

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

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	108.4906	108.1570	0.927	1.96
ZF	117.1250	117.0400	1.713	1.71
ZN	121.1406	121.0450	2.454	6.03
2y	99.8969	99.2870	0.927	1.97
5y	99.8594	99.2750	1.906	4.74
10y	98.3438	98.1100	2.941	8.62

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAH09	98.708	1.293	13	0.035	MAR	
EDAM09	98.700	1.300	104	0.284	JUN	White Pack
EDAU09	98.665	1.335	195	0.534	SEP	
EDAZ09	98.530	1.470	286	0.783	DEC	
EDAH10	98.430	1.570	377	1.032	MAR	
EDAM10	98.225	1.775	468	1.282	JUN	Red Pack
EDAU10	98.005	1.995	559	1.531	SEP	
EDAZ10	97.755	2.245	650	1.780	DEC	
EDAH11	97.560	2.440	741	2.029	MAR	
EDAM11	97.325	2.675	832	2.279	JUN	Green Pack
EDAU11	97.105	2.895	930	2.547	SEP	
EDAZ11	96.875	3.125	1021	2.797	DEC	
EDAH12	96.755	3.245	1112	3.046	MAR	
EDAM12	96.610	3.390	1203	3.295	JUN	Blue Pack
EDAU12	96.575	3.425	1294	3.545	SEP	
EDAZ12	96.455	3.545	1385	3.794	DEC	
EDAH13	96.325	3.675	1476	4.043	MAR	
EDAM13	96.290	3.710	1567	4.292	JUN	Gold Pack
EDZU13	96.185	3.815	1658	4.542	SEP	
EDZZ13	96.070	3.930	1749	4.791	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.373	-2.938	9865.063	
Red Pack	1.932	-5.000	9810.375	Pack Prices
Green Pack	2.842	-3.125	9721.625	
Blue Pack		-0.875	9657.250	
Gold Pack		-0.125	9618.750	

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.

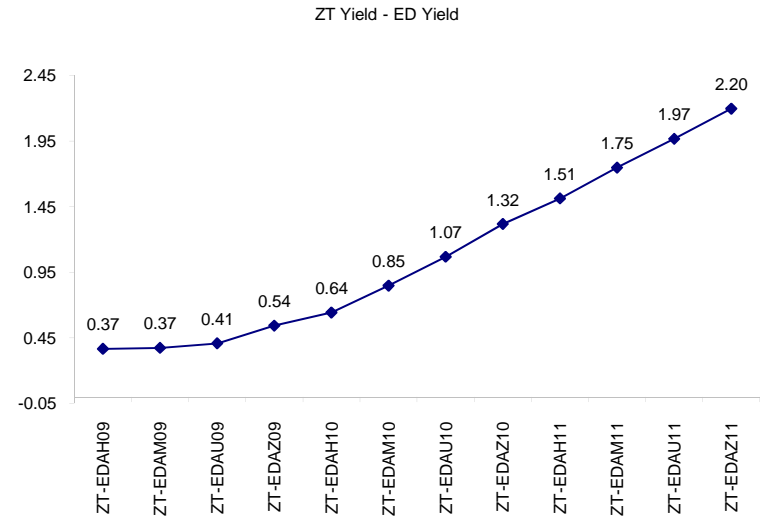
jgoulding@ghco.com

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.

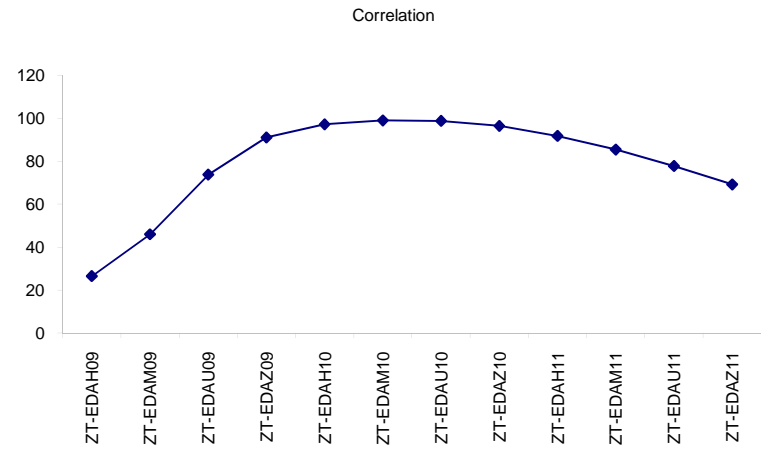
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	9.783	0.37	ZT-EDAH09	26.535
EDAM09	9.791	0.37	ZT-EDAM09	46.029
EDAU09	9.826	0.41	ZT-EDAU09	73.801
EDAZ09	9.961	0.54	ZT-EDAZ09	91.095
EDAH10	10.061	0.64	ZT-EDAH10	97.214
EDAM10	10.266	0.85	ZT-EDAM10	99.048
EDAU10	10.486	1.07	ZT-EDAU10	98.809
EDAZ10	10.736	1.32	ZT-EDAZ10	96.469
EDAH11	10.931	1.51	ZT-EDAH11	91.802
EDAM11	11.166	1.75	ZT-EDAM11	85.494
EDAU11	11.386	1.97	ZT-EDAU11	77.795
EDAZ11	11.616	2.20	ZT-EDAZ11	69.252

