

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	105.9375	105.300	2.455	1.73
ZF	111.4688	111.150	3.089	3.87
ZN	114.9531	114.305	3.727	5.81
2y	99.272	99.0870	2.510	1.87
5y	99.663	99.2120	3.197	4.46
10y	99.859	99.2750	3.890	8.06

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.360	2.640	24	0.065	JUN
EDAU08	97.240	2.760	115	0.314	SEP White
EDAZ08	96.995	3.005	206	0.564	DEC Pack
EDAH09	96.810	3.190	297	0.813	MAR
EDAM09	96.595	3.405	388	1.062	JUN
EDAU09	96.400	3.600	479	1.312	SEP Red Pack
EDAZ09	96.205	3.795	570	1.561	DEC
EDAH10	96.070	3.930	661	1.810	MAR
EDAM10	95.930	4.070	752	2.060	JUN
EDAU10	95.805	4.195	843	2.309	SEP Green
EDAZ10	95.675	4.325	934	2.558	DEC Pack
EDAH11	95.615	4.385	1025	2.808	MAR
EDAM11	95.525	4.475	1116	3.057	JUN
EDAU11	95.475	4.525	1214	3.325	SEP Blue Pack
EDAZ11	95.380	4.620	1305	3.575	DEC
EDAH12	95.355	4.645	1396	3.824	MAR
EDAM12	95.260	4.740	1487	4.073	JUN
EDAU12	95.265	4.735	1578	4.323	SEP Gold Pack
EDAZ12	95.145	4.855	1669	4.572	DEC
EDAH13	95.160	4.840	1760	4.821	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.961	2.438	9710.125	
Red Pack	3.768	3.625	9631.750	Pack
Green Pack	4.349	3.750	9575.625	Prices
Blue Pack	4.683	2.625	9543.375	
Gold Pack	4.918	2.250	9520.750	

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.

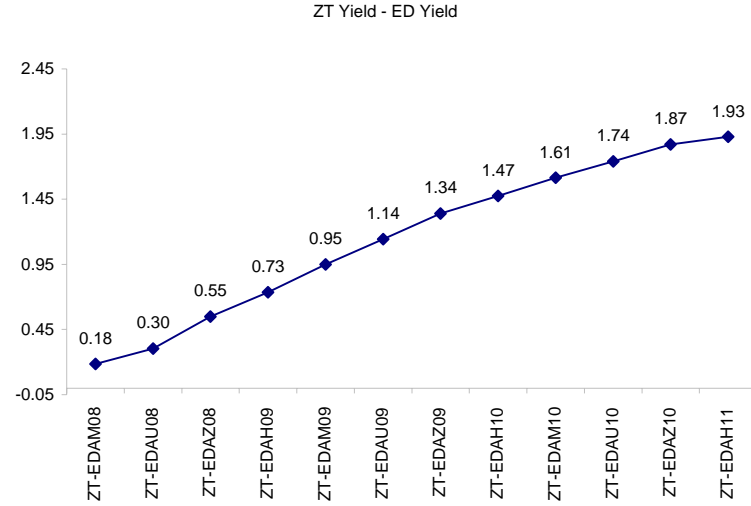
jgoulding@ghco.com

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. So, it's much easier to formulate the correlations based on yield than price.

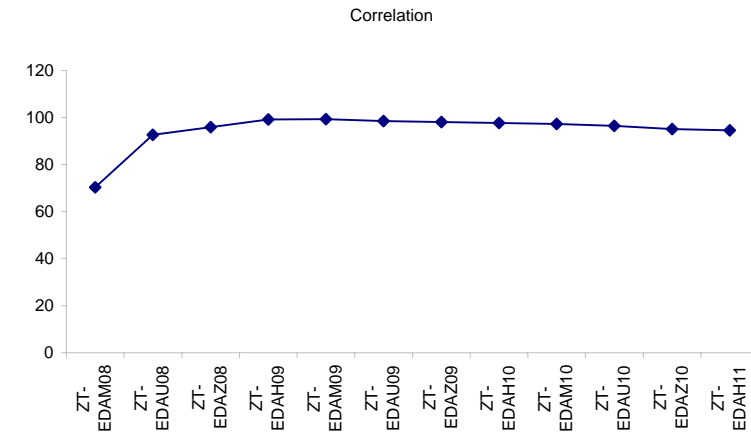
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.577	0.18	ZT-EDAM08	70.336
EDAU08	8.697	0.30	ZT-EDAU08	92.592
EDAZ08	8.942	0.55	ZT-EDAZ08	95.938
EDAH09	9.127	0.73	ZT-EDAH09	99.118
EDAM09	9.342	0.95	ZT-EDAM09	99.343
EDAU09	9.537	1.14	ZT-EDAU09	98.565
EDAZ09	9.732	1.34	ZT-EDAZ09	98.151
EDAH10	9.867	1.47	ZT-EDAH10	97.712
EDAM10	10.008	1.61	ZT-EDAM10	97.302
EDAU10	10.133	1.74	ZT-EDAU10	96.417
EDAZ10	10.263	1.87	ZT-EDAZ10	95.155
EDAH11	10.323	1.93	ZT-EDAH11	94.614

