

The Morning Email: TERM TEDS & Dirty TEDS

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Want something added? Let me know: jgoulding@ghco.com

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Treasury Futures and Cash				
	Last	Last	Last	
	Decimal	€ 32.00	Yield*	MDuration
ZT	109.0938	109.0300	0.607	1.81
ZF	119.2813	119.0900	1.354	1.35
ZN	124.4219	124.1350	1.542	6.21
2y	100.0625	100.0200	0.836	1.90
5y	99.6469	99.2070	1.573	4.59
10y	110.4531	110.1450	2.539	8.21

Eurodollars (ED)						
	Last	Last Imp	Days til	Fraction	Month	
	Price	Yield	Expr.	of year		
EDAH09	98.935	1.065	47	0.128	MAR	
EDAM09	98.955	1.045	138	0.377	JUN	White Pack
EDAU09	98.875	1.125	229	0.627	SEP	
EDAZ09	98.690	1.310	320	0.876	DEC	
EDAH10	98.540	1.460	411	1.125	MAR	
EDAM10	98.310	1.690	502	1.375	JUN	Red Pack
EDAU10	98.090	1.910	593	1.624	SEP	
EDAZ10	97.845	2.155	684	1.873	DEC	
EDAH11	97.680	2.320	775	2.123	MAR	
EDAM11	97.500	2.500	866	2.372	JUN	Green Pack
EDAU11	97.360	2.640	964	2.640	SEP	
EDAZ11	97.230	2.770	1055	2.890	DEC	
EDAH12	97.180	2.820	1146	3.139	MAR	
EDAM12	97.120	2.880	1237	3.388	JUN	Blue Pack
EDAU12	97.080	2.920	1328	3.638	SEP	
EDAZ12	97.005	2.995	1419	3.887	DEC	
EDAH13	96.980	3.020	1510	4.136	MAR	
EDAM13	96.910	3.090	1601	4.386	JUN	Gold Pack
EDZU13	96.850	3.150	1692	4.635	SEP	
EDZZ13	96.720	3.280	1783	4.884	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.155	1.625	9886.375	
Red Pack	1.837	-1.625	9819.625	Pack Prices
Green Pack	2.610	-2.375	9744.250	
Blue Pack		-1.375	9709.750	
Gold Pack		-0.125	9687.875	

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.

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.

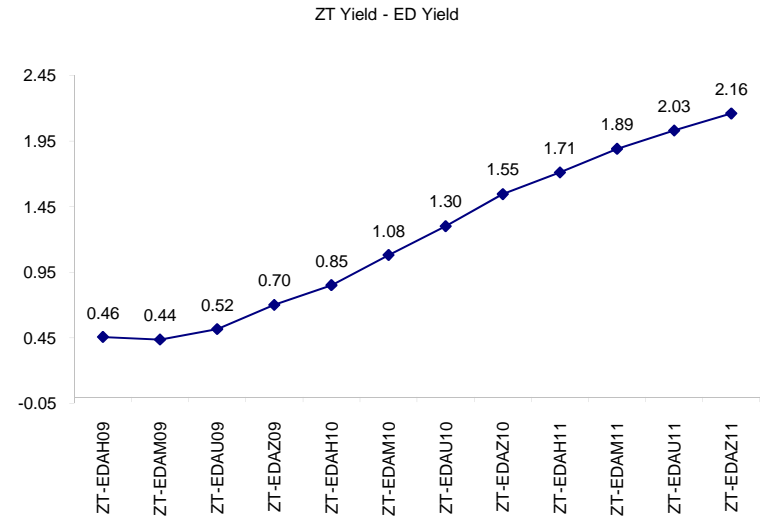
jgoulding@ghco.com

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.

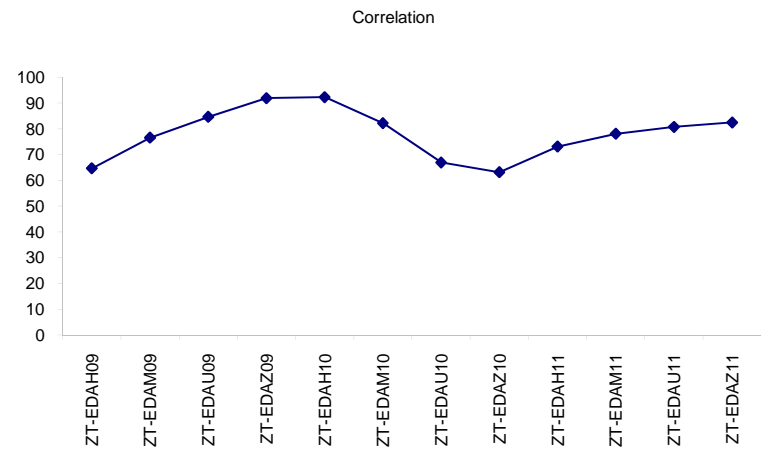
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	10.159	0.46	ZT-EDAH09	64.693
EDAM09	10.139	0.44	ZT-EDAM09	76.568
EDAU09	10.219	0.52	ZT-EDAU09	84.632
EDAZ09	10.404	0.70	ZT-EDAZ09	91.859
EDAH10	10.554	0.85	ZT-EDAH10	92.293
EDAM10	10.784	1.08	ZT-EDAM10	82.180
EDAU10	11.004	1.30	ZT-EDAU10	66.958
EDAZ10	11.249	1.55	ZT-EDAZ10	63.166
EDAH11	11.414	1.71	ZT-EDAH11	73.124
EDAM11	11.594	1.89	ZT-EDAM11	78.086
EDAU11	11.734	2.03	ZT-EDAU11	80.756
EDAZ11	11.864	2.16	ZT-EDAZ11	82.448

