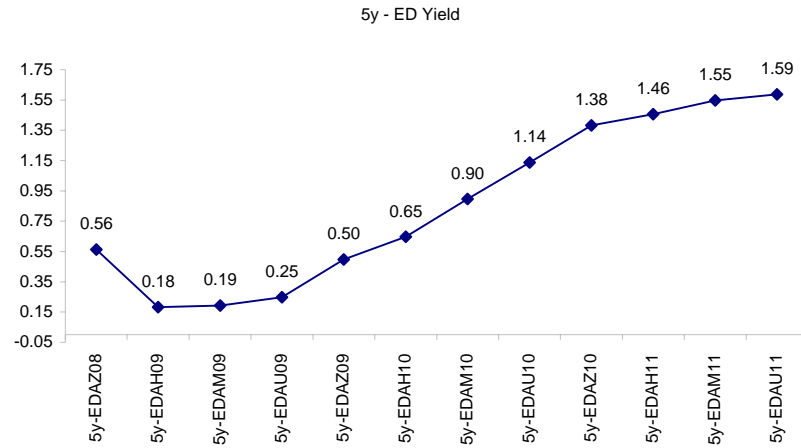


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	4.186	0.56	5y-EDAZ08	-40.734
EDAH09	3.806	0.18	5y-EDAH09	-76.274
EDAM09	3.816	0.19	5y-EDAM09	-91.280
EDAU09	3.871	0.25	5y-EDAU09	-95.989
EDAZ09	4.121	0.50	5y-EDAZ09	-95.124
EDAH10	4.271	0.65	5y-EDAH10	-93.764
EDAM10	4.521	0.90	5y-EDAM10	-93.036
EDAU10	4.761	1.14	5y-EDAU10	-92.279
EDAZ10	5.006	1.38	5y-EDAZ10	-89.413
EDAH11	5.081	1.46	5y-EDAH11	-88.422
EDAM11	5.171	1.55	5y-EDAM11	-88.098
EDAU11	5.211	1.59	5y-EDAU11	-89.353

Price = Outright Decimal Price - Euro Contract Price

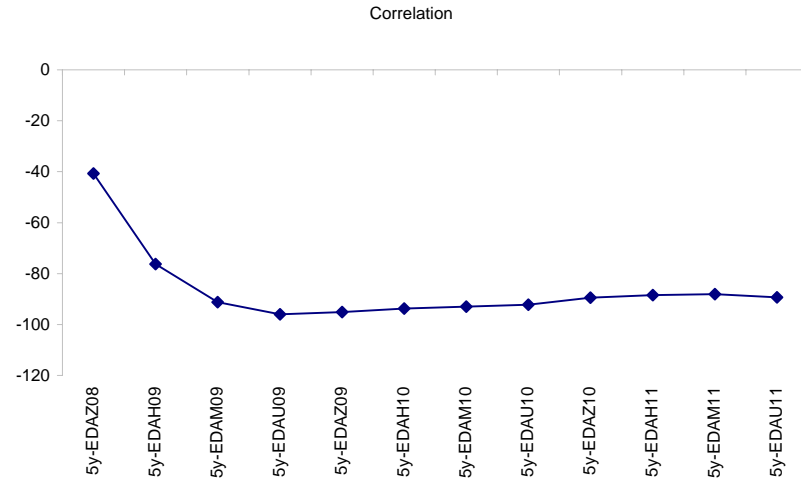
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAZ08	0.224	4.53	4.31	5y-EDAZ08
EDAH09	0.473	4.53	4.06	5y-EDAH09
EDAM09	0.723	4.53	3.81	5y-EDAM09
EDAU09	0.972	4.53	3.56	5y-EDAU09
EDAZ09	1.221	4.53	3.31	5y-EDAZ09
EDAH10	1.471	4.53	3.06	5y-EDAH10
EDAM10	1.720	4.53	2.81	5y-EDAM10
EDAU10	1.969	4.53	2.56	5y-EDAU10
EDAZ10	2.219	4.53	2.31	5y-EDAZ10
EDAH11	2.468	4.53	2.06	5y-EDAH11
EDAM11	2.717	4.53	1.82	5y-EDAM11
EDAU11	2.986	4.53	1.55	5y-EDAU11

