

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	108.2969	108.095	0.615	1.92
ZF	118.6469	118.207	1.242	1.24
ZN	126.9219	126.295	2.225	6.47
2y	100.813	100.2600	0.833	1.96
5y	102.250	102.0800	1.527	4.74
10y	110.422	110.1350	2.556	8.36

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	97.960	2.040	11	0.029	DEC	
EDAH09	98.225	1.775	102	0.279	MAR	White Pack
EDAM09	98.275	1.725	193	0.528	JUN	
EDAU09	98.245	1.755	284	0.777	SEP	
EDAZ09	98.135	1.865	375	1.027	DEC	
EDAH10	98.115	1.885	466	1.276	MAR	Red Pack
EDAM10	98.010	1.990	557	1.525	JUN	
EDAU10	97.890	2.110	648	1.775	SEP	
EDAZ10	97.700	2.300	739	2.024	DEC	
EDAH11	97.590	2.410	830	2.273	MAR	Green Pack
EDAM11	97.415	2.585	921	2.523	JUN	
EDAU11	97.265	2.735	1019	2.791	SEP	
EDAZ11	97.080	2.920	1110	3.040	DEC	
EDAH12	97.080	2.920	1201	3.290	MAR	Blue Pack
EDAM12	96.865	3.135	1292	3.539	JUN	
EDAU12	96.940	3.060	1383	3.788	SEP	
EDAZ12	96.680	3.320	1474	4.038	DEC	
EDAH13	96.680	3.320	1565	4.287	MAR	Gold Pack
EDAM13	96.590	3.410	1656	4.536	JUN	
EDZU13	96.320	3.680	1838	5.035	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.858	3.250	9817.625	
Red Pack	2.000	9.625	9803.750	Pack Prices
Green Pack	2.558	13.000	9749.250	
Blue Pack		12.000	9698.375	
Gold Pack		0.000	9663.125	

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)

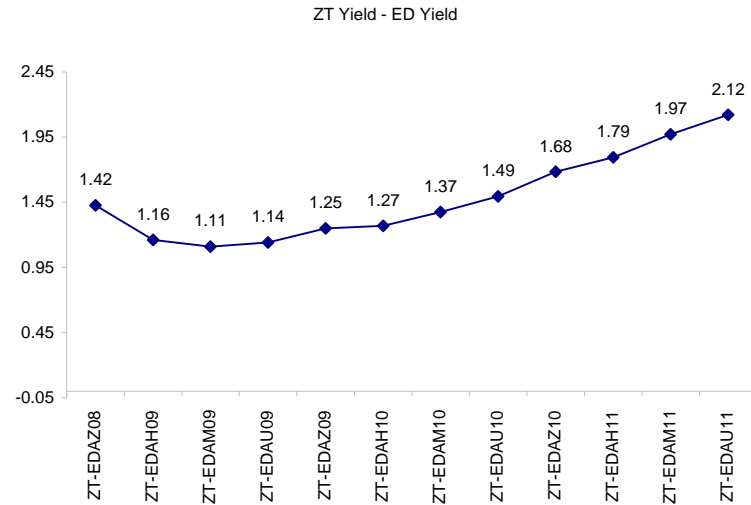
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.337	1.42	ZT-EDAZ08	-40.335
EDAH09	10.072	1.16	ZT-EDAH09	78.403
EDAM09	10.022	1.11	ZT-EDAM09	73.861
EDAU09	10.052	1.14	ZT-EDAU09	78.403
EDAZ09	10.162	1.25	ZT-EDAZ09	81.644
EDAH10	10.182	1.27	ZT-EDAH10	83.221
EDAM10	10.287	1.37	ZT-EDAM10	83.752
EDAU10	10.407	1.49	ZT-EDAU10	81.662
EDAZ10	10.597	1.68	ZT-EDAZ10	79.528
EDAH11	10.707	1.79	ZT-EDAH11	79.673
EDAM11	10.882	1.97	ZT-EDAM11	79.947
EDAU11	11.032	2.12	ZT-EDAU11	79.660

Price = Outright Decimal Price - Euro Contract Price

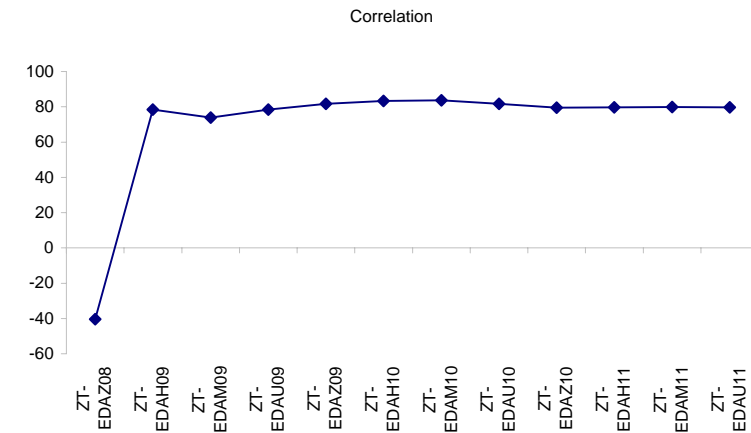
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZT Duration	Spread Duration	
EDAZ08	0.029	1.92	1.89	ZT-EDAZ08		
EDAH09	0.279	1.92	1.64	ZT-EDAH09		
EDAM09	0.528	1.92	1.39	ZT-EDAM09		
EDAU09	0.777	1.92	1.14	ZT-EDAU09		
EDAZ09	1.027	1.92	0.90	ZT-EDAZ09		
EDAH10	1.276	1.92	0.65	ZT-EDAH10		
EDAM10	1.525	1.92	0.40	ZT-EDAM10		
EDAU10	1.775	1.92	0.15	ZT-EDAU10		
EDAZ10	2.024	1.92	(0.10)	ZT-EDAZ10		
EDAH11	2.273	1.92	(0.35)	ZT-EDAH11		
EDAM11	2.523	1.92	(0.60)	ZT-EDAM11		
EDAU11	2.791	1.92	(0.87)	ZT-EDAU11		

