

The Morning Email: TERM TEDS & Dirty TEDS

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New

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	107.0781	107.025	1.738	1.85
ZF	113.5688	113.182	2.549	3.99
ZN	117.6250	117.200	3.330	5.95
2y	99.875	99.2800	1.816	1.92
5y	99.328	99.1050	2.642	4.63
10y	99.906	99.2900	3.509	8.22

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.485	2.515	66	0.180	JUN
EDAU08	97.675	2.325	157	0.430	SEP White
EDAZ08	97.590	2.410	248	0.679	DEC Pack
EDAH09	97.575	2.425	339	0.928	MAR
EDAM09	97.445	2.555	430	1.177	JUN
EDAU09	97.265	2.735	521	1.427	SEP Red Pack
EDAZ09	97.030	2.970	612	1.676	DEC
EDAH10	96.850	3.150	703	1.925	MAR
EDAM10	96.615	3.385	794	2.175	JUN
EDAU10	96.420	3.580	885	2.424	SEP Green Pack
EDAZ10	96.225	3.775	976	2.673	DEC
EDAH11	96.060	3.940	1067	2.923	MAR
EDAM11	95.915	4.085	1158	3.172	JUN
EDAU11	95.825	4.175	1256	3.440	SEP Blue Pack
EDAZ11	95.705	4.295	1347	3.690	DEC
EDAH12	95.590	4.410	1438	3.939	MAR
EDAM12	95.505	4.495	1529	4.188	JUN
EDAU12	95.410	4.590	1620	4.438	SEP Gold Pack
EDAZ12	95.270	4.730	1711	4.687	DEC
EDAH13	95.285	4.715	1802	4.936	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.467	0.250	9758.125	Pack Prices
Red Pack	2.914	1.625	9714.625	
Green Pack	3.756	0.750	9633.000	
Blue Pack	4.362	-0.875	9574.375	
Gold Pack		0.250	9537.125	

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.

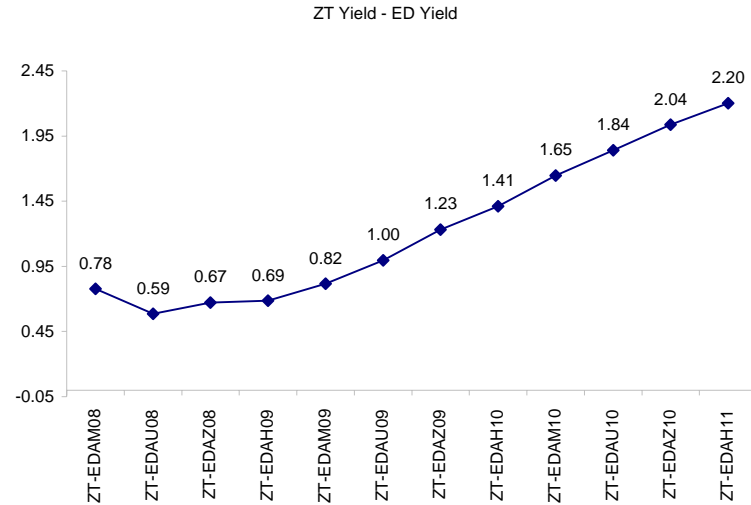
jgoulding@ghco.com

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.

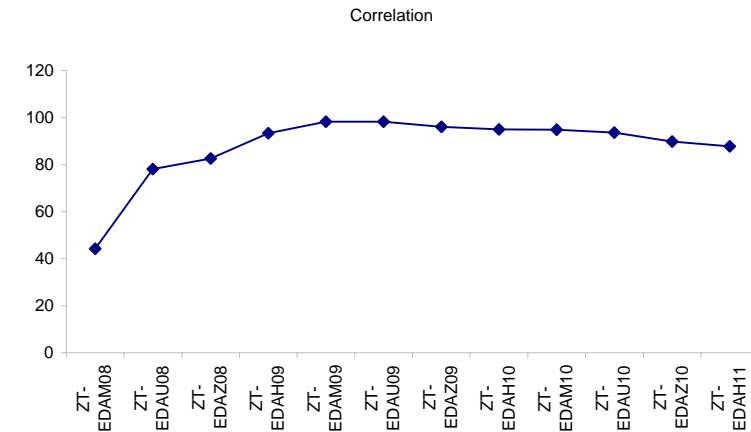
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	9.593	0.78	ZT-EDAM08	44.161
EDAU08	9.403	0.59	ZT-EDAU08	78.134
EDAZ08	9.488	0.67	ZT-EDAZ08	82.552
EDAH09	9.503	0.69	ZT-EDAH09	93.280
EDAM09	9.633	0.82	ZT-EDAM09	98.228
EDAU09	9.813	1.00	ZT-EDAU09	98.268
EDAZ09	10.048	1.23	ZT-EDAZ09	96.052
EDAH10	10.228	1.41	ZT-EDAH10	95.021
EDAM10	10.463	1.65	ZT-EDAM10	94.764
EDAU10	10.658	1.84	ZT-EDAU10	93.601
EDAZ10	10.853	2.04	ZT-EDAZ10	89.740
EDAH11	11.018	2.20	ZT-EDAH11	87.715

