

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	108.6094	108.195	0.373	1.93
ZF	120.0219	120.007	0.986	0.99
ZN	130.0625	130.020	2.048	6.86
2y	101.125	101.0400	0.665	1.93
5y	103.381	103.1220	1.291	4.71
10y	113.719	113.2300	2.201	8.37

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	98.128	1.873	#VALUE!	#VALUE!		
EDAH09	98.800	1.200	89	0.243	MAR	White Pack
EDAM09	98.780	1.220	180	0.492	JUN	
EDAU09	98.695	1.305	271	0.742	SEP	
EDAZ09	98.550	1.450	362	0.991	DEC	
EDAH10	98.455	1.545	453	1.240	MAR	Red Pack
EDAM10	98.280	1.720	544	1.490	JUN	
EDAU10	98.135	1.865	635	1.739	SEP	
EDAZ10	97.970	2.030	726	1.988	DEC	
EDAH11	97.880	2.120	817	2.238	MAR	Green Pack
EDAM11	97.730	2.270	908	2.487	JUN	
EDAU11	97.625	2.375	1006	2.756	SEP	
EDAZ11	97.505	2.495	1097	3.005	DEC	
EDAH12	97.480	2.520	1188	3.254	MAR	Blue Pack
EDAM12	97.435	2.565	1279	3.503	JUN	
EDAU12	97.370	2.630	1370	3.753	SEP	
EDAZ12	97.390	2.610	1461	4.002	DEC	
EDAH13	97.260	2.740	1552	4.251	MAR	Gold Pack
EDAM13	97.200	2.800	1643	4.501	JUN	
EDZU13	97.045	2.955	1825	4.999	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.316	0.000	9870.625	
Red Pack	1.823	-0.750	9821.000	Pack Prices
Green Pack	2.361	3.625	9768.500	
Blue Pack		6.625	9740.875	
Gold Pack		0.000	9713.875	

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.

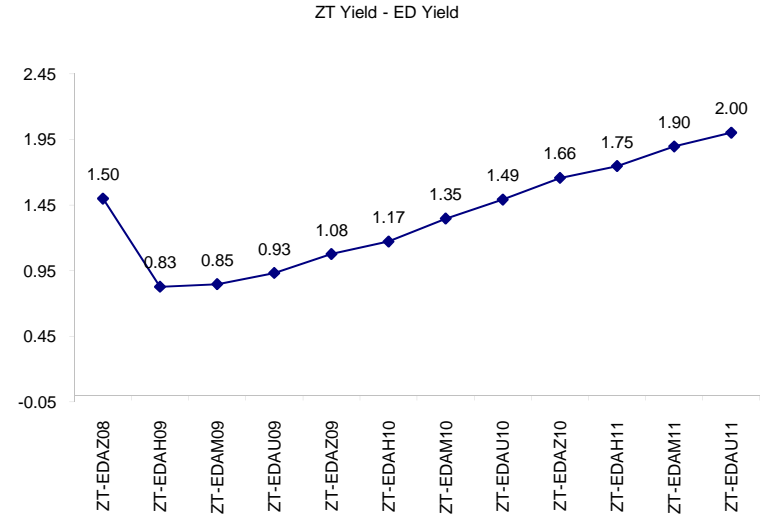
jgoulding@ghco.com

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.

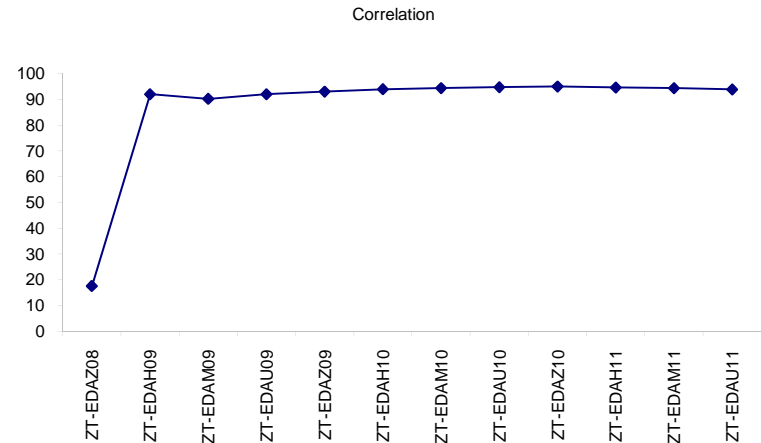
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.482	1.50	ZT-EDAZ08	17.623
EDAH09	9.809	0.83	ZT-EDAH09	92.030
EDAM09	9.829	0.85	ZT-EDAM09	90.249
EDAU09	9.914	0.93	ZT-EDAU09	92.030
EDAZ09	10.059	1.08	ZT-EDAZ09	93.081
EDAH10	10.154	1.17	ZT-EDAH10	93.995
EDAM10	10.329	1.35	ZT-EDAM10	94.441
EDAU10	10.474	1.49	ZT-EDAU10	94.758
EDAZ10	10.639	1.66	ZT-EDAZ10	95.061
EDAH11	10.729	1.75	ZT-EDAH11	94.646
EDAM11	10.879	1.90	ZT-EDAM11	94.380
EDAU11	10.984	2.00	ZT-EDAU11	93.905

