

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	106.7031	106.225	1.949	1.83
ZF	112.7500	112.240	2.741	3.98
ZN	116.4531	116.145	4.384	5.93
2y	99.516	99.1650	2.001	1.91
5y	98.422	98.1350	2.841	4.61
10y	98.344	98.1100	3.702	8.18

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.245	2.755	60	0.164	JUN
EDAU08	97.360	2.640	151	0.413	SEP White
EDAZ08	97.240	2.760	242	0.662	DEC Pack
EDAH09	97.210	2.790	333	0.912	MAR
EDAM09	97.040	2.960	424	1.161	JUN
EDAU09	96.850	3.150	515	1.410	SEP Red Pack
EDAZ09	96.625	3.375	606	1.660	DEC
EDAH10	96.455	3.545	697	1.909	MAR
EDAM10	96.255	3.745	788	2.158	JUN
EDAU10	96.060	3.940	879	2.408	SEP Green
EDAZ10	95.880	4.120	970	2.657	DEC Pack
EDAH11	95.735	4.265	1061	2.906	MAR
EDAM11	95.615	4.385	1152	3.156	JUN
EDAU11	95.495	4.505	1250	3.424	SEP Blue Pack
EDAZ11	95.380	4.620	1341	3.673	DEC
EDAH12	95.310	4.690	1432	3.923	MAR
EDAM12	95.250	4.750	1523	4.172	JUN
EDAU12	95.130	4.870	1614	4.421	SEP Gold Pack
EDAZ12	95.050	4.950	1705	4.671	DEC
EDAH13	95.140	4.860	1796	4.920	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.793	-4.875	9726.375	Pack Prices
Red Pack	3.330	-4.500	9674.250	
Green Pack	4.115	-4.875	9598.250	
Blue Pack		-2.750	9545.500	
Gold Pack		0.250	9511.000	

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.

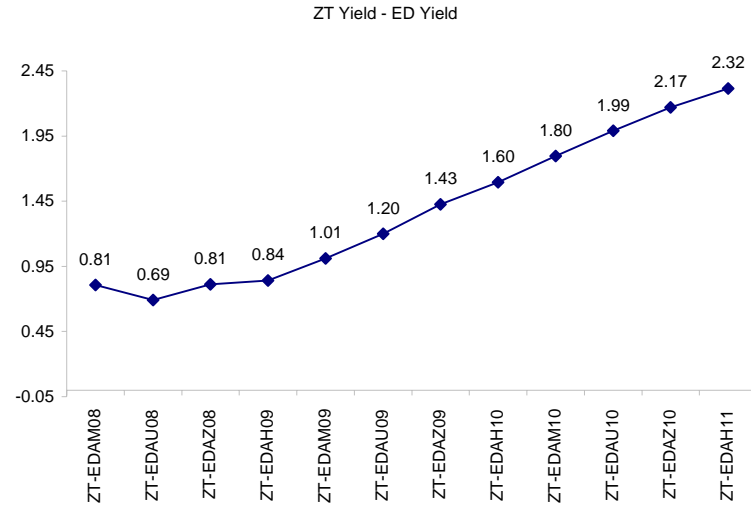
jgoulding@ghco.com

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.

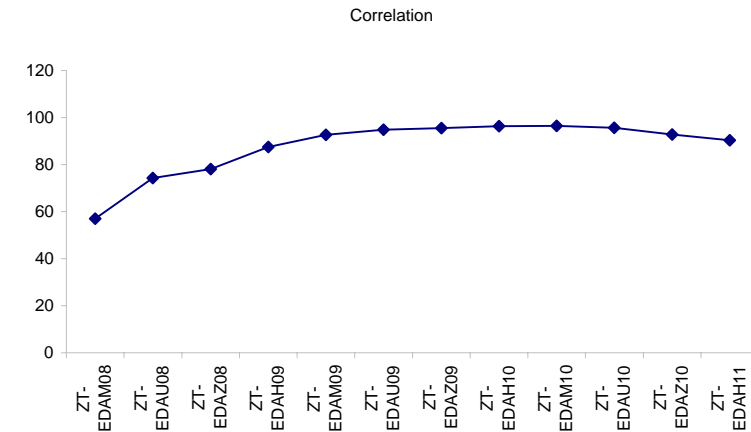
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	9.458	0.81	ZT-EDAM08	56.977
EDAU08	9.343	0.69	ZT-EDAU08	74.273
EDAZ08	9.463	0.81	ZT-EDAZ08	78.132
EDAH09	9.493	0.84	ZT-EDAH09	87.537
EDAM09	9.663	1.01	ZT-EDAM09	92.594
EDAU09	9.853	1.20	ZT-EDAU09	94.845
EDAZ09	10.078	1.43	ZT-EDAZ09	95.466
EDAH10	10.248	1.60	ZT-EDAH10	96.344
EDAM10	10.448	1.80	ZT-EDAM10	96.512
EDAU10	10.643	1.99	ZT-EDAU10	95.607
EDAZ10	10.823	2.17	ZT-EDAZ10	92.834
EDAH11	10.968	2.32	ZT-EDAH11	90.372

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	0.164	1.83	1.67	ZT-EDAM08		
EDAU08	0.413	1.83	1.42	ZT-EDAU08		
EDAZ08	0.662	1.83	1.17	ZT-EDAZ08		
EDAH09	0.912	1.83	0.92	ZT-EDAH09		
EDAM09	1.161	1.83	0.67	ZT-EDAM09		
EDAU09	1.410	1.83	0.42	ZT-EDAU09		
EDAZ09	1.660	1.83	0.17	ZT-EDAZ09		
EDAH10	1.909	1.83	(0.08)	ZT-EDAH10		
EDAM10	2.158	1.83	(0.33)	ZT-EDAM10		
EDAU10	2.408	1.83	(0.57)	ZT-EDAU10		
EDAZ10	2.657	1.83	(0.82)	ZT-EDAZ10		
EDAH11	2.906	1.83	(1.07)	ZT-EDAH11		