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	0.180	1.85	1.67	ZT-EDAM08		
EDAU08	0.430	1.85	1.42	ZT-EDAU08		
EDAZ08	0.679	1.85	1.17	ZT-EDAZ08		
EDAH09	0.928	1.85	0.92	ZT-EDAH09		
EDAM09	1.177	1.85	0.67	ZT-EDAM09		
EDAU09	1.427	1.85	0.42	ZT-EDAU09		
EDAZ09	1.676	1.85	0.17	ZT-EDAZ09		
EDAH10	1.925	1.85	(0.08)	ZT-EDAH10		
EDAM10	2.175	1.85	(0.33)	ZT-EDAM10		
EDAU10	2.424	1.85	(0.58)	ZT-EDAU10		
EDAZ10	2.673	1.85	(0.83)	ZT-EDAZ10		
EDAH11	2.923	1.85	(1.08)	ZT-EDAH11		

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

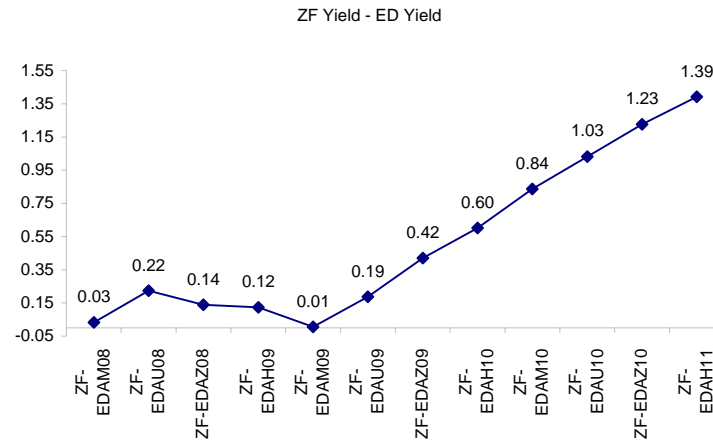


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	16.084	0.03	ZF-EDAM08	53.720
EDAU08	15.894	0.22	ZF-EDAU08	83.887
EDAZ08	15.979	0.14	ZF-EDAZ08	88.085
EDAH09	15.994	0.12	ZF-EDAH09	95.392
EDAM09	16.124	0.01	ZF-EDAM09	96.464
EDAU09	16.304	0.19	ZF-EDAU09	94.137
EDAZ09	16.539	0.42	ZF-EDAZ09	91.047
EDAH10	16.719	0.60	ZF-EDAH10	90.568
EDAM10	16.954	0.84	ZF-EDAM10	91.257
EDAU10	17.149	1.03	ZF-EDAU10	90.905
EDAZ10	17.344	1.23	ZF-EDAZ10	87.902
EDAH11	17.509	1.39	ZF-EDAH11	87.782

Price = Outright Decimal Price - Euro Contract Price

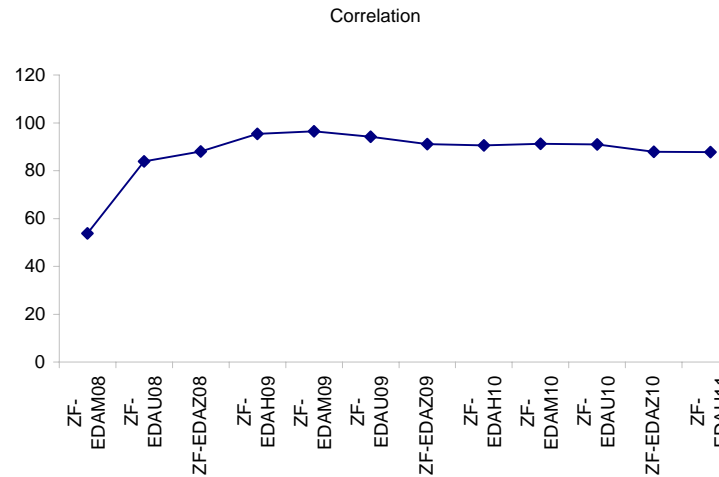
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



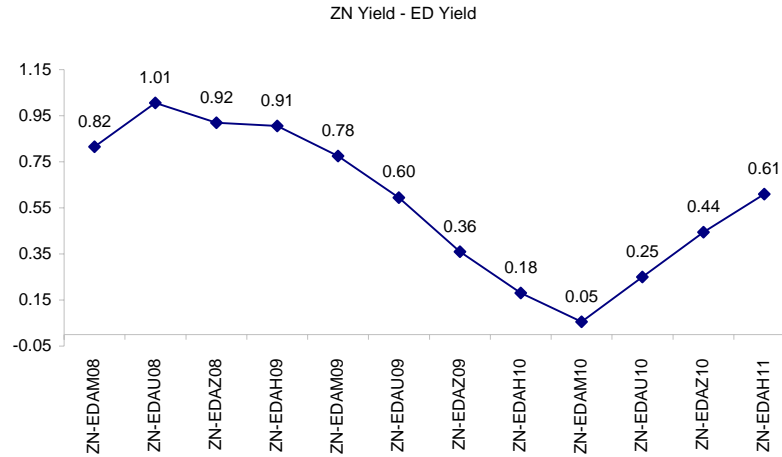
	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.180	3.99	3.81	ZF-EDAM08	
EDAU08	0.430	3.99	3.56	ZF-EDAU08	
EDAZ08	0.679	3.99	3.31	ZF-EDAZ08	
EDAH09	0.928	3.99	3.06	ZF-EDAH09	
EDAM09	1.177	3.99	2.82	ZF-EDAM09	
EDAU09	1.427	3.99	2.57	ZF-EDAU09	
EDAZ09	1.676	3.99	2.32	ZF-EDAZ09	
EDAH10	1.925	3.99	2.07	ZF-EDAH10	
EDAM10	2.175	3.99	1.82	ZF-EDAM10	
EDAU10	2.424	3.99	1.57	ZF-EDAU10	
EDAZ10	2.673	3.99	1.32	ZF-EDAZ10	
EDAH11	2.923	3.99	1.07	ZF-EDAH11	

