

The Morning Email: TERM TEDS & Dirty TEDS

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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	109.0469	109.0150	0.752	1.98
ZF	119.6250	119.2000	1.142	1.14
ZN	127.3438	127.1100	1.355	6.30
2y	100.2875	100.0920	0.752	1.98
5y	100.2188	100.0700	1.454	4.67
10y	114.8594	114.2750	2.077	8.34

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAH09	98.980	1.020	75	0.205	MAR	
EDAM09	98.930	1.070	166	0.454	JUN	White Pack
EDAU09	98.815	1.185	257	0.703	SEP	
EDAZ09	98.665	1.335	348	0.953	DEC	
EDAH10	98.545	1.455	439	1.202	MAR	
EDAM10	98.325	1.675	530	1.451	JUN	Red Pack
EDAU10	98.140	1.860	621	1.701	SEP	
EDAZ10	97.935	2.065	712	1.950	DEC	
EDAH11	97.800	2.200	803	2.199	MAR	
EDAM11	97.685	2.315	894	2.449	JUN	Green Pack
EDAU11	97.590	2.410	992	2.717	SEP	
EDAZ11	97.490	2.510	1083	2.966	DEC	
EDAH12	97.465	2.535	1174	3.216	MAR	
EDAM12	97.420	2.580	1265	3.465	JUN	Blue Pack
EDAU12	97.385	2.615	1356	3.714	SEP	
EDAZ12	97.330	2.670	1447	3.964	DEC	
EDAH13	97.315	2.685	1538	4.213	MAR	
EDAM13	97.200	2.800	1629	4.462	JUN	Gold Pack
EDZU13	97.110	2.890	1720	4.712	SEP	
EDZZ13	97.040	2.960	1811	4.961	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.172	2.750	9884.750	
Red Pack	1.796	2.500	9823.625	Pack Prices
Green Pack	2.406	1.875	9764.125	
Blue Pack		0.750	9739.625	
Gold Pack		0.000	9718.500	

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.

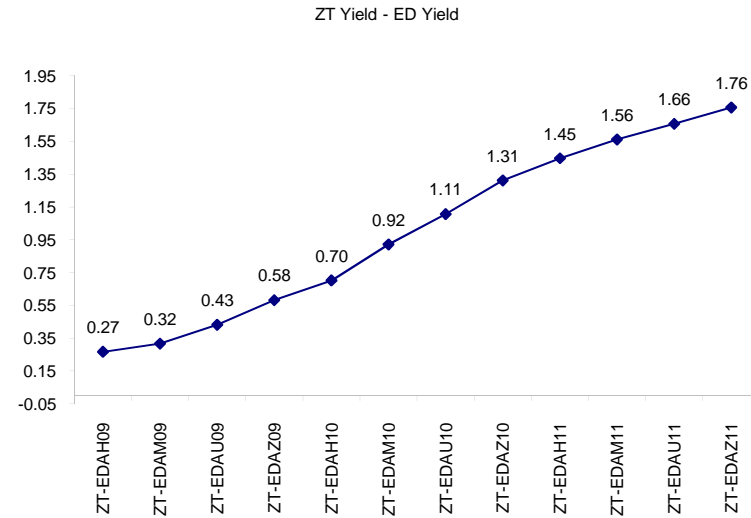
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Correlations (Important)

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.

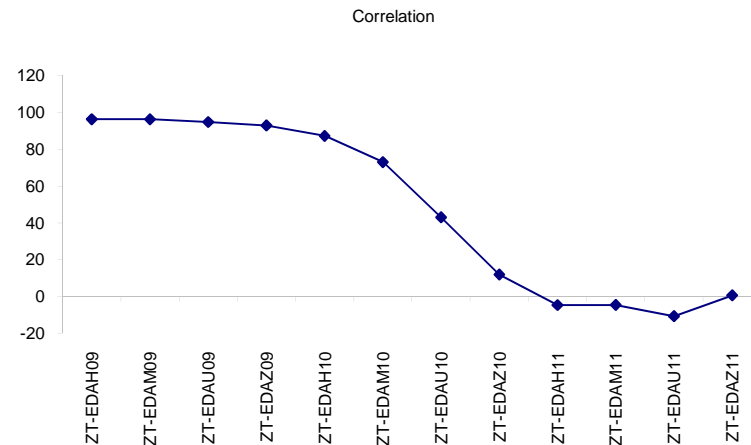
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	10.067	0.27	ZT-EDAH09	96.442
EDAM09	10.117	0.32	ZT-EDAM09	96.373
EDAU09	10.232	0.43	ZT-EDAU09	94.911
EDAZ09	10.382	0.58	ZT-EDAZ09	93.007
EDAH10	10.502	0.70	ZT-EDAH10	87.336
EDAM10	10.722	0.92	ZT-EDAM10	73.132
EDAU10	10.907	1.11	ZT-EDAU10	43.118
EDAZ10	11.112	1.31	ZT-EDAZ10	12.035
EDAH11	11.247	1.45	ZT-EDAH11	-4.536
EDAM11	11.362	1.56	ZT-EDAM11	-4.470
EDAU11	11.457	1.66	ZT-EDAU11	-10.600
EDAZ11	11.557	1.76	ZT-EDAZ11	0.772