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS (Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



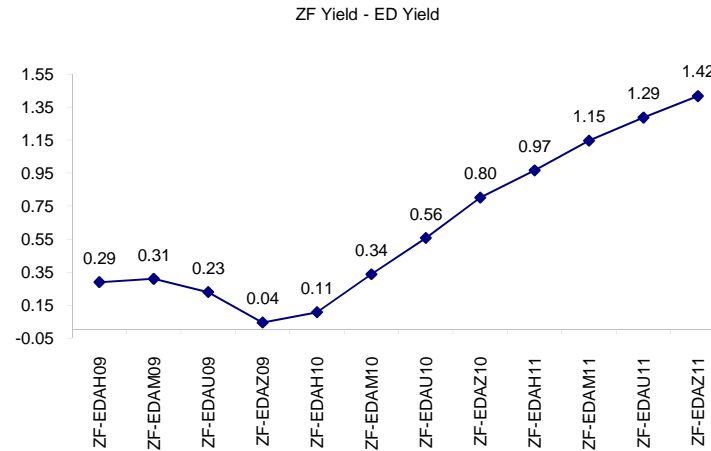
ED Duration as Fraction of year				ZT Duration	Spread Duration	
EDAH09	0.128	1.81	1.68	ZT-EDAH09		
EDAM09	0.377	1.81	1.43	ZT-EDAM09		
EDAU09	0.627	1.81	1.18	ZT-EDAU09		
EDAZ09	0.876	1.81	0.93	ZT-EDAZ09		
EDAH10	1.125	1.81	0.68	ZT-EDAH10		
EDAM10	1.375	1.81	0.44	ZT-EDAM10		
EDAU10	1.624	1.81	0.19	ZT-EDAU10		
EDAZ10	1.873	1.81	(0.06)	ZT-EDAZ10		
EDAH11	2.123	1.81	(0.31)	ZT-EDAH11		
EDAM11	2.372	1.81	(0.56)	ZT-EDAM11		
EDAU11	2.640	1.81	(0.83)	ZT-EDAU11		
EDAZ11	2.890	1.81	(1.08)	ZT-EDAZ11		

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



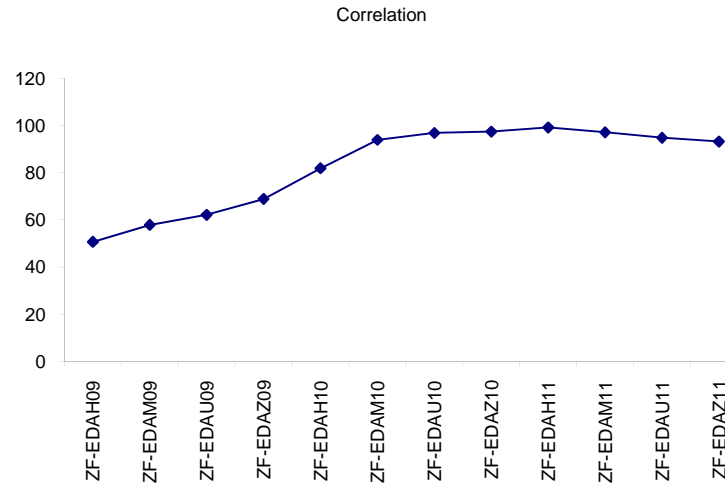
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	20.346	0.29	ZF-EDAH09	50.622
EDAM09	20.326	0.31	ZF-EDAM09	57.836
EDAU09	20.406	0.23	ZF-EDAU09	62.121
EDAZ09	20.591	0.04	ZF-EDAZ09	68.883
EDAH10	20.741	0.11	ZF-EDAH10	81.888
EDAM10	20.971	0.34	ZF-EDAM10	93.966
EDAU10	21.191	0.56	ZF-EDAU10	96.884
EDAZ10	21.436	0.80	ZF-EDAZ10	97.484
EDAH11	21.601	0.97	ZF-EDAH11	99.254
EDAM11	21.781	1.15	ZF-EDAM11	97.158
EDAU11	21.921	1.29	ZF-EDAU11	94.881
EDAZ11	22.051	1.42	ZF-EDAZ11	93.276

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	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAH09	0.128	1.35	1.23	1.23	ZF-EDAH09
EDAM09	0.377	1.35	0.98	0.98	ZF-EDAM09
EDAU09	0.627	1.35	0.73	0.73	ZF-EDAU09
EDAZ09	0.876	1.35	0.48	0.48	ZF-EDAZ09
EDAH10	1.125	1.35	0.23	0.23	ZF-EDAH10
EDAM10	1.375	1.35	(0.02)	(0.02)	ZF-EDAM10
EDAU10	1.624	1.35	(0.27)	(0.27)	ZF-EDAU10
EDAZ10	1.873	1.35	(0.52)	(0.52)	ZF-EDAZ10
EDAH11	2.123	1.35	(0.77)	(0.77)	ZF-EDAH11
EDAM11	2.372	1.35	(1.02)	(1.02)	ZF-EDAM11
EDAU11	2.640	1.35	(1.29)	(1.29)	ZF-EDAU11
EDAZ11	2.890	1.35	(1.54)	(1.54)	ZF-EDAZ11

