

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	106.0469	106.015	2.331	1.78
ZF	111.4750	111.152	3.047	3.92
ZN	115.0156	115.005	3.710	5.86
2y	99.438	99.1400	2.410	1.93
5y	99.875	99.2800	3.151	4.58
10y	97.125	97.0400	3.855	8.11

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.330	2.670	41	0.112	JUN
EDAU08	97.275	2.725	132	0.361	SEP White
EDAZ08	97.050	2.950	223	0.610	DEC Pack
EDAH09	96.885	3.115	314	0.860	MAR
EDAM09	96.680	3.320	405	1.109	JUN
EDAU09	96.500	3.500	496	1.358	SEP Red Pack
EDAZ09	96.300	3.700	587	1.608	DEC
EDAH10	96.170	3.830	678	1.857	MAR
EDAM10	96.020	3.980	769	2.106	JUN
EDAU10	95.885	4.115	860	2.356	SEP Green
EDAZ10	95.760	4.240	951	2.605	DEC Pack
EDAH11	95.690	4.310	1042	2.854	MAR
EDAM11	95.605	4.395	1133	3.103	JUN
EDAU11	95.520	4.480	1231	3.372	SEP Blue Pack
EDAZ11	95.425	4.575	1322	3.621	DEC
EDAH12	95.415	4.585	1413	3.871	MAR
EDAM12	95.350	4.650	1504	4.120	JUN
EDAU12	95.270	4.730	1595	4.369	SEP Gold Pack
EDAZ12	95.215	4.785	1686	4.619	DEC
EDAH13	95.190	4.810	1777	4.868	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.926	-1.875	9713.500	Pack Prices
Red Pack	3.670	-1.875	9641.250	
Green Pack	4.263	-2.750	9583.875	
Blue Pack		-2.875	9549.250	
Gold Pack		-1.250	9526.000	

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.

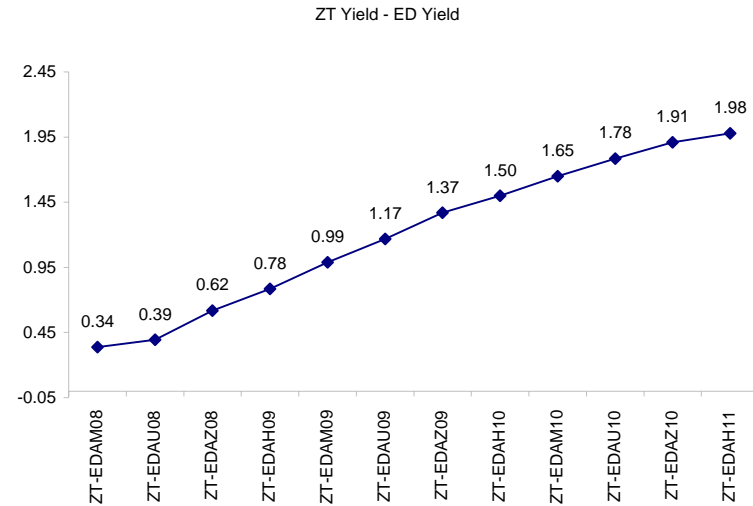
jgoulding@ghco.com

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. So, it's much easier to formulate the correlations based on yield than price.

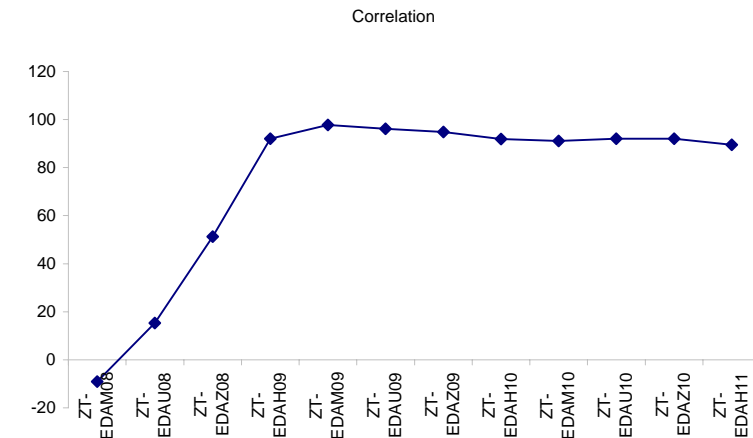
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.717	0.34	ZT-EDAM08	-9.131
EDAU08	8.772	0.39	ZT-EDAU08	15.338
EDAZ08	8.997	0.62	ZT-EDAZ08	51.215
EDAH09	9.162	0.78	ZT-EDAH09	92.066
EDAM09	9.367	0.99	ZT-EDAM09	97.760
EDAU09	9.547	1.17	ZT-EDAU09	96.203
EDAZ09	9.747	1.37	ZT-EDAZ09	94.796
EDAH10	9.877	1.50	ZT-EDAH10	91.828
EDAM10	10.027	1.65	ZT-EDAM10	91.098
EDAU10	10.162	1.78	ZT-EDAU10	91.980
EDAZ10	10.287	1.91	ZT-EDAZ10	92.016
EDAH11	10.357	1.98	ZT-EDAH11	89.437

