

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	106.1156	106.037	2.354	1.72
ZF	111.7813	111.250	3.011	3.86
ZN	115.2813	115.090	3.693	5.81
2y	99.422	99.1350	2.435	1.87
5y	99.906	99.2900	3.144	4.46
10y	100.109	100.0350	3.860	8.06

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.350	2.650	20	0.054	JUN
EDAU08	97.250	2.750	111	0.303	SEP White
EDAZ08	97.025	2.975	202	0.553	DEC Pack
EDAH09	96.845	3.155	293	0.802	MAR
EDAM09	96.650	3.350	384	1.051	JUN
EDAU09	96.455	3.545	475	1.301	SEP Red Pack
EDAZ09	96.245	3.755	566	1.550	DEC
EDAH10	96.100	3.900	657	1.799	MAR
EDAM10	95.940	4.060	748	2.049	JUN
EDAU10	95.815	4.185	839	2.298	SEP Green
EDAZ10	95.685	4.315	930	2.547	DEC Pack
EDAH11	95.610	4.390	1021	2.797	MAR
EDAM11	95.540	4.460	1112	3.046	JUN
EDAU11	95.455	4.545	1210	3.314	SEP Blue Pack
EDAZ11	95.390	4.610	1301	3.564	DEC
EDAH12	95.360	4.640	1392	3.813	MAR
EDAM12	95.330	4.670	1483	4.062	JUN
EDAU12	95.265	4.735	1574	4.312	SEP Gold Pack
EDAZ12	95.235	4.765	1665	4.561	DEC
EDAH13	95.190	4.810	1756	4.810	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.944	-0.500	9711.750	
Red Pack	3.722	1.375	9636.250	Pack
Green Pack	4.342	-0.625	9576.250	Prices
Blue Pack		-1.500	9546.750	
Gold Pack		0.000	9527.000	

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.

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Correlations (Important)

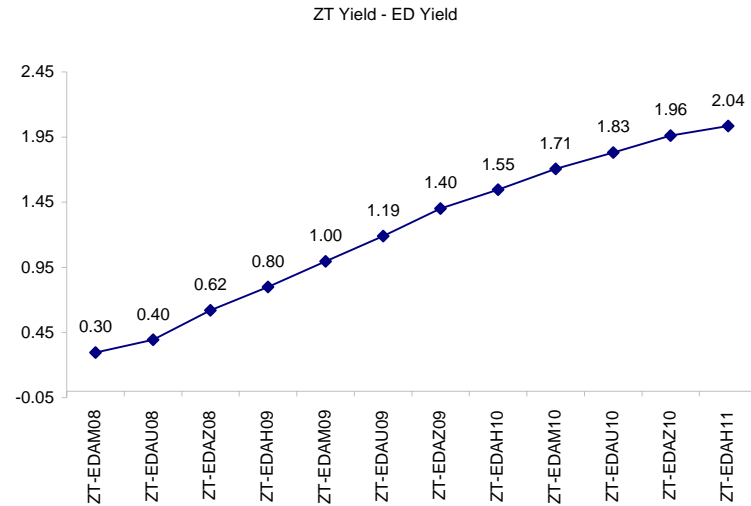
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based on yield than price.

ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.766	0.30	ZT-EDAM08	83.726
EDAU08	8.866	0.40	ZT-EDAU08	91.544
EDAZ08	9.091	0.62	ZT-EDAZ08	93.520
EDAH09	9.271	0.80	ZT-EDAH09	93.395
EDAM09	9.466	1.00	ZT-EDAM09	93.270
EDAU09	9.661	1.19	ZT-EDAU09	92.385
EDAZ09	9.871	1.40	ZT-EDAZ09	90.048
EDAH10	10.016	1.55	ZT-EDAH10	84.860
EDAM10	10.176	1.71	ZT-EDAM10	79.005
EDAU10	10.301	1.83	ZT-EDAU10	75.008
EDAZ10	10.431	1.96	ZT-EDAZ10	71.506
EDAH11	10.506	2.04	ZT-EDAH11	70.949

Price = Outright Decimal Price - Euro Contract Price

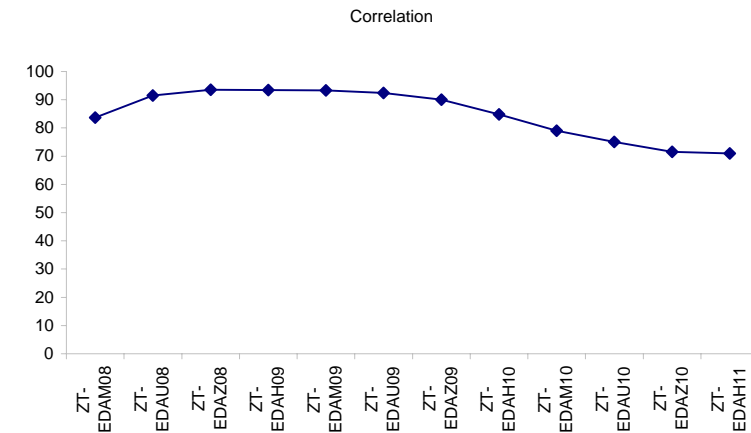
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZT Duration	Spread Duration	
EDAM08	0.054	1.72	1.67	ZT-EDAM08		
EDAU08	0.303	1.72	1.42	ZT-EDAU08		
EDAZ08	0.553	1.72	1.17	ZT-EDAZ08		
EDAH09	0.802	1.72	0.92	ZT-EDAH09		
EDAM09	1.051	1.72	0.67	ZT-EDAM09		
EDAU09	1.301	1.72	0.42	ZT-EDAU09		
EDAZ09	1.550	1.72	0.17	ZT-EDAZ09		
EDAH10	1.799	1.72	(0.08)	ZT-EDAH10		
EDAM10	2.049	1.72	(0.33)	ZT-EDAM10		
EDAU10	2.298	1.72	(0.58)	ZT-EDAU10		
EDAZ10	2.547	1.72	(0.83)	ZT-EDAZ10		
EDAH11	2.797	1.72	(1.07)	ZT-EDAH11		

