

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	108.6781	108.217	0.878	1.75
ZF	117.9125	117.292	1.877	4.23
ZN	119.9688	119.310	3.040	6.45
2y	100.828	100.2650	1.069	1.91
5y	103.406	103.1300	2.019	4.61
10y	104.141	104.0450	3.261	8.32

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	98.020	1.980	25	0.068	DEC	
EDAH09	98.175	1.825	116	0.317	MAR	White Pack
EDAM09	98.135	1.865	207	0.566	JUN	
EDAU09	98.065	1.935	298	0.816	SEP	
EDAZ09	97.940	2.060	389	1.065	DEC	
EDAH10	97.905	2.095	480	1.314	MAR	Red Pack
EDAM10	97.745	2.255	571	1.564	JUN	
EDAU10	97.525	2.475	662	1.813	SEP	
EDAZ10	97.220	2.780	753	2.062	DEC	
EDAH11	97.020	2.980	844	2.312	MAR	Green Pack
EDAM11	96.775	3.225	935	2.561	JUN	
EDAU11	96.560	3.440	1033	2.829	SEP	
EDAZ11	96.345	3.655	1124	3.079	DEC	
EDAH12	96.270	3.730	1215	3.328	MAR	Blue Pack
EDAM12	96.135	3.865	1306	3.577	JUN	
EDAU12	96.040	3.960	1397	3.827	SEP	
EDAZ12	95.870	4.130	1488	4.076	DEC	
EDAH13	95.865	4.135	1579	4.325	MAR	Gold Pack
EDAM13	95.740	4.260	1670	4.575	JUN	
EDZU13	95.500	4.500	1852	5.073	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.937	4.313	9809.875	
Red Pack	2.265	9.125	9777.875	Pack Prices
Green Pack	3.174	11.125	9689.375	
Blue Pack	3.892	11.500	9619.750	
Gold Pack	4.311	11.625	9579.250	

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.

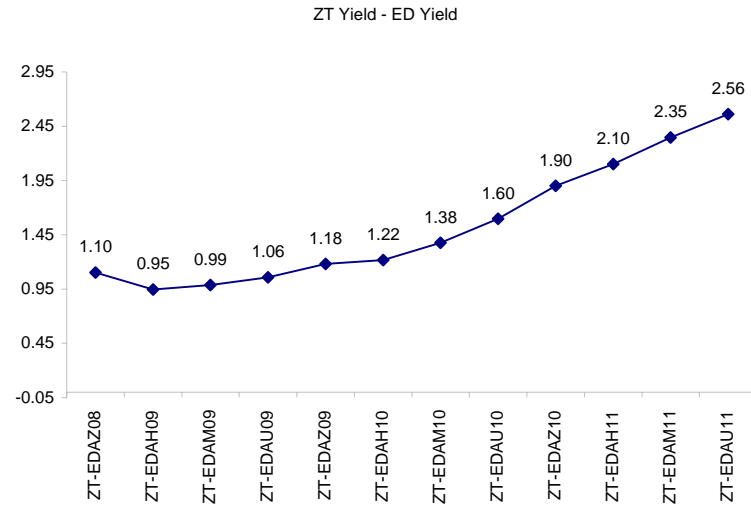
jgoulding@ghco.com

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.

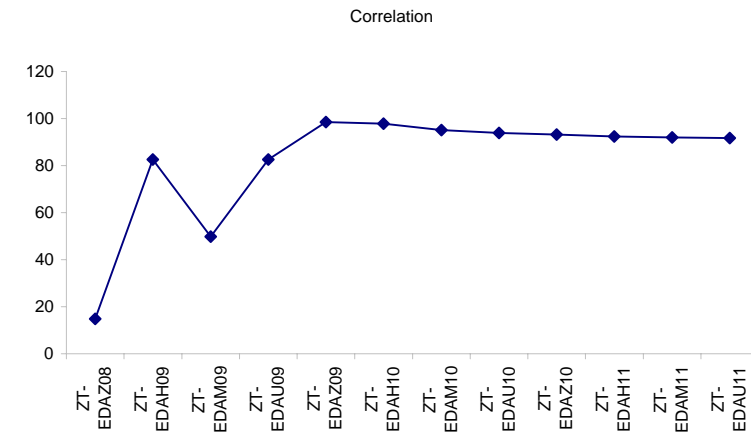
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.658	1.10	ZT-EDAZ08	14.784
EDAH09	10.503	0.95	ZT-EDAH09	82.585
EDAM09	10.543	0.99	ZT-EDAM09	49.816
EDAU09	10.613	1.06	ZT-EDAU09	82.585
EDAZ09	10.738	1.18	ZT-EDAZ09	98.474
EDAH10	10.773	1.22	ZT-EDAH10	97.755
EDAM10	10.933	1.38	ZT-EDAM10	95.044
EDAU10	11.153	1.60	ZT-EDAU10	93.818
EDAZ10	11.458	1.90	ZT-EDAZ10	93.172
EDAH11	11.658	2.10	ZT-EDAH11	92.364
EDAM11	11.903	2.35	ZT-EDAM11	91.952
EDAU11	12.118	2.56	ZT-EDAU11	91.703

