

The Morning Email: TERM TEDS & Dirty TEDS

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Want something added? Let me know: jgoulding@ghco.com

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Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	106.2875	106.092	2.178	1.81
ZF	112.1625	112.052	2.877	3.96
ZN	116.2500	116.080	3.520	5.91
2y	99.109	99.0350	2.223	1.89
5y	97.906	97.2900	2.958	4.59
10y	98.328	98.1050	3.702	8.17

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.130	2.870	54	0.147	JUN
EDAU08	97.120	2.880	145	0.397	SEP White
EDAZ08	97.025	2.975	236	0.646	DEC Pack
EDAH09	97.015	2.985	327	0.895	MAR
EDAM09	96.885	3.115	418	1.145	JUN
EDAU09	96.735	3.265	509	1.394	SEP Red Pack
EDAZ09	96.540	3.460	600	1.643	DEC
EDAH10	96.425	3.575	691	1.892	MAR
EDAM10	96.265	3.735	782	2.142	JUN
EDAU10	96.110	3.890	873	2.391	SEP Green Pack
EDAZ10	95.965	4.035	964	2.640	DEC
EDAH11	95.865	4.135	1055	2.890	MAR
EDAM11	95.760	4.240	1146	3.139	JUN
EDAU11	95.645	4.355	1244	3.408	SEP Blue Pack
EDAZ11	95.555	4.445	1335	3.657	DEC
EDAH12	95.500	4.500	1426	3.906	MAR
EDAM12	95.415	4.585	1517	4.155	JUN
EDAU12	95.350	4.650	1608	4.405	SEP Gold Pack
EDAZ12	95.260	4.740	1699	4.654	DEC
EDAH13	95.195	4.805	1790	4.903	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.990	-0.250	9707.250	Pack Prices
Red Pack	3.429	-0.250	9664.625	
Green Pack	4.044	0.875	9605.125	
Blue Pack	4.495	1.625	9561.500	
Gold Pack	4.817	1.000	9530.500	

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.

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.

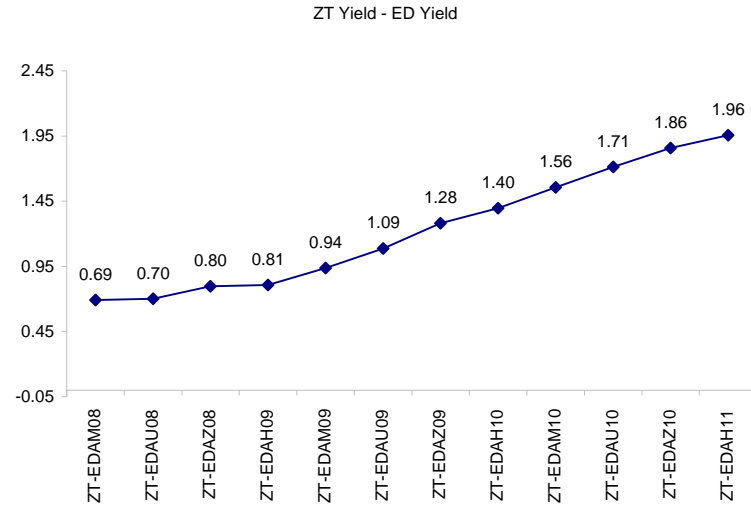
jgoulding@ghco.com

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.

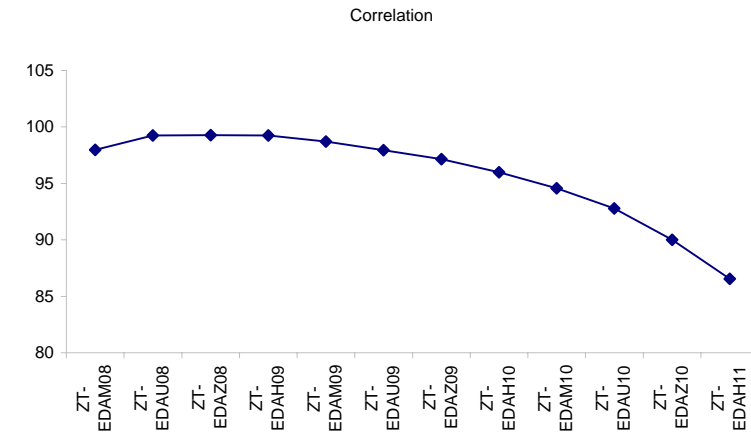
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	9.158	0.69	ZT-EDAM08	97.976
EDAU08	9.167	0.70	ZT-EDAU08	99.250
EDAZ08	9.262	0.80	ZT-EDAZ08	99.284
EDAH09	9.272	0.81	ZT-EDAH09	99.243
EDAM09	9.402	0.94	ZT-EDAM09	98.701
EDAU09	9.552	1.09	ZT-EDAU09	97.955
EDAZ09	9.747	1.28	ZT-EDAZ09	97.138
EDAH10	9.863	1.40	ZT-EDAH10	95.988
EDAM10	10.023	1.56	ZT-EDAM10	94.573
EDAU10	10.178	1.71	ZT-EDAU10	92.790
EDAZ10	10.323	1.86	ZT-EDAZ10	90.013
EDAH11	10.423	1.96	ZT-EDAH11	86.543