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



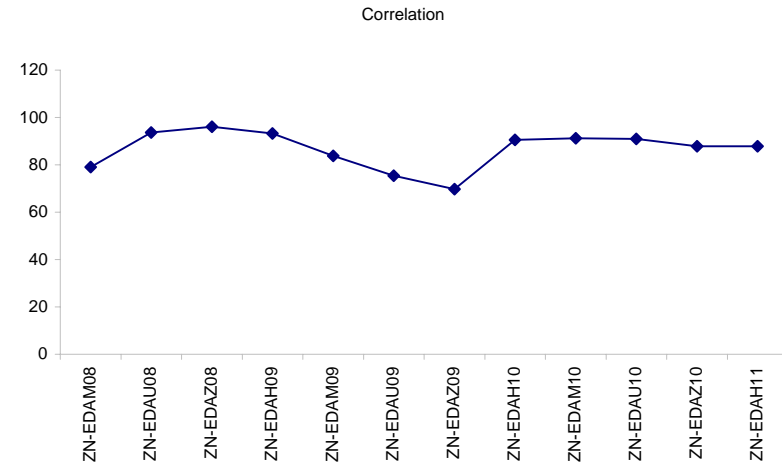
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	20.140	0.82	ZN-EDAM08	79.043
EDAU08	19.950	1.01	ZN-EDAU08	93.693
EDAZ08	20.035	0.92	ZN-EDAZ08	96.089
EDAH09	20.050	0.91	ZN-EDAH09	93.202
EDAM09	20.180	0.78	ZN-EDAM09	83.776
EDAU09	20.360	0.60	ZN-EDAU09	75.437
EDAZ09	20.595	0.36	ZN-EDAZ09	69.695
EDAH10	20.775	0.18	ZN-EDAH10	90.568
EDAM10	21.010	0.05	ZN-EDAM10	91.257
EDAU10	21.205	0.25	ZN-EDAU10	90.905
EDAZ10	21.400	0.44	ZN-EDAZ10	87.902
EDAH11	21.565	0.61	ZN-EDAH11	87.782

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	0.180	5.95	5.77	ZN-EDAM08		
EDAU08	0.430	5.95	5.52	ZN-EDAU08		
EDAZ08	0.679	5.95	5.27	ZN-EDAZ08		
EDAH09	0.928	5.95	5.02	ZN-EDAH09		
EDAM09	1.177	5.95	4.77	ZN-EDAM09		
EDAU09	1.427	5.95	4.52	ZN-EDAU09		
EDAZ09	1.676	5.95	4.28	ZN-EDAZ09		
EDAH10	1.925	5.95	4.03	ZN-EDAH10		
EDAM10	2.175	5.95	3.78	ZN-EDAM10		
EDAU10	2.424	5.95	3.53	ZN-EDAU10		
EDAZ10	2.673	5.95	3.28	ZN-EDAZ10		
EDAH11	2.923	5.95	3.03	ZN-EDAH11		

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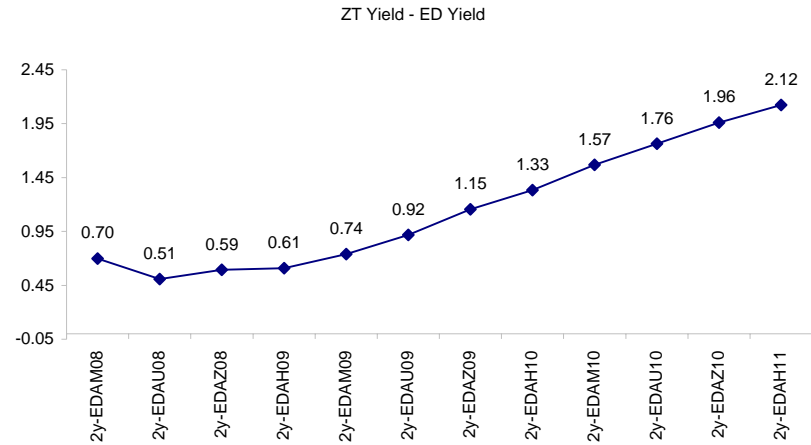


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.390	0.70	2y-EDAM08	-70.034
EDAU08	2.200	0.51	2y-EDAU08	-92.735
EDAZ08	2.285	0.59	2y-EDAZ08	-70.034
EDAH09	2.300	0.61	2y-EDAH09	-98.123
EDAM09	2.430	0.74	2y-EDAM09	-93.335
EDAU09	2.610	0.92	2y-EDAU09	-89.391
EDAZ09	2.845	1.15	2y-EDAZ09	-83.202
EDAH10	3.025	1.33	2y-EDAH10	-82.102
EDAM10	3.260	1.57	2y-EDAM10	-82.999
EDAU10	3.455	1.76	2y-EDAU10	-82.204
EDAZ10	3.650	1.96	2y-EDAZ10	-77.467
EDAH11	3.815	2.12	2y-EDAH11	-77.622