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	0.205	1.98	1.77	ZT-EDAH09		
EDAM09	0.454	1.98	1.52	ZT-EDAM09		
EDAU09	0.703	1.98	1.27	ZT-EDAU09		
EDAZ09	0.953	1.98	1.02	ZT-EDAZ09		
EDAH10	1.202	1.98	0.77	ZT-EDAH10		
EDAM10	1.451	1.98	0.53	ZT-EDAM10		
EDAU10	1.701	1.98	0.28	ZT-EDAU10		
EDAZ10	1.950	1.98	0.03	ZT-EDAZ10		
EDAH11	2.199	1.98	(0.22)	ZT-EDAH11		
EDAM11	2.449	1.98	(0.47)	ZT-EDAM11		
EDAU11	2.717	1.98	(0.74)	ZT-EDAU11		
EDAZ11	2.966	1.98	(0.99)	ZT-EDAZ11		

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

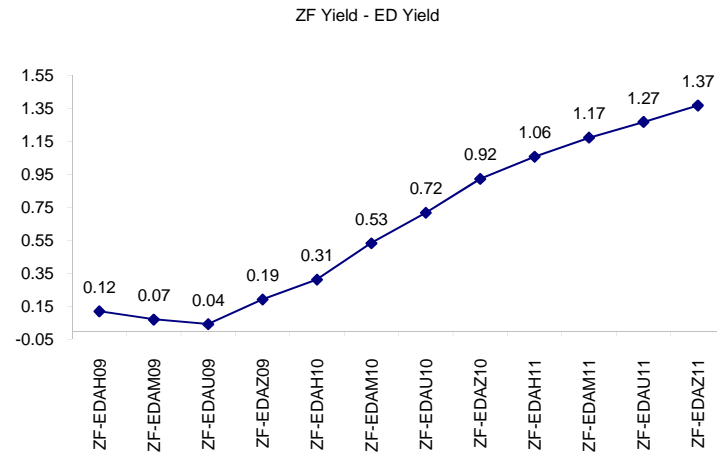


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	20.645	0.12	ZF-EDAH09	7.713
EDAM09	20.695	0.07	ZF-EDAM09	16.791
EDAU09	20.810	0.04	ZF-EDAU09	27.346
EDAZ09	20.960	0.19	ZF-EDAZ09	38.056
EDAH10	21.080	0.31	ZF-EDAH10	52.449
EDAM10	21.300	0.53	ZF-EDAM10	67.829
EDAU10	21.485	0.72	ZF-EDAU10	84.066
EDAZ10	21.690	0.92	ZF-EDAZ10	89.705
EDAH11	21.825	1.06	ZF-EDAH11	86.768
EDAM11	21.940	1.17	ZF-EDAM11	87.979
EDAU11	22.035	1.27	ZF-EDAU11	86.686
EDAZ11	22.135	1.37	ZF-EDAZ11	88.334

Price = Outright Decimal Price - Euro Contract Price

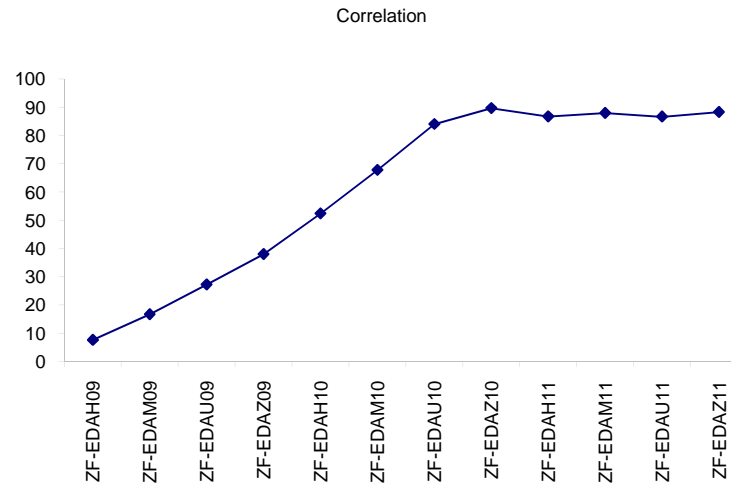
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAH09	0.205	1.14	0.94	ZF-EDAH09	
EDAM09	0.454	1.14	0.69	ZF-EDAM09	
EDAU09	0.703	1.14	0.44	ZF-EDAU09	
EDAZ09	0.953	1.14	0.19	ZF-EDAZ09	
EDAH10	1.202	1.14	(0.06)	ZF-EDAH10	
EDAM10	1.451	1.14	(0.31)	ZF-EDAM10	
EDAU10	1.701	1.14	(0.56)	ZF-EDAU10	
EDAZ10	1.950	1.14	(0.81)	ZF-EDAZ10	
EDAH11	2.199	1.14	(1.06)	ZF-EDAH11	
EDAM11	2.449	1.14	(1.31)	ZF-EDAM11	
EDAU11	2.717	1.14	(1.58)	ZF-EDAU11	
EDAZ11	2.966	1.14	(1.82)	ZF-EDAZ11	

