

The Morning Email: TERM TEDS & Dirty TEDS

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Want something added? Let me know: jgoulding@ghco.com

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Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	106.0375	106.012	2.455	1.84
ZF	111.4219	111.135	3.100	3.98
ZN	114.9688	114.310	3.689	6.40
2y	100.453	100.1450	2.512	1.92
5y	100.578	100.1850	3.247	4.56
10y	99.328	99.1050	3.958	8.00

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	97.185	2.815	45	0.123	SEP	
EDAZ08	97.005	2.995	136	0.372	DEC	White
EDAH09	96.920	3.080	227	0.621	MAR	Pack
EDAM09	96.745	3.255	318	0.871	JUN	
EDAU09	96.490	3.510	409	1.120	SEP	
EDAZ09	96.175	3.825	500	1.369	DEC	Red
EDAH10	95.930	4.070	591	1.619	MAR	Pack
EDAM10	95.735	4.265	682	1.868	JUN	
EDAU10	95.590	4.410	773	2.117	SEP	
EDAZ10	95.470	4.530	864	2.366	DEC	Green
EDAH11	95.420	4.580	955	2.616	MAR	Pack
EDAM11	95.360	4.640	1046	2.865	JUN	
EDAU11	95.345	4.655	1144	3.134	SEP	
EDAZ11	95.255	4.745	1235	3.383	DEC	Blue Pack
EDAH12	95.225	4.775	1326	3.632	MAR	
EDAM12	95.200	4.800	1417	3.882	JUN	
EDAU12	95.140	4.860	1508	4.131	SEP	
EDAZ12	95.070	4.930	1599	4.380	DEC	Gold Pack
EDAH13	95.035	4.965	1690	4.629	MAR	
EDAM13	94.960	5.040	1781	4.879	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	3.102	0.125	9696.375	
Red Pack	4.011	1.125	9608.250	Pack
Green Pack	4.656	0.500	9546.000	Prices
Blue Pack		0.375	9523.375	
Gold Pack		0.000	9502.125	

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.

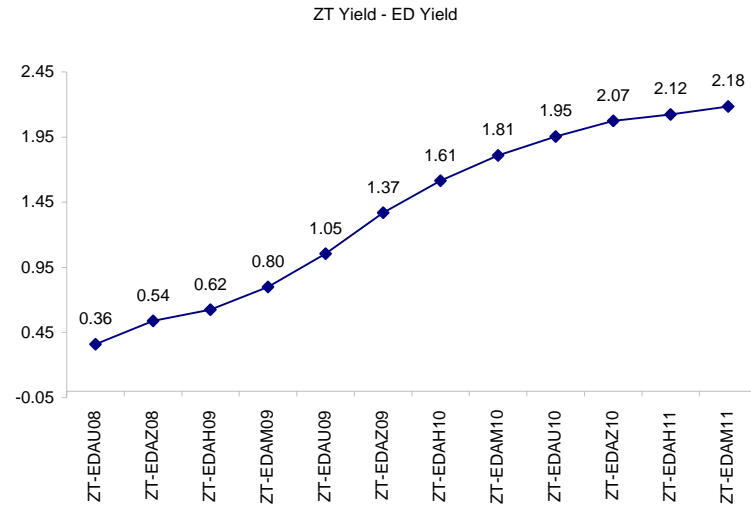
jgoulding@ghco.com

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.

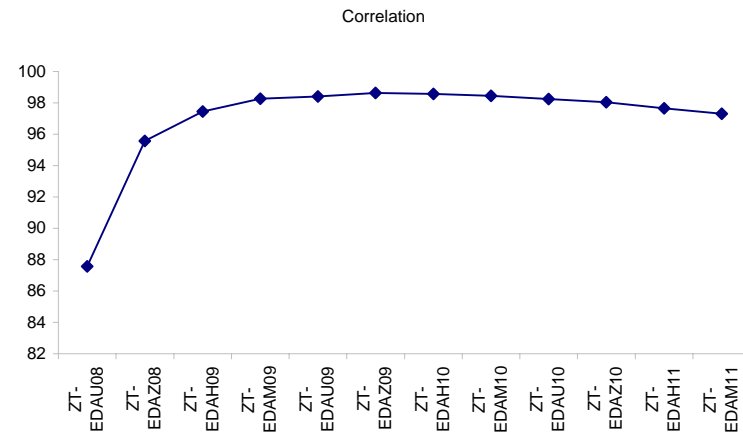
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	8.852	0.36	ZT-EDAU08	87.564
EDAZ08	9.033	0.54	ZT-EDAZ08	95.579
EDAH09	9.117	0.62	ZT-EDAH09	97.449
EDAM09	9.292	0.80	ZT-EDAM09	98.267
EDAU09	9.547	1.05	ZT-EDAU09	98.408
EDAZ09	9.863	1.37	ZT-EDAZ09	98.632
EDAH10	10.108	1.61	ZT-EDAH10	98.566
EDAM10	10.303	1.81	ZT-EDAM10	98.441
EDAU10	10.448	1.95	ZT-EDAU10	98.255
EDAZ10	10.568	2.07	ZT-EDAZ10	98.038
EDAH11	10.618	2.12	ZT-EDAH11	97.661
EDAM11	10.678	2.18	ZT-EDAM11	97.299

