

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	Last Yield*	MDuration
ZT	108.3750	108.1200	0.992	1.938
ZF	116.7344	116.2350	1.819	1.819
ZN	121.2188	121.0700	2.456	6.008
2y	99.7719	99.2470	0.992	1.947
5y	99.6938	99.2220	1.941	4.720
10y	98.4375	98.1400	2.932	8.606

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAH09	98.5775	1.423	6	0.0158	MAR	
EDAM09	98.4700	1.530	97	0.2651	JUN	White Pack
EDAU09	98.4200	1.580	188	0.5144	SEP	
EDAZ09	98.2800	1.720	279	0.7637	DEC	
EDAH10	98.2300	1.770	370	1.0130	MAR	
EDAM10	98.0650	1.935	461	1.2624	JUN	Red Pack
EDAU10	97.9000	2.100	552	1.5117	SEP	
EDAZ10	97.6900	2.310	643	1.7610	DEC	
EDAH11	97.5250	2.475	734	2.0103	MAR	
EDAM11	97.3150	2.685	825	2.2596	JUN	Green Pack
EDAU11	97.1200	2.880	923	2.5281	SEP	
EDAZ11	96.9200	3.080	1,014	2.7774	DEC	
EDAH12	96.8200	3.180	1,105	3.0267	MAR	
EDAM12	96.7050	3.295	1,196	3.2761	JUN	Blue Pack
EDAU12	96.6000	3.400	1,287	3.5254	SEP	
EDAZ12	96.4800	3.520	1,378	3.7747	DEC	
EDAH13	96.4400	3.560	1,469	4.0240	MAR	
EDAM13	96.4100	3.590	1,560	4.2733	JUN	Gold Pack
EDZU13	96.3600	3.640	1,651	4.5226	SEP	
EDZZ13	96.2500	3.750	1,742	4.7719	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.591	-1.188	9843.69	
Red Pack	2.068	-3.875	9797.13	Pack Prices
Green Pack	2.838	-2.750	9722.00	
Blue Pack	3.424	-3.500	9665.13	
Gold Pack		-1.125	9636.25	

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.

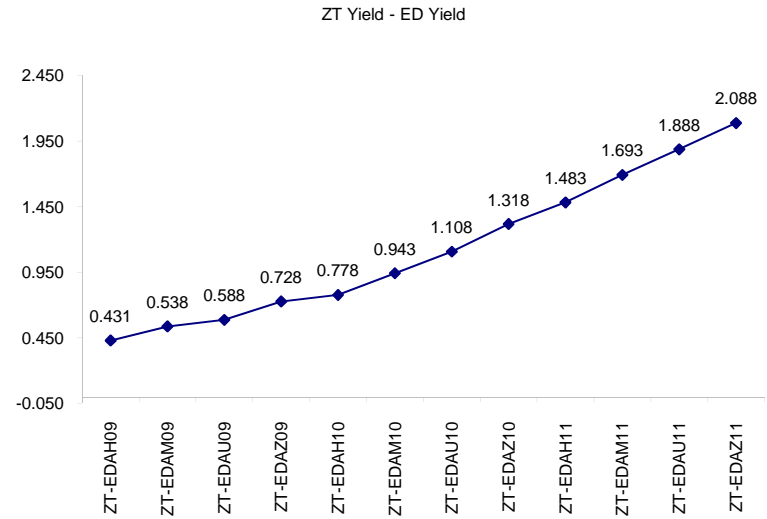
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Correlations (Important)

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.

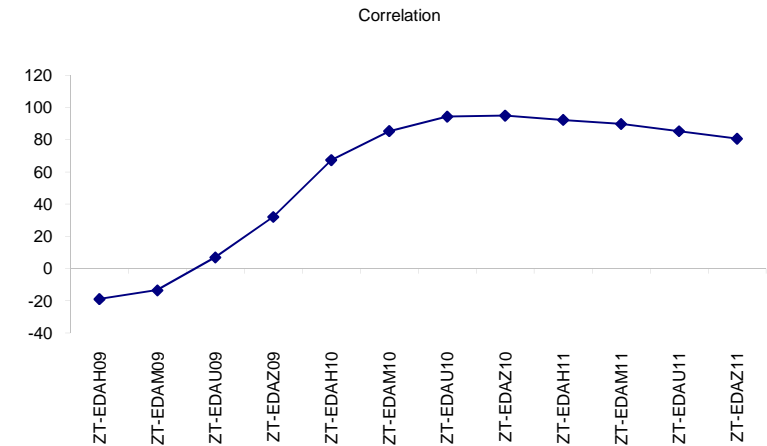
	ZT			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAH09	9.80	0.431	ZT-EDAH09	-19
EDAM09	9.91	0.538	ZT-EDAM09	-13
EDAU09	9.96	0.588	ZT-EDAU09	7
EDAZ09	10.10	0.728	ZT-EDAZ09	32
EDAH10	10.15	0.778	ZT-EDAH10	67
EDAM10	10.31	0.943	ZT-EDAM10	85
EDAU10	10.48	1.108	ZT-EDAU10	94
EDAZ10	10.69	1.318	ZT-EDAZ10	95
EDAH11	10.85	1.483	ZT-EDAH11	92
EDAM11	11.06	1.693	ZT-EDAM11	90
EDAU11	11.26	1.888	ZT-EDAU11	85
EDAZ11	11.46	2.088	ZT-EDAZ11	81

