

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	108.1000	108.032	1.058	1.78
ZF	115.6781	115.217	2.339	4.33
ZN	115.6406	115.205	3.573	6.43
2y	100.406	100.1300	1.291	1.94
5y	101.328	101.1050	2.461	4.62
10y	102.609	102.1950	3.675	7.98

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	97.990	2.010	38	0.103	DEC	
EDAH09	98.085	1.915	129	0.353	MAR	White Pack
EDAM09	97.990	2.010	220	0.602	JUN	
EDAU09	97.840	2.160	311	0.851	SEP	
EDAZ09	97.610	2.390	402	1.101	DEC	
EDAH10	97.480	2.520	493	1.350	MAR	Red Pack
EDAM10	97.220	2.780	584	1.599	JUN	
EDAU10	96.885	3.115	675	1.849	SEP	
EDAZ10	96.465	3.535	766	2.098	DEC	
EDAH11	96.175	3.825	857	2.347	MAR	Green Pack
EDAM11	95.915	4.085	948	2.597	JUN	
EDAU11	95.715	4.285	1046	2.865	SEP	
EDAZ11	95.550	4.450	1137	3.114	DEC	
EDAH12	95.520	4.480	1228	3.364	MAR	Blue Pack
EDAM12	95.445	4.555	1319	3.613	JUN	
EDAU12	95.345	4.655	1410	3.862	SEP	
EDAZ12	95.230	4.770	1501	4.112	DEC	
EDAH13	95.225	4.775	1592	4.361	MAR	Gold Pack
EDAM13	95.125	4.875	1683	4.610	JUN	
EDZU13	#VALUE!	#VALUE!	1865	5.109	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	2.062	-0.625	9797.625	Pack Prices
Red Pack	2.758	2.250	9729.875	
Green Pack	4.027	4.875	9606.750	
Blue Pack	4.651	3.625	9546.500	
Gold Pack		0.750	9514.625	

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.

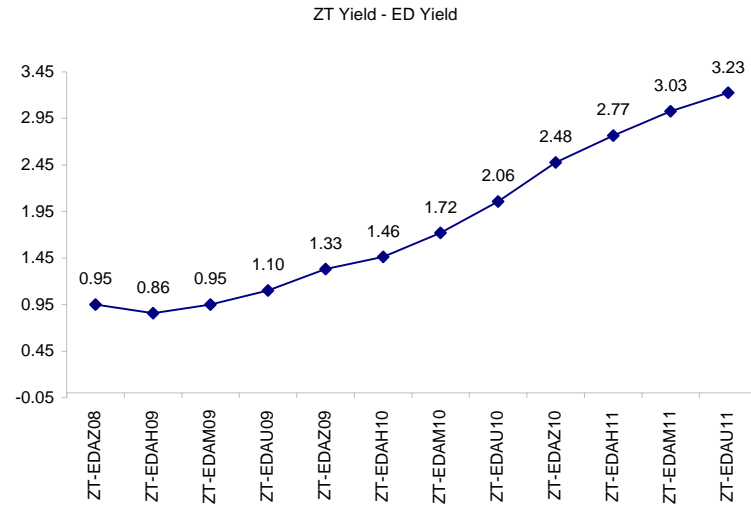
jgoulding@ghco.com

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.

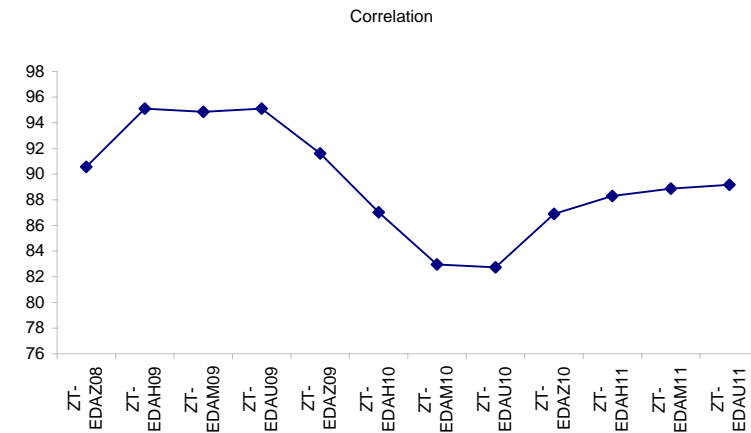
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.110	0.95	ZT-EDAZ08	90.560
EDAH09	10.015	0.86	ZT-EDAH09	95.112
EDAM09	10.110	0.95	ZT-EDAM09	94.859
EDAU09	10.260	1.10	ZT-EDAU09	95.112
EDAZ09	10.490	1.33	ZT-EDAZ09	91.623
EDAH10	10.620	1.46	ZT-EDAH10	87.023
EDAM10	10.880	1.72	ZT-EDAM10	82.950
EDAU10	11.215	2.06	ZT-EDAU10	82.736
EDAZ10	11.635	2.48	ZT-EDAZ10	86.895
EDAH11	11.925	2.77	ZT-EDAH11	88.307
EDAM11	12.185	3.03	ZT-EDAM11	88.862
EDAU11	12.385	3.23	ZT-EDAU11	89.168

