

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	108.1938	108.062	0.503	1.93
ZF	118.1406	118.045	1.243	1.24
ZN	126.9844	126.315	2.442	6.83
2y	100.866	100.2770	0.803	1.93
5y	102.016	102.0050	1.573	4.70
10y	110.063	110.0200	2.591	8.33

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	98.128	1.873	0	-0.001	DEC	
EDAH09	98.420	1.580	91	0.249	MAR	White Pack
EDAM09	98.390	1.610	182	0.498	JUN	
EDAU09	98.310	1.690	273	0.747	SEP	
EDAZ09	98.190	1.810	364	0.997	DEC	
EDAH10	98.115	1.885	455	1.246	MAR	Red Pack
EDAM10	97.945	2.055	546	1.495	JUN	
EDAU10	97.795	2.205	637	1.744	SEP	
EDAZ10	97.605	2.395	728	1.994	DEC	
EDAH11	97.485	2.515	819	2.243	MAR	Green Pack
EDAM11	97.305	2.695	910	2.492	JUN	
EDAU11	97.170	2.830	1008	2.761	SEP	
EDAZ11	97.040	2.960	1099	3.010	DEC	
EDAH12	97.050	2.950	1190	3.260	MAR	Blue Pack
EDAM12	#VALUE!	#VALUE!	1281	3.509	JUN	
EDAU12	#VALUE!	#VALUE!	1372	3.758	SEP	
EDAZ12	#VALUE!	#VALUE!	1463	4.007	DEC	
EDAH13	#VALUE!	#VALUE!	1554	4.257	MAR	Gold Pack
EDAM13	#VALUE!	#VALUE!	1645	4.506	JUN	
EDZU13	#VALUE!	#VALUE!	1827	5.005	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.719	-1.563	9831.188	
Red Pack	2.027	-2.750	9801.125	Pack Prices
Green Pack	2.662	-4.875	9739.125	
Blue Pack		-2.625	9703.625	
Gold Pack		0.000	9686.625	

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.

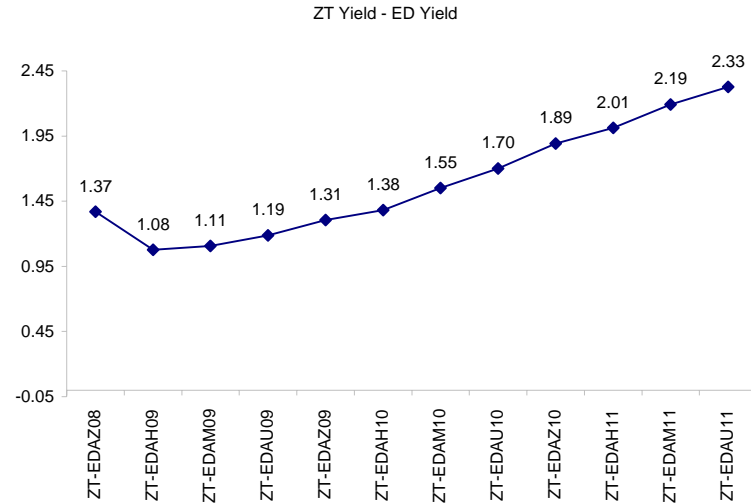
jgoulding@ghco.com

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.

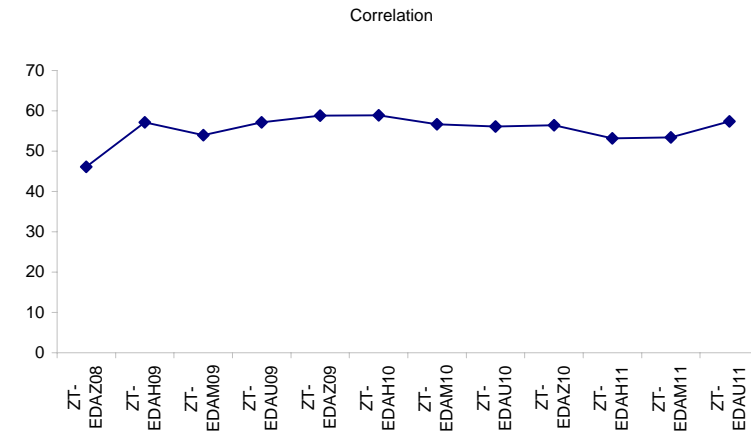
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.066	1.37	ZT-EDAZ08	46.128
EDAH09	9.774	1.08	ZT-EDAH09	57.140
EDAM09	9.804	1.11	ZT-EDAM09	53.986
EDAU09	9.884	1.19	ZT-EDAU09	57.140
EDAZ09	10.004	1.31	ZT-EDAZ09	58.800
EDAH10	10.079	1.38	ZT-EDAH10	58.863
EDAM10	10.249	1.55	ZT-EDAM10	56.683
EDAU10	10.399	1.70	ZT-EDAU10	56.130
EDAZ10	10.589	1.89	ZT-EDAZ10	56.435
EDAH11	10.709	2.01	ZT-EDAH11	53.164
EDAM11	10.889	2.19	ZT-EDAM11	53.388
EDAU11	11.024	2.33	ZT-EDAU11	57.416