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	0.065	1.73	1.66	ZT-EDAM08		
EDAU08	0.314	1.73	1.41	ZT-EDAU08		
EDAZ08	0.564	1.73	1.16	ZT-EDAZ08		
EDAH09	0.813	1.73	0.91	ZT-EDAH09		
EDAM09	1.062	1.73	0.66	ZT-EDAM09		
EDAU09	1.312	1.73	0.41	ZT-EDAU09		
EDAZ09	1.561	1.73	0.17	ZT-EDAZ09		
EDAH10	1.810	1.73	(0.08)	ZT-EDAH10		
EDAM10	2.060	1.73	(0.33)	ZT-EDAM10		
EDAU10	2.309	1.73	(0.58)	ZT-EDAU10		
EDAZ10	2.558	1.73	(0.83)	ZT-EDAZ10		
EDAH11	2.808	1.73	(1.08)	ZT-EDAH11		

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

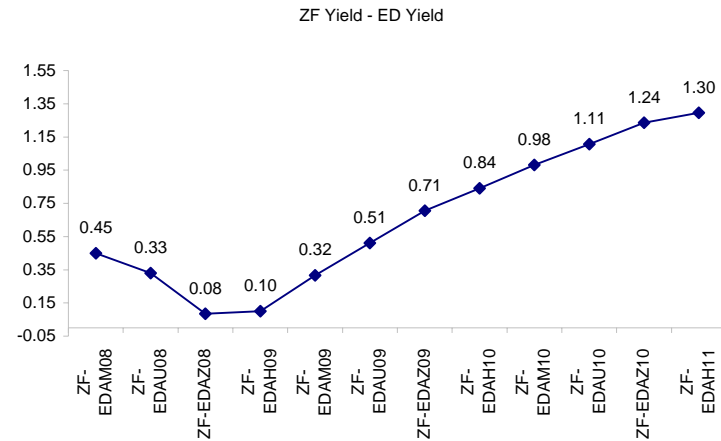


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	14.109	0.45	ZF-EDAM08	67.391
EDAU08	14.229	0.33	ZF-EDAU08	91.725
EDAZ08	14.474	0.08	ZF-EDAZ08	94.900
EDAH09	14.659	0.10	ZF-EDAH09	98.520
EDAM09	14.874	0.32	ZF-EDAM09	99.124
EDAU09	15.069	0.51	ZF-EDAU09	98.680
EDAZ09	15.264	0.71	ZF-EDAZ09	98.528
EDAH10	15.399	0.84	ZF-EDAH10	98.715
EDAM10	15.539	0.98	ZF-EDAM10	98.783
EDAU10	15.664	1.11	ZF-EDAU10	98.473
EDAZ10	15.794	1.24	ZF-EDAZ10	97.727
EDAH11	15.854	1.30	ZF-EDAH11	97.432

Price = Outright Decimal Price - Euro Contract Price

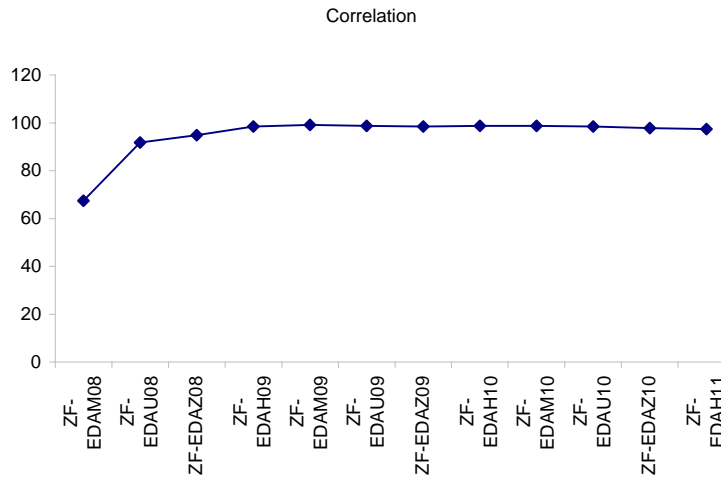
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.065	3.87	3.80	ZF-EDAM08	
EDAU08	0.314	3.87	3.55	ZF-EDAU08	
EDAZ08	0.564	3.87	3.30	ZF-EDAZ08	
EDAH09	0.813	3.87	3.05	ZF-EDAH09	
EDAM09	1.062	3.87	2.80	ZF-EDAM09	
EDAU09	1.312	3.87	2.55	ZF-EDAU09	
EDAZ09	1.561	3.87	2.30	ZF-EDAZ09	
EDAH10	1.810	3.87	2.06	ZF-EDAH10	
EDAM10	2.060	3.87	1.81	ZF-EDAM10	
EDAU10	2.309	3.87	1.56	ZF-EDAU10	
EDAZ10	2.558	3.87	1.31	ZF-EDAZ10	
EDAH11	2.808	3.87	1.06	ZF-EDAH11	

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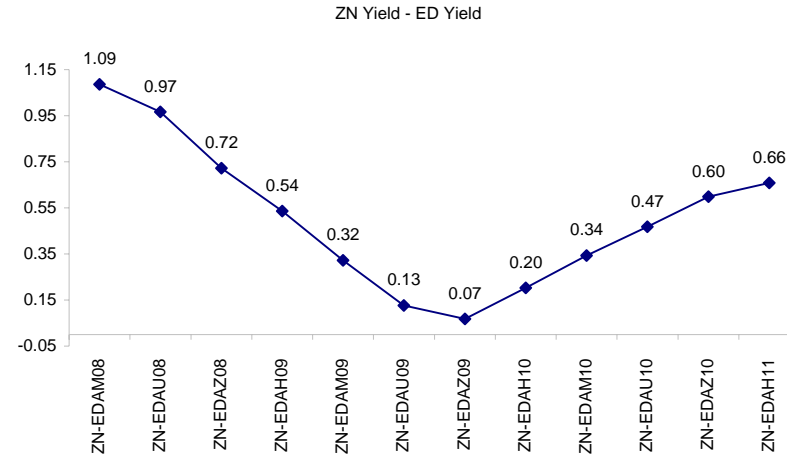