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

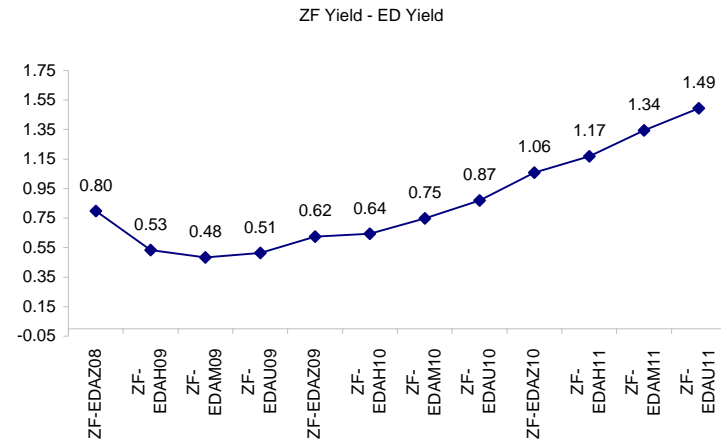


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	20.687	0.80	ZF-EDAZ08	-11.860
EDAH09	20.422	0.53	ZF-EDAH09	88.643
EDAM09	20.372	0.48	ZF-EDAM09	93.983
EDAU09	20.402	0.51	ZF-EDAU09	96.238
EDAZ09	20.512	0.62	ZF-EDAZ09	96.280
EDAH10	20.532	0.64	ZF-EDAH10	95.948
EDAM10	20.637	0.75	ZF-EDAM10	95.978
EDAU10	20.757	0.87	ZF-EDAU10	97.331
EDAZ10	20.947	1.06	ZF-EDAZ10	98.601
EDAH11	21.057	1.17	ZF-EDAH11	98.649
EDAM11	21.232	1.34	ZF-EDAM11	97.897
EDAU11	21.382	1.49	ZF-EDAU11	97.643

Price = Outright Decimal Price - Euro Contract Price

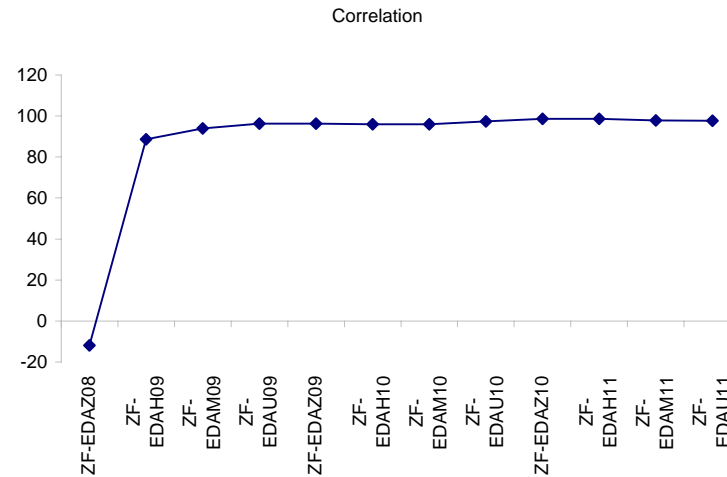
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	0.029	1.24	1.21	ZF-EDAZ08		
EDAH09	0.279	1.24	0.96	ZF-EDAH09		
EDAM09	0.528	1.24	0.71	ZF-EDAM09		
EDAU09	0.777	1.24	0.46	ZF-EDAU09		
EDAZ09	1.027	1.24	0.21	ZF-EDAZ09		
EDAH10	1.276	1.24	(0.03)	ZF-EDAH10		
EDAM10	1.525	1.24	(0.28)	ZF-EDAM10		
EDAU10	1.775	1.24	(0.53)	ZF-EDAU10		
EDAZ10	2.024	1.24	(0.78)	ZF-EDAZ10		
EDAH11	2.273	1.24	(1.03)	ZF-EDAH11		
EDAM11	2.523	1.24	(1.28)	ZF-EDAM11		
EDAU11	2.791	1.24	(1.55)	ZF-EDAU11		