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	0.112	1.78	1.67	ZT-EDAM08		
EDAU08	0.361	1.78	1.42	ZT-EDAU08		
EDAZ08	0.610	1.78	1.17	ZT-EDAZ08		
EDAH09	0.860	1.78	0.92	ZT-EDAH09		
EDAM09	1.109	1.78	0.67	ZT-EDAM09		
EDAU09	1.358	1.78	0.42	ZT-EDAU09		
EDAZ09	1.608	1.78	0.17	ZT-EDAZ09		
EDAH10	1.857	1.78	(0.08)	ZT-EDAH10		
EDAM10	2.106	1.78	(0.33)	ZT-EDAM10		
EDAU10	2.356	1.78	(0.58)	ZT-EDAU10		
EDAZ10	2.605	1.78	(0.83)	ZT-EDAZ10		
EDAH11	2.854	1.78	(1.08)	ZT-EDAH11		

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

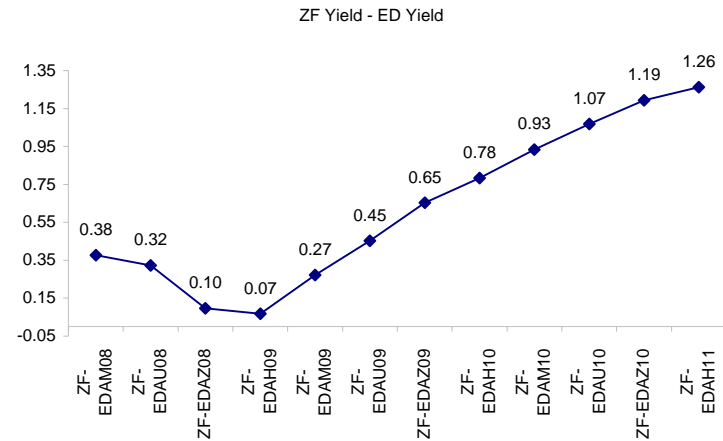


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	14.145	0.38	ZF-EDAM08	3.426
EDAU08	14.200	0.32	ZF-EDAU08	28.296
EDAZ08	14.425	0.10	ZF-EDAZ08	62.439
EDAH09	14.590	0.07	ZF-EDAH09	97.349
EDAM09	14.795	0.27	ZF-EDAM09	98.102
EDAU09	14.975	0.45	ZF-EDAU09	93.621
EDAZ09	15.175	0.65	ZF-EDAZ09	90.494
EDAH10	15.305	0.78	ZF-EDAH10	87.419
EDAM10	15.455	0.93	ZF-EDAM10	88.534
EDAU10	15.590	1.07	ZF-EDAU10	93.064
EDAZ10	15.715	1.19	ZF-EDAZ10	96.820
EDAH11	15.785	1.26	ZF-EDAH11	97.260

Price = Outright Decimal Price - Euro Contract Price

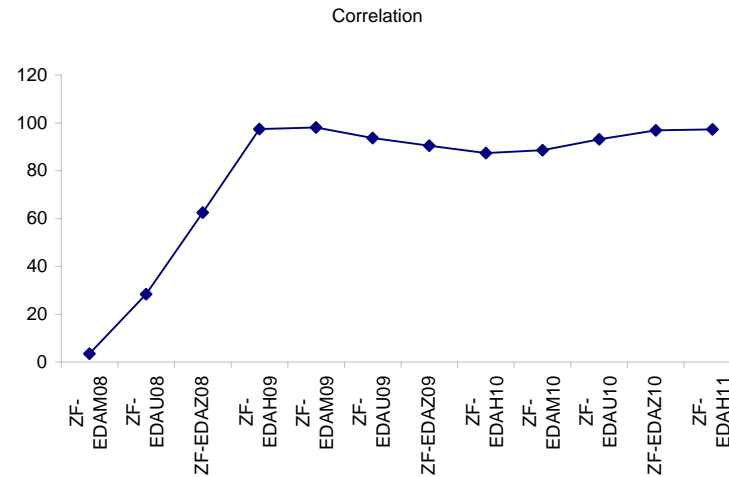
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.112	3.92	3.81	ZF-EDAM08	
EDAU08	0.361	3.92	3.56	ZF-EDAU08	
EDAZ08	0.610	3.92	3.31	ZF-EDAZ08	
EDAH09	0.860	3.92	3.06	ZF-EDAH09	
EDAM09	1.109	3.92	2.81	ZF-EDAM09	
EDAU09	1.358	3.92	2.56	ZF-EDAU09	
EDAZ09	1.608	3.92	2.31	ZF-EDAZ09	
EDAH10	1.857	3.92	2.06	ZF-EDAH10	
EDAM10	2.106	3.92	1.81	ZF-EDAM10	
EDAU10	2.356	3.92	1.56	ZF-EDAU10	
EDAZ10	2.605	3.92	1.31	ZF-EDAZ10	
EDAH11	2.854	3.92	1.06	ZF-EDAH11	

