

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

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Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	105.7500	105.240	2.495	1.75
ZF	111.1313	111.042	3.132	3.89
ZN	114.5313	114.170	3.764	5.84
2y	99.178	99.0570	2.546	1.90
5y	99.506	99.1620	3.232	4.48
10y	99.500	99.1600	3.934	8.08

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.230	2.770	32	0.087	JUN
EDAU08	97.100	2.900	123	0.336	SEP White
EDAZ08	96.845	3.155	214	0.586	DEC Pack
EDAH09	96.670	3.330	305	0.835	MAR
EDAM09	96.480	3.520	396	1.084	JUN
EDAU09	96.285	3.715	487	1.334	SEP Red Pack
EDAZ09	96.095	3.905	578	1.583	DEC
EDAH10	95.975	4.025	669	1.832	MAR
EDAM10	95.845	4.155	760	2.082	JUN
EDAU10	95.735	4.265	851	2.331	SEP Green
EDAZ10	95.615	4.385	942	2.580	DEC Pack
EDAH11	95.545	4.455	1033	2.829	MAR
EDAM11	95.465	4.535	1124	3.079	JUN
EDAU11	95.405	4.595	1222	3.347	SEP Blue Pack
EDAZ11	95.325	4.675	1313	3.597	DEC
EDAH12	95.270	4.730	1404	3.846	MAR
EDAM12	95.205	4.795	1495	4.095	JUN
EDAU12	95.235	4.765	1586	4.345	SEP Gold Pack
EDAZ12	95.095	4.905	1677	4.594	DEC
EDAH13	95.060	4.940	1768	4.843	MAR

	Last Yield	Net Yield	Last Price	
White Pack	3.105	-0.500	9696.125	Pack Prices
Red Pack	3.881	-0.750	9620.875	
Green Pack	4.423	-0.750	9568.500	
Blue Pack	4.753	-0.125	9536.625	
Gold Pack	4.979	1.375	9514.875	

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.

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Correlations (Important)

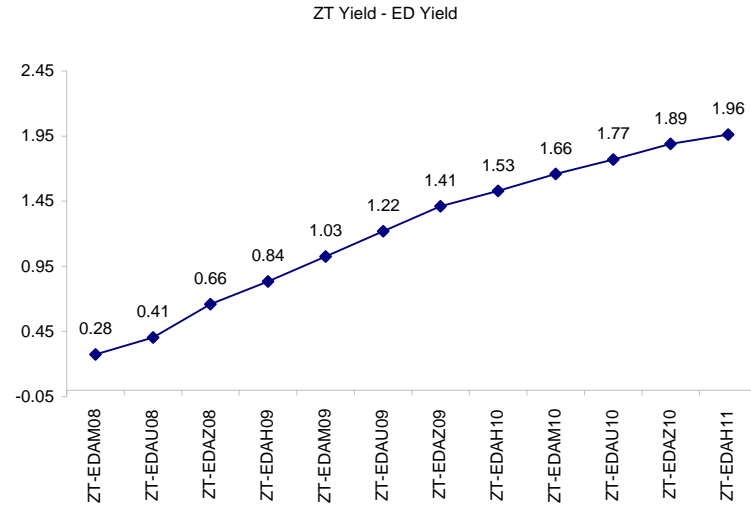
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based on yield than price.

ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.520	0.28	ZT-EDAM08	87.799
EDAU08	8.650	0.41	ZT-EDAU08	91.612
EDAZ08	8.905	0.66	ZT-EDAZ08	97.635
EDAH09	9.080	0.84	ZT-EDAH09	99.388
EDAM09	9.270	1.03	ZT-EDAM09	99.543
EDAU09	9.465	1.22	ZT-EDAU09	99.518
EDAZ09	9.655	1.41	ZT-EDAZ09	99.401
EDAH10	9.775	1.53	ZT-EDAH10	99.333
EDAM10	9.905	1.66	ZT-EDAM10	98.758
EDAU10	10.015	1.77	ZT-EDAU10	97.692
EDAZ10	10.135	1.89	ZT-EDAZ10	95.570
EDAH11	10.205	1.96	ZT-EDAH11	93.787

Price = Outright Decimal Price - Euro Contract Price

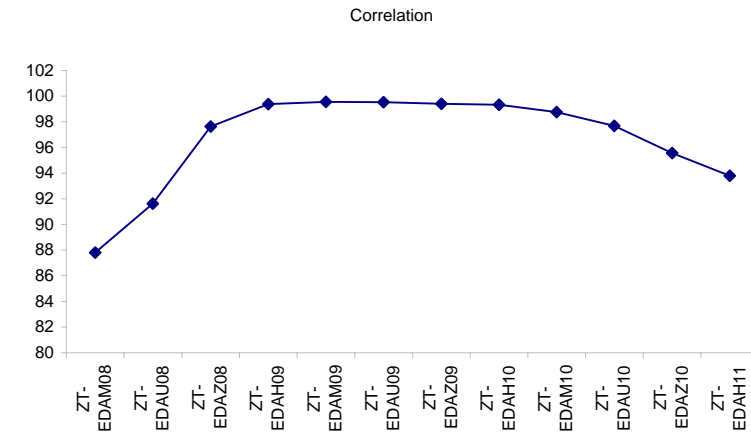
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				
	ZT Duration	Spread Duration		
EDAM08	0.087	1.75	1.67	ZT-EDAM08
EDAU08	0.336	1.75	1.42	ZT-EDAU08
EDAZ08	0.586	1.75	1.17	ZT-EDAZ08
EDAH09	0.835	1.75	0.92	ZT-EDAH09
EDAM09	1.084	1.75	0.67	ZT-EDAM09
EDAU09	1.334	1.75	0.42	ZT-EDAU09
EDAZ09	1.583	1.75	0.17	ZT-EDAZ09
EDAH10	1.832	1.75	(0.08)	ZT-EDAH10
EDAM10	2.082	1.75	(0.33)	ZT-EDAM10
EDAU10	2.331	1.75	(0.58)	ZT-EDAU10
EDAZ10	2.580	1.75	(0.83)	ZT-EDAZ10
EDAH11	2.829	1.75	(1.08)	ZT-EDAH11

