

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	106.2094	106.067	2.244	1.80
ZF	111.7094	111.227	2.983	3.94
ZN	115.5000	115.160	3.627	5.89
2y	99.616	99.1970	2.319	1.94
5y	100.172	100.0550	3.088	4.59
10y	97.563	97.1800	3.798	8.14

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.255	2.745	47	0.128	JUN
EDAU08	97.200	2.800	138	0.377	SEP White
EDAZ08	97.020	2.980	229	0.627	DEC Pack
EDAH09	96.935	3.065	320	0.876	MAR
EDAM09	96.775	3.225	411	1.125	JUN
EDAU09	96.615	3.385	502	1.375	SEP Red Pack
EDAZ09	96.425	3.575	593	1.624	DEC
EDAH10	96.295	3.705	684	1.873	MAR
EDAM10	96.130	3.870	775	2.123	JUN
EDAU10	95.980	4.020	866	2.372	SEP Green
EDAZ10	95.840	4.160	957	2.621	DEC Pack
EDAH11	95.755	4.245	1048	2.871	MAR
EDAM11	95.660	4.340	1139	3.120	JUN
EDAU11	95.575	4.425	1237	3.388	SEP Blue Pack
EDAZ11	95.450	4.550	1328	3.638	DEC
EDAH12	95.390	4.610	1419	3.887	MAR
EDAM12	95.330	4.670	1510	4.136	JUN
EDAU12	95.265	4.735	1601	4.386	SEP Gold Pack
EDAZ12	95.180	4.820	1692	4.635	DEC
EDAH13	95.135	4.865	1783	4.884	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.959	1.250	9710.250	Pack Prices
Red Pack	3.552	2.875	9652.750	
Green Pack	4.173	1.750	9592.625	
Blue Pack		1.000	9552.125	
Gold Pack	4.897	0.000	9522.750	

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.

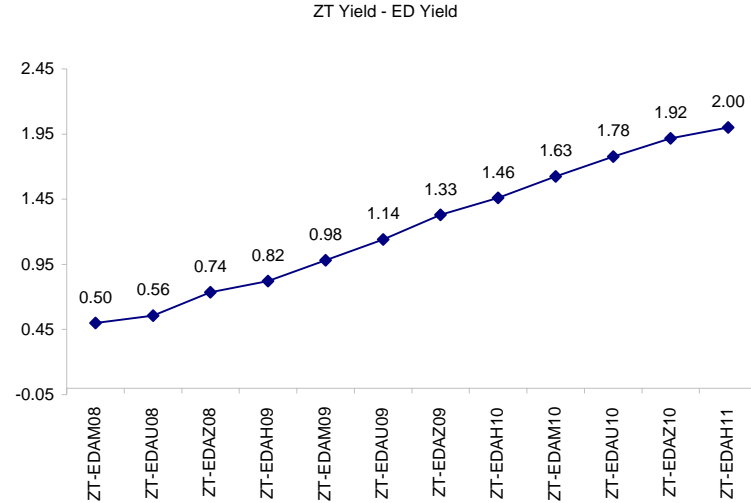
jgoulding@ghco.com

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.

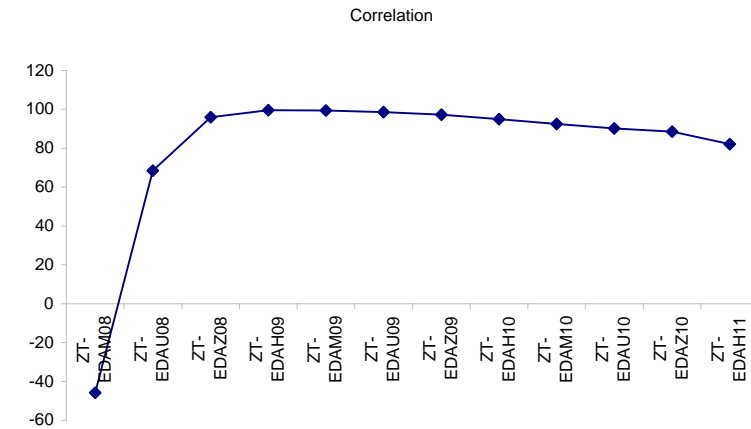
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.954	0.50	ZT-EDAM08	-45.786
EDAU08	9.009	0.56	ZT-EDAU08	68.459
EDAZ08	9.189	0.74	ZT-EDAZ08	95.948
EDAH09	9.274	0.82	ZT-EDAH09	99.502
EDAM09	9.434	0.98	ZT-EDAM09	99.450
EDAU09	9.594	1.14	ZT-EDAU09	98.670
EDAZ09	9.784	1.33	ZT-EDAZ09	97.348
EDAH10	9.914	1.46	ZT-EDAH10	94.899
EDAM10	10.079	1.63	ZT-EDAM10	92.548
EDAU10	10.229	1.78	ZT-EDAU10	90.174
EDAZ10	10.369	1.92	ZT-EDAZ10	88.464
EDAH11	10.454	2.00	ZT-EDAH11	82.066

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	0.128	1.80	1.67	ZT-EDAM08		
EDAU08	0.377	1.80	1.42	ZT-EDAU08		
EDAZ08	0.627	1.80	1.17	ZT-EDAZ08		
EDAH09	0.876	1.80	0.92	ZT-EDAH09		
EDAM09	1.125	1.80	0.67	ZT-EDAM09		
EDAU09	1.375	1.80	0.42	ZT-EDAU09		
EDAZ09	1.624	1.80	0.17	ZT-EDAZ09		
EDAH10	1.873	1.80	(0.08)	ZT-EDAH10		
EDAM10	2.123	1.80	(0.33)	ZT-EDAM10		
EDAU10	2.372	1.80	(0.58)	ZT-EDAU10		
EDAZ10	2.621	1.80	(0.83)	ZT-EDAZ10		
EDAH11	2.871	1.80	(1.08)	ZT-EDAH11		