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	
EDAM08	0.147	1.81	1.67	ZT-EDAM08		
EDAU08	0.397	1.81	1.42	ZT-EDAU08		
EDAZ08	0.646	1.81	1.17	ZT-EDAZ08		
EDAH09	0.895	1.81	0.92	ZT-EDAH09		
EDAM09	1.145	1.81	0.67	ZT-EDAM09		
EDAU09	1.394	1.81	0.42	ZT-EDAU09		
EDAZ09	1.643	1.81	0.17	ZT-EDAZ09		
EDAH10	1.892	1.81	(0.08)	ZT-EDAH10		
EDAM10	2.142	1.81	(0.33)	ZT-EDAM10		
EDAU10	2.391	1.81	(0.58)	ZT-EDAU10		
EDAZ10	2.640	1.81	(0.83)	ZT-EDAZ10		
EDAH11	2.890	1.81	(1.08)	ZT-EDAH11		

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

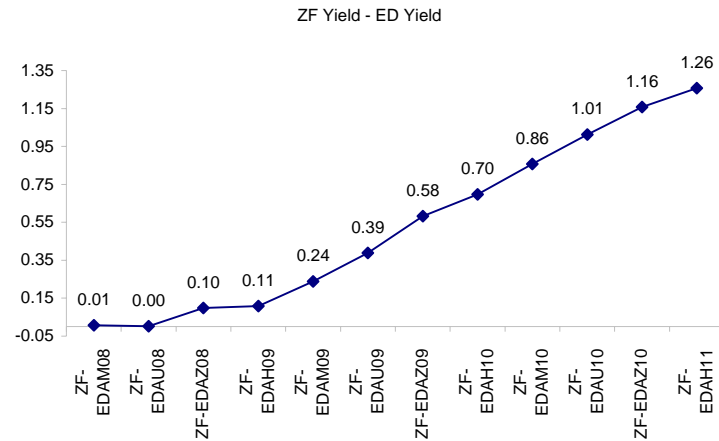


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	15.033	0.01	ZF-EDAM08	98.193
EDAU08	15.043	0.00	ZF-EDAU08	98.911
EDAZ08	15.138	0.10	ZF-EDAZ08	99.265
EDAH09	15.148	0.11	ZF-EDAH09	99.466
EDAM09	15.278	0.24	ZF-EDAM09	99.279
EDAU09	15.428	0.39	ZF-EDAU09	98.835
EDAZ09	15.623	0.58	ZF-EDAZ09	98.241
EDAH10	15.738	0.70	ZF-EDAH10	97.497
EDAM10	15.898	0.86	ZF-EDAM10	96.512
EDAU10	16.053	1.01	ZF-EDAU10	95.154
EDAZ10	16.198	1.16	ZF-EDAZ10	92.875
EDAH11	16.298	1.26	ZF-EDAH11	89.981

Price = Outright Decimal Price - Euro Contract Price

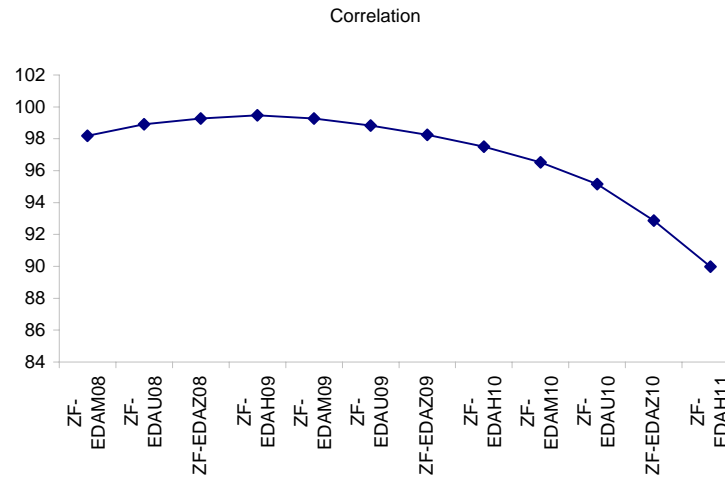
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.147	3.96	3.81	ZF-EDAM08	
EDAU08	0.397	3.96	3.56	ZF-EDAU08	
EDAZ08	0.646	3.96	3.31	ZF-EDAZ08	
EDAH09	0.895	3.96	3.06	ZF-EDAH09	
EDAM09	1.145	3.96	2.81	ZF-EDAM09	
EDAU09	1.394	3.96	2.56	ZF-EDAU09	
EDAZ09	1.643	3.96	2.31	ZF-EDAZ09	
EDAH10	1.892	3.96	2.06	ZF-EDAH10	
EDAM10	2.142	3.96	1.82	ZF-EDAM10	
EDAU10	2.391	3.96	1.57	ZF-EDAU10	
EDAZ10	2.640	3.96	1.32	ZF-EDAZ10	
EDAH11	2.890	3.96	1.07	ZF-EDAH11	