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

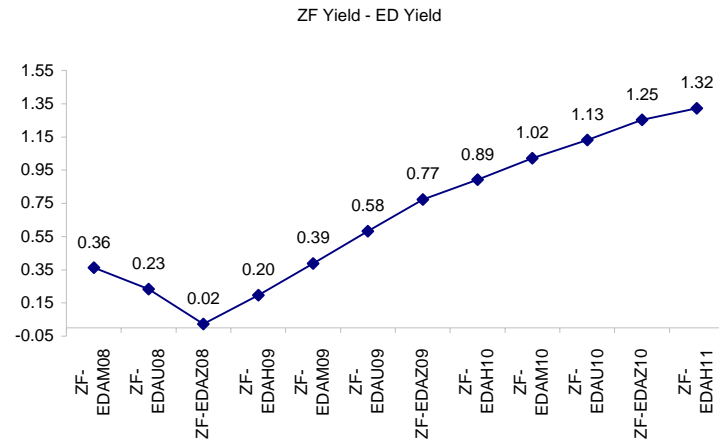


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	13.901	0.36	ZF-EDAM08	73.377
EDAU08	14.031	0.23	ZF-EDAU08	79.095
EDAZ08	14.286	0.02	ZF-EDAZ08	89.091
EDAH09	14.461	0.20	ZF-EDAH09	94.307
EDAM09	14.651	0.39	ZF-EDAM09	96.643
EDAU09	14.846	0.58	ZF-EDAU09	96.749
EDAZ09	15.036	0.77	ZF-EDAZ09	97.038
EDAH10	15.156	0.89	ZF-EDAH10	97.284
EDAM10	15.286	1.02	ZF-EDAM10	98.136
EDAU10	15.396	1.13	ZF-EDAU10	98.437
EDAZ10	15.516	1.25	ZF-EDAZ10	98.321
EDAH11	15.586	1.32	ZF-EDAH11	96.519

Price = Outright Decimal Price - Euro Contract Price

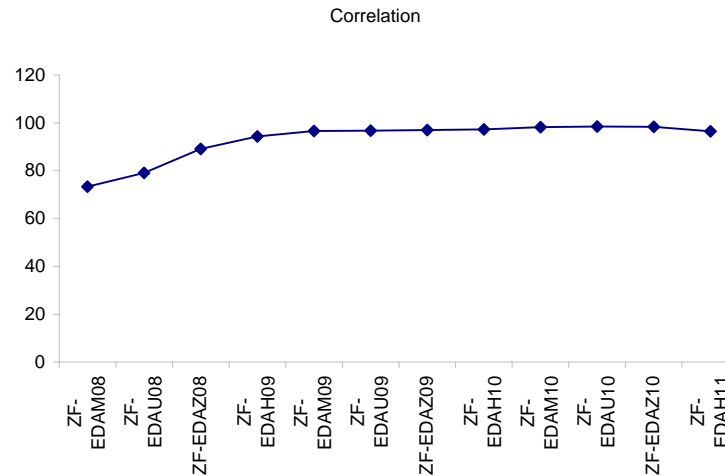
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.087	3.89	3.80	ZF-EDAM08	
EDAU08	0.336	3.89	3.55	ZF-EDAU08	
EDAZ08	0.586	3.89	3.31	ZF-EDAZ08	
EDAH09	0.835	3.89	3.06	ZF-EDAH09	
EDAM09	1.084	3.89	2.81	ZF-EDAM09	
EDAU09	1.334	3.89	2.56	ZF-EDAU09	
EDAZ09	1.583	3.89	2.31	ZF-EDAZ09	
EDAH10	1.832	3.89	2.06	ZF-EDAH10	
EDAM10	2.082	3.89	1.81	ZF-EDAM10	
EDAU10	2.331	3.89	1.56	ZF-EDAU10	
EDAZ10	2.580	3.89	1.31	ZF-EDAZ10	
EDAH11	2.829	3.89	1.06	ZF-EDAH11	