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	0.068	1.75	1.68	ZT-EDAZ08
EDAH09	0.317	1.75	1.44	ZT-EDAH09
EDAM09	0.566	1.75	1.19	ZT-EDAM09
EDAU09	0.816	1.75	0.94	ZT-EDAU09
EDAZ09	1.065	1.75	0.69	ZT-EDAZ09
EDAH10	1.314	1.75	0.44	ZT-EDAH10
EDAM10	1.564	1.75	0.19	ZT-EDAM10
EDAU10	1.813	1.75	(0.06)	ZT-EDAU10
EDAZ10	2.062	1.75	(0.31)	ZT-EDAZ10
EDAH11	2.312	1.75	(0.56)	ZT-EDAH11
EDAM11	2.561	1.75	(0.81)	ZT-EDAM11
EDAU11	2.829	1.75	(1.08)	ZT-EDAU11

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

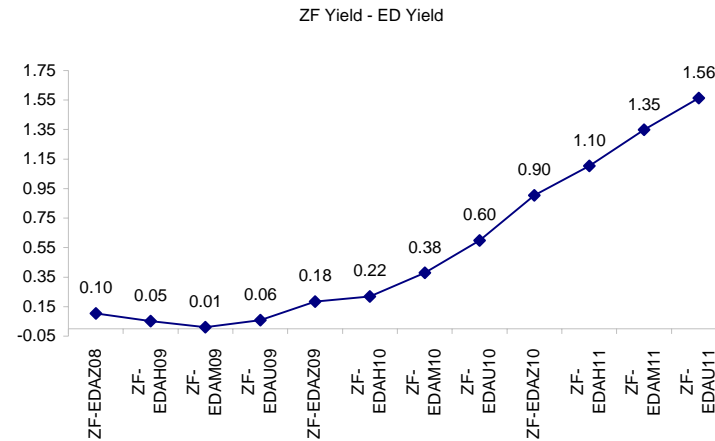


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	19.893	0.10	ZF-EDAZ08	-14.018
EDAH09	19.738	0.05	ZF-EDAH09	3.944
EDAM09	19.778	0.01	ZF-EDAM09	23.823
EDAU09	19.848	0.06	ZF-EDAU09	61.756
EDAZ09	19.973	0.18	ZF-EDAZ09	89.312
EDAH10	20.008	0.22	ZF-EDAH10	97.289
EDAM10	20.168	0.38	ZF-EDAM10	98.685
EDAU10	20.388	0.60	ZF-EDAU10	99.252
EDAZ10	20.693	0.90	ZF-EDAZ10	99.229
EDAH11	20.893	1.10	ZF-EDAH11	98.601
EDAM11	21.138	1.35	ZF-EDAM11	98.023
EDAU11	21.353	1.56	ZF-EDAU11	97.484

Price = Outright Decimal Price - Euro Contract Price

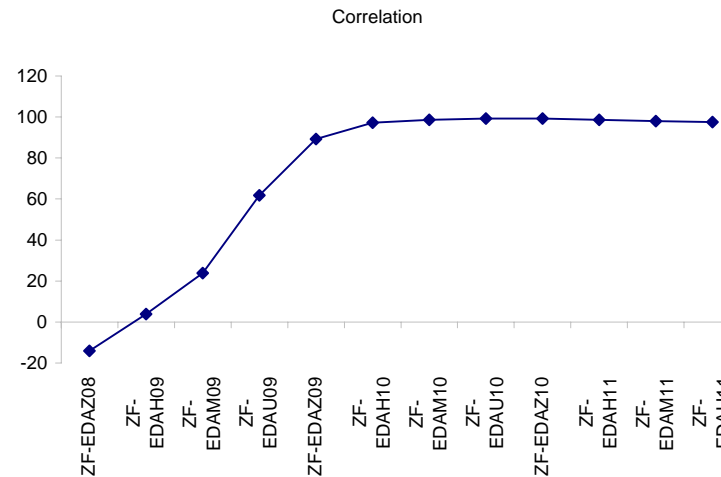
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAZ08	0.068	4.23	4.16	ZF-EDAZ08	
EDAH09	0.317	4.23	3.91	ZF-EDAH09	
EDAM09	0.566	4.23	3.66	ZF-EDAM09	
EDAU09	0.816	4.23	3.41	ZF-EDAU09	
EDAZ09	1.065	4.23	3.16	ZF-EDAZ09	
EDAH10	1.314	4.23	2.91	ZF-EDAH10	
EDAM10	1.564	4.23	2.66	ZF-EDAM10	
EDAU10	1.813	4.23	2.41	ZF-EDAU10	
EDAZ10	2.062	4.23	2.16	ZF-EDAZ10	
EDAH11	2.312	4.23	1.91	ZF-EDAH11	
EDAM11	2.561	4.23	1.67	ZF-EDAM11	
EDAU11	2.829	4.23	1.40	ZF-EDAU11	