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

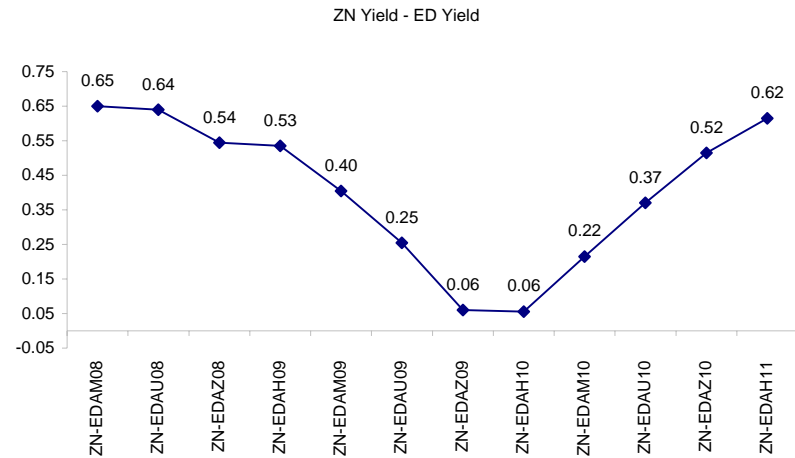


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	19.120	0.65	ZN-EDAM08	97.128
EDAU08	19.130	0.64	ZN-EDAU08	96.758
EDAZ08	19.225	0.54	ZN-EDAZ08	97.667
EDAH09	19.235	0.53	ZN-EDAH09	98.202
EDAM09	19.365	0.40	ZN-EDAM09	98.759
EDAU09	19.515	0.25	ZN-EDAU09	98.988
EDAZ09	19.710	0.06	ZN-EDAZ09	99.001
EDAH10	19.825	0.06	ZN-EDAH10	97.497
EDAM10	19.985	0.22	ZN-EDAM10	96.512
EDAU10	20.140	0.37	ZN-EDAU10	95.154
EDAZ10	20.285	0.52	ZN-EDAZ10	92.875
EDAH11	20.385	0.62	ZN-EDAH11	89.981

Price = Outright Decimal Price - Euro Contract Price

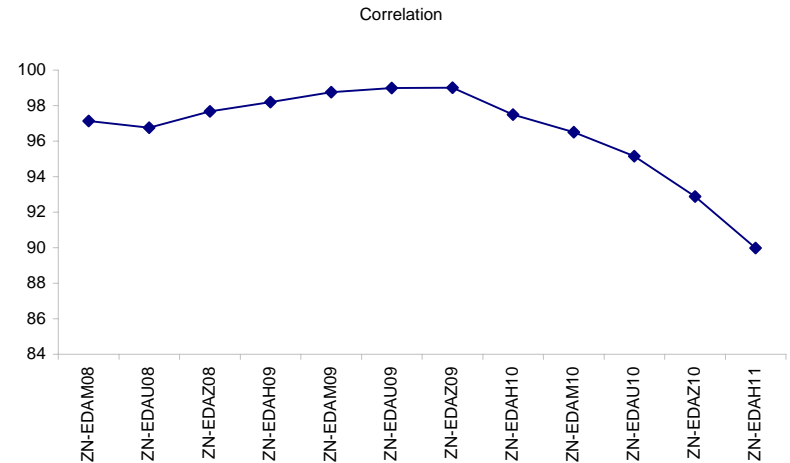
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAM08	0.147	5.91	5.77	ZN-EDAM08
EDAU08	0.397	5.91	5.52	ZN-EDAU08
EDAZ08	0.646	5.91	5.27	ZN-EDAZ08
EDAH09	0.895	5.91	5.02	ZN-EDAH09
EDAM09	1.145	5.91	4.77	ZN-EDAM09
EDAU09	1.394	5.91	4.52	ZN-EDAU09
EDAZ09	1.643	5.91	4.27	ZN-EDAZ09
EDAH10	1.892	5.91	4.02	ZN-EDAH10
EDAM10	2.142	5.91	3.77	ZN-EDAM10
EDAU10	2.391	5.91	3.52	ZN-EDAU10
EDAZ10	2.640	5.91	3.27	ZN-EDAZ10
EDAH11	2.890	5.91	3.02	ZN-EDAH11

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

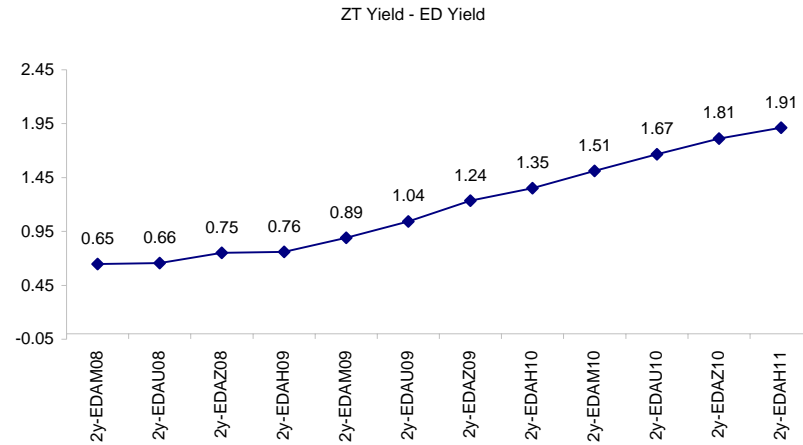


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	1.979	0.65	2y-EDAM08	-96.868
EDAU08	1.989	0.66	2y-EDAU08	-99.040
EDAZ08	2.084	0.75	2y-EDAZ08	-99.191
EDAH09	2.094	0.76	2y-EDAH09	-99.207
EDAM09	2.224	0.89	2y-EDAM09	-98.555
EDAU09	2.374	1.04	2y-EDAU09	-97.698
EDAZ09	2.569	1.24	2y-EDAZ09	-96.734
EDAH10	2.684	1.35	2y-EDAH10	-95.401
EDAM10	2.844	1.51	2y-EDAM10	-93.860
EDAU10	2.999	1.67	2y-EDAU10	-91.942
EDAZ10	3.144	1.81	2y-EDAZ10	-89.139
EDAH11	3.244	1.91	2y-EDAH11	-85.539

