

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	108.5156	108.1650	0.919	1.860
ZF	117.4281	117.1370	1.720	4.058
ZN	121.9375	121.3000	2.499	5.919
2y	99.8281	99.2650	0.961	1.912
5y	99.2875	99.0920	1.900	4.698
10y	98.3438	98.1100	2.942	8.486

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	98.9400	1.060	53	0.1445	JUN	
EDAU09	98.8700	1.130	144	0.3938	SEP	White Pack
EDAZ09	98.6500	1.350	235	0.6432	DEC	
EDAH10	98.5150	1.485	326	0.8925	MAR	
EDAM10	98.2850	1.715	417	1.1418	JUN	
EDAU10	98.0700	1.930	508	1.3911	SEP	Red Pack
EDAZ10	97.8250	2.175	599	1.6404	DEC	
EDAH11	97.6400	2.360	690	1.8897	MAR	
EDAM11	97.4300	2.570	781	2.1391	JUN	
EDAU11	97.2350	2.765	879	2.4075	SEP	Green Pack
EDAZ11	97.0400	2.960	970	2.6569	DEC	
EDAH12	96.9300	3.070	1,061	2.9062	MAR	
EDAM12	96.8150	3.185	1,152	3.1555	JUN	
EDAU12	96.7150	3.285	1,243	3.4048	SEP	Blue Pack
EDAZ12	96.5800	3.420	1,334	3.6541	DEC	
EDAH13	96.5750	3.425	1,425	3.9034	MAR	
EDAM13	96.4700	3.530	1,516	4.1528	JUN	
EDAU13	96.4250	3.575	1,607	4.4021	SEP	Gold Pack
EDAZ13	96.3500	3.650	1,698	4.6514	DEC	
EDAH14	96.2950	3.705	1,789	4.9007	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.278	2.875	9874.38	
Red Pack	2.084	0.875	9795.50	Pack Prices
Green Pack	2.901	0.000	9715.88	
Blue Pack	3.403	0.500	9667.13	
Gold Pack		0.500	9638.38	

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:

- € 1.00 Regression
- € 2.00 Engineered
- € 3.00 Strip with and without Stubs
- € 4.00 Convexity Bias
- € 5.00 Weighted
- € 6.00 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.

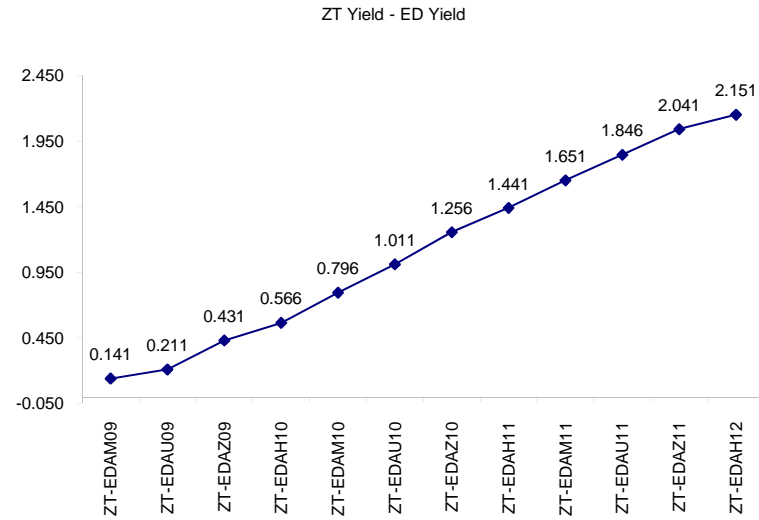
jgoulding@ghco.com

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.

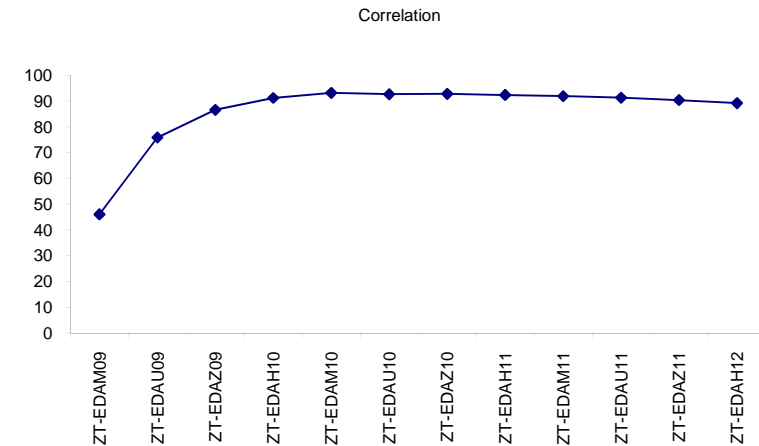
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.58	0.141	ZT-EDAM09	46
EDAU09	9.65	0.211	ZT-EDAU09	76
EDAZ09	9.87	0.431	ZT-EDAZ09	87
EDAH10	10.00	0.566	ZT-EDAH10	91
EDAM10	10.23	0.796	ZT-EDAM10	93
EDAU10	10.45	1.011	ZT-EDAU10	93
EDAZ10	10.69	1.256	ZT-EDAZ10	93
EDAH11	10.88	1.441	ZT-EDAH11	92
EDAM11	11.09	1.651	ZT-EDAM11	92
EDAU11	11.28	1.846	ZT-EDAU11	91
EDAZ11	11.48	2.041	ZT-EDAZ11	90
EDAH12	11.59	2.151	ZT-EDAH12	89