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	
EDAU08	0.123	1.84	1.72	ZT-EDAU08	
EDAZ08	0.372	1.84	1.47	ZT-EDAZ08	
EDAH09	0.621	1.84	1.22	ZT-EDAH09	
EDAM09	0.871	1.84	0.97	ZT-EDAM09	
EDAU09	1.120	1.84	0.72	ZT-EDAU09	
EDAZ09	1.369	1.84	0.47	ZT-EDAZ09	
EDAH10	1.619	1.84	0.22	ZT-EDAH10	
EDAM10	1.868	1.84	(0.03)	ZT-EDAM10	
EDAU10	2.117	1.84	(0.28)	ZT-EDAU10	
EDAZ10	2.366	1.84	(0.53)	ZT-EDAZ10	
EDAH11	2.616	1.84	(0.78)	ZT-EDAH11	
EDAM11	2.865	1.84	(1.02)	ZT-EDAM11	

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

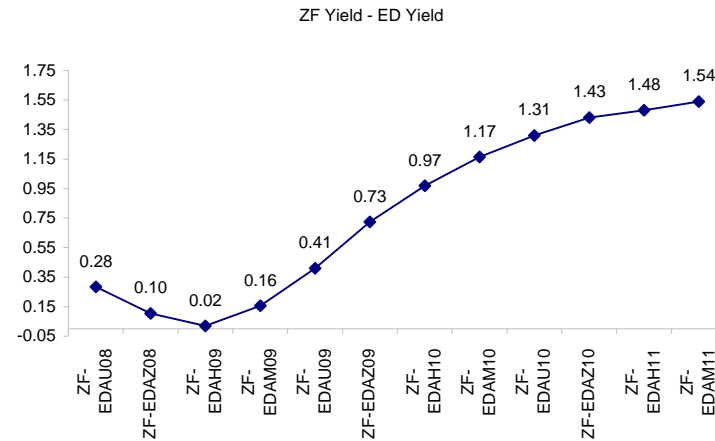


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	14.237	0.28	ZF-EDAU08	89.236
EDAZ08	14.417	0.10	ZF-EDAZ08	95.805
EDAH09	14.502	0.02	ZF-EDAH09	97.064
EDAM09	14.677	0.16	ZF-EDAM09	98.104
EDAU09	14.932	0.41	ZF-EDAU09	98.548
EDAZ09	15.247	0.73	ZF-EDAZ09	98.852
EDAH10	15.492	0.97	ZF-EDAH10	98.745
EDAM10	15.687	1.17	ZF-EDAM10	98.592
EDAU10	15.832	1.31	ZF-EDAU10	98.259
EDAZ10	15.952	1.43	ZF-EDAZ10	97.977
EDAH11	16.002	1.48	ZF-EDAH11	97.503
EDAM11	16.062	1.54	ZF-EDAM11	97.045

Price = Outright Decimal Price - Euro Contract Price

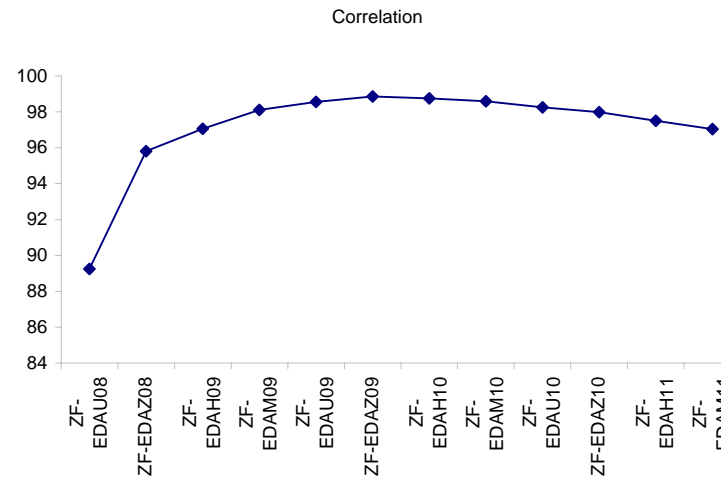
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAU08	0.123	3.98	3.85	ZF-EDAU08		
EDAZ08	0.372	3.98	3.60	ZF-EDAZ08		
EDAH09	0.621	3.98	3.35	ZF-EDAH09		
EDAM09	0.871	3.98	3.10	ZF-EDAM09		
EDAU09	1.120	3.98	2.86	ZF-EDAU09		
EDAZ09	1.369	3.98	2.61	ZF-EDAZ09		
EDAH10	1.619	3.98	2.36	ZF-EDAH10		
EDAM10	1.868	3.98	2.11	ZF-EDAM10		
EDAU10	2.117	3.98	1.86	ZF-EDAU10		
EDAZ10	2.366	3.98	1.61	ZF-EDAZ10		
EDAH11	2.616	3.98	1.36	ZF-EDAH11		
EDAM11	2.865	3.98	1.11	ZF-EDAM11		