Price = Outright Decimal Price - Euro Contract Price

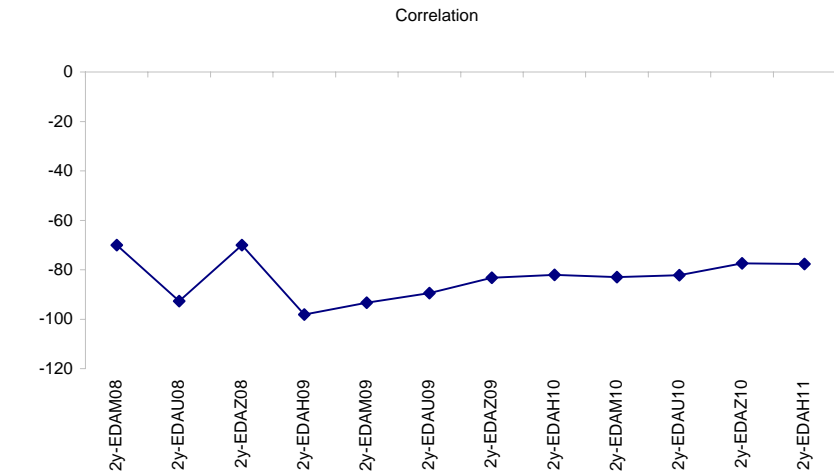
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAM08	0.180	1.92	1.74	2y-EDAM08
EDAU08	0.430	1.92	1.49	2y-EDAU08
EDAZ08	0.679	1.92	1.24	2y-EDAZ08
EDAH09	0.928	1.92	0.99	2y-EDAH09
EDAM09	1.177	1.92	0.74	2y-EDAM09
EDAU09	1.427	1.92	0.49	2y-EDAU09
EDAZ09	1.676	1.92	0.24	2y-EDAZ09
EDAH10	1.925	1.92	(0.01)	2y-EDAH10
EDAM10	2.175	1.92	(0.26)	2y-EDAM10
EDAU10	2.424	1.92	(0.51)	2y-EDAU10
EDAZ10	2.673	1.92	(0.75)	2y-EDAZ10
EDAH11	2.923	1.92	(1.00)	2y-EDAH11

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

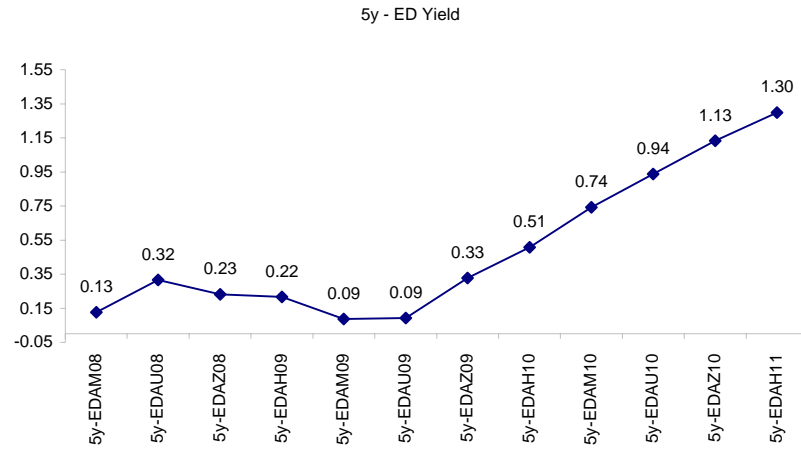


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	1.843	0.13	5y-EDAM08	-72.784
EDAU08	1.653	0.32	5y-EDAU08	-94.234
EDAZ08	1.738	0.23	5y-EDAZ08	-72.784
EDAH09	1.753	0.22	5y-EDAH09	-98.318
EDAM09	1.883	0.09	5y-EDAM09	-92.856
EDAU09	2.063	0.09	5y-EDAU09	-87.739
EDAZ09	2.298	0.33	5y-EDAZ09	-82.152
EDAH10	2.478	0.51	5y-EDAH10	-81.640
EDAM10	2.713	0.74	5y-EDAM10	-83.167
EDAU10	2.908	0.94	5y-EDAU10	-83.274
EDAZ10	3.103	1.13	5y-EDAZ10	-80.132
EDAH11	3.268	1.30	5y-EDAH11	-81.608

Price = Outright Decimal Price - Euro Contract Price

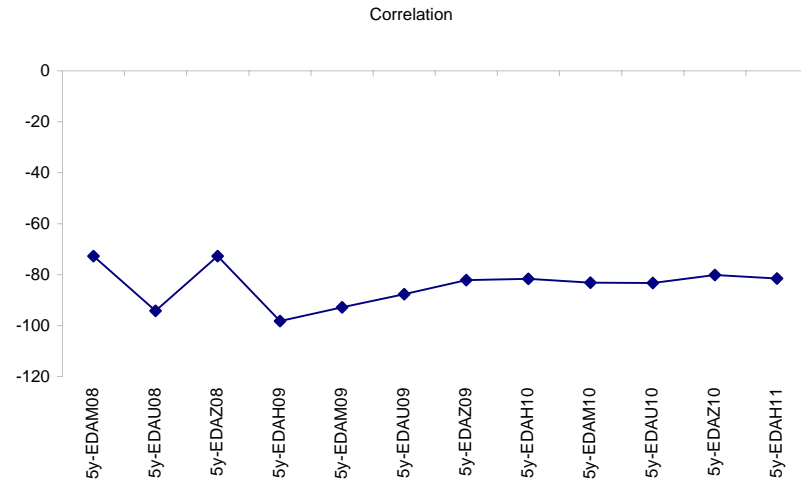
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.180	4.63	4.45	5y-EDAM08
EDAU08	0.430	4.63	4.20	5y-EDAU08
EDAZ08	0.679	4.63	3.95	5y-EDAZ08
EDAH09	0.928	4.63	3.70	5y-EDAH09
EDAM09	1.177	4.63	3.45	5y-EDAM09
EDAU09	1.427	4.63	3.20	5y-EDAU09
EDAZ09	1.676	4.63	2.95	5y-EDAZ09
EDAH10	1.925	4.63	2.71	5y-EDAH10
EDAM10	2.175	4.63	2.46	5y-EDAM10
EDAU10	2.424	4.63	2.21	5y-EDAU10
EDAZ10	2.673	4.63	1.96	5y-EDAZ10
EDAH11	2.923	4.63	1.71	5y-EDAH11