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

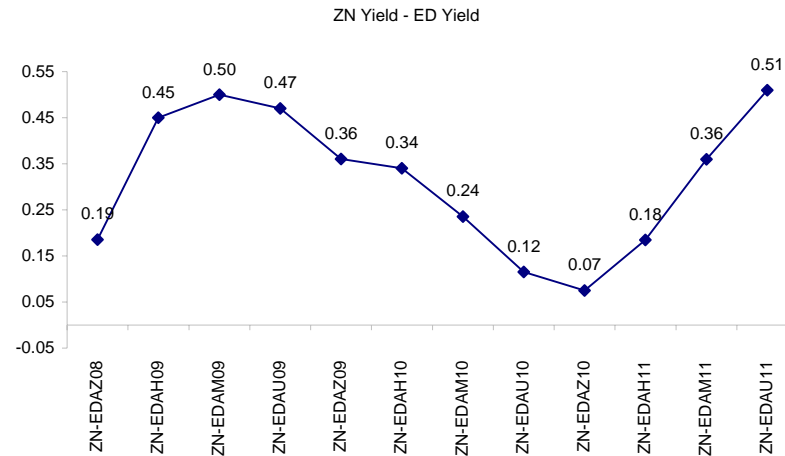


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	28.962	0.19	ZN-EDAZ08	-24.248
EDAH09	28.697	0.45	ZN-EDAH09	82.737
EDAM09	28.647	0.50	ZN-EDAM09	88.995
EDAU09	28.677	0.47	ZN-EDAU09	92.497
EDAZ09	28.787	0.36	ZN-EDAZ09	93.458
EDAH10	28.807	0.34	ZN-EDAH10	94.085
EDAM10	28.912	0.24	ZN-EDAM10	95.978
EDAU10	29.032	0.12	ZN-EDAU10	97.331
EDAZ10	29.222	0.07	ZN-EDAZ10	98.601
EDAH11	29.332	0.18	ZN-EDAH11	98.649
EDAM11	29.507	0.36	ZN-EDAM11	97.897
EDAU11	29.657	0.51	ZN-EDAU11	97.643

Price = Outright Decimal Price - Euro Contract Price

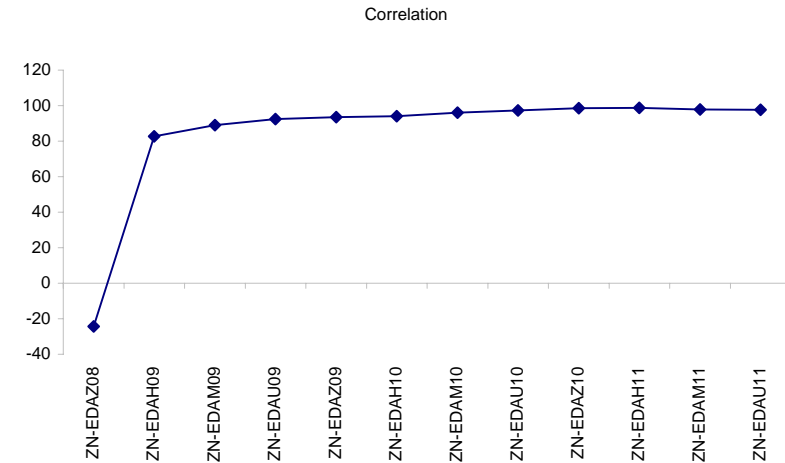
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.029	6.47	6.44	ZN-EDAZ08		
EDAH09	0.279	6.47	6.19	ZN-EDAH09		
EDAM09	0.528	6.47	5.94	ZN-EDAM09		
EDAU09	0.777	6.47	5.69	ZN-EDAU09		
EDAZ09	1.027	6.47	5.44	ZN-EDAZ09		
EDAH10	1.276	6.47	5.20	ZN-EDAH10		
EDAM10	1.525	6.47	4.95	ZN-EDAM10		
EDAU10	1.775	6.47	4.70	ZN-EDAU10		
EDAZ10	2.024	6.47	4.45	ZN-EDAZ10		
EDAH11	2.273	6.47	4.20	ZN-EDAH11		
EDAM11	2.523	6.47	3.95	ZN-EDAM11		
EDAU11	2.791	6.47	3.68	ZN-EDAU11		

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

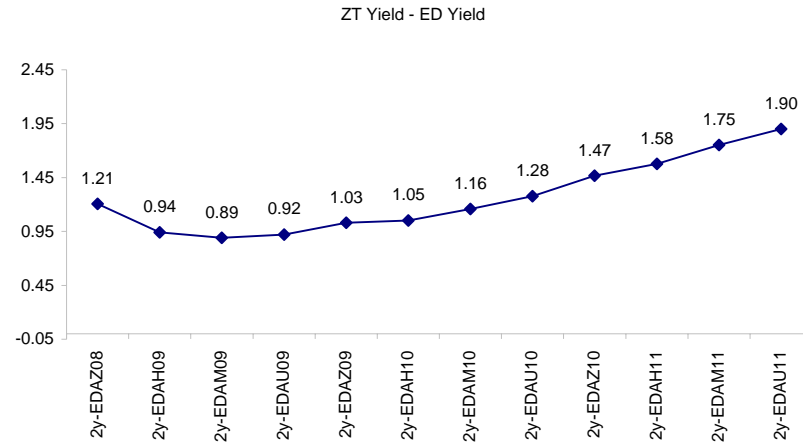


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.853	1.21	2y-EDAZ08	12.268
EDAH09	2.588	0.94	2y-EDAH09	-75.984
EDAM09	2.538	0.89	2y-EDAM09	-84.637
EDAU09	2.568	0.92	2y-EDAU09	-88.752
EDAZ09	2.678	1.03	2y-EDAZ09	-90.253
EDAH10	2.698	1.05	2y-EDAH10	-90.569
EDAM10	2.803	1.16	2y-EDAM10	-90.676
EDAU10	2.923	1.28	2y-EDAU10	-91.585
EDAZ10	3.113	1.47	2y-EDAZ10	-91.229
EDAH11	3.223	1.58	2y-EDAH11	-89.459
EDAM11	3.398	1.75	2y-EDAM11	-88.302
EDAU11	3.548	1.90	2y-EDAU11	-87.613