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

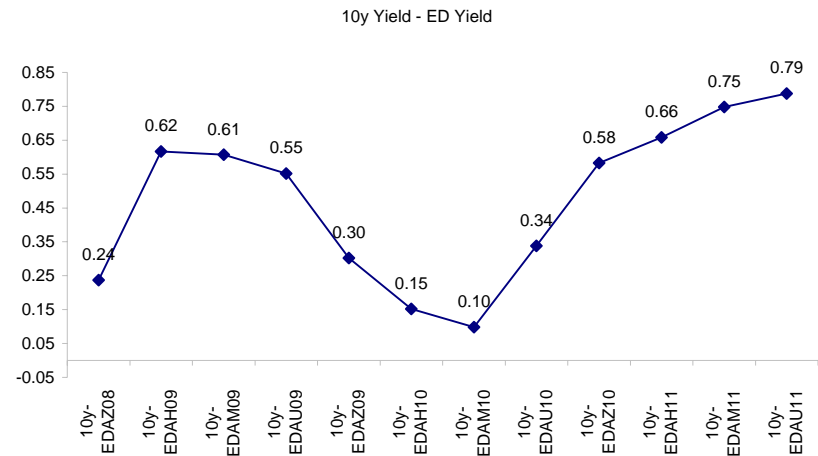


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	4.186	0.24	10y-EDAZ08	-56.743
EDAH09	3.806	0.62	10y-EDAH09	-85.456
EDAM09	3.816	0.61	10y-EDAM09	-94.927
EDAU09	3.871	0.55	10y-EDAU09	-93.350
EDAZ09	4.121	0.30	10y-EDAZ09	-92.048
EDAH10	4.271	0.15	10y-EDAH10	-90.164
EDAM10	4.521	0.10	10y-EDAM10	-90.476
EDAU10	4.761	0.34	10y-EDAU10	-92.403
EDAZ10	5.006	0.58	10y-EDAZ10	-93.479
EDAH11	5.081	0.66	10y-EDAH11	-92.598
EDAM11	5.171	0.75	10y-EDAM11	-93.118
EDAU11	5.211	0.79	10y-EDAU11	-93.842

Price = Outright Decimal Price - Euro Contract Price

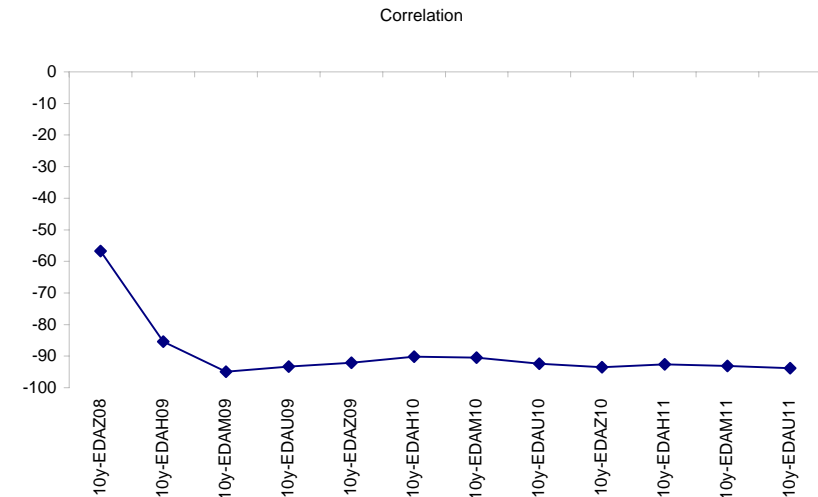
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAZ08	0.224	8.09	7.87	10y-EDAZ08
EDAH09	0.473	8.09	7.62	10y-EDAH09
EDAM09	0.723	8.09	7.37	10y-EDAM09
EDAU09	0.972	8.09	7.12	10y-EDAU09
EDAZ09	1.221	8.09	6.87	10y-EDAZ09
EDAH10	1.471	8.09	6.62	10y-EDAH10
EDAM10	1.720	8.09	6.37	10y-EDAM10
EDAU10	1.969	8.09	6.12	10y-EDAU10
EDAZ10	2.219	8.09	5.87	10y-EDAZ10
EDAH11	2.468	8.09	5.62	10y-EDAH11
EDAM11	2.717	8.09	5.38	10y-EDAM11
EDAU11	2.986	8.09	5.11	10y-EDAU11

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.