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	0.0158	1.9382	1.9224	ZT-EDAH09	
EDAM09	0.2651	1.9382	1.6731	ZT-EDAM09	
EDAU09	0.5144	1.9382	1.4238	ZT-EDAU09	
EDAZ09	0.7637	1.9382	1.1745	ZT-EDAZ09	
EDAH10	1.0130	1.9382	0.9252	ZT-EDAH10	
EDAM10	1.2624	1.9382	0.6759	ZT-EDAM10	
EDAU10	1.5117	1.9382	0.4265	ZT-EDAU10	
EDAZ10	1.7610	1.9382	0.1772	ZT-EDAZ10	
EDAH11	2.0103	1.9382	-0.0721	ZT-EDAH11	
EDAM11	2.2596	1.9382	-0.3214	ZT-EDAM11	
EDAU11	2.5281	1.9382	-0.5899	ZT-EDAU11	
EDAZ11	2.7774	1.9382	-0.8392	ZT-EDAZ11	

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



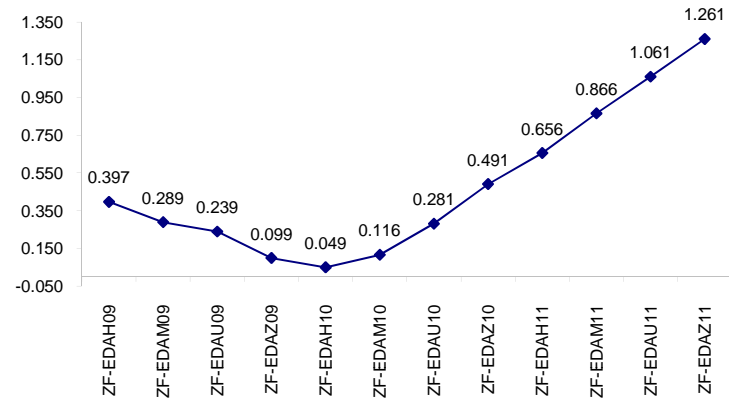
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	18.16	0.397	ZF-EDAH09	-14
EDAM09	18.26	0.289	ZF-EDAM09	-8
EDAU09	18.31	0.239	ZF-EDAU09	12
EDAZ09	18.45	0.099	ZF-EDAZ09	37
EDAH10	18.50	0.049	ZF-EDAH10	72
EDAM10	18.67	0.116	ZF-EDAM10	89
EDAU10	18.83	0.281	ZF-EDAU10	97
EDAZ10	19.04	0.491	ZF-EDAZ10	97
EDAH11	19.21	0.656	ZF-EDAH11	95
EDAM11	19.42	0.866	ZF-EDAM11	93
EDAU11	19.61	1.061	ZF-EDAU11	89
EDAZ11	19.81	1.261	ZF-EDAZ11	85

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ZF Yield - ED Yield

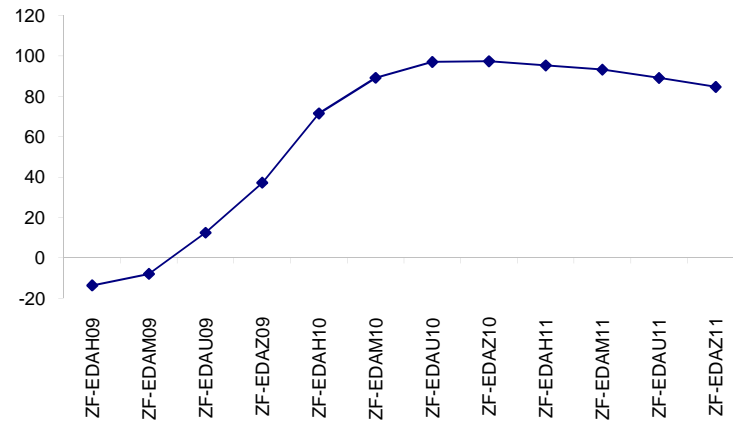


ED Duration as

	Fraction of year	ZF Duration	Spread Duration	
EDAH09	0.0158	1.8192	1.8034	ZF-EDAH09
EDAM09	0.2651	1.8192	1.5541	ZF-EDAM09
EDAU09	0.5144	1.8192	1.3048	ZF-EDAU09
EDAZ09	0.7637	1.8192	1.0555	ZF-EDAZ09
EDAH10	1.0130	1.8192	0.8061	ZF-EDAH10
EDAM10	1.2624	1.8192	0.5568	ZF-EDAM10
EDAU10	1.5117	1.8192	0.3075	ZF-EDAU10
EDAZ10	1.7610	1.8192	0.0582	ZF-EDAZ10
EDAH11	2.0103	1.8192	-0.1911	ZF-EDAH11
EDAM11	2.2596	1.8192	-0.4404	ZF-EDAM11
EDAU11	2.5281	1.8192	-0.7089	ZF-EDAU11
EDAZ11	2.7774	1.8192	-0.9582	ZF-EDAZ11