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

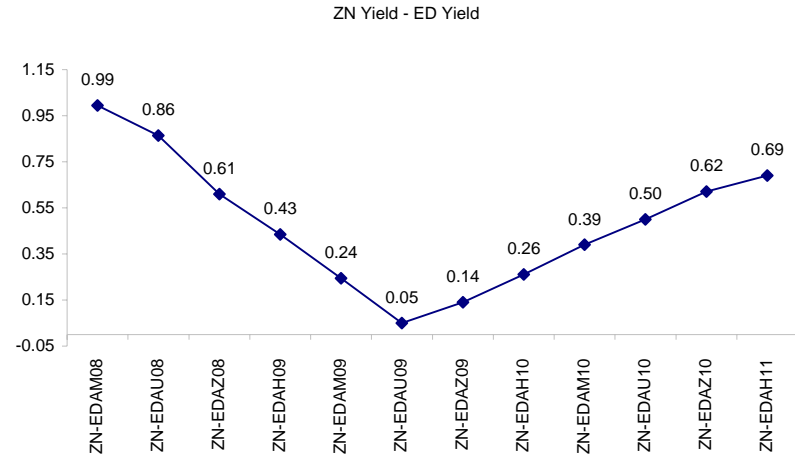


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	17.301	0.99	ZN-EDAM08	67.912
EDAU08	17.431	0.86	ZN-EDAU08	73.772
EDAZ08	17.686	0.61	ZN-EDAZ08	84.054
EDAH09	17.861	0.43	ZN-EDAH09	90.001
EDAM09	18.051	0.24	ZN-EDAM09	92.678
EDAU09	18.246	0.05	ZN-EDAU09	92.834
EDAZ09	18.436	0.14	ZN-EDAZ09	93.212
EDAH10	18.556	0.26	ZN-EDAH10	97.284
EDAM10	18.686	0.39	ZN-EDAM10	98.136
EDAU10	18.796	0.50	ZN-EDAU10	98.437
EDAZ10	18.916	0.62	ZN-EDAZ10	98.321
EDAH11	18.986	0.69	ZN-EDAH11	96.519

Price = Outright Decimal Price - Euro Contract Price

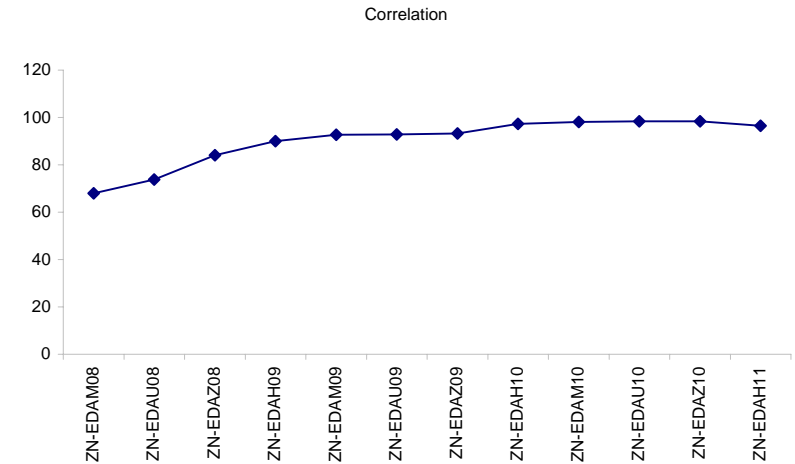
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAM08	0.087	5.84	5.75	ZN-EDAM08		
EDAU08	0.336	5.84	5.50	ZN-EDAU08		
EDAZ08	0.586	5.84	5.25	ZN-EDAZ08		
EDAH09	0.835	5.84	5.00	ZN-EDAH09		
EDAM09	1.084	5.84	4.75	ZN-EDAM09		
EDAU09	1.334	5.84	4.50	ZN-EDAU09		
EDAZ09	1.583	5.84	4.25	ZN-EDAZ09		
EDAH10	1.832	5.84	4.00	ZN-EDAH10		
EDAM10	2.082	5.84	3.75	ZN-EDAM10		
EDAU10	2.331	5.84	3.50	ZN-EDAU10		
EDAZ10	2.580	5.84	3.25	ZN-EDAZ10		
EDAH11	2.829	5.84	3.01	ZN-EDAH11		

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

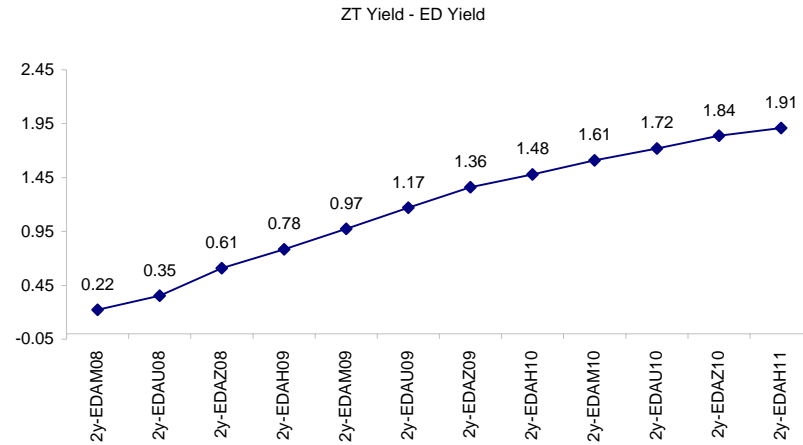


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	1.948	0.22	2y-EDAM08	-83.975
EDAU08	2.078	0.35	2y-EDAU08	-87.520
EDAZ08	2.333	0.61	2y-EDAZ08	-95.122
EDAH09	2.508	0.78	2y-EDAH09	-97.591
EDAM09	2.698	0.97	2y-EDAM09	-98.139
EDAU09	2.893	1.17	2y-EDAU09	-97.960
EDAZ09	3.083	1.36	2y-EDAZ09	-97.890
EDAH10	3.203	1.48	2y-EDAH10	-97.653
EDAM10	3.333	1.61	2y-EDAM10	-96.978
EDAU10	3.443	1.72	2y-EDAU10	-95.631
EDAZ10	3.563	1.84	2y-EDAZ10	-93.157
EDAH11	3.633	1.91	2y-EDAH11	-90.676