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	-0.001	1.93	1.93	ZT-EDAZ08
EDAH09	0.249	1.93	1.68	ZT-EDAH09
EDAM09	0.498	1.93	1.43	ZT-EDAM09
EDAU09	0.747	1.93	1.18	ZT-EDAU09
EDAZ09	0.997	1.93	0.94	ZT-EDAZ09
EDAH10	1.246	1.93	0.69	ZT-EDAH10
EDAM10	1.495	1.93	0.44	ZT-EDAM10
EDAU10	1.744	1.93	0.19	ZT-EDAU10
EDAZ10	1.994	1.93	(0.06)	ZT-EDAZ10
EDAH11	2.243	1.93	(0.31)	ZT-EDAH11
EDAM11	2.492	1.93	(0.56)	ZT-EDAM11
EDAU11	2.761	1.93	(0.83)	ZT-EDAU11

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

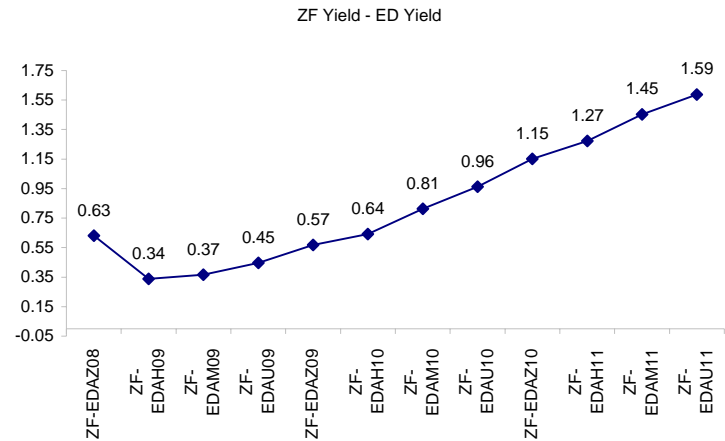


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	20.013	0.63	ZF-EDAZ08	28.770
EDAH09	19.721	0.34	ZF-EDAH09	33.848
EDAM09	19.751	0.37	ZF-EDAM09	42.800
EDAU09	19.831	0.45	ZF-EDAU09	50.180
EDAZ09	19.951	0.57	ZF-EDAZ09	53.010
EDAH10	20.026	0.64	ZF-EDAH10	57.993
EDAM10	20.196	0.81	ZF-EDAM10	62.322
EDAU10	20.346	0.96	ZF-EDAU10	64.102
EDAZ10	20.536	1.15	ZF-EDAZ10	64.927
EDAH11	20.656	1.27	ZF-EDAH11	62.074
EDAM11	20.836	1.45	ZF-EDAM11	60.810
EDAU11	20.971	1.59	ZF-EDAU11	59.648

Price = Outright Decimal Price - Euro Contract Price

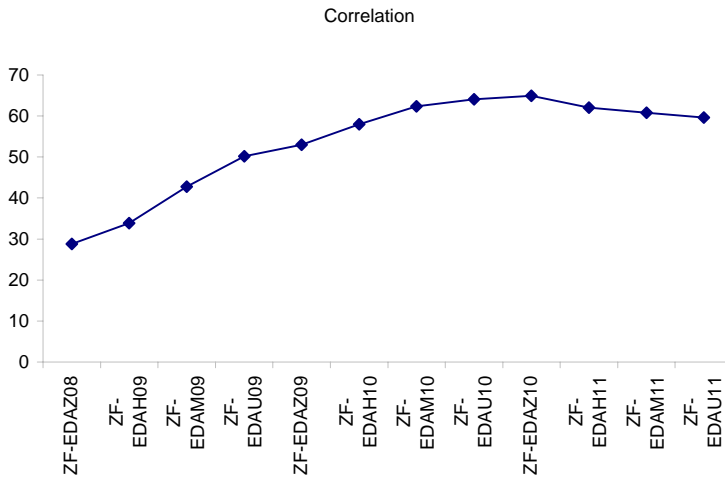
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	-0.001	1.24	1.24	ZF-EDAZ08		
EDAH09	0.249	1.24	0.99	ZF-EDAH09		
EDAM09	0.498	1.24	0.74	ZF-EDAM09		
EDAU09	0.747	1.24	0.50	ZF-EDAU09		
EDAZ09	0.997	1.24	0.25	ZF-EDAZ09		
EDAH10	1.246	1.24	(0.00)	ZF-EDAH10		
EDAM10	1.495	1.24	(0.25)	ZF-EDAM10		
EDAU10	1.744	1.24	(0.50)	ZF-EDAU10		
EDAZ10	1.994	1.24	(0.75)	ZF-EDAZ10		
EDAH11	2.243	1.24	(1.00)	ZF-EDAH11		
EDAM11	2.492	1.24	(1.25)	ZF-EDAM11		
EDAU11	2.761	1.24	(1.52)	ZF-EDAU11		