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

Correlation

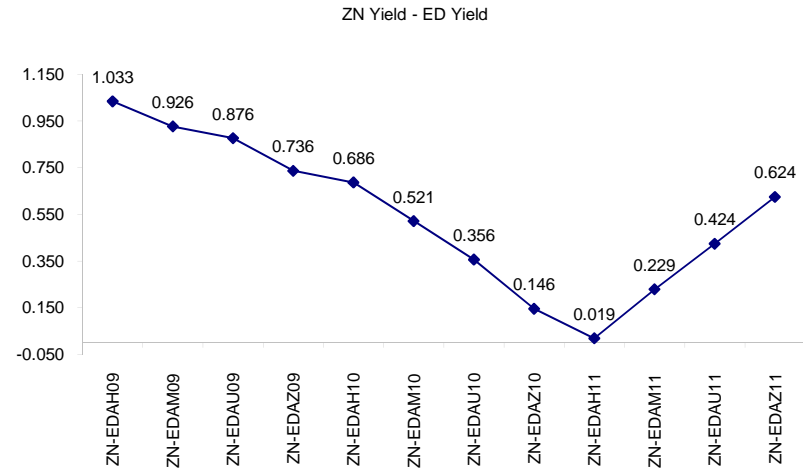


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	22.64	1.033	ZN-EDAH09	-54
EDAM09	22.75	0.926	ZN-EDAM09	-50
EDAU09	22.80	0.876	ZN-EDAU09	-32
EDAZ09	22.94	0.736	ZN-EDAZ09	-7
EDAH10	22.99	0.686	ZN-EDAH10	33
EDAM10	23.15	0.521	ZN-EDAM10	60
EDAU10	23.32	0.356	ZN-EDAU10	78
EDAZ10	23.53	0.146	ZN-EDAZ10	88
EDAH11	23.69	0.019	ZN-EDAH11	93
EDAM11	23.90	0.229	ZN-EDAM11	95
EDAU11	24.10	0.424	ZN-EDAU11	97
EDAZ11	24.30	0.624	ZN-EDAZ11	97

Price = Outright Decimal Price - Euro Contract Price

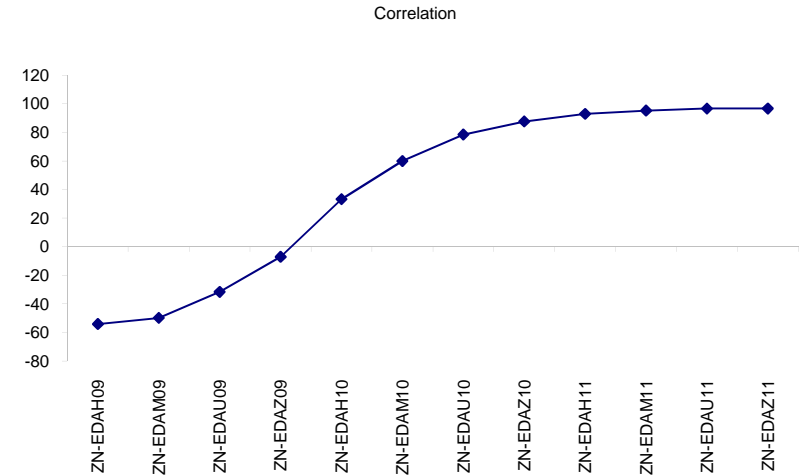
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year			
	Fraction of year	ZN Duration	Spread Duration
EDAH09	0.0158	6.0075	5.9917
EDAM09	0.2651	6.0075	5.7424
EDAU09	0.5144	6.0075	5.4931
EDAZ09	0.7637	6.0075	5.2438
EDAH10	1.0130	6.0075	4.9945
EDAM10	1.2624	6.0075	4.7452
EDAU10	1.5117	6.0075	4.4958
EDAZ10	1.7610	6.0075	4.2465
EDAH11	2.0103	6.0075	3.9972
EDAM11	2.2596	6.0075	3.7479
EDAU11	2.5281	6.0075	3.4794
EDAZ11	2.7774	6.0075	3.2301

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



	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.19	0.431	2y-EDAH09	-1
EDAM09	1.30	0.538	2y-EDAM09	-7
EDAU09	1.35	0.588	2y-EDAU09	-26
EDAZ09	1.49	0.728	2y-EDAZ09	-49
EDAH10	1.54	0.778	2y-EDAH10	-79
EDAM10	1.71	0.943	2y-EDAM10	-90
EDAU10	1.87	1.108	2y-EDAU10	-94
EDAZ10	2.08	1.318	2y-EDAZ10	-90
EDAH11	2.25	1.483	2y-EDAH11	-84
EDAM11	2.46	1.693	2y-EDAM11	-78
EDAU11	2.65	1.888	2y-EDAU11	-70
EDAZ11	2.85	2.088	2y-EDAZ11	-62

Price = Outright Decimal Price - Euro Contract Price

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

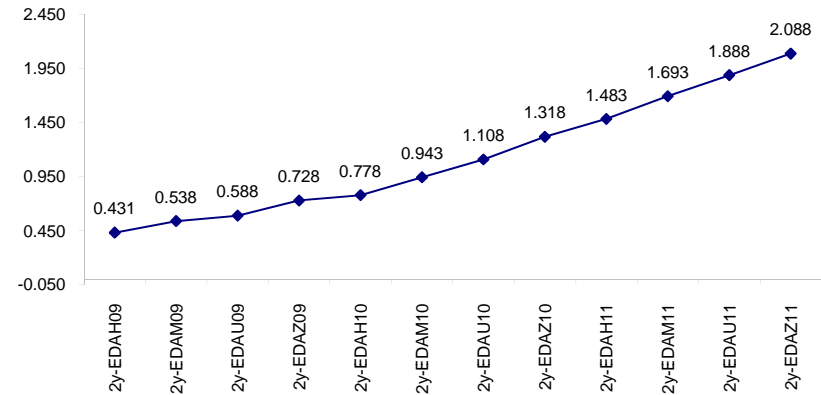
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