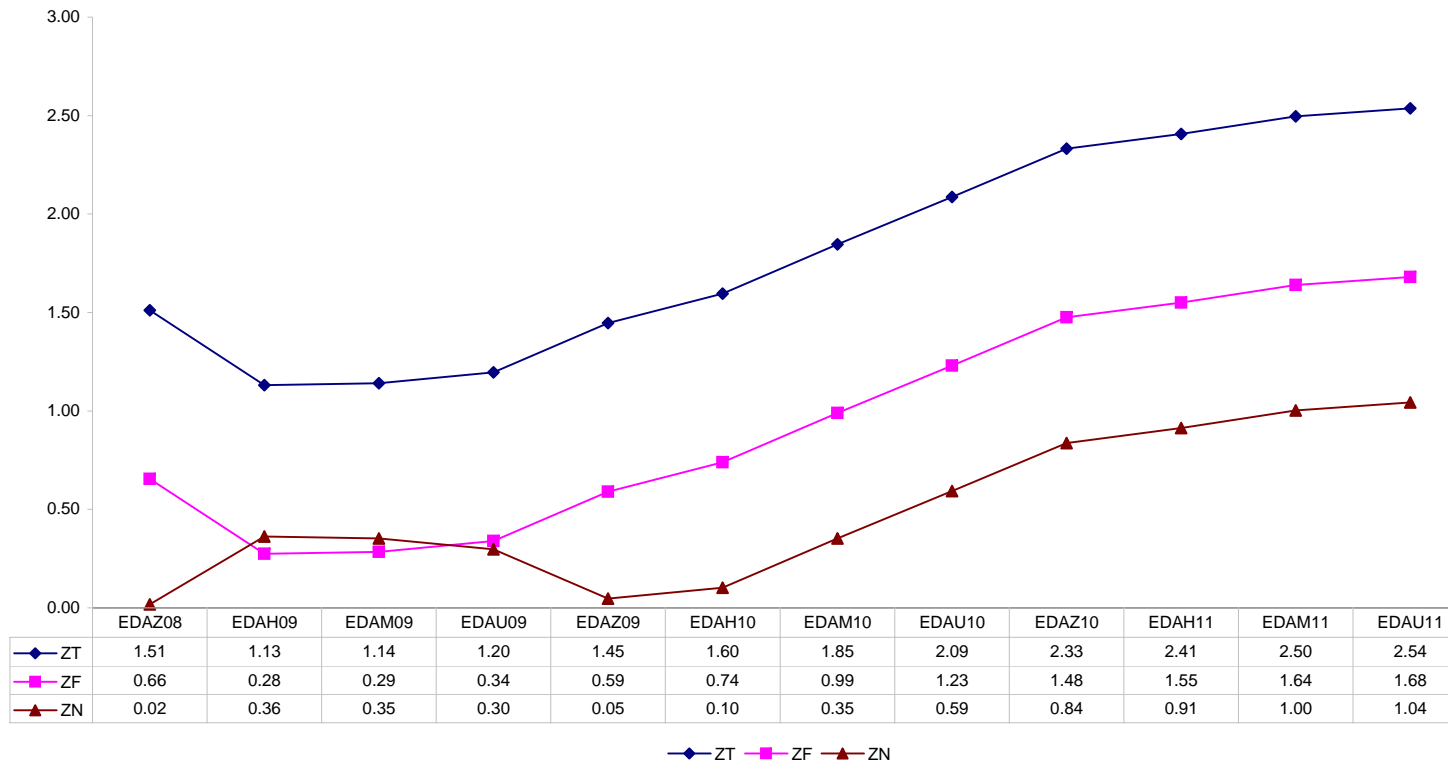
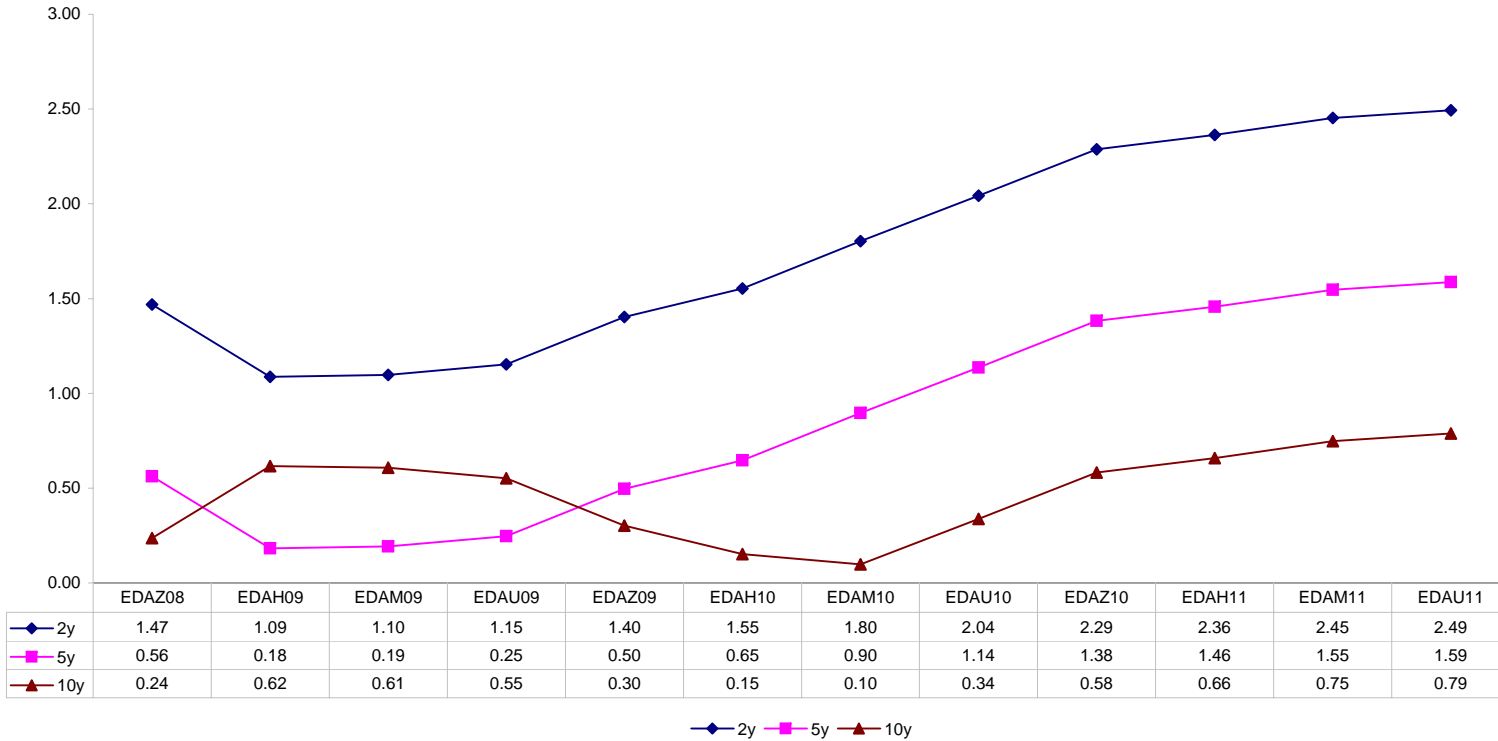