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

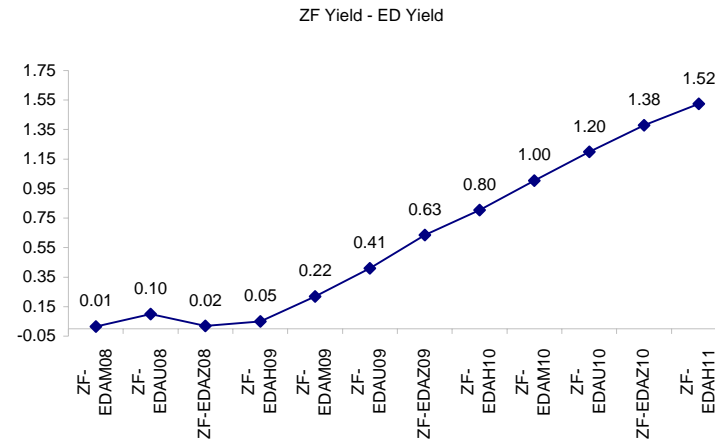


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	15.505	0.01	ZF-EDAM08	59.508
EDAU08	15.390	0.10	ZF-EDAU08	75.502
EDAZ08	15.510	0.02	ZF-EDAZ08	79.346
EDAH09	15.540	0.05	ZF-EDAH09	87.414
EDAM09	15.710	0.22	ZF-EDAM09	90.805
EDAU09	15.900	0.41	ZF-EDAU09	91.884
EDAZ09	16.125	0.63	ZF-EDAZ09	91.972
EDAH10	16.295	0.80	ZF-EDAH10	93.116
EDAM10	16.495	1.00	ZF-EDAM10	93.859
EDAU10	16.690	1.20	ZF-EDAU10	93.386
EDAZ10	16.870	1.38	ZF-EDAZ10	91.125
EDAH11	17.015	1.52	ZF-EDAH11	89.805

Price = Outright Decimal Price - Euro Contract Price

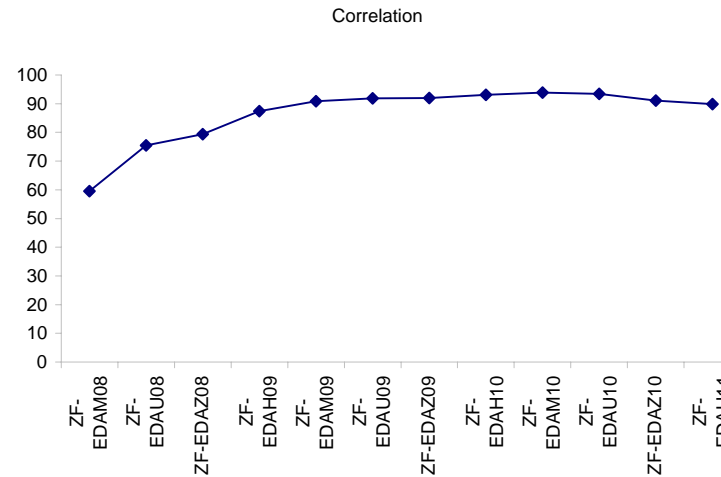
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.164	3.98	3.81	ZF-EDAM08	
EDAU08	0.413	3.98	3.56	ZF-EDAU08	
EDAZ08	0.662	3.98	3.31	ZF-EDAZ08	
EDAH09	0.912	3.98	3.07	ZF-EDAH09	
EDAM09	1.161	3.98	2.82	ZF-EDAM09	
EDAU09	1.410	3.98	2.57	ZF-EDAU09	
EDAZ09	1.660	3.98	2.32	ZF-EDAZ09	
EDAH10	1.909	3.98	2.07	ZF-EDAH10	
EDAM10	2.158	3.98	1.82	ZF-EDAM10	
EDAU10	2.408	3.98	1.57	ZF-EDAU10	
EDAZ10	2.657	3.98	1.32	ZF-EDAZ10	
EDAH11	2.906	3.98	1.07	ZF-EDAH11	