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

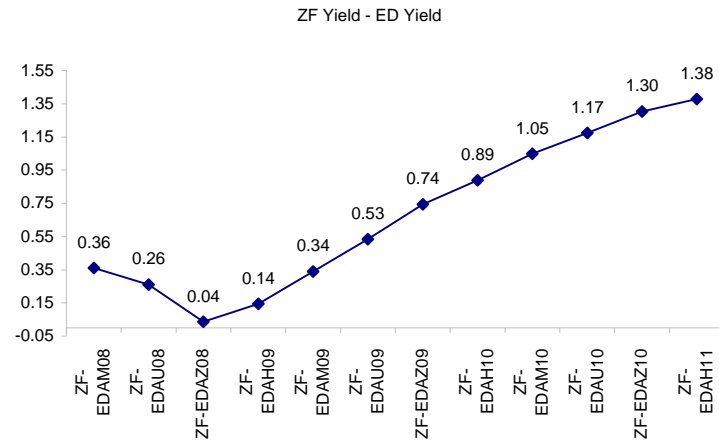


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	14.431	0.36	ZF-EDAM08	79.411
EDAU08	14.531	0.26	ZF-EDAU08	94.210
EDAZ08	14.756	0.04	ZF-EDAZ08	95.299
EDAH09	14.936	0.14	ZF-EDAH09	97.249
EDAM09	15.131	0.34	ZF-EDAM09	97.866
EDAU09	15.326	0.53	ZF-EDAU09	97.829
EDAZ09	15.536	0.74	ZF-EDAZ09	97.039
EDAH10	15.681	0.89	ZF-EDAH10	94.489
EDAM10	15.841	1.05	ZF-EDAM10	90.861
EDAU10	15.966	1.17	ZF-EDAU10	88.286
EDAZ10	16.096	1.30	ZF-EDAZ10	85.823
EDAH11	16.171	1.38	ZF-EDAH11	84.742

Price = Outright Decimal Price - Euro Contract Price

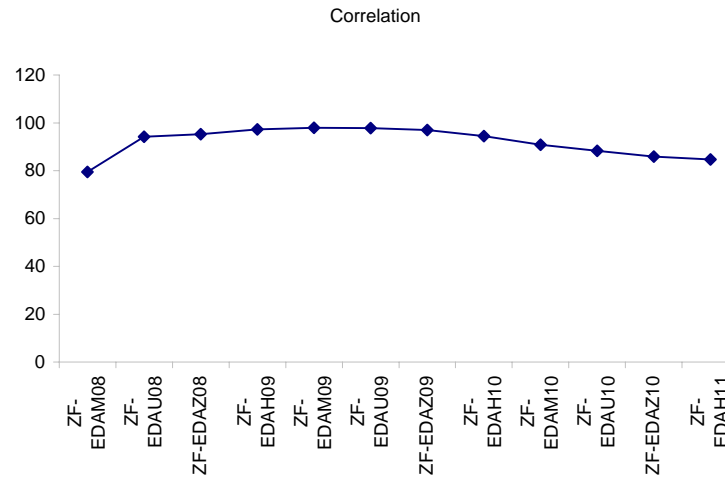
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.054	3.86	3.81	ZF-EDAM08	
EDAU08	0.303	3.86	3.56	ZF-EDAU08	
EDAZ08	0.553	3.86	3.31	ZF-EDAZ08	
EDAH09	0.802	3.86	3.06	ZF-EDAH09	
EDAM09	1.051	3.86	2.81	ZF-EDAM09	
EDAU09	1.301	3.86	2.56	ZF-EDAU09	
EDAZ09	1.550	3.86	2.31	ZF-EDAZ09	
EDAH10	1.799	3.86	2.06	ZF-EDAH10	
EDAM10	2.049	3.86	1.81	ZF-EDAM10	
EDAU10	2.298	3.86	1.56	ZF-EDAU10	
EDAZ10	2.547	3.86	1.32	ZF-EDAZ10	
EDAH11	2.797	3.86	1.07	ZF-EDAH11	