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	17.593	1.09	ZN-EDAM08	67.486
EDAU08	17.713	0.97	ZN-EDAU08	91.335
EDAZ08	17.958	0.72	ZN-EDAZ08	94.755
EDAH09	18.143	0.54	ZN-EDAH09	98.233
EDAM09	18.358	0.32	ZN-EDAM09	98.826
EDAU09	18.553	0.13	ZN-EDAU09	98.560
EDAZ09	18.748	0.07	ZN-EDAZ09	98.415
EDAH10	18.883	0.20	ZN-EDAH10	98.715
EDAM10	19.023	0.34	ZN-EDAM10	98.783
EDAU10	19.148	0.47	ZN-EDAU10	98.473
EDAZ10	19.278	0.60	ZN-EDAZ10	97.727
EDAH11	19.338	0.66	ZN-EDAH11	97.432

Price = Outright Decimal Price - Euro Contract Price

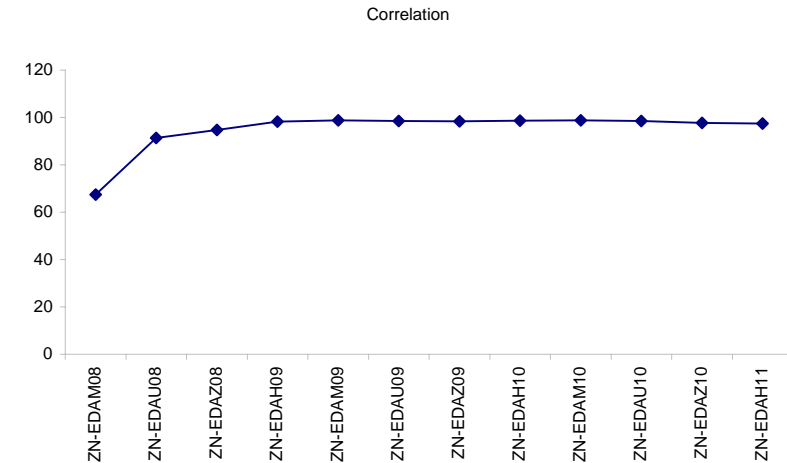
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAM08	0.065	5.81	5.74	ZN-EDAM08
EDAU08	0.314	5.81	5.49	ZN-EDAU08
EDAZ08	0.564	5.81	5.24	ZN-EDAZ08
EDAH09	0.813	5.81	4.99	ZN-EDAH09
EDAM09	1.062	5.81	4.74	ZN-EDAM09
EDAU09	1.312	5.81	4.50	ZN-EDAU09
EDAZ09	1.561	5.81	4.25	ZN-EDAZ09
EDAH10	1.810	5.81	4.00	ZN-EDAH10
EDAM10	2.060	5.81	3.75	ZN-EDAM10
EDAU10	2.309	5.81	3.50	ZN-EDAU10
EDAZ10	2.558	5.81	3.25	ZN-EDAZ10
EDAH11	2.808	5.81	3.00	ZN-EDAH11

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

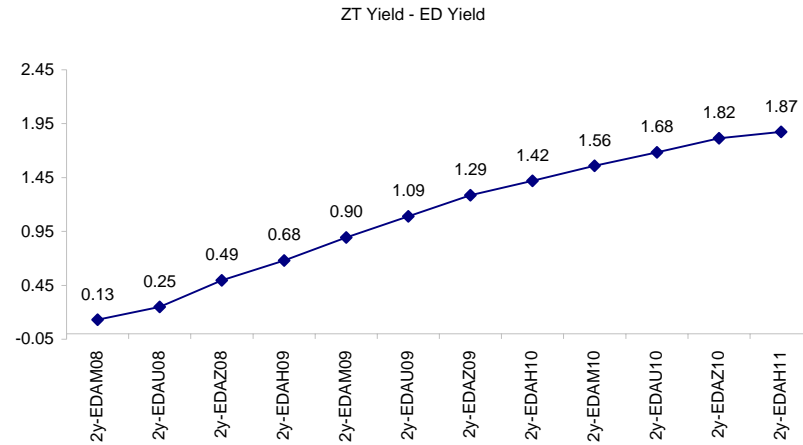


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	1.912	0.13	2y-EDAM08	-54.968
EDAU08	2.032	0.25	2y-EDAU08	-83.747
EDAZ08	2.277	0.49	2y-EDAZ08	-87.662
EDAH09	2.462	0.68	2y-EDAH09	-93.679
EDAM09	2.677	0.90	2y-EDAM09	-96.495
EDAU09	2.872	1.09	2y-EDAU09	-96.661
EDAZ09	3.067	1.29	2y-EDAZ09	-96.504
EDAH10	3.202	1.42	2y-EDAH10	-96.961
EDAM10	3.342	1.56	2y-EDAM10	-96.984
EDAU10	3.467	1.68	2y-EDAU10	-96.518
EDAZ10	3.597	1.82	2y-EDAZ10	-96.134
EDAH11	3.657	1.87	2y-EDAH11	-95.517