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

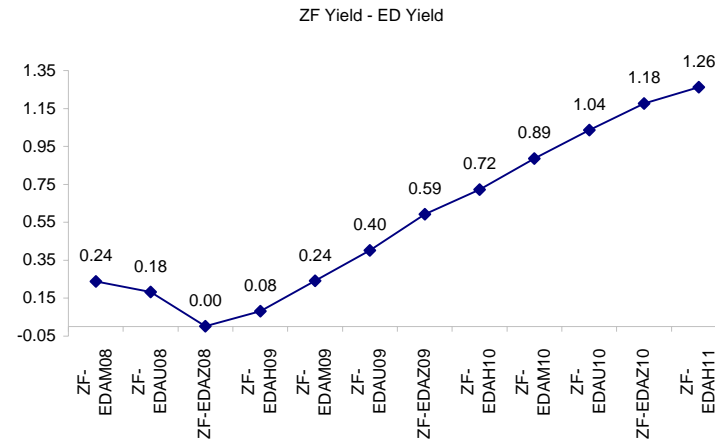


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	14.454	0.24	ZF-EDAM08	-53.611
EDAU08	14.509	0.18	ZF-EDAU08	60.618
EDAZ08	14.689	0.00	ZF-EDAZ08	92.957
EDAH09	14.774	0.08	ZF-EDAH09	99.157
EDAM09	14.934	0.24	ZF-EDAM09	99.806
EDAU09	15.094	0.40	ZF-EDAU09	99.544
EDAZ09	15.284	0.59	ZF-EDAZ09	98.328
EDAH10	15.414	0.72	ZF-EDAH10	96.612
EDAM10	15.579	0.89	ZF-EDAM10	94.840
EDAU10	15.729	1.04	ZF-EDAU10	92.433
EDAZ10	15.869	1.18	ZF-EDAZ10	90.823
EDAH11	15.954	1.26	ZF-EDAH11	84.672

Price = Outright Decimal Price - Euro Contract Price

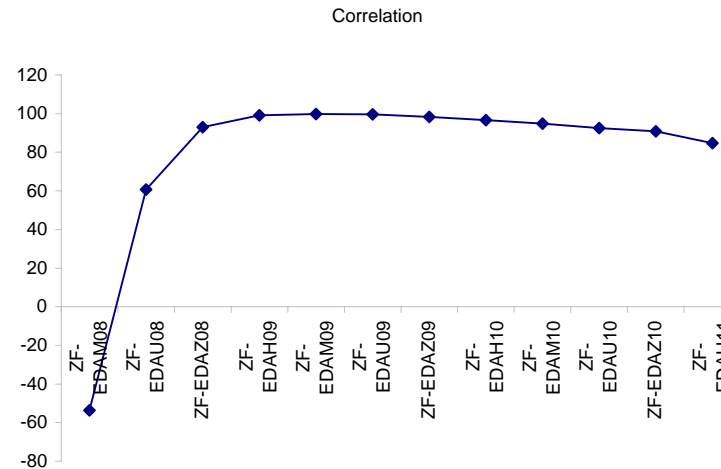
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.128	3.94	3.81	ZF-EDAM08	
EDAU08	0.377	3.94	3.56	ZF-EDAU08	
EDAZ08	0.627	3.94	3.31	ZF-EDAZ08	
EDAH09	0.876	3.94	3.06	ZF-EDAH09	
EDAM09	1.125	3.94	2.81	ZF-EDAM09	
EDAU09	1.375	3.94	2.56	ZF-EDAU09	
EDAZ09	1.624	3.94	2.31	ZF-EDAZ09	
EDAH10	1.873	3.94	2.06	ZF-EDAH10	
EDAM10	2.123	3.94	1.81	ZF-EDAM10	
EDAU10	2.372	3.94	1.56	ZF-EDAU10	
EDAZ10	2.621	3.94	1.31	ZF-EDAZ10	
EDAH11	2.871	3.94	1.06	ZF-EDAH11	