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

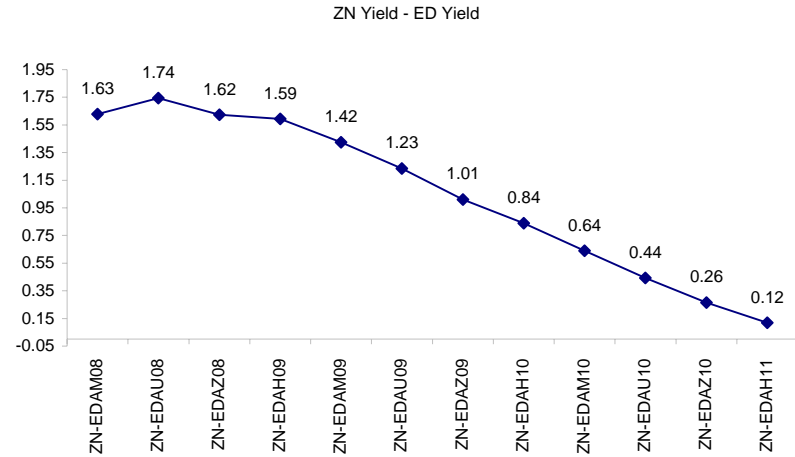


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	19.208	1.63	ZN-EDAM08	88.615
EDAU08	19.093	1.74	ZN-EDAU08	95.708
EDAZ08	19.213	1.62	ZN-EDAZ08	97.072
EDAH09	19.243	1.59	ZN-EDAH09	96.822
EDAM09	19.413	1.42	ZN-EDAM09	93.669
EDAU09	19.603	1.23	ZN-EDAU09	90.145
EDAZ09	19.828	1.01	ZN-EDAZ09	88.111
EDAH10	19.998	0.84	ZN-EDAH10	93.116
EDAM10	20.198	0.64	ZN-EDAM10	93.859
EDAU10	20.393	0.44	ZN-EDAU10	93.386
EDAZ10	20.573	0.26	ZN-EDAZ10	91.125
EDAH11	20.718	0.12	ZN-EDAH11	89.805

Price = Outright Decimal Price - Euro Contract Price

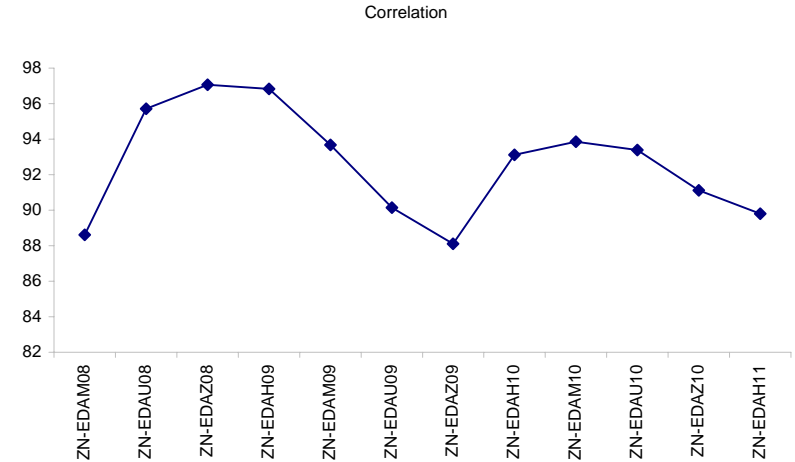
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAM08	0.164	5.93	5.77	ZN-EDAM08		
EDAU08	0.413	5.93	5.52	ZN-EDAU08		
EDAZ08	0.662	5.93	5.27	ZN-EDAZ08		
EDAH09	0.912	5.93	5.02	ZN-EDAH09		
EDAM09	1.161	5.93	4.77	ZN-EDAM09		
EDAU09	1.410	5.93	4.52	ZN-EDAU09		
EDAZ09	1.660	5.93	4.27	ZN-EDAZ09		
EDAH10	1.909	5.93	4.02	ZN-EDAH10		
EDAM10	2.158	5.93	3.77	ZN-EDAM10		
EDAU10	2.408	5.93	3.52	ZN-EDAU10		
EDAZ10	2.657	5.93	3.27	ZN-EDAZ10		
EDAH11	2.906	5.93	3.02	ZN-EDAH11		

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

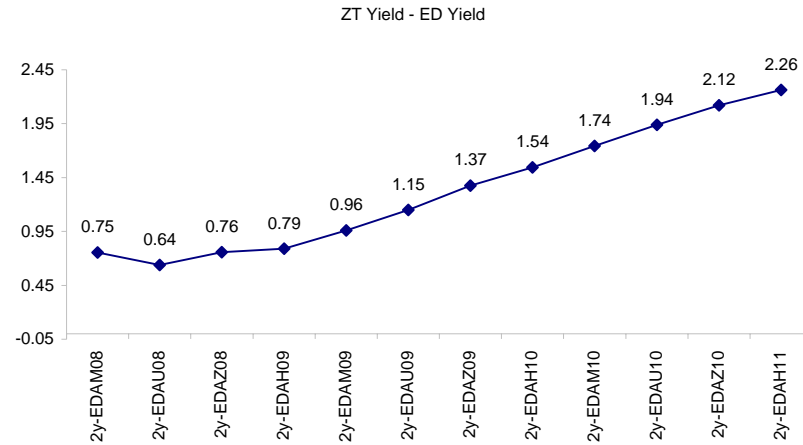


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.271	0.75	2y-EDAM08	-70.799
EDAU08	2.156	0.64	2y-EDAU08	-84.938
EDAZ08	2.276	0.76	2y-EDAZ08	-88.107
EDAH09	2.306	0.79	2y-EDAH09	-94.401
EDAM09	2.476	0.96	2y-EDAM09	-96.468
EDAU09	2.666	1.15	2y-EDAU09	-96.513
EDAZ09	2.891	1.37	2y-EDAZ09	-96.093
EDAH10	3.061	1.54	2y-EDAH10	-96.458
EDAM10	3.261	1.74	2y-EDAM10	-97.015
EDAU10	3.456	1.94	2y-EDAU10	-97.160
EDAZ10	3.636	2.12	2y-EDAZ10	-96.239
EDAH11	3.781	2.26	2y-EDAH11	-95.687