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	
EDAM09	0.1445	1.8601	1.7156	ZT-EDAM09		
EDAU09	0.3938	1.8601	1.4663	ZT-EDAU09		
EDAZ09	0.6432	1.8601	1.2170	ZT-EDAZ09		
EDAH10	0.8925	1.8601	0.9677	ZT-EDAH10		
EDAM10	1.1418	1.8601	0.7184	ZT-EDAM10		
EDAU10	1.3911	1.8601	0.4690	ZT-EDAU10		
EDAZ10	1.6404	1.8601	0.2197	ZT-EDAZ10		
EDAH11	1.8897	1.8601	-0.0296	ZT-EDAH11		
EDAM11	2.1391	1.8601	-0.2789	ZT-EDAM11		
EDAU11	2.4075	1.8601	-0.5474	ZT-EDAU11		
EDAZ11	2.6569	1.8601	-0.7967	ZT-EDAZ11		
EDAH12	2.9062	1.8601	-1.0460	ZT-EDAH12		

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



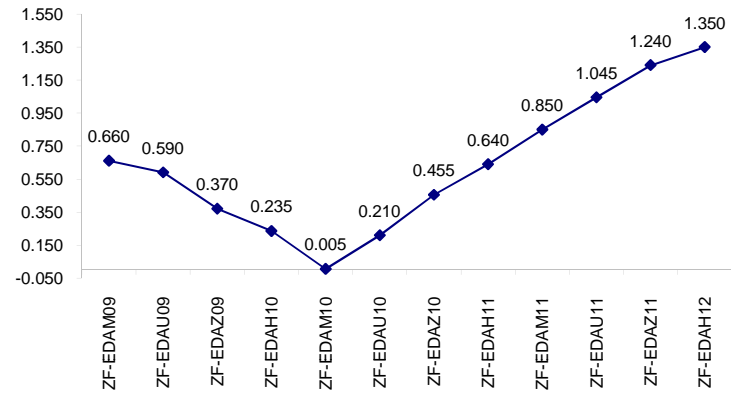
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	18.49	0.660	ZF-EDAM09	53
EDAU09	18.56	0.590	ZF-EDAU09	79
EDAZ09	18.78	0.370	ZF-EDAZ09	87
EDAH10	18.91	0.235	ZF-EDAH10	90
EDAM10	19.14	0.005	ZF-EDAM10	92
EDAU10	19.36	0.210	ZF-EDAU10	91
EDAZ10	19.60	0.455	ZF-EDAZ10	92
EDAH11	19.79	0.640	ZF-EDAH11	93
EDAM11	20.00	0.850	ZF-EDAM11	93
EDAU11	20.19	1.045	ZF-EDAU11	94
EDAZ11	20.39	1.240	ZF-EDAZ11	95
EDAH12	20.50	1.350	ZF-EDAH12	95

Price = Outright Decimal Price - Euro Contract Price

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

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ZF Yield - ED Yield

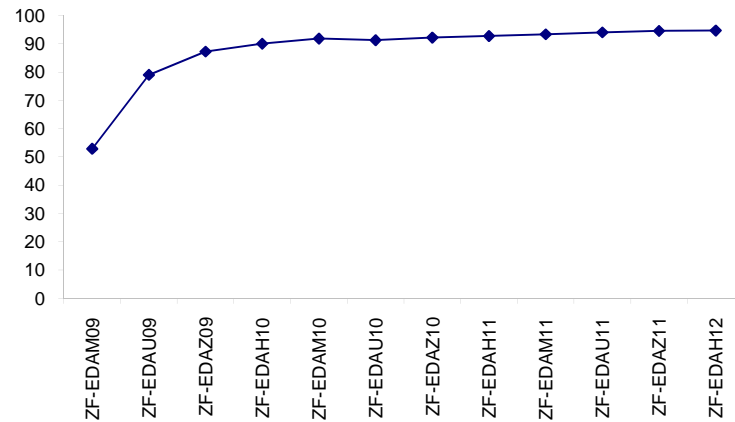


ED Duration as

	Fraction of year	ZF Duration	Spread Duration	
EDAM09	0.1445	4.0579	3.9133	ZF-EDAM09
EDAU09	0.3938	4.0579	3.6640	ZF-EDAU09
EDAZ09	0.6432	4.0579	3.4147	ZF-EDAZ09
EDAH10	0.8925	4.0579	3.1654	ZF-EDAH10
EDAM10	1.1418	4.0579	2.9161	ZF-EDAM10
EDAU10	1.3911	4.0579	2.6668	ZF-EDAU10
EDAZ10	1.6404	4.0579	2.4175	ZF-EDAZ10
EDAH11	1.8897	4.0579	2.1681	ZF-EDAH11
EDAM11	2.1391	4.0579	1.9188	ZF-EDAM11
EDAU11	2.4075	4.0579	1.6503	ZF-EDAU11
EDAZ11	2.6569	4.0579	1.4010	ZF-EDAZ11
EDAH12	2.9062	4.0579	1.1517	ZF-EDAH12