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

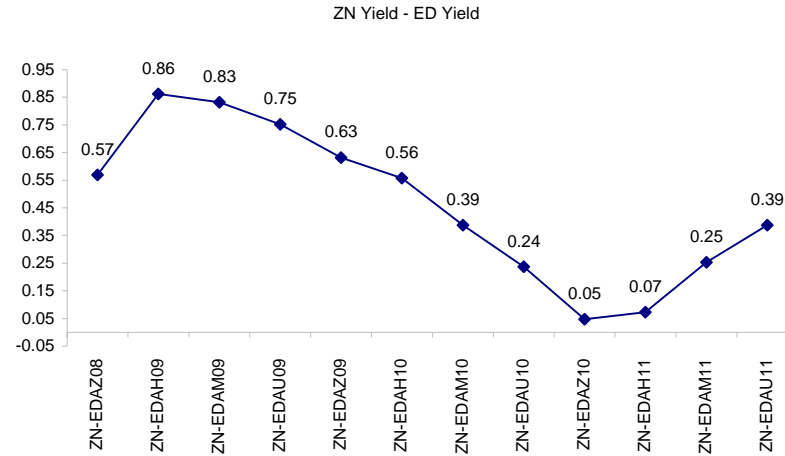


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	28.857	0.57	ZN-EDAZ08	53.852
EDAH09	28.564	0.86	ZN-EDAH09	53.462
EDAM09	28.594	0.83	ZN-EDAM09	58.271
EDAU09	28.674	0.75	ZN-EDAU09	62.129
EDAZ09	28.794	0.63	ZN-EDAZ09	65.298
EDAH10	28.869	0.56	ZN-EDAH10	63.756
EDAM10	29.039	0.39	ZN-EDAM10	62.322
EDAU10	29.189	0.24	ZN-EDAU10	64.102
EDAZ10	29.379	0.05	ZN-EDAZ10	64.927
EDAH11	29.499	0.07	ZN-EDAH11	62.074
EDAM11	29.679	0.25	ZN-EDAM11	60.810
EDAU11	29.814	0.39	ZN-EDAU11	59.648

Price = Outright Decimal Price - Euro Contract Price

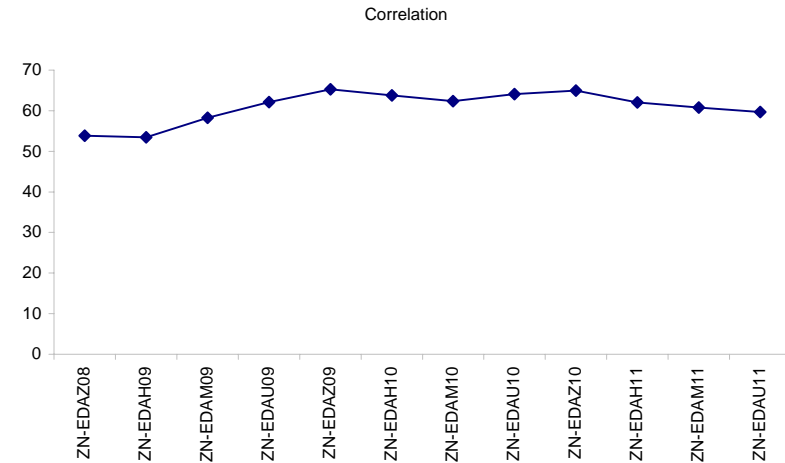
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	-0.001	6.83	6.83	ZN-EDAZ08		
EDAH09	0.249	6.83	6.58	ZN-EDAH09		
EDAM09	0.498	6.83	6.33	ZN-EDAM09		
EDAU09	0.747	6.83	6.08	ZN-EDAU09		
EDAZ09	0.997	6.83	5.83	ZN-EDAZ09		
EDAH10	1.246	6.83	5.58	ZN-EDAH10		
EDAM10	1.495	6.83	5.33	ZN-EDAM10		
EDAU10	1.744	6.83	5.08	ZN-EDAU10		
EDAZ10	1.994	6.83	4.83	ZN-EDAZ10		
EDAH11	2.243	6.83	4.58	ZN-EDAH11		
EDAM11	2.492	6.83	4.34	ZN-EDAM11		
EDAU11	2.761	6.83	4.07	ZN-EDAU11		

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

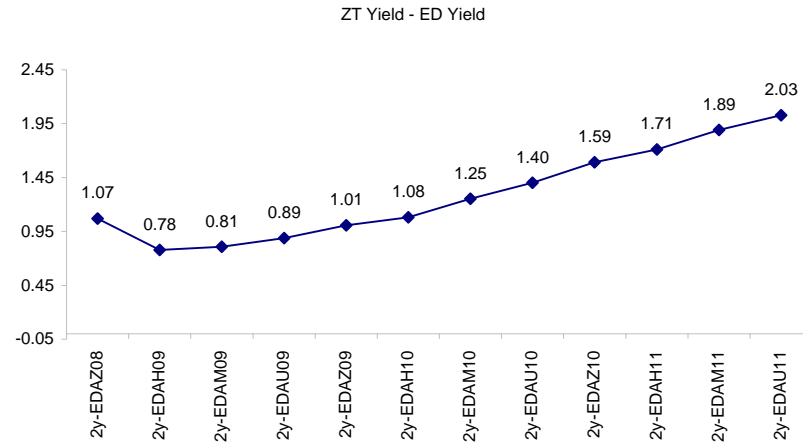


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.738	1.07	2y-EDAZ08	-81.842
EDAH09	2.446	0.78	2y-EDAH09	-85.566
EDAM09	2.476	0.81	2y-EDAM09	-87.984
EDAU09	2.556	0.89	2y-EDAU09	-89.619
EDAZ09	2.676	1.01	2y-EDAZ09	-89.717
EDAH10	2.751	1.08	2y-EDAH10	-84.002
EDAM10	2.921	1.25	2y-EDAM10	-73.511
EDAU10	3.071	1.40	2y-EDAU10	-69.239
EDAZ10	3.261	1.59	2y-EDAZ10	-71.758
EDAH11	3.381	1.71	2y-EDAH11	-67.647
EDAM11	3.561	1.89	2y-EDAM11	-68.461
EDAU11	3.696	2.03	2y-EDAU11	-75.080