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

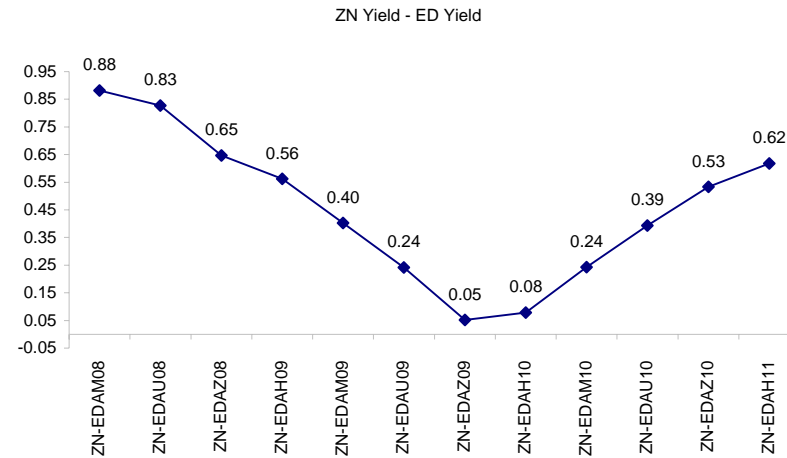


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	18.245	0.88	ZN-EDAM08	-56.765
EDAU08	18.300	0.83	ZN-EDAU08	52.027
EDAZ08	18.480	0.65	ZN-EDAZ08	88.251
EDAH09	18.565	0.56	ZN-EDAH09	96.520
EDAM09	18.725	0.40	ZN-EDAM09	98.288
EDAU09	18.885	0.24	ZN-EDAU09	98.923
EDAZ09	19.075	0.05	ZN-EDAZ09	98.462
EDAH10	19.205	0.08	ZN-EDAH10	96.612
EDAM10	19.370	0.24	ZN-EDAM10	94.840
EDAU10	19.520	0.39	ZN-EDAU10	92.433
EDAZ10	19.660	0.53	ZN-EDAZ10	90.823
EDAH11	19.745	0.62	ZN-EDAH11	84.672

Price = Outright Decimal Price - Euro Contract Price

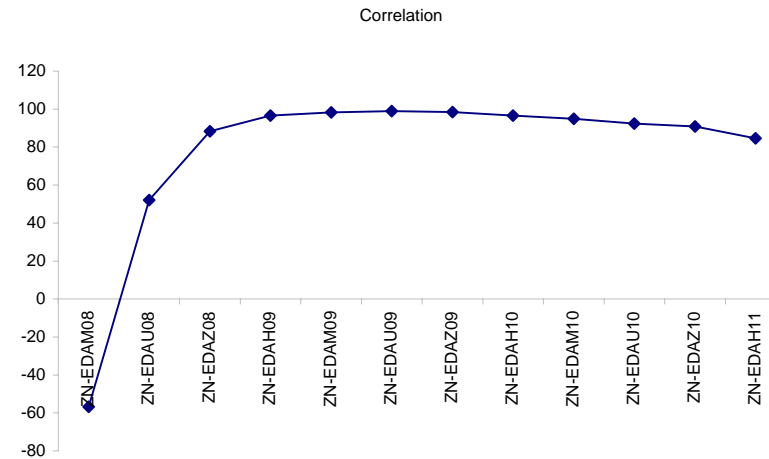
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAM08	0.128	5.89	5.76	ZN-EDAM08
EDAU08	0.377	5.89	5.51	ZN-EDAU08
EDAZ08	0.627	5.89	5.26	ZN-EDAZ08
EDAH09	0.876	5.89	5.01	ZN-EDAH09
EDAM09	1.125	5.89	4.76	ZN-EDAM09
EDAU09	1.375	5.89	4.51	ZN-EDAU09
EDAZ09	1.624	5.89	4.26	ZN-EDAZ09
EDAH10	1.873	5.89	4.01	ZN-EDAH10
EDAM10	2.123	5.89	3.76	ZN-EDAM10
EDAU10	2.372	5.89	3.52	ZN-EDAU10
EDAZ10	2.621	5.89	3.27	ZN-EDAZ10
EDAH11	2.871	5.89	3.02	ZN-EDAH11

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

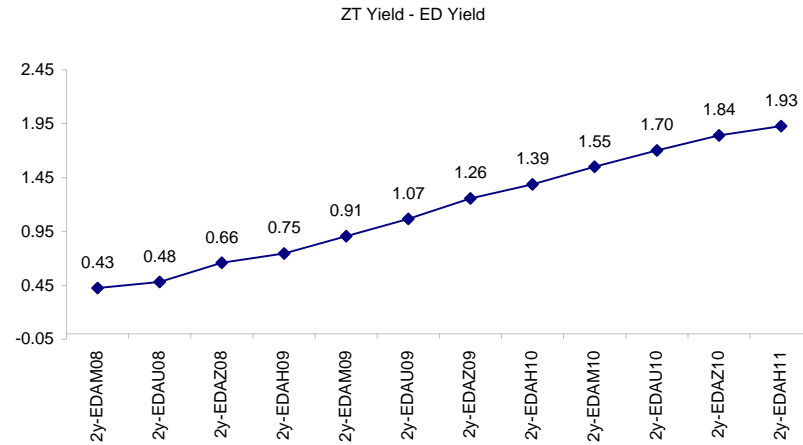


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.361	0.43	2y-EDAM08	56.718
EDAU08	2.416	0.48	2y-EDAU08	-60.889
EDAZ08	2.596	0.66	2y-EDAZ08	-92.425
EDAH09	2.681	0.75	2y-EDAH09	-98.331
EDAM09	2.841	0.91	2y-EDAM09	-98.427
EDAU09	3.001	1.07	2y-EDAU09	-97.558
EDAZ09	3.191	1.26	2y-EDAZ09	-95.651
EDAH10	3.321	1.39	2y-EDAH10	-93.442
EDAM10	3.486	1.55	2y-EDAM10	-91.137
EDAU10	3.636	1.70	2y-EDAU10	-87.821
EDAZ10	3.776	1.84	2y-EDAZ10	-85.982
EDAH11	3.861	1.93	2y-EDAH11	-78.734