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

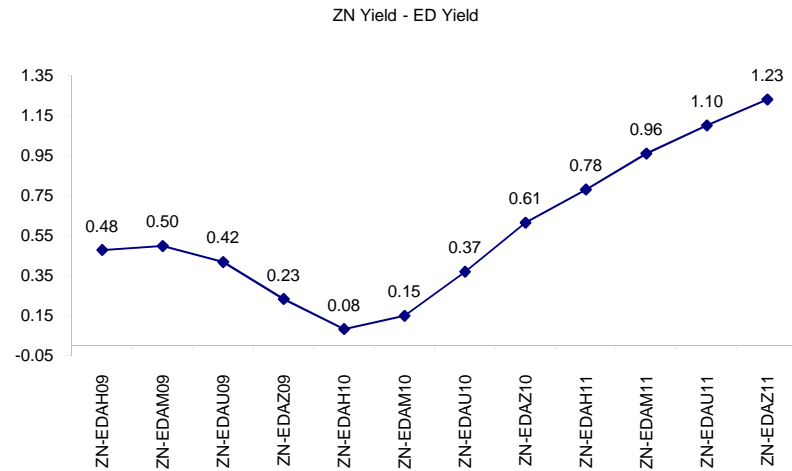


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAH09	25.487	0.48	ZN-EDAH09	62.650
EDAM09	25.467	0.50	ZN-EDAM09	68.876
EDAU09	25.547	0.42	ZN-EDAU09	71.346
EDAZ09	25.732	0.23	ZN-EDAZ09	75.685
EDAH10	25.882	0.08	ZN-EDAH10	85.650
EDAM10	26.112	0.15	ZN-EDAM10	92.259
EDAU10	26.332	0.37	ZN-EDAU10	91.686
EDAZ10	26.577	0.61	ZN-EDAZ10	92.201
EDAH11	26.742	0.78	ZN-EDAH11	98.403
EDAM11	26.922	0.96	ZN-EDAM11	99.612
EDAU11	27.062	1.10	ZN-EDAU11	98.974
EDAZ11	27.192	1.23	ZN-EDAZ11	98.190

Price = Outright Decimal Price - Euro Contract Price

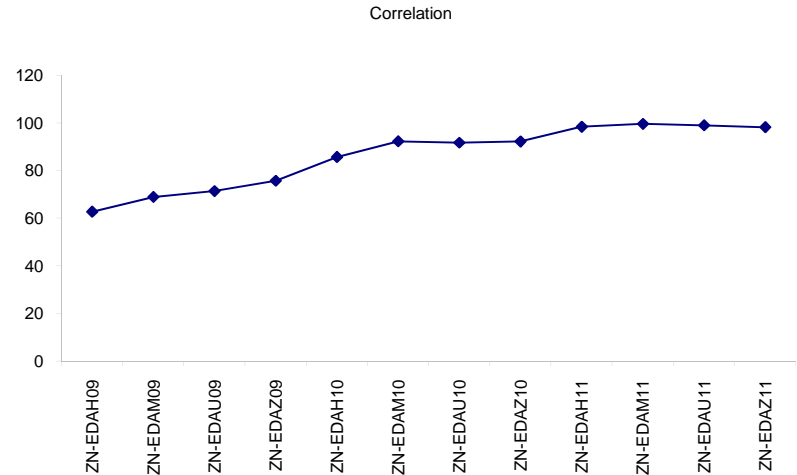
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			ZN Duration	Spread Duration	
	Fraction of year					
EDAH09	0.128	6.21	6.09	6.09	ZN-EDAH09	
EDAM09	0.377	6.21	5.84	5.84	ZN-EDAM09	
EDAU09	0.627	6.21	5.59	5.59	ZN-EDAU09	
EDAZ09	0.876	6.21	5.34	5.34	ZN-EDAZ09	
EDAH10	1.125	6.21	5.09	5.09	ZN-EDAH10	
EDAM10	1.375	6.21	4.84	4.84	ZN-EDAM10	
EDAU10	1.624	6.21	4.59	4.59	ZN-EDAU10	
EDAZ10	1.873	6.21	4.34	4.34	ZN-EDAZ10	
EDAH11	2.123	6.21	4.09	4.09	ZN-EDAH11	
EDAM11	2.372	6.21	3.84	3.84	ZN-EDAM11	
EDAU11	2.640	6.21	3.57	3.57	ZN-EDAU11	
EDAZ11	2.890	6.21	3.32	3.32	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	1.127	0.23	2y-EDAH09	-67.200
EDAM09	1.107	0.21	2y-EDAM09	-74.006
EDAU09	1.187	0.29	2y-EDAU09	-76.868
EDAZ09	1.372	0.47	2y-EDAZ09	-81.317
EDAH10	1.522	0.62	2y-EDAH10	-82.020
EDAM10	1.752	0.85	2y-EDAM10	-76.953
EDAU10	1.972	1.07	2y-EDAU10	-69.588
EDAZ10	2.217	1.32	2y-EDAZ10	-69.597
EDAH11	2.382	1.48	2y-EDAH11	-77.037
EDAM11	2.562	1.66	2y-EDAM11	-81.538
EDAU11	2.702	1.80	2y-EDAU11	-84.452
EDAZ11	2.832	1.93	2y-EDAZ11	-86.341