Price = Outright Decimal Price - Euro Contract Price

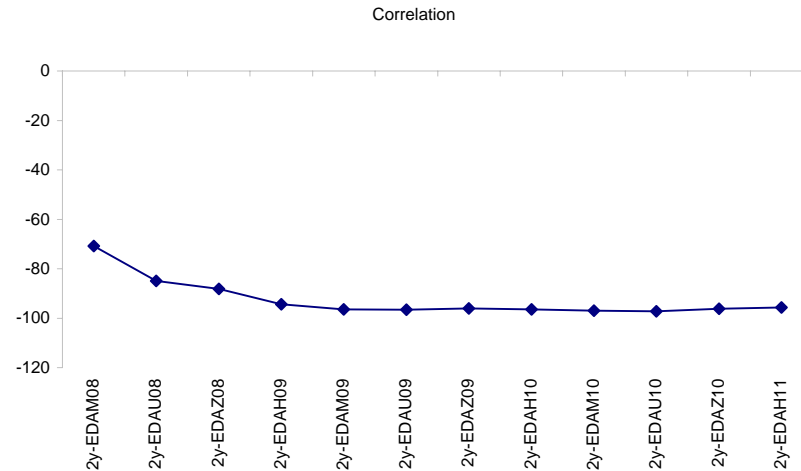
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAM08	0.164	1.91	1.74	2y-EDAM08
EDAU08	0.413	1.91	1.49	2y-EDAU08
EDAZ08	0.662	1.91	1.24	2y-EDAZ08
EDAH09	0.912	1.91	0.99	2y-EDAH09
EDAM09	1.161	1.91	0.74	2y-EDAM09
EDAU09	1.410	1.91	0.50	2y-EDAU09
EDAZ09	1.660	1.91	0.25	2y-EDAZ09
EDAH10	1.909	1.91	(0.00)	2y-EDAH10
EDAM10	2.158	1.91	(0.25)	2y-EDAM10
EDAU10	2.408	1.91	(0.50)	2y-EDAU10
EDAZ10	2.657	1.91	(0.75)	2y-EDAZ10
EDAH11	2.906	1.91	(1.00)	2y-EDAH11

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

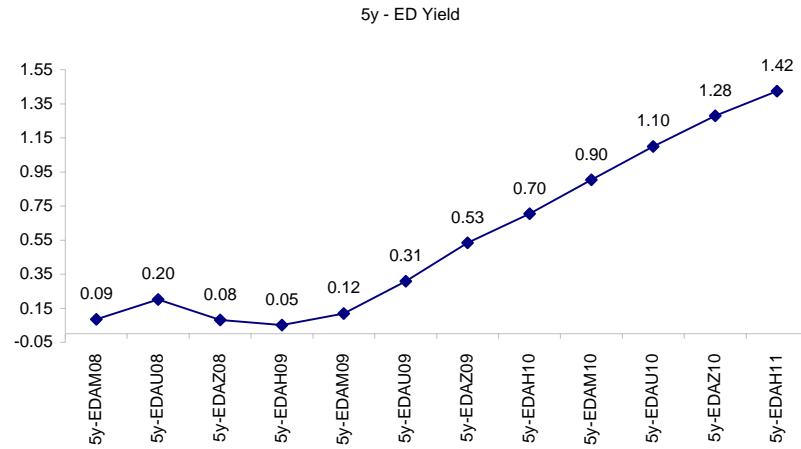


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	1.177	0.09	5y-EDAM08	-76.861
EDAU08	1.062	0.20	5y-EDAU08	-88.252
EDAZ08	1.182	0.08	5y-EDAZ08	-76.861
EDAH09	1.212	0.05	5y-EDAH09	-95.187
EDAM09	1.382	0.12	5y-EDAM09	-95.306
EDAU09	1.572	0.31	5y-EDAU09	-93.964
EDAZ09	1.797	0.53	5y-EDAZ09	-92.874
EDAH10	1.967	0.70	5y-EDAH10	-93.323
EDAM10	2.167	0.90	5y-EDAM10	-94.346
EDAU10	2.362	1.10	5y-EDAU10	-95.195
EDAZ10	2.542	1.28	5y-EDAZ10	-95.286
EDAH11	2.687	1.42	5y-EDAH11	-95.891

Price = Outright Decimal Price - Euro Contract Price

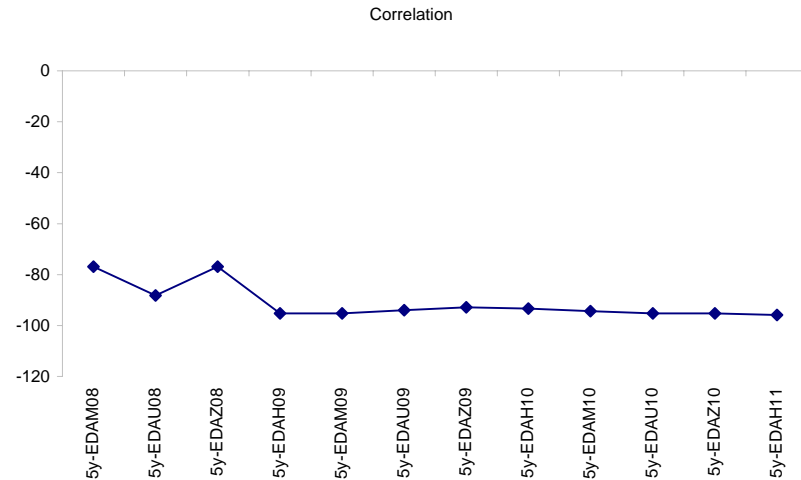
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.164	4.61	4.45	5y-EDAM08
EDAU08	0.413	4.61	4.20	5y-EDAU08
EDAZ08	0.662	4.61	3.95	5y-EDAZ08
EDAH09	0.912	4.61	3.70	5y-EDAH09
EDAM09	1.161	4.61	3.45	5y-EDAM09
EDAU09	1.410	4.61	3.20	5y-EDAU09
EDAZ09	1.660	4.61	2.95	5y-EDAZ09
EDAH10	1.909	4.61	2.70	5y-EDAH10
EDAM10	2.158	4.61	2.46	5y-EDAM10
EDAU10	2.408	4.61	2.21	5y-EDAU10
EDAZ10	2.657	4.61	1.96	5y-EDAZ10
EDAH11	2.906	4.61	1.71	5y-EDAH11