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	0.103	1.78	1.68	ZT-EDAZ08		
EDAH09	0.353	1.78	1.43	ZT-EDAH09		
EDAM09	0.602	1.78	1.18	ZT-EDAM09		
EDAU09	0.851	1.78	0.93	ZT-EDAU09		
EDAZ09	1.101	1.78	0.68	ZT-EDAZ09		
EDAH10	1.350	1.78	0.43	ZT-EDAH10		
EDAM10	1.599	1.78	0.18	ZT-EDAM10		
EDAU10	1.849	1.78	(0.07)	ZT-EDAU10		
EDAZ10	2.098	1.78	(0.32)	ZT-EDAZ10		
EDAH11	2.347	1.78	(0.57)	ZT-EDAH11		
EDAM11	2.597	1.78	(0.82)	ZT-EDAM11		
EDAU11	2.865	1.78	(1.08)	ZT-EDAU11		

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

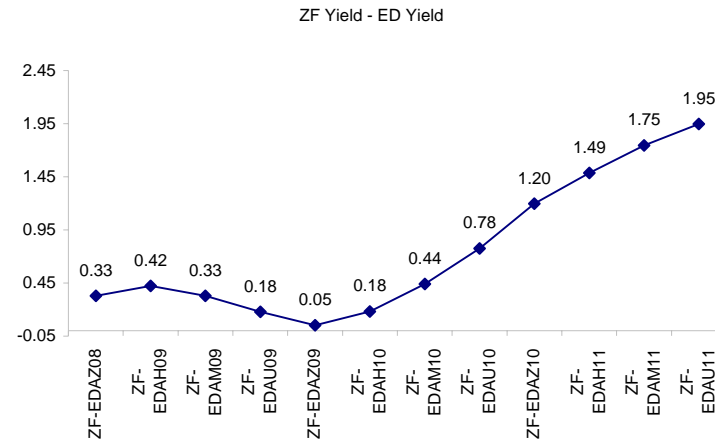


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	17.688	0.33	ZF-EDAZ08	84.237
EDAH09	17.593	0.42	ZF-EDAH09	86.226
EDAM09	17.688	0.33	ZF-EDAM09	90.152
EDAU09	17.838	0.18	ZF-EDAU09	93.087
EDAZ09	18.068	0.05	ZF-EDAZ09	93.357
EDAH10	18.198	0.18	ZF-EDAH10	92.985
EDAM10	18.458	0.44	ZF-EDAM10	91.696
EDAU10	18.793	0.78	ZF-EDAU10	92.553
EDAZ10	19.213	1.20	ZF-EDAZ10	95.328
EDAH11	19.503	1.49	ZF-EDAH11	96.025
EDAM11	19.763	1.75	ZF-EDAM11	96.061
EDAU11	19.963	1.95	ZF-EDAU11	96.078

Price = Outright Decimal Price - Euro Contract Price

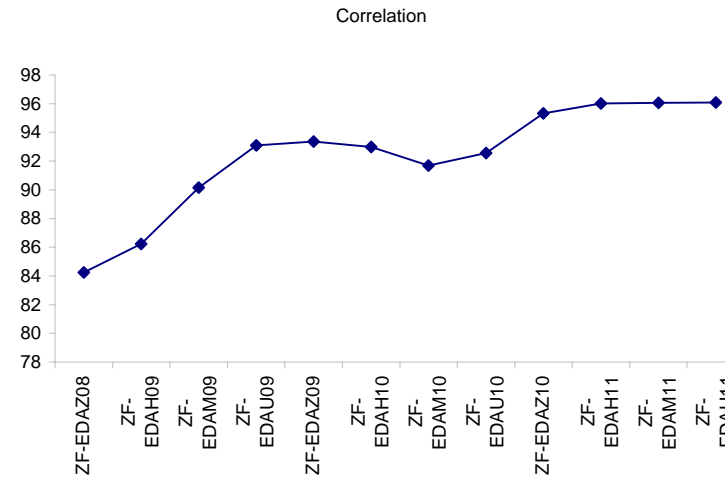
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAZ08	0.103	4.33	4.22	ZF-EDAZ08	
EDAH09	0.353	4.33	3.97	ZF-EDAH09	
EDAM09	0.602	4.33	3.72	ZF-EDAM09	
EDAU09	0.851	4.33	3.47	ZF-EDAU09	
EDAZ09	1.101	4.33	3.22	ZF-EDAZ09	
EDAH10	1.350	4.33	2.98	ZF-EDAH10	
EDAM10	1.599	4.33	2.73	ZF-EDAM10	
EDAU10	1.849	4.33	2.48	ZF-EDAU10	
EDAZ10	2.098	4.33	2.23	ZF-EDAZ10	
EDAH11	2.347	4.33	1.98	ZF-EDAH11	
EDAM11	2.597	4.33	1.73	ZF-EDAM11	
EDAU11	2.865	4.33	1.46	ZF-EDAU11	