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

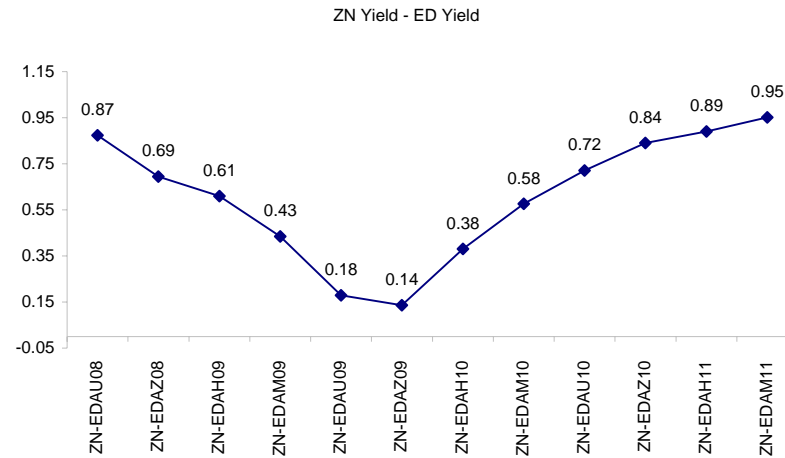


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	17.784	0.87	ZN-EDAU08	88.021
EDAZ08	17.964	0.69	ZN-EDAZ08	93.519
EDAH09	18.049	0.61	ZN-EDAH09	93.993
EDAM09	18.224	0.43	ZN-EDAM09	95.288
EDAU09	18.479	0.18	ZN-EDAU09	96.347
EDAZ09	18.794	0.14	ZN-EDAZ09	97.121
EDAH10	19.039	0.38	ZN-EDAH10	98.745
EDAM10	19.234	0.58	ZN-EDAM10	98.592
EDAU10	19.379	0.72	ZN-EDAU10	98.259
EDAZ10	19.499	0.84	ZN-EDAZ10	97.977
EDAH11	19.549	0.89	ZN-EDAH11	97.503
EDAM11	19.609	0.95	ZN-EDAM11	97.045

Price = Outright Decimal Price - Euro Contract Price

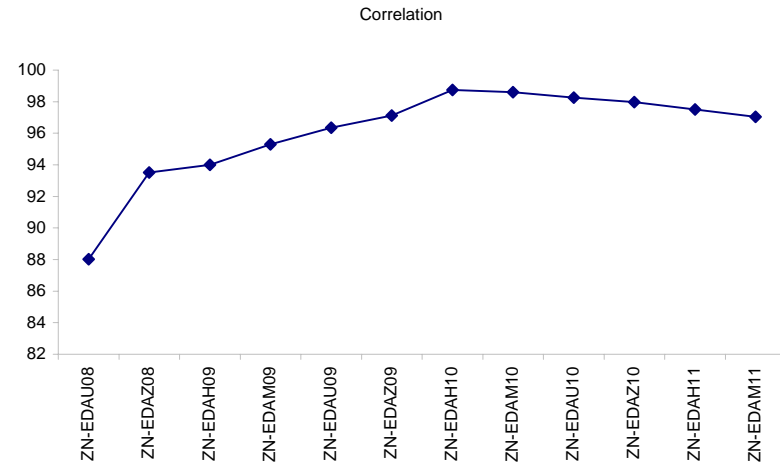
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAU08	0.123	6.40	6.27	ZN-EDAU08		
EDAZ08	0.372	6.40	6.03	ZN-EDAZ08		
EDAH09	0.621	6.40	5.78	ZN-EDAH09		
EDAM09	0.871	6.40	5.53	ZN-EDAM09		
EDAU09	1.120	6.40	5.28	ZN-EDAU09		
EDAZ09	1.369	6.40	5.03	ZN-EDAZ09		
EDAH10	1.619	6.40	4.78	ZN-EDAH10		
EDAM10	1.868	6.40	4.53	ZN-EDAM10		
EDAU10	2.117	6.40	4.28	ZN-EDAU10		
EDAZ10	2.366	6.40	4.03	ZN-EDAZ10		
EDAH11	2.616	6.40	3.78	ZN-EDAH11		
EDAM11	2.865	6.40	3.53	ZN-EDAM11		

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

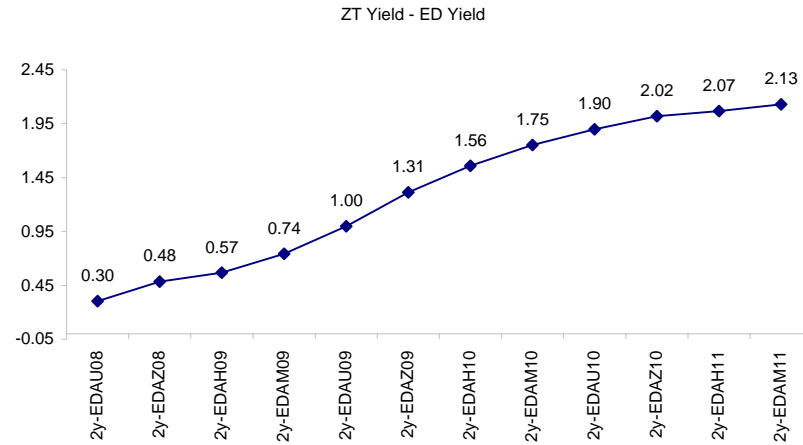


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.268	0.30	2y-EDAU08	-75.847
EDAZ08	3.448	0.48	2y-EDAZ08	-81.392
EDAH09	3.533	0.57	2y-EDAH09	-84.437
EDAM09	3.708	0.74	2y-EDAM09	-85.656
EDAU09	3.963	1.00	2y-EDAU09	-86.135
EDAZ09	4.278	1.31	2y-EDAZ09	-87.008
EDAH10	4.523	1.56	2y-EDAH10	-86.901
EDAM10	4.718	1.75	2y-EDAM10	-86.592
EDAU10	4.863	1.90	2y-EDAU10	-85.549
EDAZ10	4.983	2.02	2y-EDAZ10	-84.865
EDAH11	5.033	2.07	2y-EDAH11	-83.808
EDAM11	5.093	2.13	2y-EDAM11	-82.942