Price = Outright Decimal Price - Euro Contract Price

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

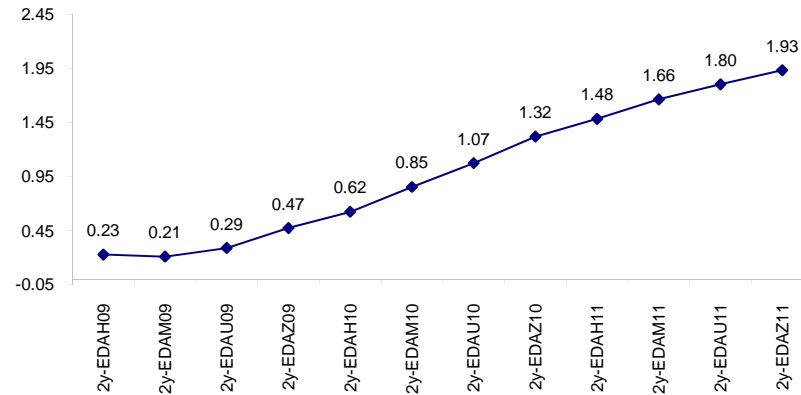
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

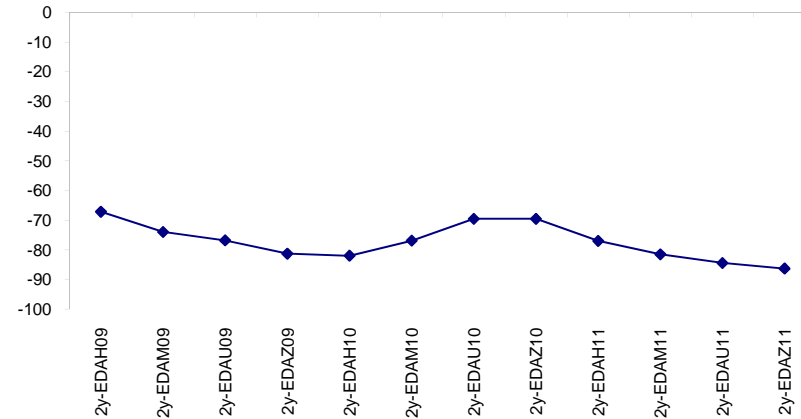
	Fraction of year	2Y Duration	Spread Duration	
EDAH09	0.128	1.90	1.77	2y-EDAH09
EDAM09	0.377	1.90	1.52	2y-EDAM09
EDAU09	0.627	1.90	1.27	2y-EDAU09
EDAZ09	0.876	1.90	1.02	2y-EDAZ09
EDAH10	1.125	1.90	0.77	2y-EDAH10
EDAM10	1.375	1.90	0.52	2y-EDAM10
EDAU10	1.624	1.90	0.27	2y-EDAU10
EDAZ10	1.873	1.90	0.03	2y-EDAZ10
EDAH11	2.123	1.90	(0.22)	2y-EDAH11
EDAM11	2.372	1.90	(0.47)	2y-EDAM11
EDAU11	2.640	1.90	(0.74)	2y-EDAU11
EDAZ11	2.890	1.90	(0.99)	2y-EDAZ11

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ZT Yield - ED Yield

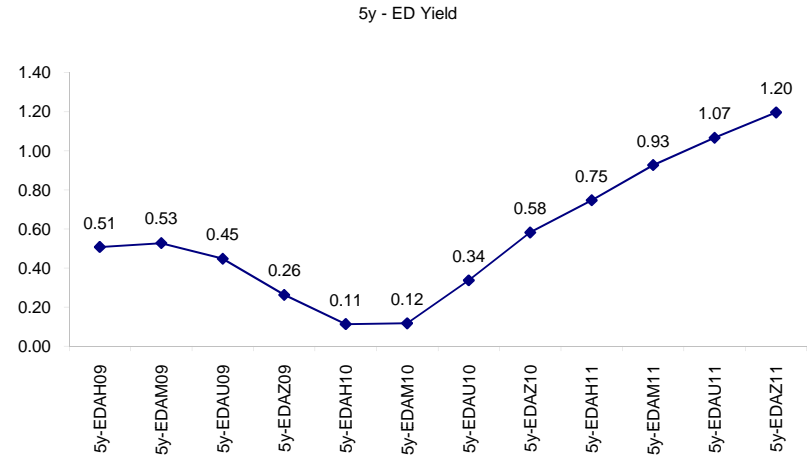


Correlation



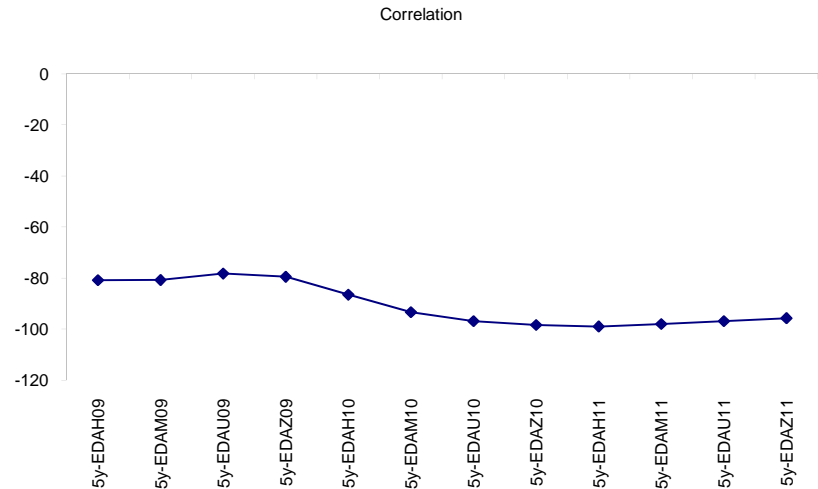
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	0.712	0.51	5y-EDAH09	-80.753
EDAM09	0.692	0.53	5y-EDAM09	-80.679
EDAU09	0.772	0.45	5y-EDAU09	-78.121
EDAZ09	0.957	0.26	5y-EDAZ09	-79.381
EDAH10	1.107	0.11	5y-EDAH10	-86.427
EDAM10	1.337	0.12	5y-EDAM10	-93.316
EDAU10	1.557	0.34	5y-EDAU10	-96.861
EDAZ10	1.802	0.58	5y-EDAZ10	-98.363
EDAH11	1.967	0.75	5y-EDAH11	-98.970
EDAM11	2.147	0.93	5y-EDAM11	-97.979
EDAU11	2.287	1.07	5y-EDAU11	-96.842
EDAZ11	2.417	1.20	5y-EDAZ11	-95.693

