

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 Decimal	Last € 32.00	Last Yield*	MDuration
ZT	109.2500	109.0800	0.568	1.83
ZF	119.6406	119.2050	1.259	1.26
ZN	125.6250	125.2000	1.479	6.24
2y	100.2875	100.0920	0.724	1.92
5y	99.8500	99.2720	1.535	4.61
10y	111.5000	111.1600	2.422	8.24

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAH09	98.975	1.025	54	0.147	MAR	
EDAM09	99.025	0.975	145	0.397	JUN	White Pack
EDAU09	98.955	1.045	236	0.646	SEP	
EDAZ09	98.775	1.225	327	0.895	DEC	
EDAH10	98.610	1.390	418	1.145	MAR	
EDAM10	98.340	1.660	509	1.394	JUN	Red Pack
EDAU10	98.085	1.915	600	1.643	SEP	
EDAZ10	97.830	2.170	691	1.892	DEC	
EDAH11	97.705	2.295	782	2.142	MAR	
EDAM11	97.580	2.420	873	2.391	JUN	Green Pack
EDAU11	97.495	2.505	971	2.660	SEP	
EDAZ11	97.415	2.585	1062	2.909	DEC	
EDAH12	97.395	2.605	1153	3.158	MAR	
EDAM12	97.355	2.645	1244	3.408	JUN	Blue Pack
EDAU12	97.325	2.675	1335	3.657	SEP	
EDAZ12	97.245	2.755	1426	3.906	DEC	
EDAH13	97.255	2.745	1517	4.155	MAR	
EDAM13	97.230	2.770	1608	4.405	JUN	Gold Pack
EDZU13	97.140	2.860	1699	4.654	SEP	
EDZZ13	97.055	2.945	1790	4.903	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.085	-5.375	9893.250	
Red Pack	1.817	-7.250	9821.625	Pack Prices
Green Pack	2.501	-9.750	9754.875	
Blue Pack	2.725	-9.500	9733.000	
Gold Pack		-7.375	9718.875	

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.

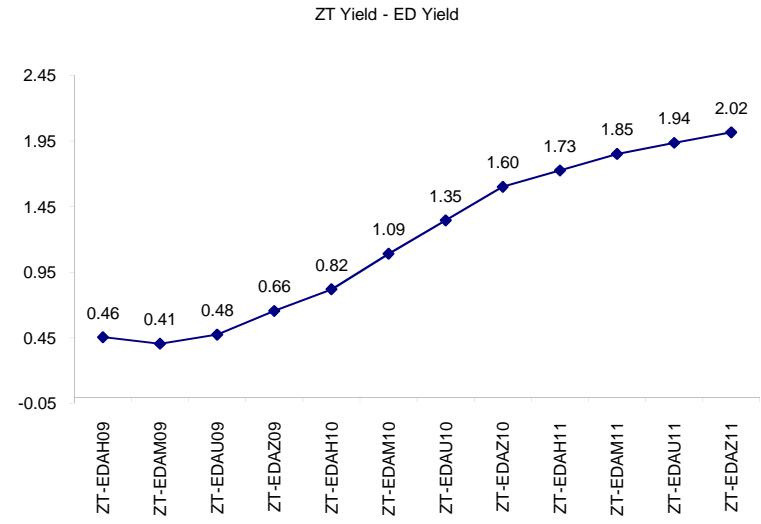
jgoulding@ghco.com

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.

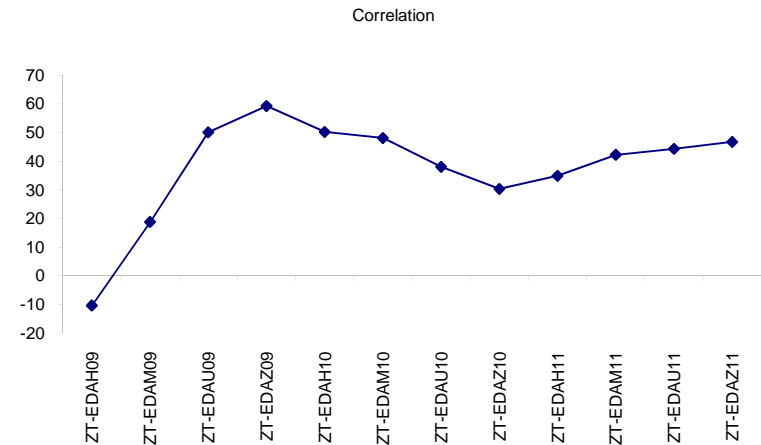
ZT				Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAH09	10.275	0.46	ZT-EDAH09	-10.415
EDAM09	10.225	0.41	ZT-EDAM09	18.767
EDAU09	10.295	0.48	ZT-EDAU09	50.075
EDAZ09	10.475	0.66	ZT-EDAZ09	59.287
EDAH10	10.640	0.82	ZT-EDAH10	50.240
EDAM10	10.910	1.09	ZT-EDAM10	48.110
EDAU10	11.165	1.35	ZT-EDAU10	38.042
EDAZ10	11.420	1.60	ZT-EDAZ10	30.314
EDAH11	11.545	1.73	ZT-EDAH11	34.894
EDAM11	11.670	1.85	ZT-EDAM11	42.219
EDAU11	11.755	1.94	ZT-EDAU11	44.322
EDAZ11	11.835	2.02	ZT-EDAZ11	46.756