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	#VALUE!	1.93	#VALUE!	ZT-EDAZ08	
EDAH09	0.243	1.93	1.68	ZT-EDAH09	
EDAM09	0.492	1.93	1.44	ZT-EDAM09	
EDAU09	0.742	1.93	1.19	ZT-EDAU09	
EDAZ09	0.991	1.93	0.94	ZT-EDAZ09	
EDAH10	1.240	1.93	0.69	ZT-EDAH10	
EDAM10	1.490	1.93	0.44	ZT-EDAM10	
EDAU10	1.739	1.93	0.19	ZT-EDAU10	
EDAZ10	1.988	1.93	(0.06)	ZT-EDAZ10	
EDAH11	2.238	1.93	(0.31)	ZT-EDAH11	
EDAM11	2.487	1.93	(0.56)	ZT-EDAM11	
EDAU11	2.756	1.93	(0.83)	ZT-EDAU11	

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

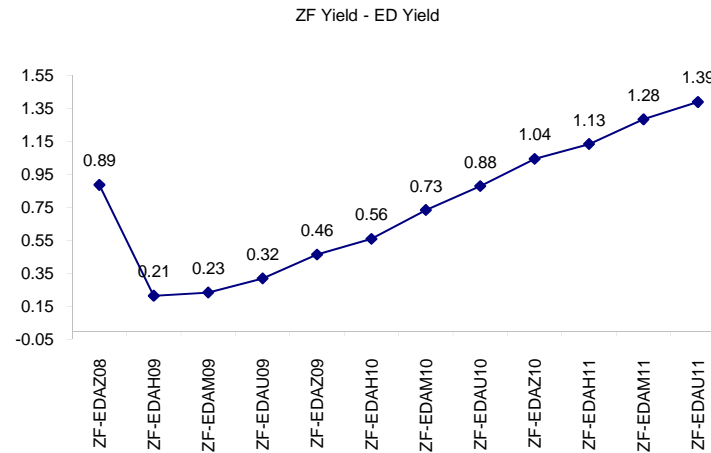


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	21.894	0.89	ZF-EDAZ08	39.023
EDAH09	21.222	0.21	ZF-EDAH09	85.056
EDAM09	21.242	0.23	ZF-EDAM09	88.644
EDAU09	21.327	0.32	ZF-EDAU09	91.248
EDAZ09	21.472	0.46	ZF-EDAZ09	92.365
EDAH10	21.567	0.56	ZF-EDAH10	94.591
EDAM10	21.742	0.73	ZF-EDAM10	96.480
EDAU10	21.887	0.88	ZF-EDAU10	96.872
EDAZ10	22.052	1.04	ZF-EDAZ10	96.879
EDAH11	22.142	1.13	ZF-EDAH11	97.016
EDAM11	22.292	1.28	ZF-EDAM11	97.091
EDAU11	22.397	1.39	ZF-EDAU11	96.583

Price = Outright Decimal Price - Euro Contract Price

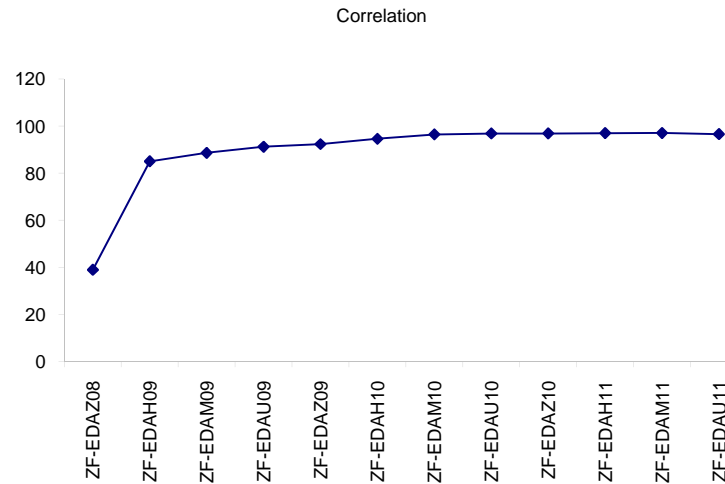
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



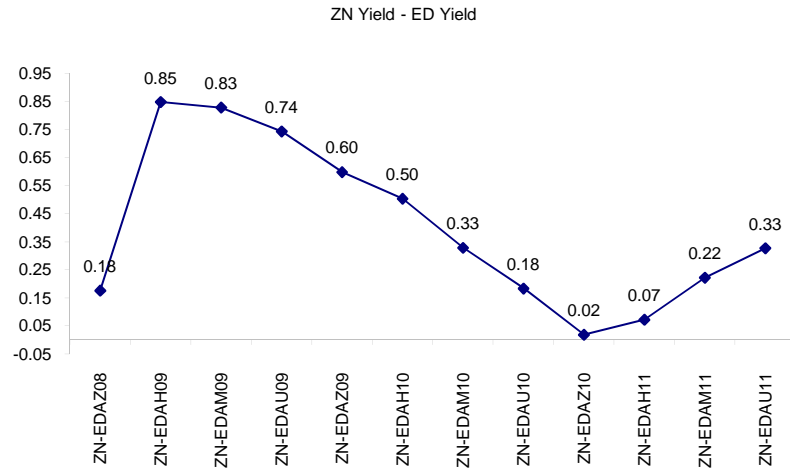
ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	#VALUE!	0.99	#VALUE!	ZF-EDAZ08		
EDAH09	0.243	0.99	0.74	ZF-EDAH09		
EDAM09	0.492	0.99	0.49	ZF-EDAM09		
EDAU09	0.742	0.99	0.24	ZF-EDAU09		
EDAZ09	0.991	0.99	(0.01)	ZF-EDAZ09		
EDAH10	1.240	0.99	(0.25)	ZF-EDAH10		
EDAM10	1.490	0.99	(0.50)	ZF-EDAM10		
EDAU10	1.739	0.99	(0.75)	ZF-EDAU10		
EDAZ10	1.988	0.99	(1.00)	ZF-EDAZ10		
EDAH11	2.238	0.99	(1.25)	ZF-EDAH11		
EDAM11	2.487	0.99	(1.50)	ZF-EDAM11		
EDAU11	2.756	0.99	(1.77)	ZF-EDAU11		

