

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

New

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	106.3500	106.112	2.107	1.82
ZF	112.1406	112.045	2.889	3.96
ZN	115.9063	115.290	4.465	5.92
2y	99.188	99.0600	2.180	1.90
5y	97.859	97.2750	2.969	4.60
10y	97.813	97.2600	3.766	8.17

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.040	2.960	59	0.161	JUN
EDAU08	97.120	2.880	150	0.410	SEP White
EDAZ08	97.015	2.985	241	0.660	DEC Pack
EDAH09	97.000	3.000	332	0.909	MAR
EDAM09	96.845	3.155	423	1.158	JUN
EDAU09	96.665	3.335	514	1.408	SEP Red Pack
EDAZ09	96.440	3.560	605	1.657	DEC
EDAH10	96.295	3.705	696	1.906	MAR
EDAM10	96.145	3.855	787	2.156	JUN
EDAU10	95.980	4.020	878	2.405	SEP Green
EDAZ10	95.840	4.160	969	2.654	DEC Pack
EDAH11	95.730	4.270	1060	2.903	MAR
EDAM11	95.605	4.395	1151	3.153	JUN
EDAU11	95.540	4.460	1249	3.421	SEP Blue Pack
EDAZ11	95.385	4.615	1340	3.671	DEC
EDAH12	95.335	4.665	1431	3.920	MAR
EDAM12	95.270	4.730	1522	4.169	JUN
EDAU12	95.195	4.805	1613	4.419	SEP Gold Pack
EDAZ12	95.070	4.930	1704	4.668	DEC
EDAH13	95.020	4.980	1795	4.917	MAR

	Last Yield	Net Yield	Last Price	
White Pack	3.020	-11.000	9704.375	Pack Prices
Red Pack	3.517	-12.375	9656.125	
Green Pack	4.175	-6.375	9592.375	
Blue Pack	4.649	-2.250	9546.625	
Gold Pack	4.989	0.375	9513.875	

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.

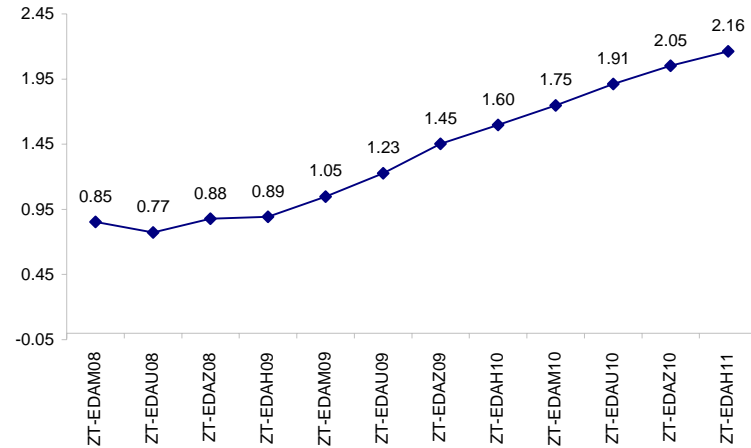
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	9.310	0.85	ZT-EDAM08	86.185
EDAU08	9.230	0.77	ZT-EDAU08	92.142
EDAZ08	9.335	0.88	ZT-EDAZ08	93.411
EDAH09	9.350	0.89	ZT-EDAH09	96.055
EDAM09	9.505	1.05	ZT-EDAM09	97.216
EDAU09	9.685	1.23	ZT-EDAU09	97.701
EDAZ09	9.910	1.45	ZT-EDAZ09	97.893
EDAH10	10.055	1.60	ZT-EDAH10	98.245
EDAM10	10.205	1.75	ZT-EDAM10	97.985
EDAU10	10.370	1.91	ZT-EDAU10	97.501
EDAZ10	10.510	2.05	ZT-EDAZ10	95.750
EDAH11	10.620	2.16	ZT-EDAH11	94.368

Price = Outright Decimal Price - Euro Contract Price

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

*Correlation = ED Correlation to Treasury Future over 10 days

ZT Yield - ED Yield

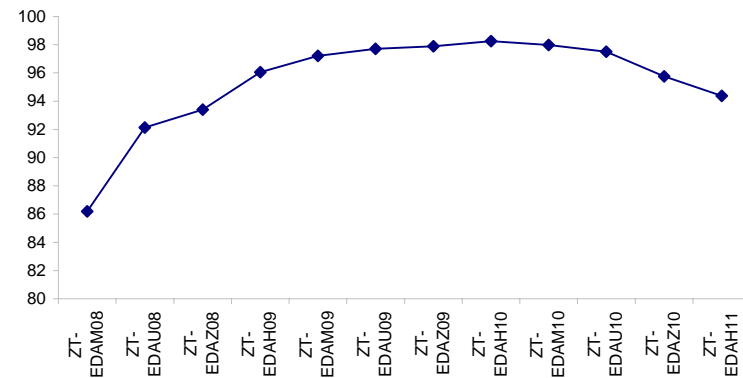


ED Duration as

	Fraction of year	ZT Duration	Spread Duration	
EDAM08	0.161	1.82	1.66	ZT-EDAM08
EDAU08	0.410	1.82	1.41	ZT-EDAU08
EDAZ08	0.660	1.82	1.16	ZT-EDAZ08
EDAH09	0.909	1.82	0.91	ZT-EDAH09
EDAM09	1.158	1.82	0.67	ZT-EDAM09
EDAU09	1.408	1.82	0.42	ZT-EDAU09
EDAZ09	1.657	1.82	0.17	ZT-EDAZ09
EDAH10	1.906	1.82	(0.08)	ZT-EDAH10
EDAM10	2.156	1.82	(0.33)	ZT-EDAM10
EDAU10	2.405	1.82	(0.58)	ZT-EDAU10
EDAZ10	2.654	1.82	(0.83)	ZT-EDAZ10
EDAH11	2.903	1.82	(1.08)	ZT-EDAH11