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

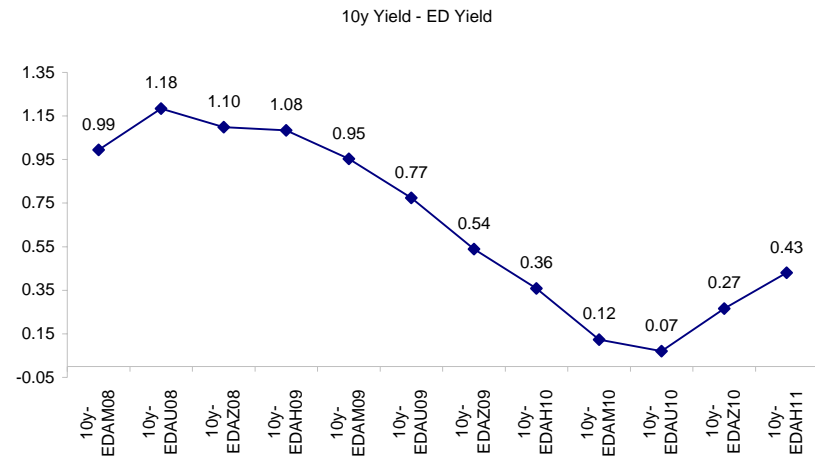


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	1.843	0.99	10y-EDAM08	-63.591
EDAU08	1.653	1.18	10y-EDAU08	-84.516
EDAZ08	1.738	1.10	10y-EDAZ08	-63.591
EDAH09	1.753	1.08	10y-EDAH09	-89.849
EDAM09	1.883	0.95	10y-EDAM09	-87.820
EDAU09	2.063	0.77	10y-EDAU09	-81.903
EDAZ09	2.298	0.54	10y-EDAZ09	-80.154
EDAH10	2.478	0.36	10y-EDAH10	-80.580
EDAM10	2.713	0.12	10y-EDAM10	-83.029
EDAU10	2.908	0.07	10y-EDAU10	-85.038
EDAZ10	3.103	0.27	10y-EDAZ10	-86.787
EDAH11	3.268	0.43	10y-EDAH11	-90.609

Price = Outright Decimal Price - Euro Contract Price

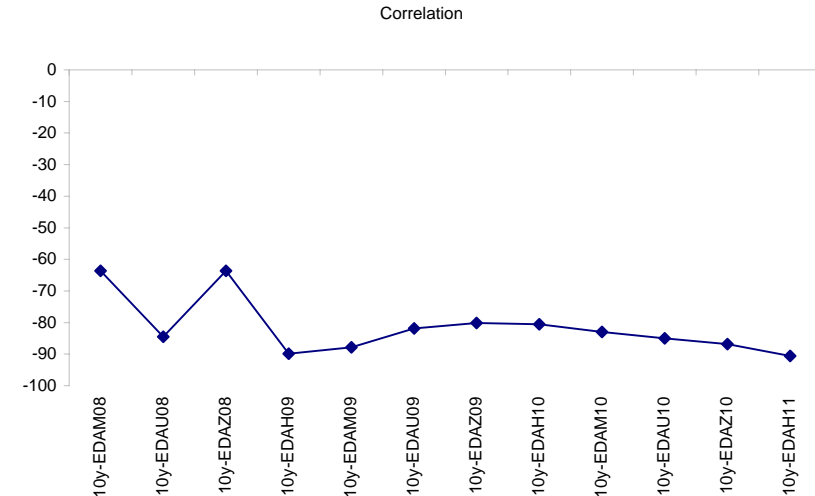
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAM08	0.180	8.22	8.04	10y-EDAM08
EDAU08	0.430	8.22	7.79	10y-EDAU08
EDAZ08	0.679	8.22	7.54	10y-EDAZ08
EDAH09	0.928	8.22	7.29	10y-EDAH09
EDAM09	1.177	8.22	7.04	10y-EDAM09
EDAU09	1.427	8.22	6.79	10y-EDAU09
EDAZ09	1.676	8.22	6.54	10y-EDAZ09
EDAH10	1.925	8.22	6.29	10y-EDAH10
EDAM10	2.175	8.22	6.04	10y-EDAM10
EDAU10	2.424	8.22	5.79	10y-EDAU10
EDAZ10	2.673	8.22	5.54	10y-EDAZ10
EDAH11	2.923	8.22	5.29	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.