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	0.147	1.83	1.68	ZT-EDAH09		
EDAM09	0.397	1.83	1.43	ZT-EDAM09		
EDAU09	0.646	1.83	1.18	ZT-EDAU09		
EDAZ09	0.895	1.83	0.93	ZT-EDAZ09		
EDAH10	1.145	1.83	0.69	ZT-EDAH10		
EDAM10	1.394	1.83	0.44	ZT-EDAM10		
EDAU10	1.643	1.83	0.19	ZT-EDAU10		
EDAZ10	1.892	1.83	(0.06)	ZT-EDAZ10		
EDAH11	2.142	1.83	(0.31)	ZT-EDAH11		
EDAM11	2.391	1.83	(0.56)	ZT-EDAM11		
EDAU11	2.660	1.83	(0.83)	ZT-EDAU11		
EDAZ11	2.909	1.83	(1.08)	ZT-EDAZ11		

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

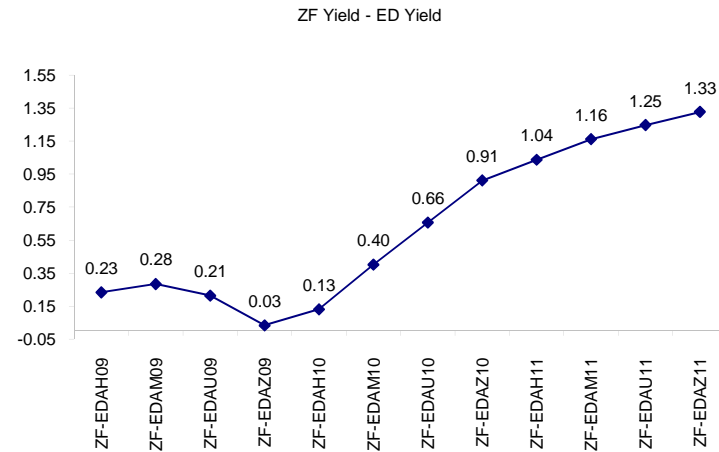


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	20.666	0.23	ZF-EDAH09	2.504
EDAM09	20.616	0.28	ZF-EDAM09	18.142
EDAU09	20.686	0.21	ZF-EDAU09	37.498
EDAZ09	20.866	0.03	ZF-EDAZ09	53.818
EDAH10	21.031	0.13	ZF-EDAH10	66.830
EDAM10	21.301	0.40	ZF-EDAM10	84.764
EDAU10	21.556	0.66	ZF-EDAU10	91.858
EDAZ10	21.811	0.91	ZF-EDAZ10	92.557
EDAH11	21.936	1.04	ZF-EDAH11	94.526
EDAM11	22.061	1.16	ZF-EDAM11	95.334
EDAU11	22.146	1.25	ZF-EDAU11	96.138
EDAZ11	22.226	1.33	ZF-EDAZ11	97.534

Price = Outright Decimal Price - Euro Contract Price

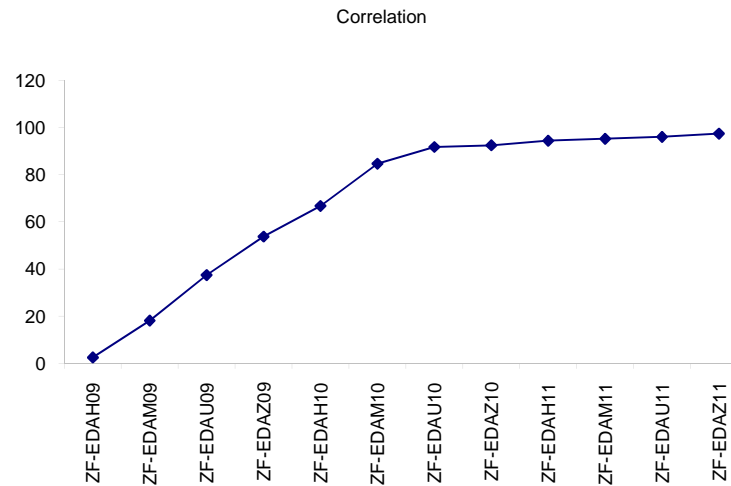
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAH09	0.147	1.26	1.11	ZF-EDAH09		
EDAM09	0.397	1.26	0.86	ZF-EDAM09		
EDAU09	0.646	1.26	0.61	ZF-EDAU09		
EDAZ09	0.895	1.26	0.36	ZF-EDAZ09		
EDAH10	1.145	1.26	0.11	ZF-EDAH10		
EDAM10	1.394	1.26	(0.14)	ZF-EDAM10		
EDAU10	1.643	1.26	(0.38)	ZF-EDAU10		
EDAZ10	1.892	1.26	(0.63)	ZF-EDAZ10		
EDAH11	2.142	1.26	(0.88)	ZF-EDAH11		
EDAM11	2.391	1.26	(1.13)	ZF-EDAM11		
EDAU11	2.660	1.26	(1.40)	ZF-EDAU11		
EDAZ11	2.909	1.26	(1.65)	ZF-EDAZ11		

