

The Morning Email: TERM TEDS & Dirty TEDS

Table of Contents

- Pg 1** Quotes

- Pg 2** Dirty TED: ZT vs Eurodollar Contracts

- Pg 3** Dirty TED: ZF vs Eurodollar Contracts

- Pg 4** Dirty TED: ZN vs Eurodollar Contracts

- Pg 5** TERM TED: 2y vs Eurodollar Contracts

- Pg 6** TERM TED: 5y vs Eurodollar Contracts

- Pg 7** TERM TED: 10y vs Eurodollar Contracts

- Pg 8** Dirty TED Curve

- Pg 9** TED Curve

- Pg 10** 2y Basis TED Curve

- Pg 11** 5y Basis TED Curve

- Pg 12** 10y Basis TED Curve

- Pg 13** Packs

- Pg 14** 2y, 5y, 10y Basis Curves vs ED

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	105.4531	105.145	2.575	1.92
ZF	110.1563	110.050	3.273	4.14
ZN	112.5938	112.190	3.713	6.00
2y	100.078	100.0250	2.577	1.93
5y	100.609	100.1950	3.365	4.55
10y	98.703	98.2250	4.032	8.16

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.315	2.685	14	0.038	JUN
EDAU08	97.210	2.790	105	0.287	SEP White
EDAZ08	96.960	3.040	196	0.536	DEC Pack
EDAH09	96.750	3.250	287	0.786	MAR
EDAM09	96.500	3.500	378	1.035	JUN
EDAU09	96.275	3.725	469	1.284	SEP Red Pack
EDAZ09	96.040	3.960	560	1.534	DEC
EDAH10	95.880	4.120	651	1.783	MAR
EDAM10	95.725	4.275	742	2.032	JUN
EDAU10	95.575	4.425	833	2.282	SEP Green Pack
EDAZ10	95.430	4.570	924	2.531	DEC
EDAH11	95.340	4.660	1015	2.780	MAR
EDAM11	95.265	4.735	1106	3.029	JUN
EDAU11	95.205	4.795	1204	3.298	SEP Blue Pack
EDAZ11	#VALUE!	#VALUE!	1295	3.547	DEC
EDAH12	#VALUE!	#VALUE!	1386	3.797	MAR
EDAM12	#VALUE!	#VALUE!	1477	4.046	JUN
EDAU12	#VALUE!	#VALUE!	1568	4.295	SEP Gold Pack
EDAZ12	#VALUE!	#VALUE!	1659	4.545	DEC
EDAH13	#VALUE!	#VALUE!	1750	4.794	MAR

	Last Yield	Net Yield	Last Price	
White Pack	3.106	7.000	9696.000	Pack Prices
Red Pack	3.106	7.000	9696.000	
Green Pack	3.106	7.000	9696.000	
Blue Pack		1.375	9516.875	
Gold Pack	3.106	7.000	9696.000	

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.

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.

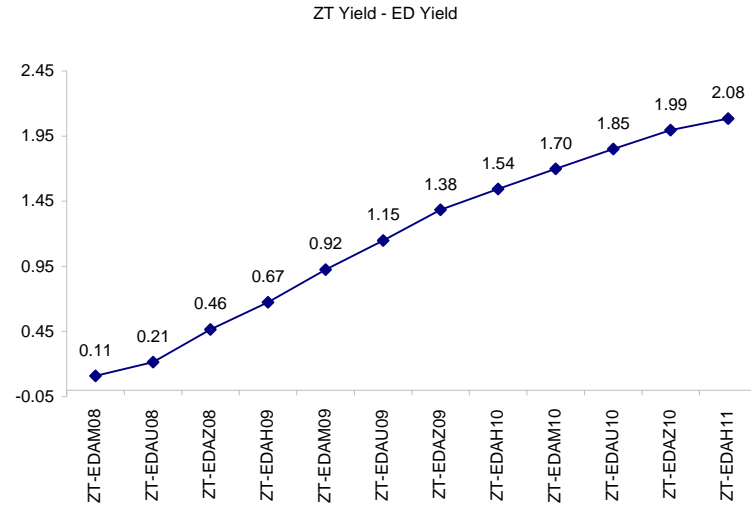
jgoulding@ghco.com

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.

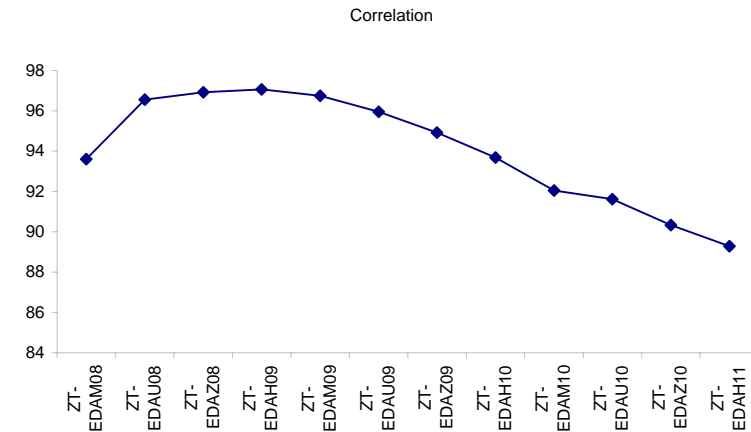
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.138	0.11	ZT-EDAM08	93.595
EDAU08	8.243	0.21	ZT-EDAU08	96.561
EDAZ08	8.493	0.46	ZT-EDAZ08	96.913
EDAH09	8.703	0.67	ZT-EDAH09	97.061
EDAM09	8.953	0.92	ZT-EDAM09	96.752
EDAU09	9.178	1.15	ZT-EDAU09	95.949
EDAZ09	9.413	1.38	ZT-EDAZ09	94.925
EDAH10	9.573	1.54	ZT-EDAH10	93.686
EDAM10	9.728	1.70	ZT-EDAM10	92.043
EDAU10	9.878	1.85	ZT-EDAU10	91.620
EDAZ10	10.023	1.99	ZT-EDAZ10	90.334
EDAH11	10.113	2.08	ZT-EDAH11	89.280