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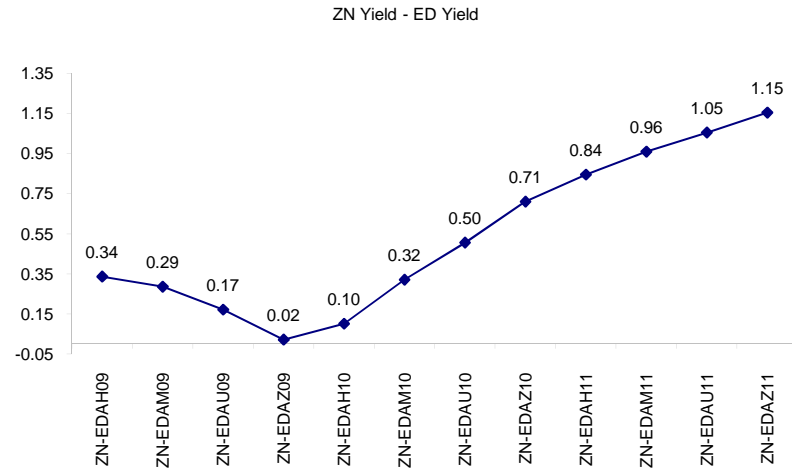


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	28.364	0.34	ZN-EDAH09	10.217
EDAM09	28.414	0.29	ZN-EDAM09	16.969
EDAU09	28.529	0.17	ZN-EDAU09	25.515
EDAZ09	28.679	0.02	ZN-EDAZ09	33.614
EDAH10	28.799	0.10	ZN-EDAH10	43.527
EDAM10	29.019	0.32	ZN-EDAM10	53.516
EDAU10	29.204	0.50	ZN-EDAU10	64.534
EDAZ10	29.409	0.71	ZN-EDAZ10	72.455
EDAH11	29.544	0.84	ZN-EDAH11	72.006
EDAM11	29.659	0.96	ZN-EDAM11	73.529
EDAU11	29.754	1.05	ZN-EDAU11	71.135
EDAZ11	29.854	1.15	ZN-EDAZ11	71.275

Price = Outright Decimal Price - Euro Contract Price

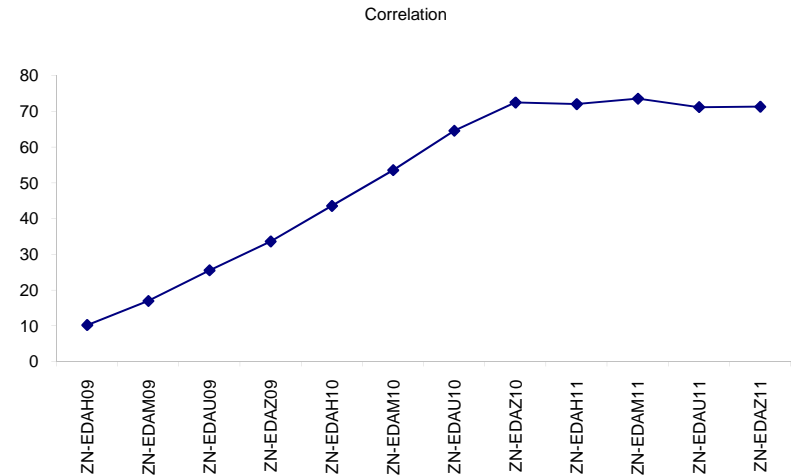
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year	ZN Duration	Spread Duration	
EDAH09	0.205	6.30	6.10	ZN-EDAH09
EDAM09	0.454	6.30	5.85	ZN-EDAM09
EDAU09	0.703	6.30	5.60	ZN-EDAU09
EDAZ09	0.953	6.30	5.35	ZN-EDAZ09
EDAH10	1.202	6.30	5.10	ZN-EDAH10
EDAM10	1.451	6.30	4.85	ZN-EDAM10
EDAU10	1.701	6.30	4.60	ZN-EDAU10
EDAZ10	1.950	6.30	4.35	ZN-EDAZ10
EDAH11	2.199	6.30	4.10	ZN-EDAH11
EDAM11	2.449	6.30	3.86	ZN-EDAM11
EDAU11	2.717	6.30	3.59	ZN-EDAU11
EDAZ11	2.966	6.30	3.34	ZN-EDAZ11

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	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.307	0.27	2y-EDAH09	-27.157
EDAM09	1.357	0.32	2y-EDAM09	-38.490
EDAU09	1.473	0.43	2y-EDAU09	-45.830
EDAZ09	1.622	0.58	2y-EDAZ09	-54.697
EDAH10	1.742	0.70	2y-EDAH10	-69.556
EDAM10	1.962	0.92	2y-EDAM10	-83.754
EDAU10	2.147	1.11	2y-EDAU10	-92.368
EDAZ10	2.352	1.31	2y-EDAZ10	-86.266
EDAH11	2.488	1.45	2y-EDAH11	-77.463
EDAM11	2.602	1.56	2y-EDAM11	-77.191
EDAU11	2.697	1.66	2y-EDAU11	-73.387
EDAZ11	2.797	1.76	2y-EDAZ11	-79.153