Price = Outright Decimal Price - Euro Contract Price

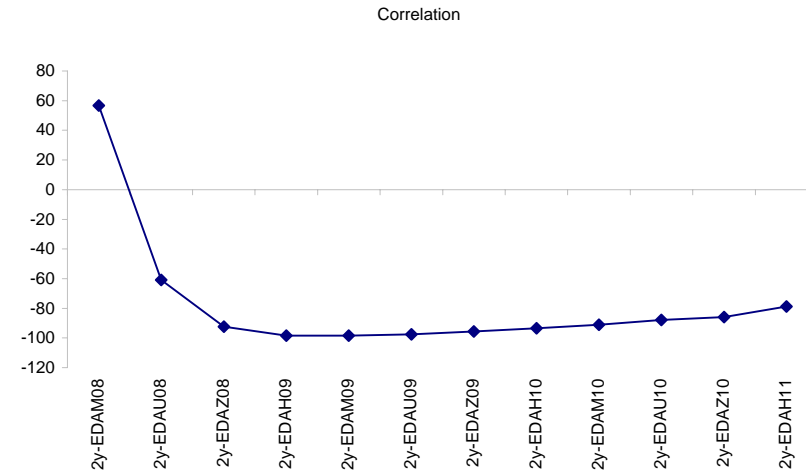
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAM08	0.128	1.94	1.82	2y-EDAM08	
EDAU08	0.377	1.94	1.57	2y-EDAU08	
EDAZ08	0.627	1.94	1.32	2y-EDAZ08	
EDAH09	0.876	1.94	1.07	2y-EDAH09	
EDAM09	1.125	1.94	0.82	2y-EDAM09	
EDAU09	1.375	1.94	0.57	2y-EDAU09	
EDAZ09	1.624	1.94	0.32	2y-EDAZ09	
EDAH10	1.873	1.94	0.07	2y-EDAH10	
EDAM10	2.123	1.94	(0.18)	2y-EDAM10	
EDAU10	2.372	1.94	(0.43)	2y-EDAU10	
EDAZ10	2.621	1.94	(0.68)	2y-EDAZ10	
EDAH11	2.871	1.94	(0.93)	2y-EDAH11	

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

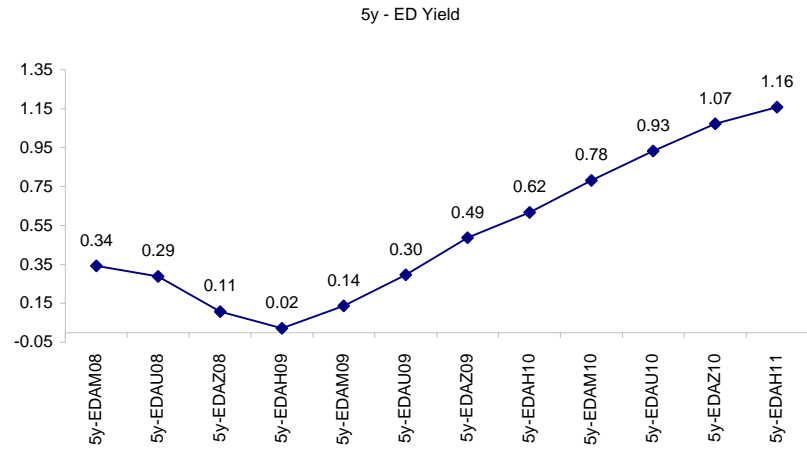


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.917	0.34	5y-EDAM08	64.322
EDAU08	2.972	0.29	5y-EDAU08	-50.852
EDAZ08	3.152	0.11	5y-EDAZ08	64.322
EDAH09	3.237	0.02	5y-EDAH09	-96.065
EDAM09	3.397	0.14	5y-EDAM09	-96.981
EDAU09	3.557	0.30	5y-EDAU09	-96.745
EDAZ09	3.747	0.49	5y-EDAZ09	-95.021
EDAH10	3.877	0.62	5y-EDAH10	-93.716
EDAM10	4.042	0.78	5y-EDAM10	-92.096
EDAU10	4.192	0.93	5y-EDAU10	-89.011
EDAZ10	4.332	1.07	5y-EDAZ10	-87.234
EDAH11	4.417	1.16	5y-EDAH11	-80.298

Price = Outright Decimal Price - Euro Contract Price

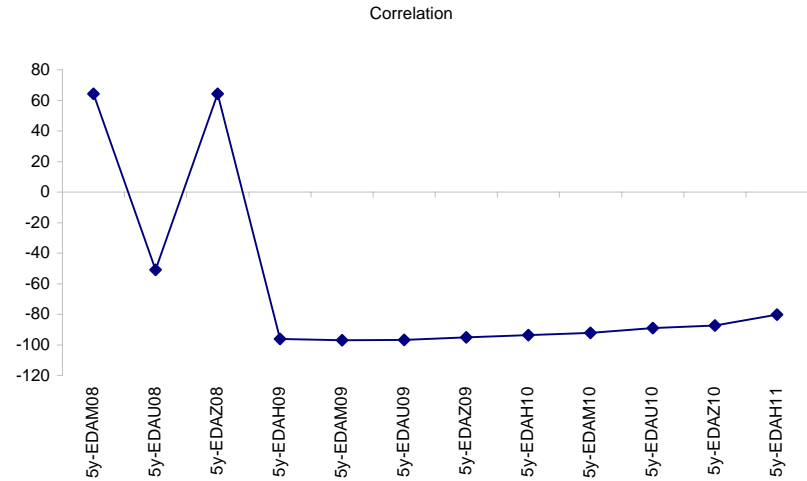
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.128	4.59	4.47	5y-EDAM08
EDAU08	0.377	4.59	4.22	5y-EDAU08
EDAZ08	0.627	4.59	3.97	5y-EDAZ08
EDAH09	0.876	4.59	3.72	5y-EDAH09
EDAM09	1.125	4.59	3.47	5y-EDAM09
EDAU09	1.375	4.59	3.22	5y-EDAU09
EDAZ09	1.624	4.59	2.97	5y-EDAZ09
EDAH10	1.873	4.59	2.72	5y-EDAH10
EDAM10	2.123	4.59	2.47	5y-EDAM10
EDAU10	2.372	4.59	2.22	5y-EDAU10
EDAZ10	2.621	4.59	1.97	5y-EDAZ10
EDAH11	2.871	4.59	1.72	5y-EDAH11