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

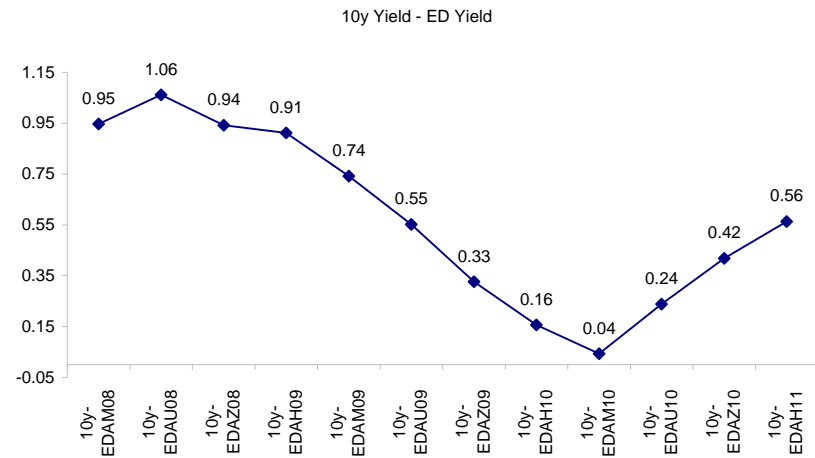


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	1.177	0.95	10y-EDAM08	-92.368
EDAU08	1.062	1.06	10y-EDAU08	-98.118
EDAZ08	1.182	0.94	10y-EDAZ08	-92.368
EDAH09	1.212	0.91	10y-EDAH09	-98.072
EDAM09	1.382	0.74	10y-EDAM09	-94.765
EDAU09	1.572	0.55	10y-EDAU09	-91.148
EDAZ09	1.797	0.33	10y-EDAZ09	-89.085
EDAH10	1.967	0.16	10y-EDAH10	-88.260
EDAM10	2.167	0.04	10y-EDAM10	-88.947
EDAU10	2.362	0.24	10y-EDAU10	-90.988
EDAZ10	2.542	0.42	10y-EDAZ10	-93.962
EDAH11	2.687	0.56	10y-EDAH11	-96.445

Price = Outright Decimal Price - Euro Contract Price

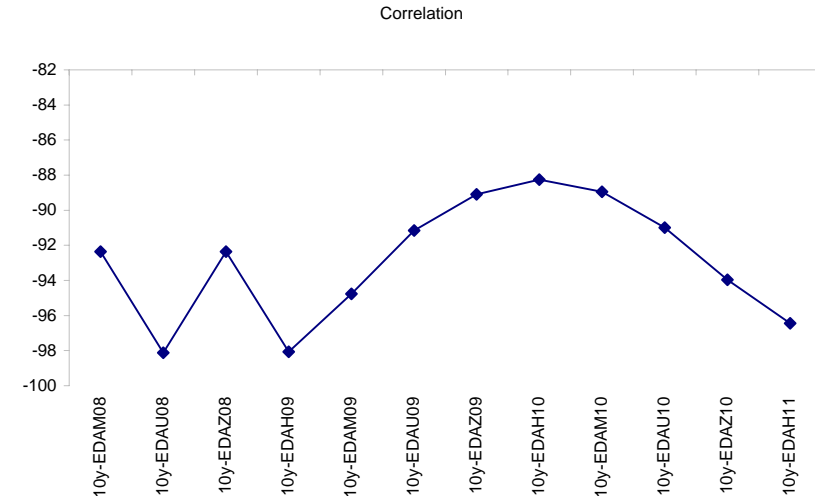
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAM08	0.164	8.18	8.02	10y-EDAM08
EDAU08	0.413	8.18	7.77	10y-EDAU08
EDAZ08	0.662	8.18	7.52	10y-EDAZ08
EDAH09	0.912	8.18	7.27	10y-EDAH09
EDAM09	1.161	8.18	7.02	10y-EDAM09
EDAU09	1.410	8.18	6.77	10y-EDAU09
EDAZ09	1.660	8.18	6.52	10y-EDAZ09
EDAH10	1.909	8.18	6.27	10y-EDAH10
EDAM10	2.158	8.18	6.02	10y-EDAM10
EDAU10	2.408	8.18	5.78	10y-EDAU10
EDAZ10	2.657	8.18	5.53	10y-EDAZ10
EDAH11	2.906	8.18	5.28	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.