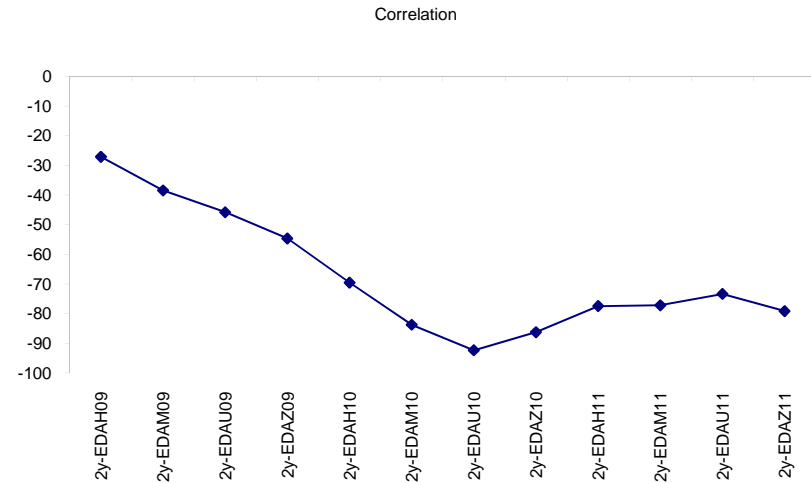
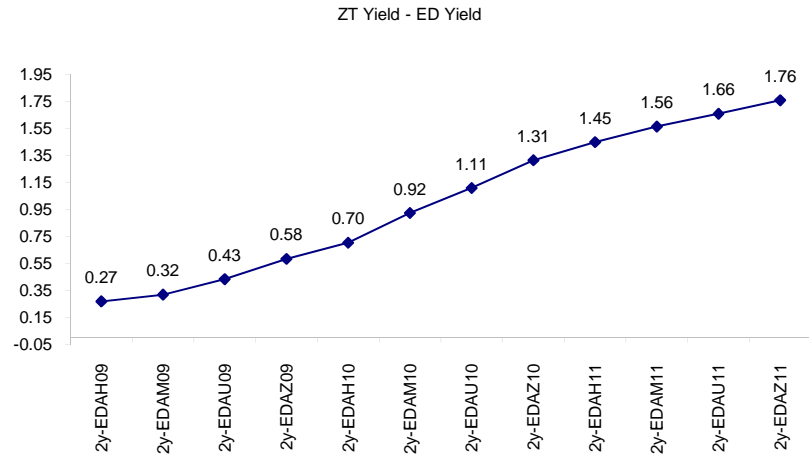
Price = Outright Decimal Price - Euro Contract Price

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	0.205	1.98	1.77	2y-EDAH09	
EDAM09	0.454	1.98	1.52	2y-EDAM09	
EDAU09	0.703	1.98	1.27	2y-EDAU09	
EDAZ09	0.953	1.98	1.02	2y-EDAZ09	
EDAH10	1.202	1.98	0.77	2y-EDAH10	
EDAM10	1.451	1.98	0.53	2y-EDAM10	
EDAU10	1.701	1.98	0.28	2y-EDAU10	
EDAZ10	1.950	1.98	0.03	2y-EDAZ10	
EDAH11	2.199	1.98	(0.22)	2y-EDAH11	
EDAM11	2.449	1.98	(0.47)	2y-EDAM11	
EDAU11	2.717	1.98	(0.74)	2y-EDAU11	
EDAZ11	2.966	1.98	(0.99)	2y-EDAZ11	

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

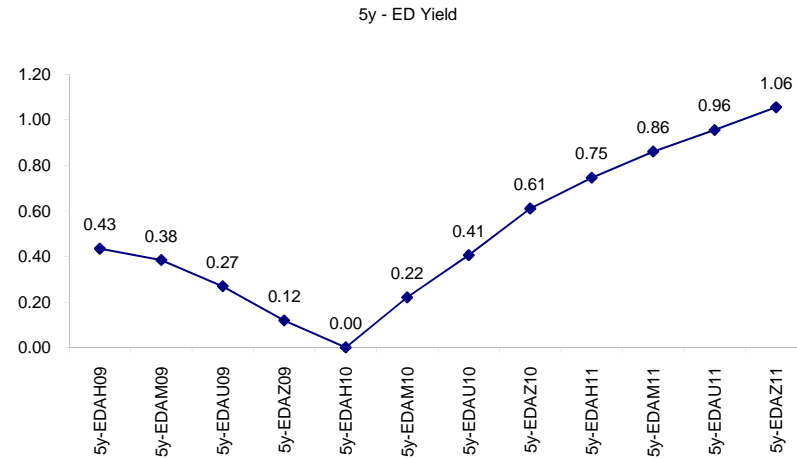


	5y			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAH09	1.239	0.43	5y-EDAH09	31.958
EDAM09	1.289	0.38	5y-EDAM09	24.813
EDAU09	1.404	0.27	5y-EDAU09	17.974
EDAZ09	1.554	0.12	5y-EDAZ09	6.816
EDAH10	1.674	0.00	5y-EDAH10	-12.886
EDAM10	1.894	0.22	5y-EDAM10	-36.205
EDAU10	2.079	0.41	5y-EDAU10	-66.659
EDAZ10	2.284	0.61	5y-EDAZ10	-83.391
EDAH11	2.419	0.75	5y-EDAH11	-85.952
EDAM11	2.534	0.86	5y-EDAM11	-87.500
EDAU11	2.629	0.96	5y-EDAU11	-90.758
EDAZ11	2.729	1.06	5y-EDAZ11	-91.816