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

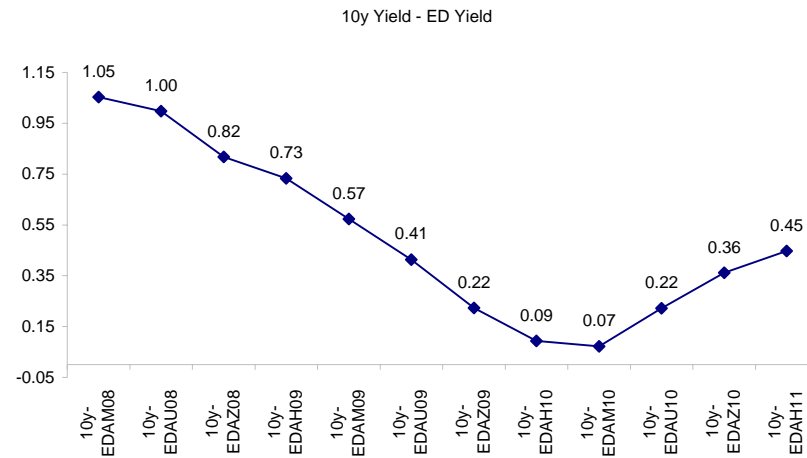


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.917	1.05	10y-EDAM08	56.730
EDAU08	2.972	1.00	10y-EDAU08	-49.149
EDAZ08	3.152	0.82	10y-EDAZ08	56.730
EDAH09	3.237	0.73	10y-EDAH09	-93.004
EDAM09	3.397	0.57	10y-EDAM09	-94.098
EDAU09	3.557	0.41	10y-EDAU09	-94.845
EDAZ09	3.747	0.22	10y-EDAZ09	-94.950
EDAH10	3.877	0.09	10y-EDAH10	-94.703
EDAM10	4.042	0.07	10y-EDAM10	-93.917
EDAU10	4.192	0.22	10y-EDAU10	-92.385
EDAZ10	4.332	0.36	10y-EDAZ10	-91.510
EDAH11	4.417	0.45	10y-EDAH11	-86.551

Price = Outright Decimal Price - Euro Contract Price

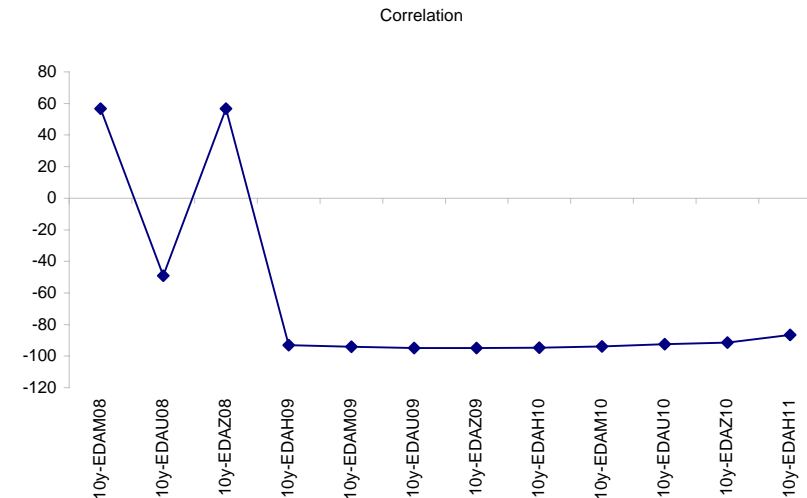
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as			
	Fraction of year	10Y Duration	Spread Duration
EDAM08	0.128	8.14	8.01
EDAU08	0.377	8.14	7.76
EDAZ08	0.627	8.14	7.51
EDAH09	0.876	8.14	7.26
EDAM09	1.125	8.14	7.01
EDAU09	1.375	8.14	6.76
EDAZ09	1.624	8.14	6.51
EDAH10	1.873	8.14	6.26
EDAM10	2.123	8.14	6.01
EDAU10	2.372	8.14	5.77
EDAZ10	2.621	8.14	5.52
EDAH11	2.871	8.14	5.27

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.