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

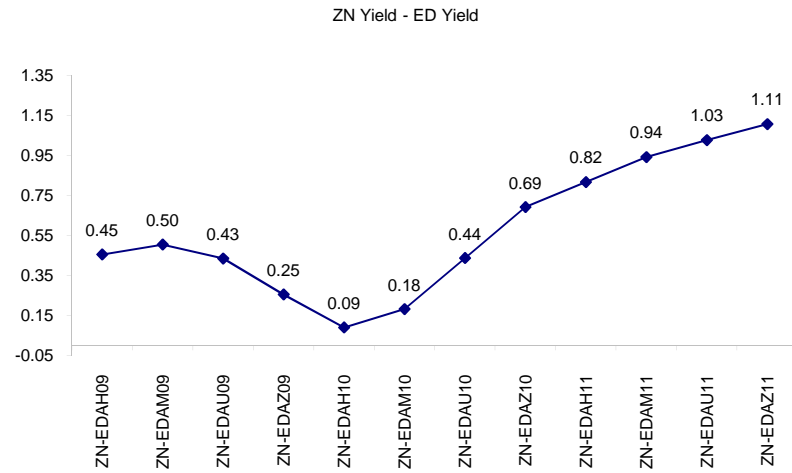


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAH09	26.650	0.45	ZN-EDAH09	-3.715
EDAM09	26.600	0.50	ZN-EDAM09	11.215
EDAU09	26.670	0.43	ZN-EDAU09	30.119
EDAZ09	26.850	0.25	ZN-EDAZ09	46.518
EDAH10	27.015	0.09	ZN-EDAH10	60.430
EDAM10	27.285	0.18	ZN-EDAM10	80.550
EDAU10	27.540	0.44	ZN-EDAU10	89.857
EDAZ10	27.795	0.69	ZN-EDAZ10	91.867
EDAH11	27.920	0.82	ZN-EDAH11	94.193
EDAM11	28.045	0.94	ZN-EDAM11	95.310
EDAU11	28.130	1.03	ZN-EDAU11	96.048
EDAZ11	28.210	1.11	ZN-EDAZ11	97.280

Price = Outright Decimal Price - Euro Contract Price

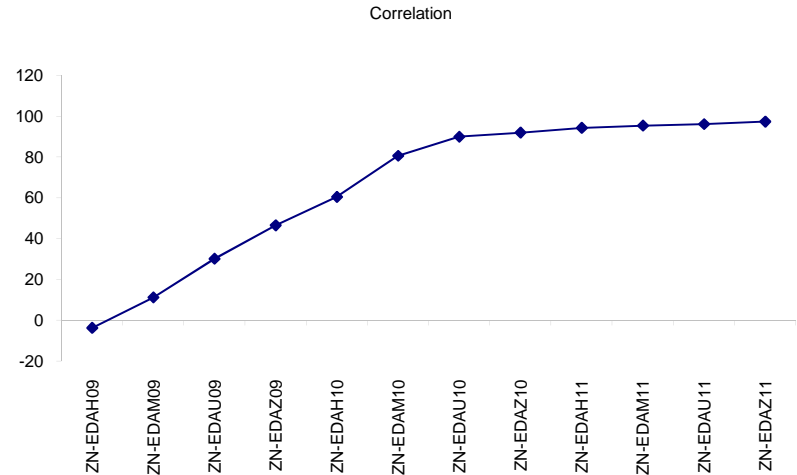
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			ZN Duration	Spread Duration	
	Fraction of year	ZN Duration	Spread Duration			
EDAH09	0.147	6.24	6.09	ZN-EDAH09		
EDAM09	0.397	6.24	5.84	ZN-EDAM09		
EDAU09	0.646	6.24	5.59	ZN-EDAU09		
EDAZ09	0.895	6.24	5.34	ZN-EDAZ09		
EDAH10	1.145	6.24	5.09	ZN-EDAH10		
EDAM10	1.394	6.24	4.84	ZN-EDAM10		
EDAU10	1.643	6.24	4.59	ZN-EDAU10		
EDAZ10	1.892	6.24	4.34	ZN-EDAZ10		
EDAH11	2.142	6.24	4.10	ZN-EDAH11		
EDAM11	2.391	6.24	3.85	ZN-EDAM11		
EDAU11	2.660	6.24	3.58	ZN-EDAU11		
EDAZ11	2.909	6.24	3.33	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	1.312	0.30	2y-EDAH09	1.796
EDAM09	1.262	0.25	2y-EDAM09	-24.689
EDAU09	1.333	0.32	2y-EDAU09	-51.105
EDAZ09	1.512	0.50	2y-EDAZ09	-60.995
EDAH10	1.677	0.67	2y-EDAH10	-59.890
EDAM10	1.947	0.94	2y-EDAM10	-68.159
EDAU10	2.202	1.19	2y-EDAU10	-65.127
EDAZ10	2.458	1.45	2y-EDAZ10	-57.700
EDAH11	2.583	1.57	2y-EDAH11	-61.639
EDAM11	2.708	1.70	2y-EDAM11	-67.844
EDAU11	2.792	1.78	2y-EDAU11	-69.955
EDAZ11	2.872	1.86	2y-EDAZ11	-72.202