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

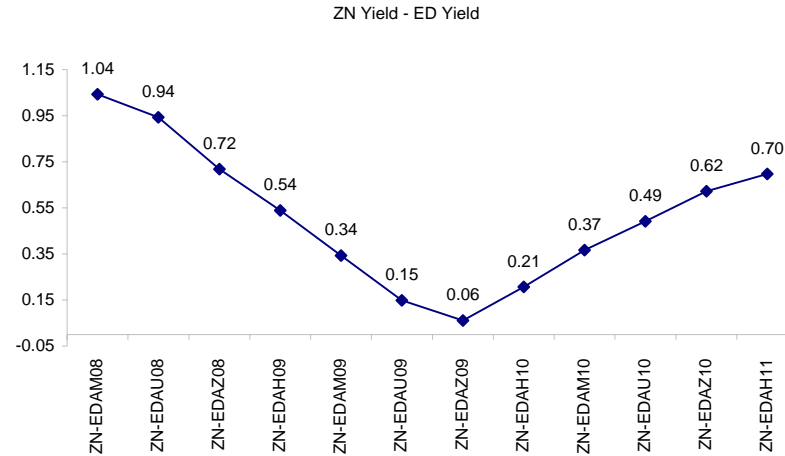


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	17.931	1.04	ZN-EDAM08	81.801
EDAU08	18.031	0.94	ZN-EDAU08	93.751
EDAZ08	18.256	0.72	ZN-EDAZ08	94.783
EDAH09	18.436	0.54	ZN-EDAH09	95.867
EDAM09	18.631	0.34	ZN-EDAM09	96.151
EDAU09	18.826	0.15	ZN-EDAU09	96.227
EDAZ09	19.036	0.06	ZN-EDAZ09	95.075
EDAH10	19.181	0.21	ZN-EDAH10	94.489
EDAM10	19.341	0.37	ZN-EDAM10	90.861
EDAU10	19.466	0.49	ZN-EDAU10	88.286
EDAZ10	19.596	0.62	ZN-EDAZ10	85.823
EDAH11	19.671	0.70	ZN-EDAH11	84.742

Price = Outright Decimal Price - Euro Contract Price

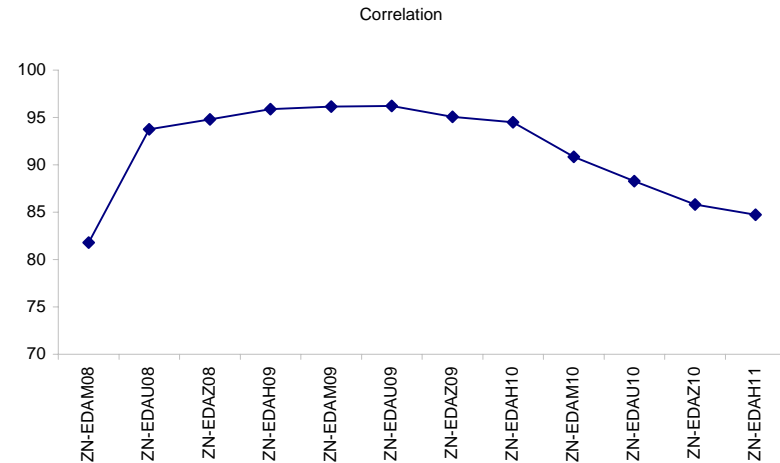
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAM08	0.054	5.81	5.75	ZN-EDAM08
EDAU08	0.303	5.81	5.50	ZN-EDAU08
EDAZ08	0.553	5.81	5.25	ZN-EDAZ08
EDAH09	0.802	5.81	5.00	ZN-EDAH09
EDAM09	1.051	5.81	4.75	ZN-EDAM09
EDAU09	1.301	5.81	4.51	ZN-EDAU09
EDAZ09	1.550	5.81	4.26	ZN-EDAZ09
EDAH10	1.799	5.81	4.01	ZN-EDAH10
EDAM10	2.049	5.81	3.76	ZN-EDAM10
EDAU10	2.298	5.81	3.51	ZN-EDAU10
EDAZ10	2.547	5.81	3.26	ZN-EDAZ10
EDAH11	2.797	5.81	3.01	ZN-EDAH11

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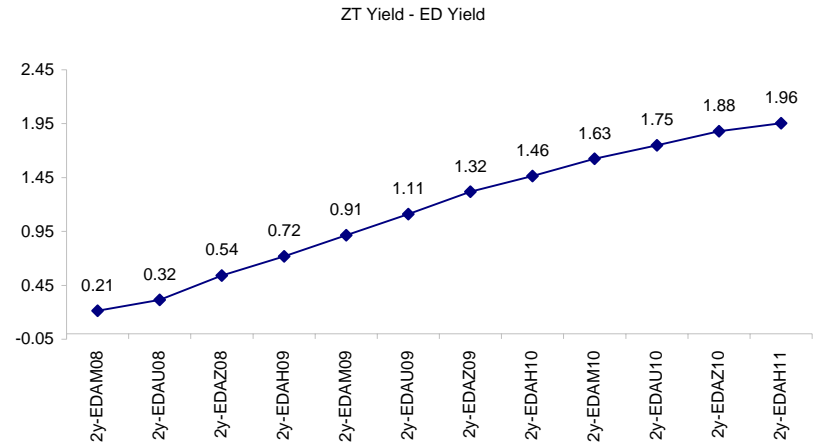


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.072	0.21	2y-EDAM08	-67.852
EDAU08	2.172	0.32	2y-EDAU08	-85.411
EDAZ08	2.397	0.54	2y-EDAZ08	-86.710
EDAH09	2.577	0.72	2y-EDAH09	-92.700
EDAM09	2.772	0.91	2y-EDAM09	-95.977
EDAU09	2.967	1.11	2y-EDAU09	-96.626
EDAZ09	3.177	1.32	2y-EDAZ09	-96.829
EDAH10	3.322	1.46	2y-EDAH10	-96.271
EDAM10	3.482	1.63	2y-EDAM10	-94.262
EDAU10	3.607	1.75	2y-EDAU10	-92.549
EDAZ10	3.737	1.88	2y-EDAZ10	-91.063
EDAH11	3.812	1.96	2y-EDAH11	-88.458