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

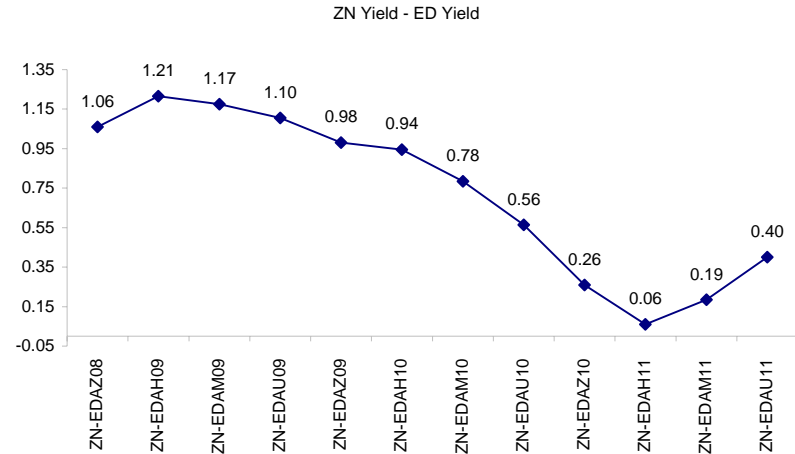


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	21.949	1.06	ZN-EDAZ08	-6.255
EDAH09	21.794	1.21	ZN-EDAH09	11.738
EDAM09	21.834	1.17	ZN-EDAM09	29.905
EDAU09	21.904	1.10	ZN-EDAU09	65.057
EDAZ09	22.029	0.98	ZN-EDAZ09	90.124
EDAH10	22.064	0.94	ZN-EDAH10	96.667
EDAM10	22.224	0.78	ZN-EDAM10	98.685
EDAU10	22.444	0.56	ZN-EDAU10	99.252
EDAZ10	22.749	0.26	ZN-EDAZ10	99.229
EDAH11	22.949	0.06	ZN-EDAH11	98.601
EDAM11	23.194	0.19	ZN-EDAM11	98.023
EDAU11	23.409	0.40	ZN-EDAU11	97.484

Price = Outright Decimal Price - Euro Contract Price

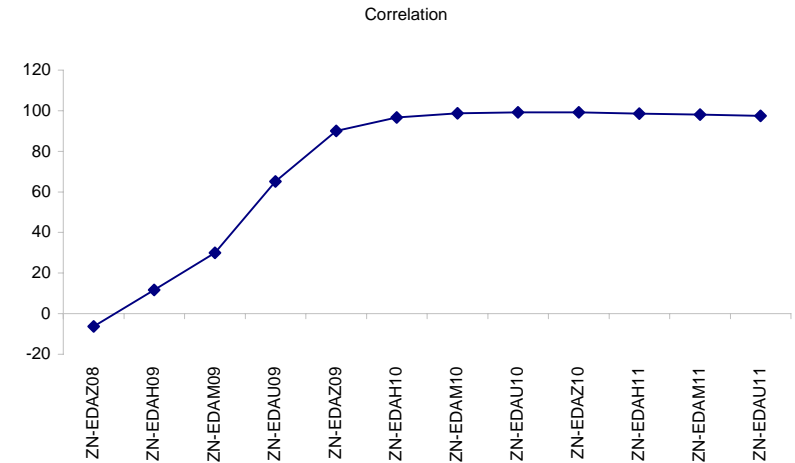
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.068	6.45	6.38	ZN-EDAZ08		
EDAH09	0.317	6.45	6.13	ZN-EDAH09		
EDAM09	0.566	6.45	5.88	ZN-EDAM09		
EDAU09	0.816	6.45	5.63	ZN-EDAU09		
EDAZ09	1.065	6.45	5.38	ZN-EDAZ09		
EDAH10	1.314	6.45	5.13	ZN-EDAH10		
EDAM10	1.564	6.45	4.88	ZN-EDAM10		
EDAU10	1.813	6.45	4.63	ZN-EDAU10		
EDAZ10	2.062	6.45	4.38	ZN-EDAZ10		
EDAH11	2.312	6.45	4.13	ZN-EDAH11		
EDAM11	2.561	6.45	3.88	ZN-EDAM11		
EDAU11	2.829	6.45	3.62	ZN-EDAU11		

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

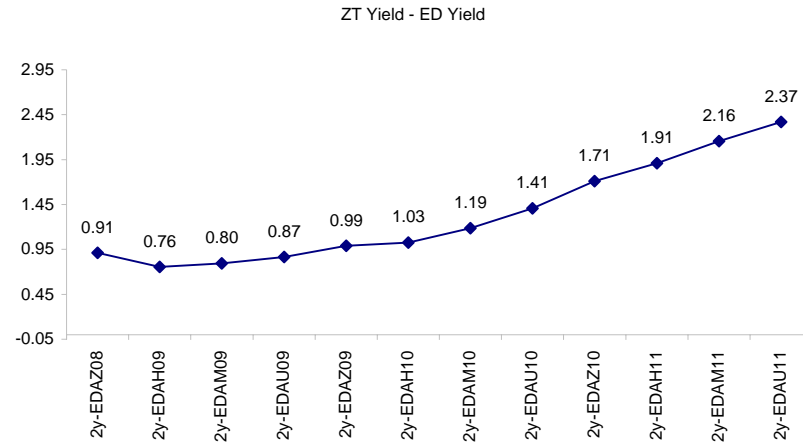


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.808	0.91	2y-EDAZ08	-9.230
EDAH09	2.653	0.76	2y-EDAH09	-27.412
EDAM09	2.693	0.80	2y-EDAM09	-48.110
EDAU09	2.763	0.87	2y-EDAU09	-78.997
EDAZ09	2.888	0.99	2y-EDAZ09	-95.100
EDAH10	2.923	1.03	2y-EDAH10	-97.675
EDAM10	3.083	1.19	2y-EDAM10	-97.291
EDAU10	3.303	1.41	2y-EDAU10	-97.186
EDAZ10	3.608	1.71	2y-EDAZ10	-97.072
EDAH11	3.808	1.91	2y-EDAH11	-96.467
EDAM11	4.053	2.16	2y-EDAM11	-96.083
EDAU11	4.268	2.37	2y-EDAU11	-95.614