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

Correlation

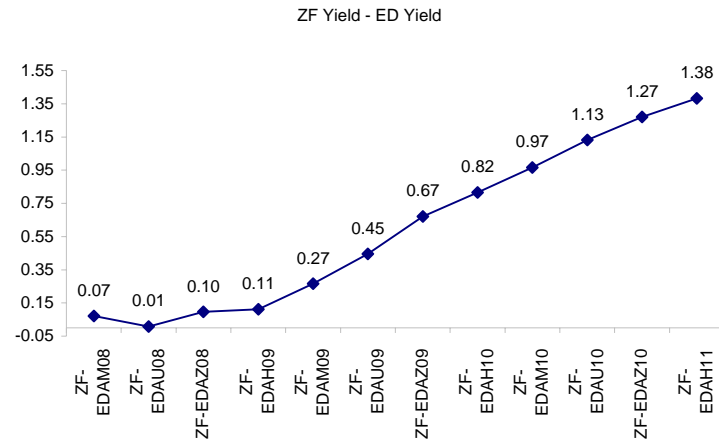


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	15.101	0.07	ZF-EDAM08	82.212
EDAU08	15.021	0.01	ZF-EDAU08	88.937
EDAZ08	15.126	0.10	ZF-EDAZ08	90.703
EDAH09	15.141	0.11	ZF-EDAH09	94.094
EDAM09	15.296	0.27	ZF-EDAM09	95.709
EDAU09	15.476	0.45	ZF-EDAU09	96.454
EDAZ09	15.701	0.67	ZF-EDAZ09	96.658
EDAH10	15.846	0.82	ZF-EDAH10	97.376
EDAM10	15.996	0.97	ZF-EDAM10	97.626
EDAU10	16.161	1.13	ZF-EDAU10	97.213
EDAZ10	16.301	1.27	ZF-EDAZ10	95.471
EDAH11	16.411	1.38	ZF-EDAH11	94.222

Price = Outright Decimal Price - Euro Contract Price

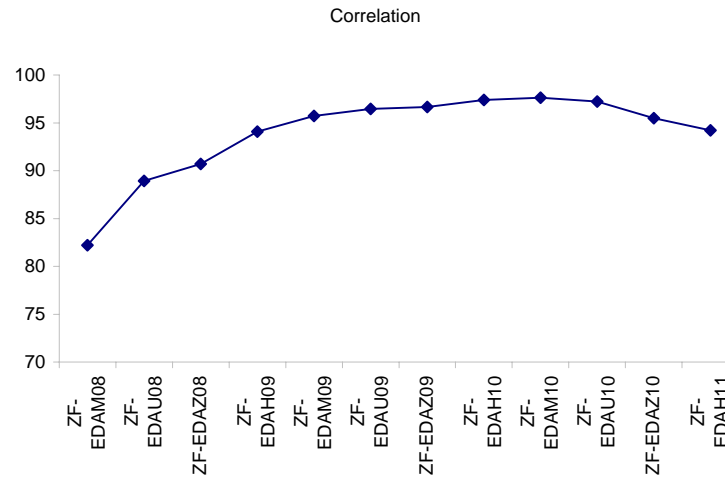
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



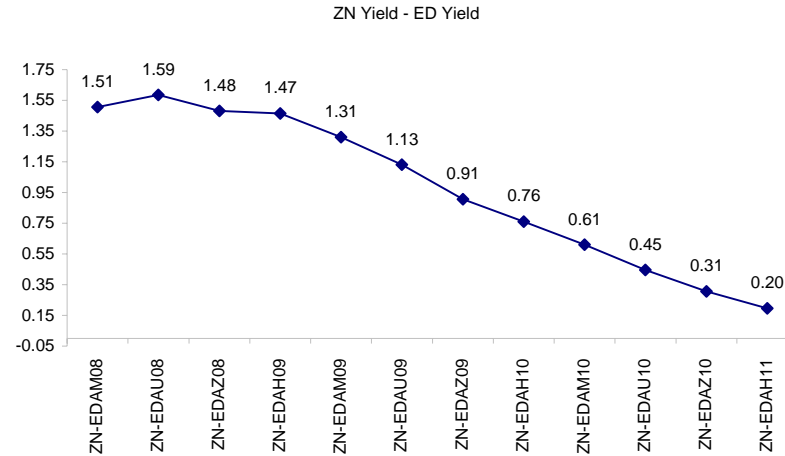
	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.161	3.96	3.80	ZF-EDAM08	
EDAU08	0.410	3.96	3.55	ZF-EDAU08	
EDAZ08	0.660	3.96	3.31	ZF-EDAZ08	
EDAH09	0.909	3.96	3.06	ZF-EDAH09	
EDAM09	1.158	3.96	2.81	ZF-EDAM09	
EDAU09	1.408	3.96	2.56	ZF-EDAU09	
EDAZ09	1.657	3.96	2.31	ZF-EDAZ09	
EDAH10	1.906	3.96	2.06	ZF-EDAH10	
EDAM10	2.156	3.96	1.81	ZF-EDAM10	
EDAU10	2.405	3.96	1.56	ZF-EDAU10	
EDAZ10	2.654	3.96	1.31	ZF-EDAZ10	
EDAH11	2.903	3.96	1.06	ZF-EDAH11	