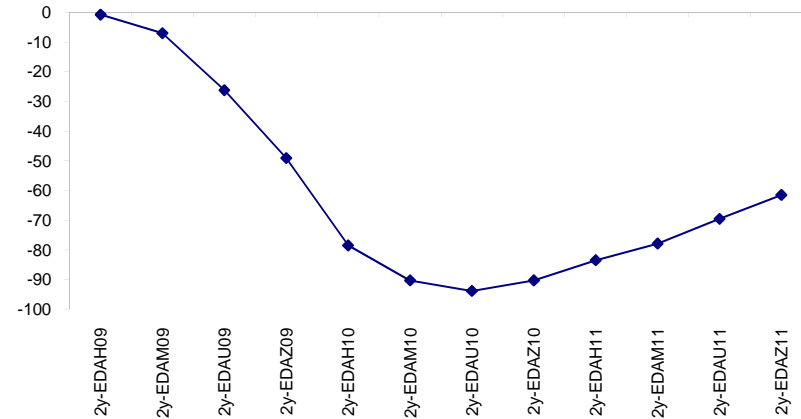
	Fraction of year	2Y Duration	Spread Duration	
EDAH09	0.0158	1.9474	1.9316	2y-EDAH09
EDAM09	0.2651	1.9474	1.6823	2y-EDAM09
EDAU09	0.5144	1.9474	1.4330	2y-EDAU09
EDAZ09	0.7637	1.9474	1.1837	2y-EDAZ09
EDAH10	1.0130	1.9474	0.9344	2y-EDAH10
EDAM10	1.2624	1.9474	0.6851	2y-EDAM10
EDAU10	1.5117	1.9474	0.4357	2y-EDAU10
EDAZ10	1.7610	1.9474	0.1864	2y-EDAZ10
EDAH11	2.0103	1.9474	-0.0629	2y-EDAH11
EDAM11	2.2596	1.9474	-0.3122	2y-EDAM11
EDAU11	2.5281	1.9474	-0.5807	2y-EDAU11
EDAZ11	2.7774	1.9474	-0.8300	2y-EDAZ11

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

ZT Yield - ED Yield

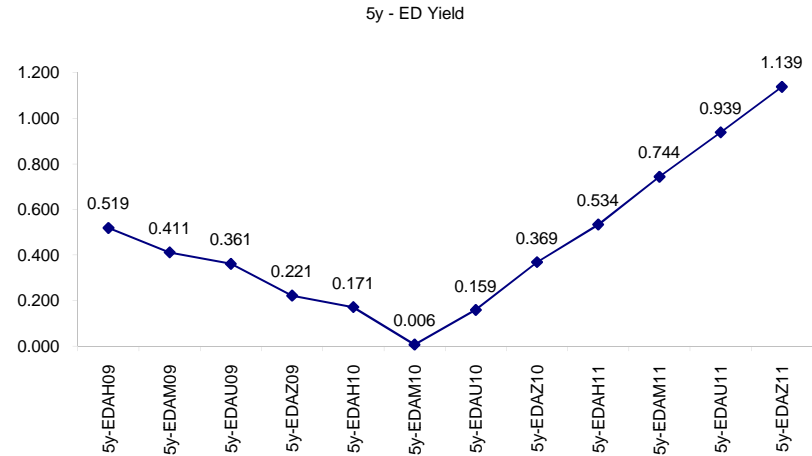


Correlation



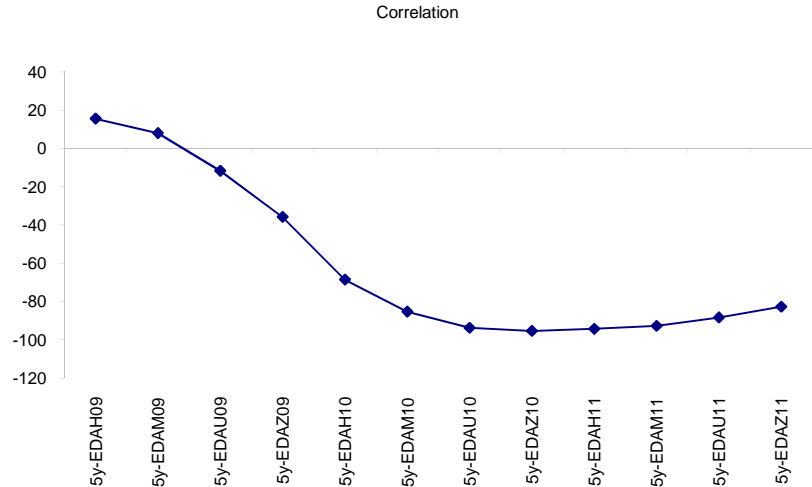
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAH09	1.12	0.519	5y-EDAH09	16
EDAM09	1.22	0.411	5y-EDAM09	8
EDAU09	1.27	0.361	5y-EDAU09	-12
EDAZ09	1.41	0.221	5y-EDAZ09	-36
EDAH10	1.46	0.171	5y-EDAH10	-68
EDAM10	1.63	0.006	5y-EDAM10	-85
EDAU10	1.79	0.159	5y-EDAU10	-94
EDAZ10	2.00	0.369	5y-EDAZ10	-95
EDAH11	2.17	0.534	5y-EDAH11	-94
EDAM11	2.38	0.744	5y-EDAM11	-93
EDAU11	2.57	0.939	5y-EDAU11	-88
EDAZ11	2.77	1.139	5y-EDAZ11	-83