Price = Outright Decimal Price - Euro Contract Price

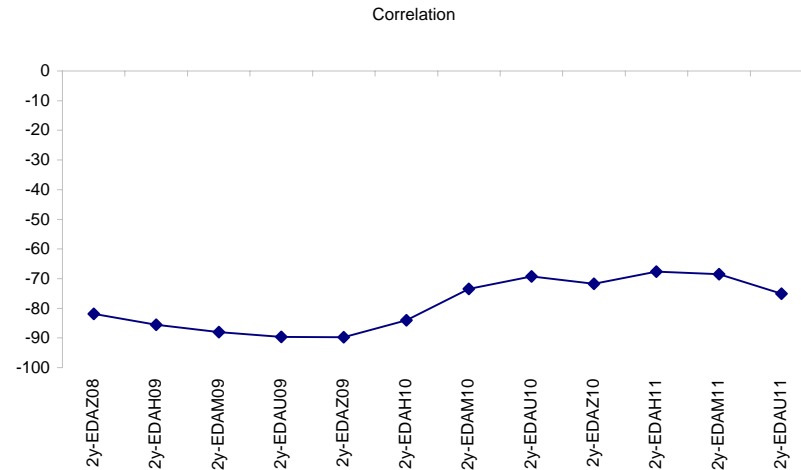
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	-0.001	1.93	1.93	1.93	2y-EDAZ08
EDAH09	0.249	1.93	1.68	1.68	2y-EDAH09
EDAM09	0.498	1.93	1.43	1.43	2y-EDAM09
EDAU09	0.747	1.93	1.18	1.18	2y-EDAU09
EDAZ09	0.997	1.93	0.93	0.93	2y-EDAZ09
EDAH10	1.246	1.93	0.68	0.68	2y-EDAH10
EDAM10	1.495	1.93	0.43	0.43	2y-EDAM10
EDAU10	1.744	1.93	0.19	0.19	2y-EDAU10
EDAZ10	1.994	1.93	(0.06)	(0.06)	2y-EDAZ10
EDAH11	2.243	1.93	(0.31)	(0.31)	2y-EDAH11
EDAM11	2.492	1.93	(0.56)	(0.56)	2y-EDAM11
EDAU11	2.761	1.93	(0.83)	(0.83)	2y-EDAU11

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

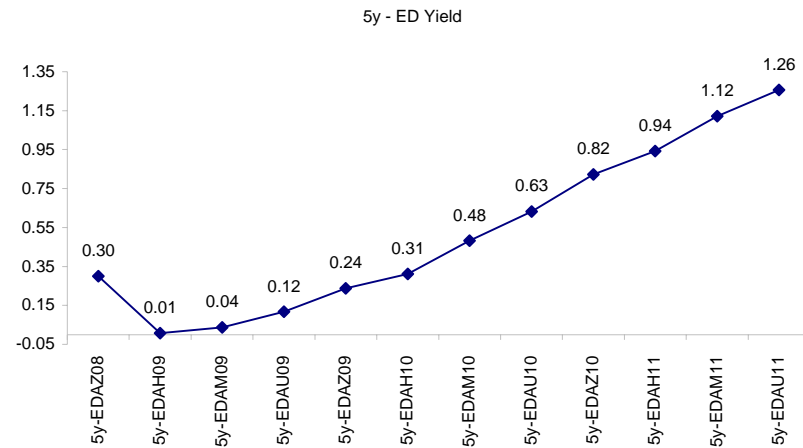


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.888	0.30	5y-EDAZ08	-60.973
EDAH09	3.596	0.01	5y-EDAH09	-66.924
EDAM09	3.626	0.04	5y-EDAM09	-73.448
EDAU09	3.706	0.12	5y-EDAU09	-78.807
EDAZ09	3.826	0.24	5y-EDAZ09	-80.376
EDAH10	3.901	0.31	5y-EDAH10	-80.461
EDAM10	4.071	0.48	5y-EDAM10	-77.566
EDAU10	4.221	0.63	5y-EDAU10	-75.992
EDAZ10	4.411	0.82	5y-EDAZ10	-77.479
EDAH11	4.531	0.94	5y-EDAH11	-73.752
EDAM11	4.711	1.12	5y-EDAM11	-73.166
EDAU11	4.846	1.26	5y-EDAU11	-74.835

Price = Outright Decimal Price - Euro Contract Price

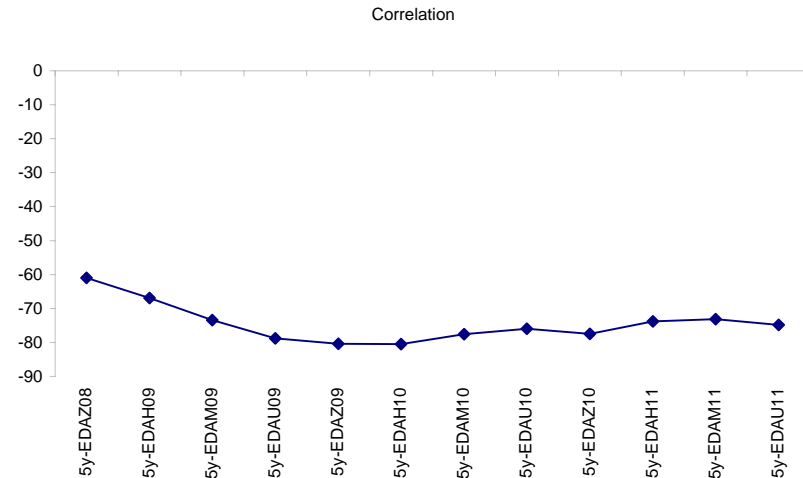
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAZ08	-0.001	4.70	4.71	5y-EDAZ08
EDAH09	0.249	4.70	4.46	5y-EDAH09
EDAM09	0.498	4.70	4.21	5y-EDAM09
EDAU09	0.747	4.70	3.96	5y-EDAU09
EDAZ09	0.997	4.70	3.71	5y-EDAZ09
EDAH10	1.246	4.70	3.46	5y-EDAH10
EDAM10	1.495	4.70	3.21	5y-EDAM10
EDAU10	1.744	4.70	2.96	5y-EDAU10
EDAZ10	1.994	4.70	2.71	5y-EDAZ10
EDAH11	2.243	4.70	2.46	5y-EDAH11
EDAM11	2.492	4.70	2.21	5y-EDAM11
EDAU11	2.761	4.70	1.94	5y-EDAU11