Price = Outright Decimal Price - Euro Contract Price

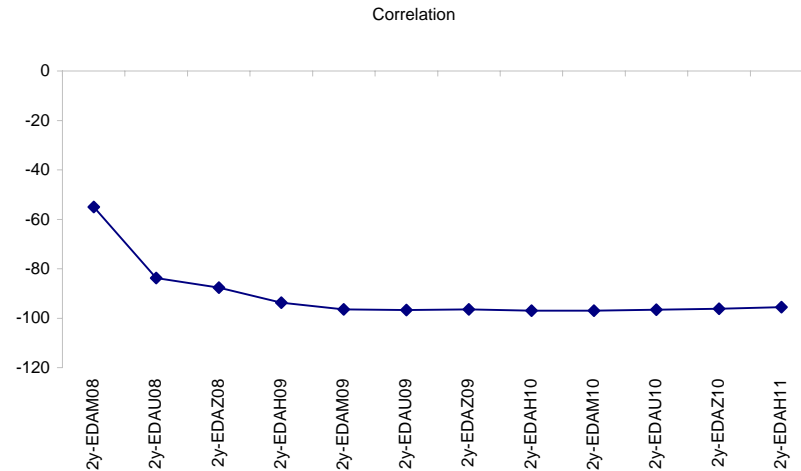
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAM08	0.065	1.87	1.81	2y-EDAM08
EDAU08	0.314	1.87	1.56	2y-EDAU08
EDAZ08	0.564	1.87	1.31	2y-EDAZ08
EDAH09	0.813	1.87	1.06	2y-EDAH09
EDAM09	1.062	1.87	0.81	2y-EDAM09
EDAU09	1.312	1.87	0.56	2y-EDAU09
EDAZ09	1.561	1.87	0.31	2y-EDAZ09
EDAH10	1.810	1.87	0.06	2y-EDAH10
EDAM10	2.060	1.87	(0.19)	2y-EDAM10
EDAU10	2.309	1.87	(0.43)	2y-EDAU10
EDAZ10	2.558	1.87	(0.68)	2y-EDAZ10
EDAH11	2.808	1.87	(0.93)	2y-EDAH11

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

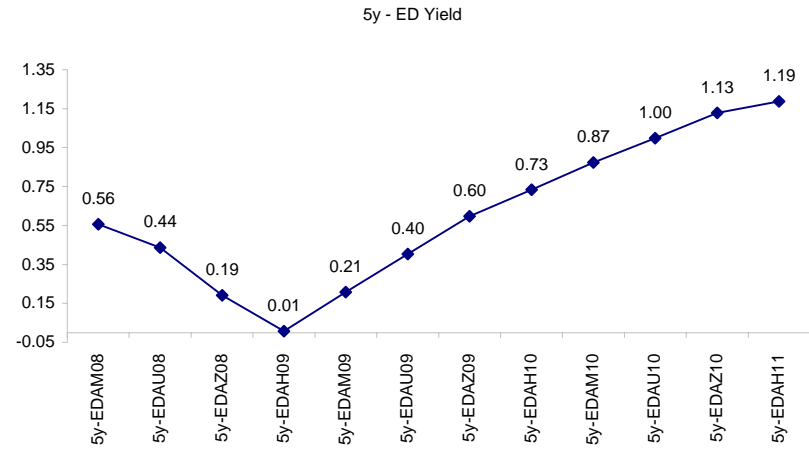


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.303	0.56	5y-EDAM08	-54.798
EDAU08	2.423	0.44	5y-EDAU08	-84.191
EDAZ08	2.668	0.19	5y-EDAZ08	-54.798
EDAH09	2.853	0.01	5y-EDAH09	-92.130
EDAM09	3.068	0.21	5y-EDAM09	-94.271
EDAU09	3.263	0.40	5y-EDAU09	-94.374
EDAZ09	3.458	0.60	5y-EDAZ09	-94.501
EDAH10	3.593	0.73	5y-EDAH10	-95.945
EDAM10	3.733	0.87	5y-EDAM10	-96.919
EDAU10	3.858	1.00	5y-EDAU10	-97.634
EDAZ10	3.988	1.13	5y-EDAZ10	-98.126
EDAH11	4.048	1.19	5y-EDAH11	-98.333

Price = Outright Decimal Price - Euro Contract Price

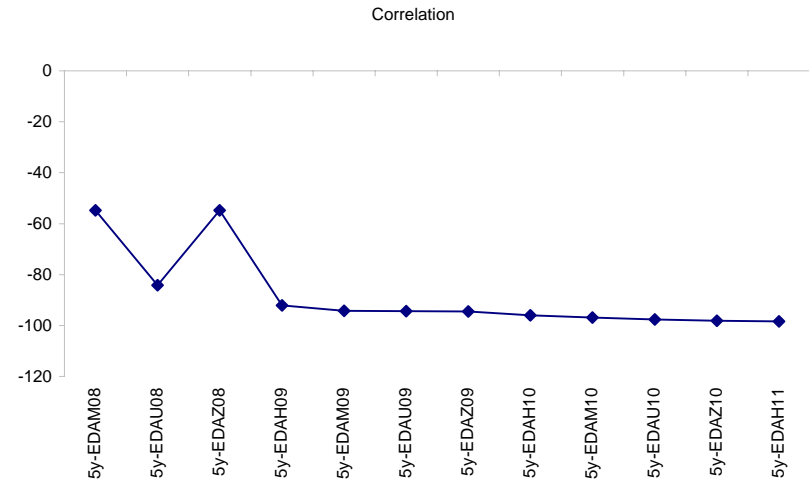
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.065	4.46	4.39	5y-EDAM08
EDAU08	0.314	4.46	4.14	5y-EDAU08
EDAZ08	0.564	4.46	3.90	5y-EDAZ08
EDAH09	0.813	4.46	3.65	5y-EDAH09
EDAM09	1.062	4.46	3.40	5y-EDAM09
EDAU09	1.312	4.46	3.15	5y-EDAU09
EDAZ09	1.561	4.46	2.90	5y-EDAZ09
EDAH10	1.810	4.46	2.65	5y-EDAH10
EDAM10	2.060	4.46	2.40	5y-EDAM10
EDAU10	2.309	4.46	2.15	5y-EDAU10
EDAZ10	2.558	4.46	1.90	5y-EDAZ10
EDAH11	2.808	4.46	1.65	5y-EDAH11