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	
EDAH09	0.035	1.96	1.96	1.92	ZT-EDAH09
EDAM09	0.284	1.96	1.96	1.67	ZT-EDAM09
EDAU09	0.534	1.96	1.96	1.42	ZT-EDAU09
EDAZ09	0.783	1.96	1.96	1.17	ZT-EDAZ09
EDAH10	1.032	1.96	1.96	0.93	ZT-EDAH10
EDAM10	1.282	1.96	1.96	0.68	ZT-EDAM10
EDAU10	1.531	1.96	1.96	0.43	ZT-EDAU10
EDAZ10	1.780	1.96	1.96	0.18	ZT-EDAZ10
EDAH11	2.029	1.96	1.96	(0.07)	ZT-EDAH11
EDAM11	2.279	1.96	1.96	(0.32)	ZT-EDAM11
EDAU11	2.547	1.96	1.96	(0.59)	ZT-EDAU11
EDAZ11	2.797	1.96	1.96	(0.84)	ZT-EDAZ11

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

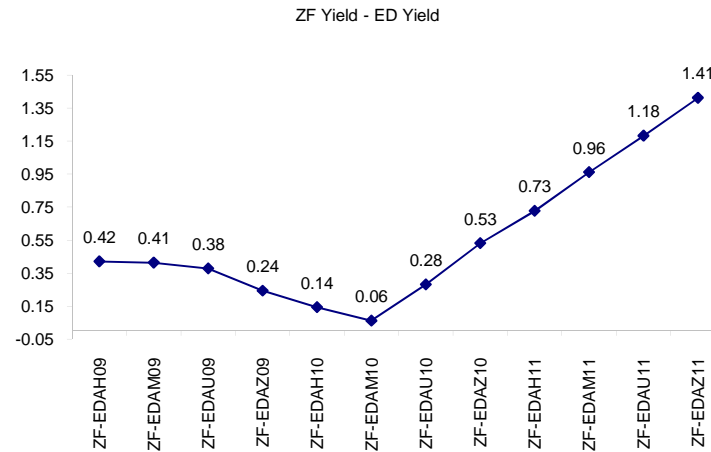


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	18.418	0.42	ZF-EDAH09	24.308
EDAM09	18.425	0.41	ZF-EDAM09	46.623
EDAU09	18.460	0.38	ZF-EDAU09	70.650
EDAZ09	18.595	0.24	ZF-EDAZ09	86.945
EDAH10	18.695	0.14	ZF-EDAH10	92.469
EDAM10	18.900	0.06	ZF-EDAM10	96.196
EDAU10	19.120	0.28	ZF-EDAU10	97.944
EDAZ10	19.370	0.53	ZF-EDAZ10	97.811
EDAH11	19.565	0.73	ZF-EDAH11	95.452
EDAM11	19.800	0.96	ZF-EDAM11	90.993
EDAU11	20.020	1.18	ZF-EDAU11	85.274
EDAZ11	20.250	1.41	ZF-EDAZ11	78.671

Price = Outright Decimal Price - Euro Contract Price

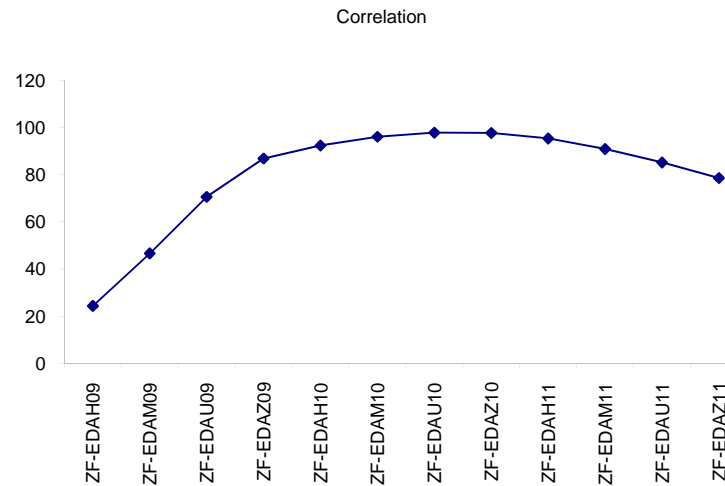
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAH09	0.035	1.71	1.68	1.68	ZF-EDAH09
EDAM09	0.284	1.71	1.43	1.43	ZF-EDAM09
EDAU09	0.534	1.71	1.18	1.18	ZF-EDAU09
EDAZ09	0.783	1.71	0.93	0.93	ZF-EDAZ09
EDAH10	1.032	1.71	0.68	0.68	ZF-EDAH10
EDAM10	1.282	1.71	0.43	0.43	ZF-EDAM10
EDAU10	1.531	1.71	0.18	0.18	ZF-EDAU10
EDAZ10	1.780	1.71	(0.07)	(0.07)	ZF-EDAZ10
EDAH11	2.029	1.71	(0.32)	(0.32)	ZF-EDAH11
EDAM11	2.279	1.71	(0.57)	(0.57)	ZF-EDAM11
EDAU11	2.547	1.71	(0.83)	(0.83)	ZF-EDAU11
EDAZ11	2.797	1.71	(1.08)	(1.08)	ZF-EDAZ11