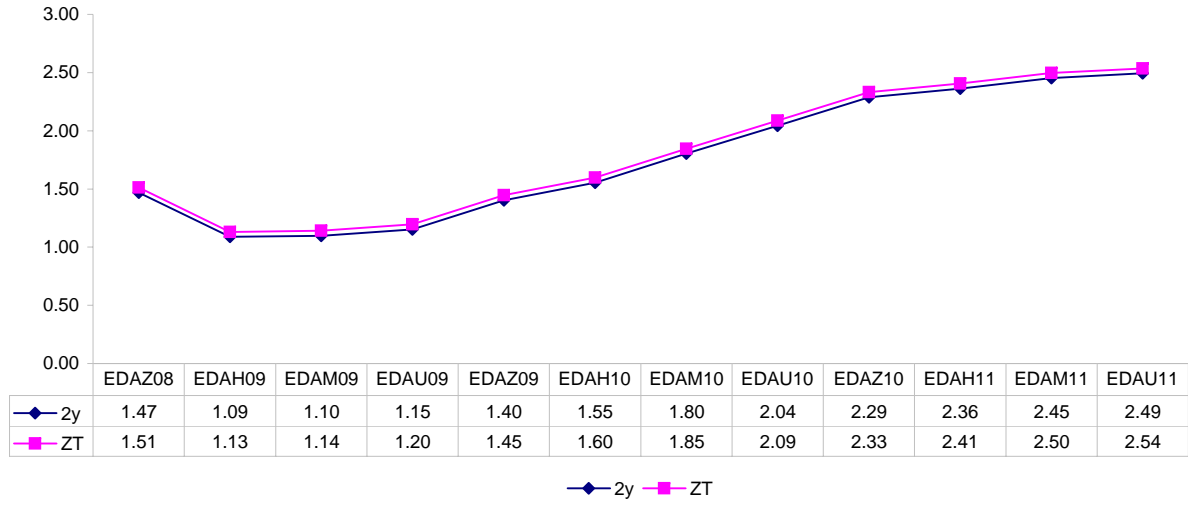