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



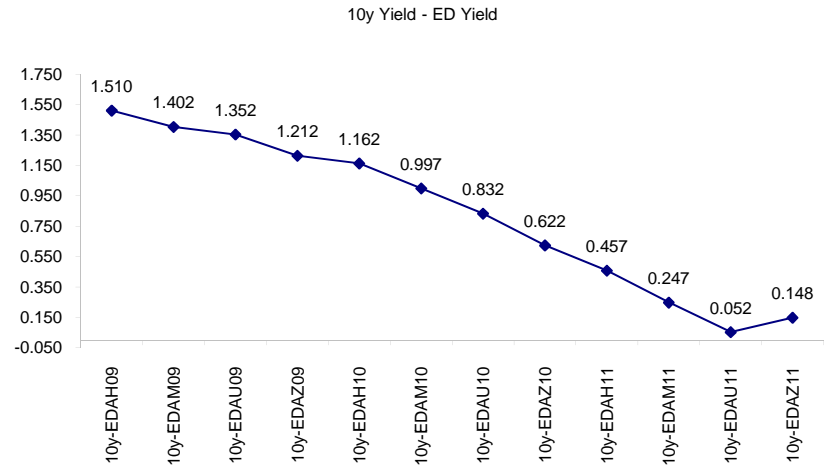
	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAH09	0.0158	4.7200	4.7042	5y-EDAH09	
EDAM09	0.2651	4.7200	4.4549	5y-EDAM09	
EDAU09	0.5144	4.7200	4.2056	5y-EDAU09	
EDAZ09	0.7637	4.7200	3.9563	5y-EDAZ09	
EDAH10	1.0130	4.7200	3.7070	5y-EDAH10	
EDAM10	1.2624	4.7200	3.4577	5y-EDAM10	
EDAU10	1.5117	4.7200	3.2083	5y-EDAU10	
EDAZ10	1.7610	4.7200	2.9590	5y-EDAZ10	
EDAH11	2.0103	4.7200	2.7097	5y-EDAH11	
EDAM11	2.2596	4.7200	2.4604	5y-EDAM11	
EDAU11	2.5281	4.7200	2.1919	5y-EDAU11	
EDAZ11	2.7774	4.7200	1.9426	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	1.12	1.510	10y-EDAH09	29
EDAM09	1.22	1.402	10y-EDAM09	22
EDAU09	1.27	1.352	10y-EDAU09	6
EDAZ09	1.41	1.212	10y-EDAZ09	-15
EDAH10	1.46	1.162	10y-EDAH10	-45
EDAM10	1.63	0.997	10y-EDAM10	-64
EDAU10	1.79	0.832	10y-EDAU10	-75
EDAZ10	2.00	0.622	10y-EDAZ10	-81
EDAH11	2.17	0.457	10y-EDAH11	-86
EDAM11	2.38	0.247	10y-EDAM11	-89
EDAU11	2.57	0.052	10y-EDAU11	-91
EDAZ11	2.77	0.148	10y-EDAZ11	-90

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	0.0158	8.6063	8.5906	10y-EDAH09
EDAM09	0.2651	8.6063	8.3412	10y-EDAM09
EDAU09	0.5144	8.6063	8.0919	10y-EDAU09
EDAZ09	0.7637	8.6063	7.8426	10y-EDAZ09
EDAH10	1.0130	8.6063	7.5933	10y-EDAH10
EDAM10	1.2624	8.6063	7.3440	10y-EDAM10
EDAU10	1.5117	8.6063	7.0947	10y-EDAU10
EDAZ10	1.7610	8.6063	6.8454	10y-EDAZ10
EDAH11	2.0103	8.6063	6.5960	10y-EDAH11
EDAM11	2.2596	8.6063	6.3467	10y-EDAM11
EDAU11	2.5281	8.6063	6.0782	10y-EDAU11
EDAZ11	2.7774	8.6063	5.8289	10y-EDAZ11

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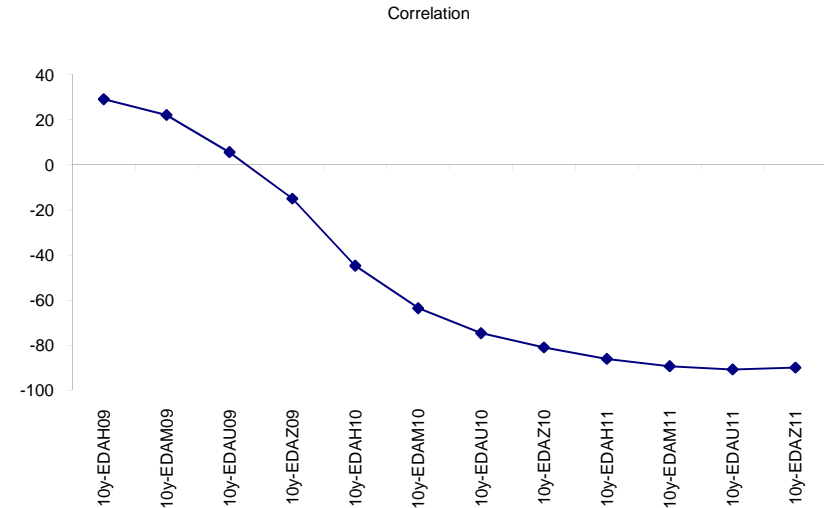