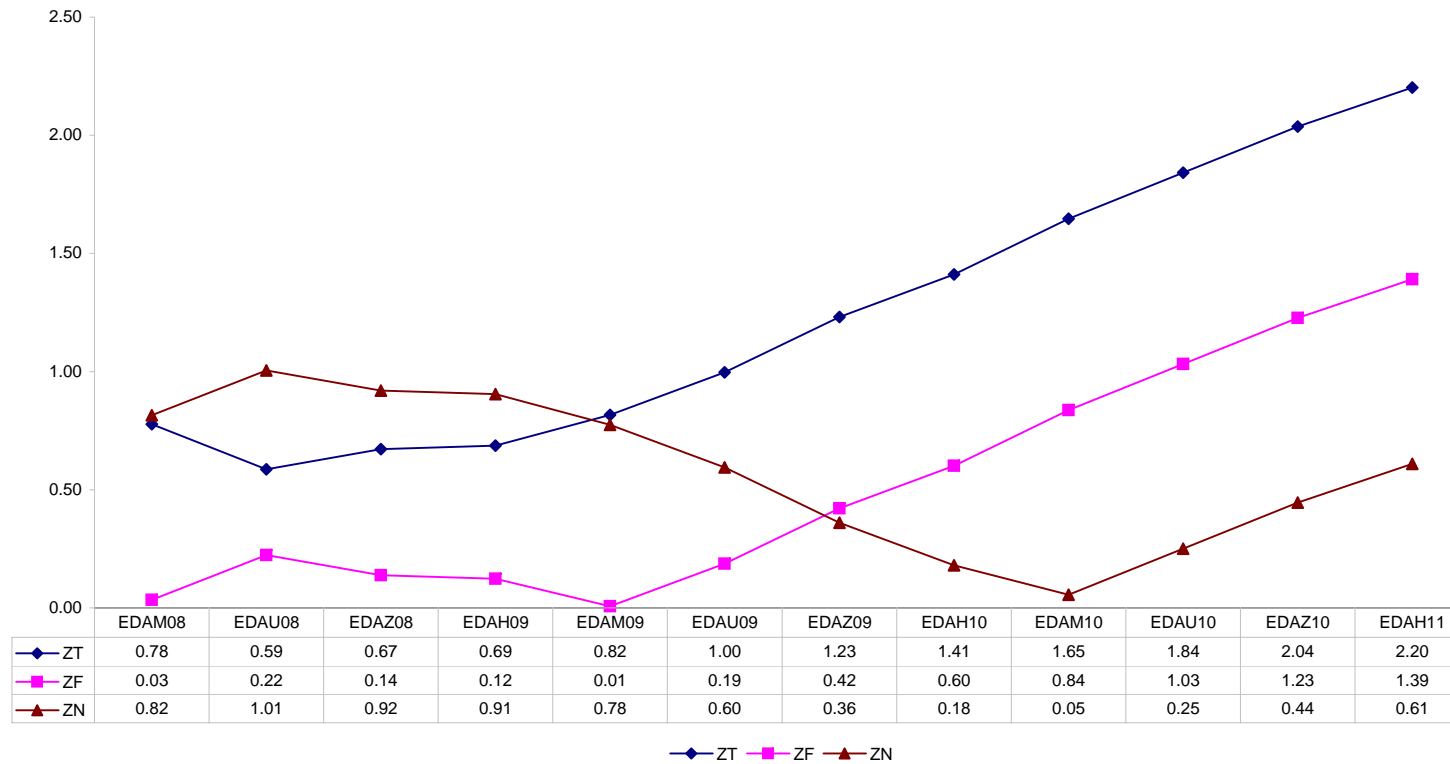
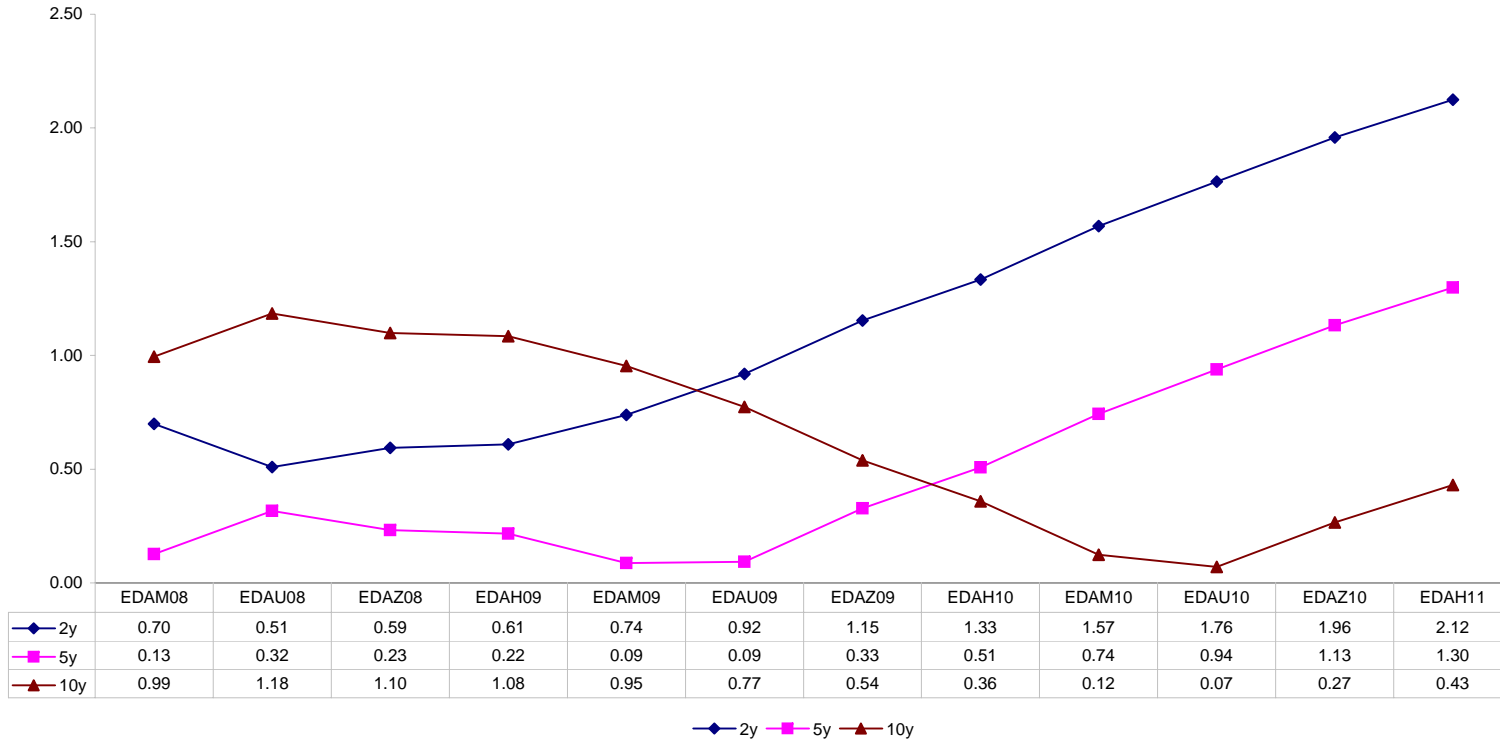
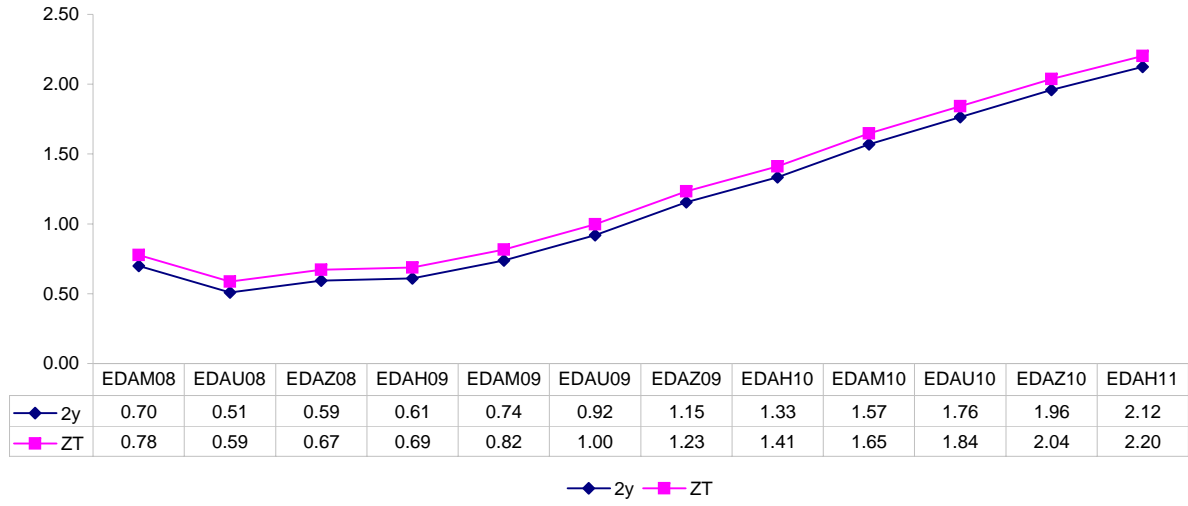