Price = Outright Decimal Price - Euro Contract Price

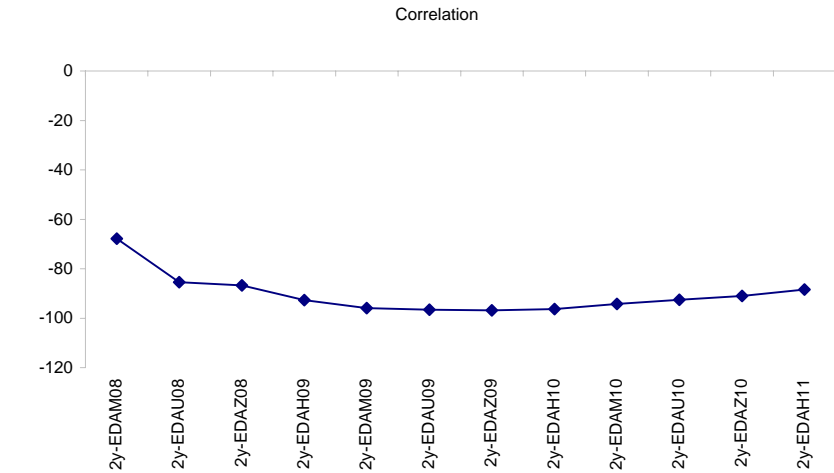
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAM08	0.054	1.87	1.82	2y-EDAM08
EDAU08	0.303	1.87	1.57	2y-EDAU08
EDAZ08	0.553	1.87	1.32	2y-EDAZ08
EDAH09	0.802	1.87	1.07	2y-EDAH09
EDAM09	1.051	1.87	0.82	2y-EDAM09
EDAU09	1.301	1.87	0.57	2y-EDAU09
EDAZ09	1.550	1.87	0.32	2y-EDAZ09
EDAH10	1.799	1.87	0.07	2y-EDAH10
EDAM10	2.049	1.87	(0.18)	2y-EDAM10
EDAU10	2.298	1.87	(0.43)	2y-EDAU10
EDAZ10	2.547	1.87	(0.68)	2y-EDAZ10
EDAH11	2.797	1.87	(0.93)	2y-EDAH11

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

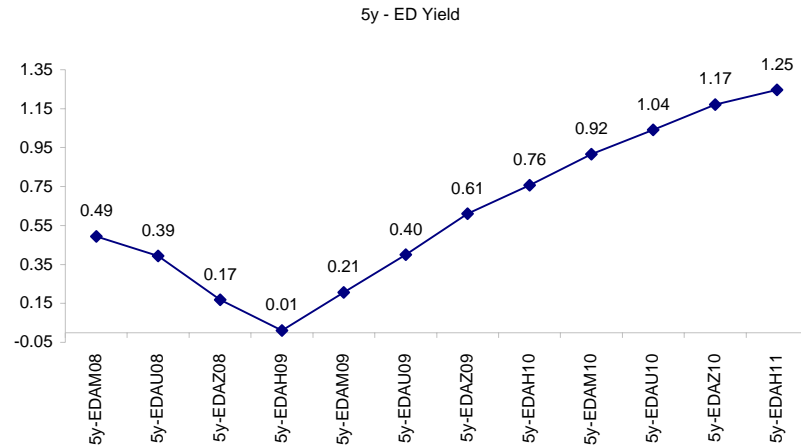


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.556	0.49	5y-EDAM08	-63.940
EDAU08	2.656	0.39	5y-EDAU08	-84.241
EDAZ08	2.881	0.17	5y-EDAZ08	-63.940
EDAH09	3.061	0.01	5y-EDAH09	-89.709
EDAM09	3.256	0.21	5y-EDAM09	-92.335
EDAU09	3.451	0.40	5y-EDAU09	-93.250
EDAZ09	3.661	0.61	5y-EDAZ09	-94.579
EDAH10	3.806	0.76	5y-EDAH10	-96.634
EDAM10	3.966	0.92	5y-EDAM10	-97.102
EDAU10	4.091	1.04	5y-EDAU10	-97.389
EDAZ10	4.221	1.17	5y-EDAZ10	-97.302
EDAH11	4.296	1.25	5y-EDAH11	-95.970

Price = Outright Decimal Price - Euro Contract Price

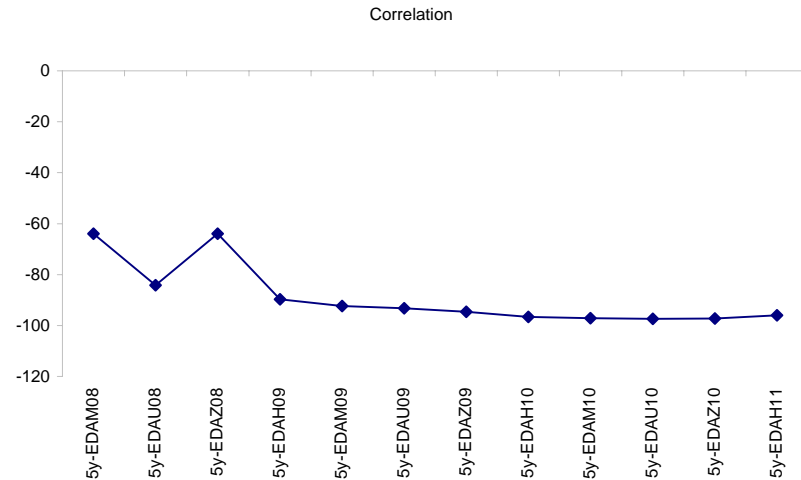
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.054	4.46	4.40	5y-EDAM08
EDAU08	0.303	4.46	4.15	5y-EDAU08
EDAZ08	0.553	4.46	3.90	5y-EDAZ08
EDAH09	0.802	4.46	3.65	5y-EDAH09
EDAM09	1.051	4.46	3.40	5y-EDAM09
EDAU09	1.301	4.46	3.15	5y-EDAU09
EDAZ09	1.550	4.46	2.91	5y-EDAZ09
EDAH10	1.799	4.46	2.66	5y-EDAH10
EDAM10	2.049	4.46	2.41	5y-EDAM10
EDAU10	2.298	4.46	2.16	5y-EDAU10
EDAZ10	2.547	4.46	1.91	5y-EDAZ10
EDAH11	2.797	4.46	1.66	5y-EDAH11