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

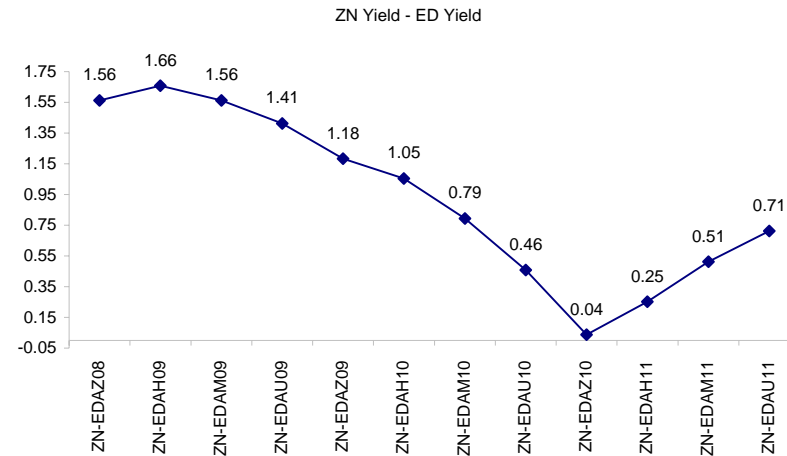


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	17.651	1.56	ZN-EDAZ08	44.318
EDAH09	17.556	1.66	ZN-EDAH09	53.640
EDAM09	17.651	1.56	ZN-EDAM09	66.922
EDAU09	17.801	1.41	ZN-EDAU09	77.369
EDAZ09	18.031	1.18	ZN-EDAZ09	87.131
EDAH10	18.161	1.05	ZN-EDAH10	93.527
EDAM10	18.421	0.79	ZN-EDAM10	91.696
EDAU10	18.756	0.46	ZN-EDAU10	92.553
EDAZ10	19.176	0.04	ZN-EDAZ10	95.328
EDAH11	19.466	0.25	ZN-EDAH11	96.025
EDAM11	19.726	0.51	ZN-EDAM11	96.061
EDAU11	19.926	0.71	ZN-EDAU11	96.078

Price = Outright Decimal Price - Euro Contract Price

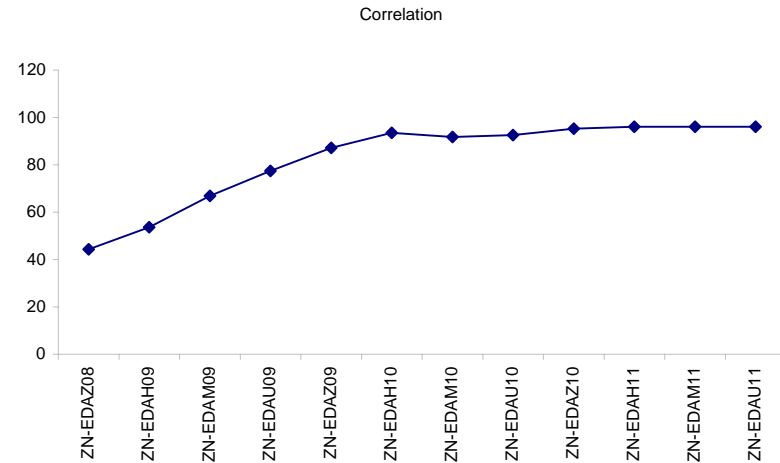
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.103	6.43	6.33	ZN-EDAZ08		
EDAH09	0.353	6.43	6.08	ZN-EDAH09		
EDAM09	0.602	6.43	5.83	ZN-EDAM09		
EDAU09	0.851	6.43	5.58	ZN-EDAU09		
EDAZ09	1.101	6.43	5.33	ZN-EDAZ09		
EDAH10	1.350	6.43	5.08	ZN-EDAH10		
EDAM10	1.599	6.43	4.83	ZN-EDAM10		
EDAU10	1.849	6.43	4.58	ZN-EDAU10		
EDAZ10	2.098	6.43	4.33	ZN-EDAZ10		
EDAH11	2.347	6.43	4.09	ZN-EDAH11		
EDAM11	2.597	6.43	3.84	ZN-EDAM11		
EDAU11	2.865	6.43	3.57	ZN-EDAU11		

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

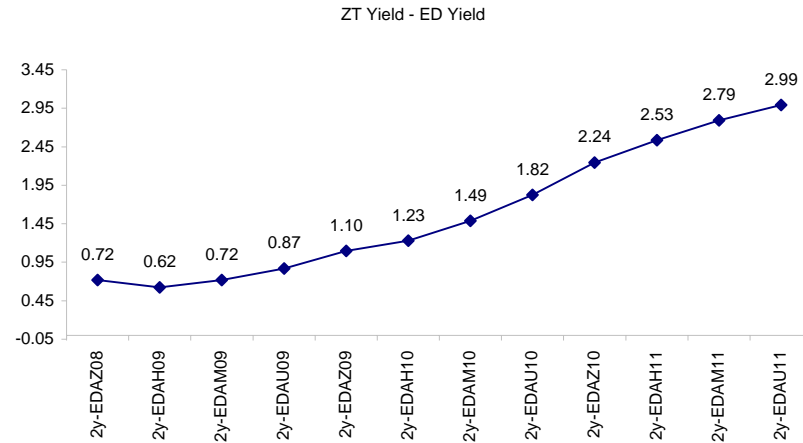


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.416	0.72	2y-EDAZ08	-88.406
EDAH09	2.321	0.62	2y-EDAH09	-88.406
EDAM09	2.416	0.72	2y-EDAM09	-90.252
EDAU09	2.566	0.87	2y-EDAU09	-91.670
EDAZ09	2.796	1.10	2y-EDAZ09	-90.124
EDAH10	2.926	1.23	2y-EDAH10	-88.629
EDAM10	3.186	1.49	2y-EDAM10	-87.214
EDAU10	3.521	1.82	2y-EDAU10	-88.583
EDAZ10	3.941	2.24	2y-EDAZ10	-92.553
EDAH11	4.231	2.53	2y-EDAH11	-93.710
EDAM11	4.491	2.79	2y-EDAM11	-93.687
EDAU11	4.691	2.99	2y-EDAU11	-93.710