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

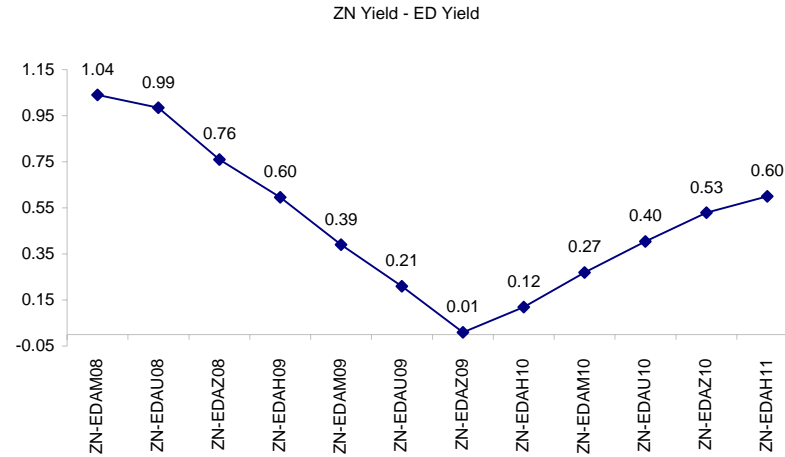


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	17.686	1.04	ZN-EDAM08	-24.698
EDAU08	17.741	0.99	ZN-EDAU08	-2.395
EDAZ08	17.966	0.76	ZN-EDAZ08	33.674
EDAH09	18.131	0.60	ZN-EDAH09	85.031
EDAM09	18.336	0.39	ZN-EDAM09	96.008
EDAU09	18.516	0.21	ZN-EDAU09	96.622
EDAZ09	18.716	0.01	ZN-EDAZ09	95.571
EDAH10	18.846	0.12	ZN-EDAH10	87.419
EDAM10	18.996	0.27	ZN-EDAM10	88.534
EDAU10	19.131	0.40	ZN-EDAU10	93.064
EDAZ10	19.256	0.53	ZN-EDAZ10	96.820
EDAH11	19.326	0.60	ZN-EDAH11	97.260

Price = Outright Decimal Price - Euro Contract Price

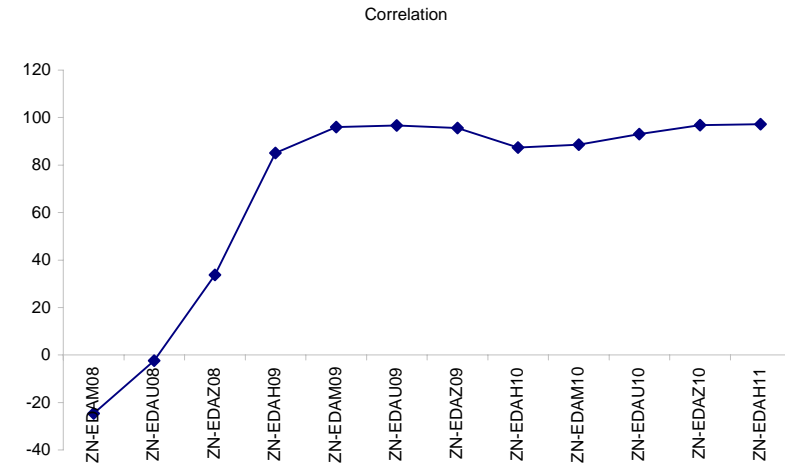
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAM08	0.112	5.86	5.75	ZN-EDAM08
EDAU08	0.361	5.86	5.50	ZN-EDAU08
EDAZ08	0.610	5.86	5.25	ZN-EDAZ08
EDAH09	0.860	5.86	5.00	ZN-EDAH09
EDAM09	1.109	5.86	4.75	ZN-EDAM09
EDAU09	1.358	5.86	4.51	ZN-EDAU09
EDAZ09	1.608	5.86	4.26	ZN-EDAZ09
EDAH10	1.857	5.86	4.01	ZN-EDAH10
EDAM10	2.106	5.86	3.76	ZN-EDAM10
EDAU10	2.356	5.86	3.51	ZN-EDAU10
EDAZ10	2.605	5.86	3.26	ZN-EDAZ10
EDAH11	2.854	5.86	3.01	ZN-EDAH11

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

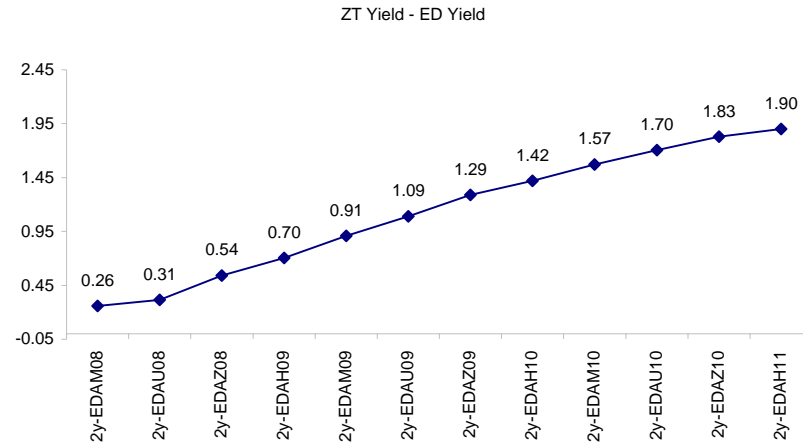


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.108	0.26	2y-EDAM08	33.745
EDAU08	2.162	0.31	2y-EDAU08	8.701
EDAZ08	2.388	0.54	2y-EDAZ08	-30.538
EDAH09	2.552	0.70	2y-EDAH09	-82.826
EDAM09	2.757	0.91	2y-EDAM09	-94.566
EDAU09	2.938	1.09	2y-EDAU09	-97.250
EDAZ09	3.138	1.29	2y-EDAZ09	-97.397
EDAH10	3.268	1.42	2y-EDAH10	-96.293
EDAM10	3.418	1.57	2y-EDAM10	-94.696
EDAU10	3.552	1.70	2y-EDAU10	-92.159
EDAZ10	3.677	1.83	2y-EDAZ10	-87.879
EDAH11	3.748	1.90	2y-EDAH11	-81.407