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



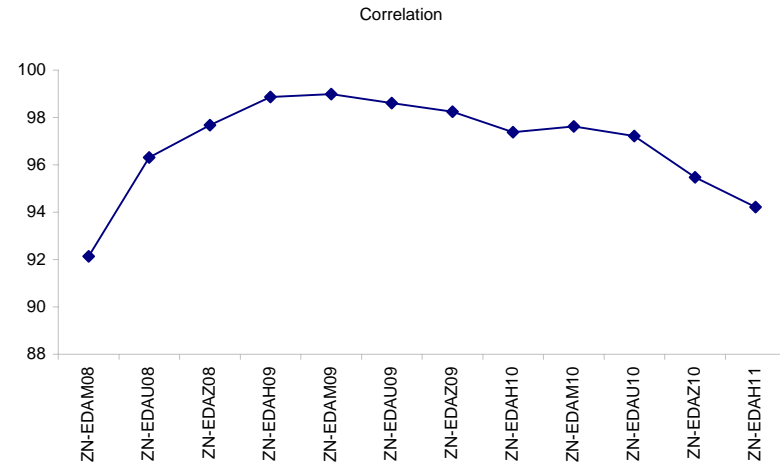
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	18.866	1.51	ZN-EDAM08	92.133
EDAU08	18.786	1.59	ZN-EDAU08	96.305
EDAZ08	18.891	1.48	ZN-EDAZ08	97.673
EDAH09	18.906	1.47	ZN-EDAH09	98.868
EDAM09	19.061	1.31	ZN-EDAM09	98.993
EDAU09	19.241	1.13	ZN-EDAU09	98.611
EDAZ09	19.466	0.91	ZN-EDAZ09	98.245
EDAH10	19.611	0.76	ZN-EDAH10	97.376
EDAM10	19.761	0.61	ZN-EDAM10	97.626
EDAU10	19.926	0.45	ZN-EDAU10	97.213
EDAZ10	20.066	0.31	ZN-EDAZ10	95.471
EDAH11	20.176	0.20	ZN-EDAH11	94.222

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	0.161	5.92	5.76	ZN-EDAM08		
EDAU08	0.410	5.92	5.51	ZN-EDAU08		
EDAZ08	0.660	5.92	5.26	ZN-EDAZ08		
EDAH09	0.909	5.92	5.01	ZN-EDAH09		
EDAM09	1.158	5.92	4.76	ZN-EDAM09		
EDAU09	1.408	5.92	4.51	ZN-EDAU09		
EDAZ09	1.657	5.92	4.26	ZN-EDAZ09		
EDAH10	1.906	5.92	4.01	ZN-EDAH10		
EDAM10	2.156	5.92	3.76	ZN-EDAM10		
EDAU10	2.405	5.92	3.51	ZN-EDAU10		
EDAZ10	2.654	5.92	3.26	ZN-EDAZ10		
EDAH11	2.903	5.92	3.02	ZN-EDAH11		

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

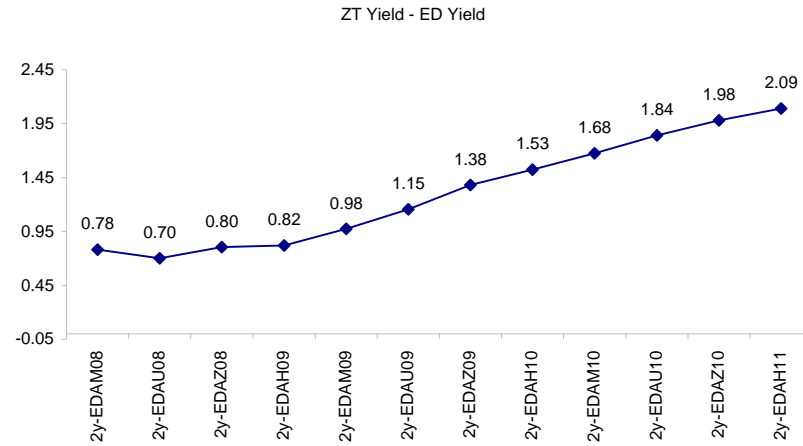


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.147	0.78	2y-EDAM08	-89.631
EDAU08	2.068	0.70	2y-EDAU08	-94.752
EDAZ08	2.173	0.80	2y-EDAZ08	-95.915
EDAH09	2.188	0.82	2y-EDAH09	-98.022
EDAM09	2.343	0.98	2y-EDAM09	-98.680
EDAU09	2.522	1.15	2y-EDAU09	-98.746
EDAZ09	2.748	1.38	2y-EDAZ09	-98.713
EDAH10	2.893	1.53	2y-EDAH10	-98.932
EDAM10	3.043	1.68	2y-EDAM10	-98.710
EDAU10	3.208	1.84	2y-EDAU10	-98.456
EDAZ10	3.348	1.98	2y-EDAZ10	-97.221
EDAH11	3.458	2.09	2y-EDAH11	-96.278