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	0.038	1.92	1.88	ZT-EDAM08		
EDAU08	0.287	1.92	1.63	ZT-EDAU08		
EDAZ08	0.536	1.92	1.39	ZT-EDAZ08		
EDAH09	0.786	1.92	1.14	ZT-EDAH09		
EDAM09	1.035	1.92	0.89	ZT-EDAM09		
EDAU09	1.284	1.92	0.64	ZT-EDAU09		
EDAZ09	1.534	1.92	0.39	ZT-EDAZ09		
EDAH10	1.783	1.92	0.14	ZT-EDAH10		
EDAM10	2.032	1.92	(0.11)	ZT-EDAM10		
EDAU10	2.282	1.92	(0.36)	ZT-EDAU10		
EDAZ10	2.531	1.92	(0.61)	ZT-EDAZ10		
EDAH11	2.780	1.92	(0.86)	ZT-EDAH11		

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

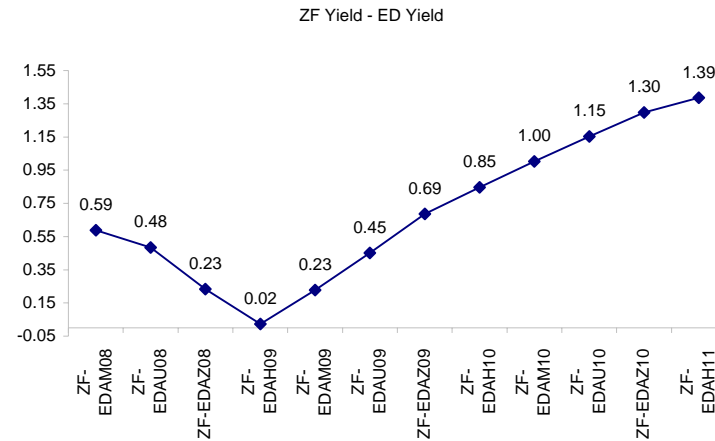


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	12.841	0.59	ZF-EDAM08	97.676
EDAU08	12.946	0.48	ZF-EDAU08	96.579
EDAZ08	13.196	0.23	ZF-EDAZ08	97.140
EDAH09	13.406	0.02	ZF-EDAH09	97.462
EDAM09	13.656	0.23	ZF-EDAM09	98.468
EDAU09	13.881	0.45	ZF-EDAU09	98.797
EDAZ09	14.116	0.69	ZF-EDAZ09	98.999
EDAH10	14.276	0.85	ZF-EDAH10	98.950
EDAM10	14.431	1.00	ZF-EDAM10	98.763
EDAU10	14.581	1.15	ZF-EDAU10	98.706
EDAZ10	14.726	1.30	ZF-EDAZ10	98.447
EDAH11	14.816	1.39	ZF-EDAH11	98.002

Price = Outright Decimal Price - Euro Contract Price

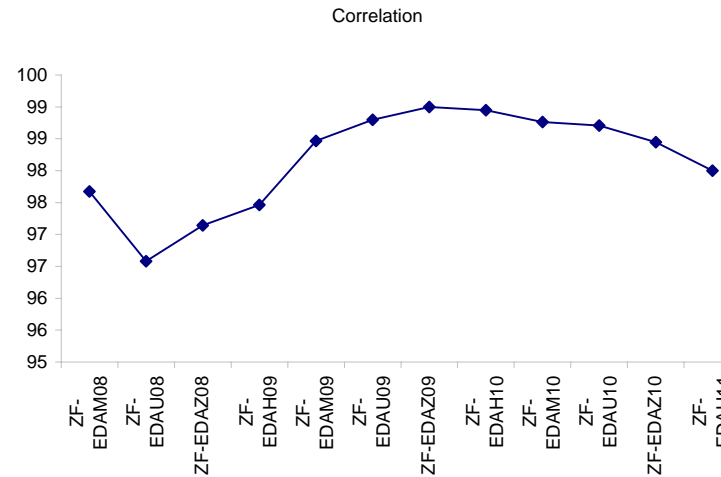
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.038	4.14	4.10	ZF-EDAM08	
EDAU08	0.287	4.14	3.85	ZF-EDAU08	
EDAZ08	0.536	4.14	3.60	ZF-EDAZ08	
EDAH09	0.786	4.14	3.35	ZF-EDAH09	
EDAM09	1.035	4.14	3.10	ZF-EDAM09	
EDAU09	1.284	4.14	2.85	ZF-EDAU09	
EDAZ09	1.534	4.14	2.60	ZF-EDAZ09	
EDAH10	1.783	4.14	2.35	ZF-EDAH10	
EDAM10	2.032	4.14	2.11	ZF-EDAM10	
EDAU10	2.282	4.14	1.86	ZF-EDAU10	
EDAZ10	2.531	4.14	1.61	ZF-EDAZ10	
EDAH11	2.780	4.14	1.36	ZF-EDAH11	