Price = Outright Decimal Price - Euro Contract Price

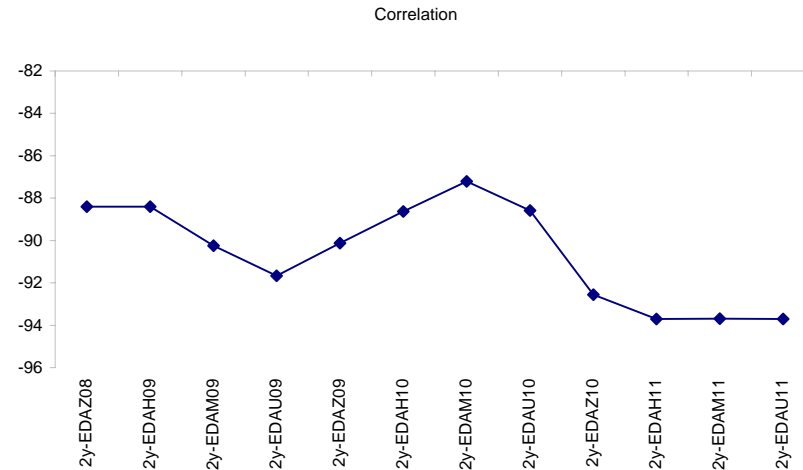
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.103	1.94	1.83	2y-EDAZ08	
EDAH09	0.353	1.94	1.58	2y-EDAH09	
EDAM09	0.602	1.94	1.33	2y-EDAM09	
EDAU09	0.851	1.94	1.08	2y-EDAU09	
EDAZ09	1.101	1.94	0.83	2y-EDAZ09	
EDAH10	1.350	1.94	0.59	2y-EDAH10	
EDAM10	1.599	1.94	0.34	2y-EDAM10	
EDAU10	1.849	1.94	0.09	2y-EDAU10	
EDAZ10	2.098	1.94	(0.16)	2y-EDAZ10	
EDAH11	2.347	1.94	(0.41)	2y-EDAH11	
EDAM11	2.597	1.94	(0.66)	2y-EDAM11	
EDAU11	2.865	1.94	(0.93)	2y-EDAU11	

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

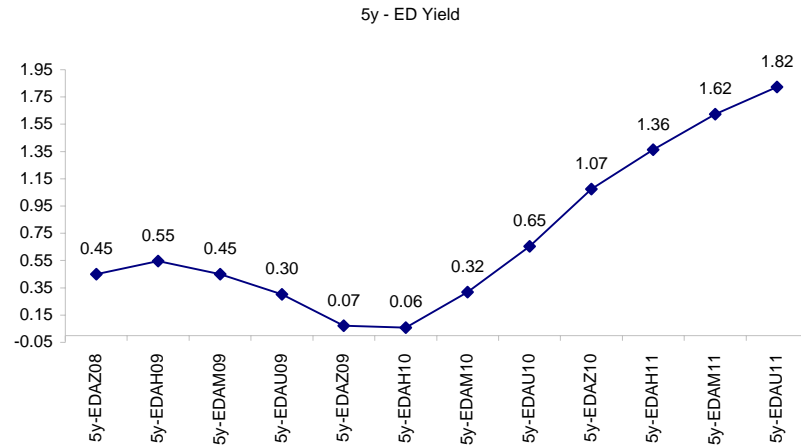


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.338	0.45	5y-EDAZ08	-63.688
EDAH09	3.243	0.55	5y-EDAH09	-68.352
EDAM09	3.338	0.45	5y-EDAM09	-77.603
EDAU09	3.488	0.30	5y-EDAU09	-85.488
EDAZ09	3.718	0.07	5y-EDAZ09	-91.937
EDAH10	3.848	0.06	5y-EDAH10	-96.114
EDAM10	4.108	0.32	5y-EDAM10	-96.956
EDAU10	4.443	0.65	5y-EDAU10	-97.177
EDAZ10	4.863	1.07	5y-EDAZ10	-96.445
EDAH11	5.153	1.36	5y-EDAH11	-95.353
EDAM11	5.413	1.62	5y-EDAM11	-94.677
EDAU11	5.613	1.82	5y-EDAU11	-94.104

Price = Outright Decimal Price - Euro Contract Price

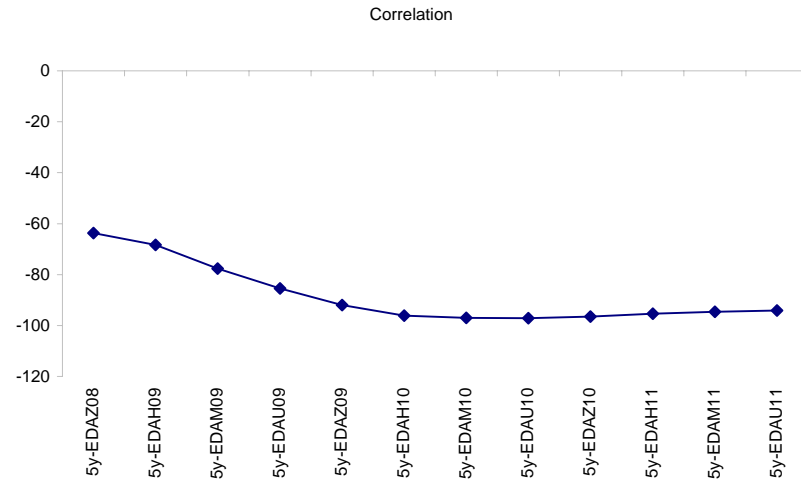
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAZ08	0.103	4.62	4.52	5y-EDAZ08
EDAH09	0.353	4.62	4.27	5y-EDAH09
EDAM09	0.602	4.62	4.02	5y-EDAM09
EDAU09	0.851	4.62	3.77	5y-EDAU09
EDAZ09	1.101	4.62	3.52	5y-EDAZ09
EDAH10	1.350	4.62	3.27	5y-EDAH10
EDAM10	1.599	4.62	3.02	5y-EDAM10
EDAU10	1.849	4.62	2.77	5y-EDAU10
EDAZ10	2.098	4.62	2.53	5y-EDAZ10
EDAH11	2.347	4.62	2.28	5y-EDAH11
EDAM11	2.597	4.62	2.03	5y-EDAM11
EDAU11	2.865	4.62	1.76	5y-EDAU11