Price = Outright Decimal Price - Euro Contract Price

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

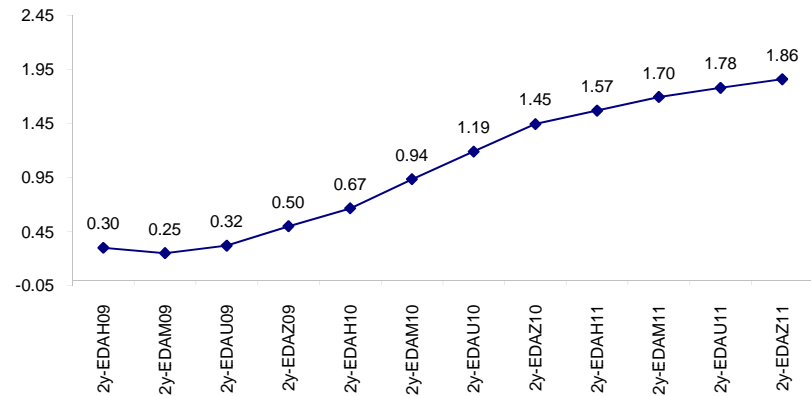
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

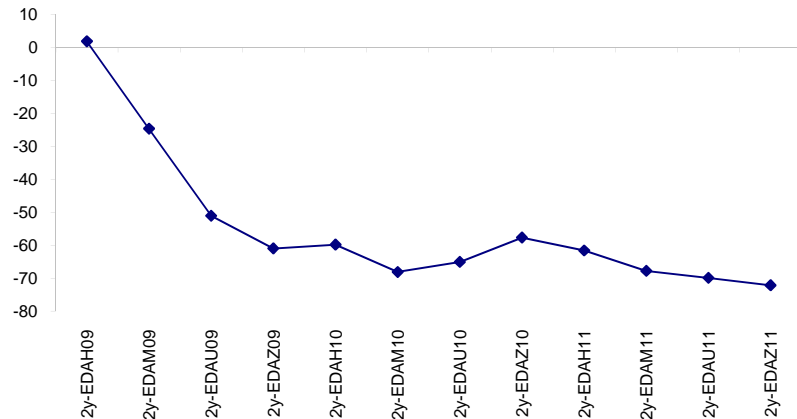
	Fraction of year	2Y Duration	Spread Duration	
EDAH09	0.147	1.92	1.77	2y-EDAH09
EDAM09	0.397	1.92	1.52	2y-EDAM09
EDAU09	0.646	1.92	1.27	2y-EDAU09
EDAZ09	0.895	1.92	1.02	2y-EDAZ09
EDAH10	1.145	1.92	0.77	2y-EDAH10
EDAM10	1.394	1.92	0.53	2y-EDAM10
EDAU10	1.643	1.92	0.28	2y-EDAU10
EDAZ10	1.892	1.92	0.03	2y-EDAZ10
EDAH11	2.142	1.92	(0.22)	2y-EDAH11
EDAM11	2.391	1.92	(0.47)	2y-EDAM11
EDAU11	2.660	1.92	(0.74)	2y-EDAU11
EDAZ11	2.909	1.92	(0.99)	2y-EDAZ11

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

ZT Yield - ED Yield



Correlation



	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	0.875	0.51	5y-EDAH09	-30.026
EDAM09	0.825	0.56	5y-EDAM09	-45.678
EDAU09	0.895	0.49	5y-EDAU09	-58.963
EDAZ09	1.075	0.31	5y-EDAZ09	-66.898
EDAH10	1.240	0.14	5y-EDAH10	-72.871
EDAM10	1.510	0.13	5y-EDAM10	-85.738
EDAU10	1.765	0.38	5y-EDAU10	-91.605
EDAZ10	2.020	0.64	5y-EDAZ10	-91.169
EDAH11	2.145	0.76	5y-EDAH11	-92.492
EDAM11	2.270	0.89	5y-EDAM11	-93.989
EDAU11	2.355	0.97	5y-EDAU11	-95.849
EDAZ11	2.435	1.05	5y-EDAZ11	-97.397

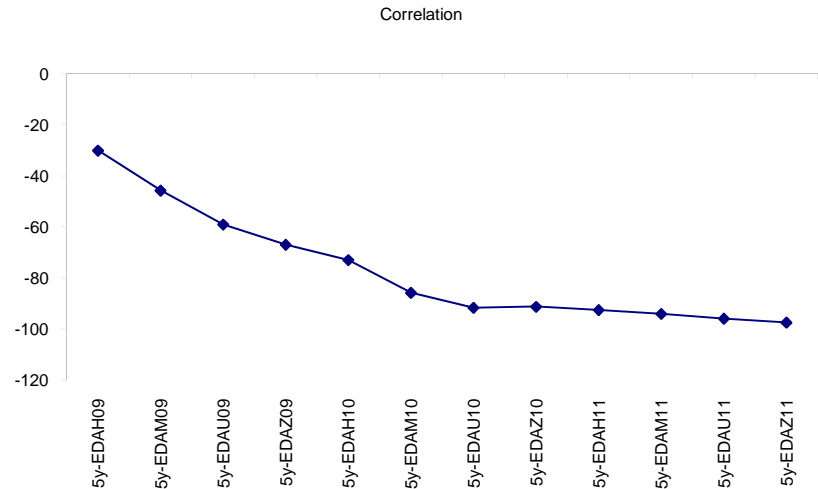
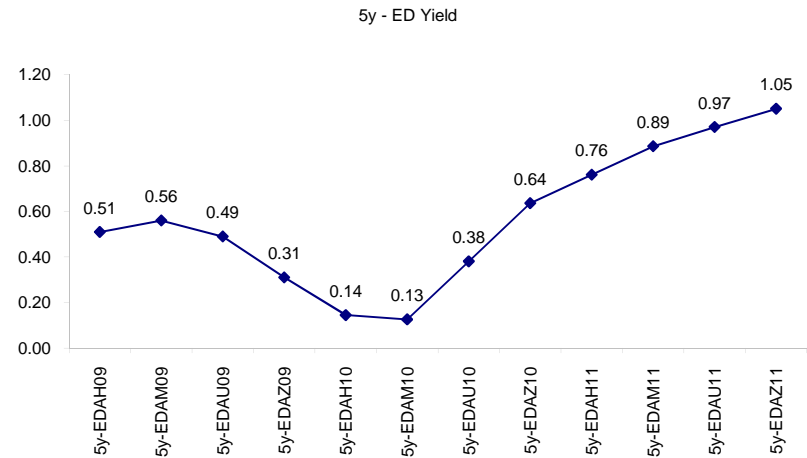
Price = Outright Decimal Price - Euro Contract Price