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

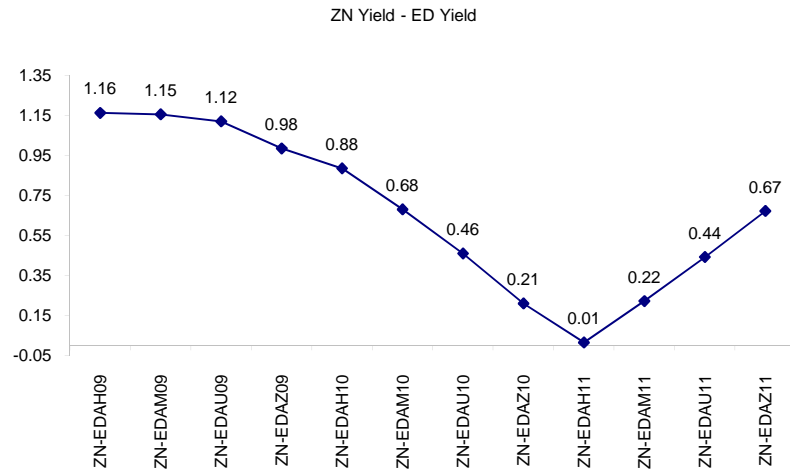


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	22.433	1.16	ZN-EDAH09	29.942
EDAM09	22.441	1.15	ZN-EDAM09	50.519
EDAU09	22.476	1.12	ZN-EDAU09	70.025
EDAZ09	22.611	0.98	ZN-EDAZ09	83.027
EDAH10	22.711	0.88	ZN-EDAH10	86.010
EDAM10	22.916	0.68	ZN-EDAM10	90.159
EDAU10	23.136	0.46	ZN-EDAU10	92.261
EDAZ10	23.386	0.21	ZN-EDAZ10	93.798
EDAH11	23.581	0.01	ZN-EDAH11	94.291
EDAM11	23.816	0.22	ZN-EDAM11	93.263
EDAU11	24.036	0.44	ZN-EDAU11	90.527
EDAZ11	24.266	0.67	ZN-EDAZ11	86.710

Price = Outright Decimal Price - Euro Contract Price

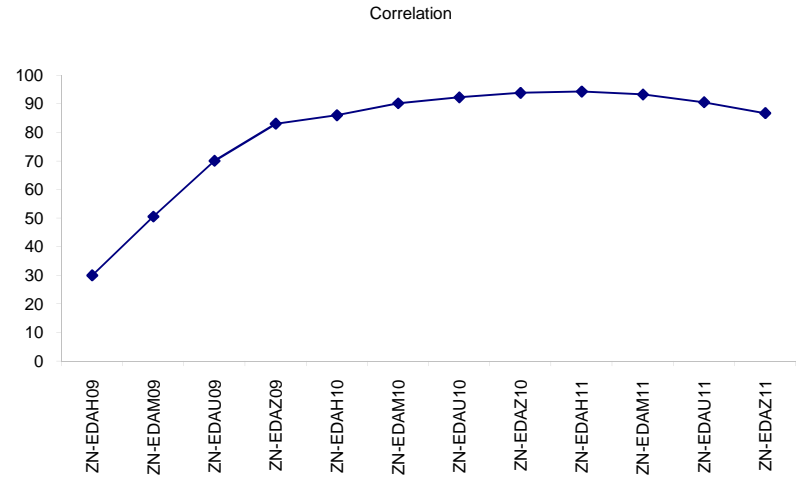
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				
	Fraction of year	ZN Duration	Spread Duration	
EDAH09	0.035	6.03	5.99	ZN-EDAH09
EDAM09	0.284	6.03	5.74	ZN-EDAM09
EDAU09	0.534	6.03	5.49	ZN-EDAU09
EDAZ09	0.783	6.03	5.24	ZN-EDAZ09
EDAH10	1.032	6.03	4.99	ZN-EDAH10
EDAM10	1.282	6.03	4.75	ZN-EDAM10
EDAU10	1.531	6.03	4.50	ZN-EDAU10
EDAZ10	1.780	6.03	4.25	ZN-EDAZ10
EDAH11	2.029	6.03	4.00	ZN-EDAH11
EDAM11	2.279	6.03	3.75	ZN-EDAM11
EDAU11	2.547	6.03	3.48	ZN-EDAU11
EDAZ11	2.797	6.03	3.23	ZN-EDAZ11

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

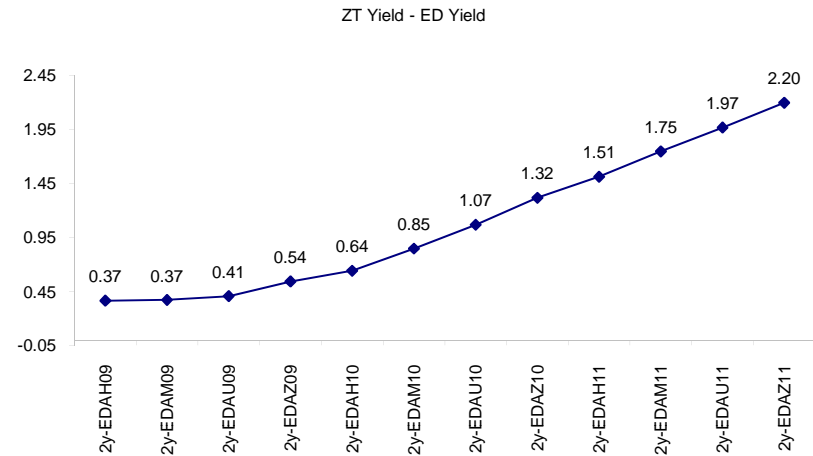


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.189	0.37	2y-EDAH09	-22.884
EDAM09	1.197	0.37	2y-EDAM09	-41.561
EDAU09	1.232	0.41	2y-EDAU09	-70.859
EDAZ09	1.367	0.54	2y-EDAZ09	-88.376
EDAH10	1.467	0.64	2y-EDAH10	-95.145
EDAM10	1.672	0.85	2y-EDAM10	-95.767
EDAU10	1.892	1.07	2y-EDAU10	-94.316
EDAZ10	2.142	1.32	2y-EDAZ10	-90.353
EDAH11	2.337	1.51	2y-EDAH11	-83.434
EDAM11	2.572	1.75	2y-EDAM11	-75.430
EDAU11	2.792	1.97	2y-EDAU11	-66.271
EDAZ11	3.022	2.20	2y-EDAZ11	-57.060