Price = Outright Decimal Price - Euro Contract Price

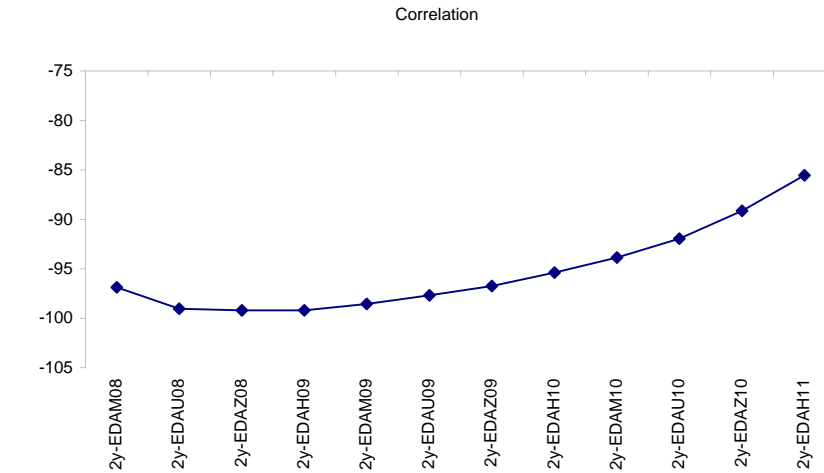
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			2Y Duration	Spread Duration	
EDAM08	0.147	1.89	1.74	2y-EDAM08		
EDAU08	0.397	1.89	1.49	2y-EDAU08		
EDAZ08	0.646	1.89	1.24	2y-EDAZ08		
EDAH09	0.895	1.89	0.99	2y-EDAH09		
EDAM09	1.145	1.89	0.74	2y-EDAM09		
EDAU09	1.394	1.89	0.49	2y-EDAU09		
EDAZ09	1.643	1.89	0.24	2y-EDAZ09		
EDAH10	1.892	1.89	(0.01)	2y-EDAH10		
EDAM10	2.142	1.89	(0.25)	2y-EDAM10		
EDAU10	2.391	1.89	(0.50)	2y-EDAU10		
EDAZ10	2.640	1.89	(0.75)	2y-EDAZ10		
EDAH11	2.890	1.89	(1.00)	2y-EDAH11		

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

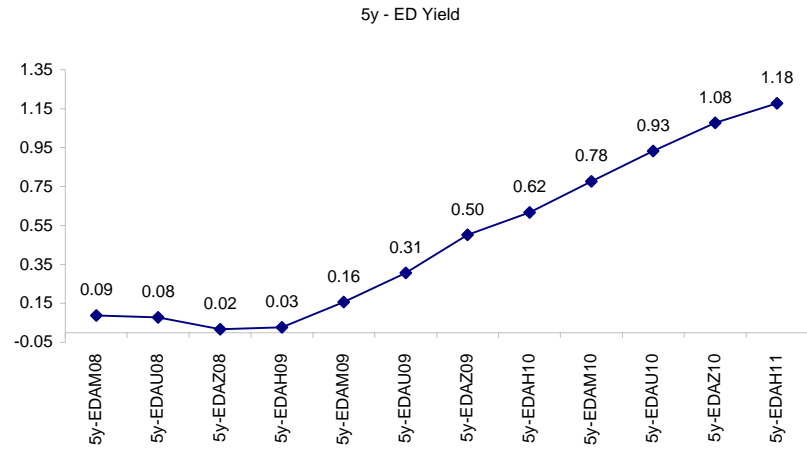


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	0.776	0.09	5y-EDAM08	-96.422
EDAU08	0.786	0.08	5y-EDAU08	-97.947
EDAZ08	0.881	0.02	5y-EDAZ08	-96.422
EDAH09	0.891	0.03	5y-EDAH09	-99.046
EDAM09	1.021	0.16	5y-EDAM09	-98.892
EDAU09	1.171	0.31	5y-EDAU09	-98.484
EDAZ09	1.366	0.50	5y-EDAZ09	-97.851
EDAH10	1.481	0.62	5y-EDAH10	-97.130
EDAM10	1.641	0.78	5y-EDAM10	-96.252
EDAU10	1.796	0.93	5y-EDAU10	-94.983
EDAZ10	1.941	1.08	5y-EDAZ10	-92.929
EDAH11	2.041	1.18	5y-EDAH11	-90.162

Price = Outright Decimal Price - Euro Contract Price

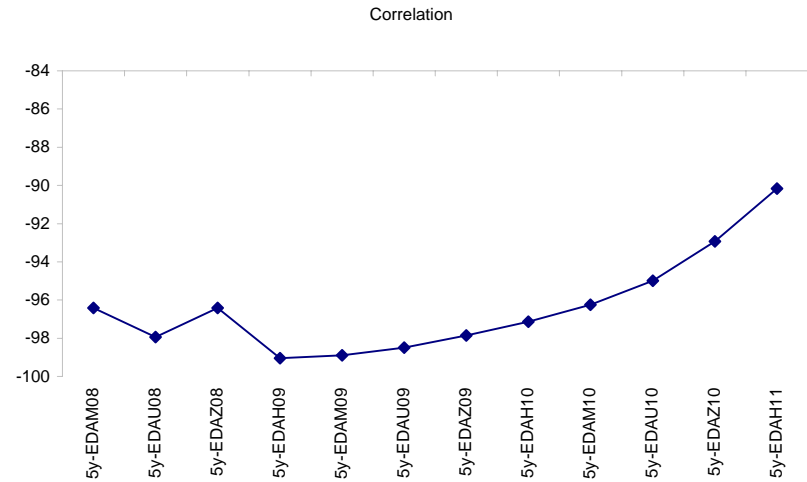
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.147	4.59	4.45	5y-EDAM08
EDAU08	0.397	4.59	4.20	5y-EDAU08
EDAZ08	0.646	4.59	3.95	5y-EDAZ08
EDAH09	0.895	4.59	3.70	5y-EDAH09
EDAM09	1.145	4.59	3.45	5y-EDAM09
EDAU09	1.394	4.59	3.20	5y-EDAU09
EDAZ09	1.643	4.59	2.95	5y-EDAZ09
EDAH10	1.892	4.59	2.70	5y-EDAH10
EDAM10	2.142	4.59	2.45	5y-EDAM10
EDAU10	2.391	4.59	2.20	5y-EDAU10
EDAZ10	2.640	4.59	1.95	5y-EDAZ10
EDAH11	2.890	4.59	1.70	5y-EDAH11