Price = Outright Decimal Price - Euro Contract Price

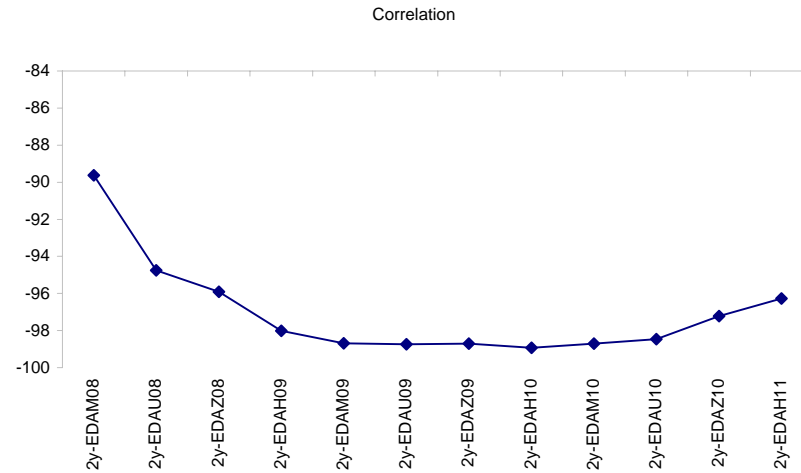
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAM08	0.161	1.90	1.73	2y-EDAM08
EDAU08	0.410	1.90	1.49	2y-EDAU08
EDAZ08	0.660	1.90	1.24	2y-EDAZ08
EDAH09	0.909	1.90	0.99	2y-EDAH09
EDAM09	1.158	1.90	0.74	2y-EDAM09
EDAU09	1.408	1.90	0.49	2y-EDAU09
EDAZ09	1.657	1.90	0.24	2y-EDAZ09
EDAH10	1.906	1.90	(0.01)	2y-EDAH10
EDAM10	2.156	1.90	(0.26)	2y-EDAM10
EDAU10	2.405	1.90	(0.51)	2y-EDAU10
EDAZ10	2.654	1.90	(0.76)	2y-EDAZ10
EDAH11	2.903	1.90	(1.01)	2y-EDAH11

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

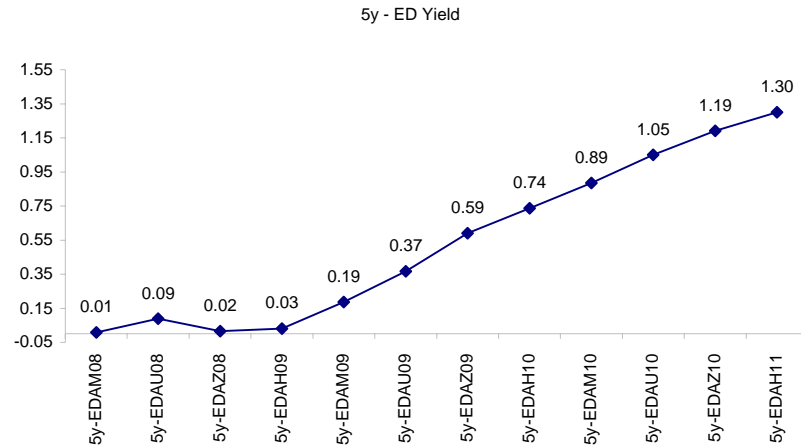


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	0.819	0.01	5y-EDAM08	-88.419
EDAU08	0.739	0.09	5y-EDAU08	-93.574
EDAZ08	0.844	0.02	5y-EDAZ08	-88.419
EDAH09	0.859	0.03	5y-EDAH09	-97.521
EDAM09	1.014	0.19	5y-EDAM09	-98.268
EDAU09	1.194	0.37	5y-EDAU09	-98.311
EDAZ09	1.419	0.59	5y-EDAZ09	-98.132
EDAH10	1.564	0.74	5y-EDAH10	-98.569
EDAM10	1.714	0.89	5y-EDAM10	-98.793
EDAU10	1.879	1.05	5y-EDAU10	-98.822
EDAZ10	2.019	1.19	5y-EDAZ10	-98.010
EDAH11	2.129	1.30	5y-EDAH11	-97.467

Price = Outright Decimal Price - Euro Contract Price

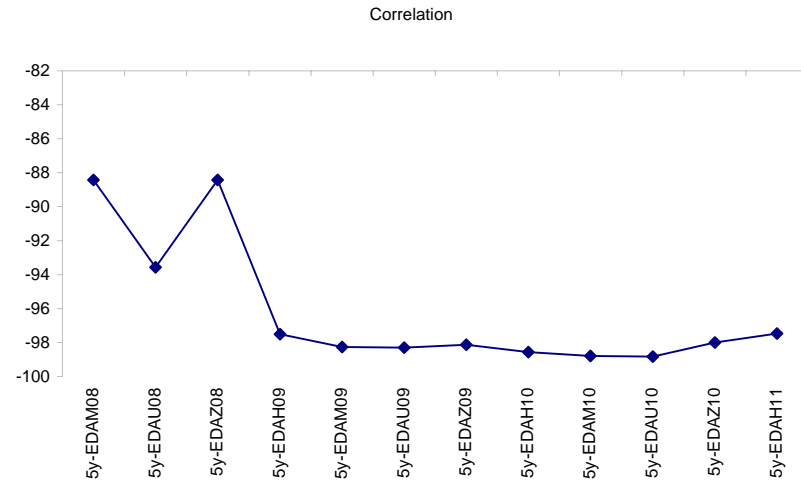
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.161	4.60	4.44	5y-EDAM08
EDAU08	0.410	4.60	4.19	5y-EDAU08
EDAZ08	0.660	4.60	3.94	5y-EDAZ08
EDAH09	0.909	4.60	3.69	5y-EDAH09
EDAM09	1.158	4.60	3.44	5y-EDAM09
EDAU09	1.408	4.60	3.19	5y-EDAU09
EDAZ09	1.657	4.60	2.94	5y-EDAZ09
EDAH10	1.906	4.60	2.70	5y-EDAH10
EDAM10	2.156	4.60	2.45	5y-EDAM10
EDAU10	2.405	4.60	2.20	5y-EDAU10
EDAZ10	2.654	4.60	1.95	5y-EDAZ10
EDAH11	2.903	4.60	1.70	5y-EDAH11