Price = Outright Decimal Price - Euro Contract Price

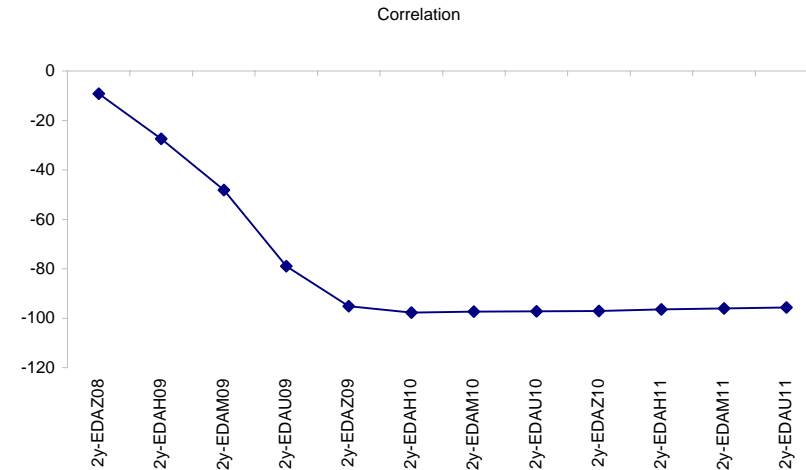
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.068	1.91	1.84	2y-EDAZ08	
EDAH09	0.317	1.91	1.59	2y-EDAH09	
EDAM09	0.566	1.91	1.34	2y-EDAM09	
EDAU09	0.816	1.91	1.09	2y-EDAU09	
EDAZ09	1.065	1.91	0.84	2y-EDAZ09	
EDAH10	1.314	1.91	0.59	2y-EDAH10	
EDAM10	1.564	1.91	0.34	2y-EDAM10	
EDAU10	1.813	1.91	0.09	2y-EDAU10	
EDAZ10	2.062	1.91	(0.16)	2y-EDAZ10	
EDAH11	2.312	1.91	(0.40)	2y-EDAH11	
EDAM11	2.561	1.91	(0.65)	2y-EDAM11	
EDAU11	2.829	1.91	(0.92)	2y-EDAU11	

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

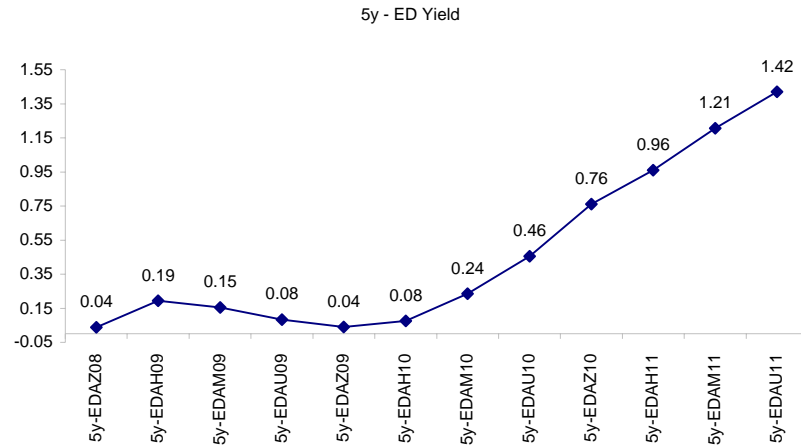


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	5.386	0.04	5y-EDAZ08	-1.748
EDAH09	5.231	0.19	5y-EDAH09	-22.513
EDAM09	5.271	0.15	5y-EDAM09	-41.207
EDAU09	5.341	0.08	5y-EDAU09	-71.743
EDAZ09	5.466	0.04	5y-EDAZ09	-90.833
EDAH10	5.501	0.08	5y-EDAH10	-95.973
EDAM10	5.661	0.24	5y-EDAM10	-97.152
EDAU10	5.881	0.46	5y-EDAU10	-97.885
EDAZ10	6.186	0.76	5y-EDAZ10	-98.391
EDAH11	6.386	0.96	5y-EDAH11	-98.536
EDAM11	6.631	1.21	5y-EDAM11	-98.616
EDAU11	6.846	1.42	5y-EDAU11	-98.497

Price = Outright Decimal Price - Euro Contract Price

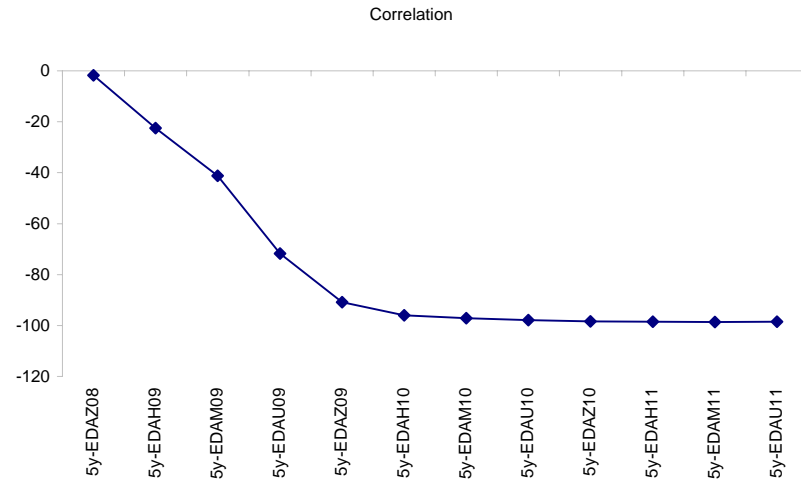
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAZ08	0.068	4.61	4.54	5y-EDAZ08
EDAH09	0.317	4.61	4.29	5y-EDAH09
EDAM09	0.566	4.61	4.04	5y-EDAM09
EDAU09	0.816	4.61	3.79	5y-EDAU09
EDAZ09	1.065	4.61	3.54	5y-EDAZ09
EDAH10	1.314	4.61	3.29	5y-EDAH10
EDAM10	1.564	4.61	3.04	5y-EDAM10
EDAU10	1.813	4.61	2.79	5y-EDAU10
EDAZ10	2.062	4.61	2.54	5y-EDAZ10
EDAH11	2.312	4.61	2.30	5y-EDAH11
EDAM11	2.561	4.61	2.05	5y-EDAM11
EDAU11	2.829	4.61	1.78	5y-EDAU11