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

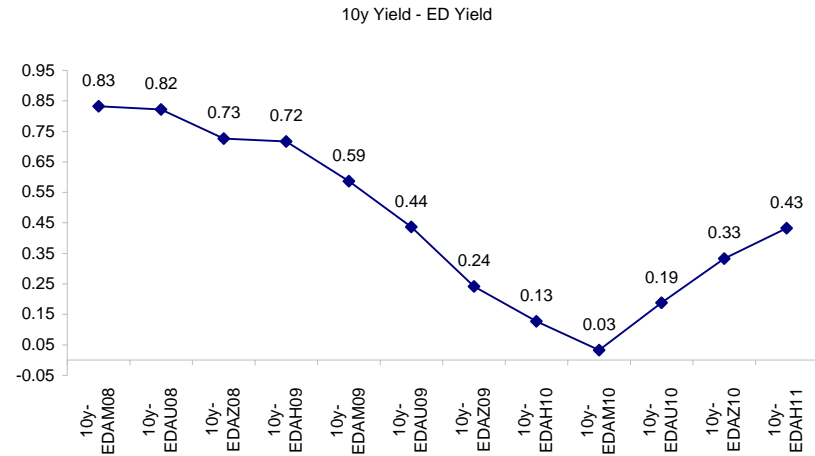


10y				Correlation* (percent)
Spread Price	Spread Yield	Spread Name		
EDAM08	0.776	0.83	10y-EDAM08	-92.850
EDAU08	0.786	0.82	10y-EDAU08	-92.151
EDAZ08	0.881	0.73	10y-EDAZ08	-92.850
EDAH09	0.891	0.72	10y-EDAH09	-94.358
EDAM09	1.021	0.59	10y-EDAM09	-95.386
EDAU09	1.171	0.44	10y-EDAU09	-96.238
EDAZ09	1.366	0.24	10y-EDAZ09	-96.805
EDAH10	1.481	0.13	10y-EDAH10	-97.390
EDAM10	1.641	0.03	10y-EDAM10	-97.842
EDAU10	1.796	0.19	10y-EDAU10	-97.964
EDAZ10	1.941	0.33	10y-EDAZ10	-97.840
EDAH11	2.041	0.43	10y-EDAH11	-96.991

Price = Outright Decimal Price - Euro Contract Price

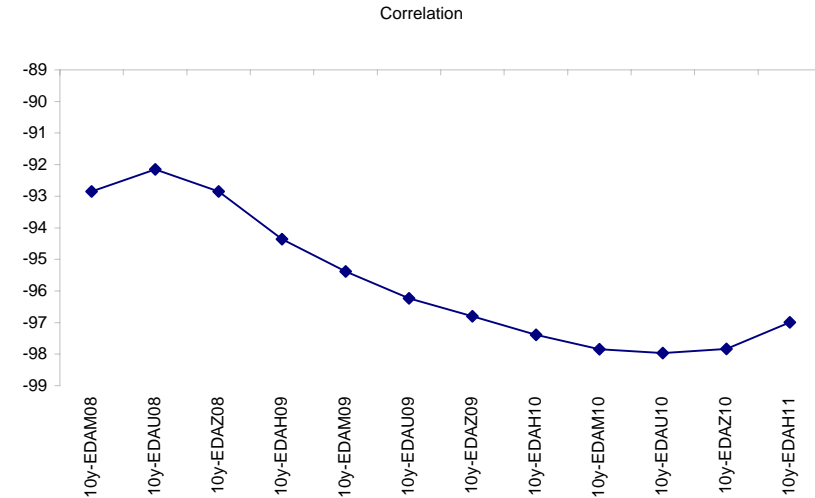
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as				Spread Duration	Contract Name
Fraction of year	10Y Duration	Spread Duration			
EDAM08	0.147	8.17	8.02	10y-EDAM08	
EDAU08	0.397	8.17	7.77	10y-EDAU08	
EDAZ08	0.646	8.17	7.52	10y-EDAZ08	
EDAH09	0.895	8.17	7.27	10y-EDAH09	
EDAM09	1.145	8.17	7.02	10y-EDAM09	
EDAU09	1.394	8.17	6.77	10y-EDAU09	
EDAZ09	1.643	8.17	6.52	10y-EDAZ09	
EDAH10	1.892	8.17	6.27	10y-EDAH10	
EDAM10	2.142	8.17	6.02	10y-EDAM10	
EDAU10	2.391	8.17	5.78	10y-EDAU10	
EDAZ10	2.640	8.17	5.53	10y-EDAZ10	
EDAH11	2.890	8.17	5.28	10y-EDAH11	

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.