Price = Outright Decimal Price - Euro Contract Price

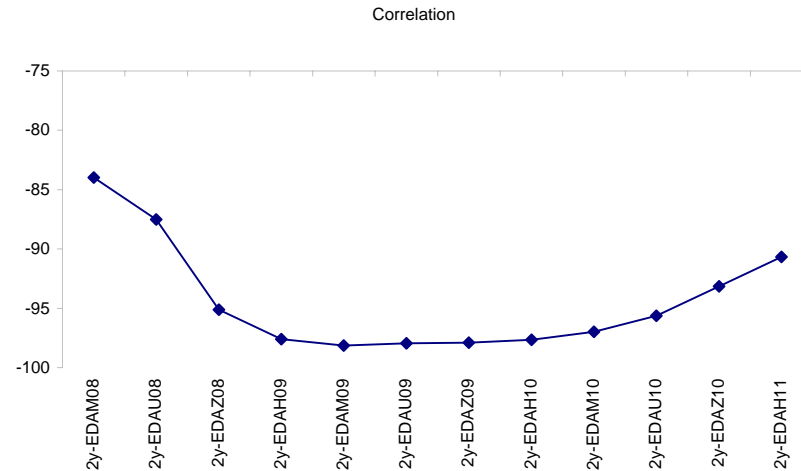
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAM08	0.087	1.90	1.81	2y-EDAM08	
EDAU08	0.336	1.90	1.56	2y-EDAU08	
EDAZ08	0.586	1.90	1.32	2y-EDAZ08	
EDAH09	0.835	1.90	1.07	2y-EDAH09	
EDAM09	1.084	1.90	0.82	2y-EDAM09	
EDAU09	1.334	1.90	0.57	2y-EDAU09	
EDAZ09	1.583	1.90	0.32	2y-EDAZ09	
EDAH10	1.832	1.90	0.07	2y-EDAH10	
EDAM10	2.082	1.90	(0.18)	2y-EDAM10	
EDAU10	2.331	1.90	(0.43)	2y-EDAU10	
EDAZ10	2.580	1.90	(0.68)	2y-EDAZ10	
EDAH11	2.829	1.90	(0.93)	2y-EDAH11	

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

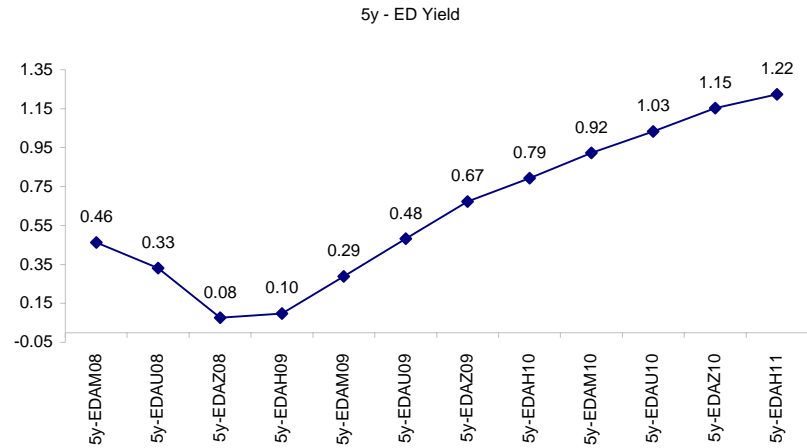


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.276	0.46	5y-EDAM08	-71.460
EDAU08	2.406	0.33	5y-EDAU08	-76.690
EDAZ08	2.661	0.08	5y-EDAZ08	-71.460
EDAH09	2.836	0.10	5y-EDAH09	-92.765
EDAM09	3.026	0.29	5y-EDAM09	-94.913
EDAU09	3.221	0.48	5y-EDAU09	-94.710
EDAZ09	3.411	0.67	5y-EDAZ09	-94.971
EDAH10	3.531	0.79	5y-EDAH10	-95.086
EDAM10	3.661	0.92	5y-EDAM10	-95.725
EDAU10	3.771	1.03	5y-EDAU10	-95.676
EDAZ10	3.891	1.15	5y-EDAZ10	-95.019
EDAH11	3.961	1.22	5y-EDAH11	-92.628

Price = Outright Decimal Price - Euro Contract Price

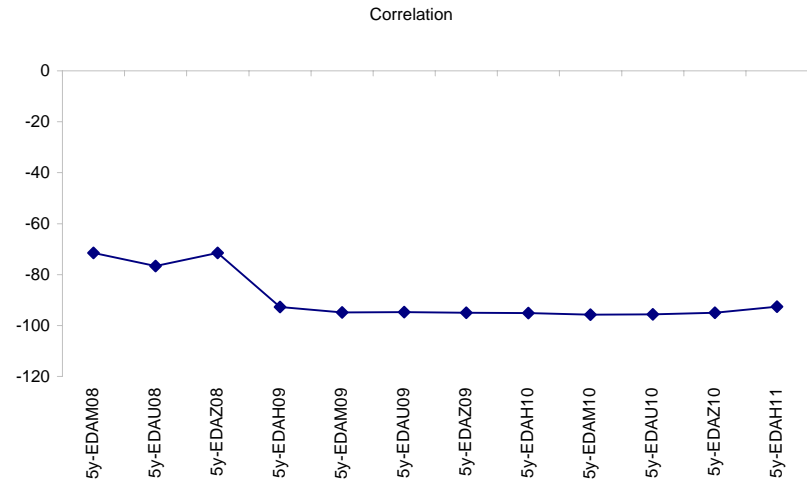
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.087	4.48	4.40	5y-EDAM08
EDAU08	0.336	4.48	4.15	5y-EDAU08
EDAZ08	0.586	4.48	3.90	5y-EDAZ08
EDAH09	0.835	4.48	3.65	5y-EDAH09
EDAM09	1.084	4.48	3.40	5y-EDAM09
EDAU09	1.334	4.48	3.15	5y-EDAU09
EDAZ09	1.583	4.48	2.90	5y-EDAZ09
EDAH10	1.832	4.48	2.65	5y-EDAH10
EDAM10	2.082	4.48	2.40	5y-EDAM10
EDAU10	2.331	4.48	2.15	5y-EDAU10
EDAZ10	2.580	4.48	1.90	5y-EDAZ10
EDAH11	2.829	4.48	1.66	5y-EDAH11