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

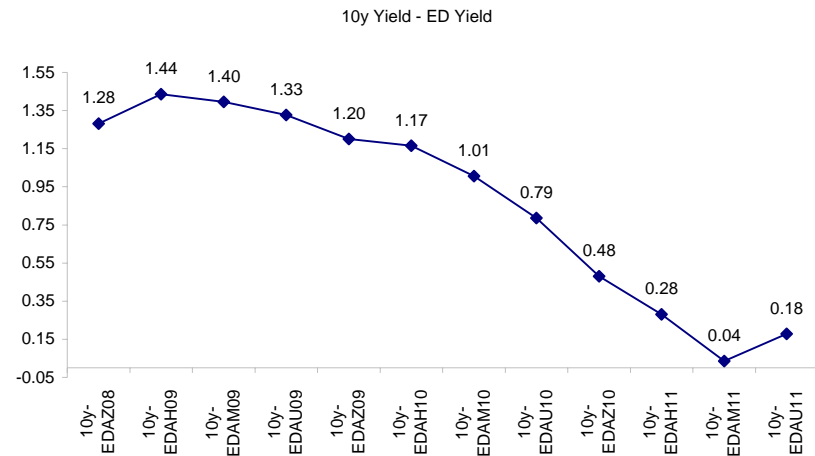


	10y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAZ08	5.386	1.28	10y-EDAZ08	-34.874
EDAH09	5.231	1.44	10y-EDAH09	-52.768
EDAM09	5.271	1.40	10y-EDAM09	-64.877
EDAU09	5.341	1.33	10y-EDAU09	-82.081
EDAZ09	5.466	1.20	10y-EDAZ09	-88.459
EDAH10	5.501	1.17	10y-EDAH10	-86.897
EDAM10	5.661	1.01	10y-EDAM10	-85.746
EDAU10	5.881	0.79	10y-EDAU10	-86.461
EDAZ10	6.186	0.48	10y-EDAZ10	-88.201
EDAH11	6.386	0.28	10y-EDAH11	-90.194
EDAM11	6.631	0.04	10y-EDAM11	-91.826
EDAU11	6.846	0.18	10y-EDAU11	-93.024

Price = Outright Decimal Price - Euro Contract Price

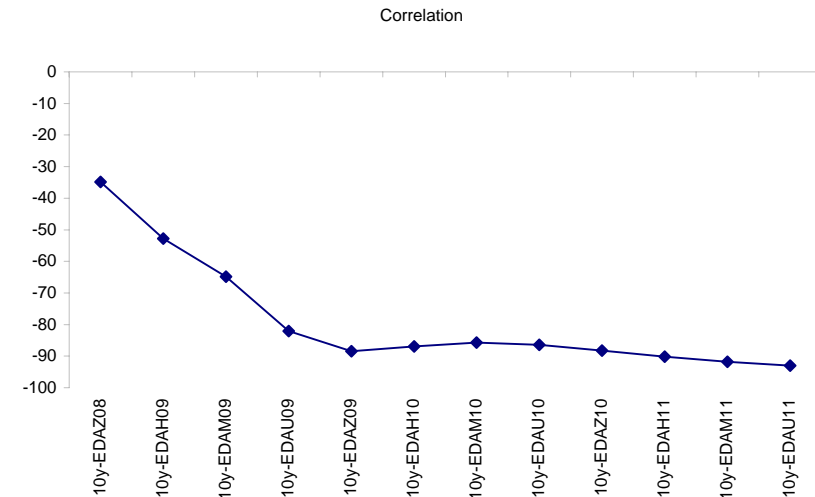
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAZ08	0.068	8.32	8.25	10y-EDAZ08
EDAH09	0.317	8.32	8.00	10y-EDAH09
EDAM09	0.566	8.32	7.75	10y-EDAM09
EDAU09	0.816	8.32	7.50	10y-EDAU09
EDAZ09	1.065	8.32	7.25	10y-EDAZ09
EDAH10	1.314	8.32	7.00	10y-EDAH10
EDAM10	1.564	8.32	6.75	10y-EDAM10
EDAU10	1.813	8.32	6.50	10y-EDAU10
EDAZ10	2.062	8.32	6.25	10y-EDAZ10
EDAH11	2.312	8.32	6.00	10y-EDAH11
EDAM11	2.561	8.32	5.76	10y-EDAM11
EDAU11	2.829	8.32	5.49	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.