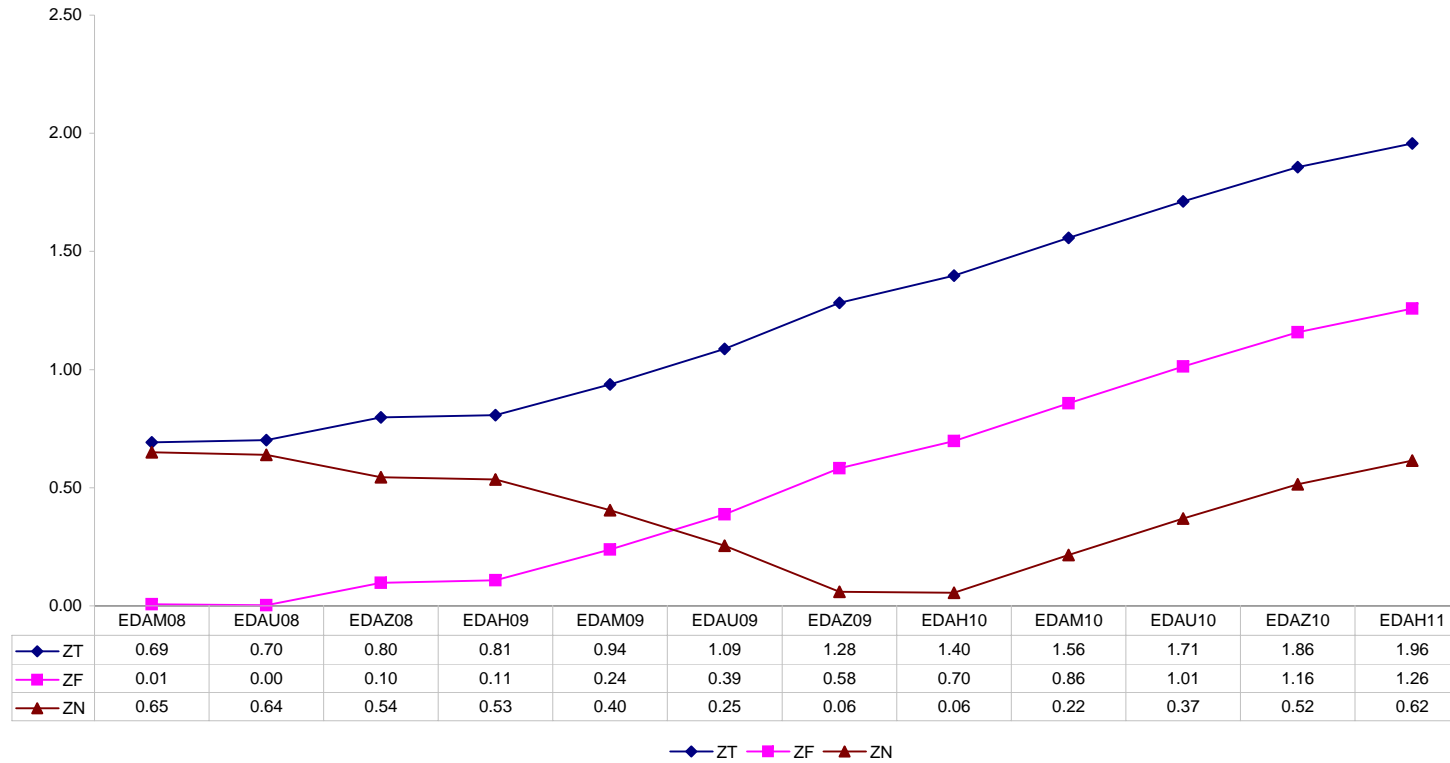
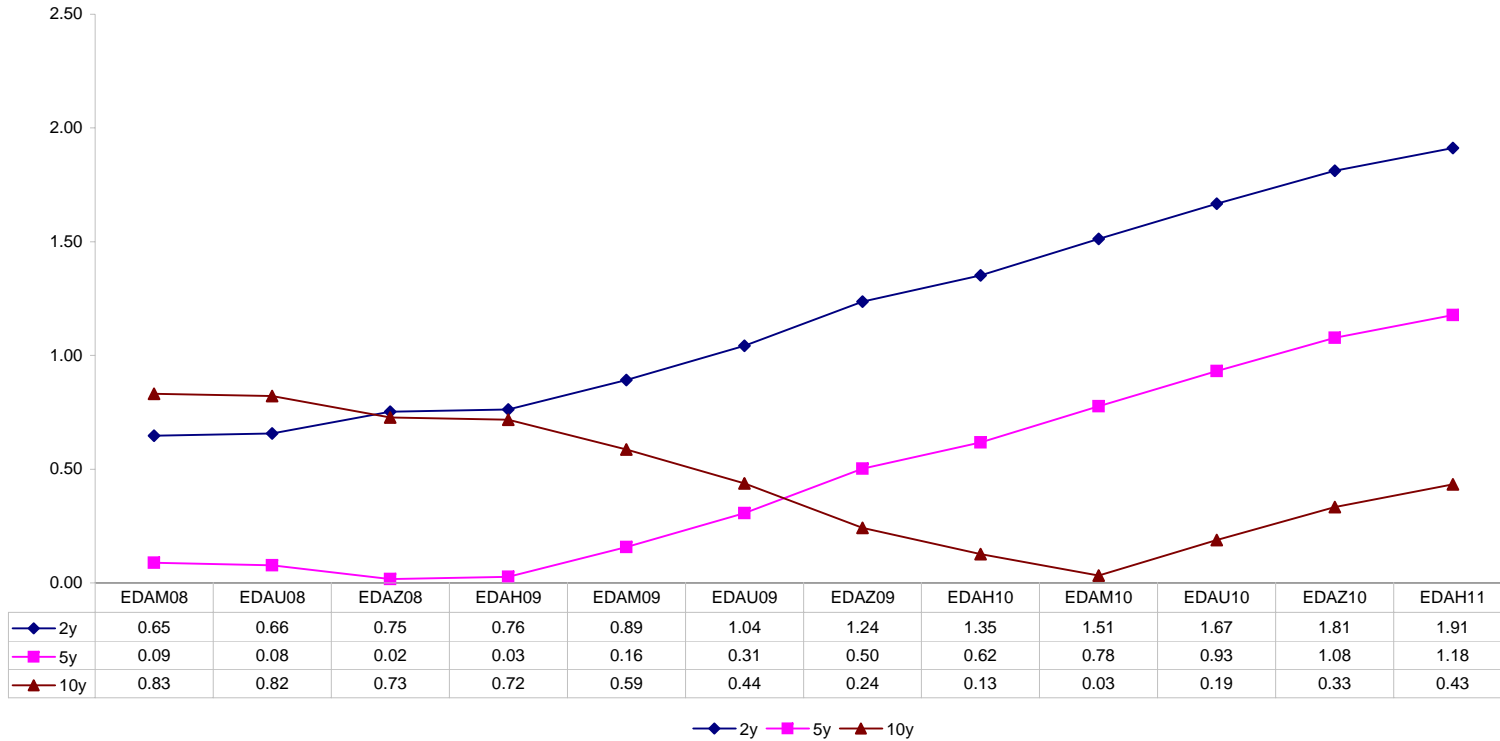
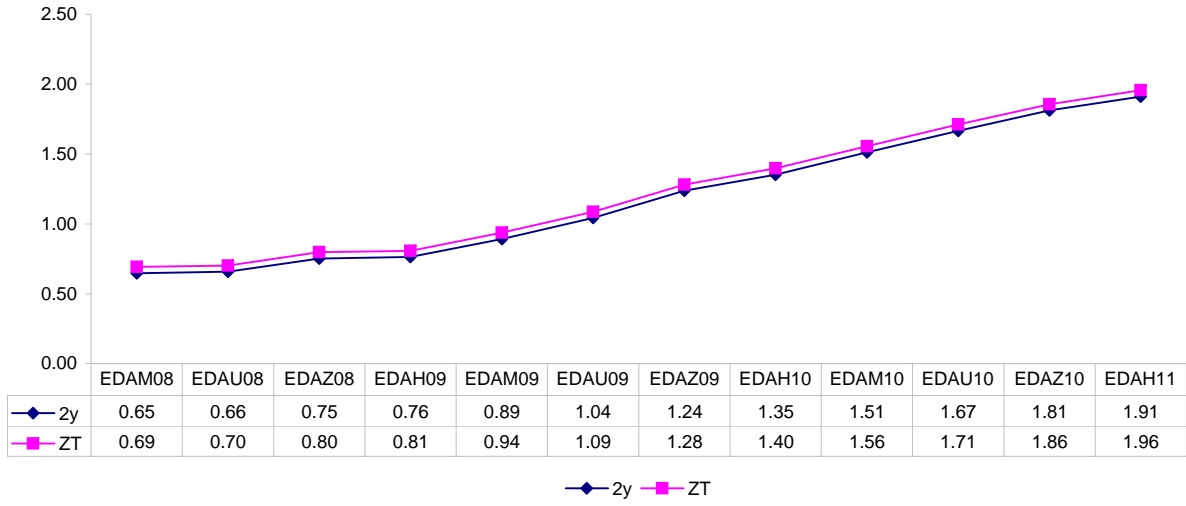