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

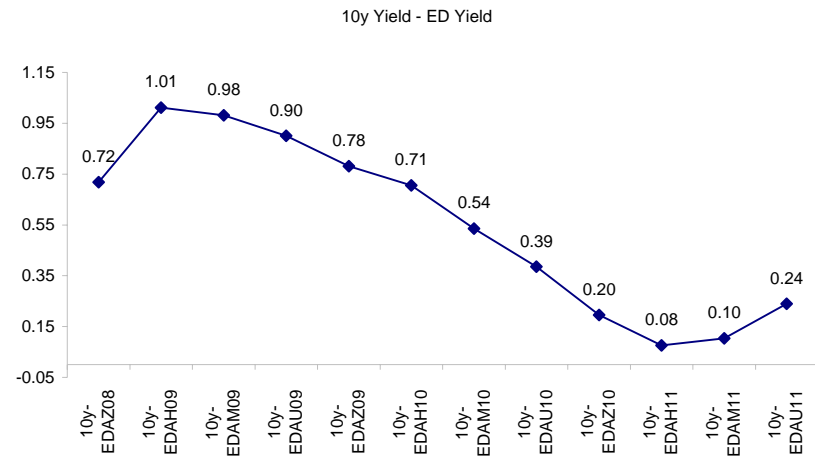


	10y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAZ08	3.888	0.72	10y-EDAZ08	-55.814
EDAH09	3.596	1.01	10y-EDAH09	-58.589
EDAM09	3.626	0.98	10y-EDAM09	-64.447
EDAU09	3.706	0.90	10y-EDAU09	-69.629
EDAZ09	3.826	0.78	10y-EDAZ09	-72.803
EDAH10	3.901	0.71	10y-EDAH10	-72.940
EDAM10	4.071	0.54	10y-EDAM10	-69.766
EDAU10	4.221	0.39	10y-EDAU10	-68.801
EDAZ10	4.411	0.20	10y-EDAZ10	-71.019
EDAH11	4.531	0.08	10y-EDAH11	-68.146
EDAM11	4.711	0.10	10y-EDAM11	-68.979
EDAU11	4.846	0.24	10y-EDAU11	-73.144

Price = Outright Decimal Price - Euro Contract Price

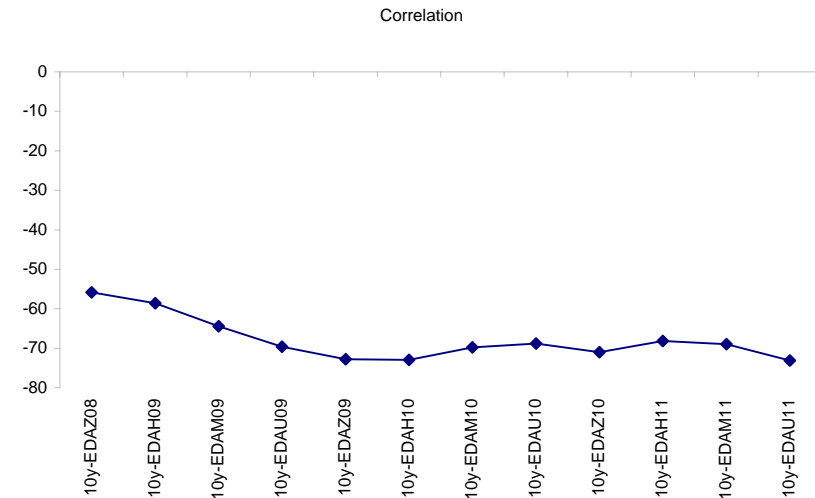
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAZ08	-0.001	8.33	8.33	10y-EDAZ08
EDAH09	0.249	8.33	8.08	10y-EDAH09
EDAM09	0.498	8.33	7.83	10y-EDAM09
EDAU09	0.747	8.33	7.58	10y-EDAU09
EDAZ09	0.997	8.33	7.33	10y-EDAZ09
EDAH10	1.246	8.33	7.08	10y-EDAH10
EDAM10	1.495	8.33	6.83	10y-EDAM10
EDAU10	1.744	8.33	6.58	10y-EDAU10
EDAZ10	1.994	8.33	6.33	10y-EDAZ10
EDAH11	2.243	8.33	6.08	10y-EDAH11
EDAM11	2.492	8.33	5.83	10y-EDAM11
EDAU11	2.761	8.33	5.57	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.