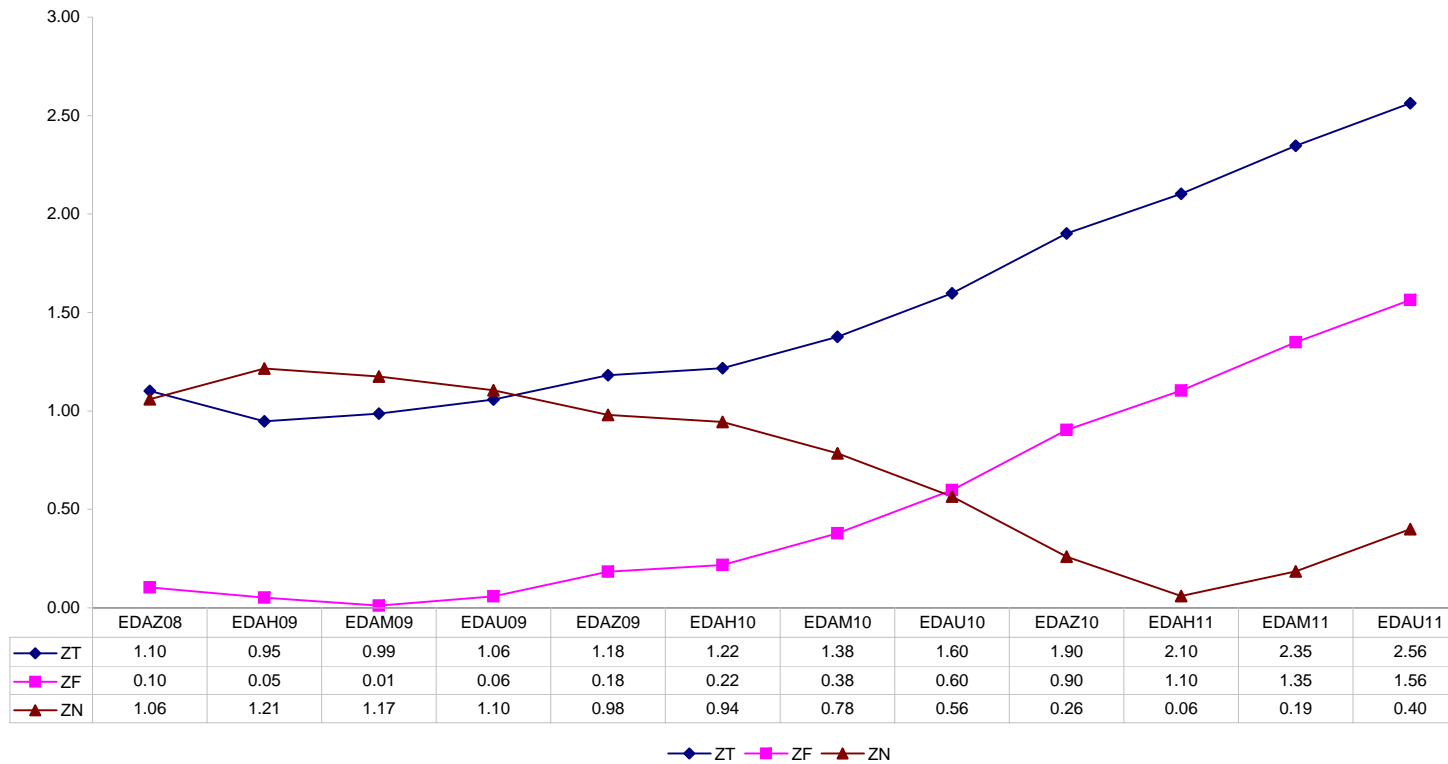
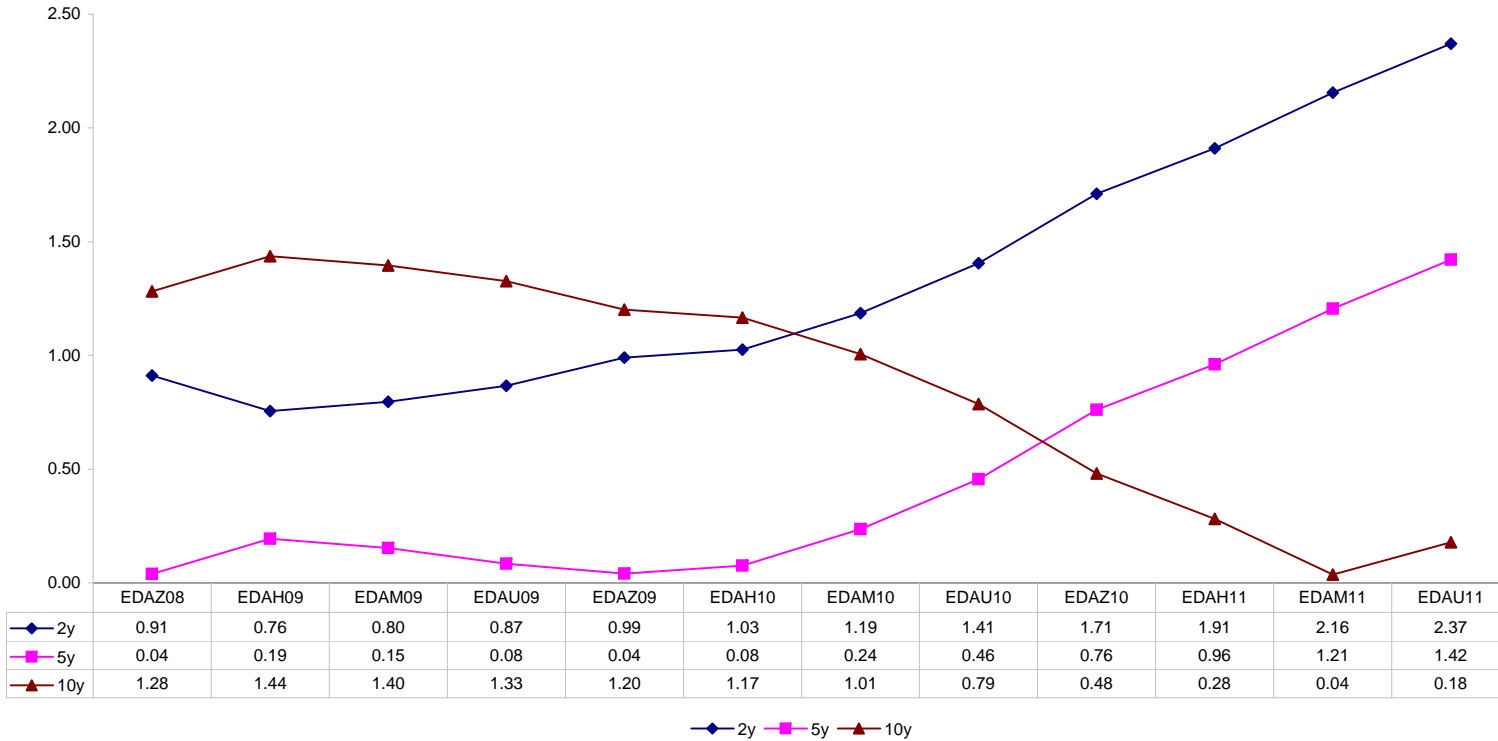
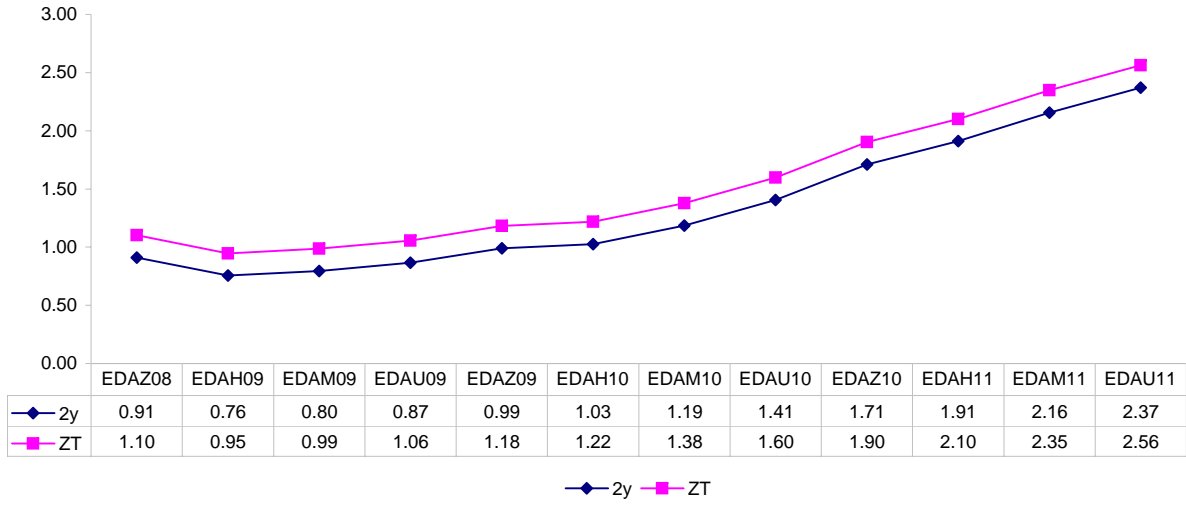