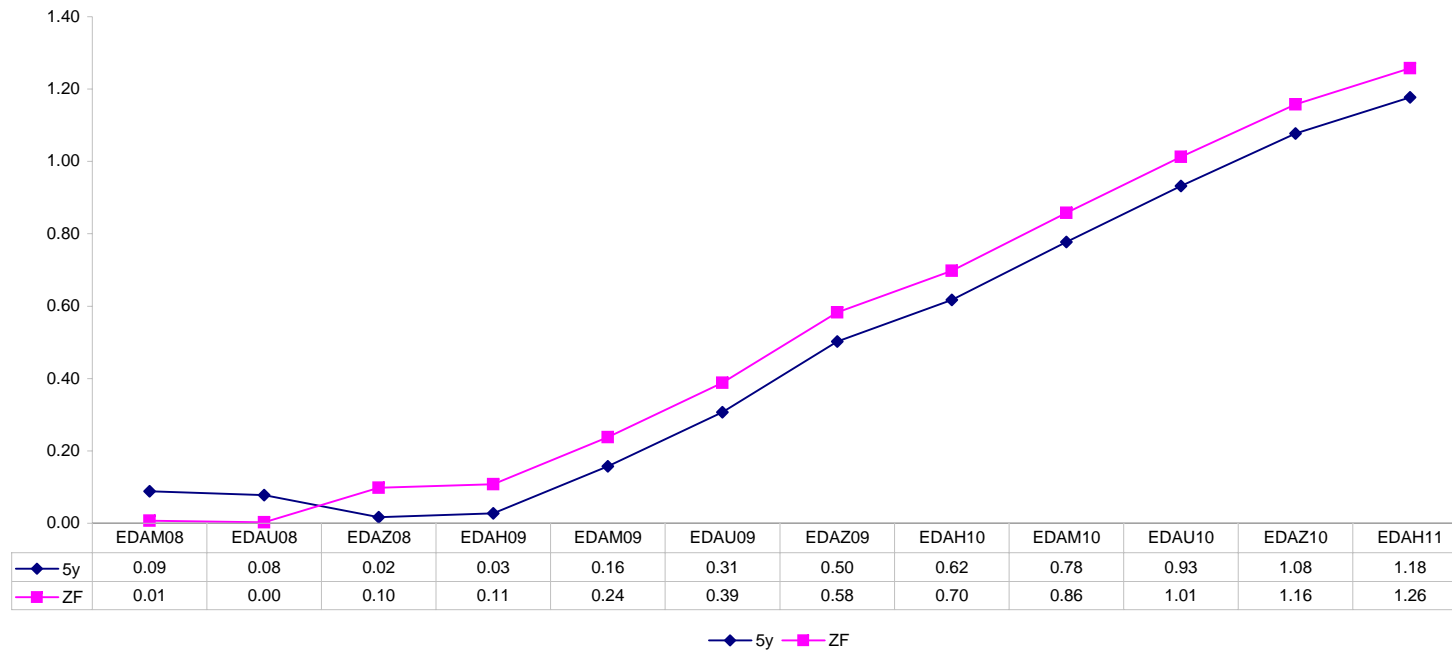
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