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

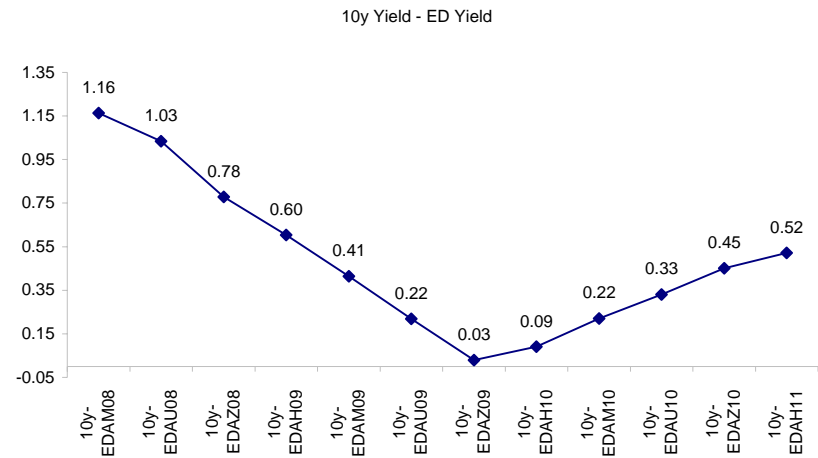


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.276	1.16	10y-EDAM08	-73.896
EDAU08	2.406	1.03	10y-EDAU08	-78.697
EDAZ08	2.661	0.78	10y-EDAZ08	-73.896
EDAH09	2.836	0.60	10y-EDAH09	-90.327
EDAM09	3.026	0.41	10y-EDAM09	-90.822
EDAU09	3.221	0.22	10y-EDAU09	-90.287
EDAZ09	3.411	0.03	10y-EDAZ09	-90.412
EDAH10	3.531	0.09	10y-EDAH10	-91.071
EDAM10	3.661	0.22	10y-EDAM10	-92.558
EDAU10	3.771	0.33	10y-EDAU10	-94.016
EDAZ10	3.891	0.45	10y-EDAZ10	-95.143
EDAH11	3.961	0.52	10y-EDAH11	-95.029

Price = Outright Decimal Price - Euro Contract Price

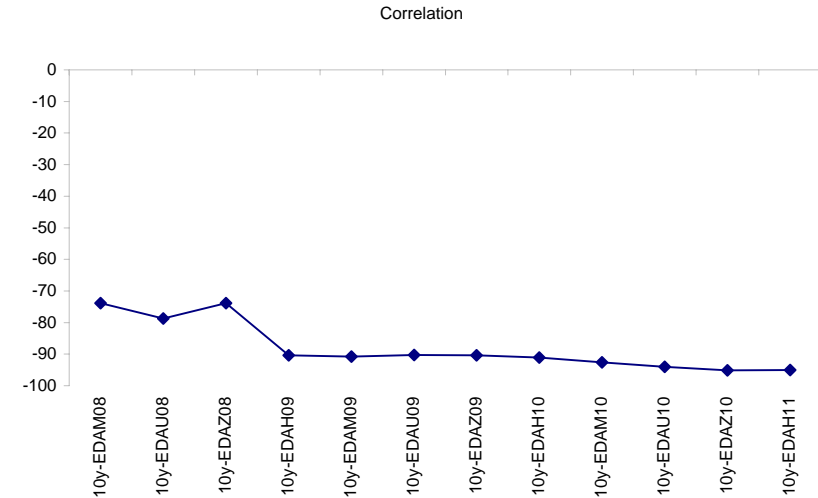
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAM08	0.087	8.08	7.99	10y-EDAM08
EDAU08	0.336	8.08	7.74	10y-EDAU08
EDAZ08	0.586	8.08	7.49	10y-EDAZ08
EDAH09	0.835	8.08	7.25	10y-EDAH09
EDAM09	1.084	8.08	7.00	10y-EDAM09
EDAU09	1.334	8.08	6.75	10y-EDAU09
EDAZ09	1.583	8.08	6.50	10y-EDAZ09
EDAH10	1.832	8.08	6.25	10y-EDAH10
EDAM10	2.082	8.08	6.00	10y-EDAM10
EDAU10	2.331	8.08	5.75	10y-EDAU10
EDAZ10	2.580	8.08	5.50	10y-EDAZ10
EDAH11	2.829	8.08	5.25	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.