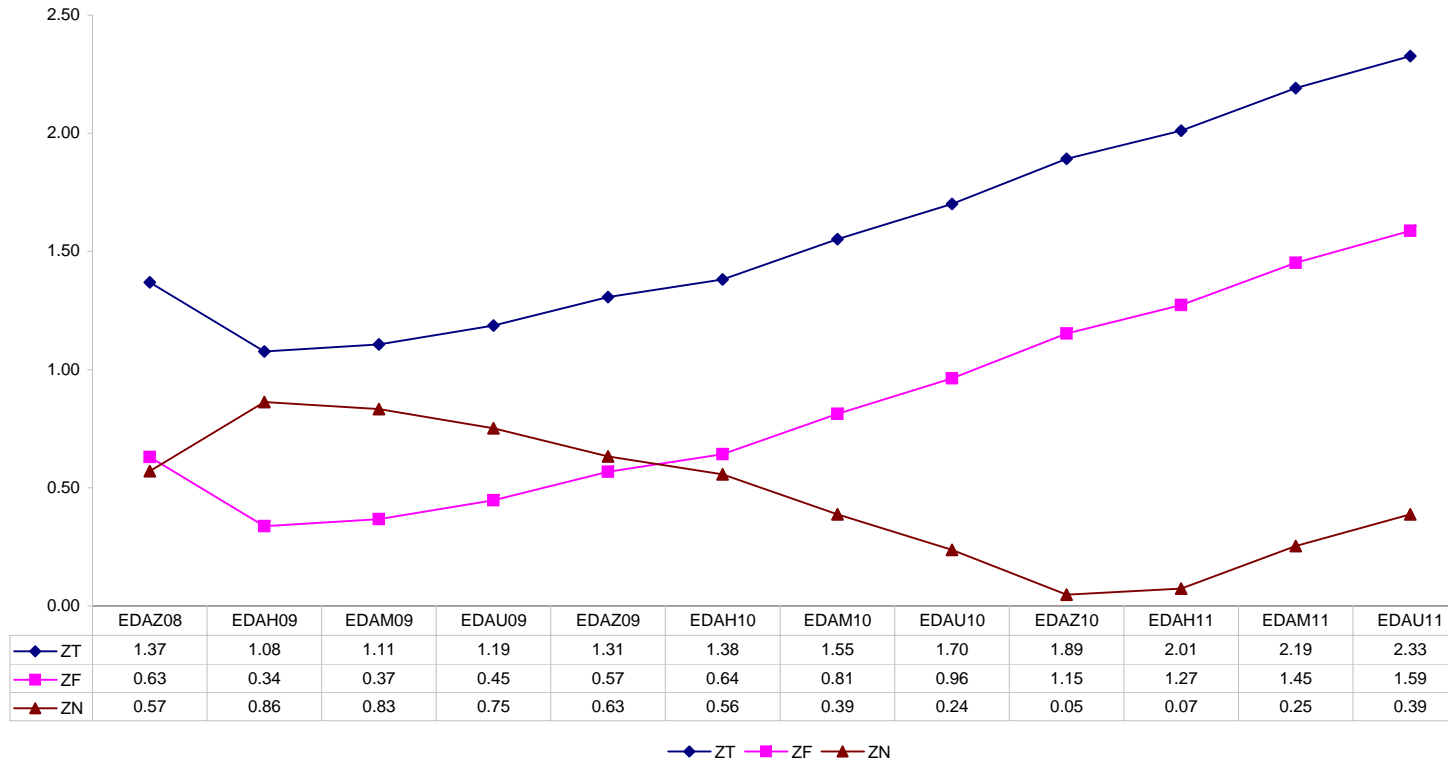
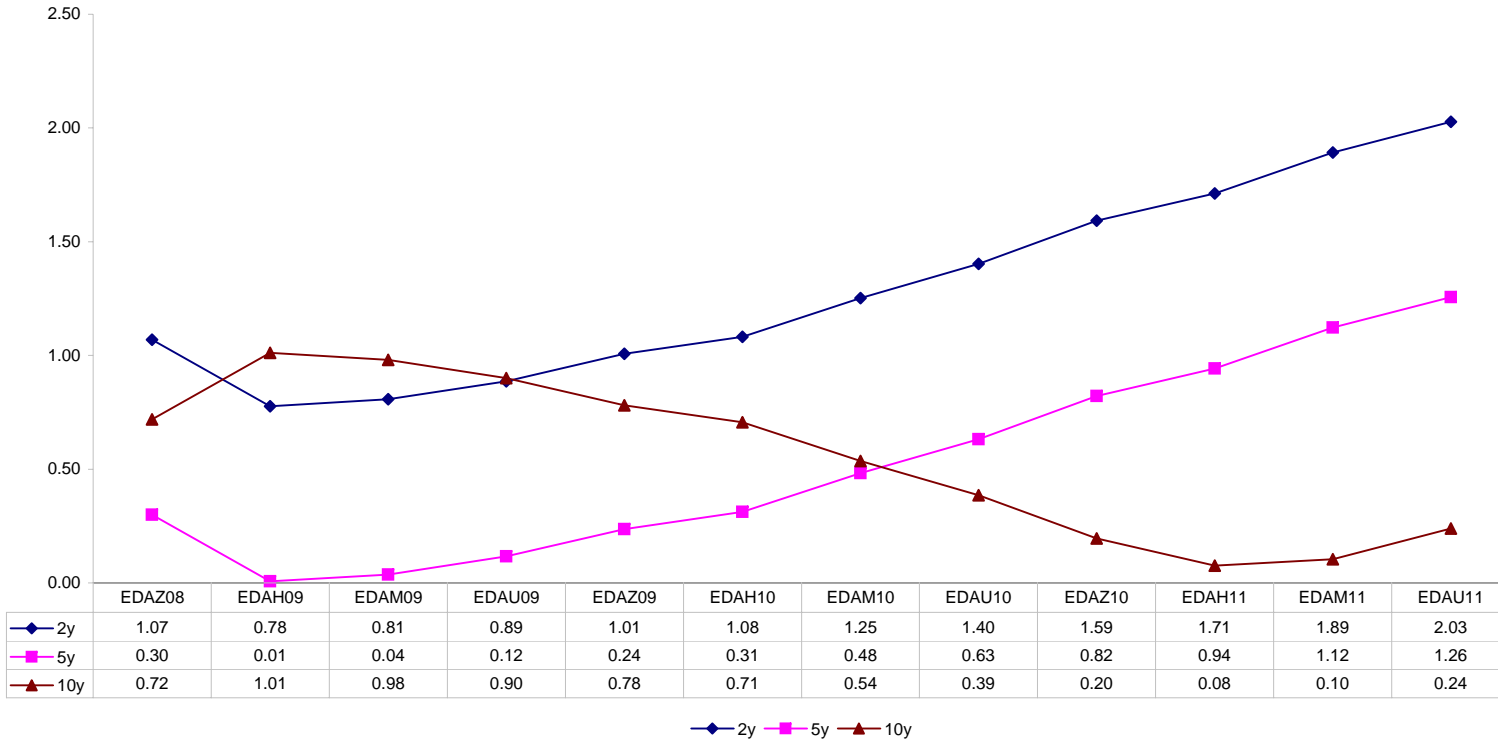
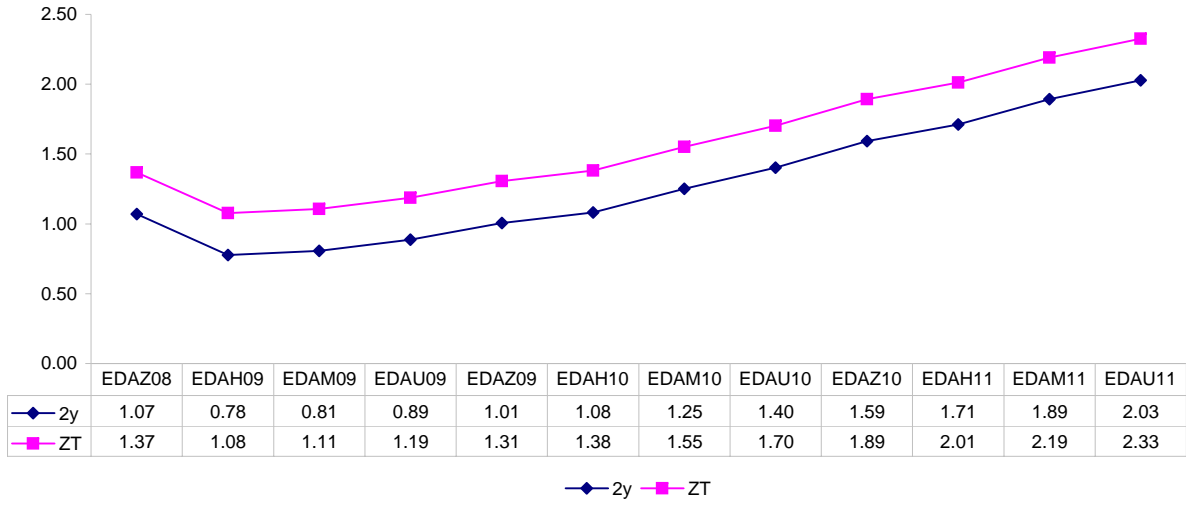