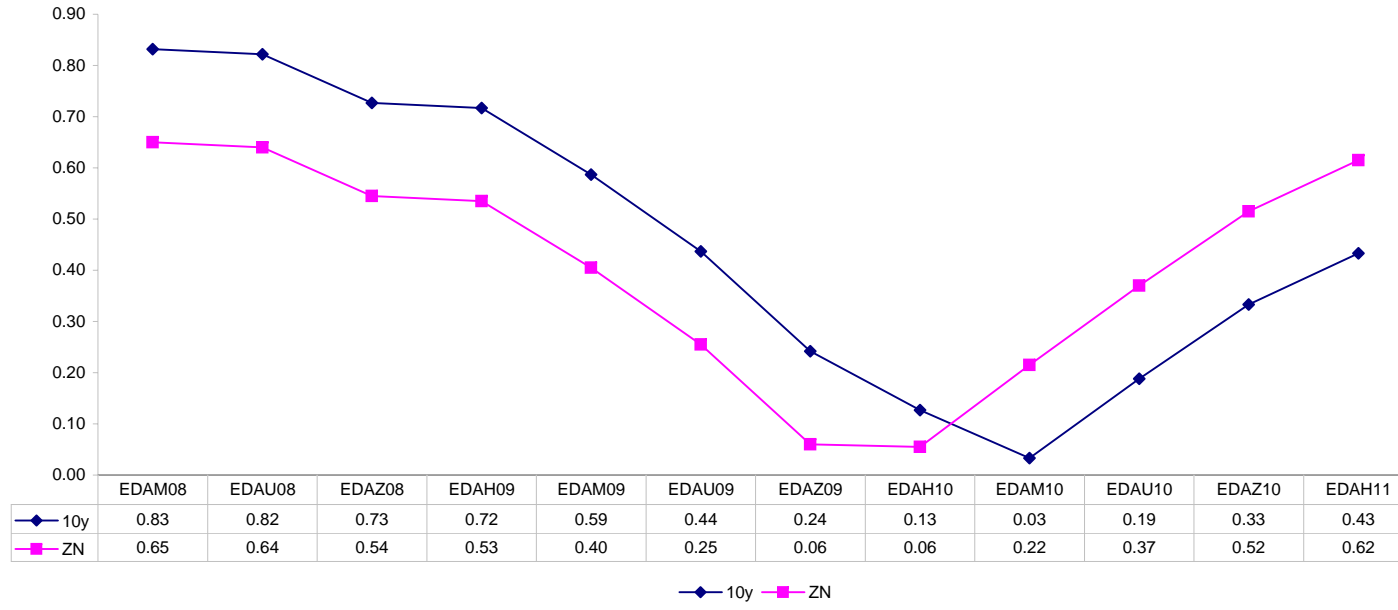
2y Basis TED Curve



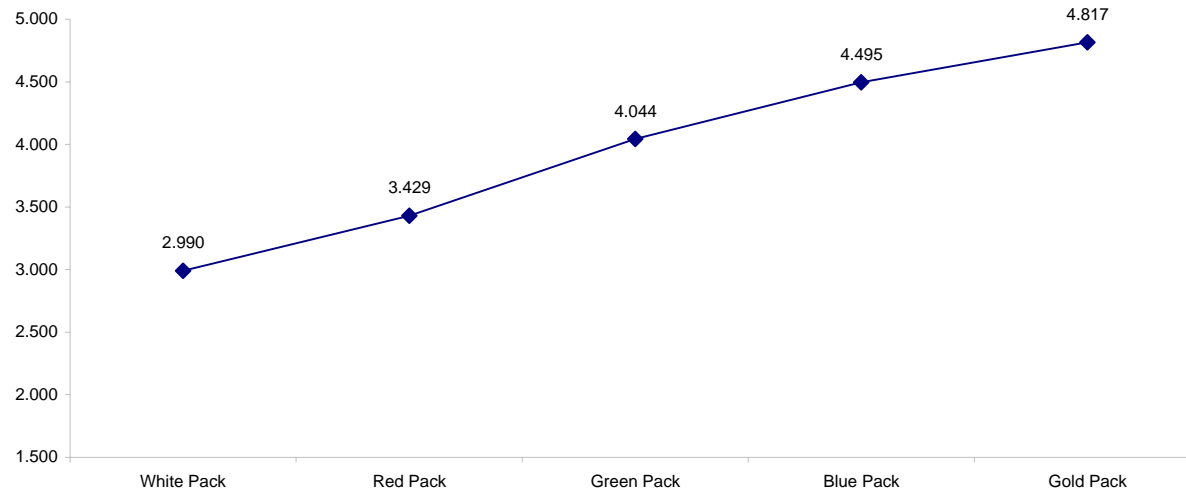
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.990	-0.250	9707.250
Red Pack	3.429	-0.250	9664.625
Green Pack	4.044	0.875	9605.125
Blue Pack	4.495	1.625	9561.500
Gold Pack	4.817	1.000	9530.500



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