Price = Outright Decimal Price - Euro Contract Price

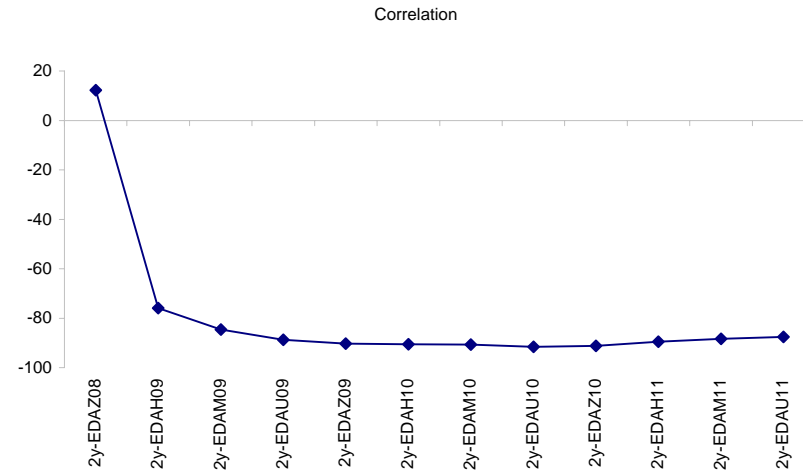
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.029	1.96	1.93	2y-EDAZ08	
EDAH09	0.279	1.96	1.68	2y-EDAH09	
EDAM09	0.528	1.96	1.43	2y-EDAM09	
EDAU09	0.777	1.96	1.18	2y-EDAU09	
EDAZ09	1.027	1.96	0.93	2y-EDAZ09	
EDAH10	1.276	1.96	0.68	2y-EDAH10	
EDAM10	1.525	1.96	0.43	2y-EDAM10	
EDAU10	1.775	1.96	0.18	2y-EDAU10	
EDAZ10	2.024	1.96	(0.06)	2y-EDAZ10	
EDAH11	2.273	1.96	(0.31)	2y-EDAH11	
EDAM11	2.523	1.96	(0.56)	2y-EDAM11	
EDAU11	2.791	1.96	(0.83)	2y-EDAU11	

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

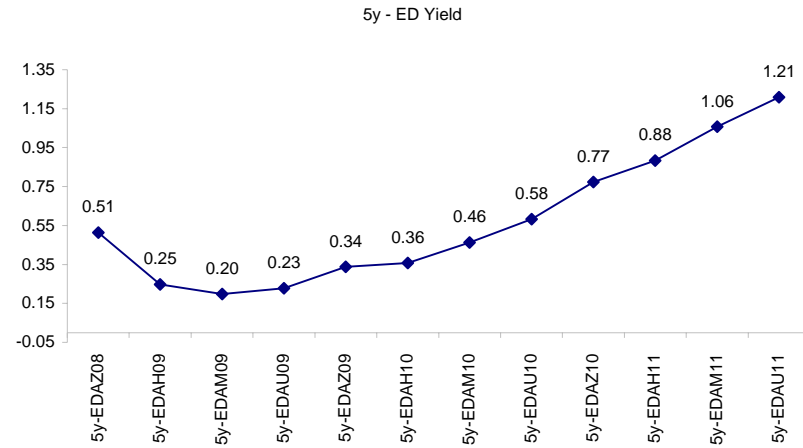


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	4.290	0.51	5y-EDAZ08	18.317
EDAH09	4.025	0.25	5y-EDAH09	-79.198
EDAM09	3.975	0.20	5y-EDAM09	-90.290
EDAU09	4.005	0.23	5y-EDAU09	-93.084
EDAZ09	4.115	0.34	5y-EDAZ09	-93.059
EDAH10	4.135	0.36	5y-EDAH10	-92.992
EDAM10	4.240	0.46	5y-EDAM10	-93.380
EDAU10	4.360	0.58	5y-EDAU10	-95.345
EDAZ10	4.550	0.77	5y-EDAZ10	-96.825
EDAH11	4.660	0.88	5y-EDAH11	-96.503
EDAM11	4.835	1.06	5y-EDAM11	-96.081
EDAU11	4.985	1.21	5y-EDAU11	-95.966

Price = Outright Decimal Price - Euro Contract Price

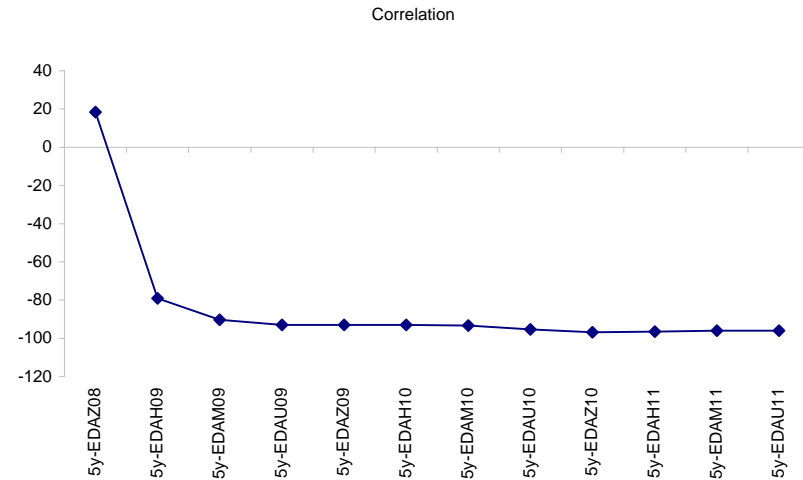
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAZ08	0.029	4.74	4.71	5y-EDAZ08
EDAH09	0.279	4.74	4.46	5y-EDAH09
EDAM09	0.528	4.74	4.21	5y-EDAM09
EDAU09	0.777	4.74	3.96	5y-EDAU09
EDAZ09	1.027	4.74	3.71	5y-EDAZ09
EDAH10	1.276	4.74	3.46	5y-EDAH10
EDAM10	1.525	4.74	3.21	5y-EDAM10
EDAU10	1.775	4.74	2.96	5y-EDAU10
EDAZ10	2.024	4.74	2.71	5y-EDAZ10
EDAH11	2.273	4.74	2.46	5y-EDAH11
EDAM11	2.523	4.74	2.21	5y-EDAM11
EDAU11	2.791	4.74	1.94	5y-EDAU11