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

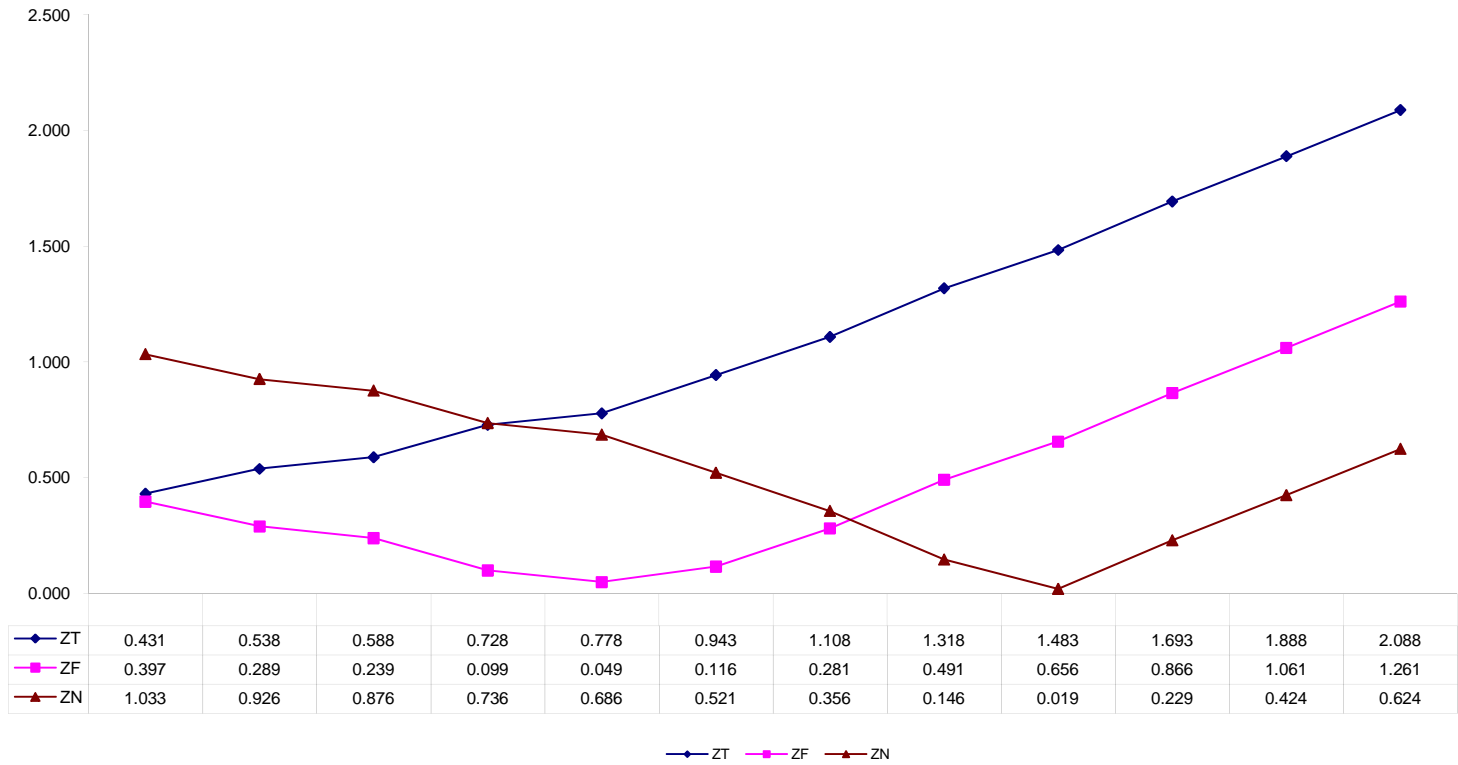