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

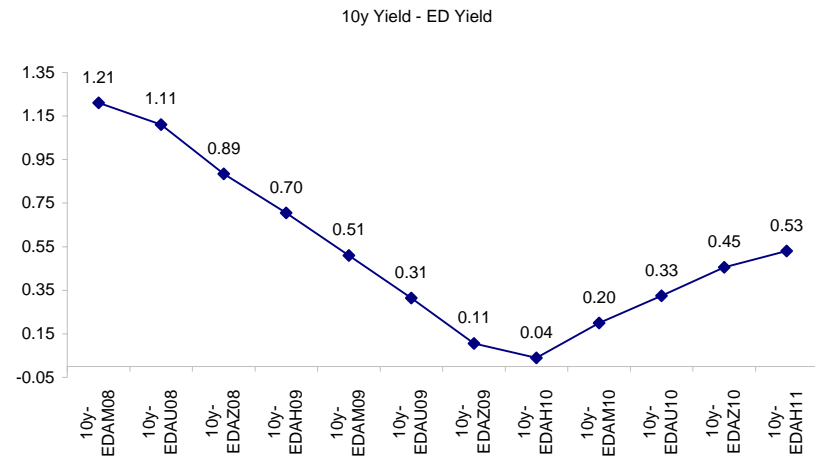


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.556	1.21	10y-EDAM08	-72.313
EDAU08	2.656	1.11	10y-EDAU08	-88.425
EDAZ08	2.881	0.89	10y-EDAZ08	-72.313
EDAH09	3.061	0.70	10y-EDAH09	-90.772
EDAM09	3.256	0.51	10y-EDAM09	-90.723
EDAU09	3.451	0.31	10y-EDAU09	-90.723
EDAZ09	3.661	0.11	10y-EDAZ09	-91.395
EDAH10	3.806	0.04	10y-EDAH10	-92.681
EDAM10	3.966	0.20	10y-EDAM10	-92.844
EDAU10	4.091	0.33	10y-EDAU10	-93.313
EDAZ10	4.221	0.45	10y-EDAZ10	-92.900
EDAH11	4.296	0.53	10y-EDAH11	-92.285

Price = Outright Decimal Price - Euro Contract Price

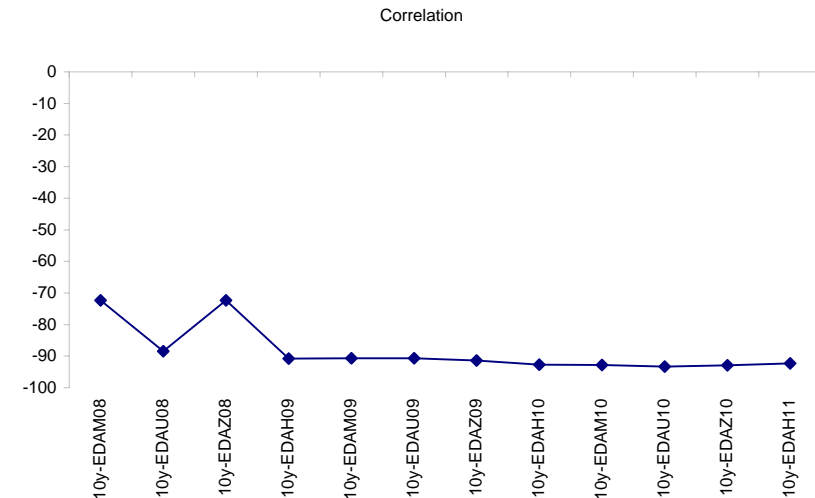
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAM08	0.054	8.06	8.00	10y-EDAM08
EDAU08	0.303	8.06	7.75	10y-EDAU08
EDAZ08	0.553	8.06	7.50	10y-EDAZ08
EDAH09	0.802	8.06	7.25	10y-EDAH09
EDAM09	1.051	8.06	7.01	10y-EDAM09
EDAU09	1.301	8.06	6.76	10y-EDAU09
EDAZ09	1.550	8.06	6.51	10y-EDAZ09
EDAH10	1.799	8.06	6.26	10y-EDAH10
EDAM10	2.049	8.06	6.01	10y-EDAM10
EDAU10	2.298	8.06	5.76	10y-EDAU10
EDAZ10	2.547	8.06	5.51	10y-EDAZ10
EDAH11	2.797	8.06	5.26	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.