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



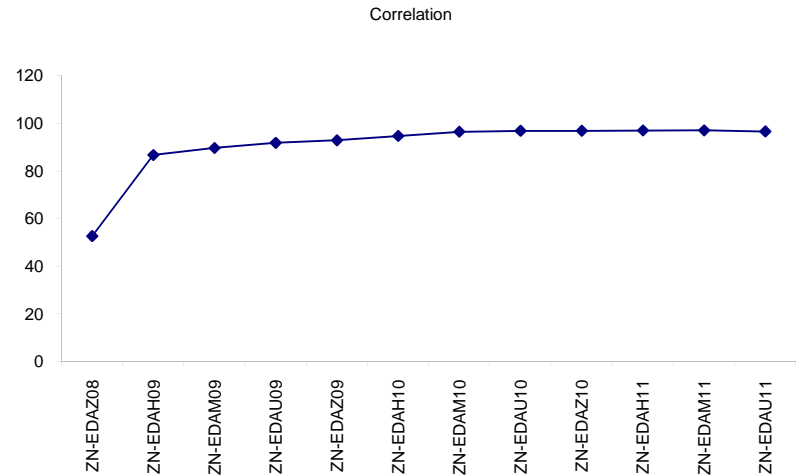
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	31.935	0.18	ZN-EDAZ08	52.603
EDAH09	31.263	0.85	ZN-EDAH09	86.718
EDAM09	31.283	0.83	ZN-EDAM09	89.639
EDAU09	31.368	0.74	ZN-EDAU09	91.831
EDAZ09	31.513	0.60	ZN-EDAZ09	92.896
EDAH10	31.608	0.50	ZN-EDAH10	94.716
EDAM10	31.783	0.33	ZN-EDAM10	96.480
EDAU10	31.928	0.18	ZN-EDAU10	96.872
EDAZ10	32.093	0.02	ZN-EDAZ10	96.879
EDAH11	32.183	0.07	ZN-EDAH11	97.016
EDAM11	32.333	0.22	ZN-EDAM11	97.091
EDAU11	32.438	0.33	ZN-EDAU11	96.583

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	#VALUE!	6.86	#VALUE!	ZN-EDAZ08
EDAH09	0.243	6.86	6.61	ZN-EDAH09
EDAM09	0.492	6.86	6.36	ZN-EDAM09
EDAU09	0.742	6.86	6.11	ZN-EDAU09
EDAZ09	0.991	6.86	5.87	ZN-EDAZ09
EDAH10	1.240	6.86	5.62	ZN-EDAH10
EDAM10	1.490	6.86	5.37	ZN-EDAM10
EDAU10	1.739	6.86	5.12	ZN-EDAU10
EDAZ10	1.988	6.86	4.87	ZN-EDAZ10
EDAH11	2.238	6.86	4.62	ZN-EDAH11
EDAM11	2.487	6.86	4.37	ZN-EDAM11
EDAU11	2.756	6.86	4.10	ZN-EDAU11

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

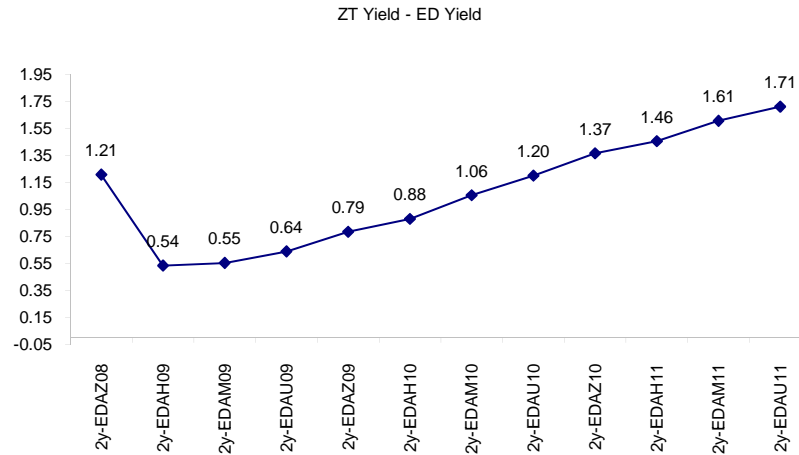


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.998	1.21	2y-EDAZ08	-83.902
EDAH09	2.325	0.54	2y-EDAH09	-94.230
EDAM09	2.345	0.55	2y-EDAM09	-95.165
EDAU09	2.430	0.64	2y-EDAU09	-96.440
EDAZ09	2.575	0.79	2y-EDAZ09	-97.677
EDAH10	2.670	0.88	2y-EDAH10	-97.738
EDAM10	2.845	1.06	2y-EDAM10	-96.982
EDAU10	2.990	1.20	2y-EDAU10	-96.471
EDAZ10	3.155	1.37	2y-EDAZ10	-96.086
EDAH11	3.245	1.46	2y-EDAH11	-95.067
EDAM11	3.395	1.61	2y-EDAM11	-94.204
EDAU11	3.500	1.71	2y-EDAU11	-93.073