Price = Outright Decimal Price - Euro Contract Price

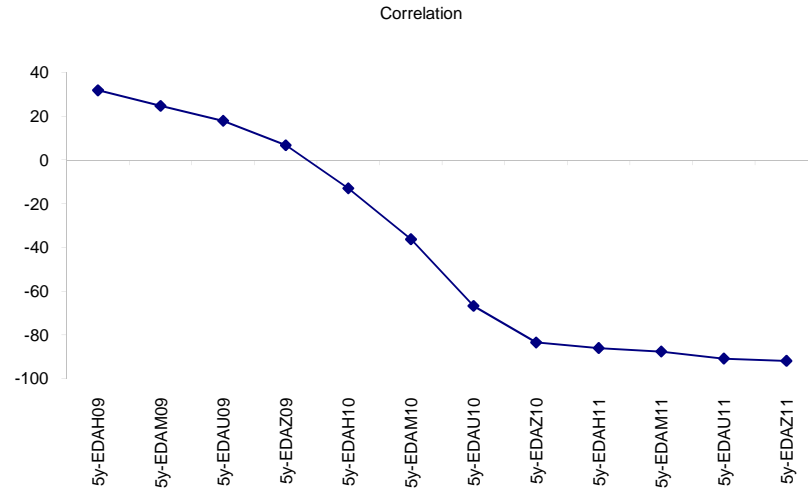
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			Spread Duration	
	Fraction of year	5Y Duration	5Y Duration		
EDAH09	0.205	4.67	4.46	5y-EDAH09	
EDAM09	0.454	4.67	4.21	5y-EDAM09	
EDAU09	0.703	4.67	3.96	5y-EDAU09	
EDAZ09	0.953	4.67	3.71	5y-EDAZ09	
EDAH10	1.202	4.67	3.47	5y-EDAH10	
EDAM10	1.451	4.67	3.22	5y-EDAM10	
EDAU10	1.701	4.67	2.97	5y-EDAU10	
EDAZ10	1.950	4.67	2.72	5y-EDAZ10	
EDAH11	2.199	4.67	2.47	5y-EDAH11	
EDAM11	2.449	4.67	2.22	5y-EDAM11	
EDAU11	2.717	4.67	1.95	5y-EDAU11	
EDAZ11	2.966	4.67	1.70	5y-EDAZ11	

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

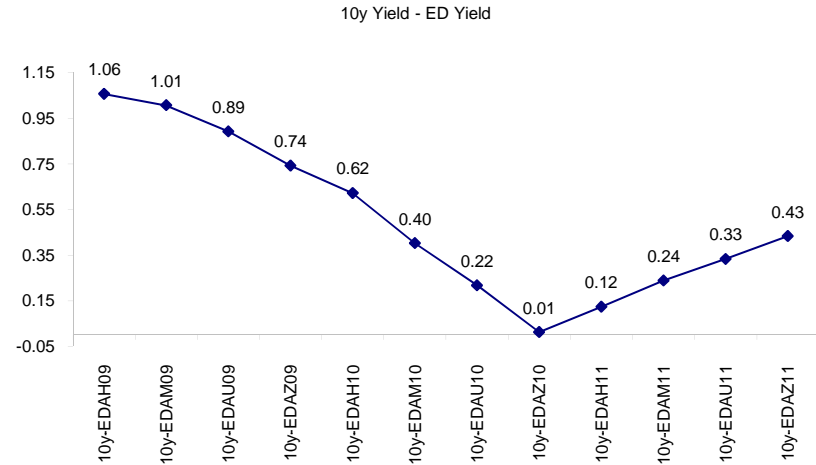


	10y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAH09	1.239	1.06	10y-EDAH09	-67.952
EDAM09	1.289	1.01	10y-EDAM09	-63.501
EDAU09	1.404	0.89	10y-EDAU09	-64.134
EDAZ09	1.554	0.74	10y-EDAZ09	-67.012
EDAH10	1.674	0.62	10y-EDAH10	-69.638
EDAM10	1.894	0.40	10y-EDAM10	-66.176
EDAU10	2.079	0.22	10y-EDAU10	-55.238
EDAZ10	2.284	0.01	10y-EDAZ10	-38.503
EDAH11	2.419	0.12	10y-EDAH11	-26.152
EDAM11	2.534	0.24	10y-EDAM11	-28.466
EDAU11	2.629	0.33	10y-EDAU11	-28.830
EDAZ11	2.729	0.43	10y-EDAZ11	-38.632

Price = Outright Decimal Price - Euro Contract Price

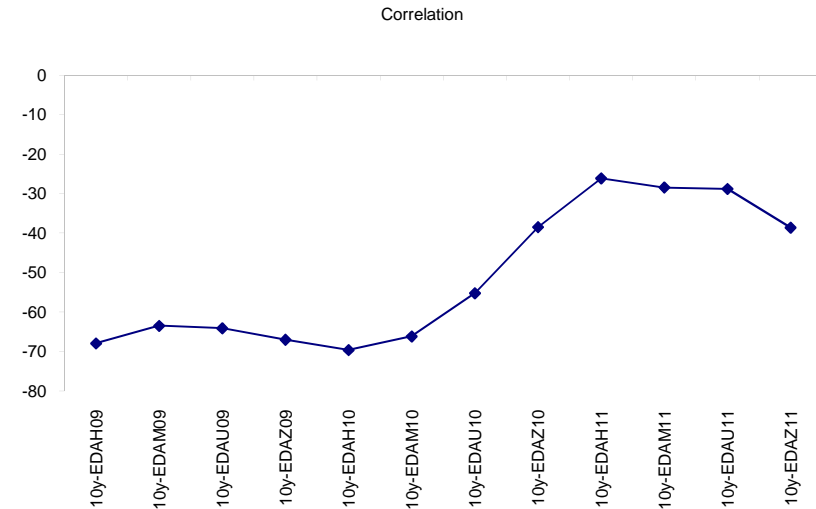
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAH09	0.205	8.34	8.14	10y-EDAH09
EDAM09	0.454	8.34	7.89	10y-EDAM09
EDAU09	0.703	8.34	7.64	10y-EDAU09
EDAZ09	0.953	8.34	7.39	10y-EDAZ09
EDAH10	1.202	8.34	7.14	10y-EDAH10
EDAM10	1.451	8.34	6.89	10y-EDAM10
EDAU10	1.701	8.34	6.64	10y-EDAU10
EDAZ10	1.950	8.34	6.39	10y-EDAZ10
EDAH11	2.199	8.34	6.14	10y-EDAH11
EDAM11	2.449	8.34	5.89	10y-EDAM11
EDAU11	2.717	8.34	5.62	10y-EDAU11
EDAZ11	2.966	8.34	5.38	10y-EDAZ11

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.