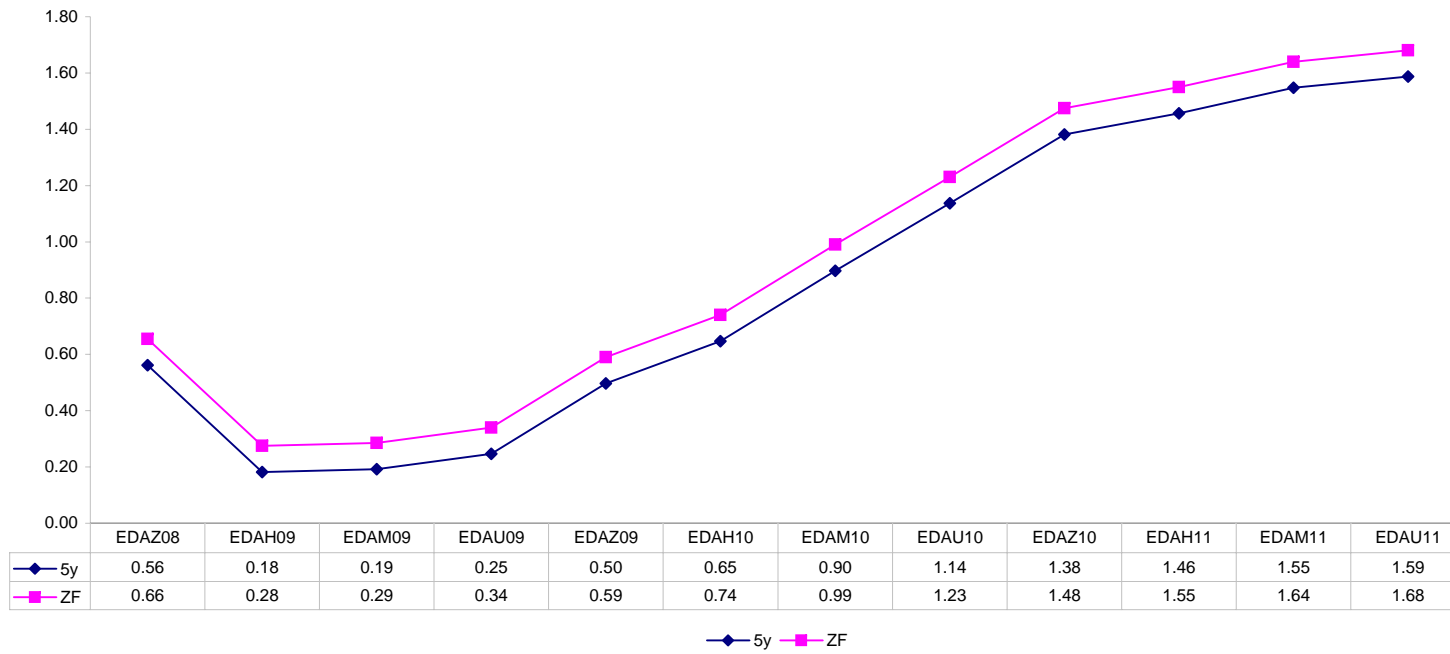
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