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

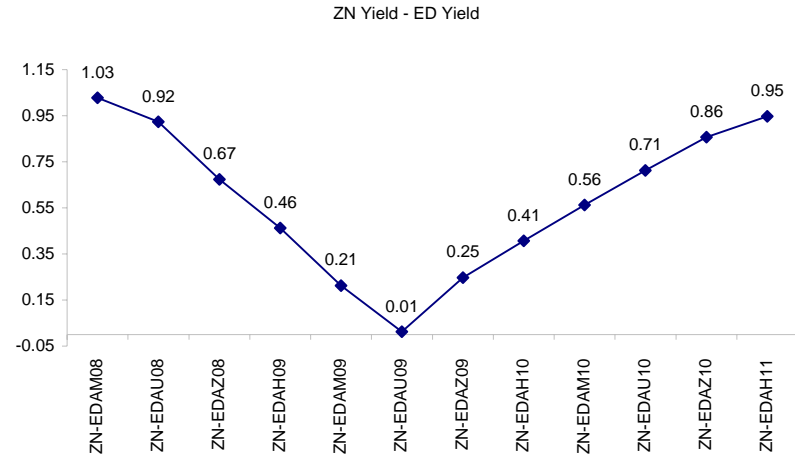


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	15.279	1.03	ZN-EDAM08	98.185
EDAU08	15.384	0.92	ZN-EDAU08	94.939
EDAZ08	15.634	0.67	ZN-EDAZ08	95.596
EDAH09	15.844	0.46	ZN-EDAH09	96.091
EDAM09	16.094	0.21	ZN-EDAM09	97.655
EDAU09	16.319	0.01	ZN-EDAU09	98.369
EDAZ09	16.554	0.25	ZN-EDAZ09	98.792
EDAH10	16.714	0.41	ZN-EDAH10	98.950
EDAM10	16.869	0.56	ZN-EDAM10	98.763
EDAU10	17.019	0.71	ZN-EDAU10	98.706
EDAZ10	17.164	0.86	ZN-EDAZ10	98.447
EDAH11	17.254	0.95	ZN-EDAH11	98.002

Price = Outright Decimal Price - Euro Contract Price

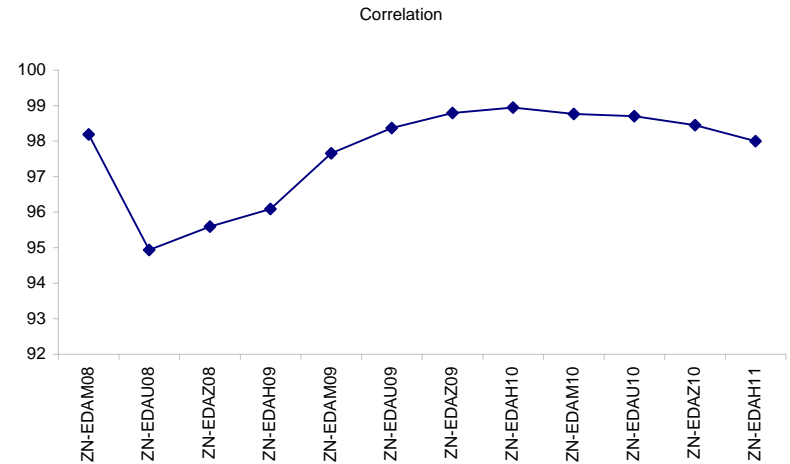
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAM08	0.038	6.00	5.96	ZN-EDAM08		
EDAU08	0.287	6.00	5.71	ZN-EDAU08		
EDAZ08	0.536	6.00	5.46	ZN-EDAZ08		
EDAH09	0.786	6.00	5.21	ZN-EDAH09		
EDAM09	1.035	6.00	4.97	ZN-EDAM09		
EDAU09	1.284	6.00	4.72	ZN-EDAU09		
EDAZ09	1.534	6.00	4.47	ZN-EDAZ09		
EDAH10	1.783	6.00	4.22	ZN-EDAH10		
EDAM10	2.032	6.00	3.97	ZN-EDAM10		
EDAU10	2.282	6.00	3.72	ZN-EDAU10		
EDAZ10	2.531	6.00	3.47	ZN-EDAZ10		
EDAH11	2.780	6.00	3.22	ZN-EDAH11		

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

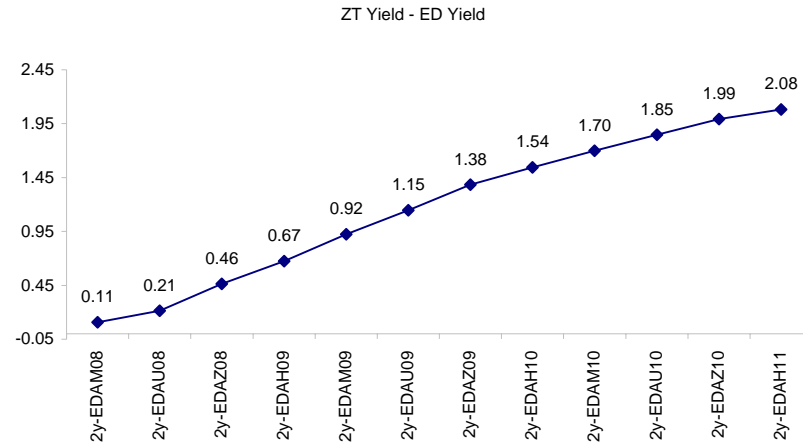


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.763	0.11	2y-EDAM08	-97.144
EDAU08	2.868	0.21	2y-EDAU08	-98.005
EDAZ08	3.118	0.46	2y-EDAZ08	-98.585
EDAH09	3.328	0.67	2y-EDAH09	-98.693
EDAM09	3.578	0.92	2y-EDAM09	-99.104
EDAU09	3.803	1.15	2y-EDAU09	-99.066
EDAZ09	4.038	1.38	2y-EDAZ09	-98.963
EDAH10	4.198	1.54	2y-EDAH10	-98.729
EDAM10	4.353	1.70	2y-EDAM10	-98.200
EDAU10	4.503	1.85	2y-EDAU10	-98.178
EDAZ10	4.648	1.99	2y-EDAZ10	-97.566
EDAH11	4.738	2.08	2y-EDAH11	-97.061