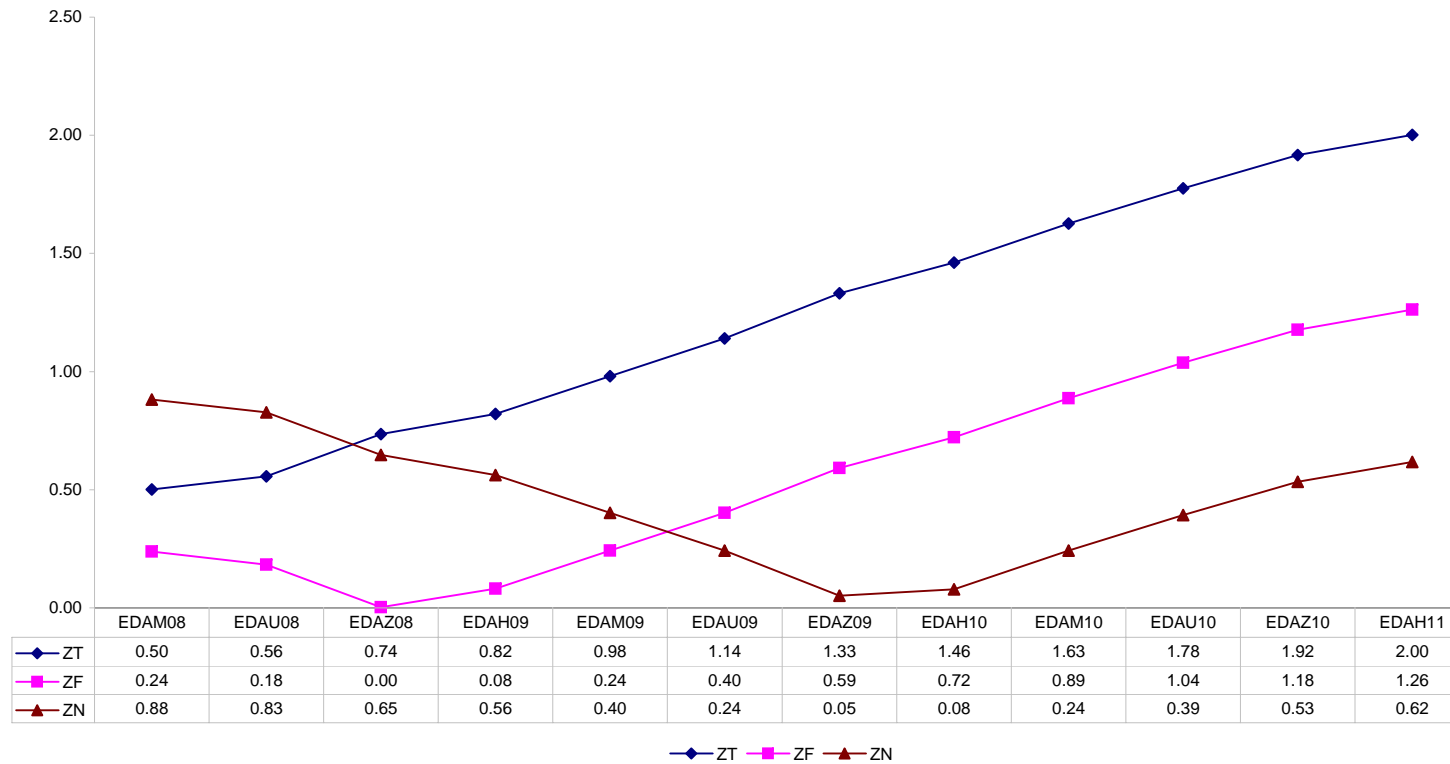
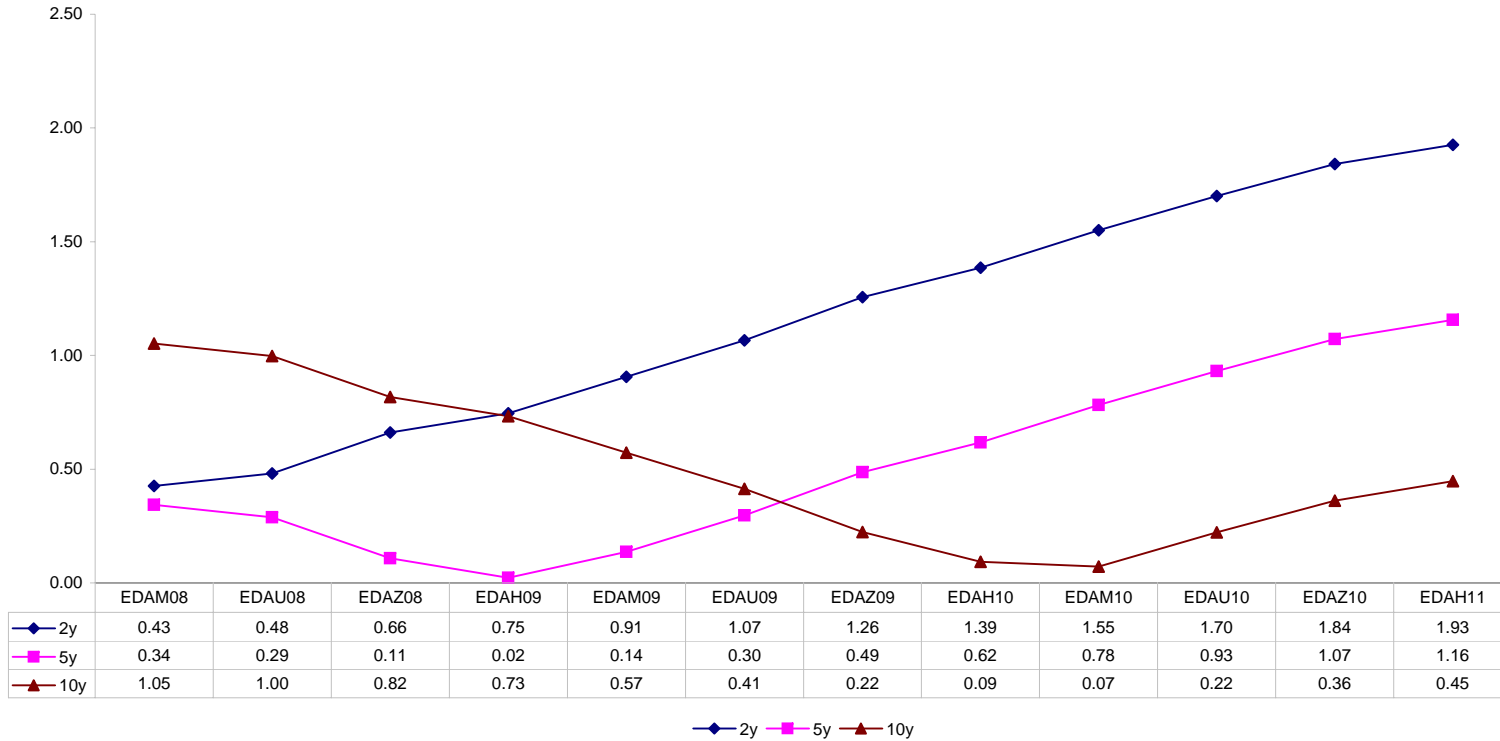
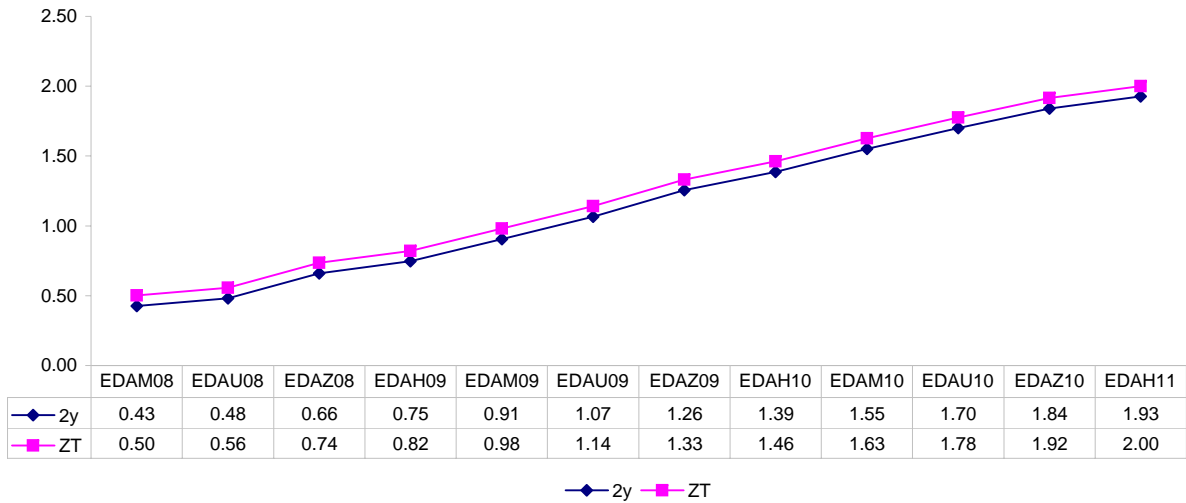