Price = Outright Decimal Price - Euro Contract Price
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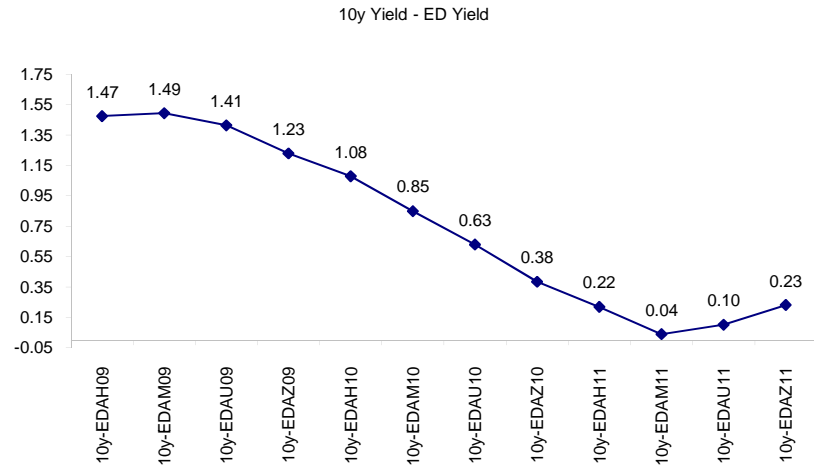
	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAH09	0.128		4.59	4.46	5y-EDAH09
EDAM09	0.377		4.59	4.21	5y-EDAM09
EDAU09	0.627		4.59	3.96	5y-EDAU09
EDAZ09	0.876		4.59	3.71	5y-EDAZ09
EDAH10	1.125		4.59	3.46	5y-EDAH10
EDAM10	1.375		4.59	3.21	5y-EDAM10
EDAU10	1.624		4.59	2.96	5y-EDAU10
EDAZ10	1.873		4.59	2.71	5y-EDAZ10
EDAH11	2.123		4.59	2.46	5y-EDAH11
EDAM11	2.372		4.59	2.21	5y-EDAM11
EDAU11	2.640		4.59	1.95	5y-EDAU11
EDAZ11	2.890		4.59	1.70	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	0.712	1.47	10y-EDAH09	-80.737
EDAM09	0.692	1.49	10y-EDAM09	-80.945
EDAU09	0.772	1.41	10y-EDAU09	-78.247
EDAZ09	0.957	1.23	10y-EDAZ09	-79.005
EDAH10	1.107	1.08	10y-EDAH10	-85.698
EDAM10	1.337	0.85	10y-EDAM10	-92.091
EDAU10	1.557	0.63	10y-EDAU10	-95.624
EDAZ10	1.802	0.38	10y-EDAZ10	-97.683
EDAH11	1.967	0.22	10y-EDAH11	-99.533
EDAM11	2.147	0.04	10y-EDAM11	-99.499
EDAU11	2.287	0.10	10y-EDAU11	-98.832
EDAZ11	2.417	0.23	10y-EDAZ11	-98.040

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS (Proxy Yield - Implied Euro Contract yield)
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	ED Duration as Fraction of year			
	10Y Duration	Spread Duration		
EDAH09	0.128	8.21	8.08	10y-EDAH09
EDAM09	0.377	8.21	7.83	10y-EDAM09
EDAU09	0.627	8.21	7.59	10y-EDAU09
EDAZ09	0.876	8.21	7.34	10y-EDAZ09
EDAH10	1.125	8.21	7.09	10y-EDAH10
EDAM10	1.375	8.21	6.84	10y-EDAM10
EDAU10	1.624	8.21	6.59	10y-EDAU10
EDAZ10	1.873	8.21	6.34	10y-EDAZ10
EDAH11	2.123	8.21	6.09	10y-EDAH11
EDAM11	2.372	8.21	5.84	10y-EDAM11
EDAU11	2.640	8.21	5.57	10y-EDAU11
EDAZ11	2.890	8.21	5.32	10y-EDAZ11