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

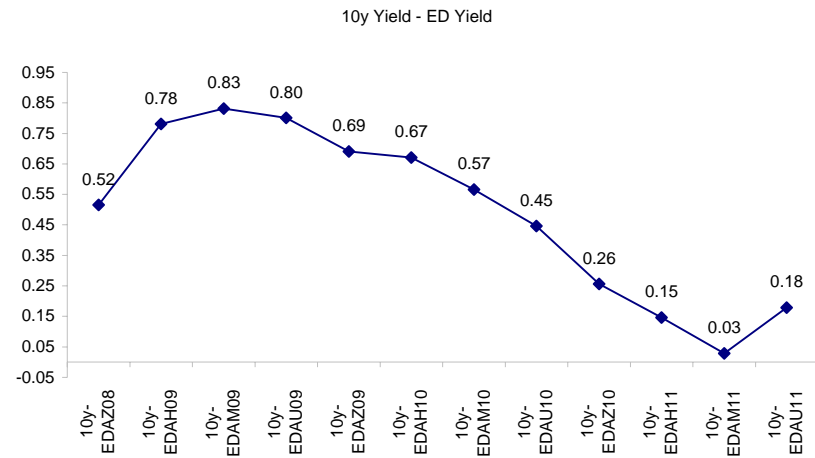


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	4.290	0.52	10y-EDAZ08	32.658
EDAH09	4.025	0.78	10y-EDAH09	-74.329
EDAM09	3.975	0.83	10y-EDAM09	-87.514
EDAU09	4.005	0.80	10y-EDAU09	-91.705
EDAZ09	4.115	0.69	10y-EDAZ09	-92.513
EDAH10	4.135	0.67	10y-EDAH10	-93.432
EDAM10	4.240	0.57	10y-EDAM10	-94.793
EDAU10	4.360	0.45	10y-EDAU10	-96.719
EDAZ10	4.550	0.26	10y-EDAZ10	-98.253
EDAH11	4.660	0.15	10y-EDAH11	-98.910
EDAM11	4.835	0.03	10y-EDAM11	-99.134
EDAU11	4.985	0.18	10y-EDAU11	-99.237

Price = Outright Decimal Price - Euro Contract Price

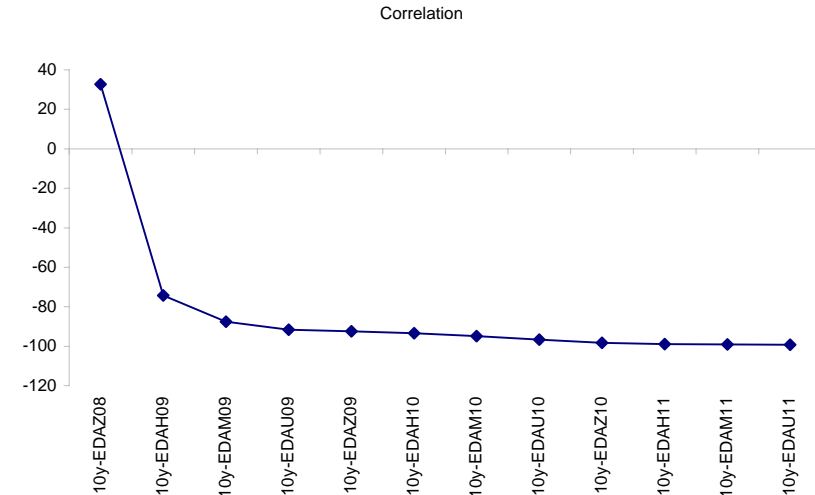
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAZ08	0.029	8.36	8.33	10y-EDAZ08
EDAH09	0.279	8.36	8.08	10y-EDAH09
EDAM09	0.528	8.36	7.83	10y-EDAM09
EDAU09	0.777	8.36	7.58	10y-EDAU09
EDAZ09	1.027	8.36	7.33	10y-EDAZ09
EDAH10	1.276	8.36	7.08	10y-EDAH10
EDAM10	1.525	8.36	6.83	10y-EDAM10
EDAU10	1.775	8.36	6.59	10y-EDAU10
EDAZ10	2.024	8.36	6.34	10y-EDAZ10
EDAH11	2.273	8.36	6.09	10y-EDAH11
EDAM11	2.523	8.36	5.84	10y-EDAM11
EDAU11	2.791	8.36	5.57	10y-EDAU11

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.