Price = Outright Decimal Price - Euro Contract Price

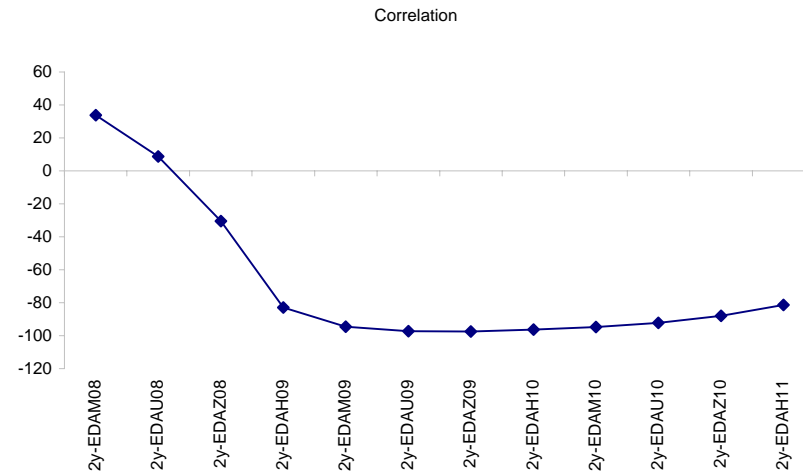
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAM08	0.112	1.93	1.81	2y-EDAM08	
EDAU08	0.361	1.93	1.57	2y-EDAU08	
EDAZ08	0.610	1.93	1.32	2y-EDAZ08	
EDAH09	0.860	1.93	1.07	2y-EDAH09	
EDAM09	1.109	1.93	0.82	2y-EDAM09	
EDAU09	1.358	1.93	0.57	2y-EDAU09	
EDAZ09	1.608	1.93	0.32	2y-EDAZ09	
EDAH10	1.857	1.93	0.07	2y-EDAH10	
EDAM10	2.106	1.93	(0.18)	2y-EDAM10	
EDAU10	2.356	1.93	(0.43)	2y-EDAU10	
EDAZ10	2.605	1.93	(0.68)	2y-EDAZ10	
EDAH11	2.854	1.93	(0.93)	2y-EDAH11	

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

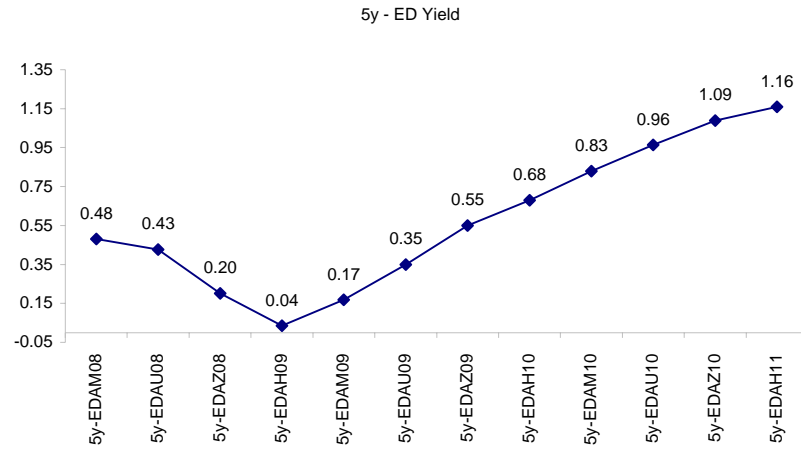


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.545	0.48	5y-EDAM08	27.664
EDAU08	2.600	0.43	5y-EDAU08	2.818
EDAZ08	2.825	0.20	5y-EDAZ08	27.664
EDAH09	2.990	0.04	5y-EDAH09	-85.851
EDAM09	3.195	0.17	5y-EDAM09	-95.953
EDAU09	3.375	0.35	5y-EDAU09	-96.813
EDAZ09	3.575	0.55	5y-EDAZ09	-95.471
EDAH10	3.705	0.68	5y-EDAH10	-94.784
EDAM10	3.855	0.83	5y-EDAM10	-94.883
EDAU10	3.990	0.96	5y-EDAU10	-95.187
EDAZ10	4.115	1.09	5y-EDAZ10	-93.045
EDAH11	4.185	1.16	5y-EDAH11	-88.514

Price = Outright Decimal Price - Euro Contract Price

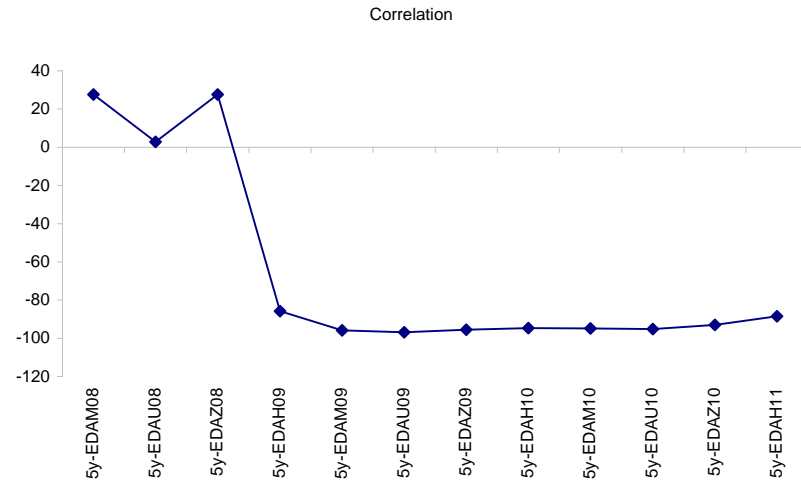
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.112	4.58	4.46	5y-EDAM08
EDAU08	0.361	4.58	4.22	5y-EDAU08
EDAZ08	0.610	4.58	3.97	5y-EDAZ08
EDAH09	0.860	4.58	3.72	5y-EDAH09
EDAM09	1.109	4.58	3.47	5y-EDAM09
EDAU09	1.358	4.58	3.22	5y-EDAU09
EDAZ09	1.608	4.58	2.97	5y-EDAZ09
EDAH10	1.857	4.58	2.72	5y-EDAH10
EDAM10	2.106	4.58	2.47	5y-EDAM10
EDAU10	2.356	4.58	2.22	5y-EDAU10
EDAZ10	2.605	4.58	1.97	5y-EDAZ10
EDAH11	2.854	4.58	1.72	5y-EDAH11