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		
EDAH09	0.147	4.61	4.46	5y-EDAH09
EDAM09	0.397	4.61	4.21	5y-EDAM09
EDAU09	0.646	4.61	3.96	5y-EDAU09
EDAZ09	0.895	4.61	3.71	5y-EDAZ09
EDAH10	1.145	4.61	3.46	5y-EDAH10
EDAM10	1.394	4.61	3.21	5y-EDAM10
EDAU10	1.643	4.61	2.96	5y-EDAU10
EDAZ10	1.892	4.61	2.71	5y-EDAZ10
EDAH11	2.142	4.61	2.46	5y-EDAH11
EDAM11	2.391	4.61	2.22	5y-EDAM11
EDAU11	2.660	4.61	1.95	5y-EDAU11
EDAZ11	2.909	4.61	1.70	5y-EDAZ11

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

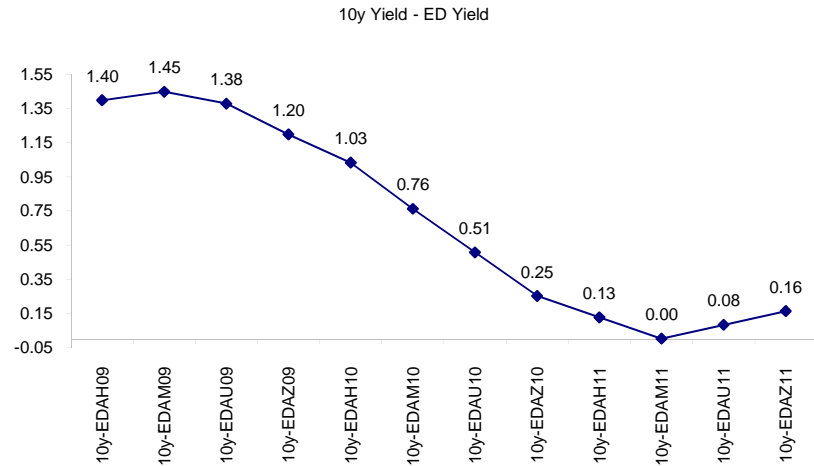


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	0.875	1.40	10y-EDAH09	-23.070
EDAM09	0.825	1.45	10y-EDAM09	-35.988
EDAU09	0.895	1.38	10y-EDAU09	-46.906
EDAZ09	1.075	1.20	10y-EDAZ09	-54.771
EDAH10	1.240	1.03	10y-EDAH10	-62.199
EDAM10	1.510	0.76	10y-EDAM10	-78.166
EDAU10	1.765	0.51	10y-EDAU10	-89.954
EDAZ10	2.020	0.25	10y-EDAZ10	-93.842
EDAH11	2.145	0.13	10y-EDAH11	-95.736
EDAM11	2.270	0.00	10y-EDAM11	-96.284
EDAU11	2.355	0.08	10y-EDAU11	-97.205
EDAZ11	2.435	0.16	10y-EDAZ11	-97.793

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	0.147	8.24	8.10	10y-EDAH09
EDAM09	0.397	8.24	7.85	10y-EDAM09
EDAU09	0.646	8.24	7.60	10y-EDAU09
EDAZ09	0.895	8.24	7.35	10y-EDAZ09
EDAH10	1.145	8.24	7.10	10y-EDAH10
EDAM10	1.394	8.24	6.85	10y-EDAM10
EDAU10	1.643	8.24	6.60	10y-EDAU10
EDAZ10	1.892	8.24	6.35	10y-EDAZ10
EDAH11	2.142	8.24	6.10	10y-EDAH11
EDAM11	2.391	8.24	5.85	10y-EDAM11
EDAU11	2.660	8.24	5.59	10y-EDAU11
EDAZ11	2.909	8.24	5.34	10y-EDAZ11