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

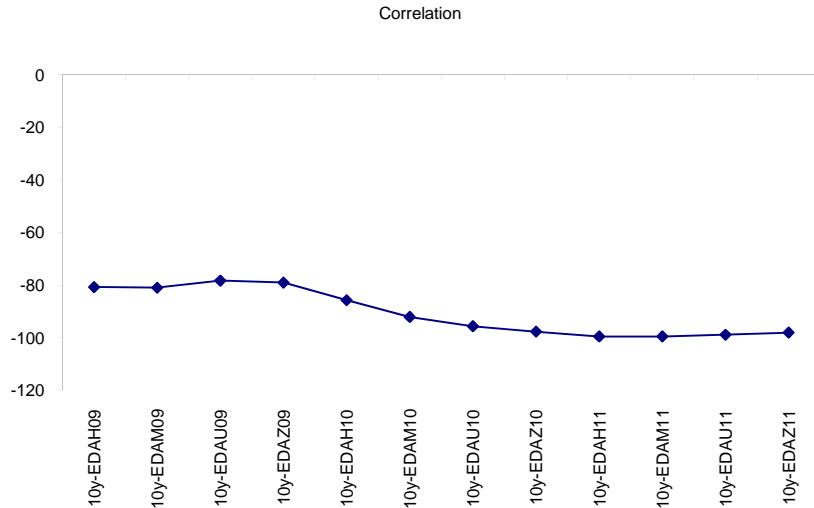


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