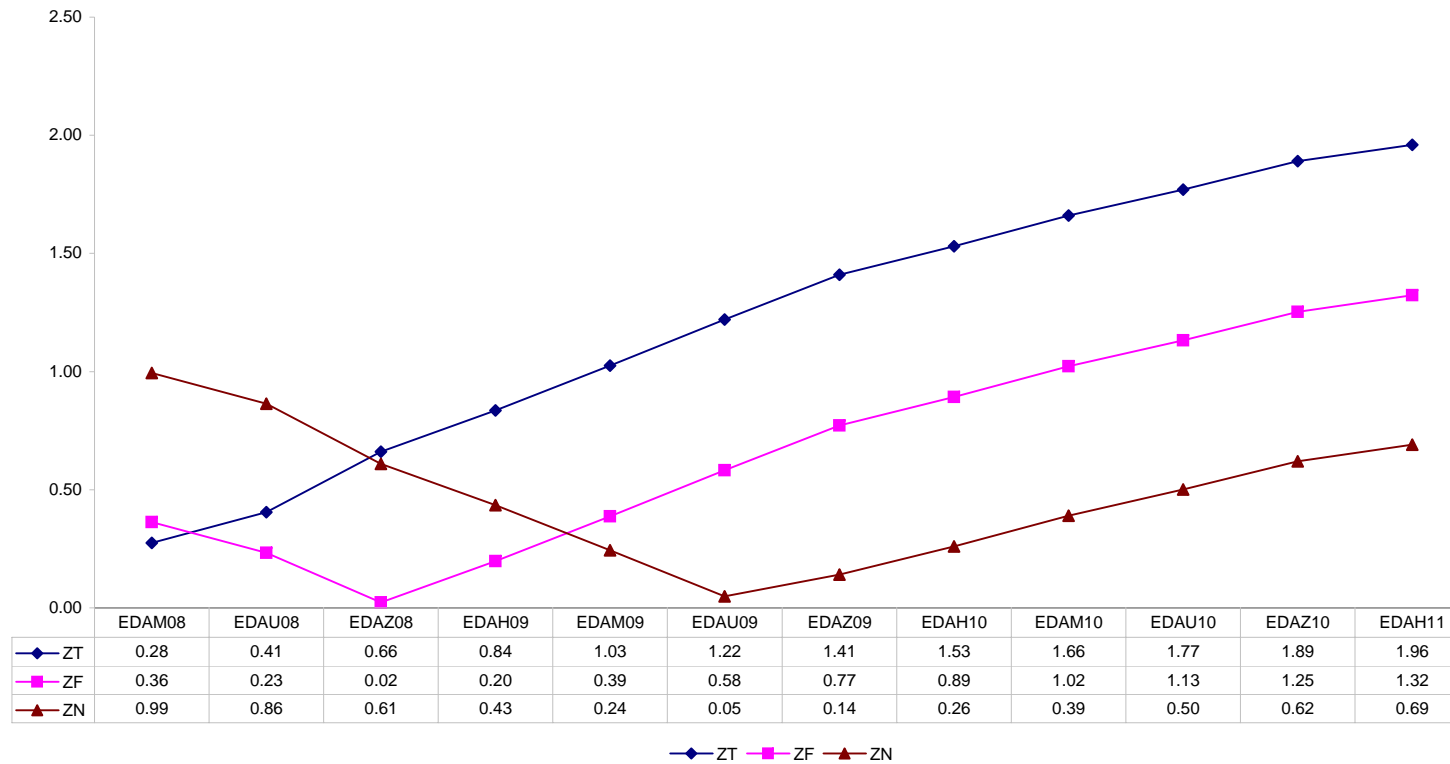
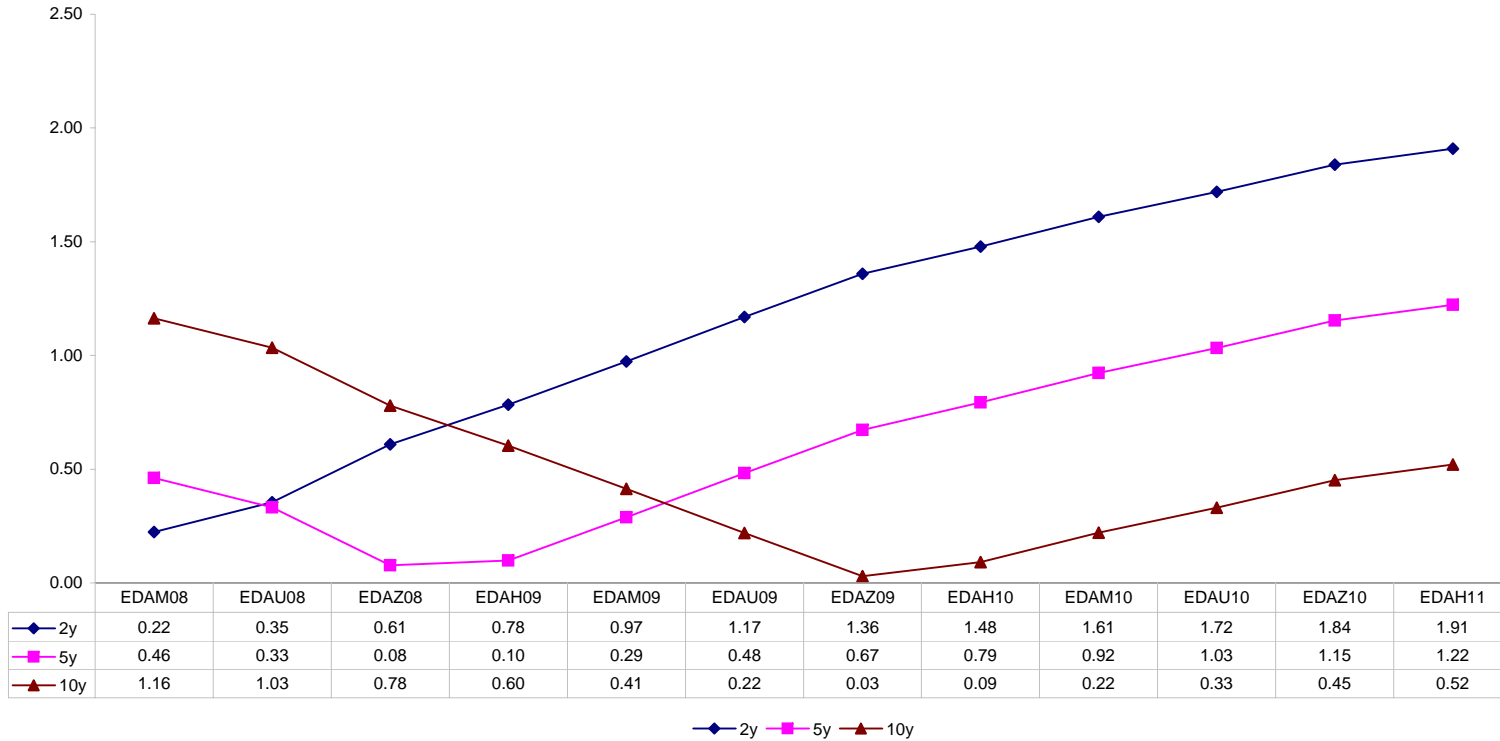
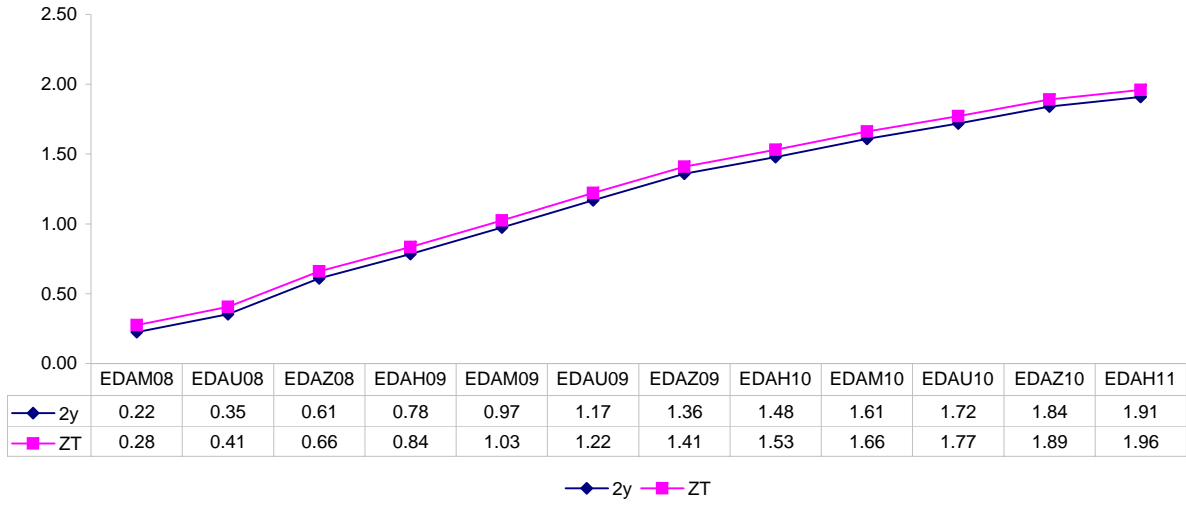