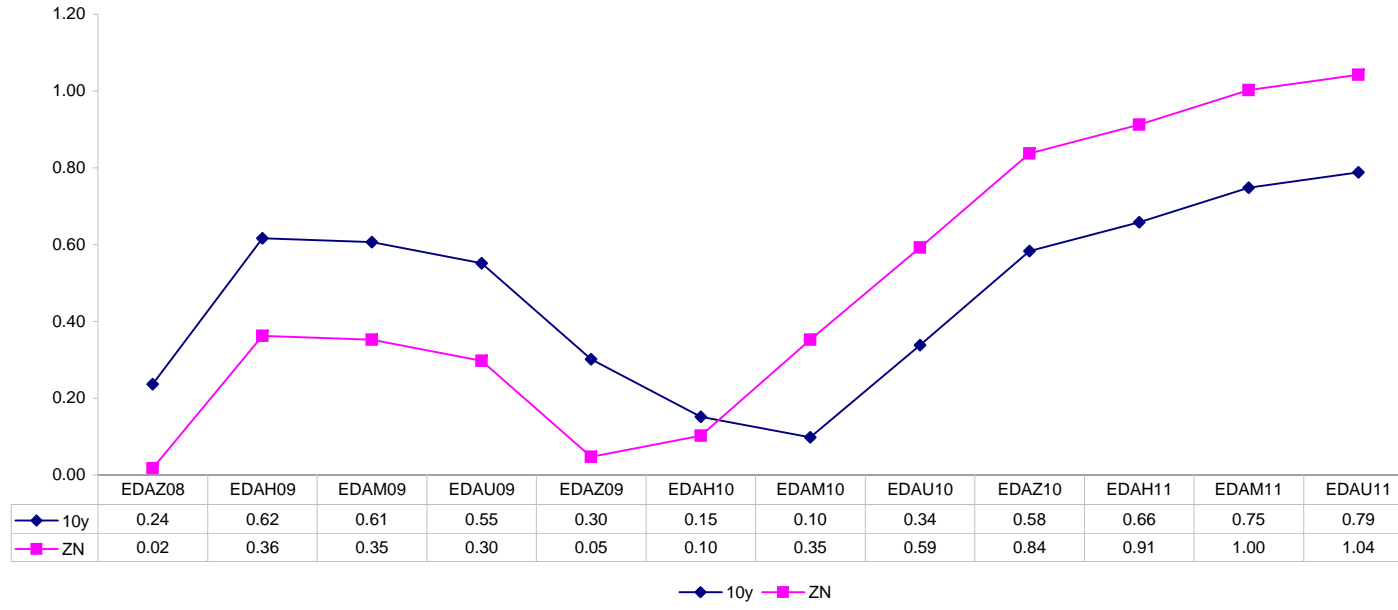
2y Basis TED Curve



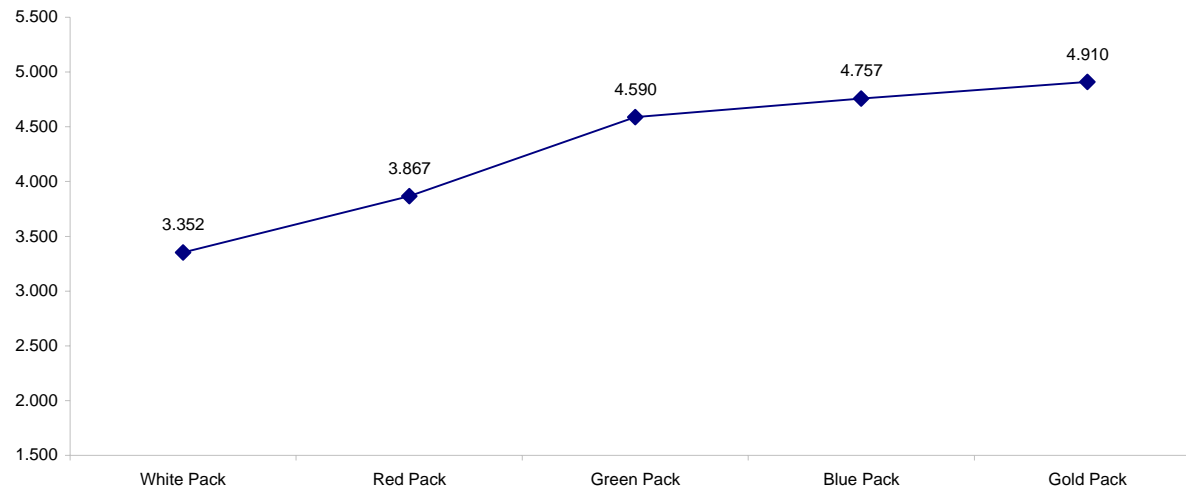
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	3.352	-6.625	9672.125
Red Pack	3.867	7.125	9622.250
Green Pack	4.590	7.125	9552.375
Blue Pack	4.757	6.125	9536.250
Gold Pack	4.910	6.500	9521.500



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