Price = Outright Decimal Price - Euro Contract Price

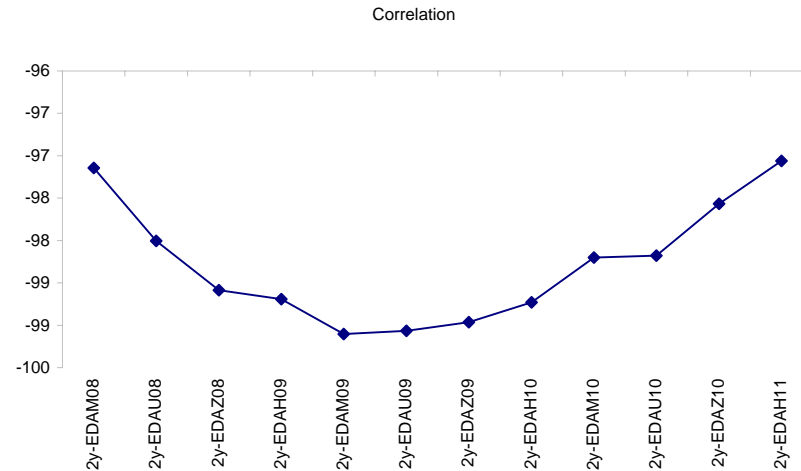
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAM08	0.038	1.93	1.89	2y-EDAM08
EDAU08	0.287	1.93	1.64	2y-EDAU08
EDAZ08	0.536	1.93	1.39	2y-EDAZ08
EDAH09	0.786	1.93	1.14	2y-EDAH09
EDAM09	1.035	1.93	0.89	2y-EDAM09
EDAU09	1.284	1.93	0.64	2y-EDAU09
EDAZ09	1.534	1.93	0.39	2y-EDAZ09
EDAH10	1.783	1.93	0.15	2y-EDAH10
EDAM10	2.032	1.93	(0.10)	2y-EDAM10
EDAU10	2.282	1.93	(0.35)	2y-EDAU10
EDAZ10	2.531	1.93	(0.60)	2y-EDAZ10
EDAH11	2.780	1.93	(0.85)	2y-EDAH11

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

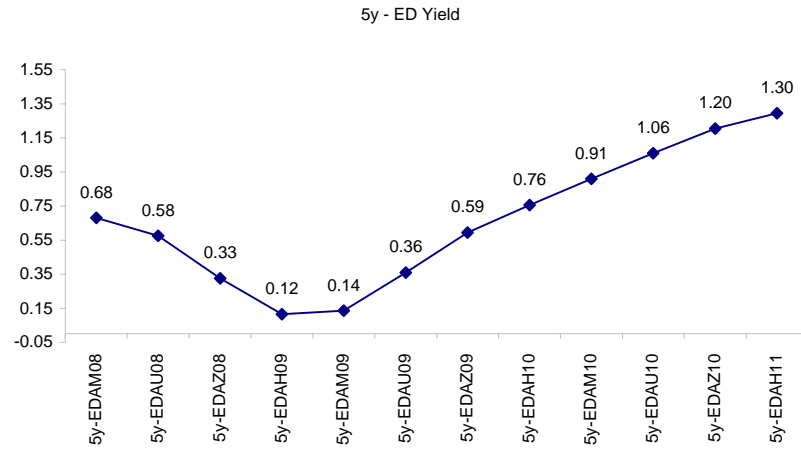


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	3.294	0.68	5y-EDAM08	-96.946
EDAU08	3.399	0.58	5y-EDAU08	-95.450
EDAZ08	3.649	0.33	5y-EDAZ08	-96.946
EDAH09	3.859	0.12	5y-EDAH09	-96.159
EDAM09	4.109	0.14	5y-EDAM09	-97.298
EDAU09	4.334	0.36	5y-EDAU09	-97.885
EDAZ09	4.569	0.59	5y-EDAZ09	-98.501
EDAH10	4.729	0.76	5y-EDAH10	-98.964
EDAM10	4.884	0.91	5y-EDAM10	-99.267
EDAU10	5.034	1.06	5y-EDAU10	-99.417
EDAZ10	5.179	1.20	5y-EDAZ10	-99.460
EDAH11	5.269	1.30	5y-EDAH11	-99.401

Price = Outright Decimal Price - Euro Contract Price

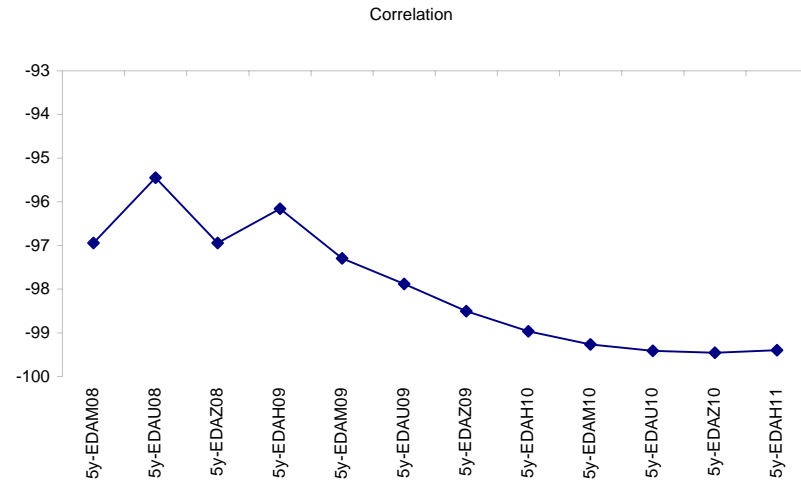
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.038	4.55	4.51	5y-EDAM08
EDAU08	0.287	4.55	4.26	5y-EDAU08
EDAZ08	0.536	4.55	4.01	5y-EDAZ08
EDAH09	0.786	4.55	3.76	5y-EDAH09
EDAM09	1.035	4.55	3.51	5y-EDAM09
EDAU09	1.284	4.55	3.26	5y-EDAU09
EDAZ09	1.534	4.55	3.01	5y-EDAZ09
EDAH10	1.783	4.55	2.76	5y-EDAH10
EDAM10	2.032	4.55	2.51	5y-EDAM10
EDAU10	2.282	4.55	2.27	5y-EDAU10
EDAZ10	2.531	4.55	2.02	5y-EDAZ10
EDAH11	2.780	4.55	1.77	5y-EDAH11