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

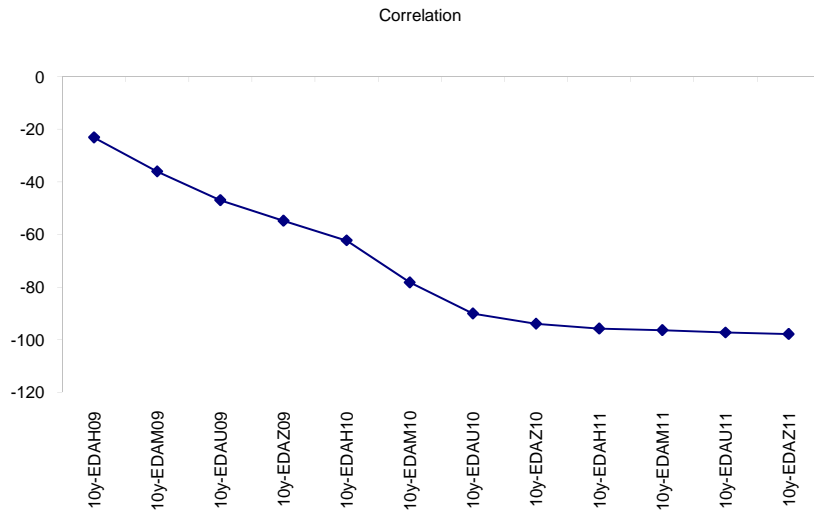


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