Price = Outright Decimal Price - Euro Contract Price

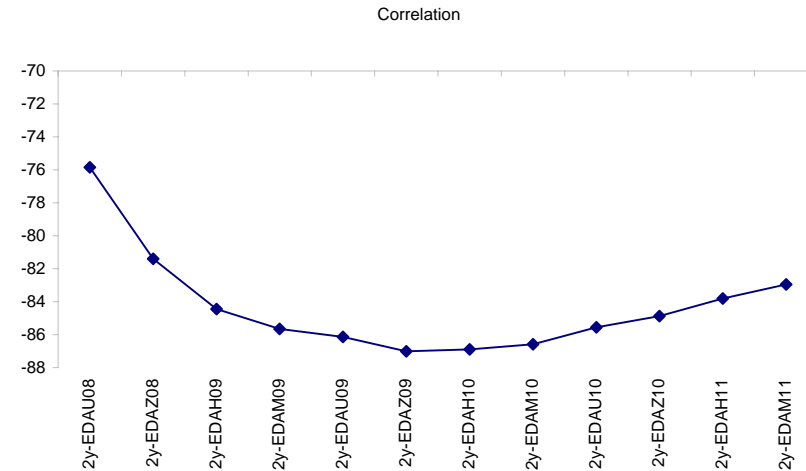
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAU08	0.123	1.92	1.80	2y-EDAU08	
EDAZ08	0.372	1.92	1.55	2y-EDAZ08	
EDAH09	0.621	1.92	1.30	2y-EDAH09	
EDAM09	0.871	1.92	1.05	2y-EDAM09	
EDAU09	1.120	1.92	0.80	2y-EDAU09	
EDAZ09	1.369	1.92	0.56	2y-EDAZ09	
EDAH10	1.619	1.92	0.31	2y-EDAH10	
EDAM10	1.868	1.92	0.06	2y-EDAM10	
EDAU10	2.117	1.92	(0.19)	2y-EDAU10	
EDAZ10	2.366	1.92	(0.44)	2y-EDAZ10	
EDAH11	2.616	1.92	(0.69)	2y-EDAH11	
EDAM11	2.865	1.92	(0.94)	2y-EDAM11	

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

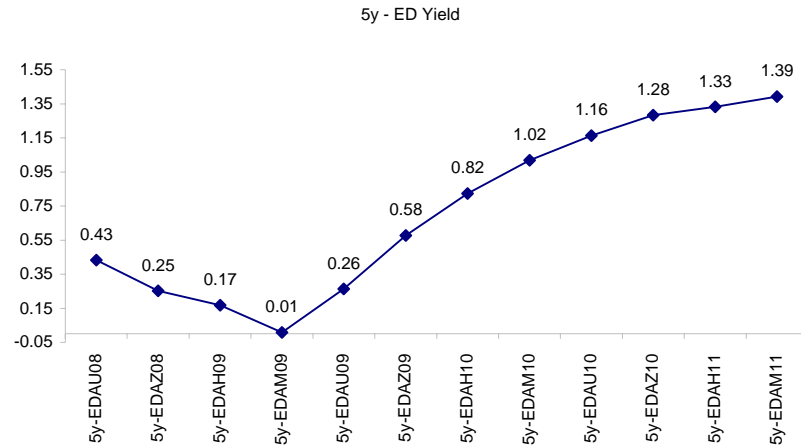


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.393	0.43	5y-EDAU08	-81.824
EDAZ08	3.573	0.25	5y-EDAZ08	-88.544
EDAH09	3.658	0.17	5y-EDAH09	-90.468
EDAM09	3.833	0.01	5y-EDAM09	-90.992
EDAU09	4.088	0.26	5y-EDAU09	-91.240
EDAZ09	4.403	0.58	5y-EDAZ09	-92.194
EDAH10	4.648	0.82	5y-EDAH10	-92.529
EDAM10	4.843	1.02	5y-EDAM10	-92.619
EDAU10	4.988	1.16	5y-EDAU10	-92.095
EDAZ10	5.108	1.28	5y-EDAZ10	-91.653
EDAH11	5.158	1.33	5y-EDAH11	-91.025
EDAM11	5.218	1.39	5y-EDAM11	-90.399

Price = Outright Decimal Price - Euro Contract Price

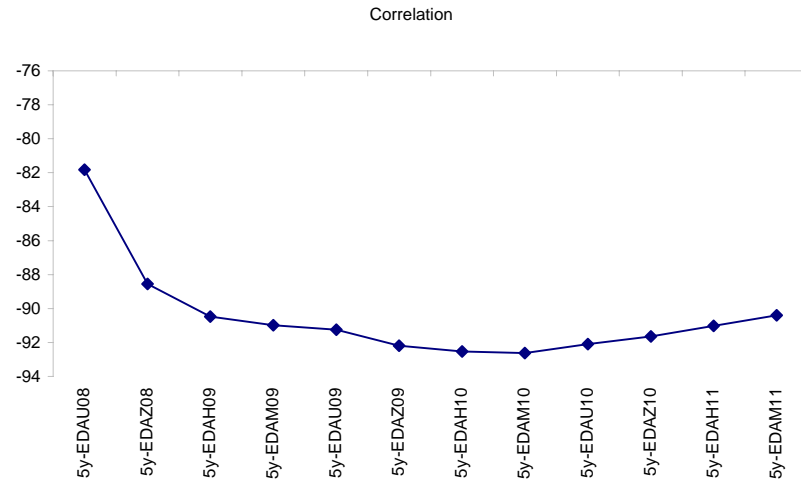
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAU08	0.123	4.56	4.44	5y-EDAU08
EDAZ08	0.372	4.56	4.19	5y-EDAZ08
EDAH09	0.621	4.56	3.94	5y-EDAH09
EDAM09	0.871	4.56	3.69	5y-EDAM09
EDAU09	1.120	4.56	3.44	5y-EDAU09
EDAZ09	1.369	4.56	3.19	5y-EDAZ09
EDAH10	1.619	4.56	2.94	5y-EDAH10
EDAM10	1.868	4.56	2.69	5y-EDAM10
EDAU10	2.117	4.56	2.44	5y-EDAU10
EDAZ10	2.366	4.56	2.19	5y-EDAZ10
EDAH11	2.616	4.56	1.94	5y-EDAH11
EDAM11	2.865	4.56	1.69	5y-EDAM11