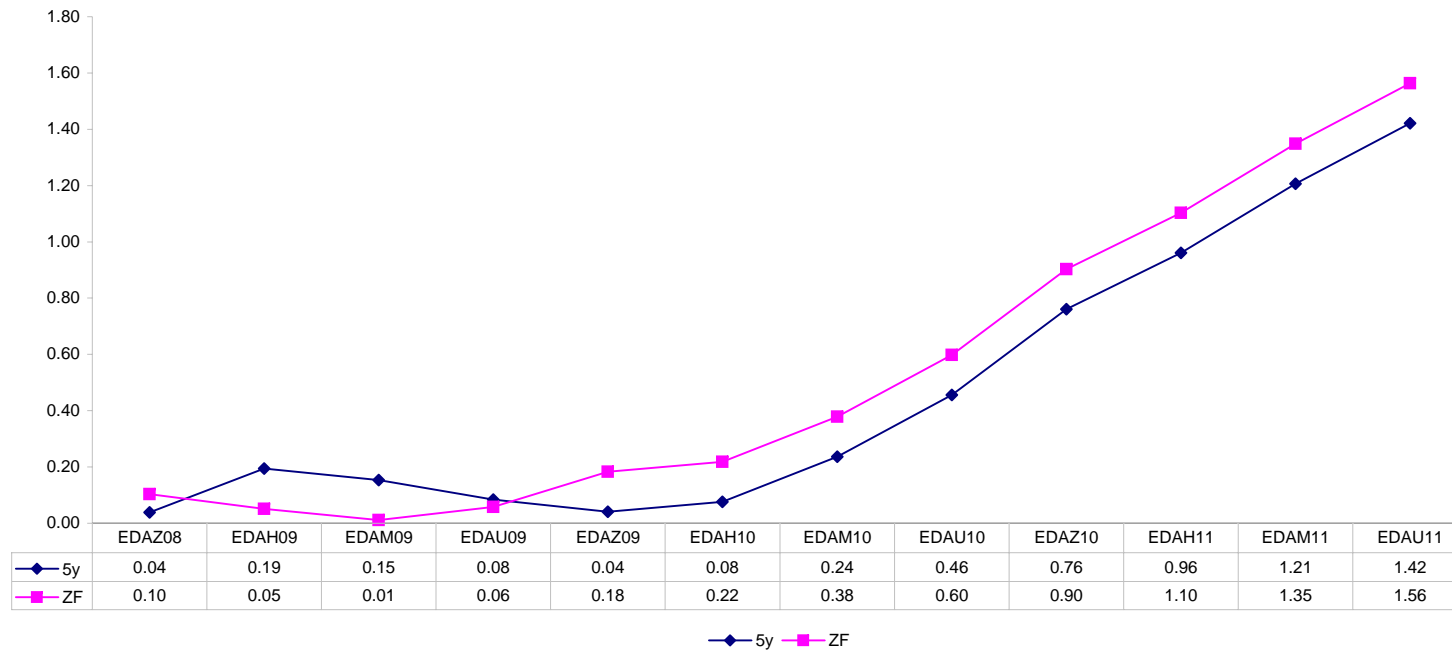
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