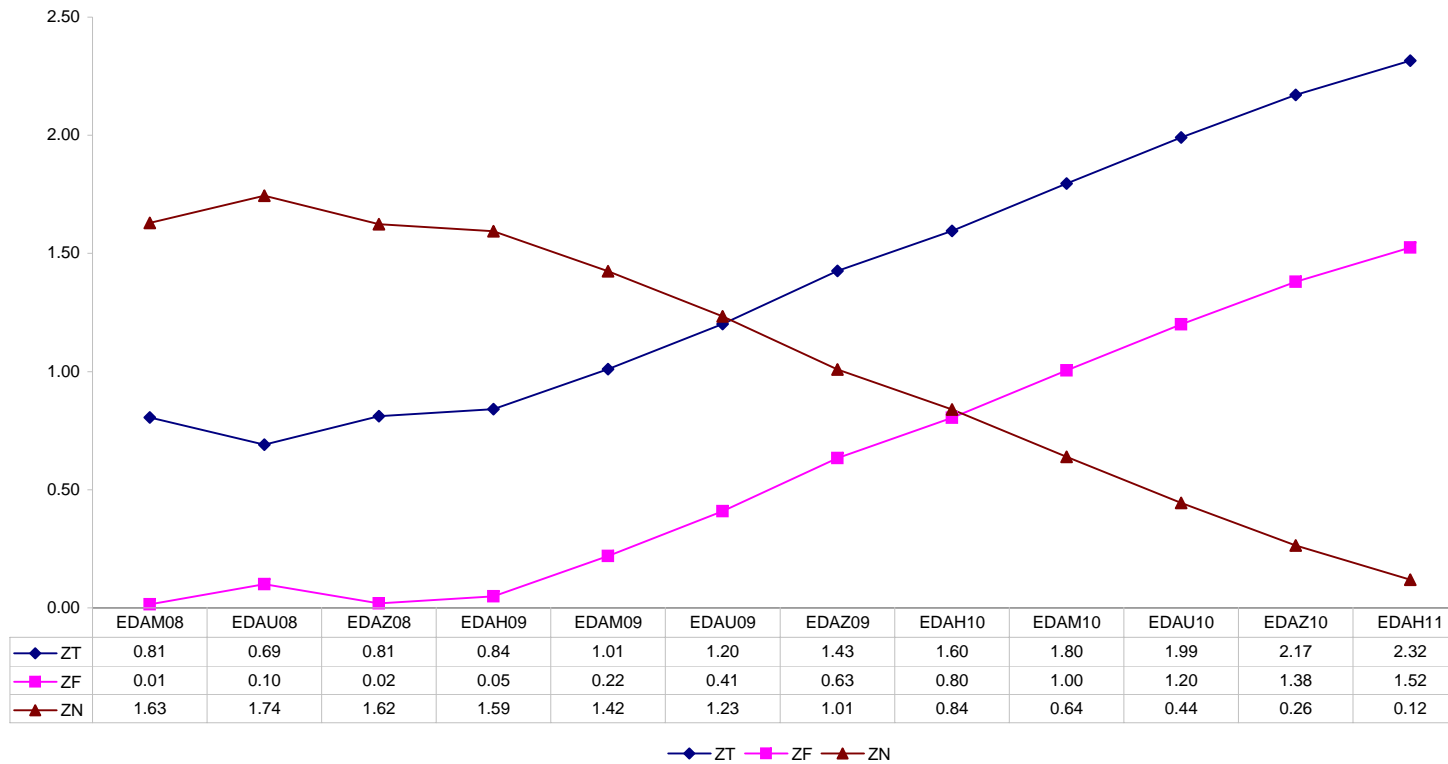
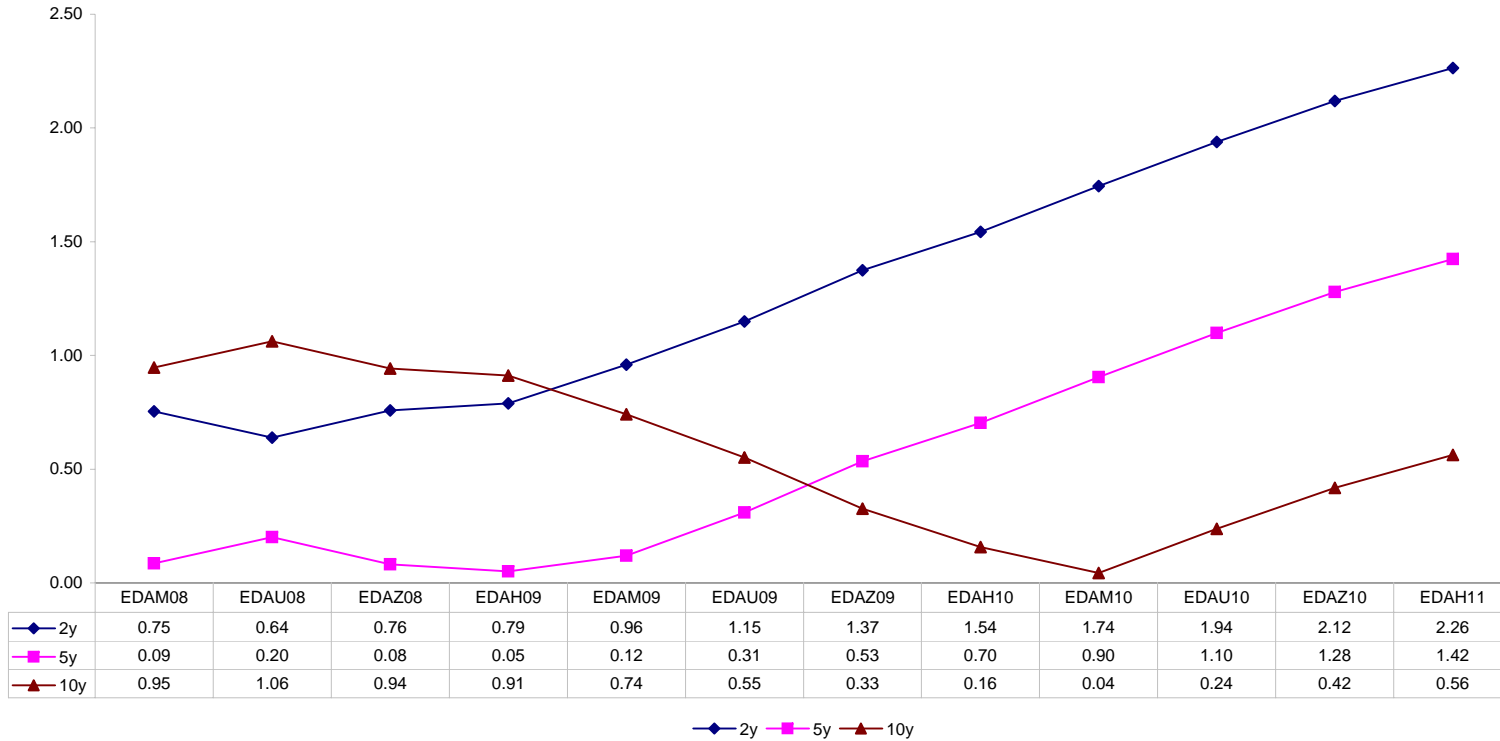
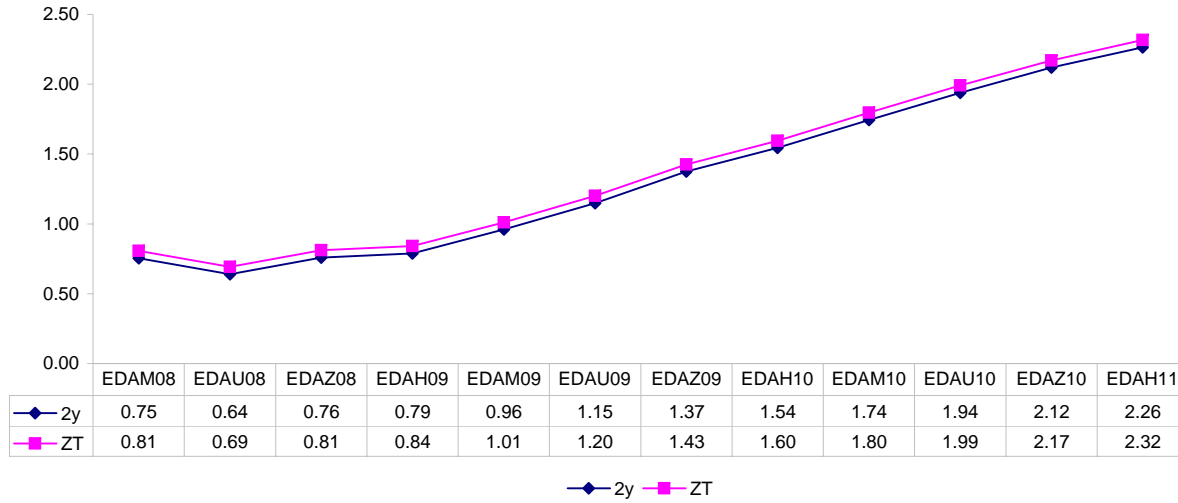