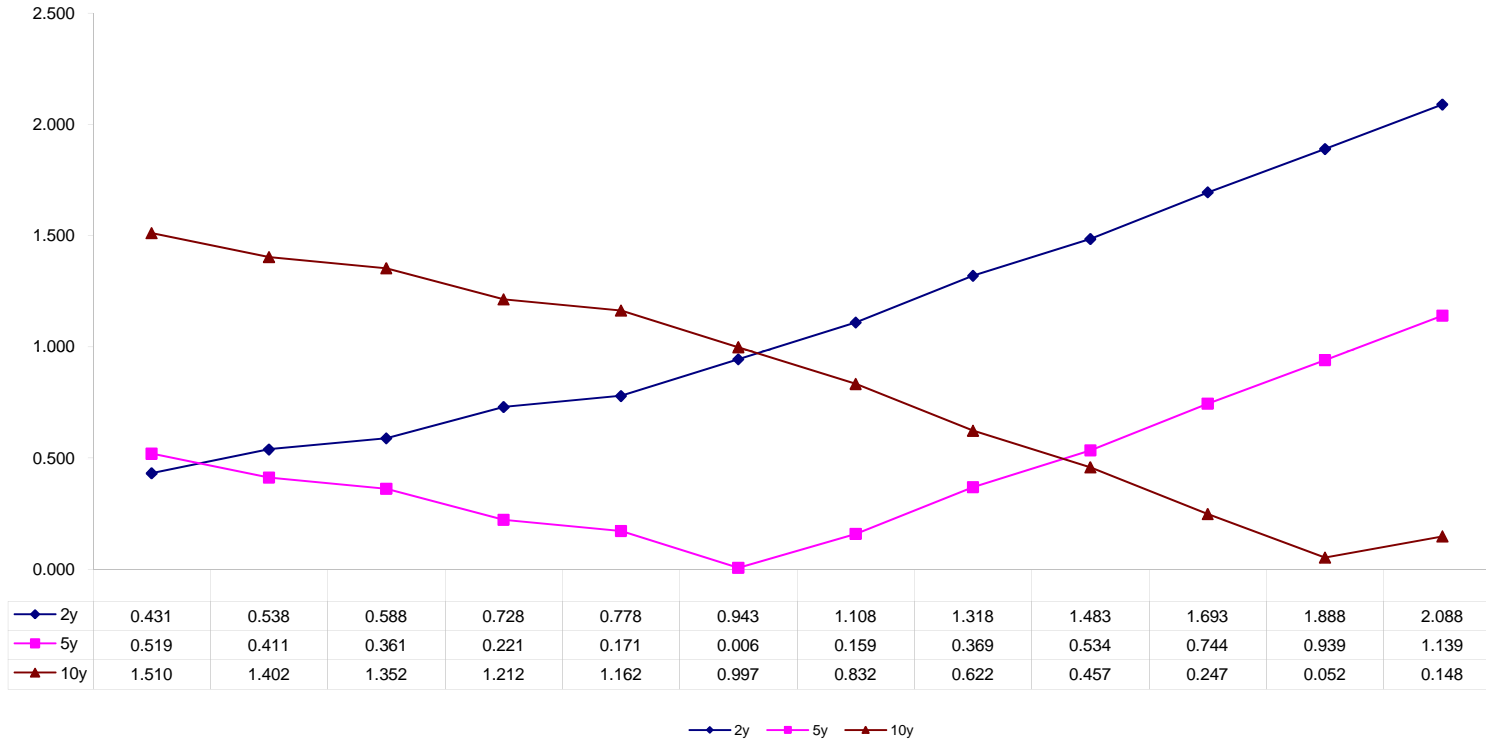
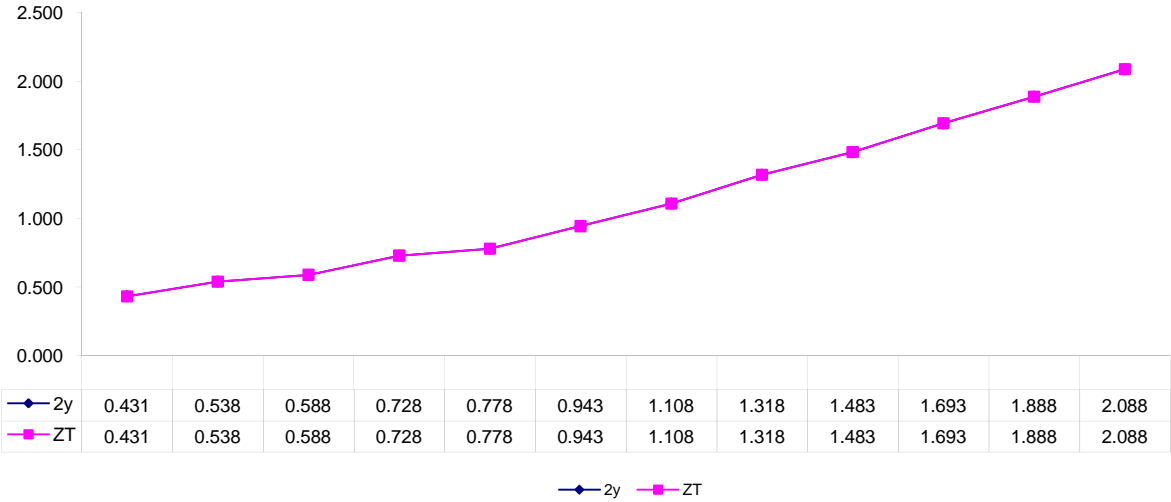
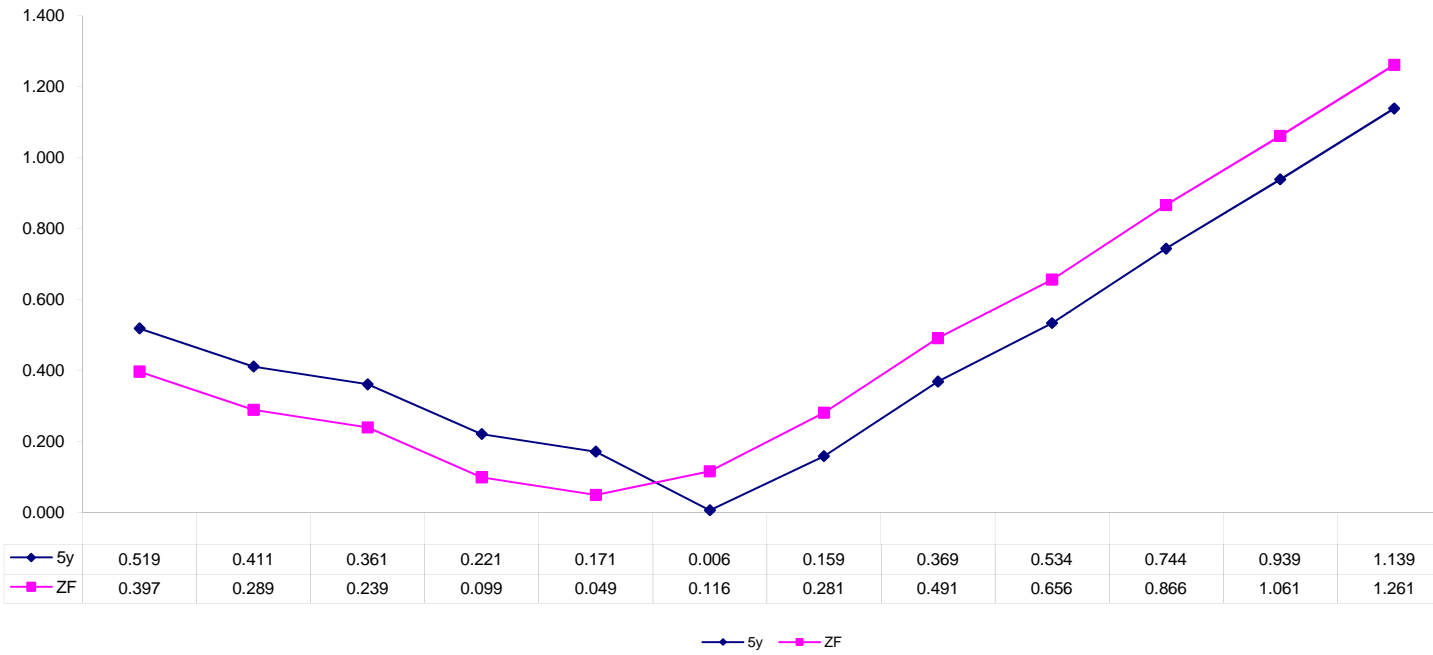