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

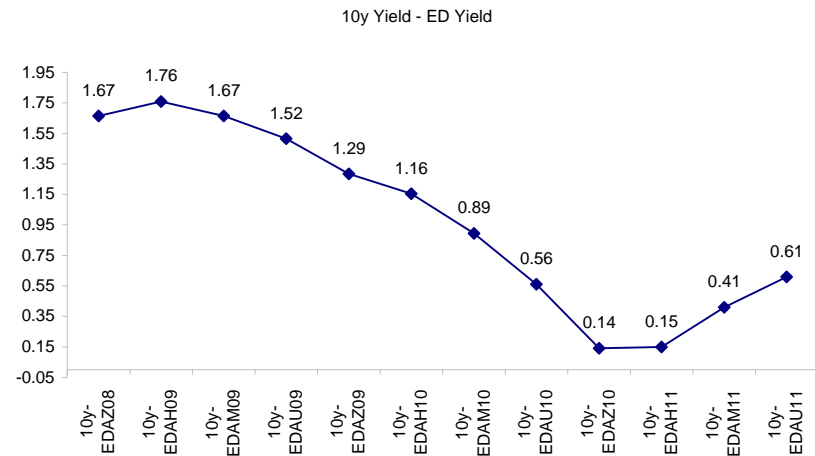


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.338	1.67	10y-EDAZ08	-34.413
EDAH09	3.243	1.76	10y-EDAH09	-41.752
EDAM09	3.338	1.67	10y-EDAM09	-55.591
EDAU09	3.488	1.52	10y-EDAU09	-67.652
EDAZ09	3.718	1.29	10y-EDAZ09	-79.821
EDAH10	3.848	1.16	10y-EDAH10	-88.545
EDAM10	4.108	0.89	10y-EDAM10	-91.711
EDAU10	4.443	0.56	10y-EDAU10	-91.238
EDAZ10	4.863	0.14	10y-EDAZ10	-86.626
EDAH11	5.153	0.15	10y-EDAH11	-83.574
EDAM11	5.413	0.41	10y-EDAM11	-82.082
EDAU11	5.613	0.61	10y-EDAU11	-80.956

Price = Outright Decimal Price - Euro Contract Price

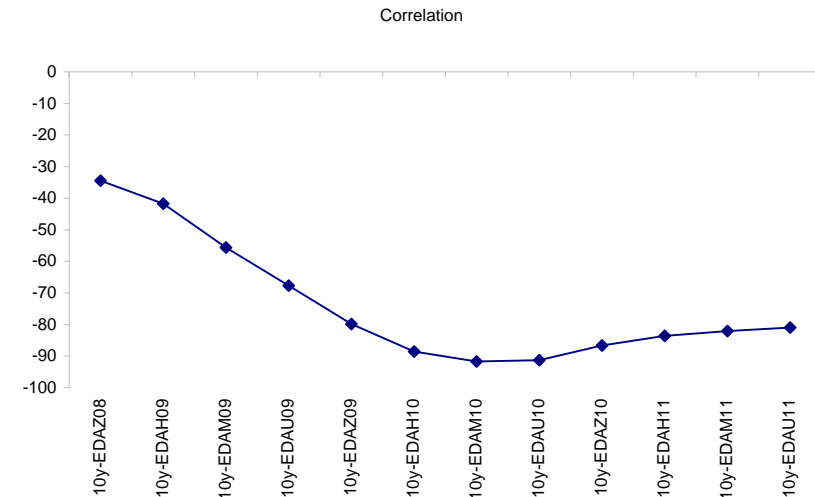
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAZ08	0.103	7.98	7.88	10y-EDAZ08
EDAH09	0.353	7.98	7.63	10y-EDAH09
EDAM09	0.602	7.98	7.38	10y-EDAM09
EDAU09	0.851	7.98	7.13	10y-EDAU09
EDAZ09	1.101	7.98	6.88	10y-EDAZ09
EDAH10	1.350	7.98	6.63	10y-EDAH10
EDAM10	1.599	7.98	6.38	10y-EDAM10
EDAU10	1.849	7.98	6.13	10y-EDAU10
EDAZ10	2.098	7.98	5.88	10y-EDAZ10
EDAH11	2.347	7.98	5.63	10y-EDAH11
EDAM11	2.597	7.98	5.39	10y-EDAM11
EDAU11	2.865	7.98	5.12	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.