Price = Outright Decimal Price - Euro Contract Price

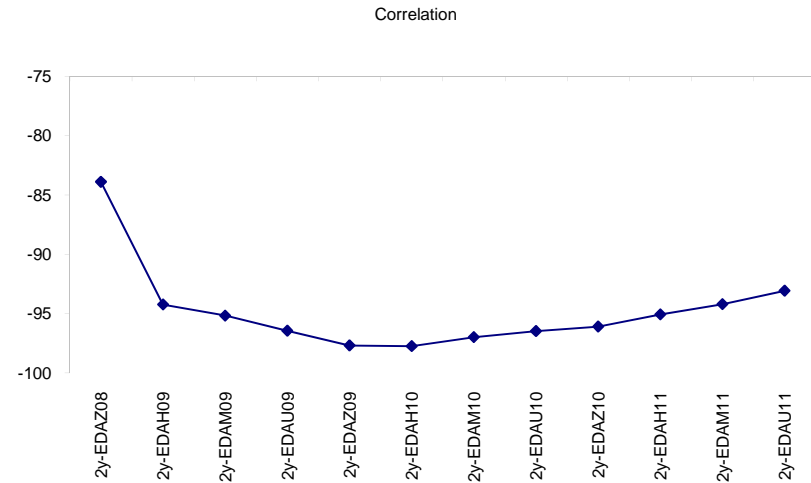
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	#VALUE!		1.93	#VALUE!	2y-EDAZ08
EDAH09	0.243		1.93	1.68	2y-EDAH09
EDAM09	0.492		1.93	1.43	2y-EDAM09
EDAU09	0.742		1.93	1.18	2y-EDAU09
EDAZ09	0.991		1.93	0.93	2y-EDAZ09
EDAH10	1.240		1.93	0.69	2y-EDAH10
EDAM10	1.490		1.93	0.44	2y-EDAM10
EDAU10	1.739		1.93	0.19	2y-EDAU10
EDAZ10	1.988		1.93	(0.06)	2y-EDAZ10
EDAH11	2.238		1.93	(0.31)	2y-EDAH11
EDAM11	2.487		1.93	(0.56)	2y-EDAM11
EDAU11	2.756		1.93	(0.83)	2y-EDAU11

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

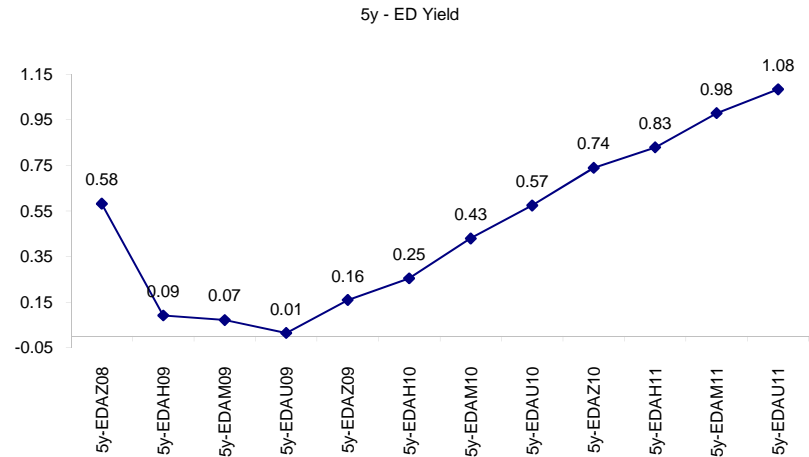


	5y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAZ08	5.254	0.58	5y-EDAZ08	-68.592
EDAH09	4.581	0.09	5y-EDAH09	-91.233
EDAM09	4.601	0.07	5y-EDAM09	-93.838
EDAU09	4.686	0.01	5y-EDAU09	-95.760
EDAZ09	4.831	0.16	5y-EDAZ09	-96.727
EDAH10	4.926	0.25	5y-EDAH10	-98.057
EDAM10	5.101	0.43	5y-EDAM10	-98.913
EDAU10	5.246	0.57	5y-EDAU10	-98.772
EDAZ10	5.411	0.74	5y-EDAZ10	-98.435
EDAH11	5.501	0.83	5y-EDAH11	-97.976
EDAM11	5.651	0.98	5y-EDAM11	-97.546
EDAU11	5.756	1.08	5y-EDAU11	-96.621

Price = Outright Decimal Price - Euro Contract Price

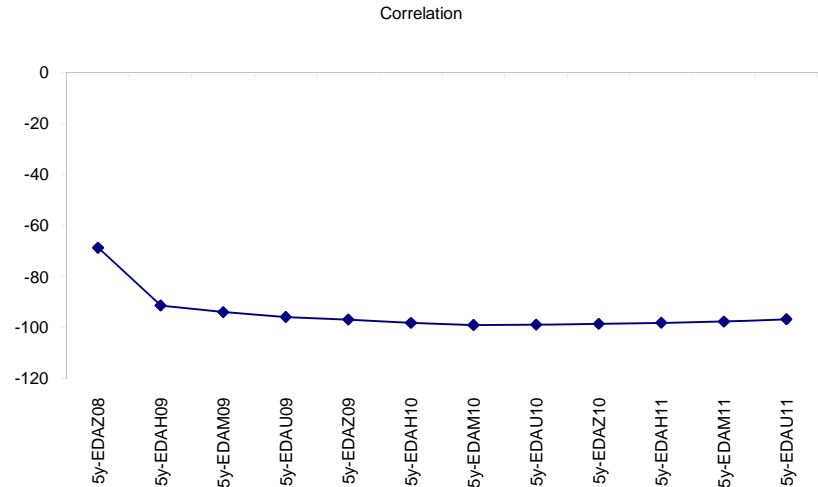
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	5Y Duration	Spread Duration	
EDAZ08	#VALUE!	4.71	#VALUE!	5y-EDAZ08
EDAH09	0.243	4.71	4.46	5y-EDAH09
EDAM09	0.492	4.71	4.22	5y-EDAM09
EDAU09	0.742	4.71	3.97	5y-EDAU09
EDAZ09	0.991	4.71	3.72	5y-EDAZ09
EDAH10	1.240	4.71	3.47	5y-EDAH10
EDAM10	1.490	4.71	3.22	5y-EDAM10
EDAU10	1.739	4.71	2.97	5y-EDAU10
EDAZ10	1.988	4.71	2.72	5y-EDAZ10
EDAH11	2.238	4.71	2.47	5y-EDAH11
EDAM11	2.487	4.71	2.22	5y-EDAM11
EDAU11	2.756	4.71	1.95	5y-EDAU11