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

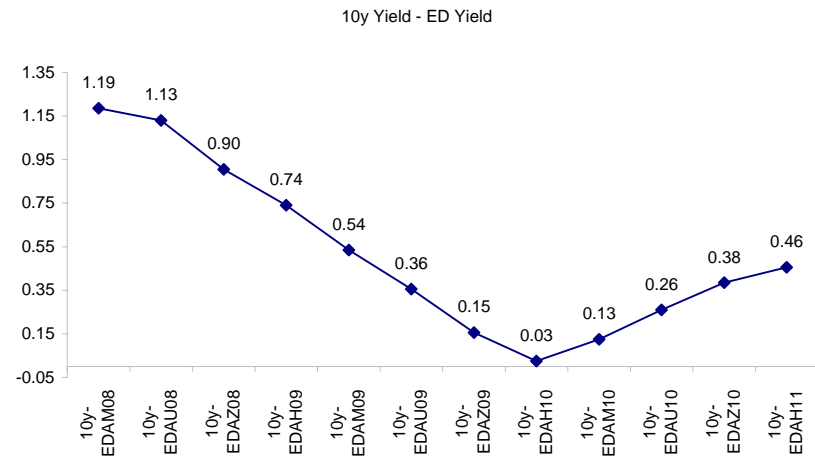


10y				Correlation* (percent)
Spread Price	Spread Yield	Spread Name		
EDAM08	2.545	1.19	10y-EDAM08	7.598
EDAU08	2.600	1.13	10y-EDAU08	-13.953
EDAZ08	2.825	0.90	10y-EDAZ08	7.598
EDAH09	2.990	0.74	10y-EDAH09	-87.370
EDAM09	3.195	0.54	10y-EDAM09	-93.916
EDAU09	3.375	0.36	10y-EDAU09	-91.318
EDAZ09	3.575	0.15	10y-EDAZ09	-88.966
EDAH10	3.705	0.03	10y-EDAH10	-87.570
EDAM10	3.855	0.13	10y-EDAM10	-88.984
EDAU10	3.990	0.26	10y-EDAU10	-92.490
EDAZ10	4.115	0.38	10y-EDAZ10	-93.667
EDAH11	4.185	0.46	10y-EDAH11	-92.850

Price = Outright Decimal Price - Euro Contract Price

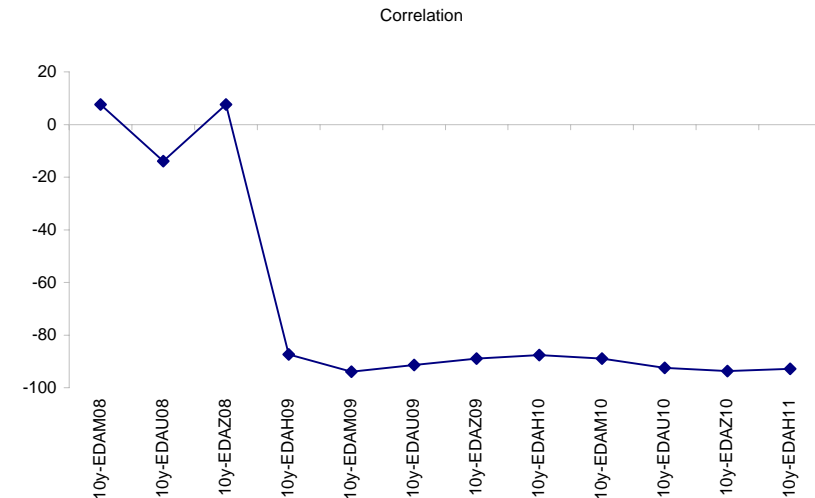
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as				10Y Duration	Spread Duration	
EDAM	EDAU	EDAZ	EDAH			
EDAM08	0.112	8.11	8.00	10y-EDAM08		
EDAU08	0.361	8.11	7.75	10y-EDAU08		
EDAZ08	0.610	8.11	7.50	10y-EDAZ08		
EDAH09	0.860	8.11	7.25	10y-EDAH09		
EDAM09	1.109	8.11	7.01	10y-EDAM09		
EDAU09	1.358	8.11	6.76	10y-EDAU09		
EDAZ09	1.608	8.11	6.51	10y-EDAZ09		
EDAH10	1.857	8.11	6.26	10y-EDAH10		
EDAM10	2.106	8.11	6.01	10y-EDAM10		
EDAU10	2.356	8.11	5.76	10y-EDAU10		
EDAZ10	2.605	8.11	5.51	10y-EDAZ10		
EDAH11	2.854	8.11	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.