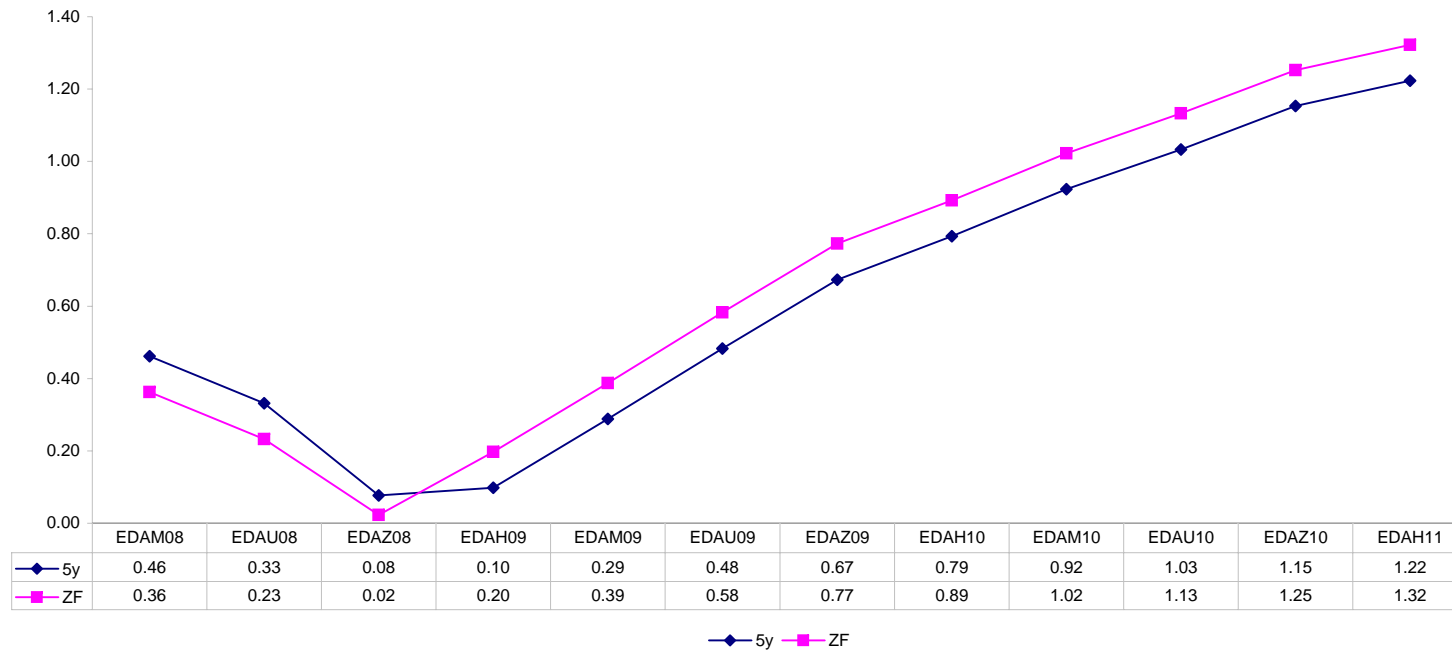
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