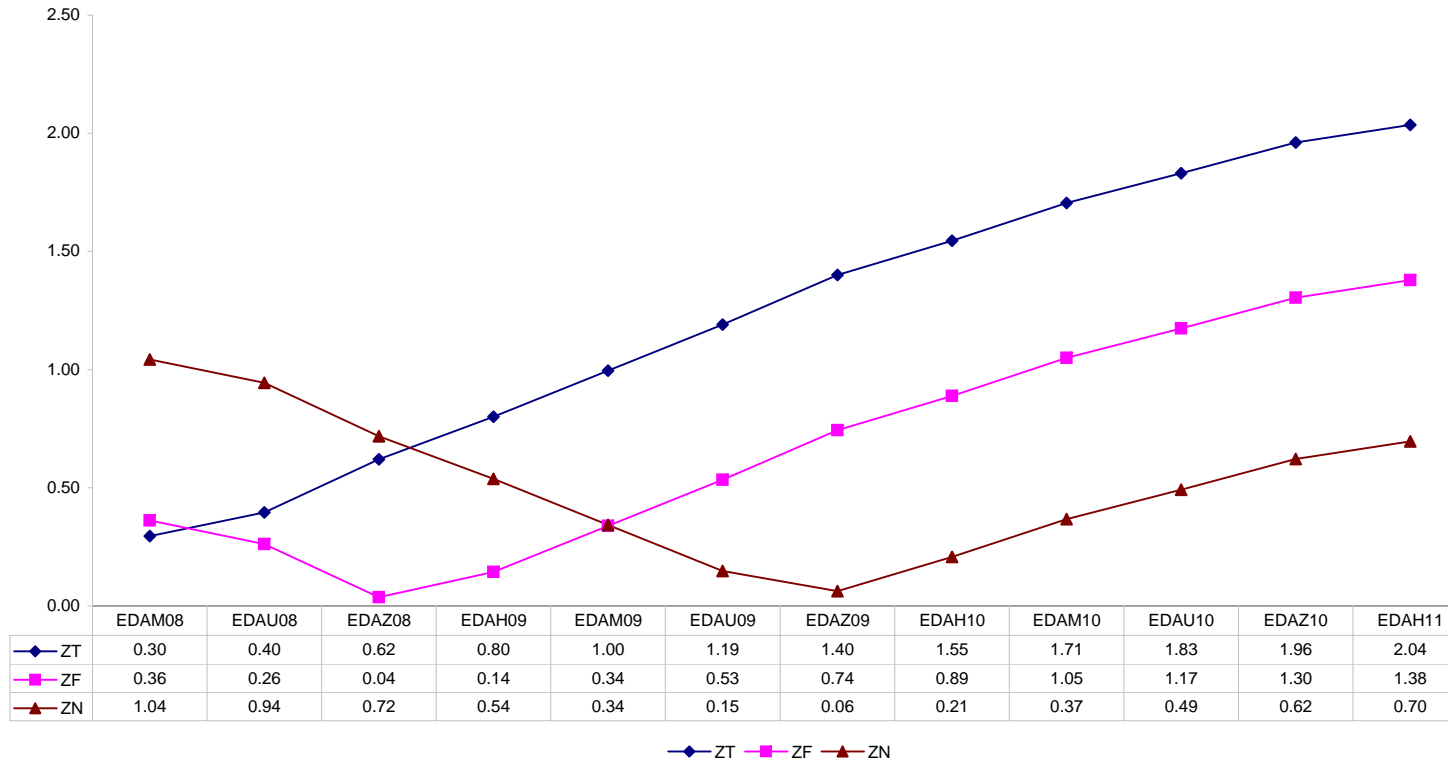
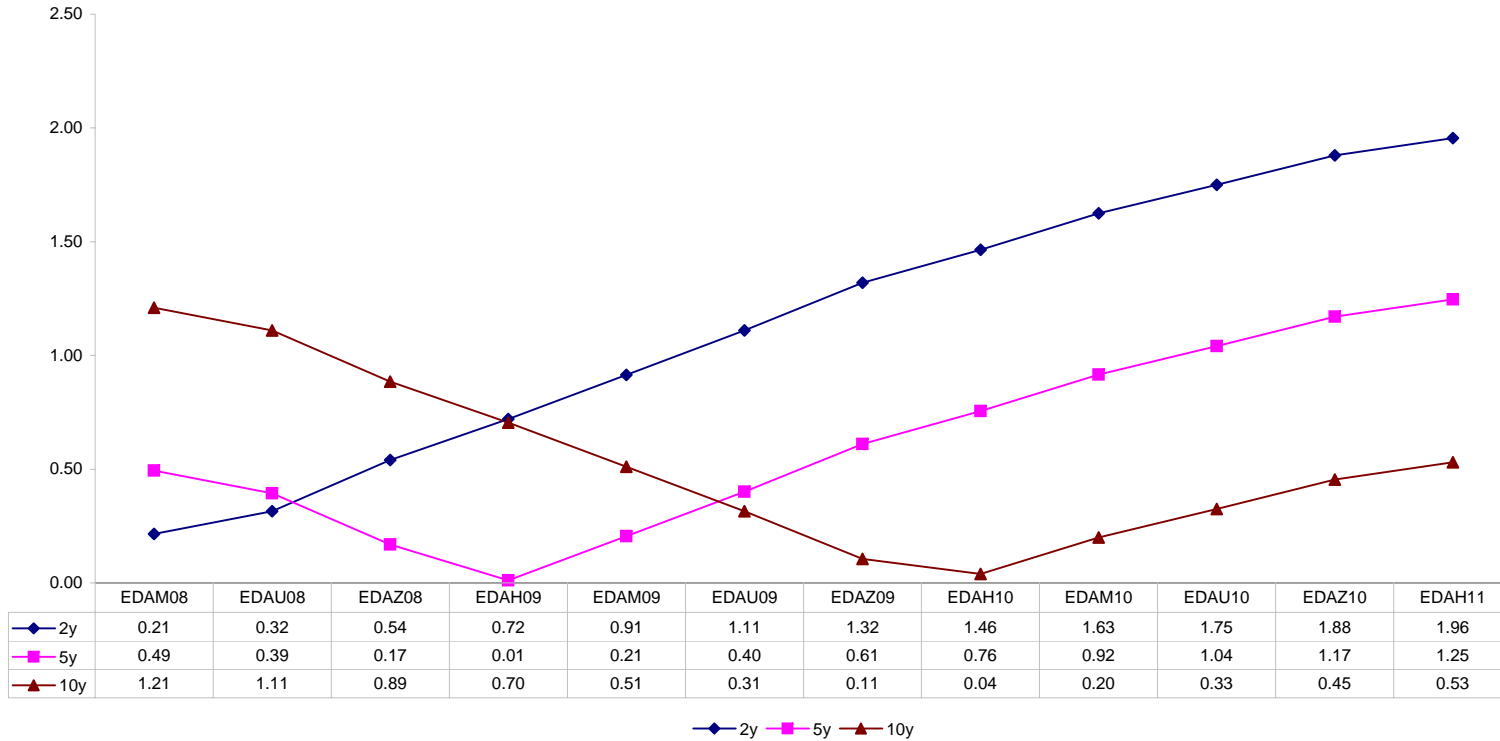
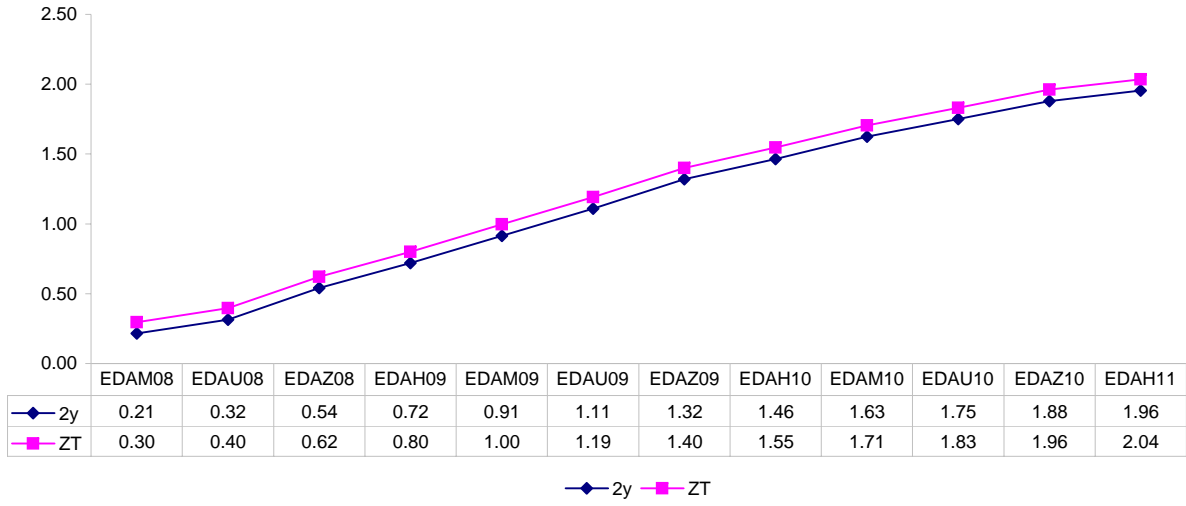