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

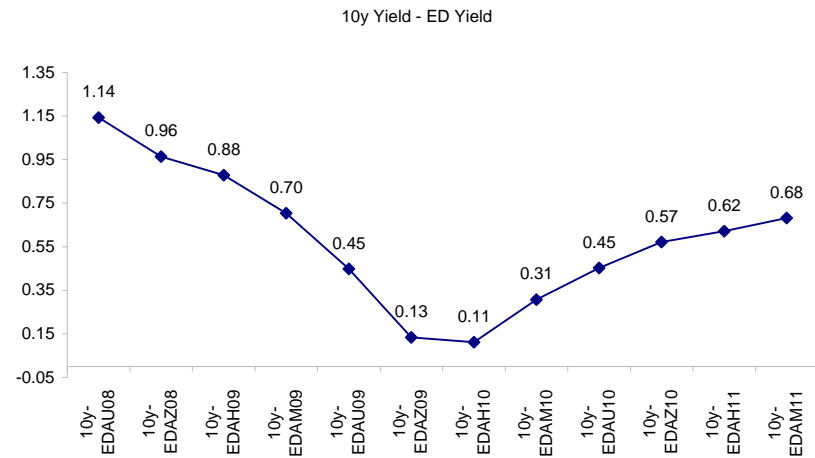


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.393	1.14	10y-EDAU08	-77.647
EDAZ08	3.573	0.96	10y-EDAZ08	-85.547
EDAH09	3.658	0.88	10y-EDAH09	-87.232
EDAM09	3.833	0.70	10y-EDAM09	-87.659
EDAU09	4.088	0.45	10y-EDAU09	-88.266
EDAZ09	4.403	0.13	10y-EDAZ09	-89.638
EDAH10	4.648	0.11	10y-EDAH10	-90.379
EDAM10	4.843	0.31	10y-EDAM10	-90.810
EDAU10	4.988	0.45	10y-EDAU10	-90.619
EDAZ10	5.108	0.57	10y-EDAZ10	-90.278
EDAH11	5.158	0.62	10y-EDAH11	-89.703
EDAM11	5.218	0.68	10y-EDAM11	-89.029

Price = Outright Decimal Price - Euro Contract Price

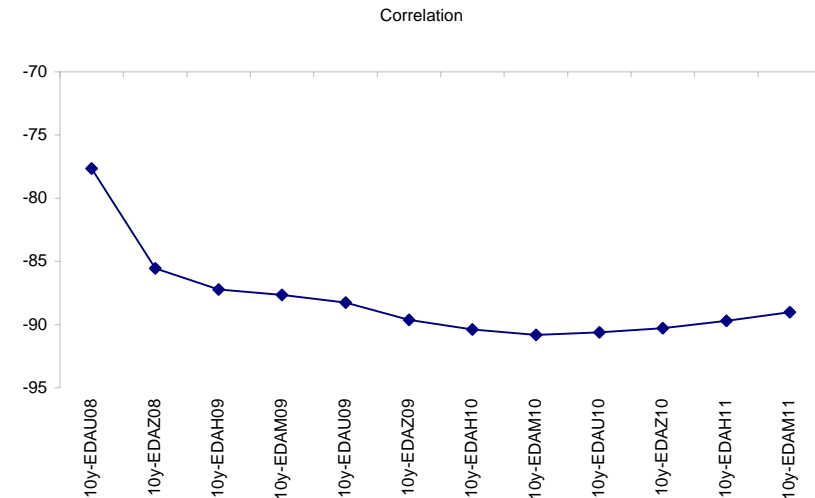
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.123	8.00	7.88	10y-EDAU08
EDAZ08	0.372	8.00	7.63	10y-EDAZ08
EDAH09	0.621	8.00	7.38	10y-EDAH09
EDAM09	0.871	8.00	7.13	10y-EDAM09
EDAU09	1.120	8.00	6.88	10y-EDAU09
EDAZ09	1.369	8.00	6.63	10y-EDAZ09
EDAH10	1.619	8.00	6.38	10y-EDAH10
EDAM10	1.868	8.00	6.13	10y-EDAM10
EDAU10	2.117	8.00	5.88	10y-EDAU10
EDAZ10	2.366	8.00	5.63	10y-EDAZ10
EDAH11	2.616	8.00	5.38	10y-EDAH11
EDAM11	2.865	8.00	5.13	10y-EDAM11

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.