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

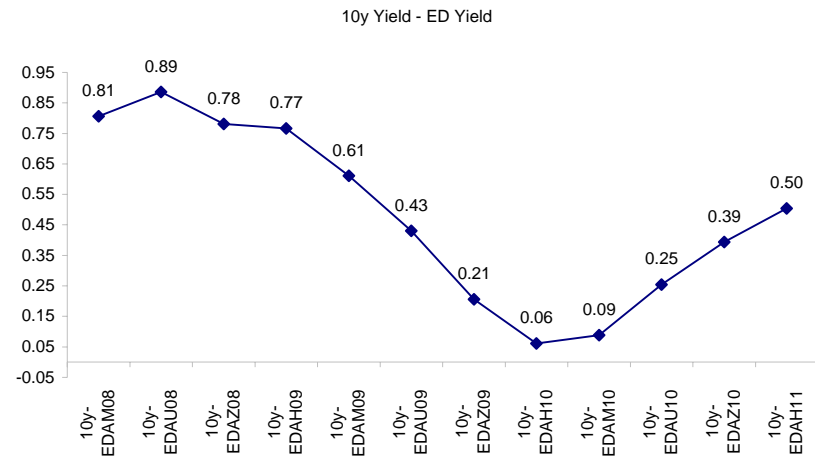


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	0.819	0.81	10y-EDAM08	-93.419
EDAU08	0.739	0.89	10y-EDAU08	-96.582
EDAZ08	0.844	0.78	10y-EDAZ08	-93.419
EDAH09	0.859	0.77	10y-EDAH09	-98.440
EDAM09	1.014	0.61	10y-EDAM09	-98.253
EDAU09	1.194	0.43	10y-EDAU09	-97.626
EDAZ09	1.419	0.21	10y-EDAZ09	-97.122
EDAH10	1.564	0.06	10y-EDAH10	-96.948
EDAM10	1.714	0.09	10y-EDAM10	-97.150
EDAU10	1.879	0.25	10y-EDAU10	-97.701
EDAZ10	2.019	0.39	10y-EDAZ10	-98.660
EDAH11	2.129	0.50	10y-EDAH11	-99.167

Price = Outright Decimal Price - Euro Contract Price

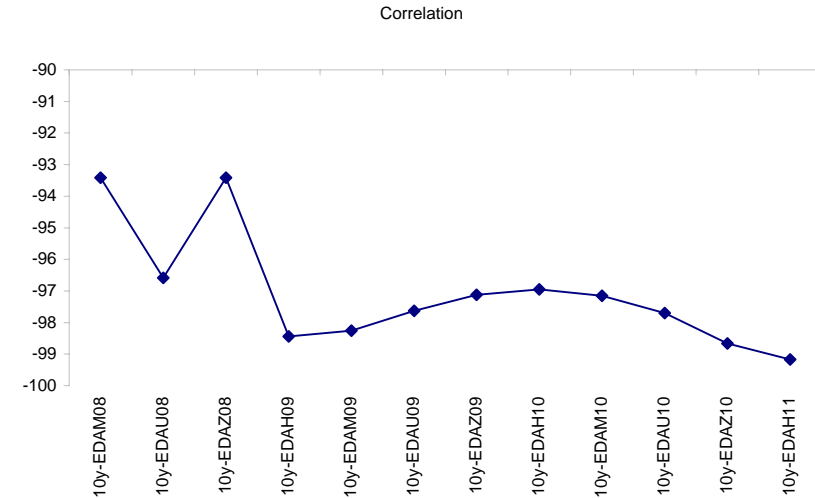
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAM08	0.161	8.17	8.01	10y-EDAM08
EDAU08	0.410	8.17	7.76	10y-EDAU08
EDAZ08	0.660	8.17	7.51	10y-EDAZ08
EDAH09	0.909	8.17	7.26	10y-EDAH09
EDAM09	1.158	8.17	7.01	10y-EDAM09
EDAU09	1.408	8.17	6.76	10y-EDAU09
EDAZ09	1.657	8.17	6.51	10y-EDAZ09
EDAH10	1.906	8.17	6.26	10y-EDAH10
EDAM10	2.156	8.17	6.01	10y-EDAM10
EDAU10	2.405	8.17	5.76	10y-EDAU10
EDAZ10	2.654	8.17	5.51	10y-EDAZ10
EDAH11	2.903	8.17	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.