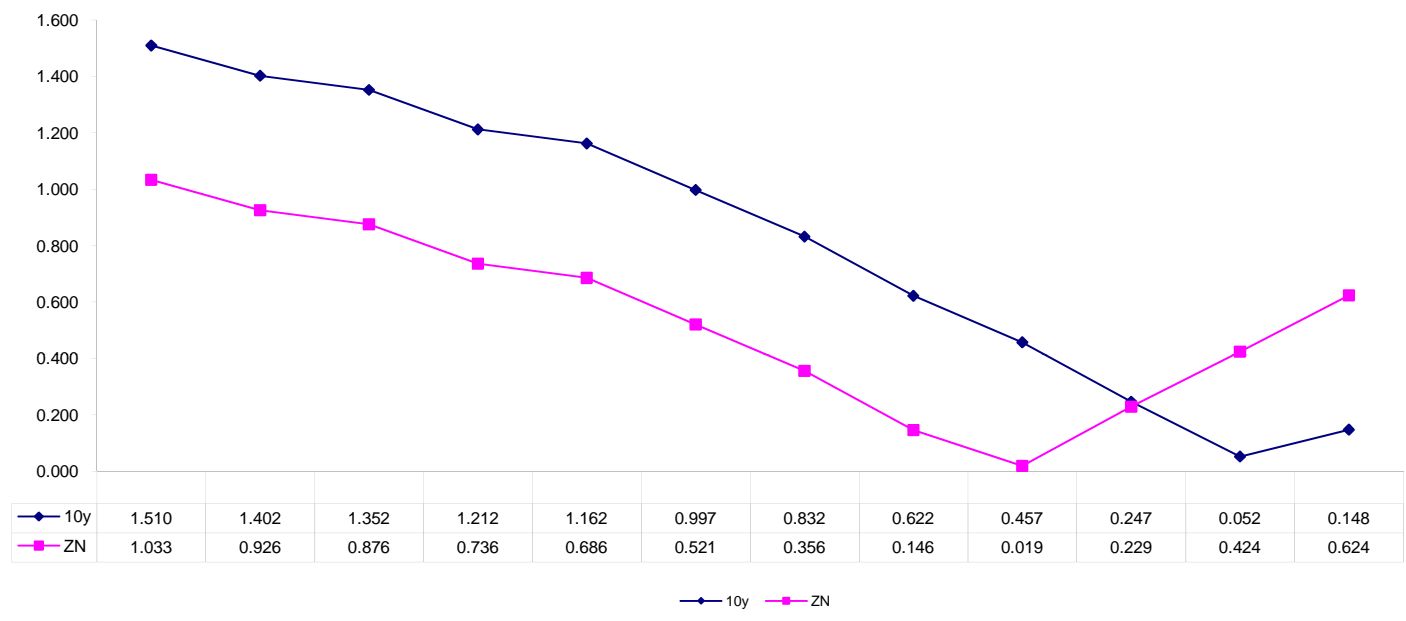
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.591082	-1.1875	9843.6875
Red Pack	2.0675156	-3.875	9797.125
Green Pack	2.8384683	-2.75	9722
Blue Pack	3.423925	-3.5	9665.125
Gold Pack		-1.125	9636.25