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

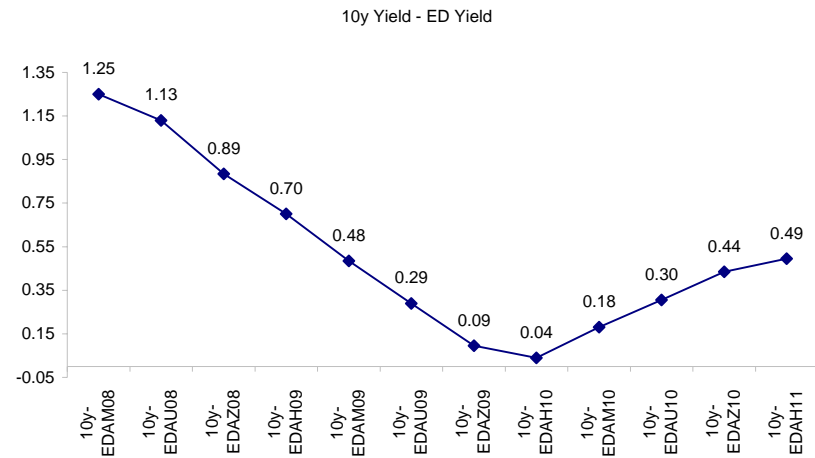


10y				Correlation* (percent)
Spread Price	Spread Yield	Spread Name		
EDAM08	2.303	1.25	10y-EDAM08	-64.464
EDAU08	2.423	1.13	10y-EDAU08	-88.389
EDAZ08	2.668	0.89	10y-EDAZ08	-64.464
EDAH09	2.853	0.70	10y-EDAH09	-91.204
EDAM09	3.068	0.48	10y-EDAM09	-90.627
EDAU09	3.263	0.29	10y-EDAU09	-89.757
EDAZ09	3.458	0.09	10y-EDAZ09	-89.719
EDAH10	3.593	0.04	10y-EDAH10	-91.224
EDAM10	3.733	0.18	10y-EDAM10	-92.635
EDAU10	3.858	0.30	10y-EDAU10	-93.893
EDAZ10	3.988	0.44	10y-EDAZ10	-94.443
EDAH11	4.048	0.49	10y-EDAH11	-95.716

Price = Outright Decimal Price - Euro Contract Price

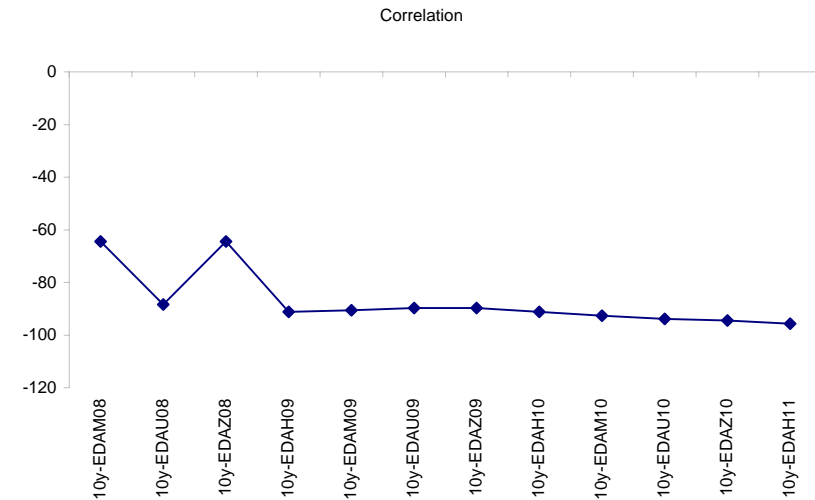
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				Spread Duration	Contract Name
ED Duration	10Y Duration	Fraction of year			
EDAM08	8.06	0.065	7.99	10y-EDAM08	
EDAU08	8.06	0.314	7.74	10y-EDAU08	
EDAZ08	8.06	0.564	7.49	10y-EDAZ08	
EDAH09	8.06	0.813	7.25	10y-EDAH09	
EDAM09	8.06	1.062	7.00	10y-EDAM09	
EDAU09	8.06	1.312	6.75	10y-EDAU09	
EDAZ09	8.06	1.561	6.50	10y-EDAZ09	
EDAH10	8.06	1.810	6.25	10y-EDAH10	
EDAM10	8.06	2.060	6.00	10y-EDAM10	
EDAU10	8.06	2.309	5.75	10y-EDAU10	
EDAZ10	8.06	2.558	5.50	10y-EDAZ10	
EDAH11	8.06	2.808	5.25	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.