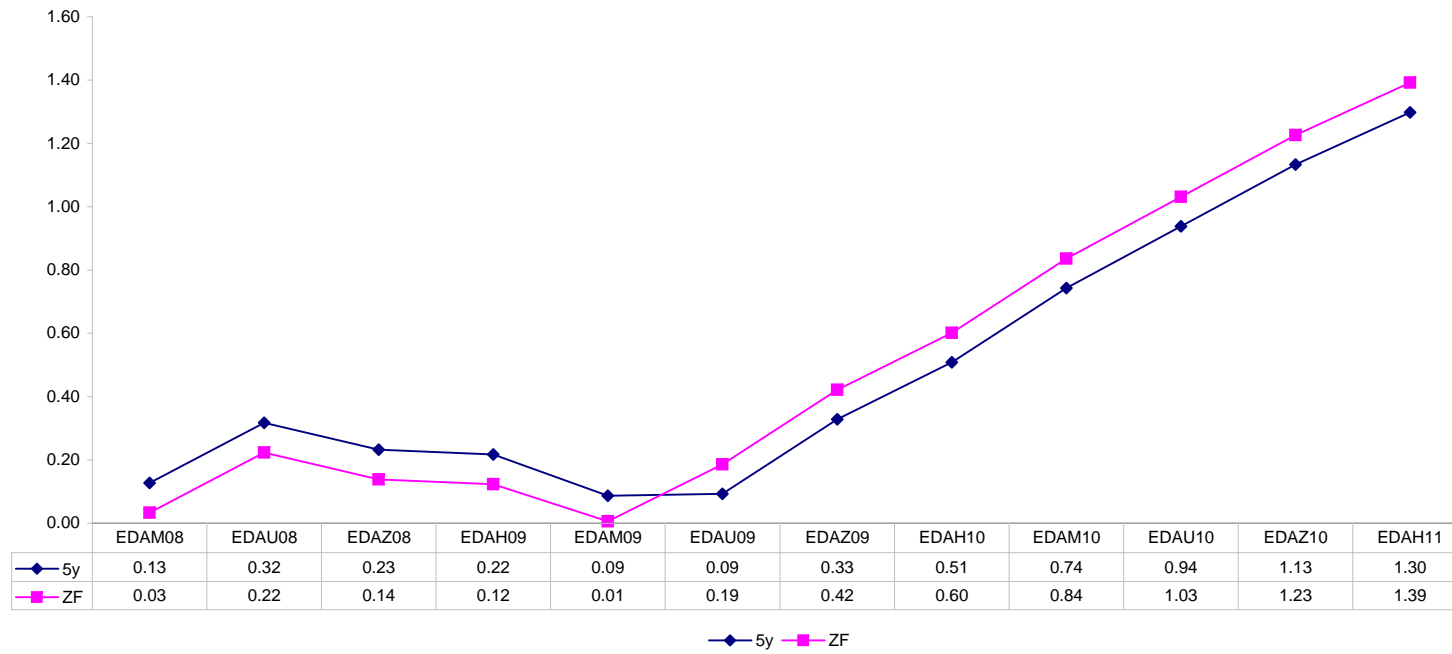
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