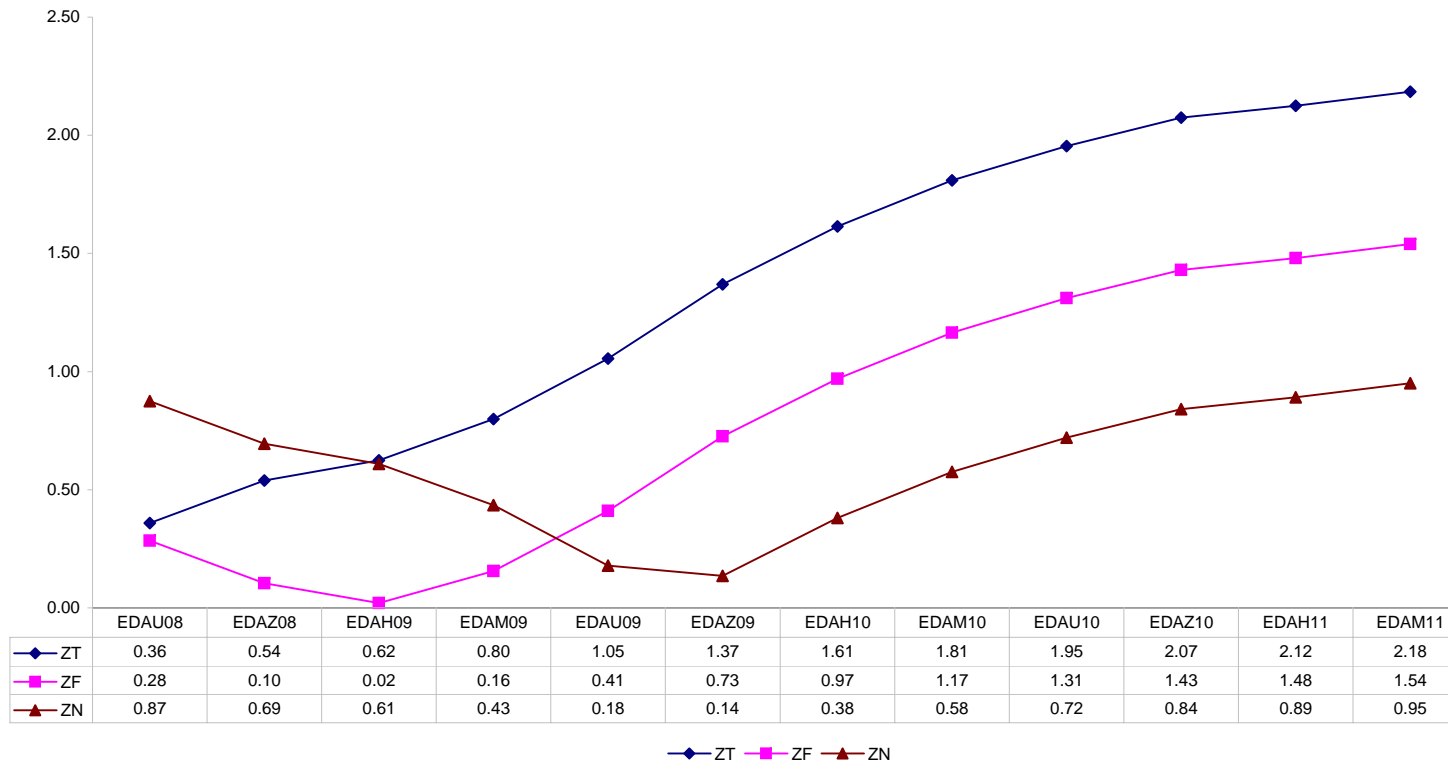
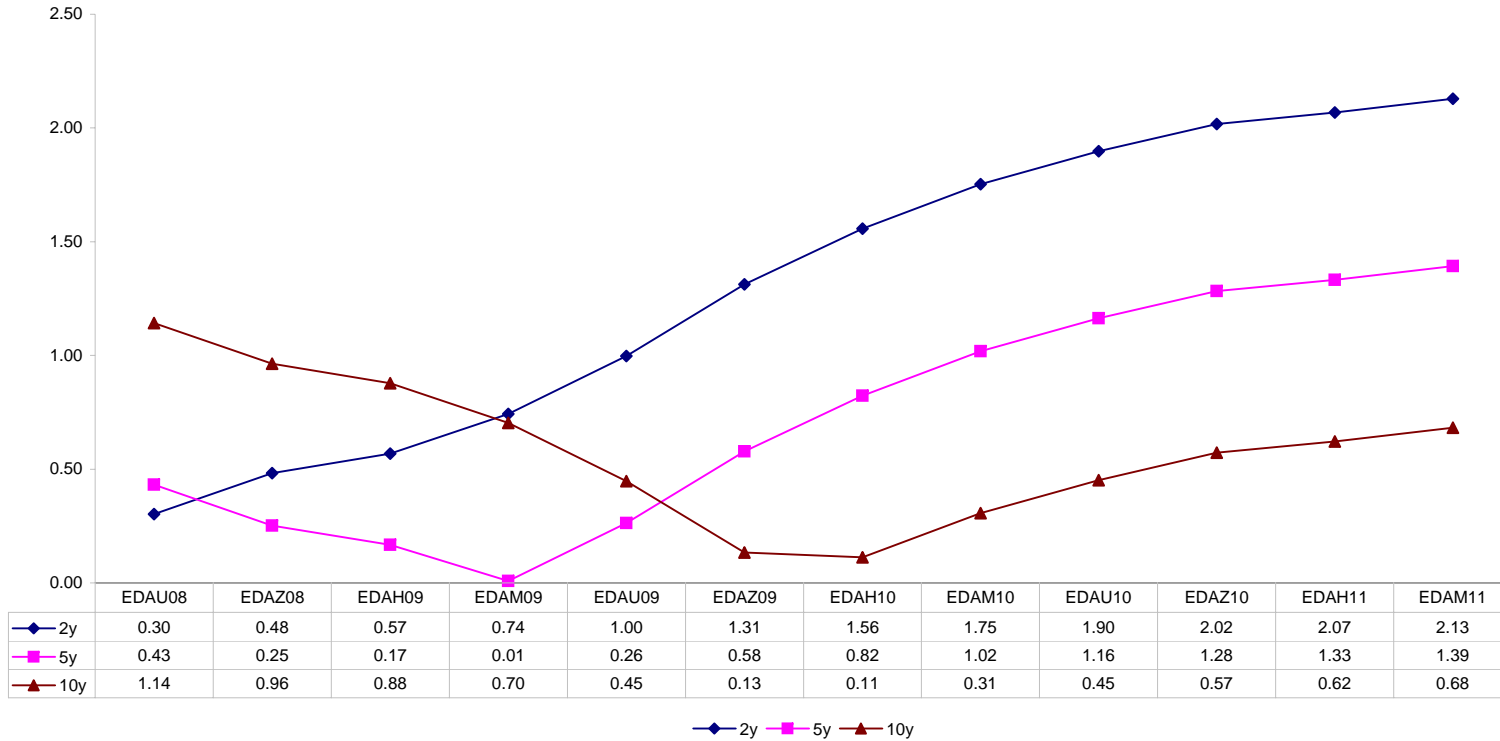
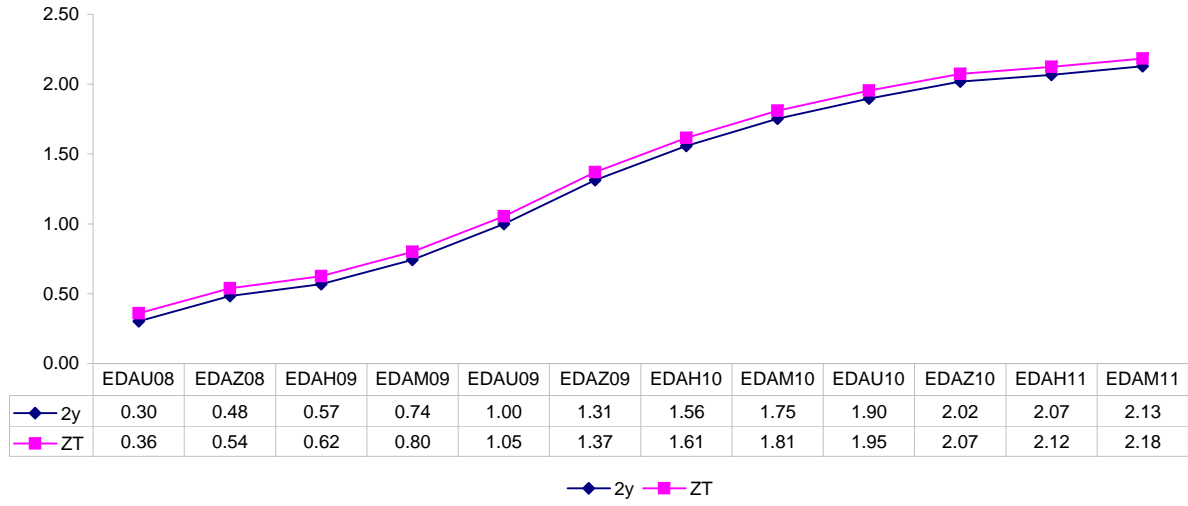