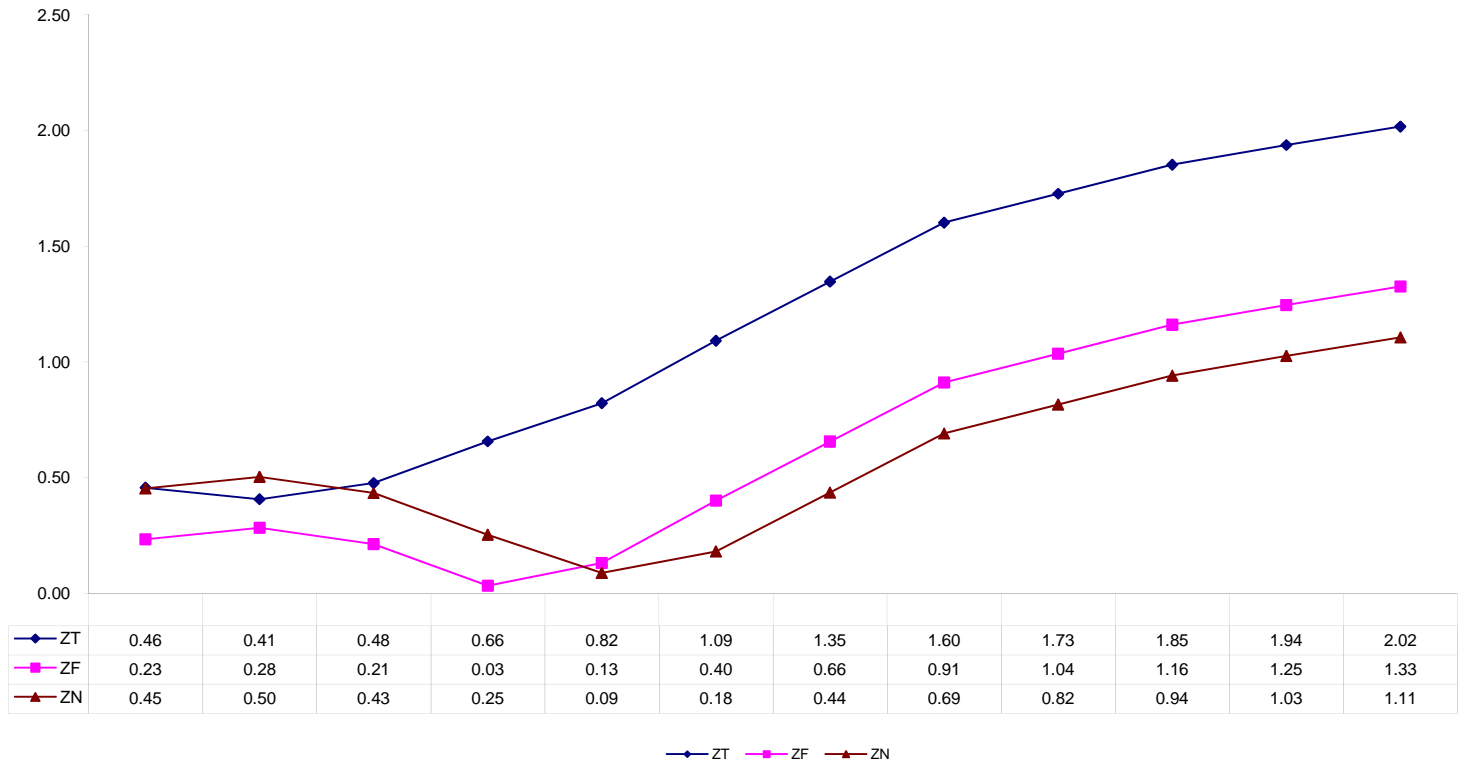
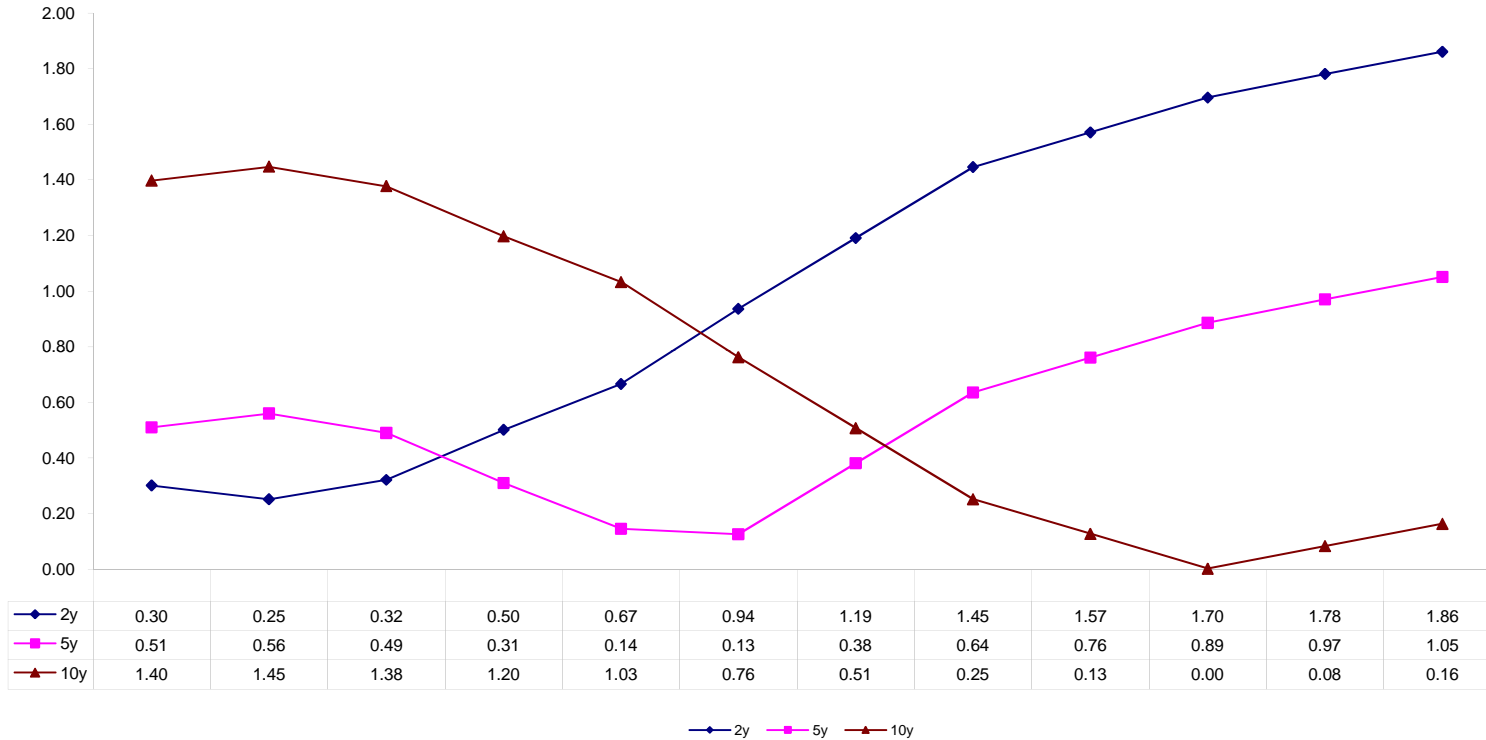
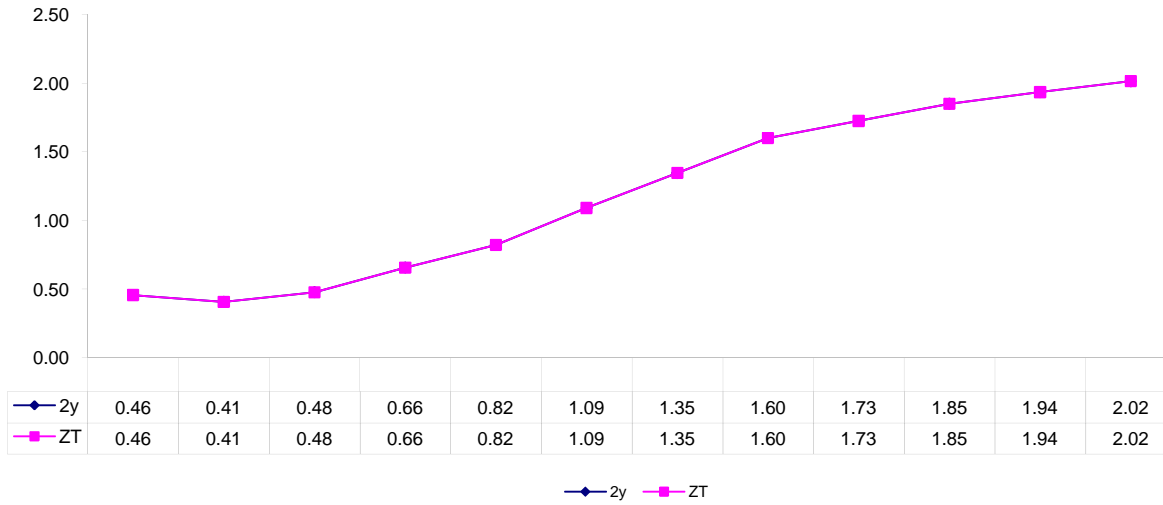
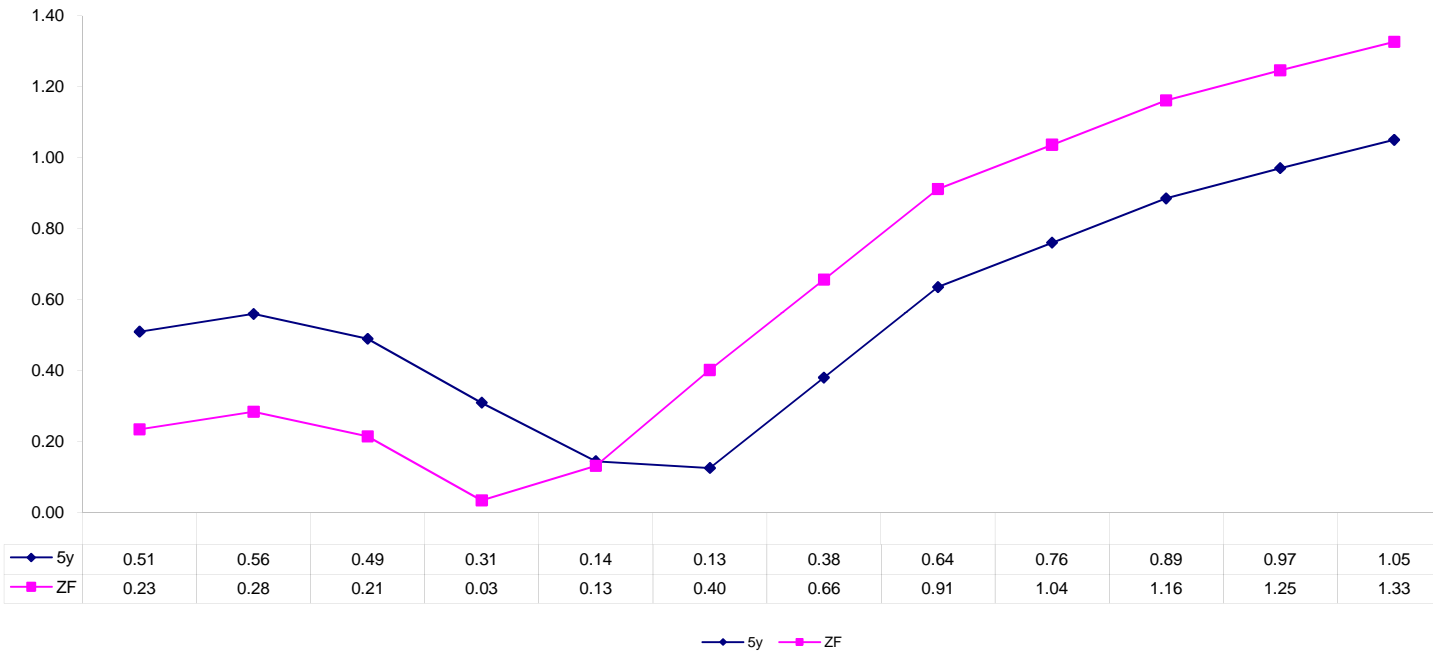