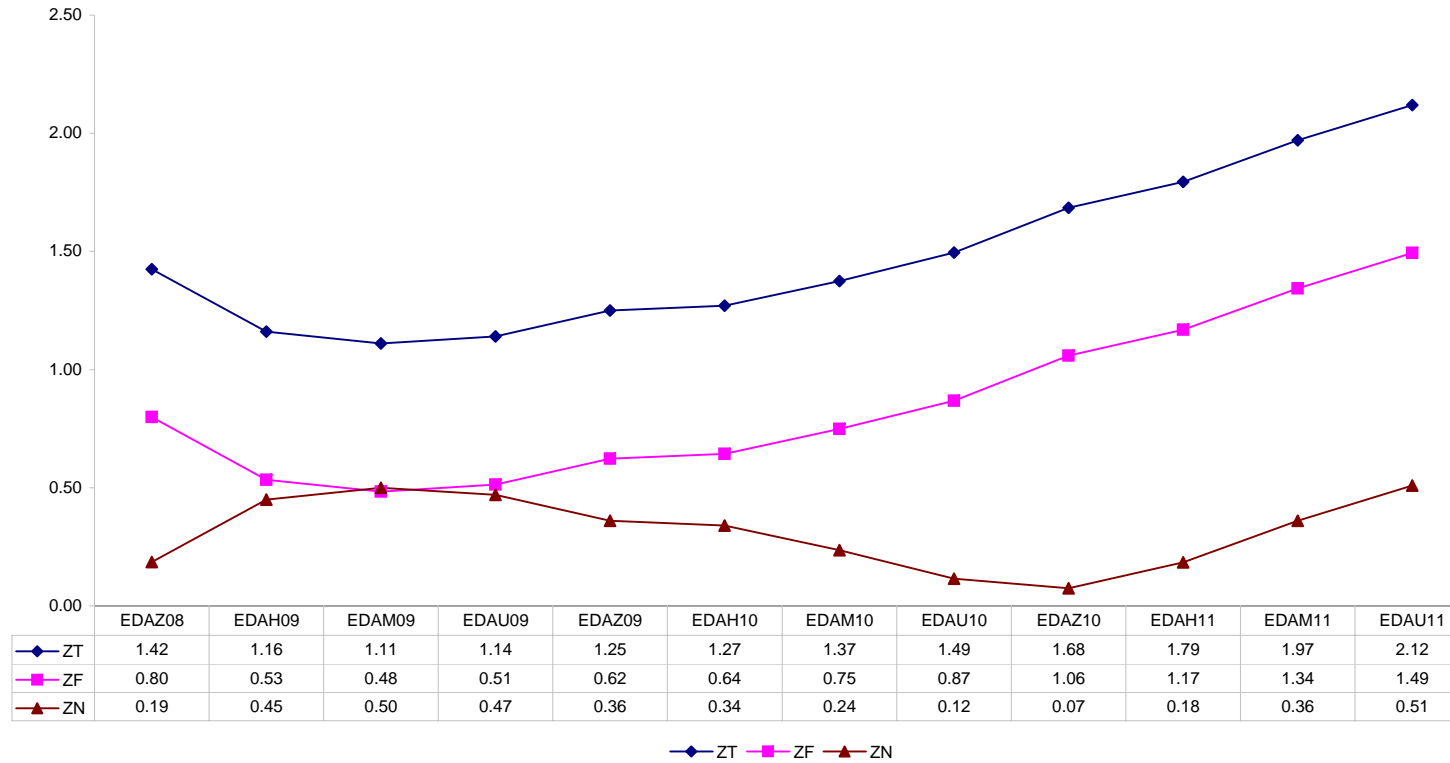
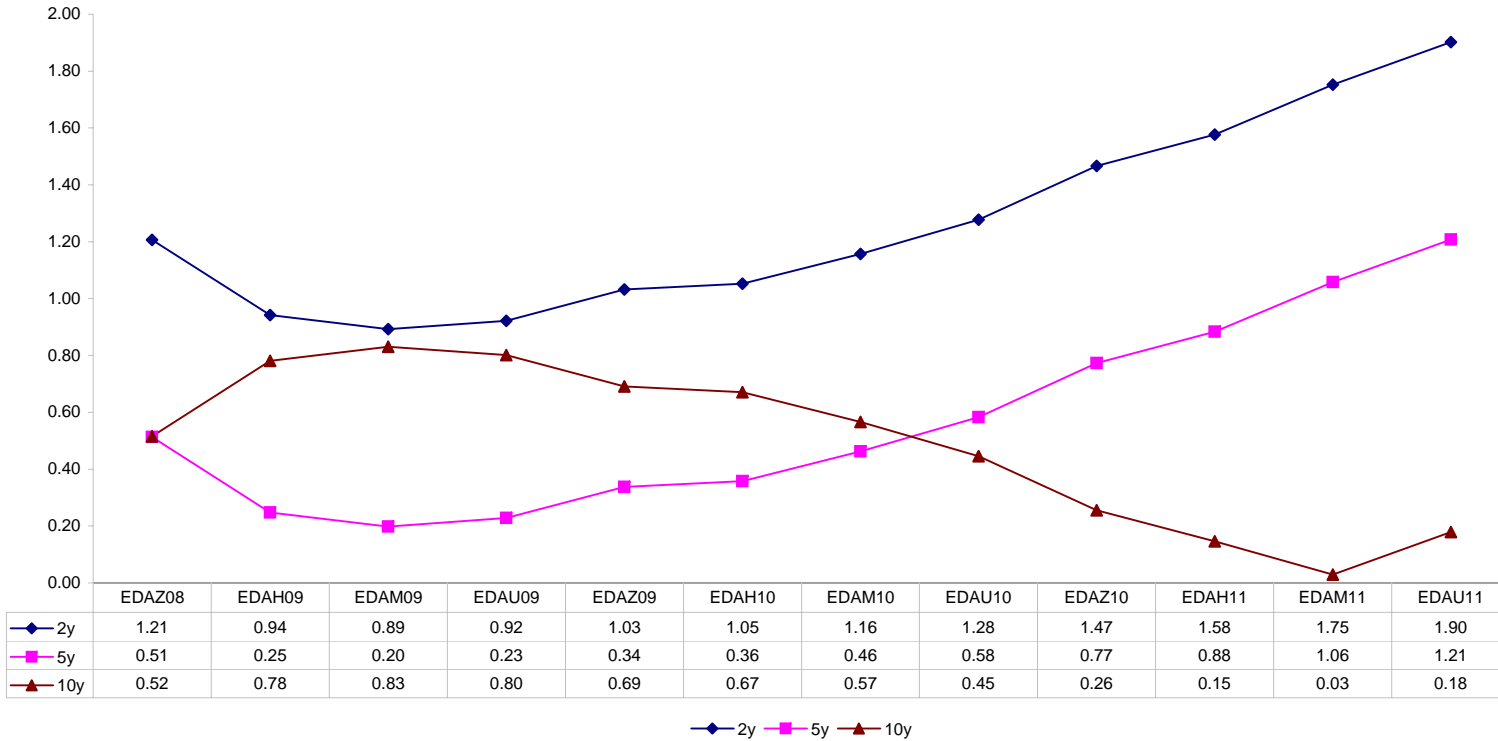
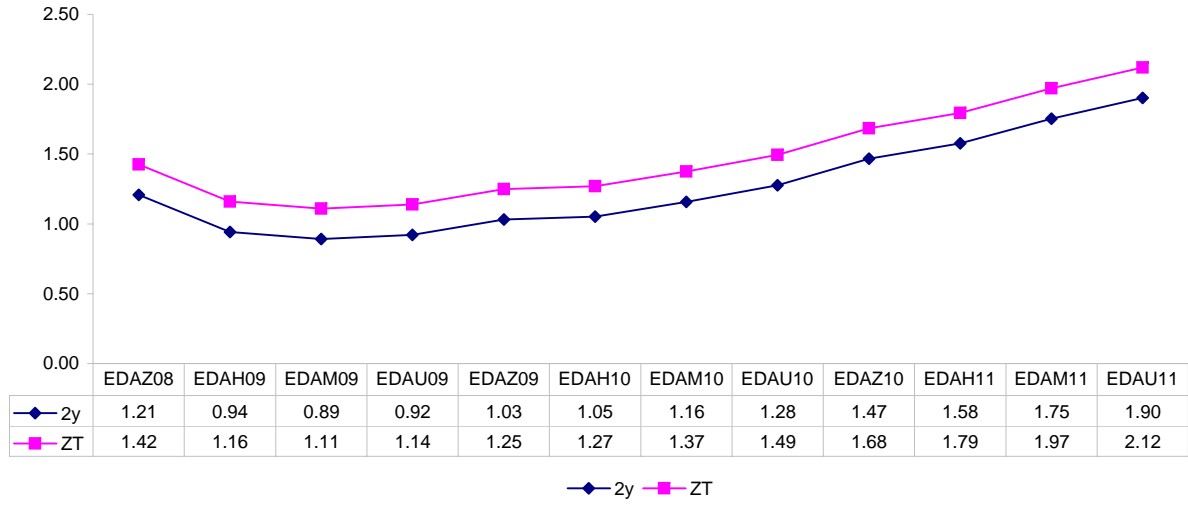