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

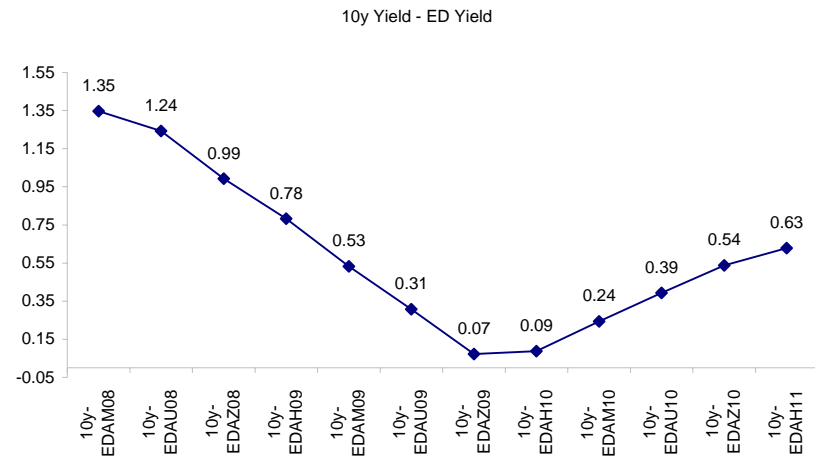


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	3.294	1.35	10y-EDAM08	-96.727
EDAU08	3.399	1.24	10y-EDAU08	-93.934
EDAZ08	3.649	0.99	10y-EDAZ08	-96.727
EDAH09	3.859	0.78	10y-EDAH09	-95.054
EDAM09	4.109	0.53	10y-EDAM09	-96.410
EDAU09	4.334	0.31	10y-EDAU09	-97.214
EDAZ09	4.569	0.07	10y-EDAZ09	-97.914
EDAH10	4.729	0.09	10y-EDAH10	-98.366
EDAM10	4.884	0.24	10y-EDAM10	-98.784
EDAU10	5.034	0.39	10y-EDAU10	-98.930
EDAZ10	5.179	0.54	10y-EDAZ10	-99.050
EDAH11	5.269	0.63	10y-EDAH11	-99.058

Price = Outright Decimal Price - Euro Contract Price

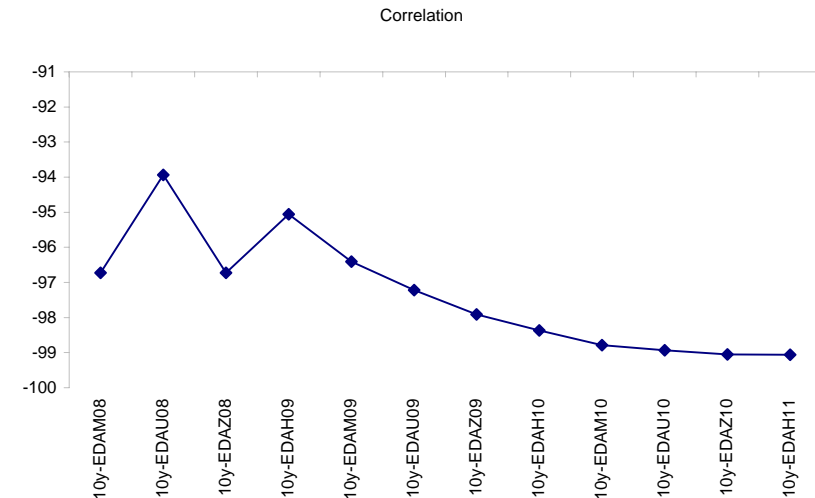
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAM08	0.038	8.16	8.12	10y-EDAM08
EDAU08	0.287	8.16	7.87	10y-EDAU08
EDAZ08	0.536	8.16	7.62	10y-EDAZ08
EDAH09	0.786	8.16	7.37	10y-EDAH09
EDAM09	1.035	8.16	7.12	10y-EDAM09
EDAU09	1.284	8.16	6.87	10y-EDAU09
EDAZ09	1.534	8.16	6.62	10y-EDAZ09
EDAH10	1.783	8.16	6.37	10y-EDAH10
EDAM10	2.032	8.16	6.12	10y-EDAM10
EDAU10	2.282	8.16	5.87	10y-EDAU10
EDAZ10	2.531	8.16	5.62	10y-EDAZ10
EDAH11	2.780	8.16	5.38	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.