Price = Outright Decimal Price - Euro Contract Price

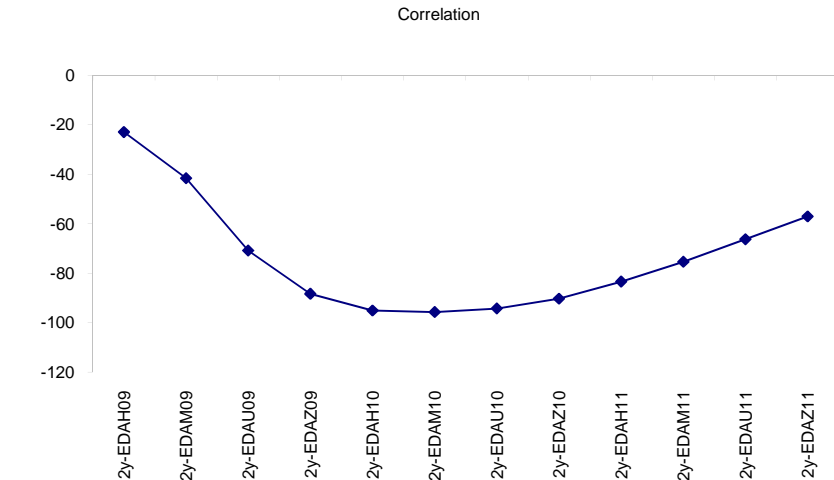
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAH09	0.035	1.97	1.93	2y-EDAH09	
EDAM09	0.284	1.97	1.68	2y-EDAM09	
EDAU09	0.534	1.97	1.43	2y-EDAU09	
EDAZ09	0.783	1.97	1.18	2y-EDAZ09	
EDAH10	1.032	1.97	0.93	2y-EDAH10	
EDAM10	1.282	1.97	0.69	2y-EDAM10	
EDAU10	1.531	1.97	0.44	2y-EDAU10	
EDAZ10	1.780	1.97	0.19	2y-EDAZ10	
EDAH11	2.029	1.97	(0.06)	2y-EDAH11	
EDAM11	2.279	1.97	(0.31)	2y-EDAM11	
EDAU11	2.547	1.97	(0.58)	2y-EDAU11	
EDAZ11	2.797	1.97	(0.83)	2y-EDAZ11	

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



	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.152	0.61	5y-EDAH09	-33.602
EDAM09	1.159	0.61	5y-EDAM09	-55.639
EDAU09	1.194	0.57	5y-EDAU09	-70.284
EDAZ09	1.329	0.44	5y-EDAZ09	-80.198
EDAH10	1.429	0.34	5y-EDAH10	-82.452
EDAM10	1.634	0.13	5y-EDAM10	-87.916
EDAU10	1.854	0.09	5y-EDAU10	-91.761
EDAZ10	2.104	0.34	5y-EDAZ10	-95.265
EDAH11	2.299	0.53	5y-EDAH11	-96.857
EDAM11	2.534	0.77	5y-EDAM11	-96.667
EDAU11	2.754	0.99	5y-EDAU11	-94.196
EDAZ11	2.984	1.22	5y-EDAZ11	-90.511

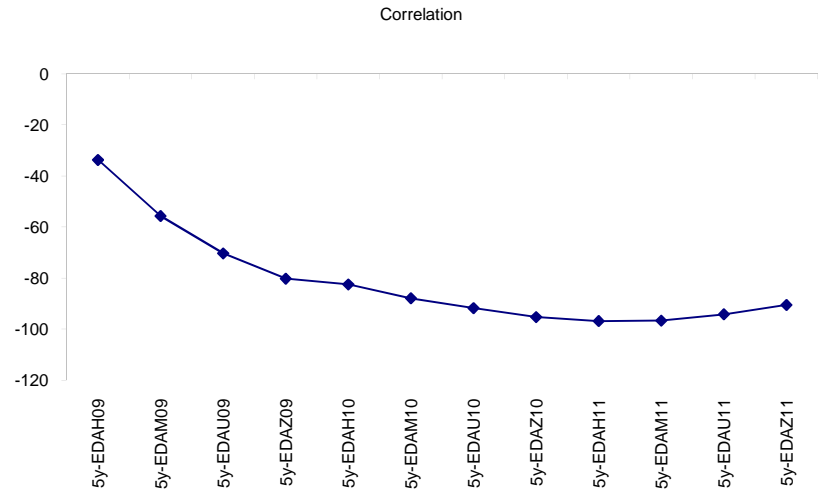
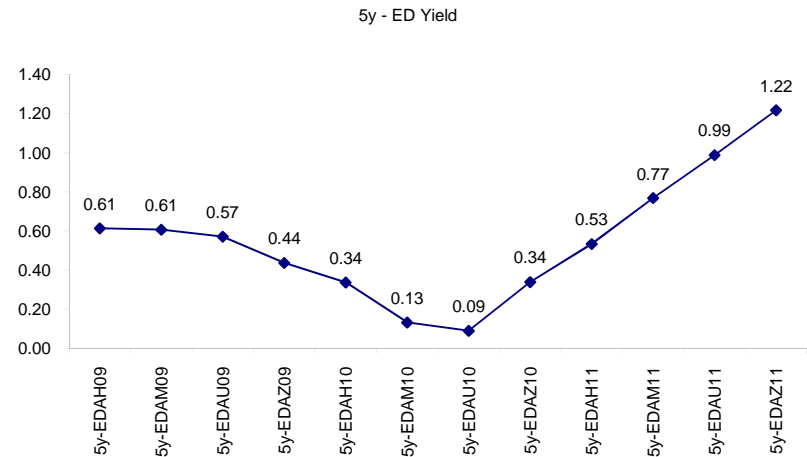
Price = Outright Decimal Price - Euro Contract Price