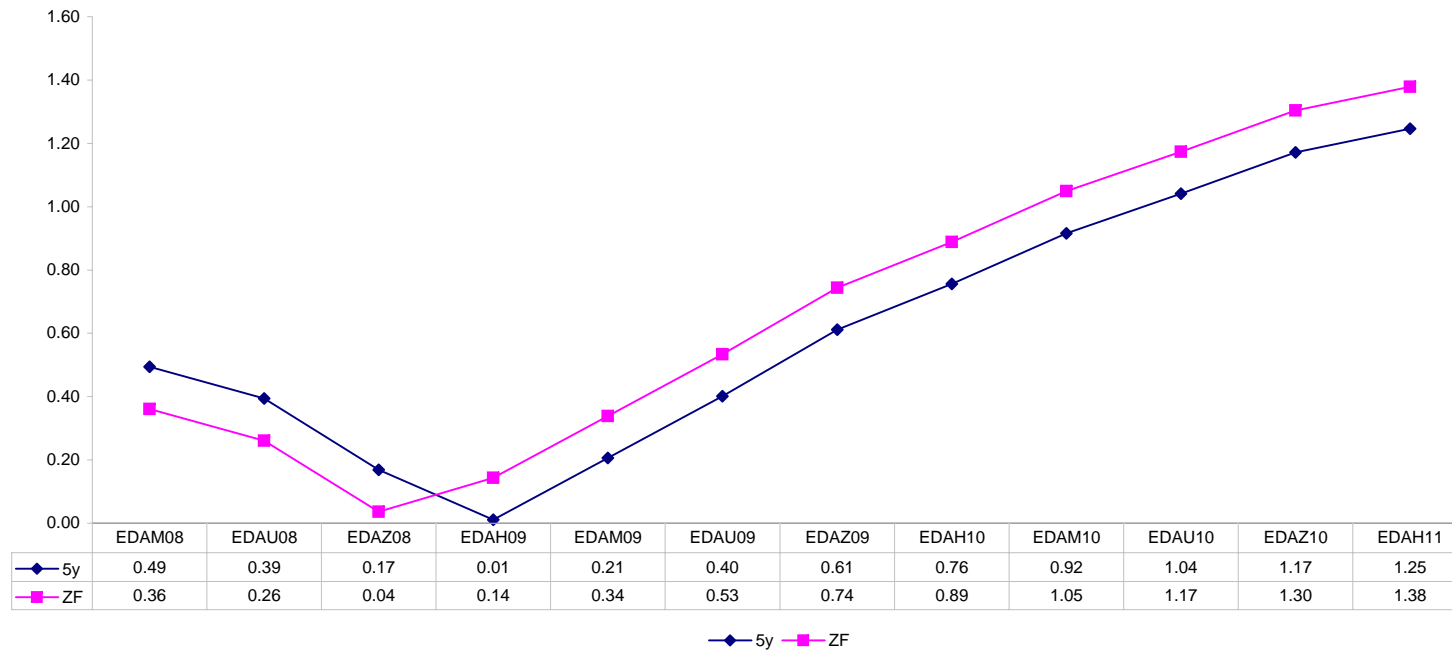
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