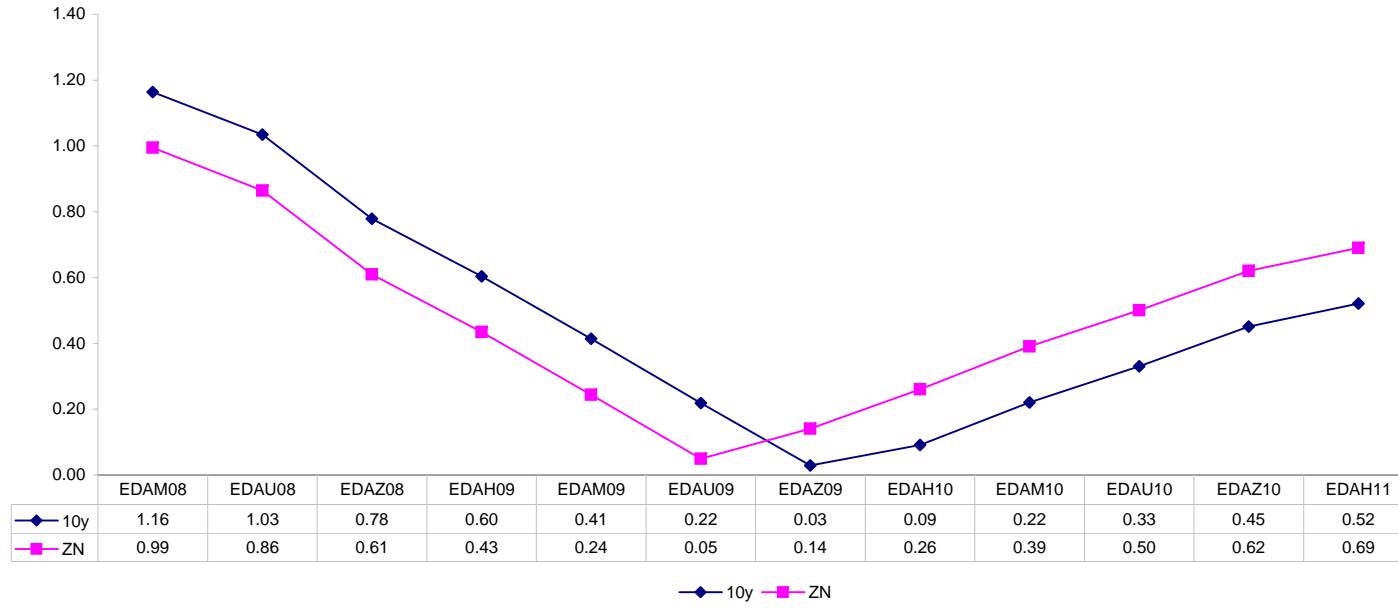
2y Basis TED Curve



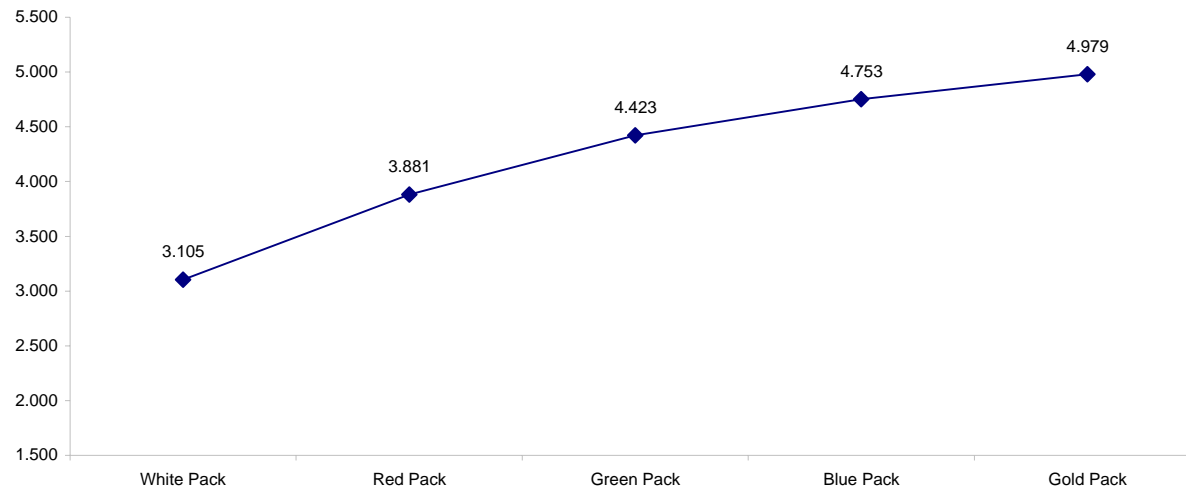
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	3.105	-0.500	9696.125
Red Pack	3.881	-0.750	9620.875
Green Pack	4.423	-0.750	9568.500
Blue Pack	4.753	-0.125	9536.625
Gold Pack	4.979	1.375	9514.875



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