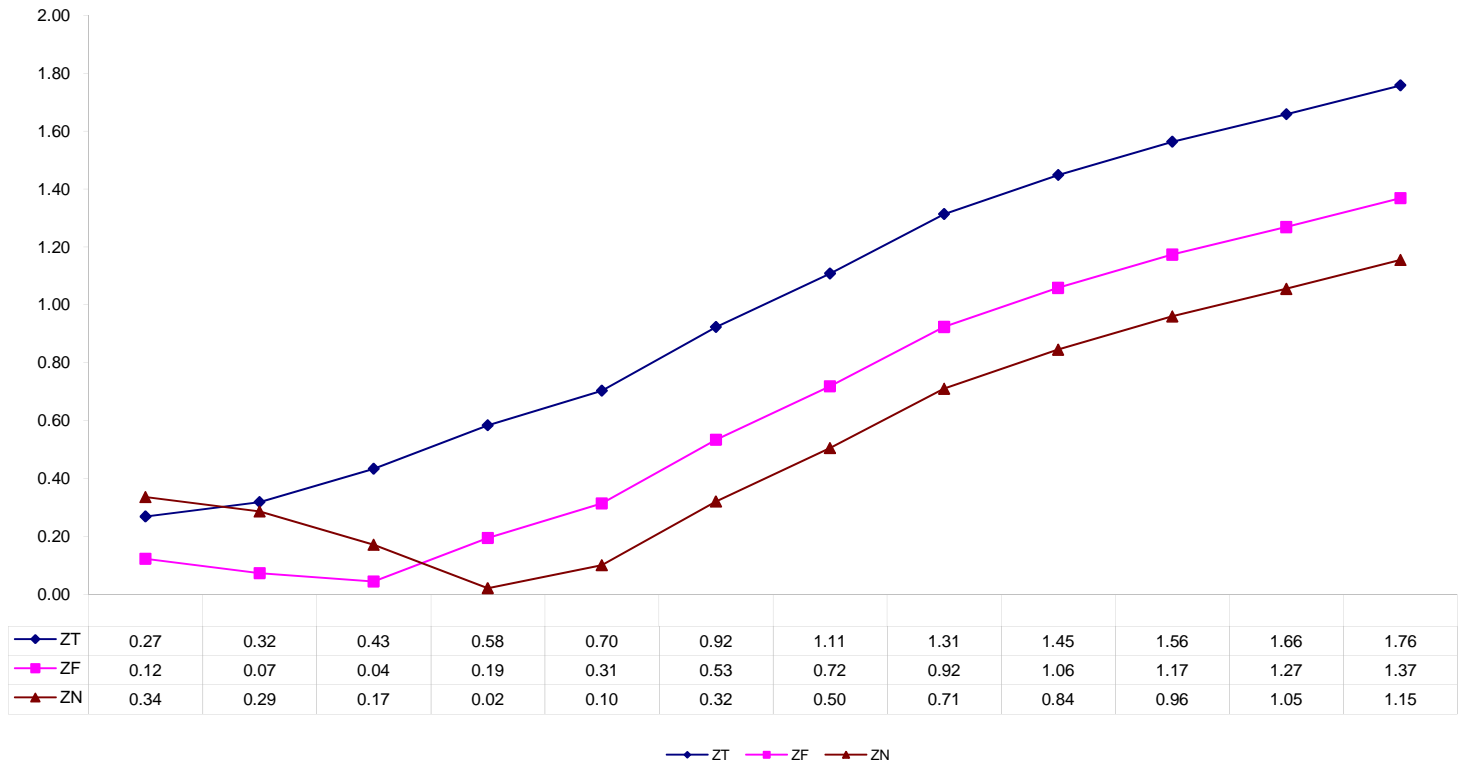
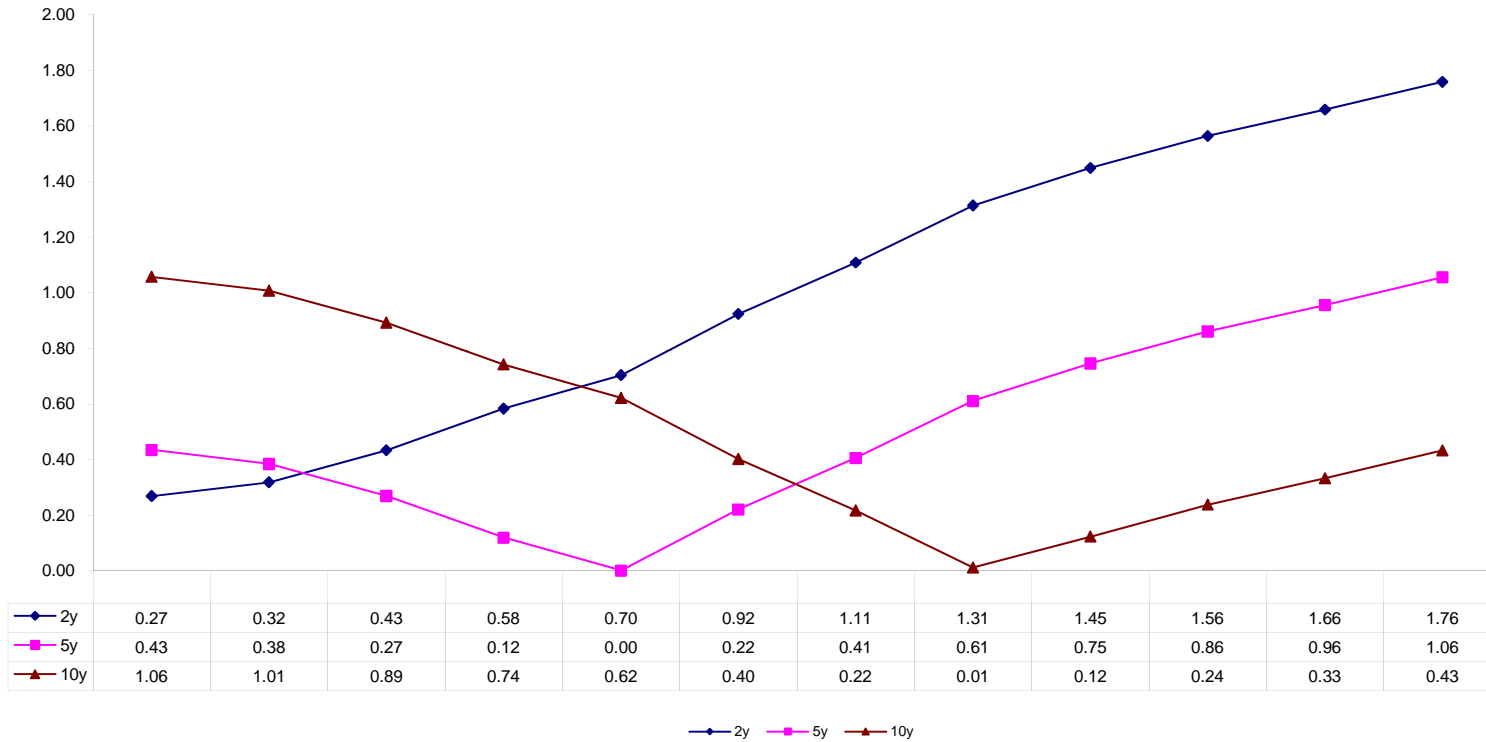
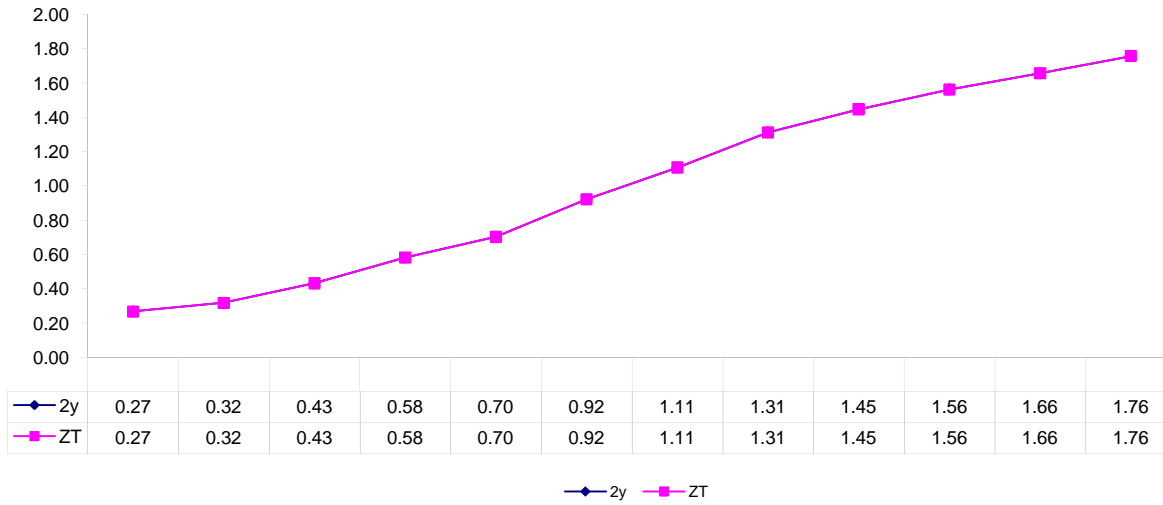