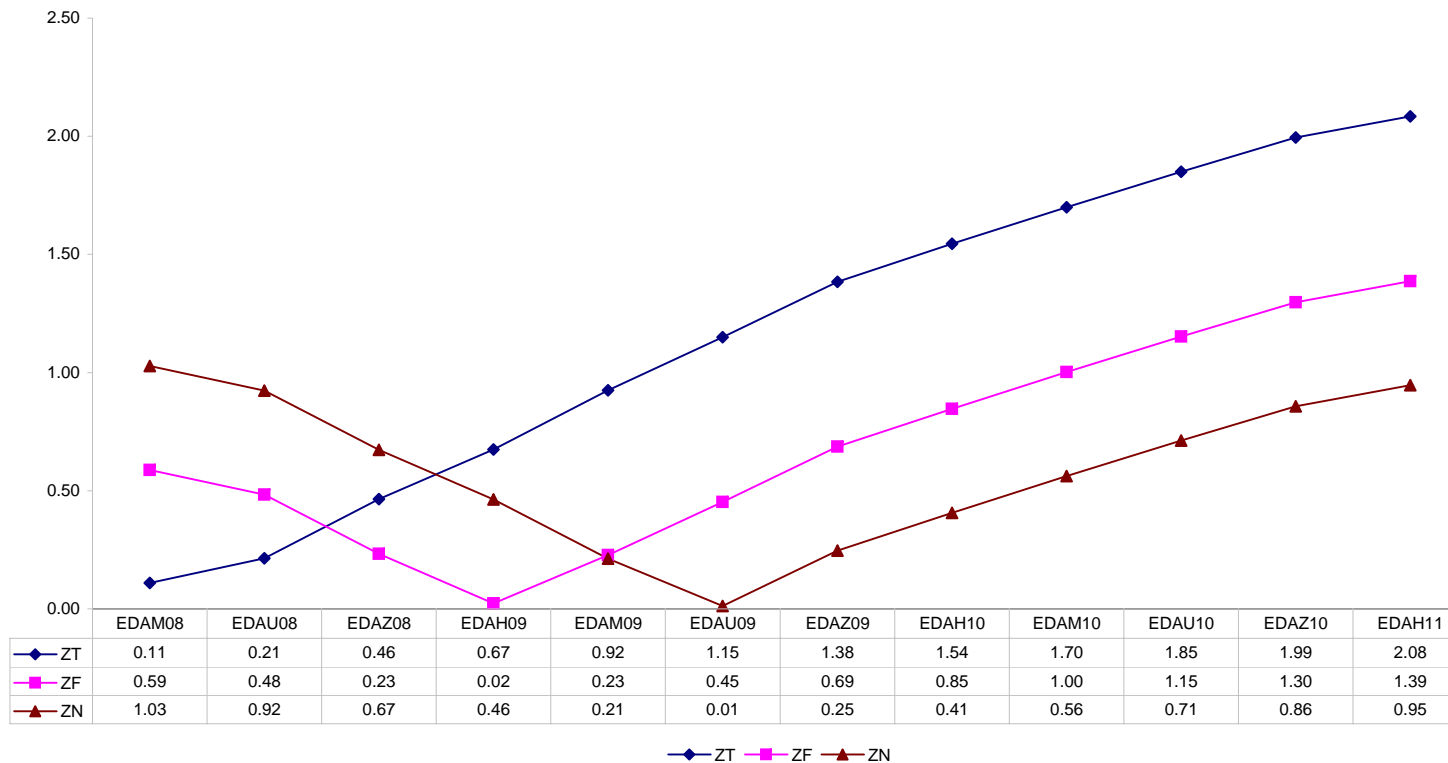
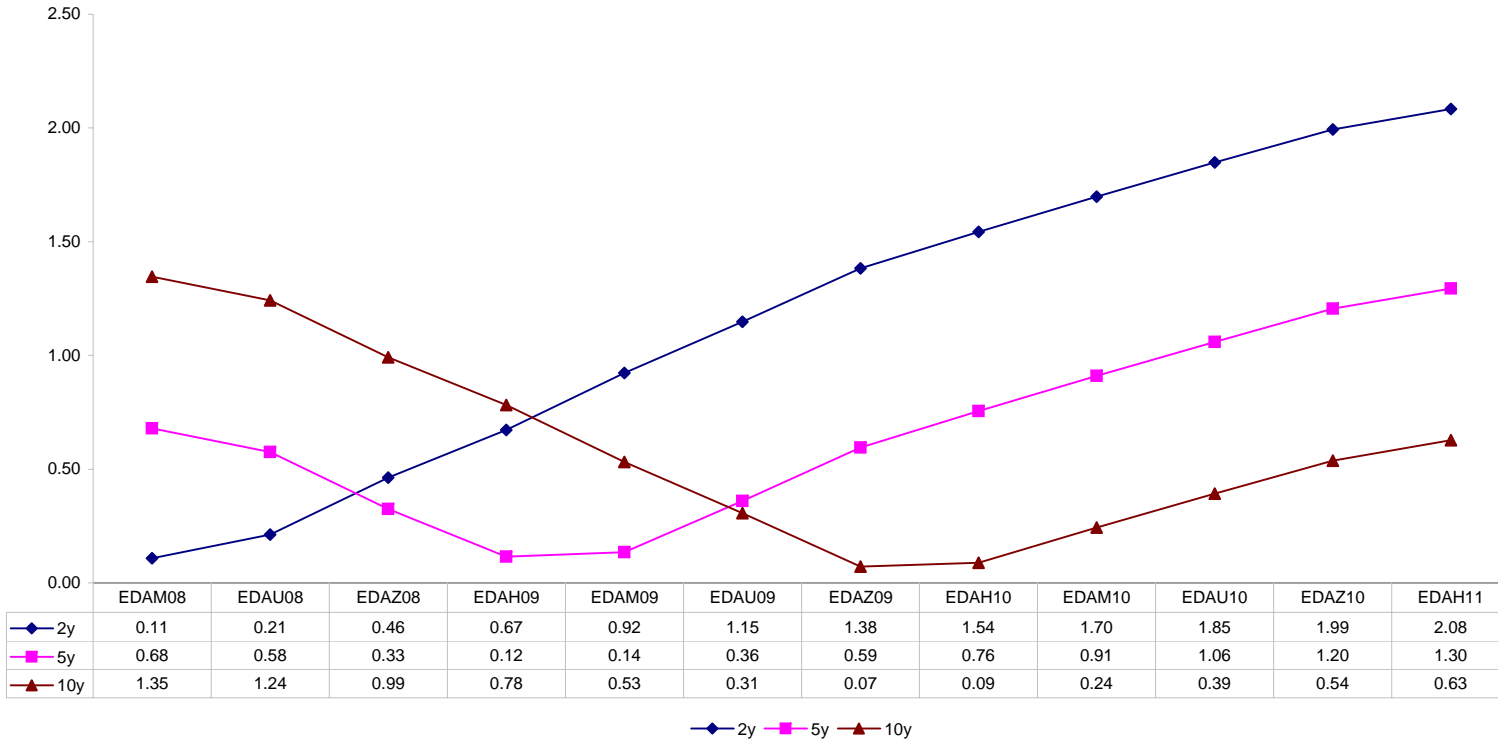
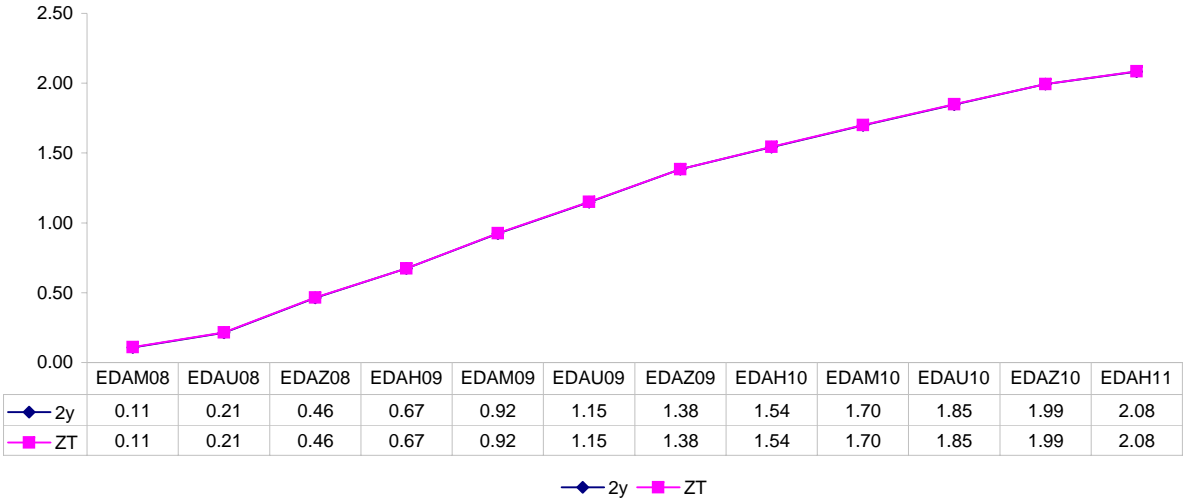