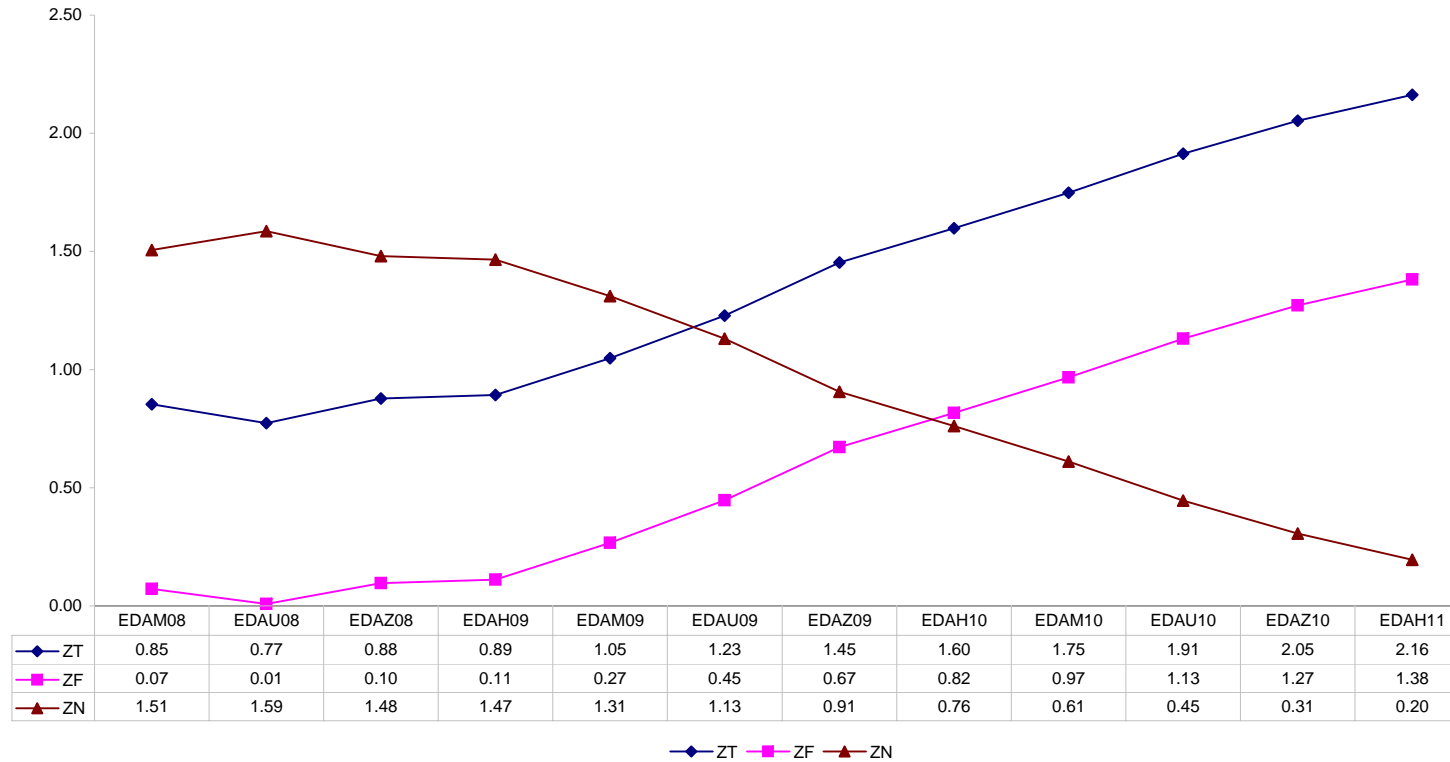
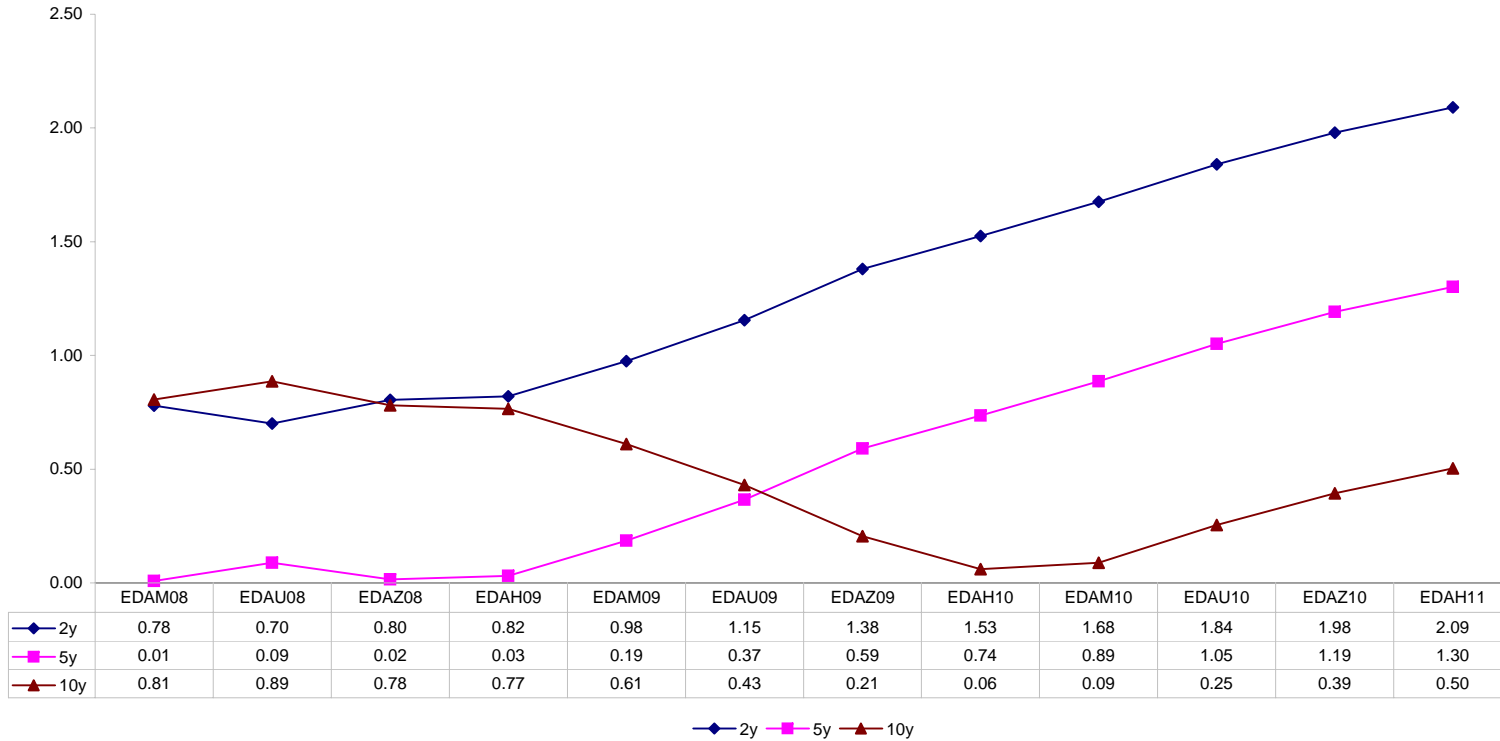
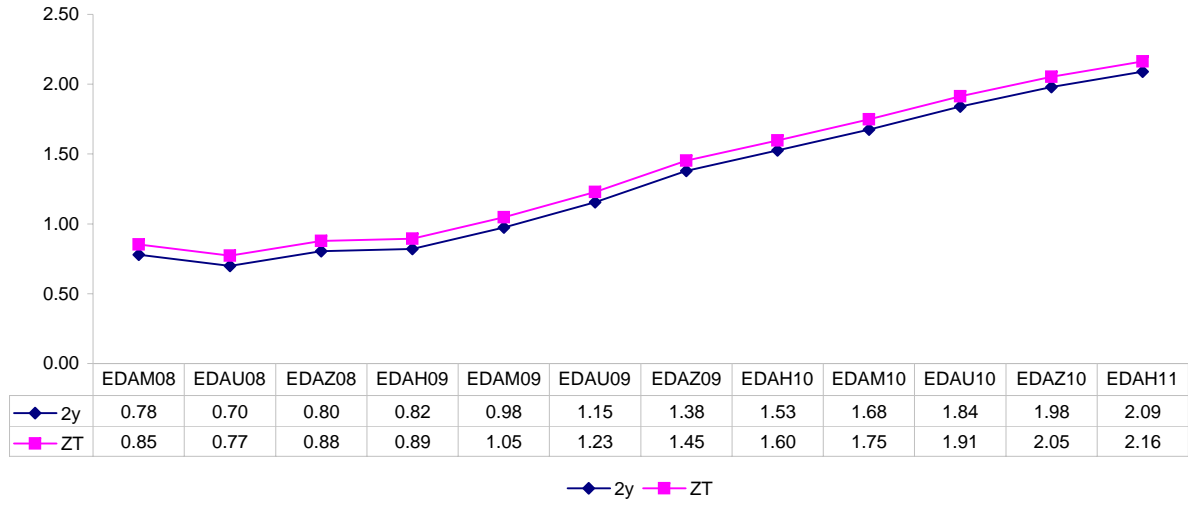