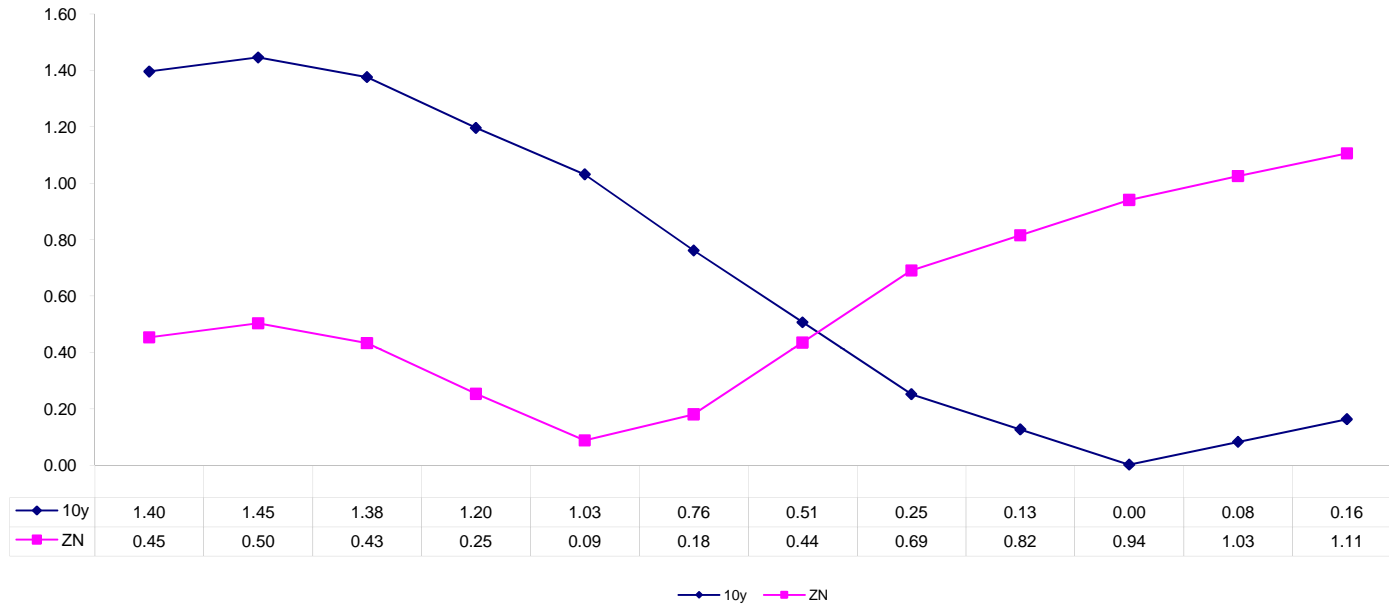
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.085	-5.375	9893.250
Red Pack	1.817	-7.250	9821.625
Green Pack	2.501	-9.750	9754.875
Blue Pack	2.725	-9.500	9733.000
Gold Pack		-7.375	9718.875