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

*Correlation = ED Correlation to Treasury Future over 10 days

	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAH09	0.035	4.74	4.70	5y-EDAH09	
EDAM09	0.284	4.74	4.46	5y-EDAM09	
EDAU09	0.534	4.74	4.21	5y-EDAU09	
EDAZ09	0.783	4.74	3.96	5y-EDAZ09	
EDAH10	1.032	4.74	3.71	5y-EDAH10	
EDAM10	1.282	4.74	3.46	5y-EDAM10	
EDAU10	1.531	4.74	3.21	5y-EDAU10	
EDAZ10	1.780	4.74	2.96	5y-EDAZ10	
EDAH11	2.029	4.74	2.71	5y-EDAH11	
EDAM11	2.279	4.74	2.46	5y-EDAM11	
EDAU11	2.547	4.74	2.19	5y-EDAU11	
EDAZ11	2.797	4.74	1.94	5y-EDAZ11	

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

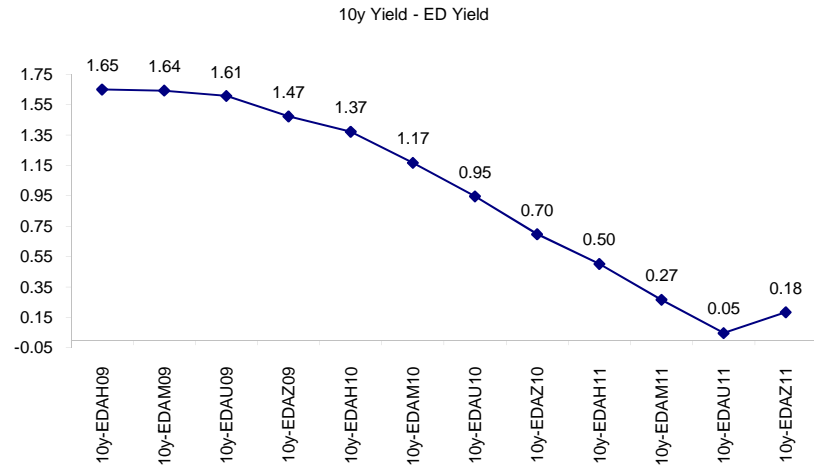


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.152	1.65	10y-EDAH09	-42.516
EDAM09	1.159	1.64	10y-EDAM09	-57.852
EDAU09	1.194	1.61	10y-EDAU09	-55.839
EDAZ09	1.329	1.47	10y-EDAZ09	-55.765
EDAH10	1.429	1.37	10y-EDAH10	-52.137
EDAM10	1.634	1.17	10y-EDAM10	-58.976
EDAU10	1.854	0.95	10y-EDAU10	-64.930
EDAZ10	2.104	0.70	10y-EDAZ10	-72.926
EDAH11	2.299	0.50	10y-EDAH11	-81.078
EDAM11	2.534	0.27	10y-EDAM11	-88.481
EDAU11	2.754	0.05	10y-EDAU11	-92.838
EDAZ11	2.984	0.18	10y-EDAZ11	-95.676

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			
	10Y Duration	Spread Duration		
EDAH09	0.035	8.62	8.59	10y-EDAH09
EDAM09	0.284	8.62	8.34	10y-EDAM09
EDAU09	0.534	8.62	8.09	10y-EDAU09
EDAZ09	0.783	8.62	7.84	10y-EDAZ09
EDAH10	1.032	8.62	7.59	10y-EDAH10
EDAM10	1.282	8.62	7.34	10y-EDAM10
EDAU10	1.531	8.62	7.09	10y-EDAU10
EDAZ10	1.780	8.62	6.84	10y-EDAZ10
EDAH11	2.029	8.62	6.59	10y-EDAH11
EDAM11	2.279	8.62	6.35	10y-EDAM11
EDAU11	2.547	8.62	6.08	10y-EDAU11
EDAZ11	2.797	8.62	5.83	10y-EDAZ11