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

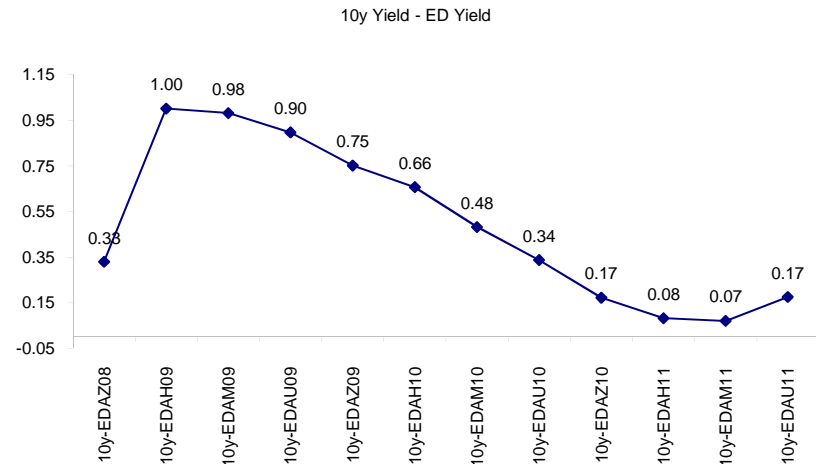


	10y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAZ08	5.254	0.33	10y-EDAZ08	-56.900
EDAH09	4.581	1.00	10y-EDAH09	-88.629
EDAM09	4.601	0.98	10y-EDAM09	-91.644
EDAU09	4.686	0.90	10y-EDAU09	-93.644
EDAZ09	4.831	0.75	10y-EDAZ09	-94.410
EDAH10	4.926	0.66	10y-EDAH10	-96.110
EDAM10	5.101	0.48	10y-EDAM10	-97.452
EDAU10	5.246	0.34	10y-EDAU10	-97.605
EDAZ10	5.411	0.17	10y-EDAZ10	-97.737
EDAH11	5.501	0.08	10y-EDAH11	-98.000
EDAM11	5.651	0.07	10y-EDAM11	-98.287
EDAU11	5.756	0.17	10y-EDAU11	-98.186

Price = Outright Decimal Price - Euro Contract Price

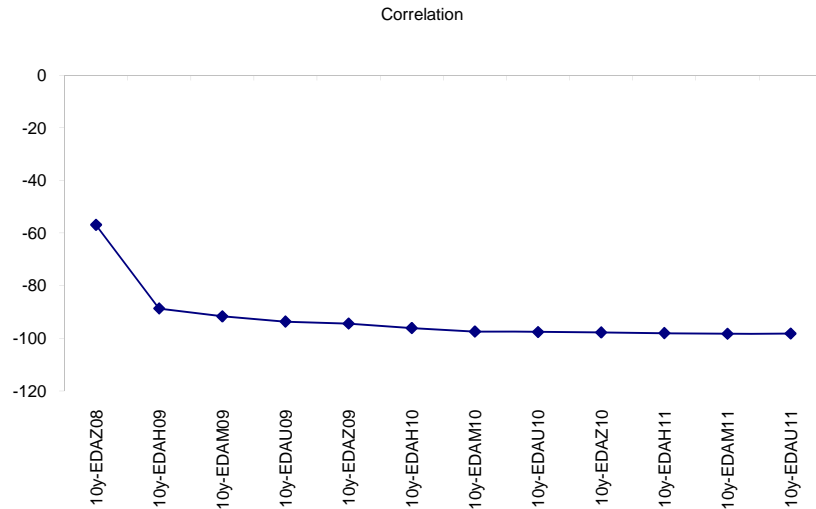
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		10Y Duration	Spread Duration	
EDAZ08	#VALUE!		8.37	#VALUE!	10y-EDAZ08
EDAH09	0.243		8.37	8.12	10y-EDAH09
EDAM09	0.492		8.37	7.87	10y-EDAM09
EDAU09	0.742		8.37	7.62	10y-EDAU09
EDAZ09	0.991		8.37	7.37	10y-EDAZ09
EDAH10	1.240		8.37	7.13	10y-EDAH10
EDAM10	1.490		8.37	6.88	10y-EDAM10
EDAU10	1.739		8.37	6.63	10y-EDAU10
EDAZ10	1.988		8.37	6.38	10y-EDAZ10
EDAH11	2.238		8.37	6.13	10y-EDAH11
EDAM11	2.487		8.37	5.88	10y-EDAM11
EDAU11	2.756		8.37	5.61	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.