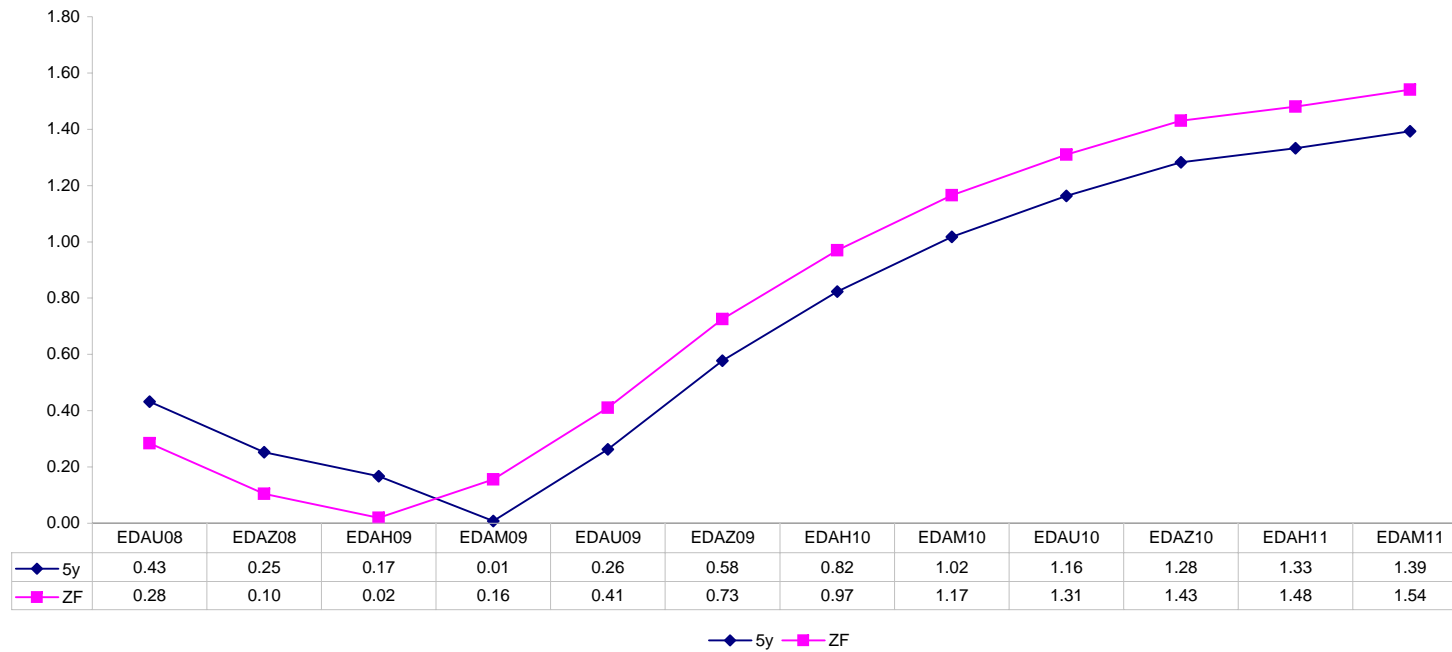
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