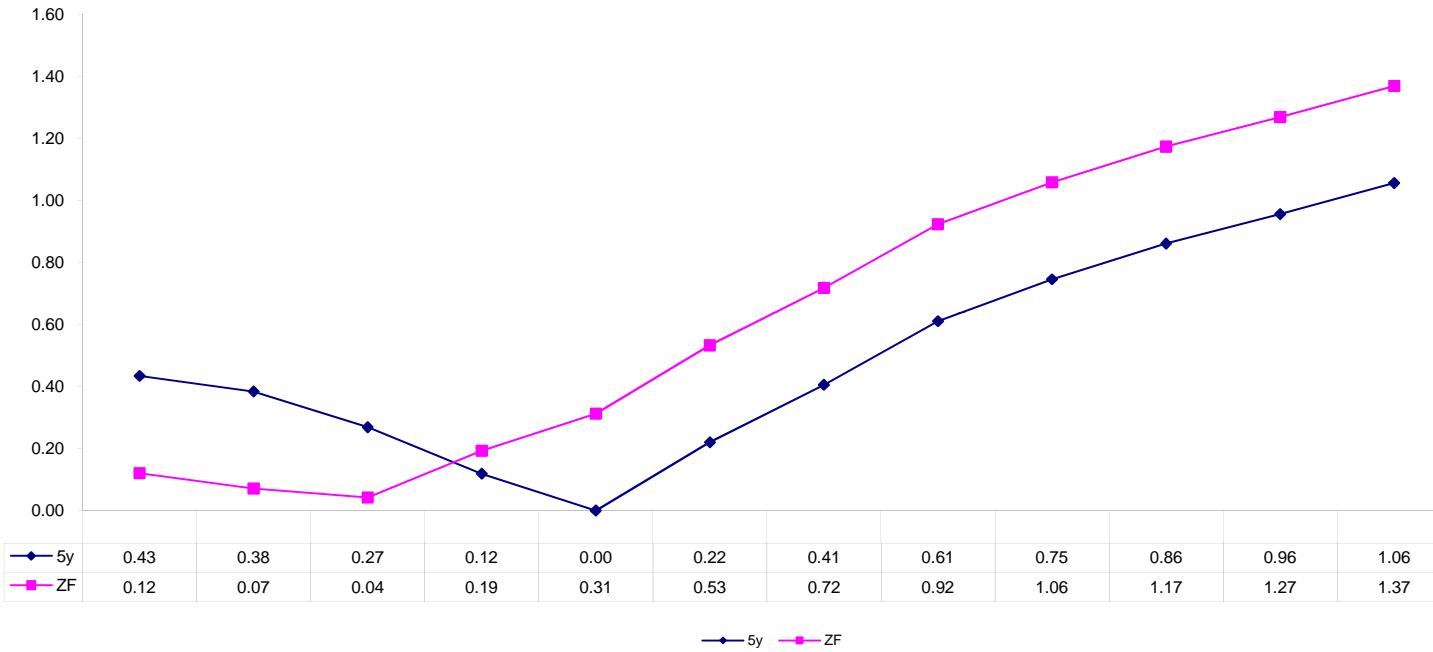
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