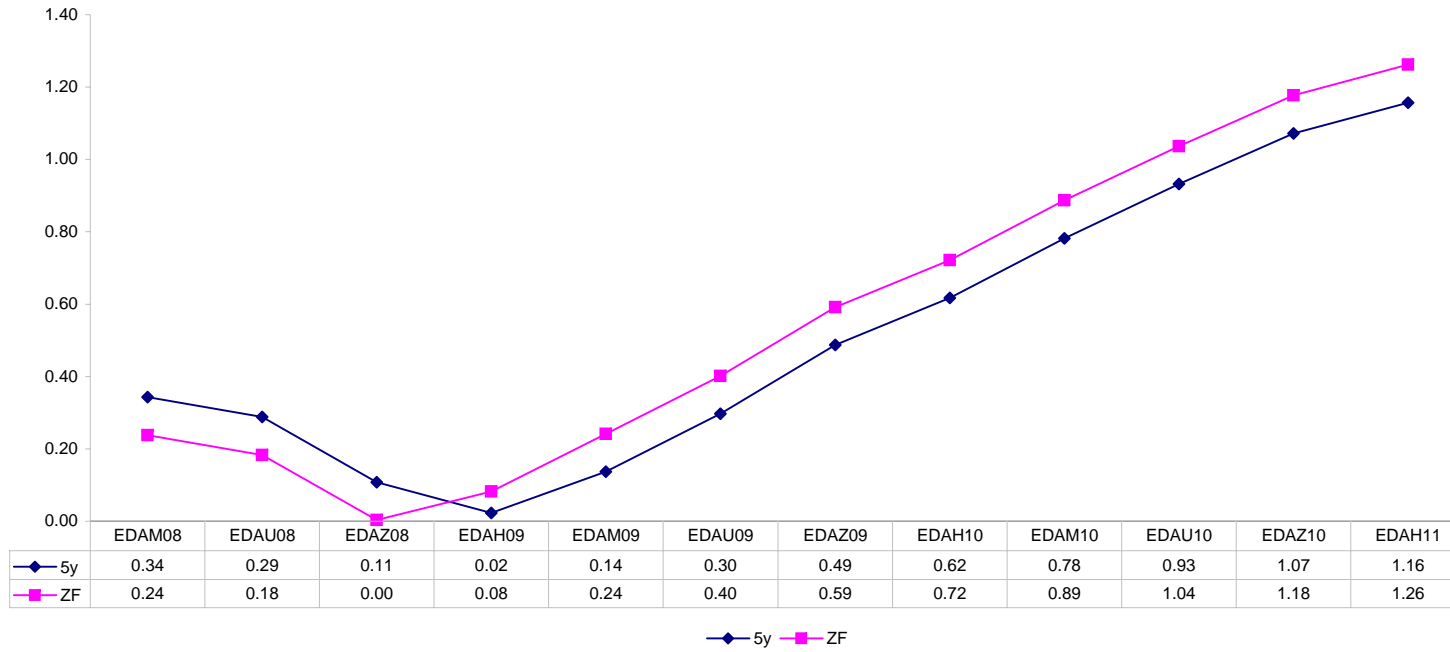
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