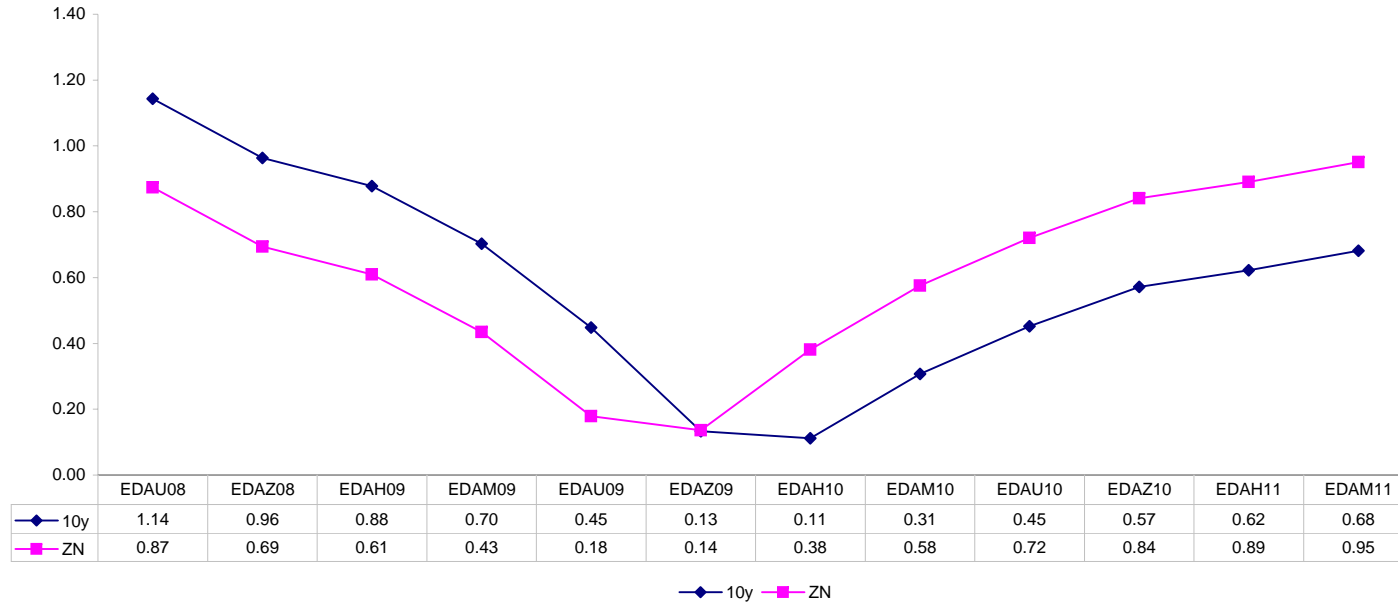
2y Basis TED Curve



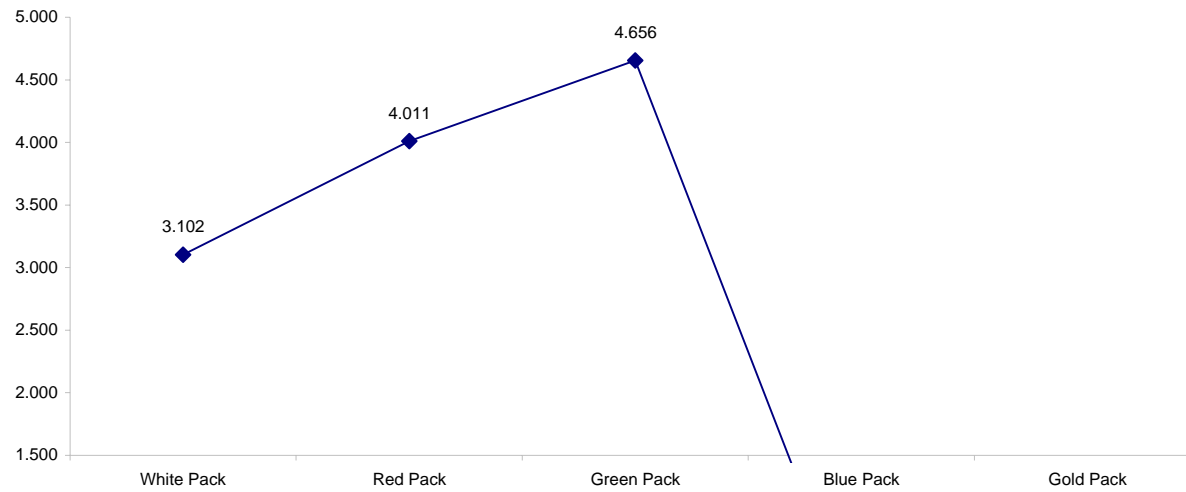
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	3.102	0.125	9696.375
Red Pack	4.011	1.125	9608.250
Green Pack	4.656	0.500	9546.000
Blue Pack		0.375	9523.375
Gold Pack		0.000	9502.125



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