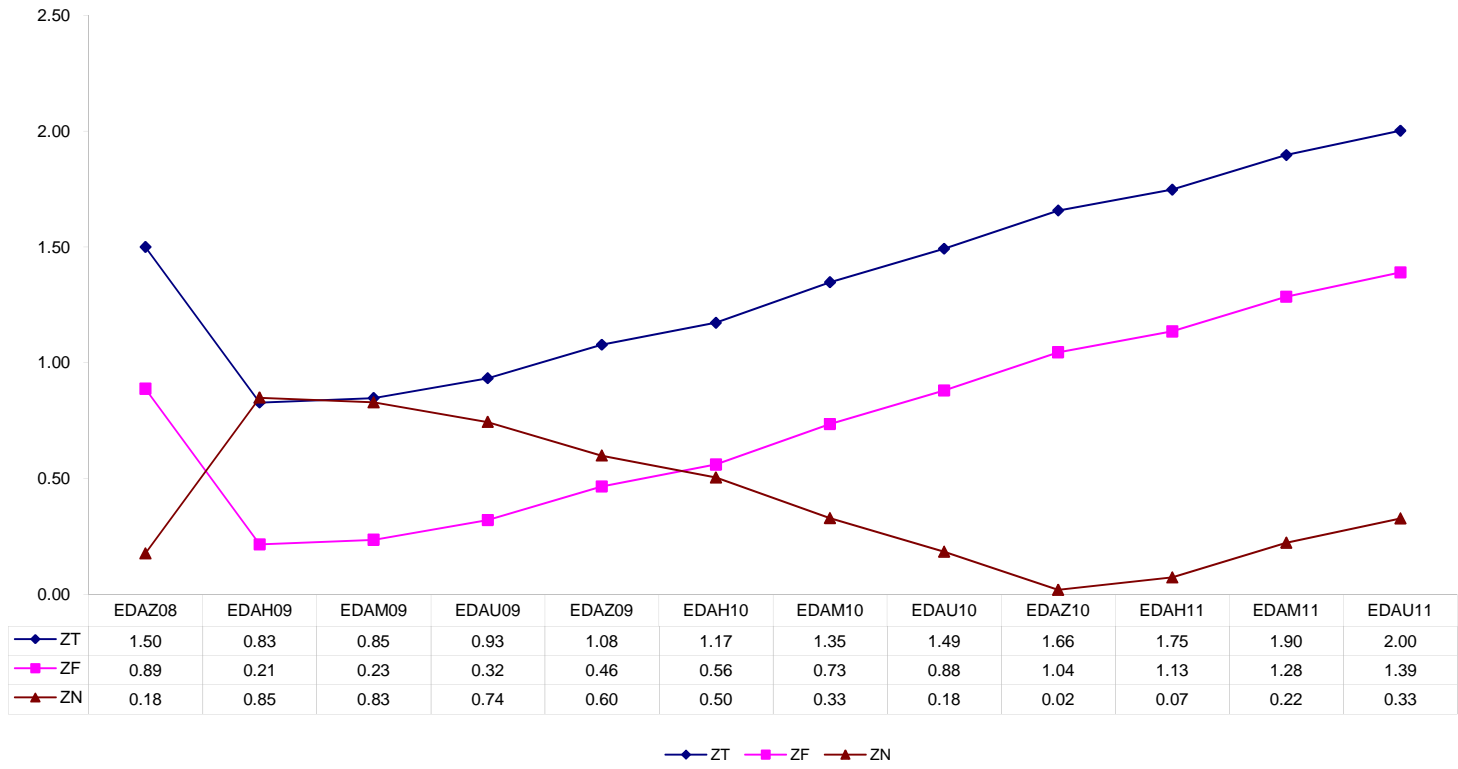
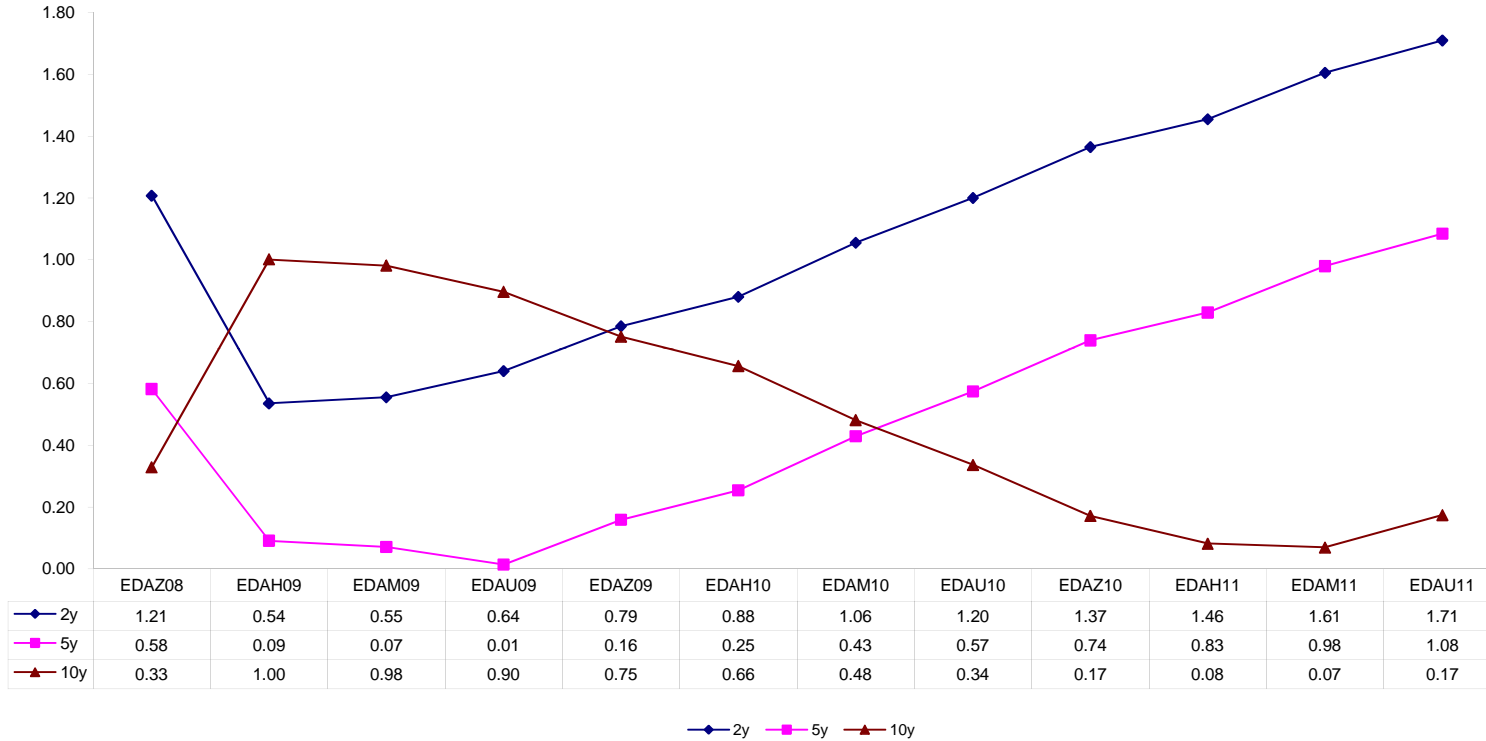
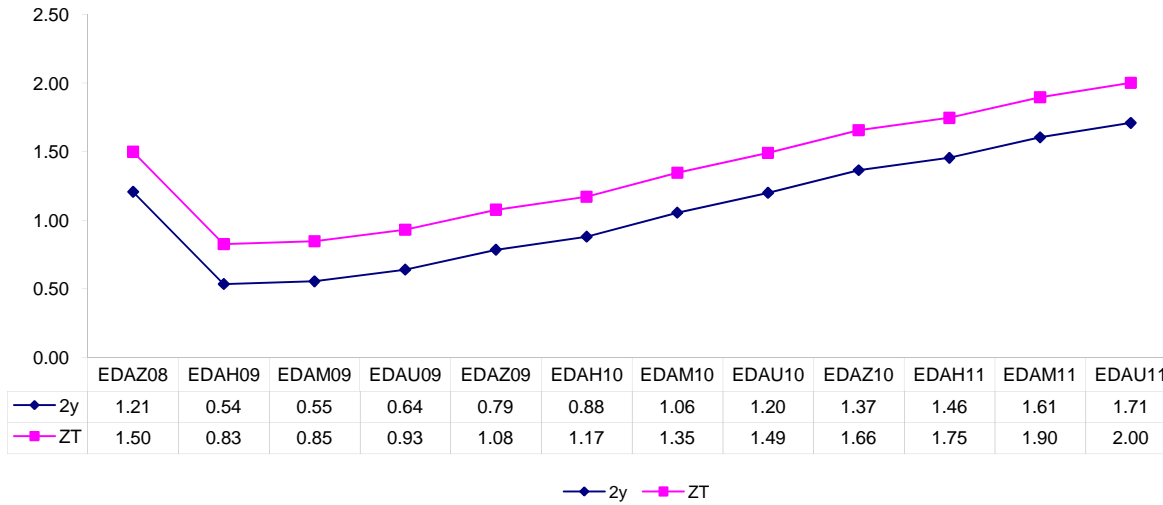