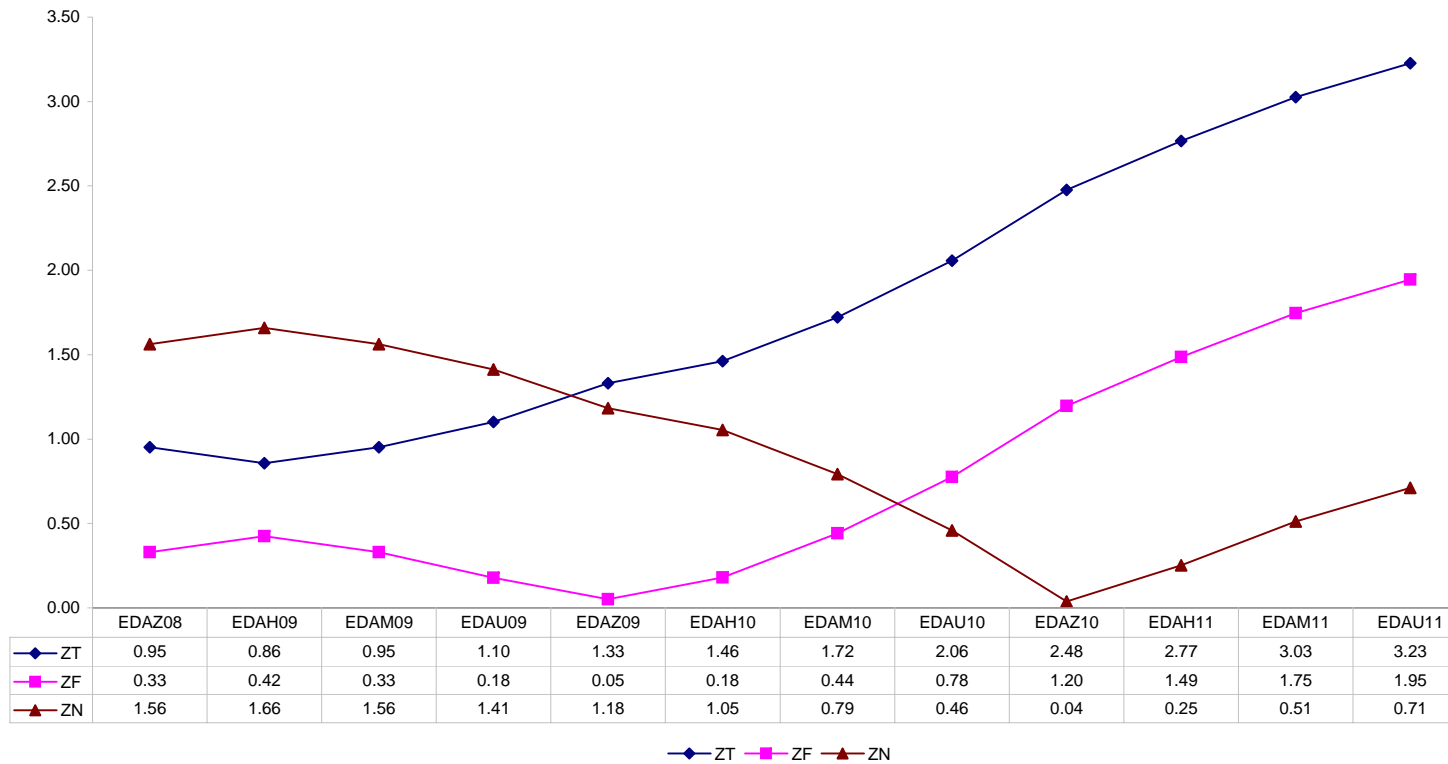
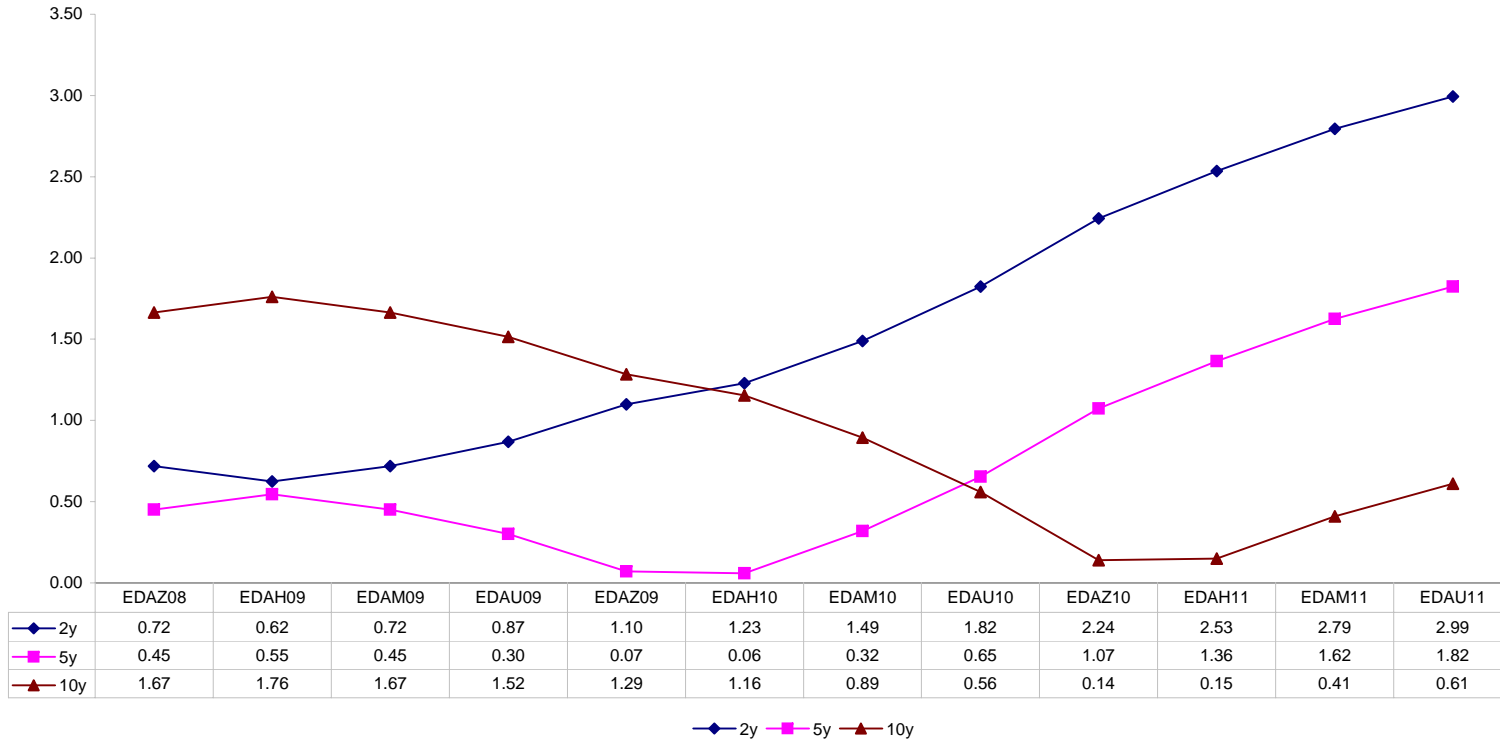
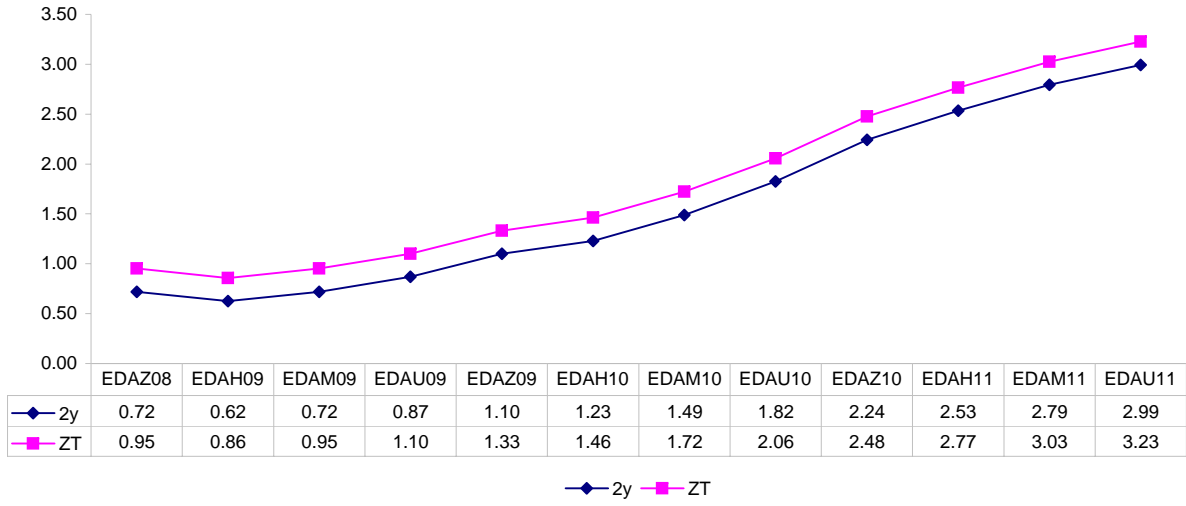