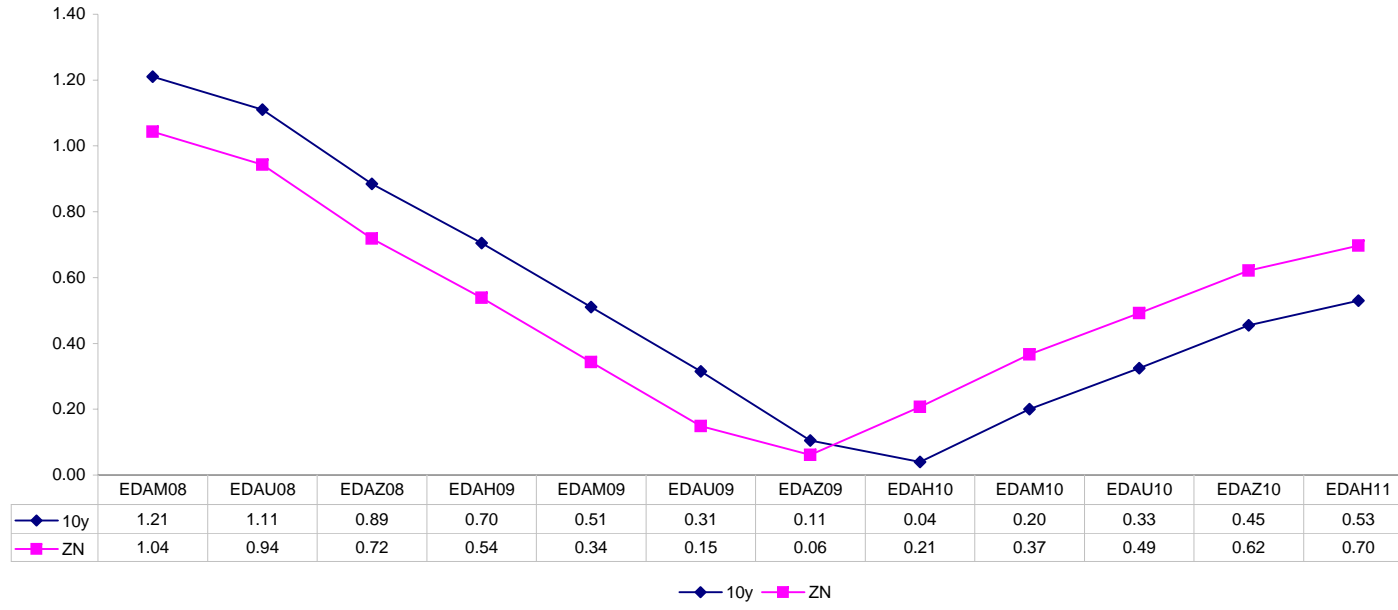
2y Basis TED Curve



5y Basis TED Curve

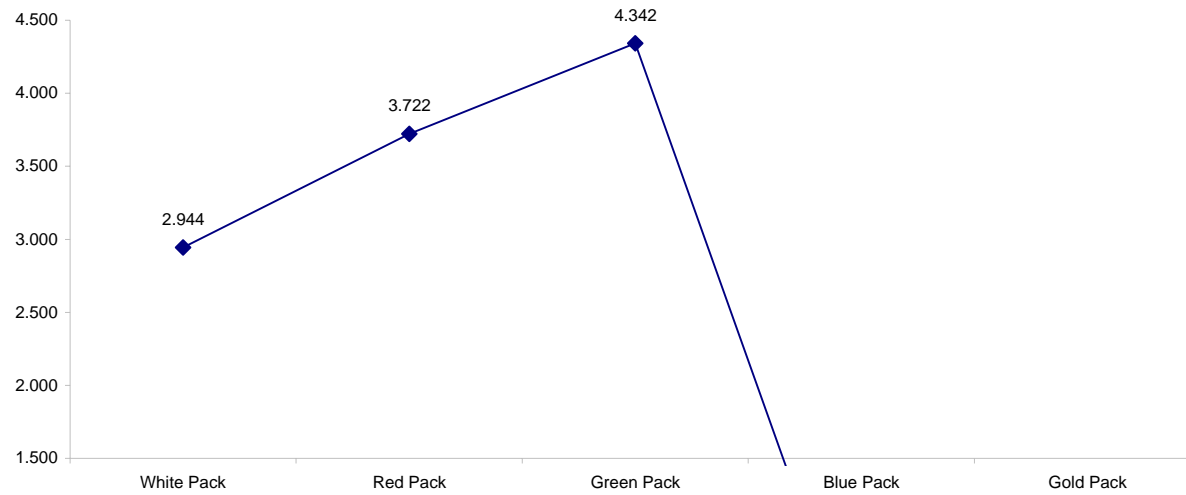


10y Basis TED Curve



Packs

	Last Yield	Net Last Yield	Last Price
White Pack	2.944	-0.500	9711.750
Red Pack	3.722	1.375	9636.250
Green Pack	4.342	-0.625	9576.250
Blue Pack		-1.500	9546.750
Gold Pack		0.000	9527.000



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