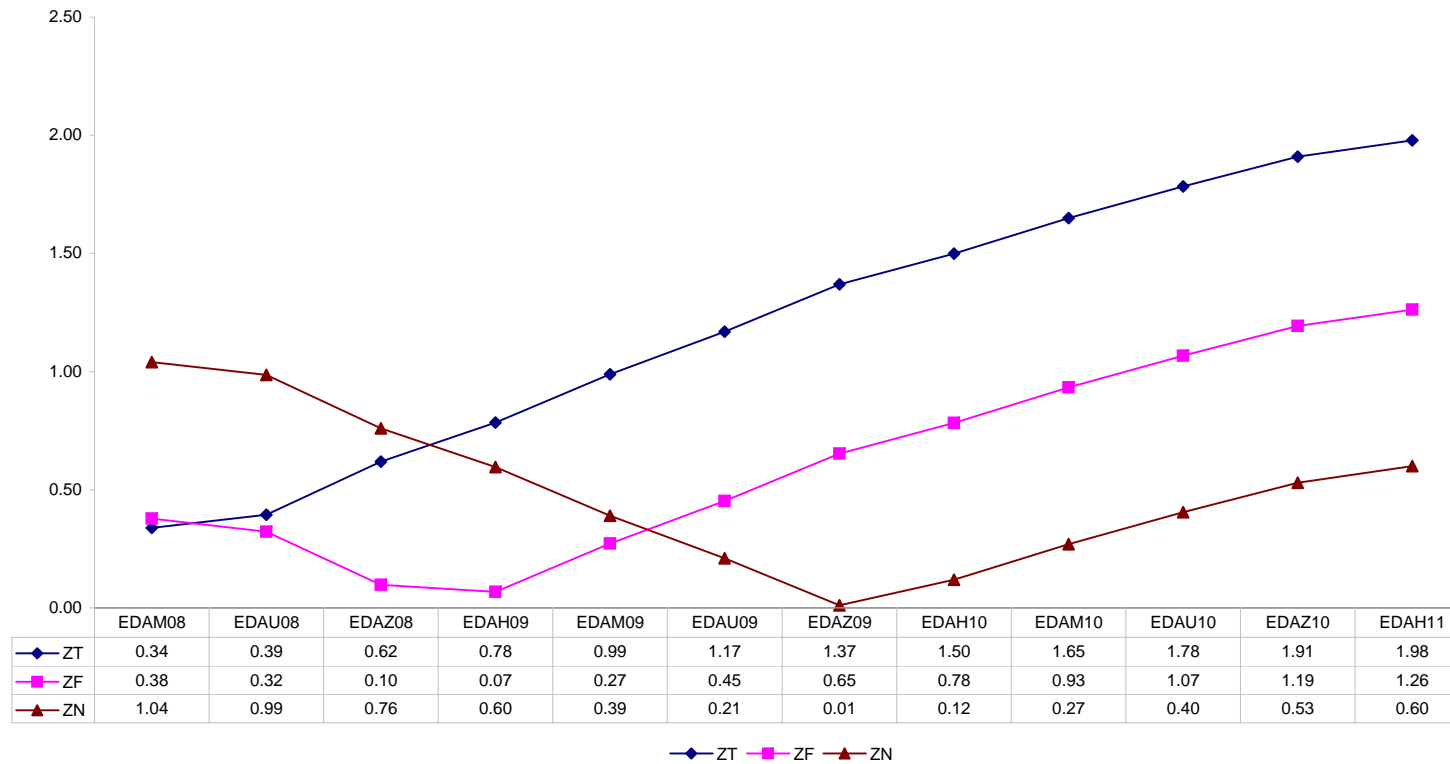
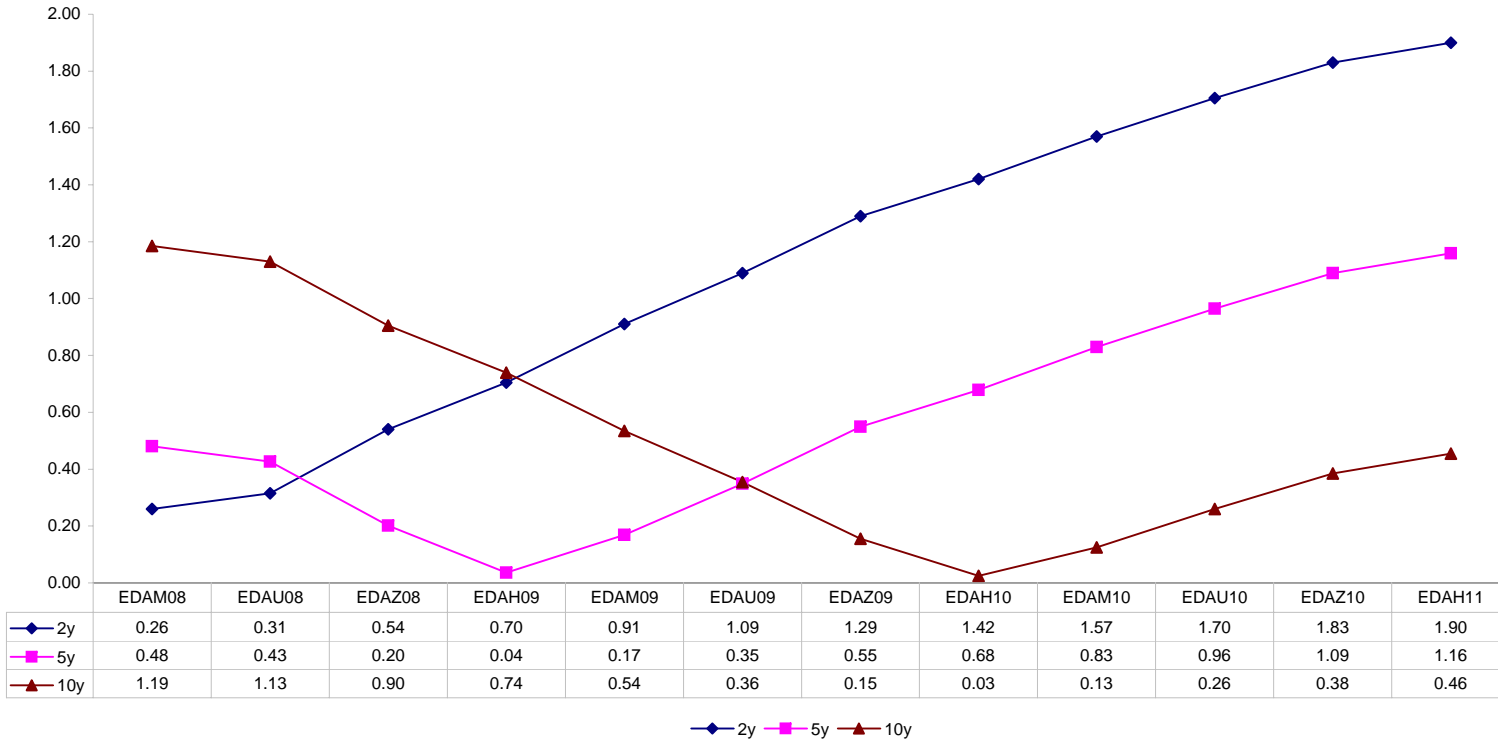
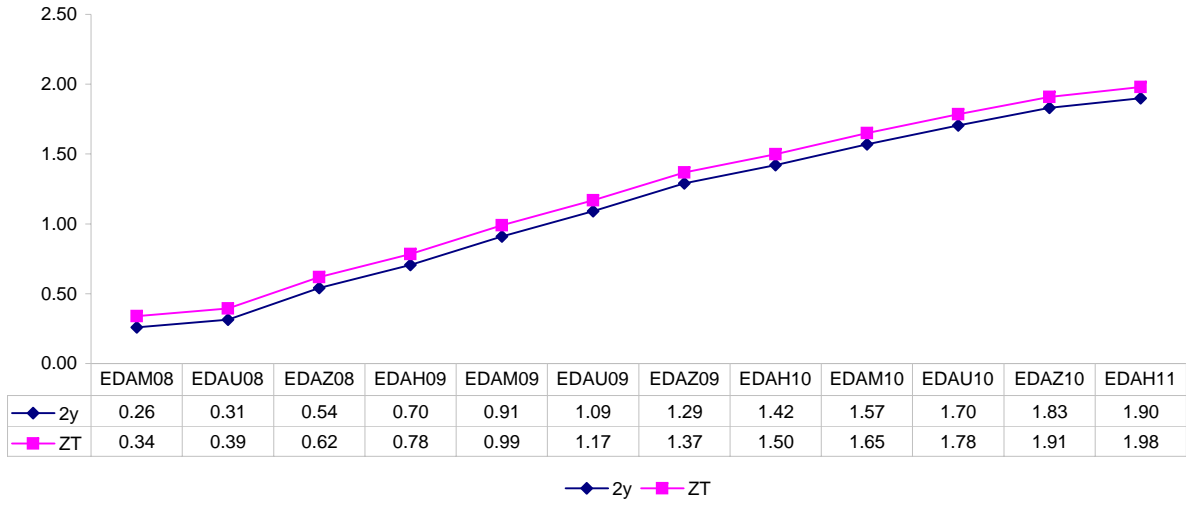