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

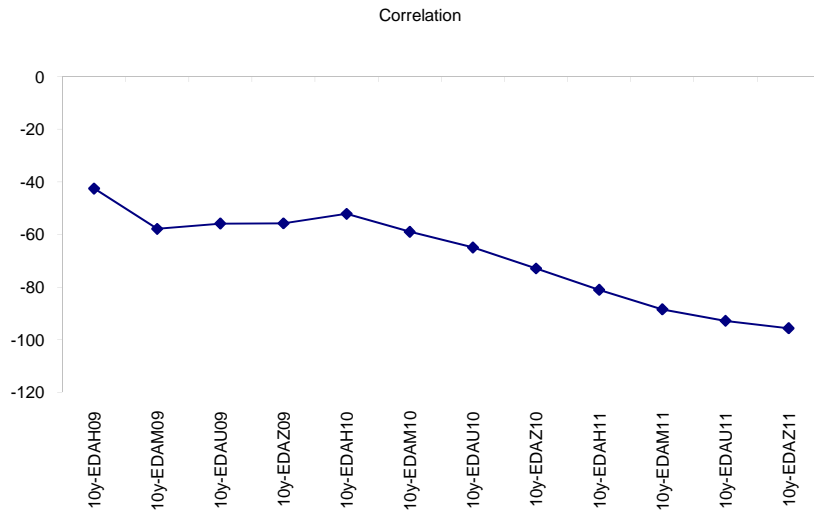


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