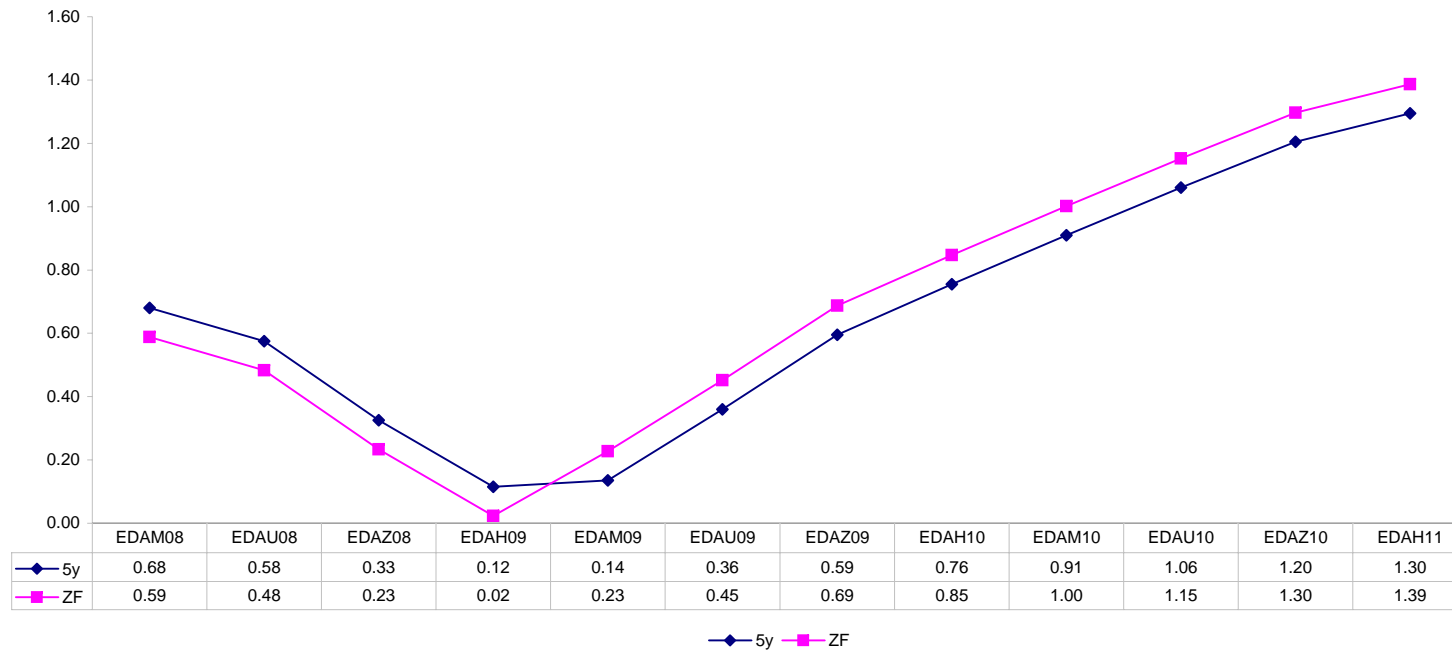
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