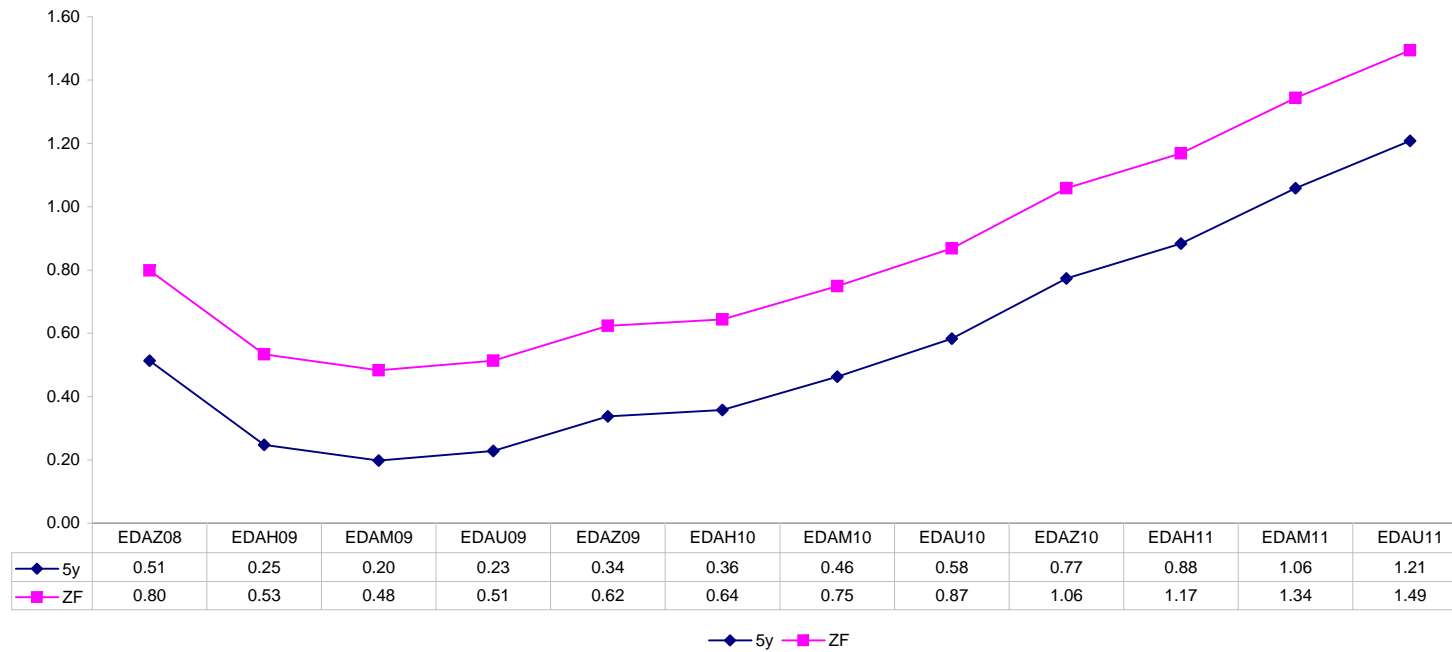
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