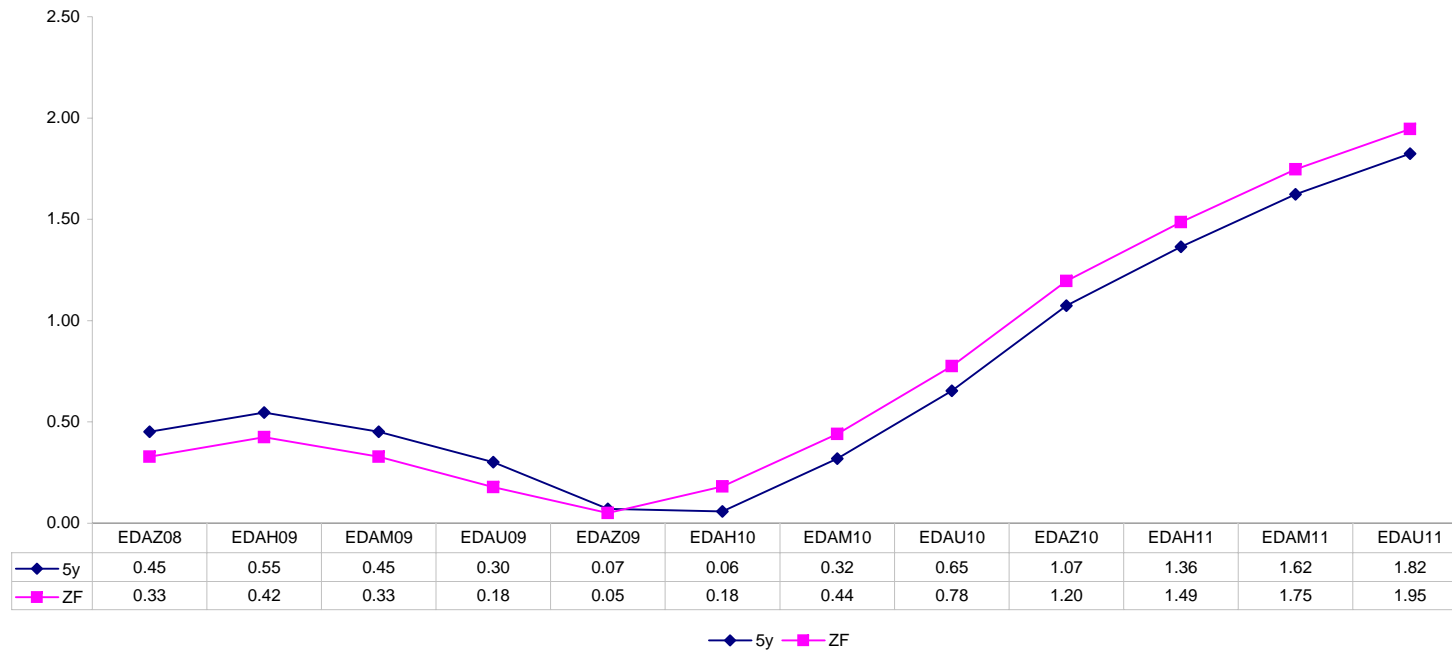
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