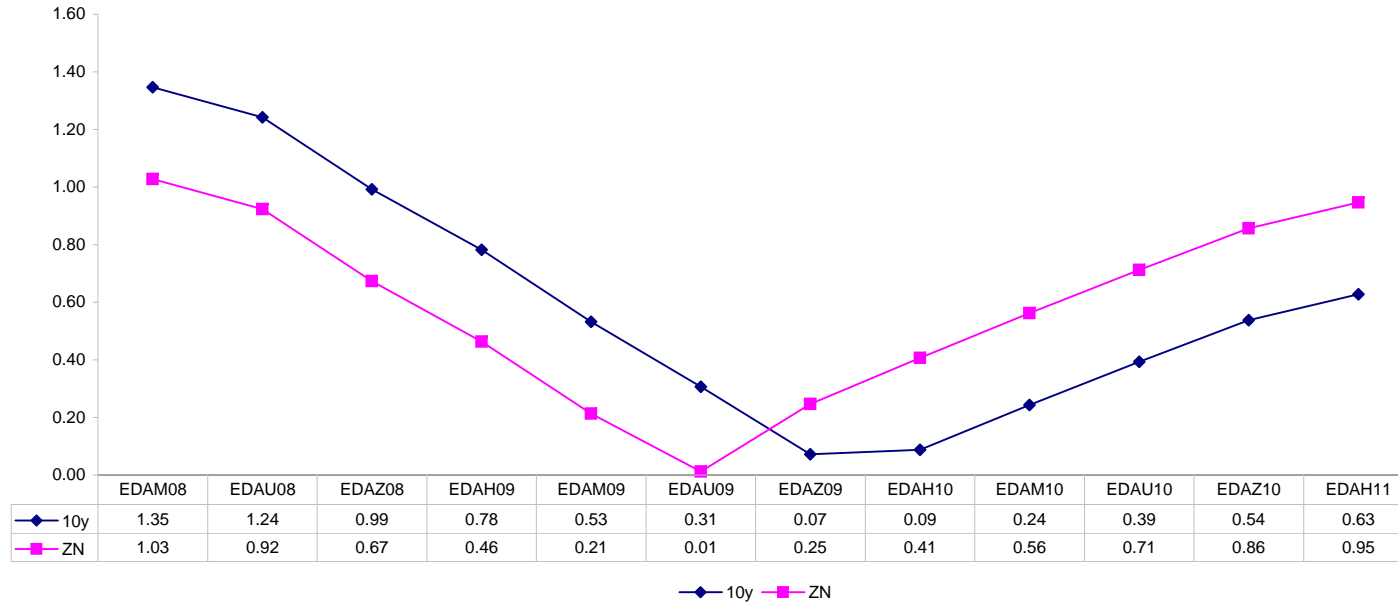
2y Basis TED Curve



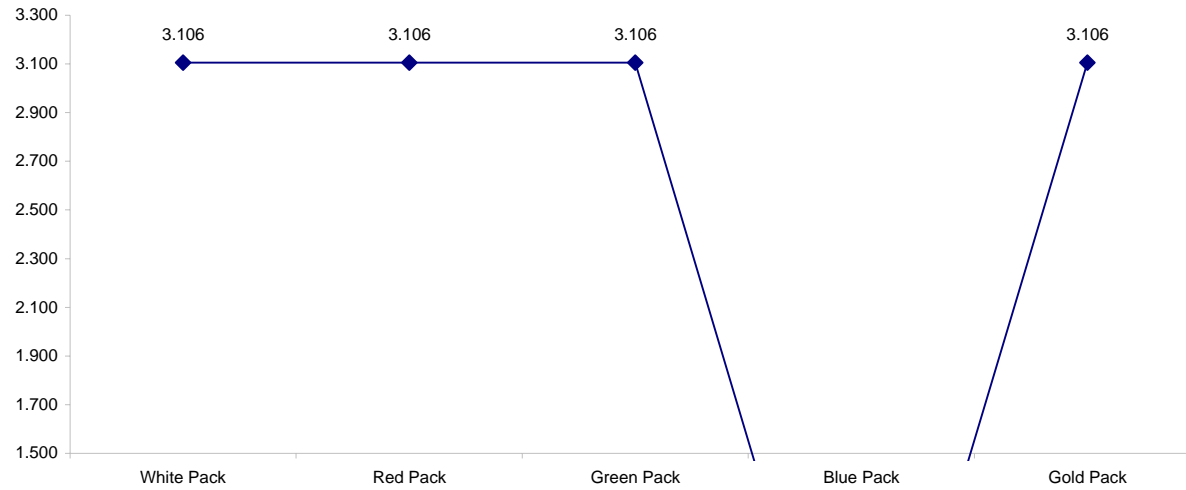
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	3.106	7.000	9696.000
Red Pack	3.106	7.000	9696.000
Green Pack	3.106	7.000	9696.000
Blue Pack		1.375	9516.875
Gold Pack	3.106	7.000	9696.000



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