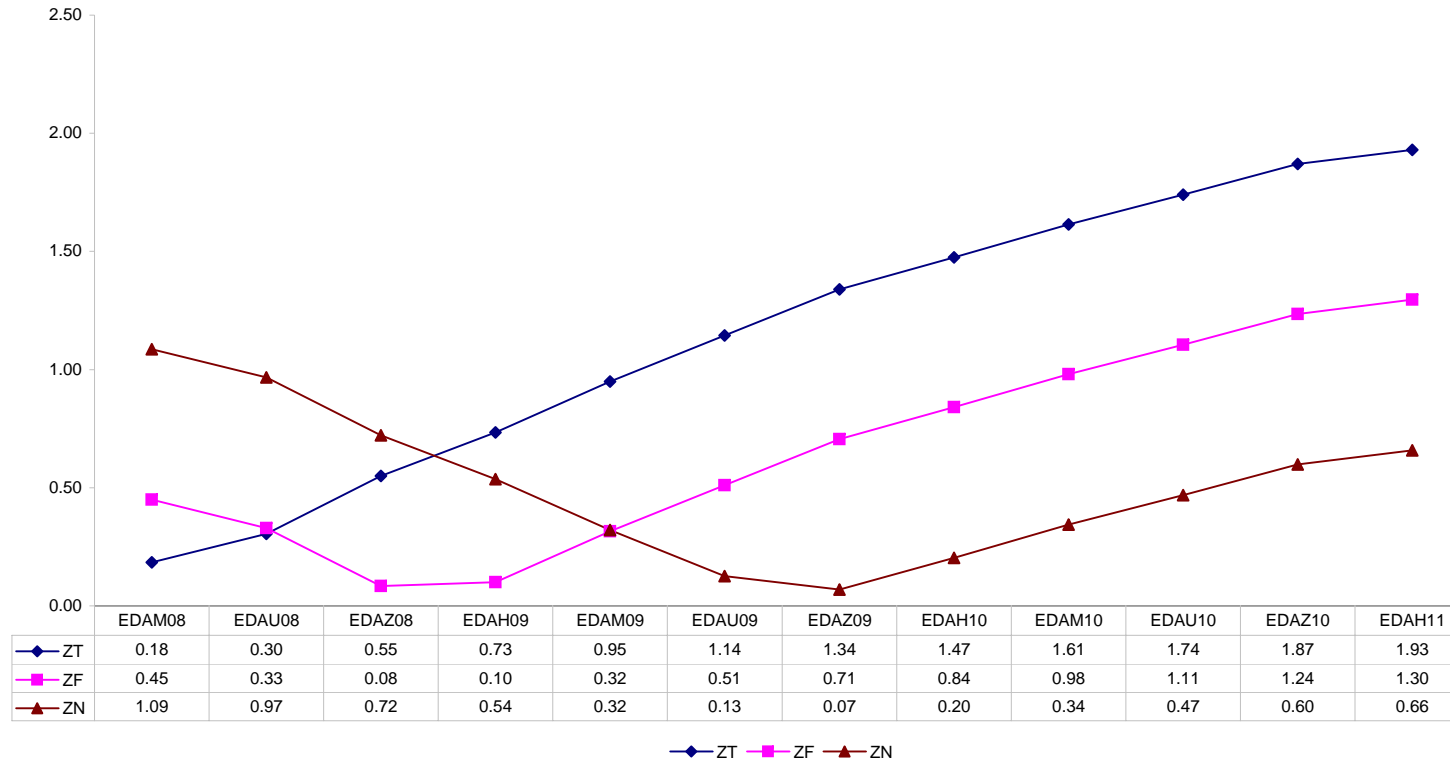
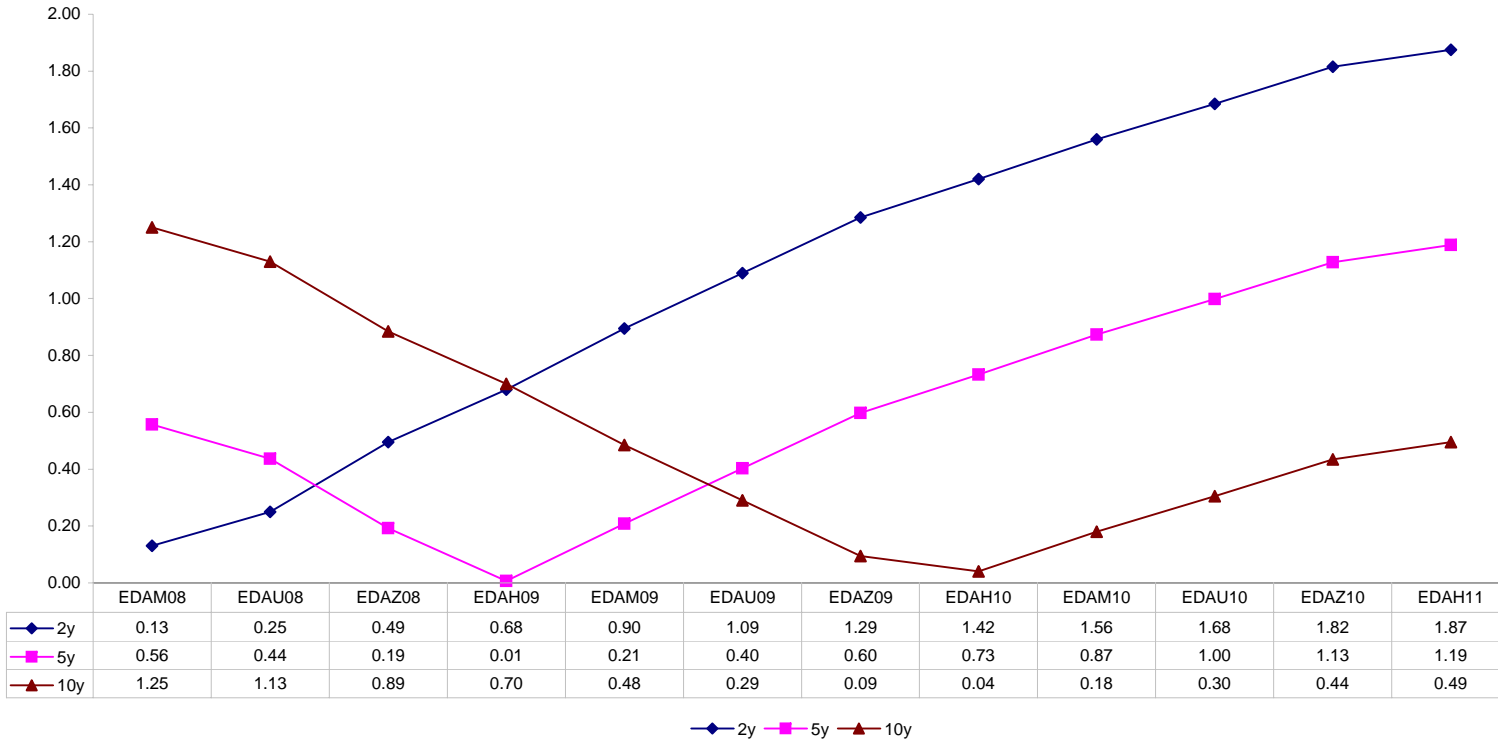
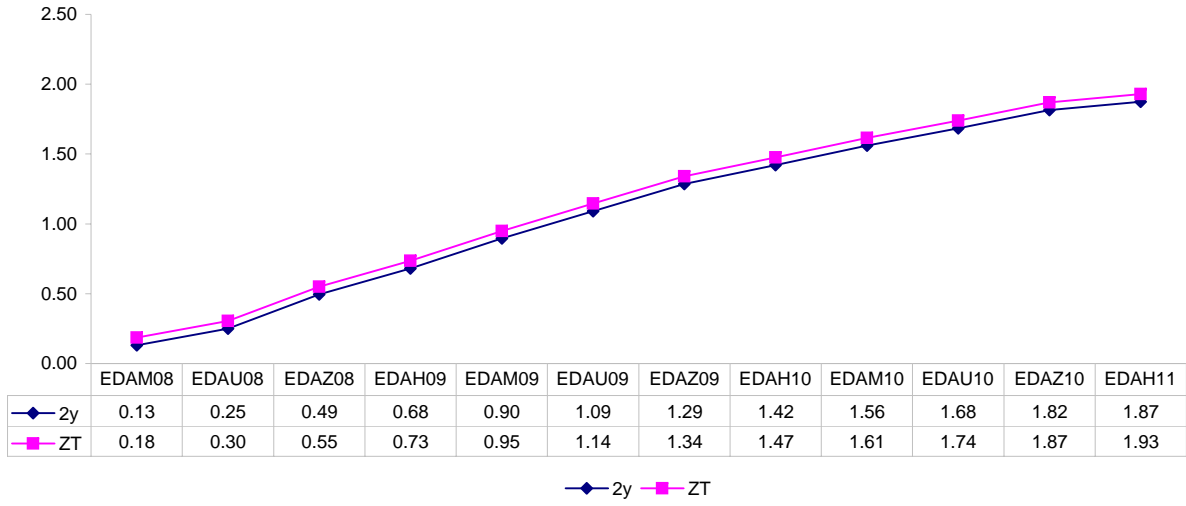