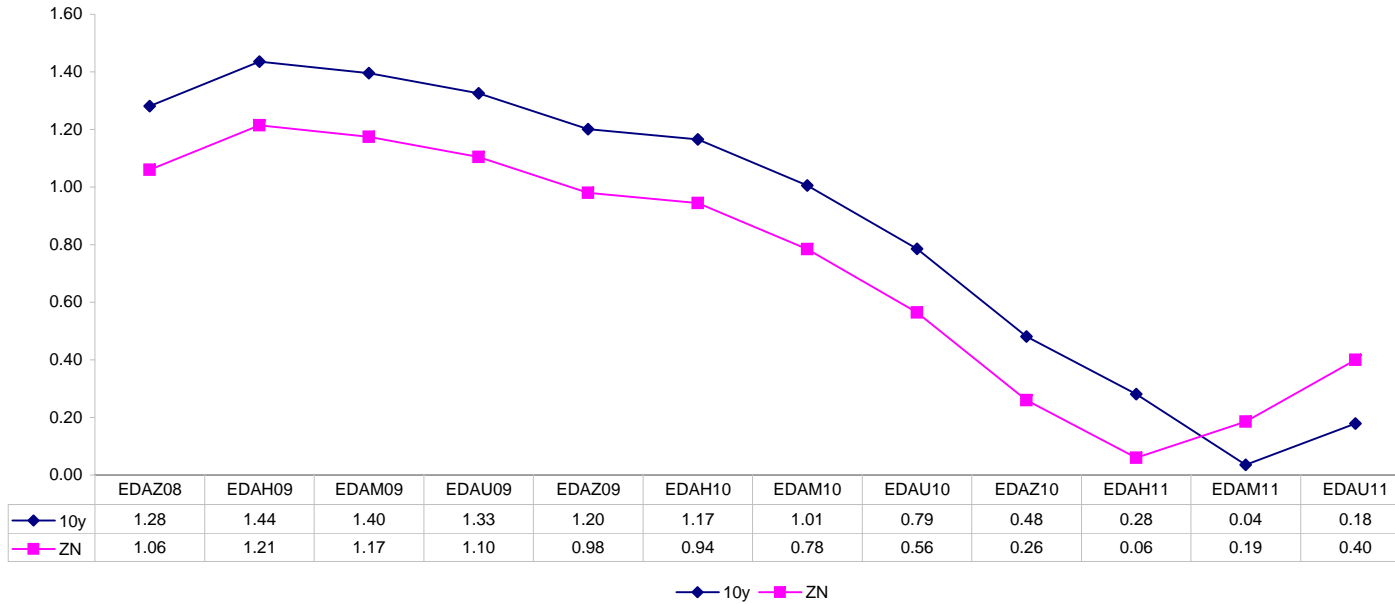
2y Basis TED Curve



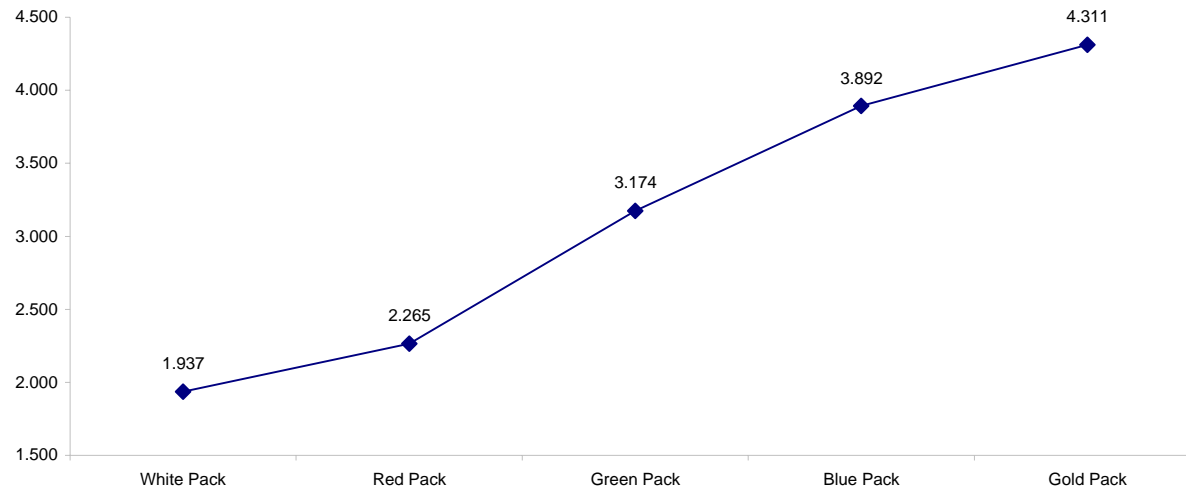
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	1.937	4.313	9809.875
Red Pack	2.265	9.125	9777.875
Green Pack	3.174	11.125	9689.375
Blue Pack	3.892	11.500	9619.750
Gold Pack	4.311	11.625	9579.250



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