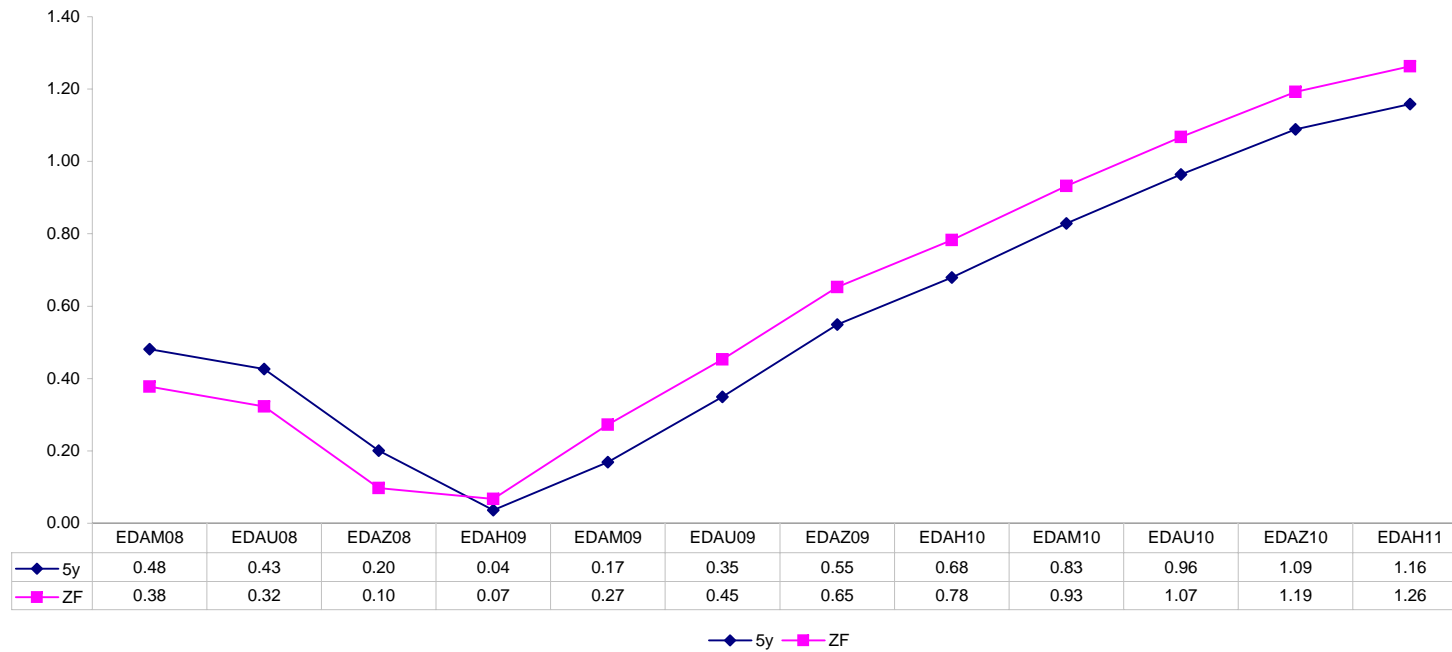
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