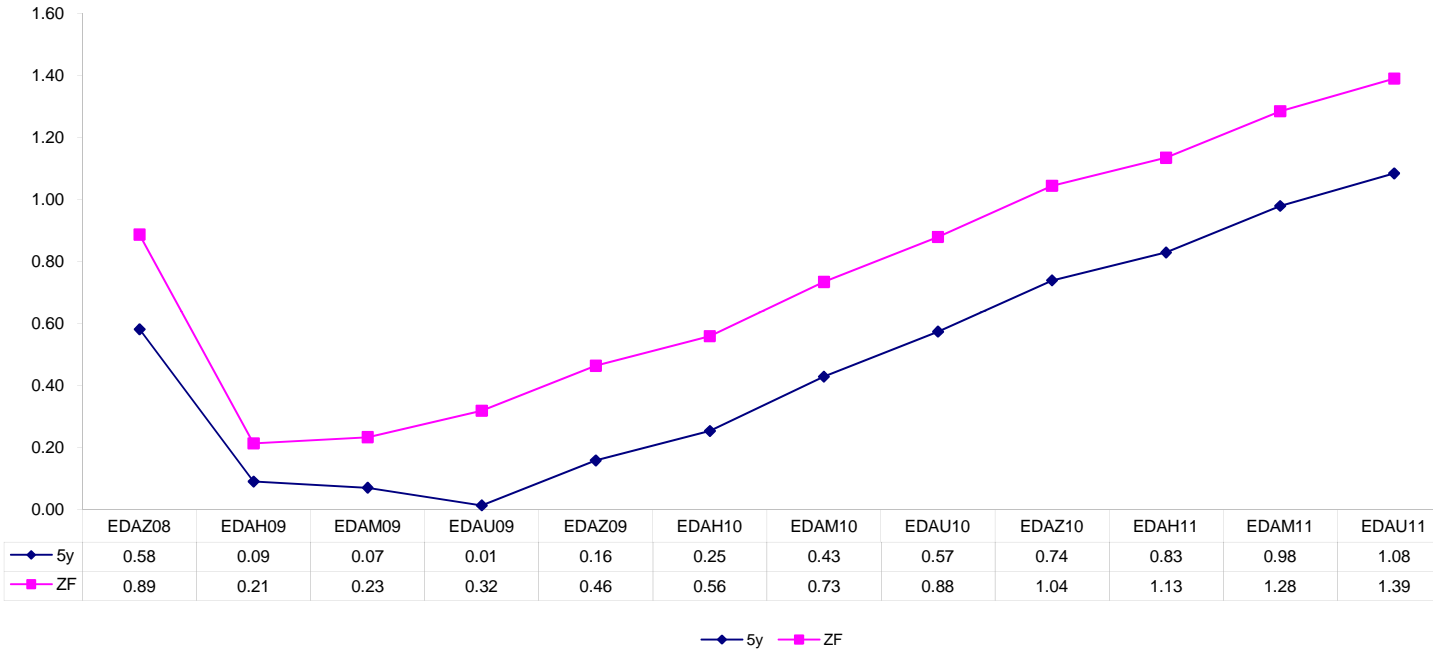
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