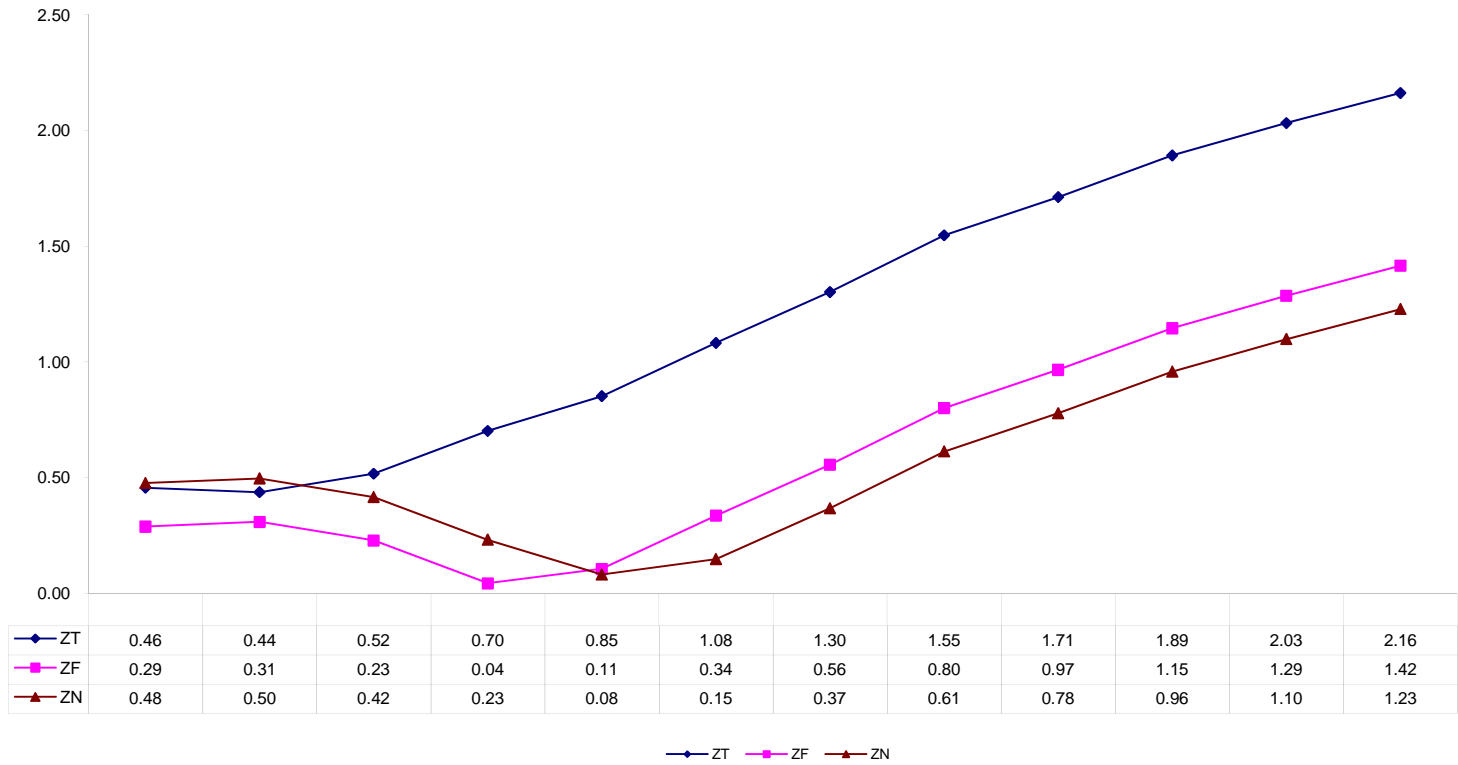
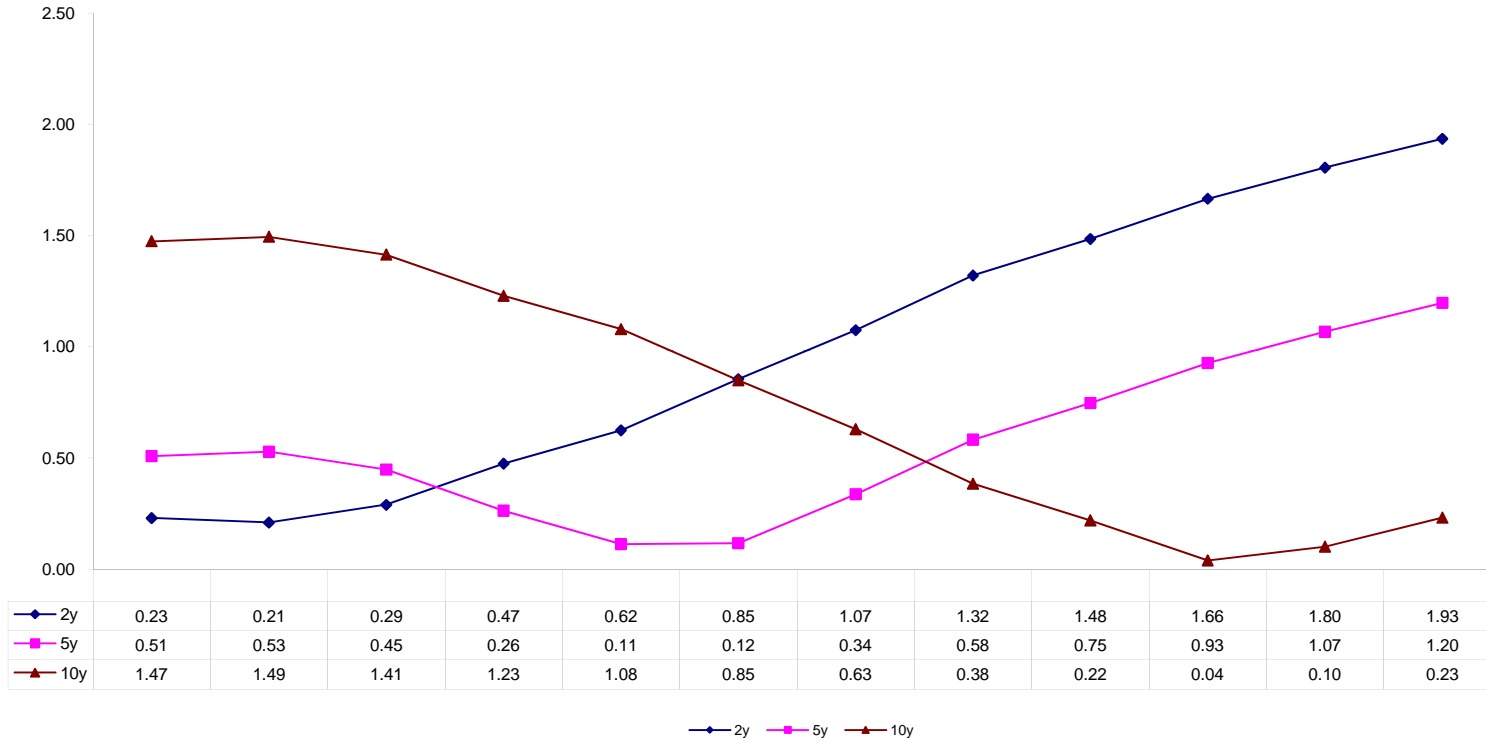
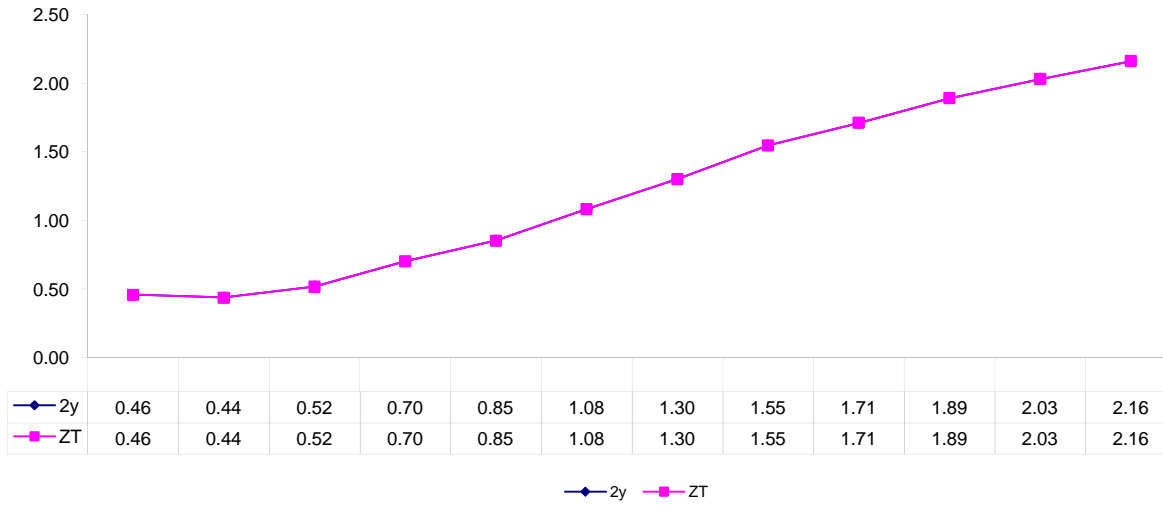
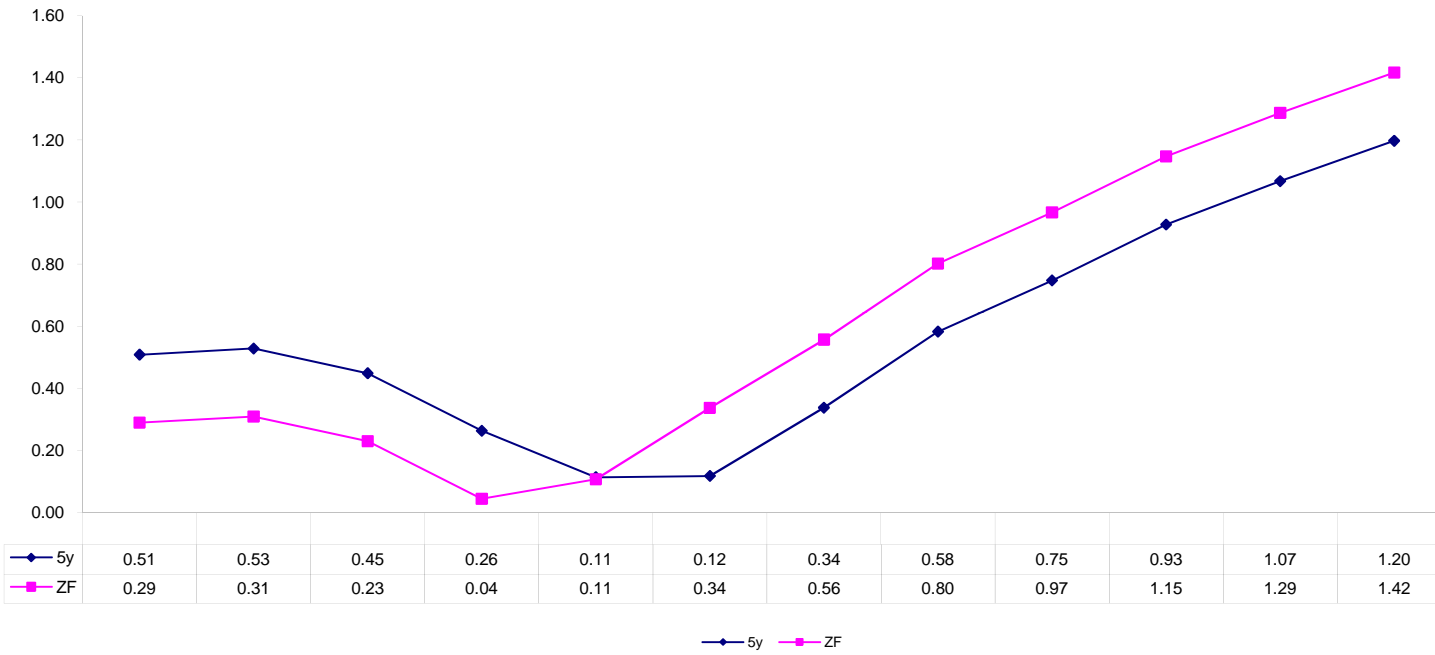