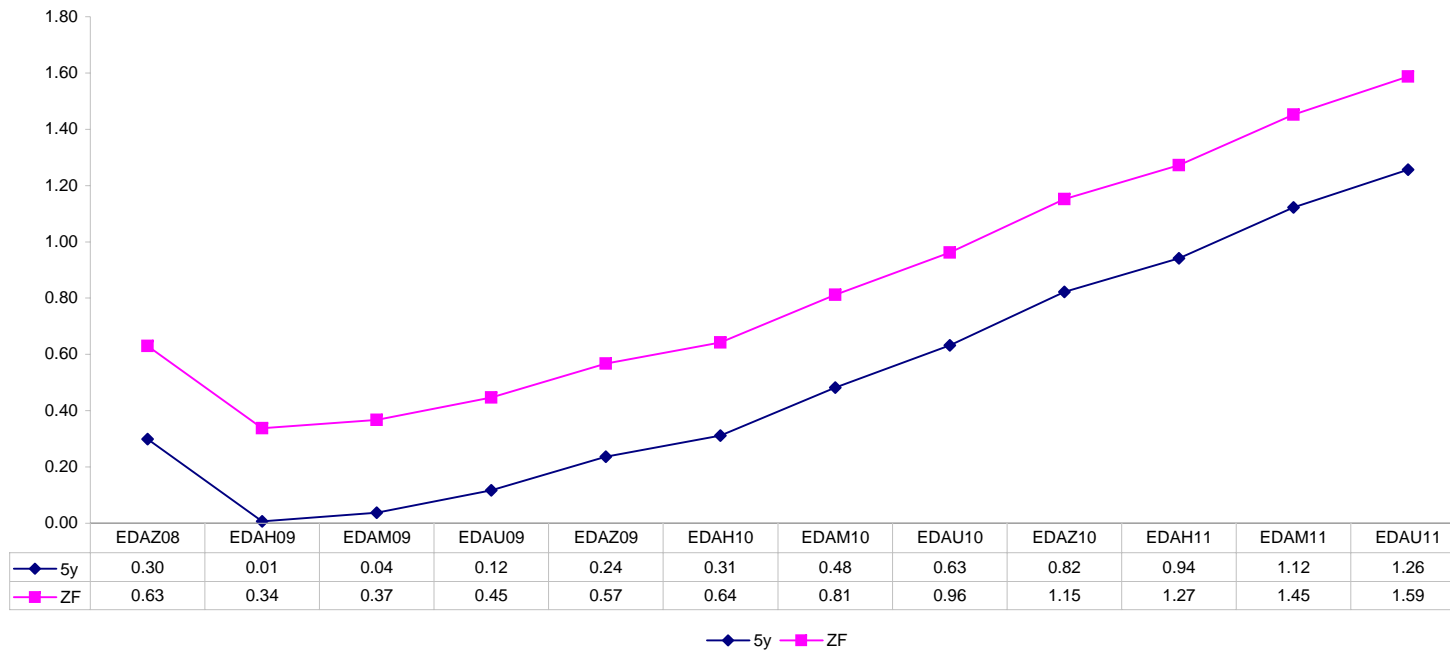
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