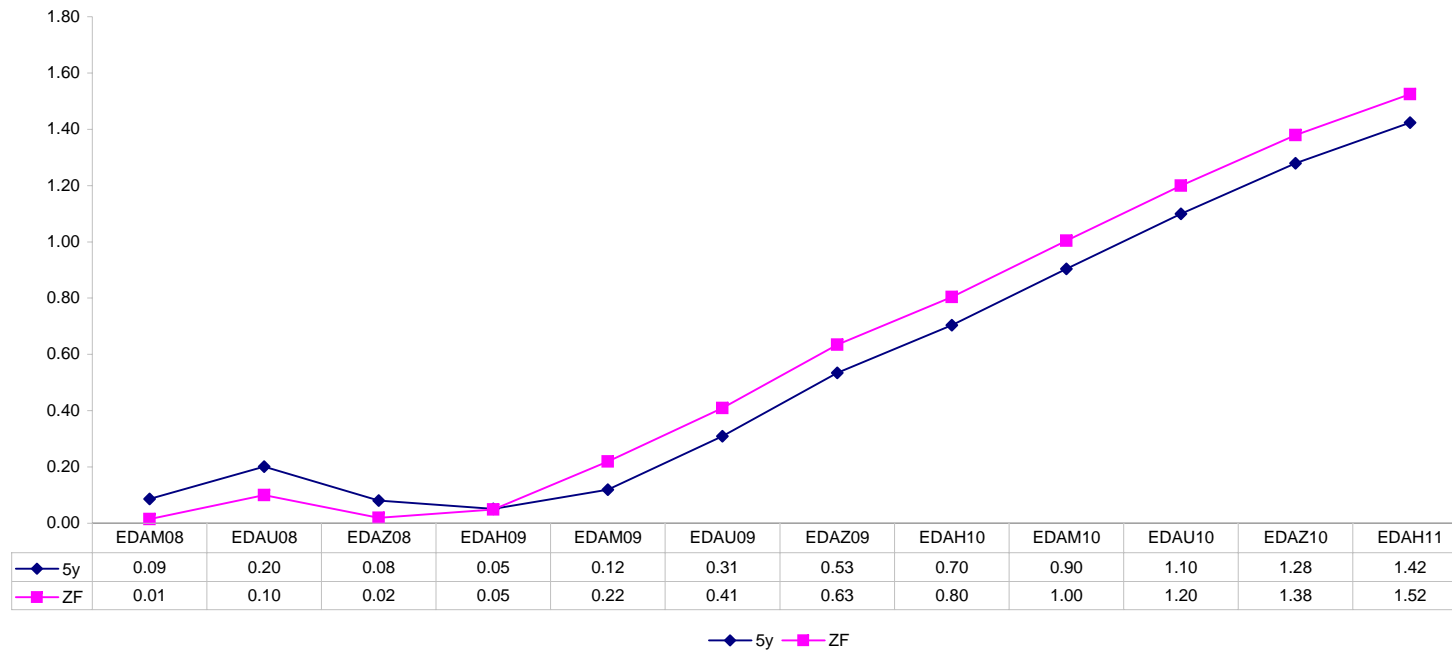
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