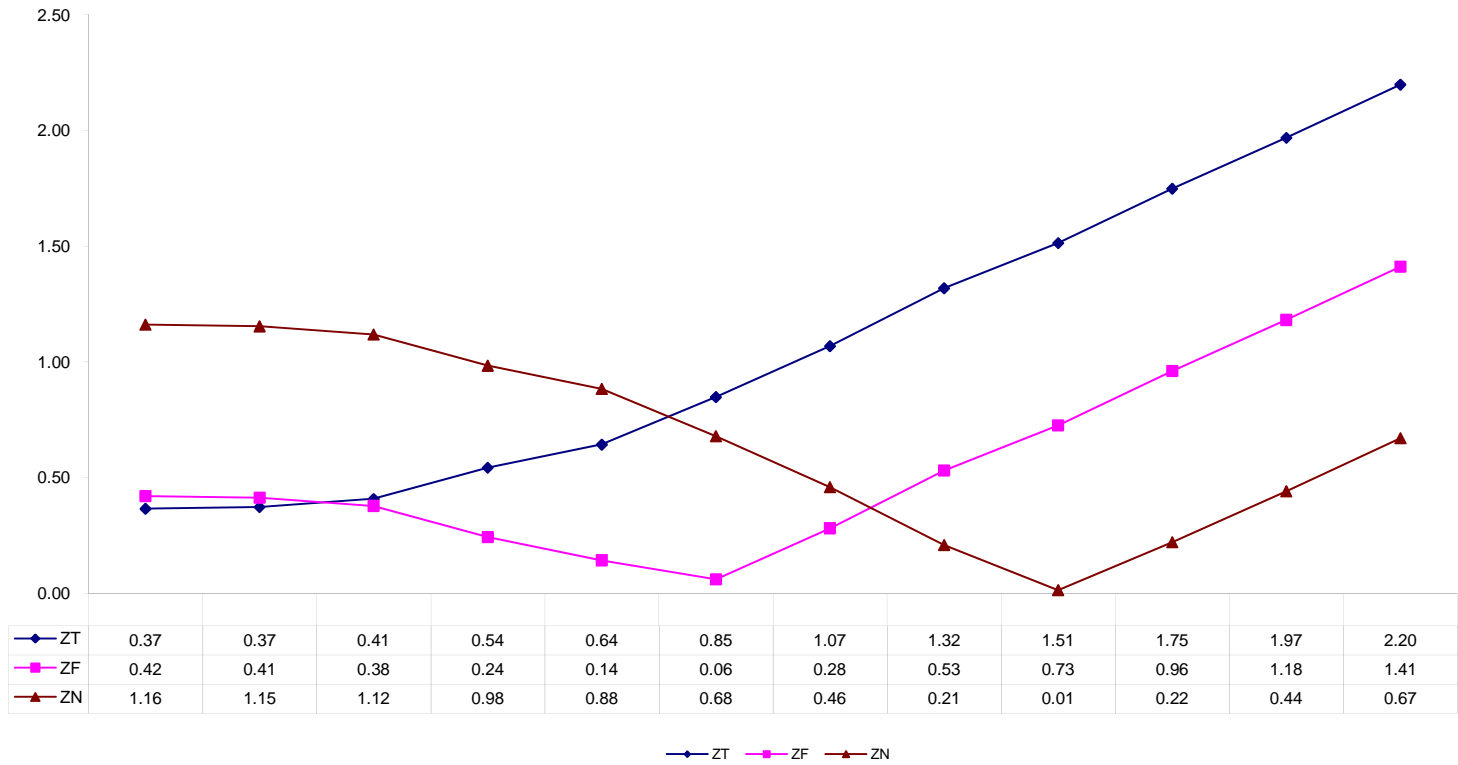
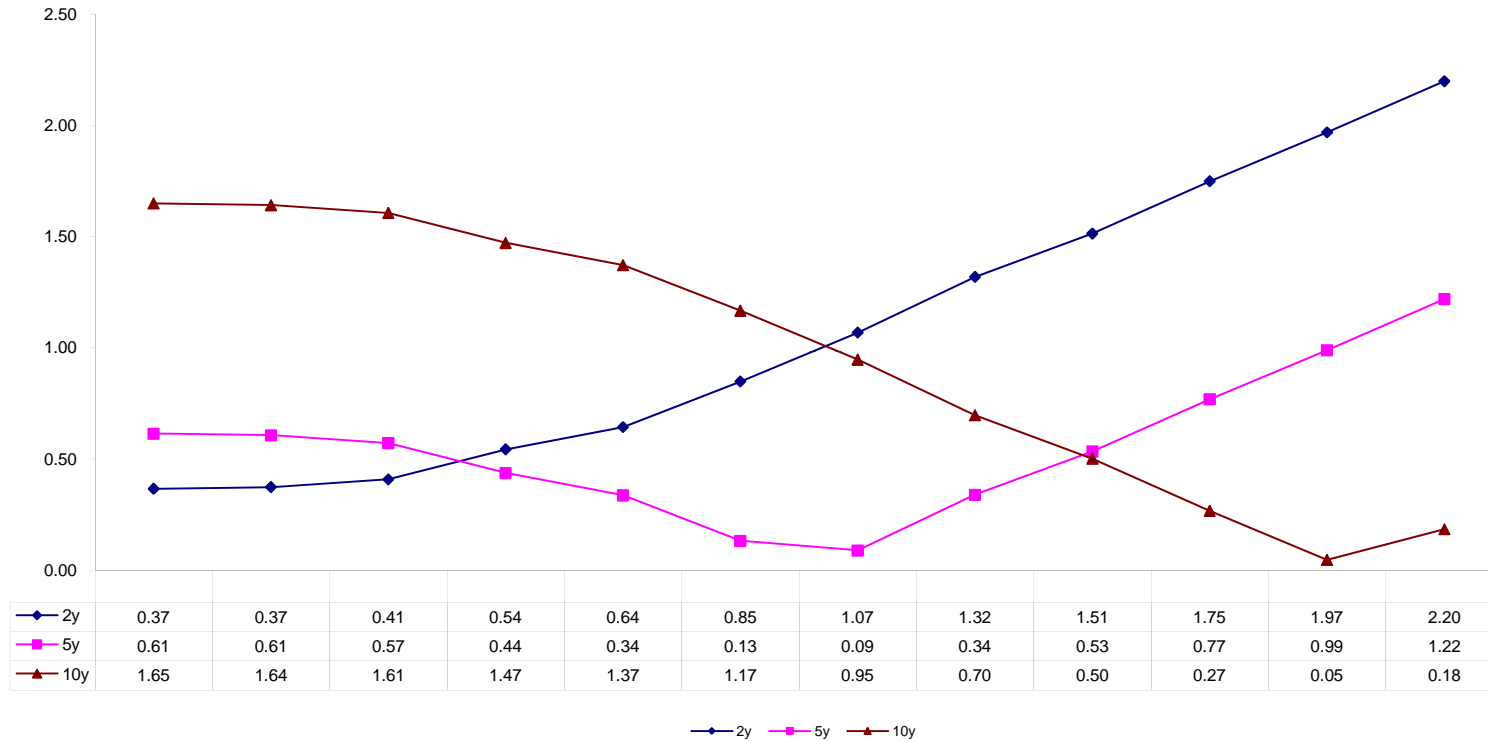
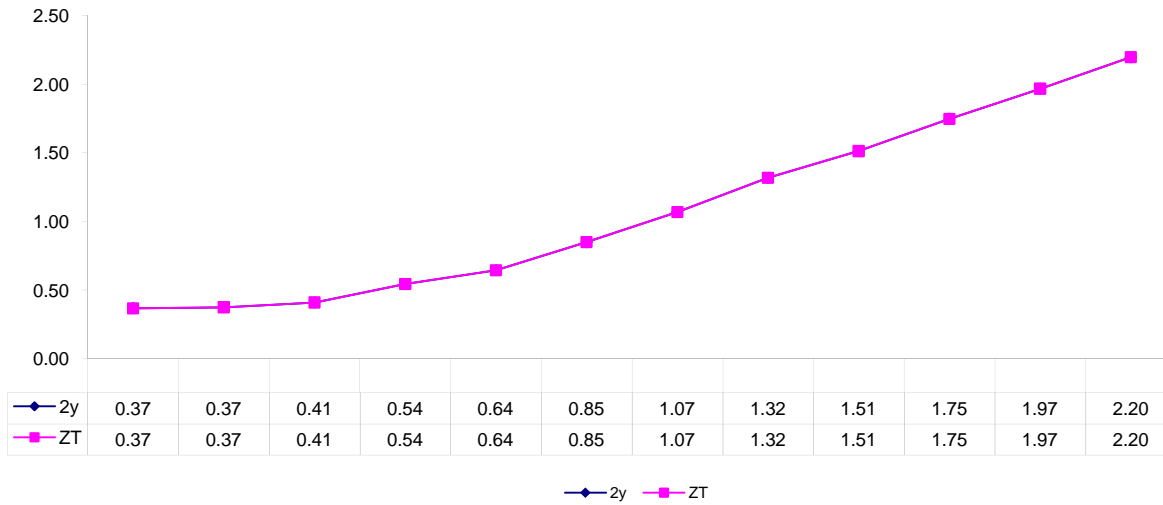
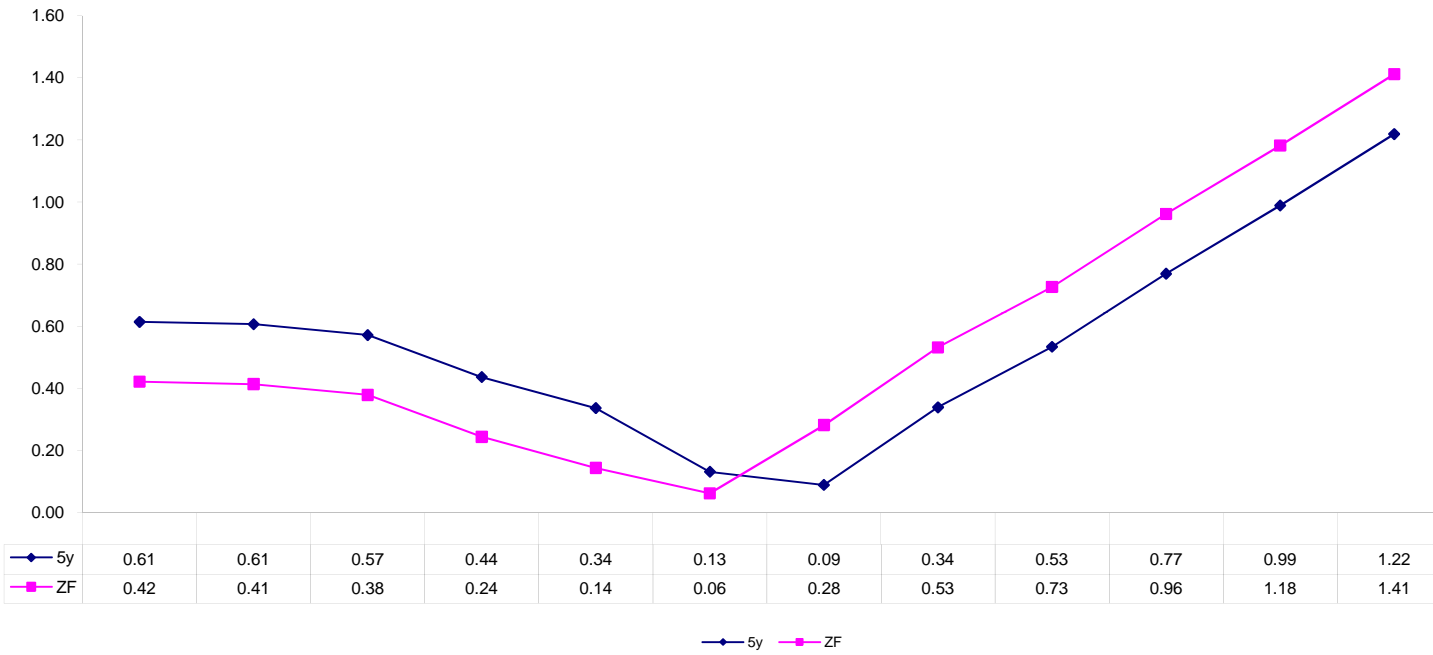