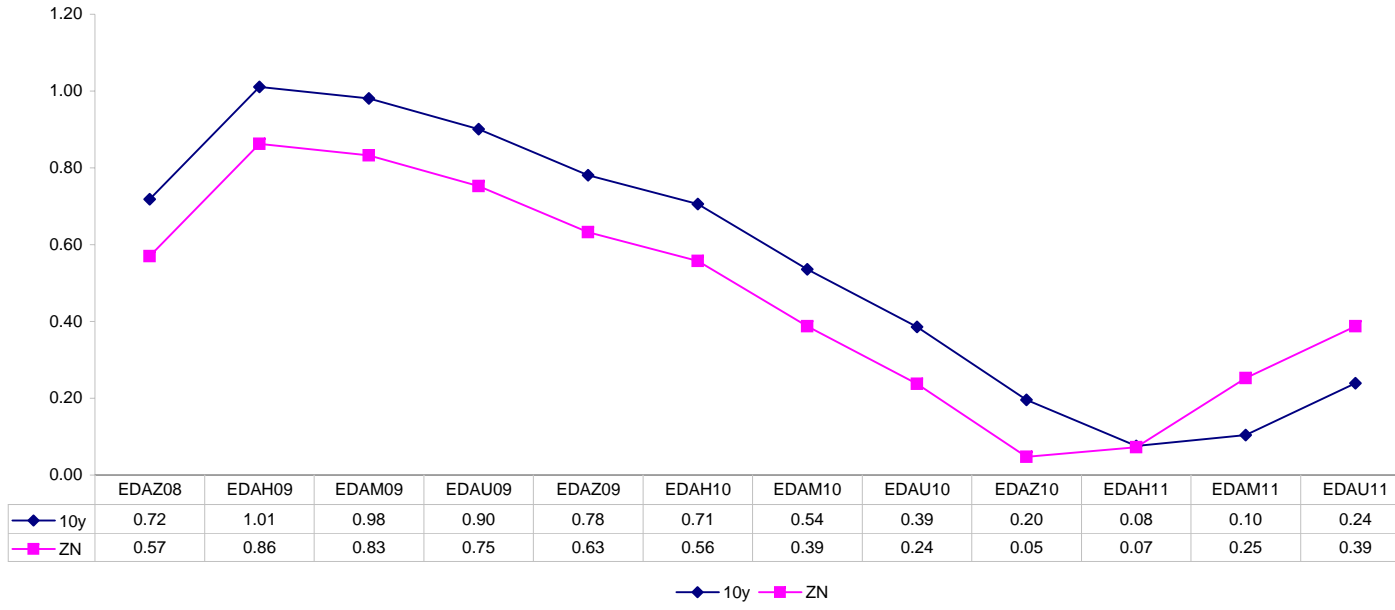
2y Basis TED Curve



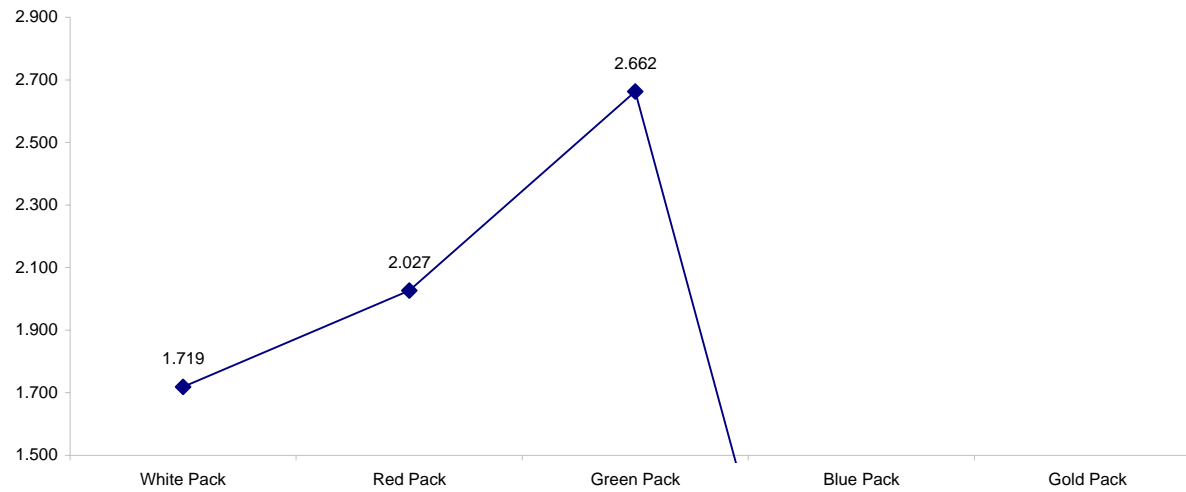
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	1.719	-1.563	9831.188
Red Pack	2.027	-2.750	9801.125
Green Pack	2.662	-4.875	9739.125
Blue Pack		-2.625	9703.625
Gold Pack		0.000	9686.625



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