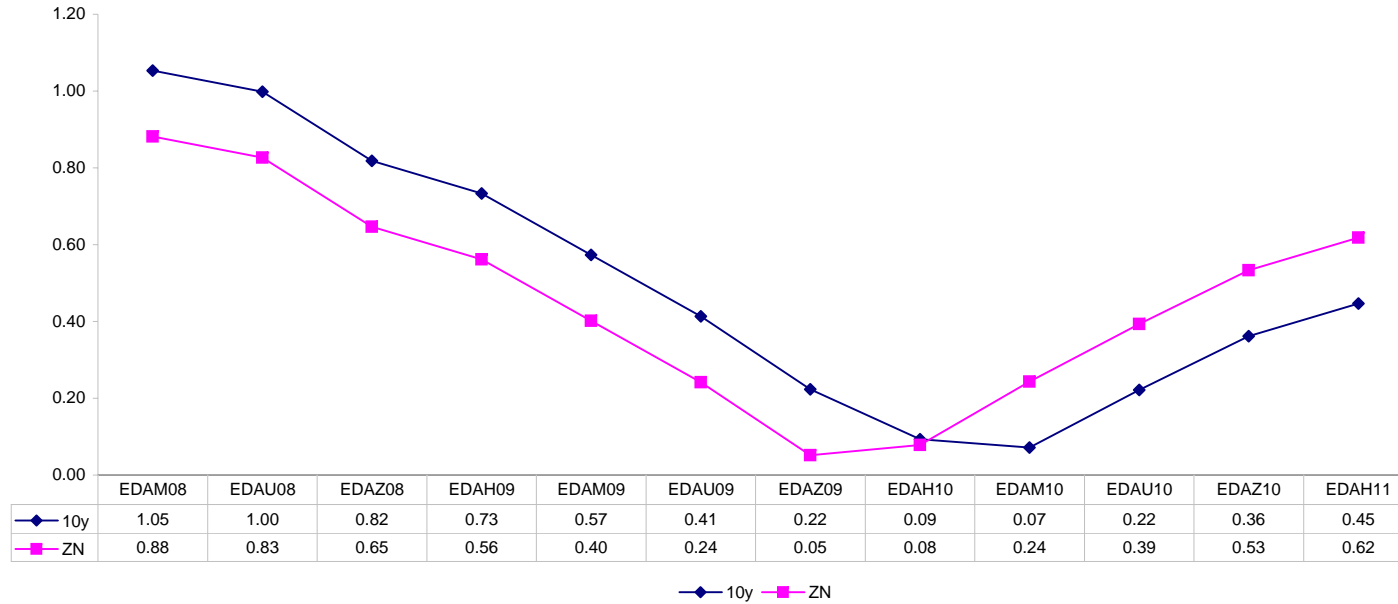
2y Basis TED Curve



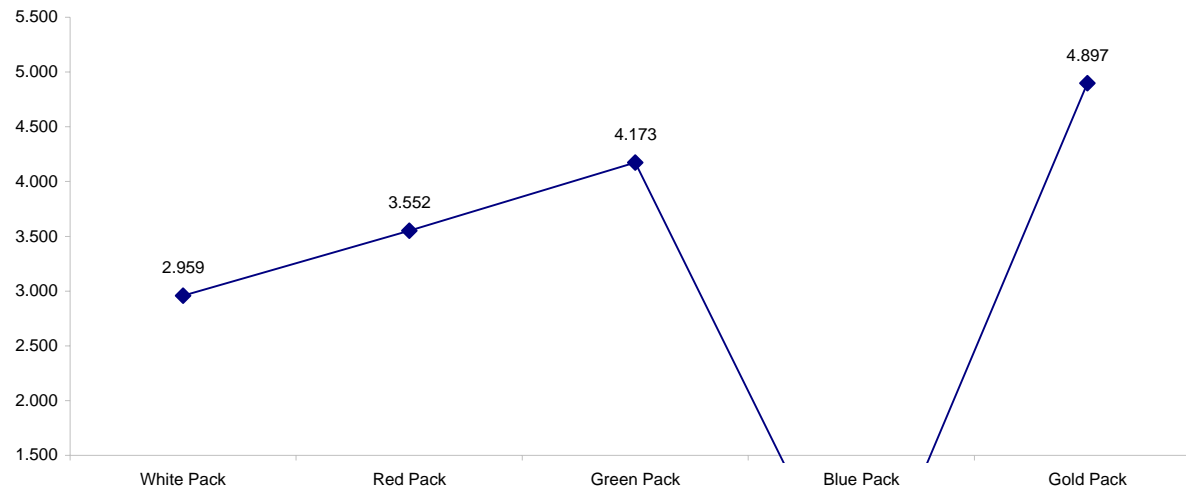
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.959	1.250	9710.250
Red Pack	3.552	2.875	9652.750
Green Pack	4.173	1.750	9592.625
Blue Pack		1.000	9552.125
Gold Pack	4.897	0.000	9522.750



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