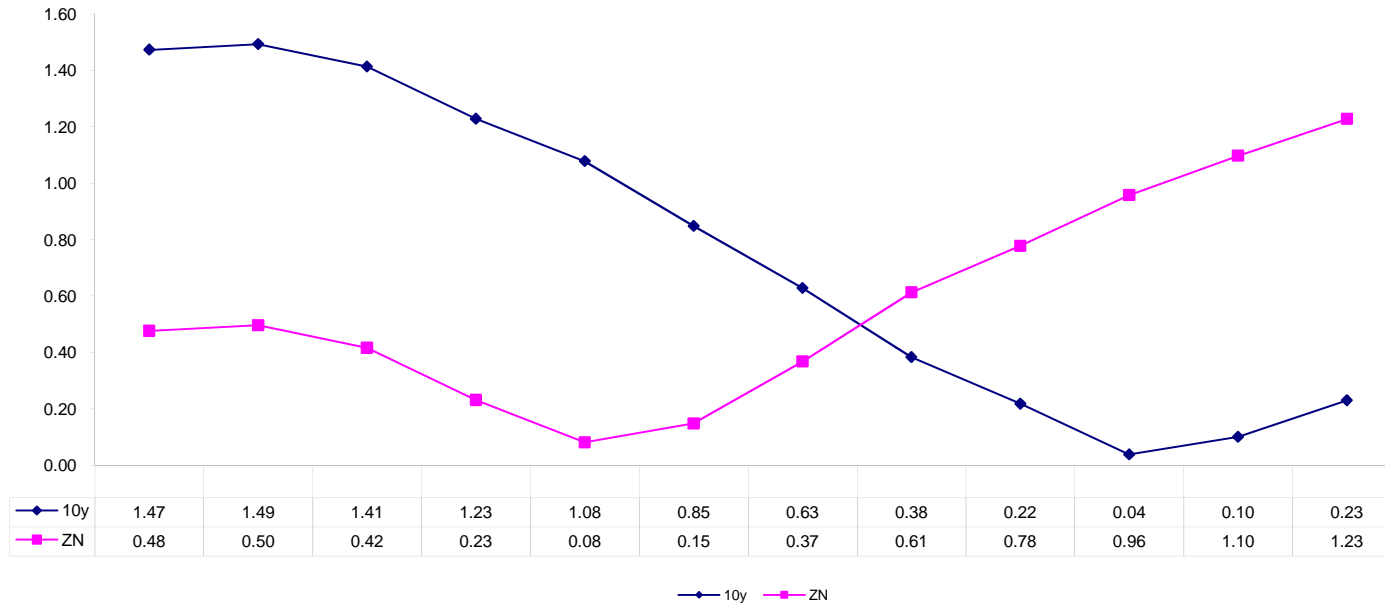
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.155	1.625	9886.375
Red Pack	1.837	-1.625	9819.625
Green Pack	2.610	-2.375	9744.250
Blue Pack		-1.375	9709.750
Gold Pack		-0.125	9687.875