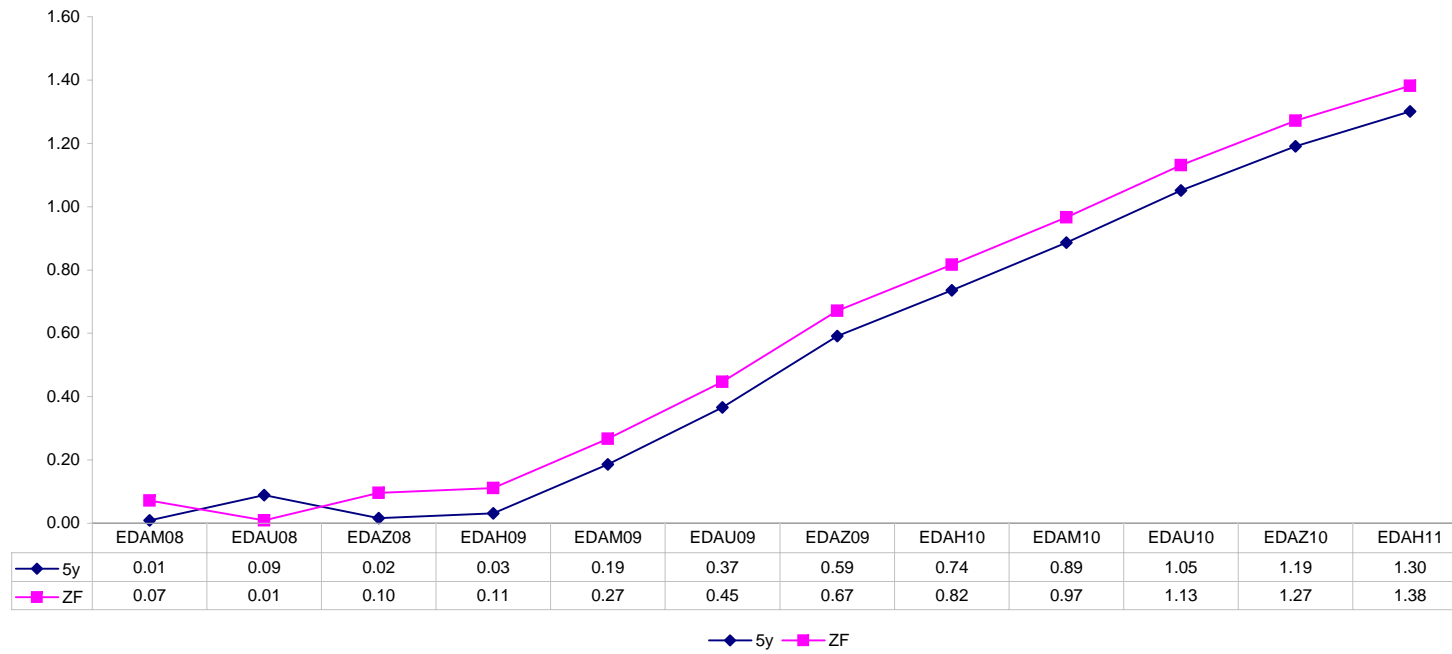
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