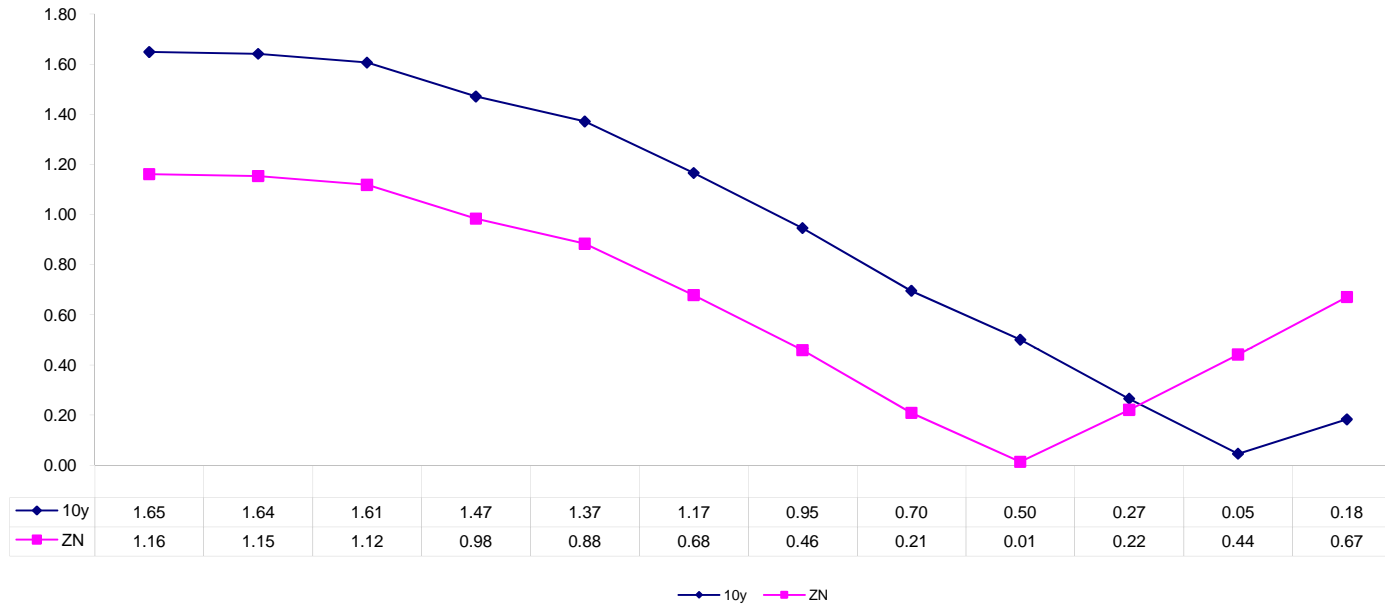
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.373	-2.938	9865.063
Red Pack	1.932	-5.000	9810.375
Green Pack	2.842	-3.125	9721.625
Blue Pack		-0.875	9657.250
Gold Pack		-0.125	9618.750