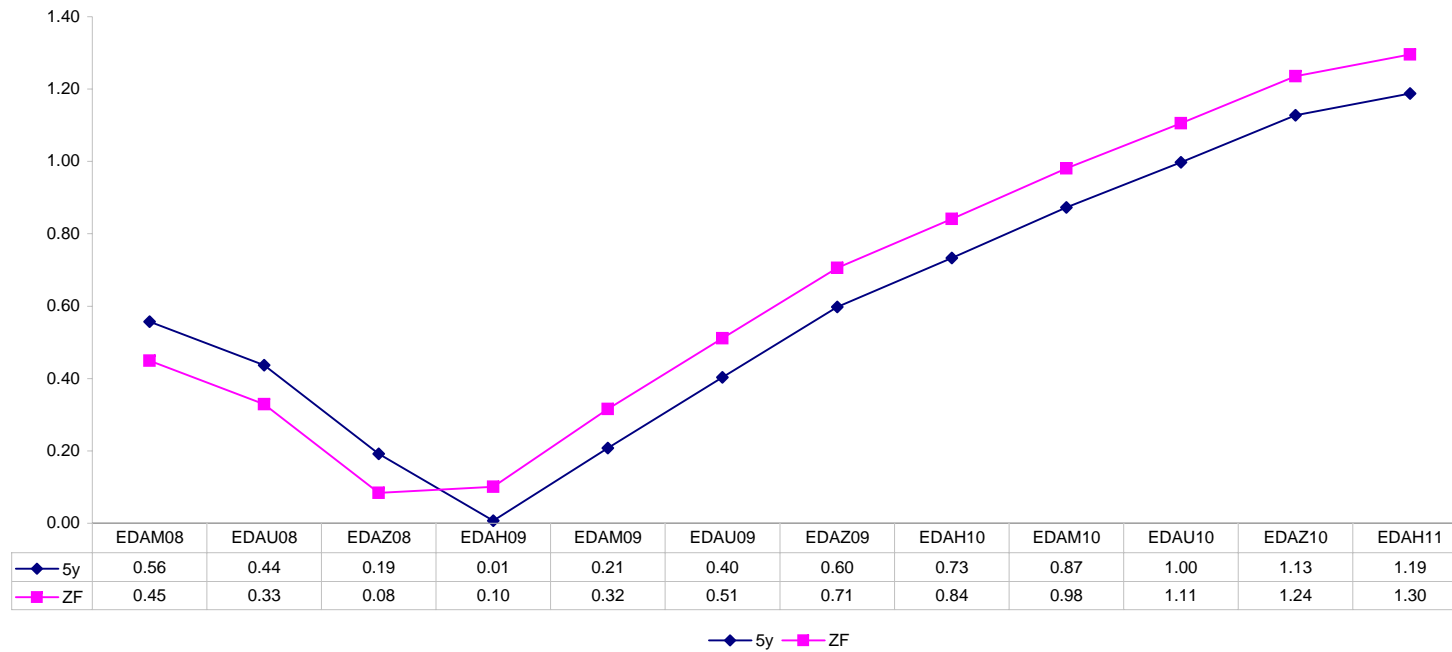
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