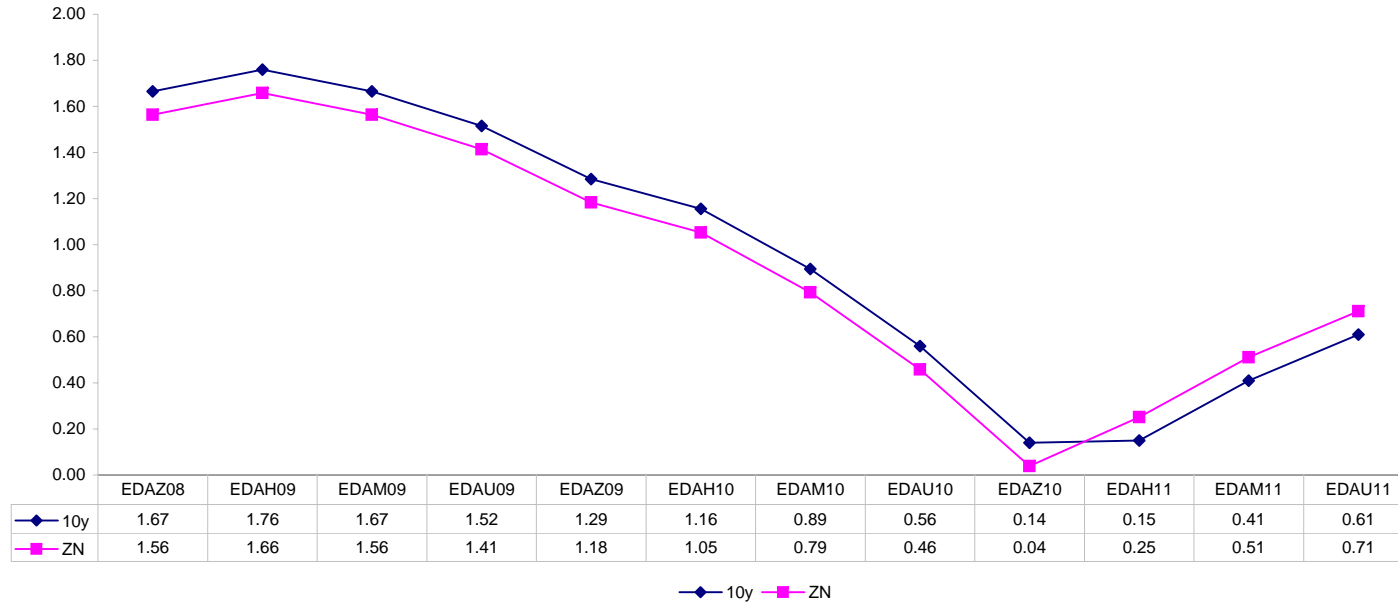
2y Basis TED Curve



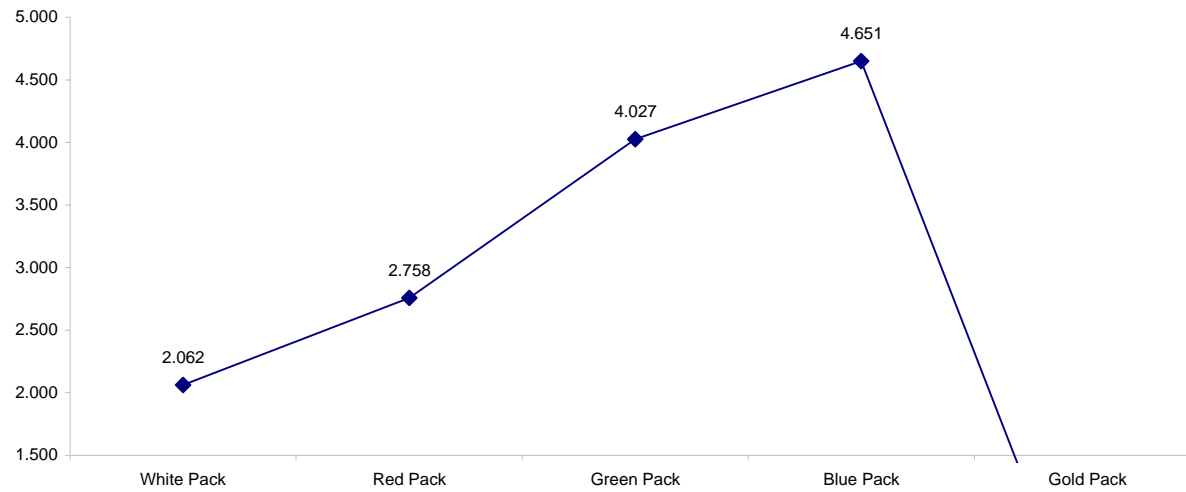
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.062	-0.625	9797.625
Red Pack	2.758	2.250	9729.875
Green Pack	4.027	4.875	9606.750
Blue Pack	4.651	3.625	9546.500
Gold Pack		0.750	9514.625



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