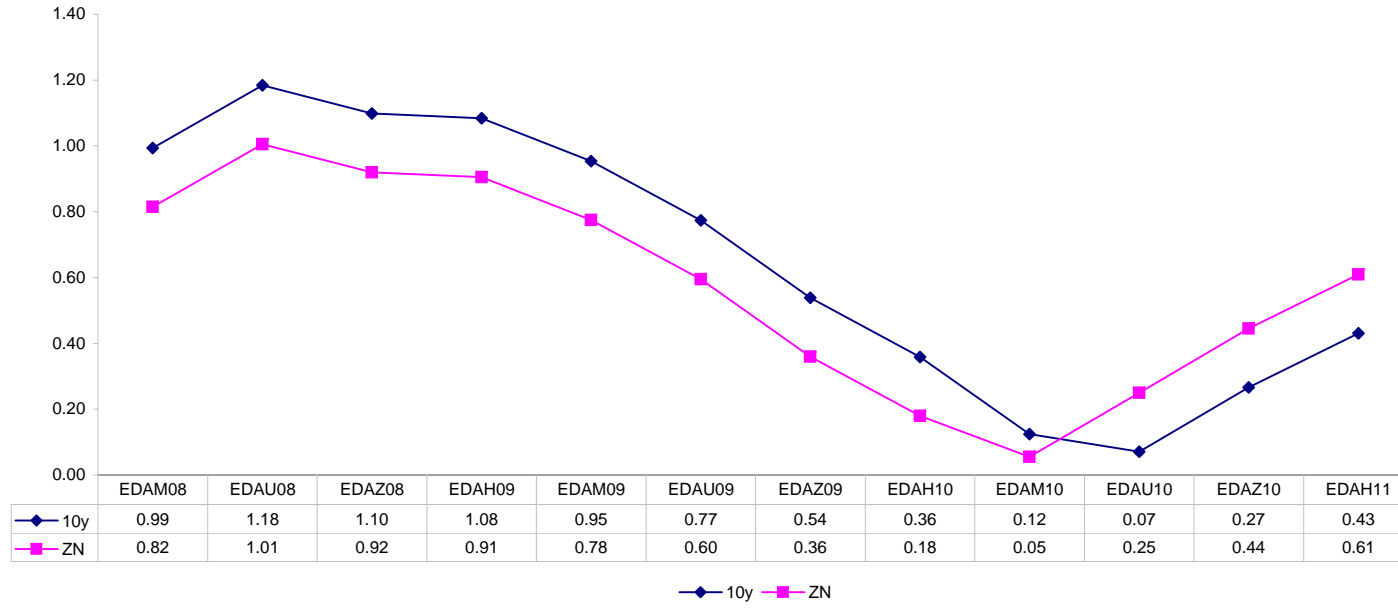
2y Basis TED Curve



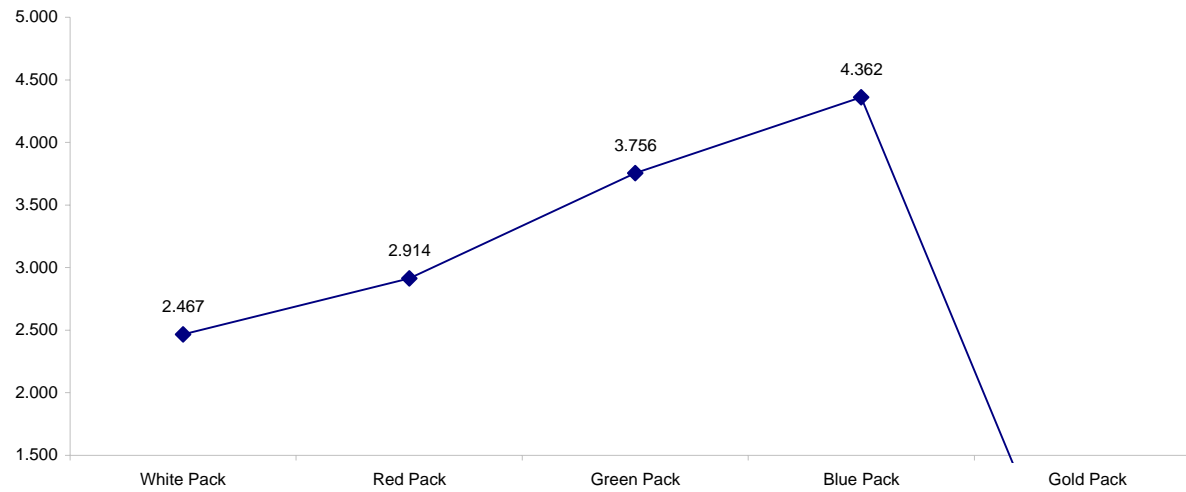
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.467	0.250	9758.125
Red Pack	2.914	1.625	9714.625
Green Pack	3.756	0.750	9633.000
Blue Pack	4.362	-0.875	9574.375
Gold Pack		0.250	9537.125



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