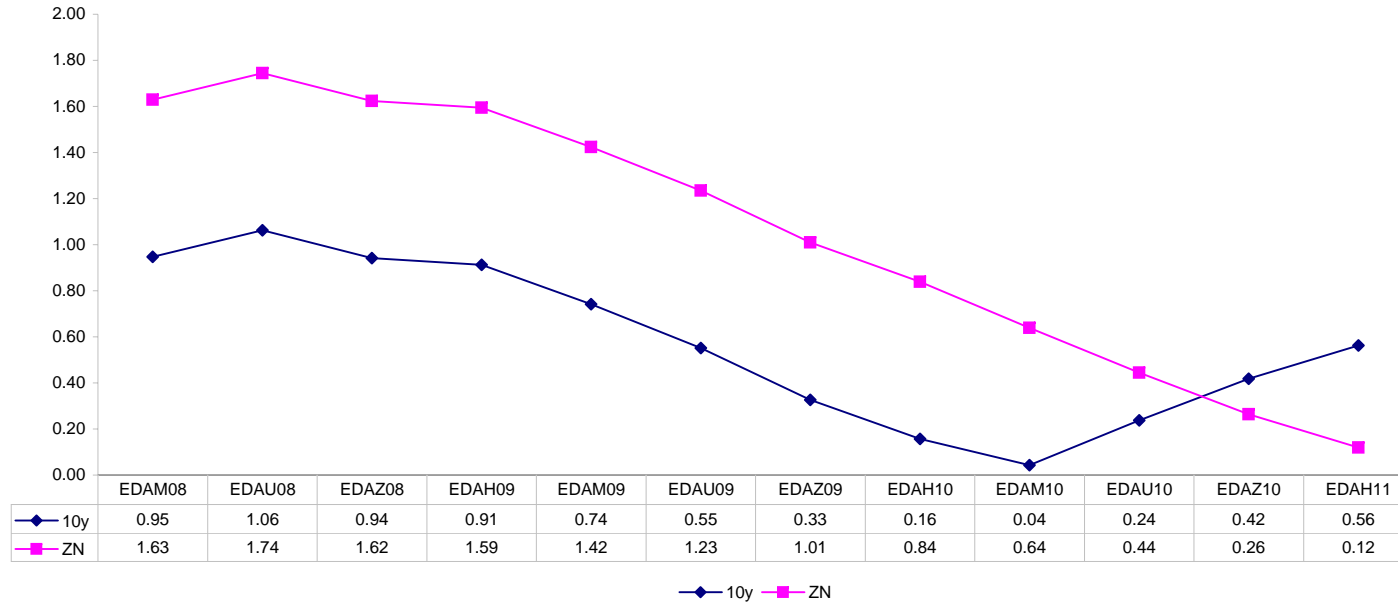
2y Basis TED Curve



5y Basis TED Curve

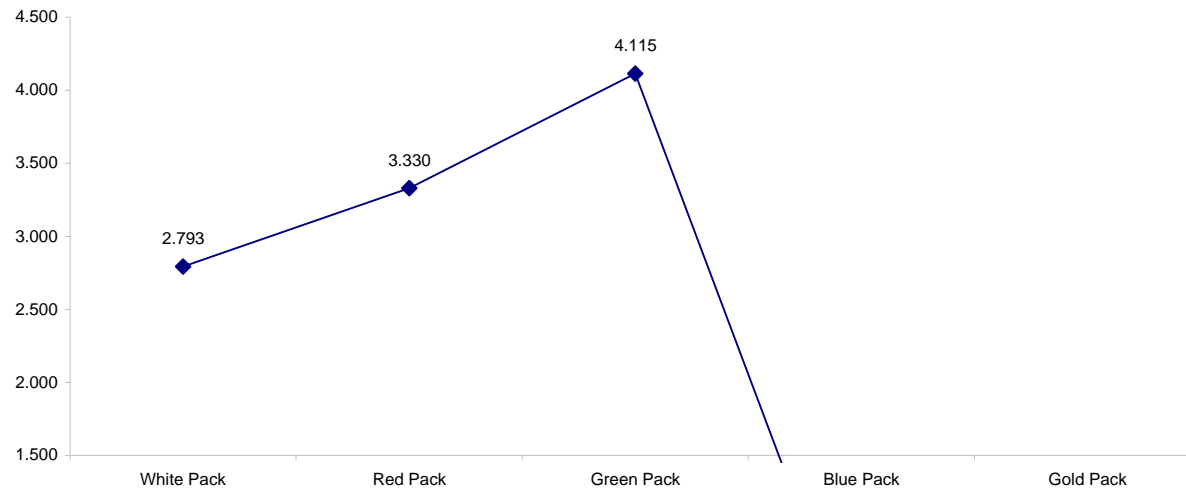


10y Basis TED Curve



Packs

	Last Yield	Net Last Yield	Last Price
White Pack	2.793	-4.875	9726.375
Red Pack	3.330	-4.500	9674.250
Green Pack	4.115	-4.875	9598.250
Blue Pack		-2.750	9545.500
Gold Pack		0.250	9511.000



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