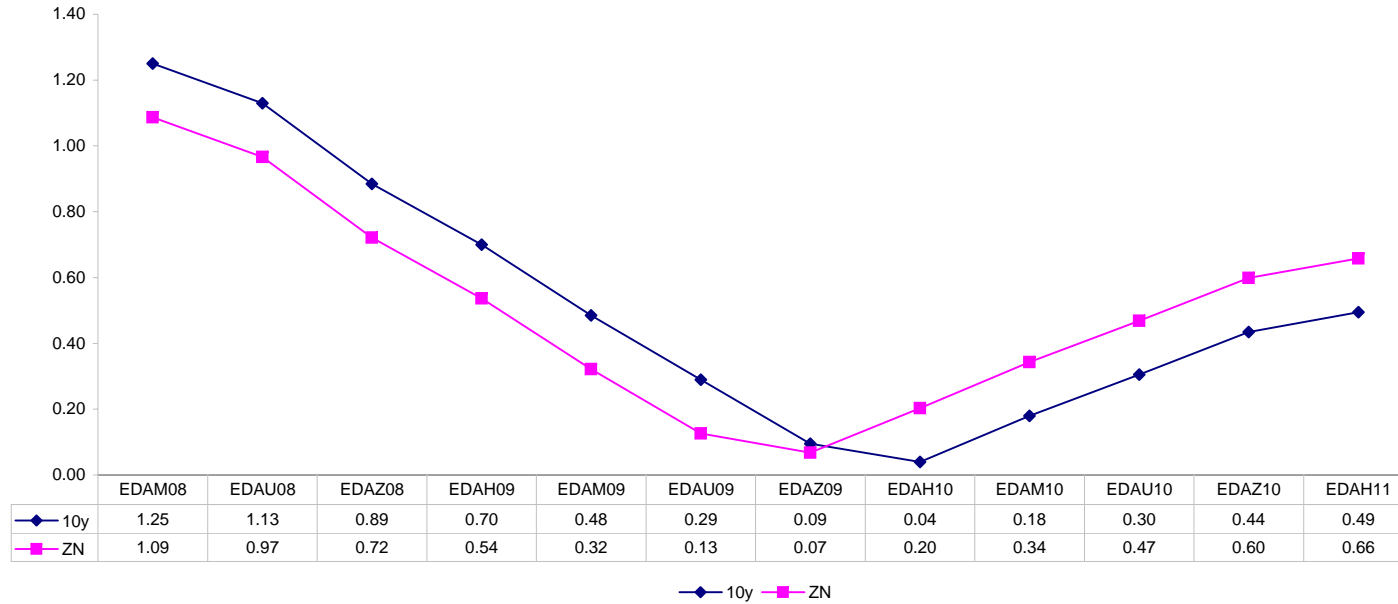
2y Basis TED Curve



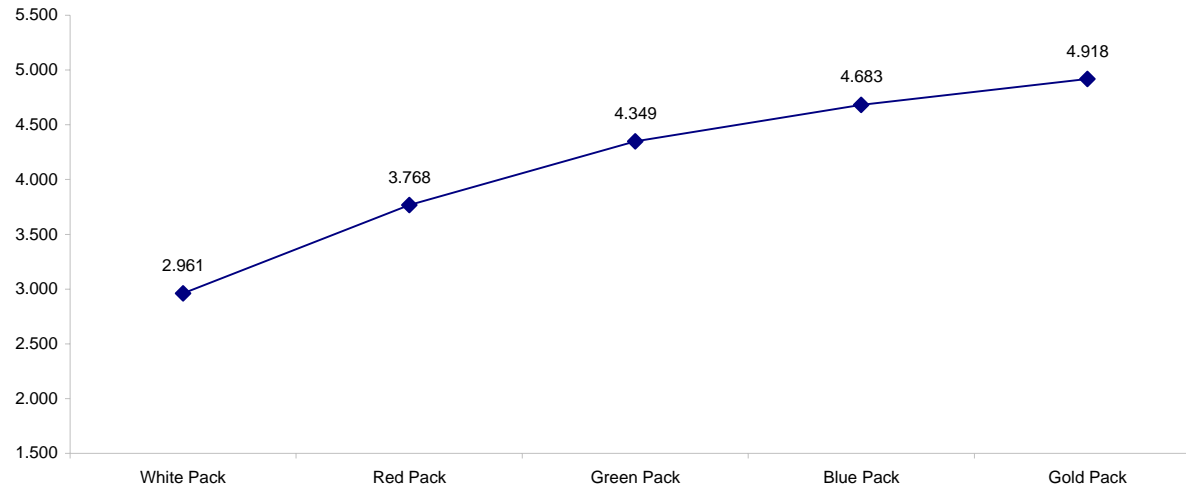
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.961	2.438	9710.125
Red Pack	3.768	3.625	9631.750
Green Pack	4.349	3.750	9575.625
Blue Pack	4.683	2.625	9543.375
Gold Pack	4.918	2.250	9520.750



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