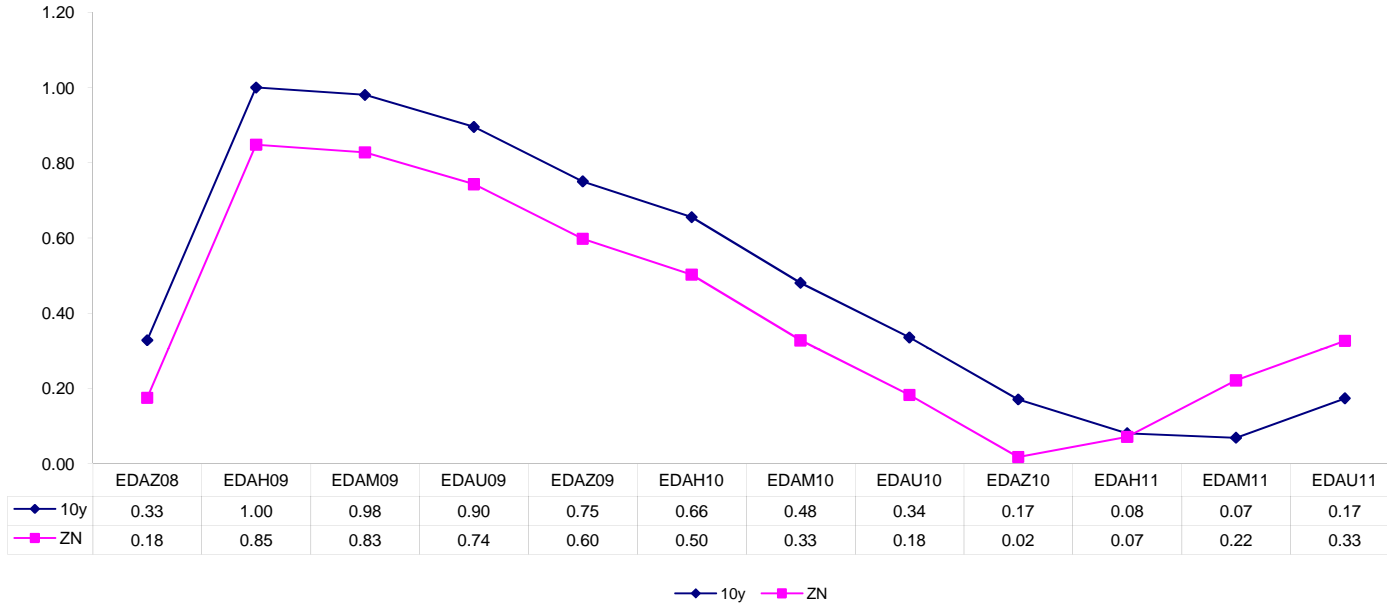
2y Basis TED Curve



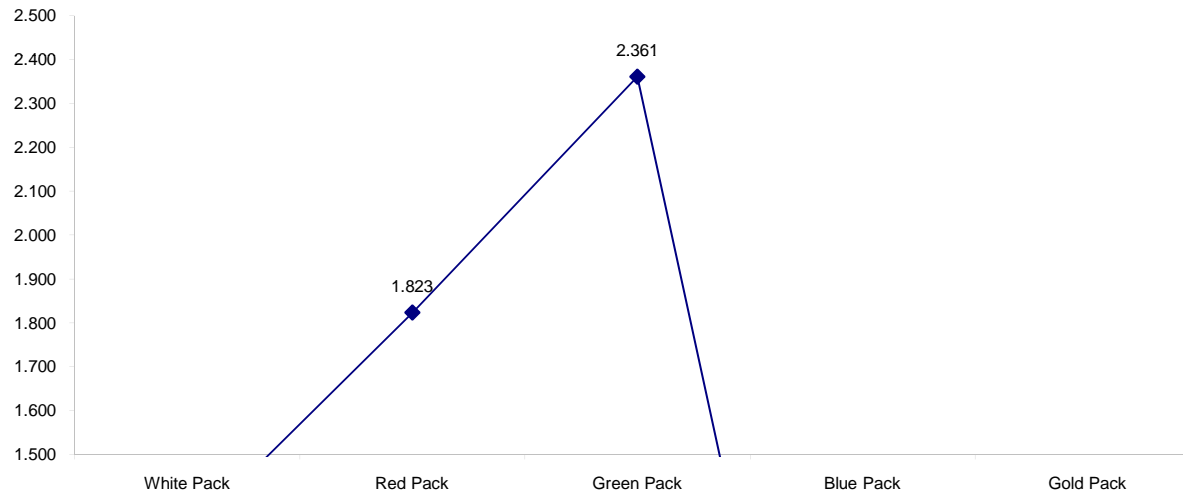
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	1.316	0.000	9870.625
Red Pack	1.823	-0.750	9821.000
Green Pack	2.361	3.625	9768.500
Blue Pack		6.625	9740.875
Gold Pack		0.000	9713.875



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