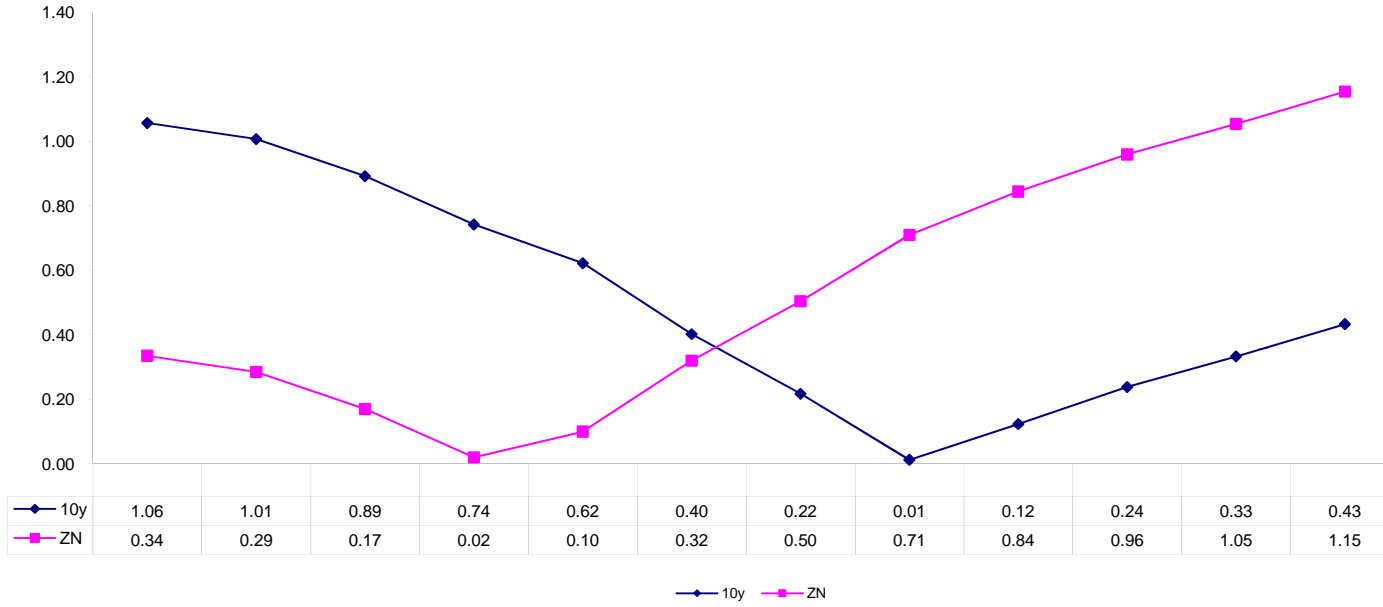
2y Basis TED Curve



5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	1.172	2.750	9884.750
Red Pack	1.796	2.500	9823.625
Green Pack	2.406	1.875	9764.125
Blue Pack	0.750	0.750	9739.625
Gold Pack	0.000	0.000	9718.500