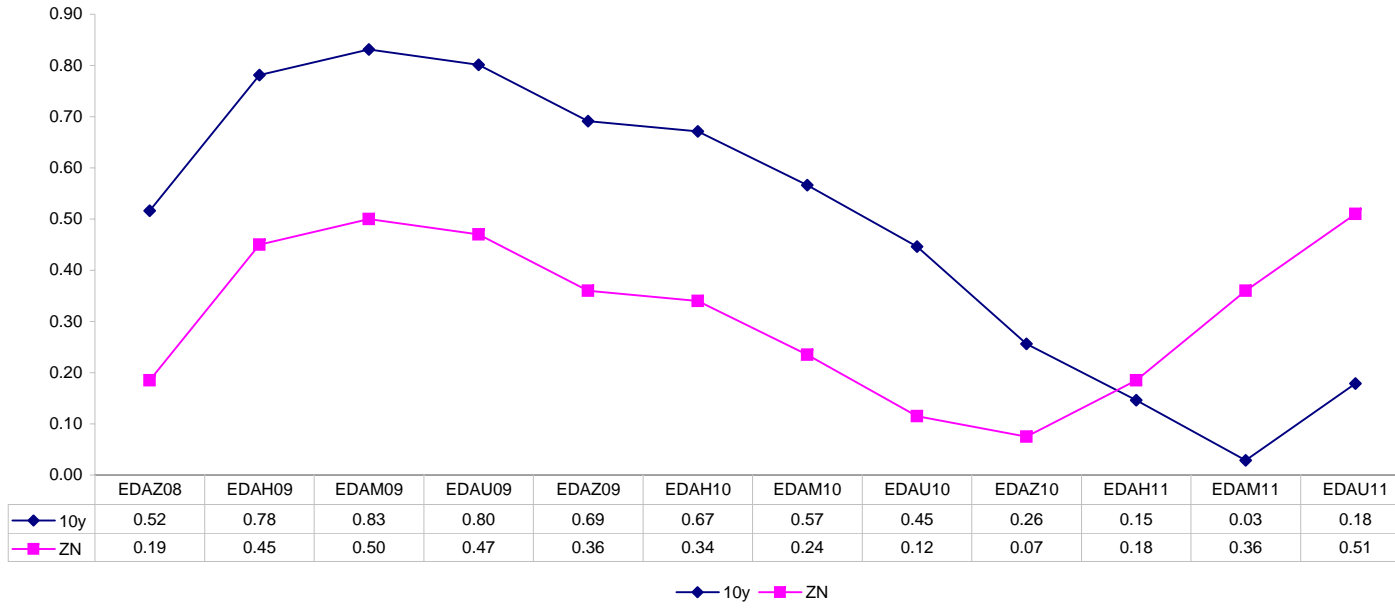
2y Basis TED Curve



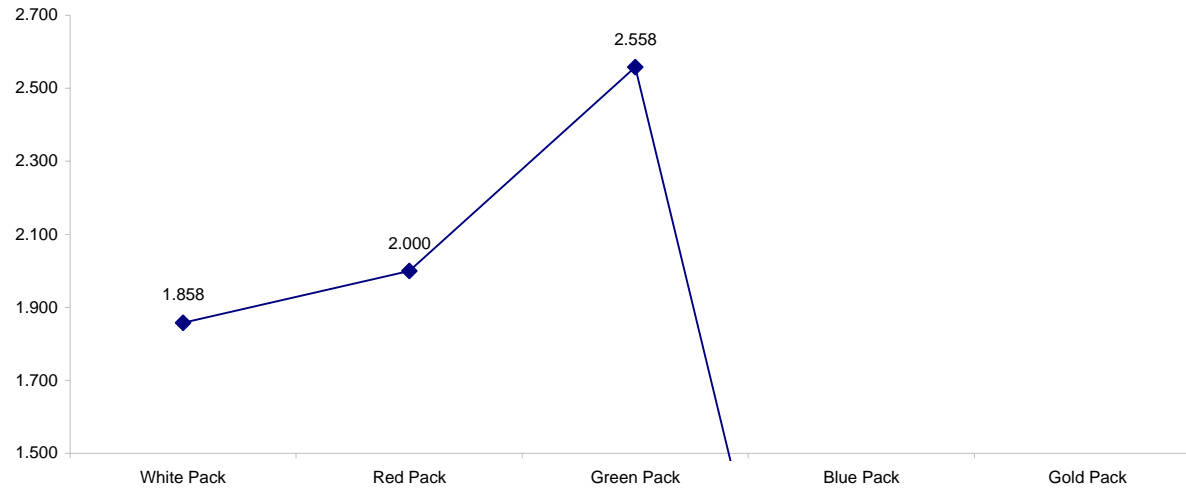
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	1.858	3.250	9817.625
Red Pack	2.000	9.625	9803.750
Green Pack	2.558	13.000	9749.250
Blue Pack		12.000	9698.375
Gold Pack		0.000	9663.125



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