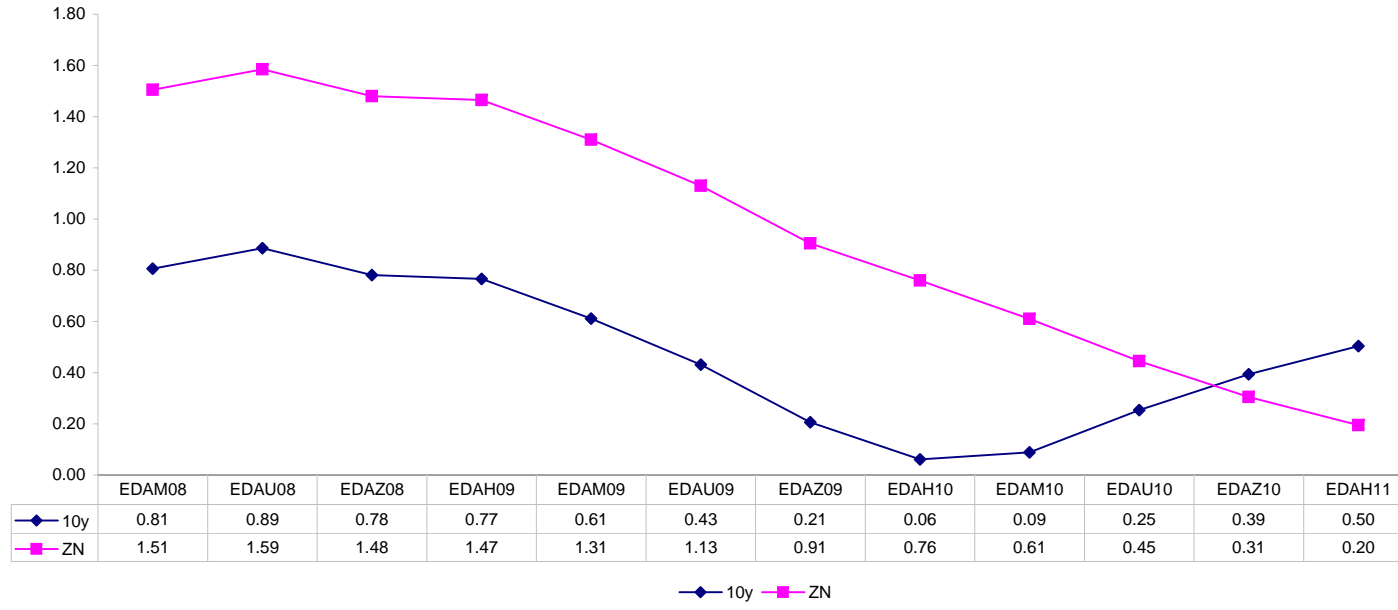
2y Basis TED Curve



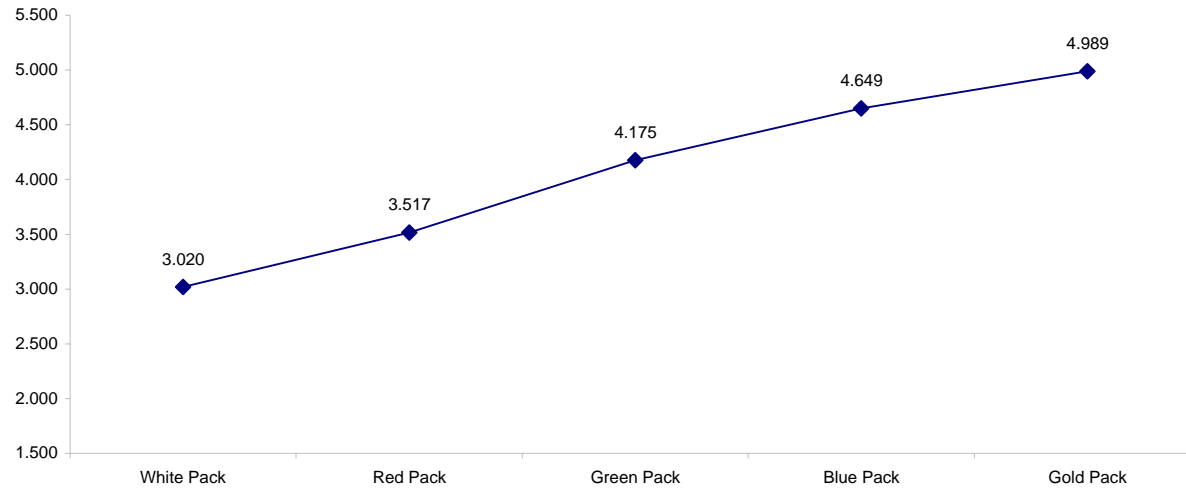
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	3.020	-11.000	9704.375
Red Pack	3.517	-12.375	9656.125
Green Pack	4.175	-6.375	9592.375
Blue Pack	4.649	-2.250	9546.625
Gold Pack	4.989	0.375	9513.875



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