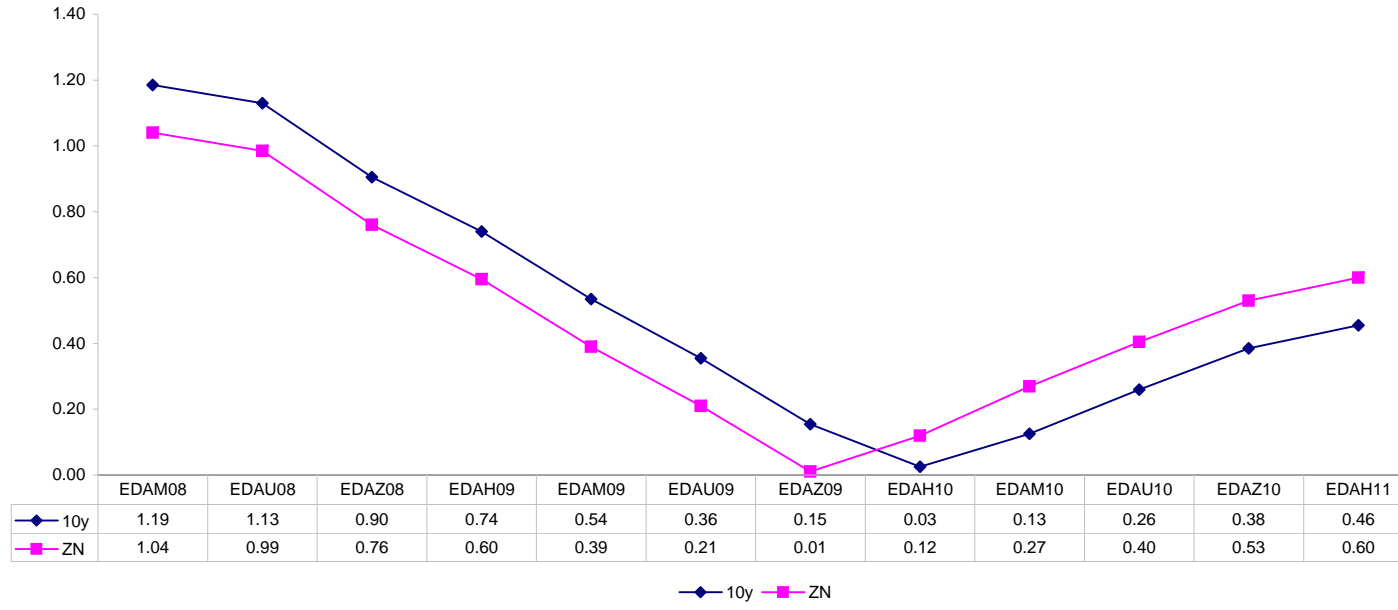
2y Basis TED Curve



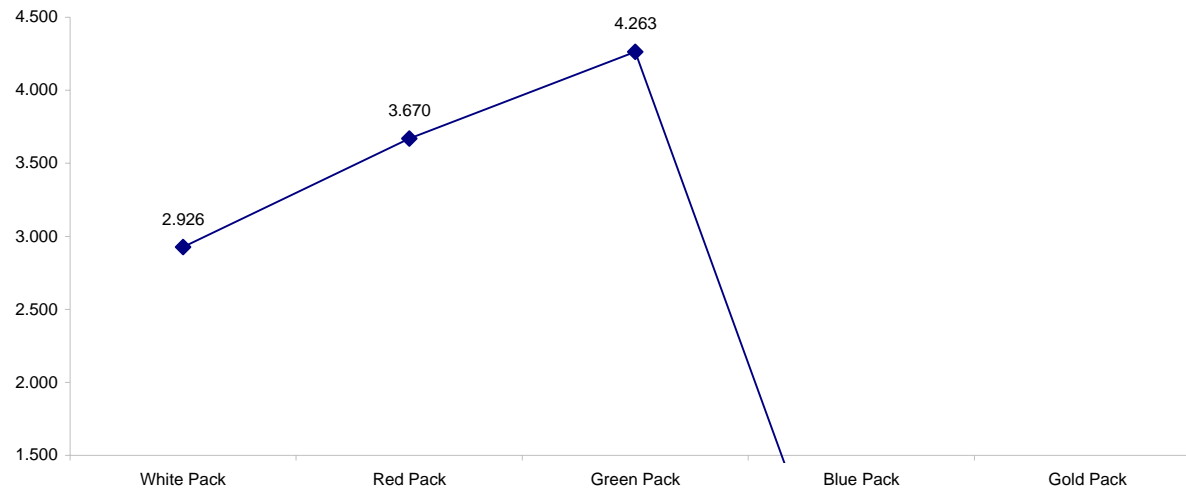
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.926	-1.875	9713.500
Red Pack	3.670	-1.875	9641.250
Green Pack	4.263	-2.750	9583.875
Blue Pack		-2.875	9549.250
Gold Pack		-1.250	9526.000



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