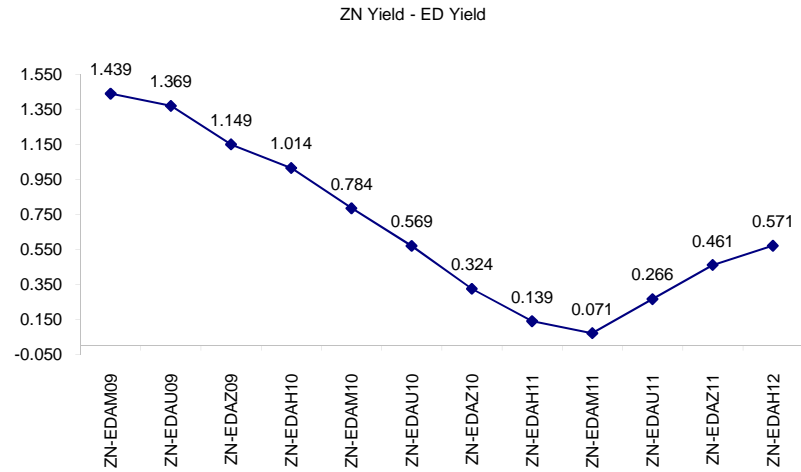
The farther away from 0 the spread duration is the riskier the trade.

Correlation



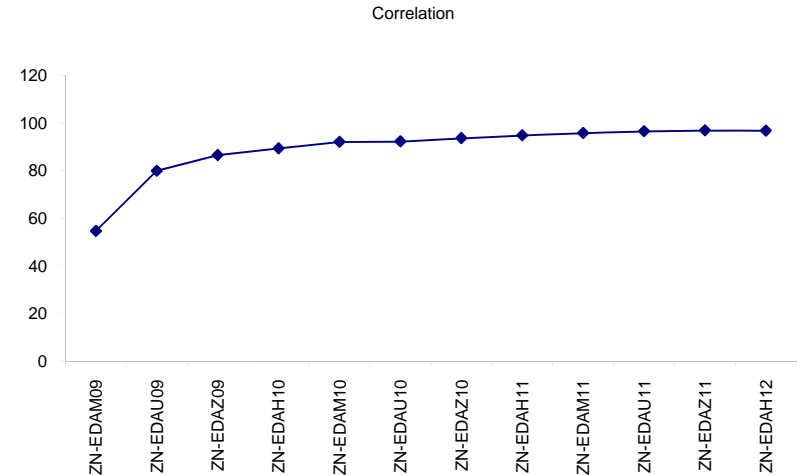
	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAM09	23.00	1.439	ZN-EDAM09	55
EDAU09	23.07	1.369	ZN-EDAU09	80
EDAZ09	23.29	1.149	ZN-EDAZ09	86
EDAH10	23.42	1.014	ZN-EDAH10	89
EDAM10	23.65	0.784	ZN-EDAM10	92
EDAU10	23.87	0.569	ZN-EDAU10	92
EDAZ10	24.11	0.324	ZN-EDAZ10	94
EDAH11	24.30	0.139	ZN-EDAH11	95
EDAM11	24.51	0.071	ZN-EDAM11	96
EDAU11	24.70	0.266	ZN-EDAU11	96
EDAZ11	24.90	0.461	ZN-EDAZ11	97
EDAH12	25.01	0.571	ZN-EDAH12	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			ZN Spread Duration
	Fraction of year	ZN Duration	Spread Duration	
EDAM09	0.1445	5.9185	5.7740	ZN-EDAM09
EDAU09	0.3938	5.9185	5.5247	ZN-EDAU09
EDAZ09	0.6432	5.9185	5.2753	ZN-EDAZ09
EDAH10	0.8925	5.9185	5.0260	ZN-EDAH10
EDAM10	1.1418	5.9185	4.7767	ZN-EDAM10
EDAU10	1.3911	5.9185	4.5274	ZN-EDAU10
EDAZ10	1.6404	5.9185	4.2781	ZN-EDAZ10
EDAH11	1.8897	5.9185	4.0288	ZN-EDAH11
EDAM11	2.1391	5.9185	3.7795	ZN-EDAM11
EDAU11	2.4075	5.9185	3.5110	ZN-EDAU11
EDAZ11	2.6569	5.9185	3.2617	ZN-EDAZ11
EDAH12	2.9062	5.9185	3.0123	ZN-EDAH12

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



	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.89	0.099	2y-EDAM09	-46
EDAU09	0.96	0.169	2y-EDAU09	-75
EDAZ09	1.18	0.389	2y-EDAZ09	-86
EDAH10	1.31	0.524	2y-EDAH10	-89
EDAM10	1.54	0.754	2y-EDAM10	-91
EDAU10	1.76	0.969	2y-EDAU10	-90
EDAZ10	2.00	1.214	2y-EDAZ10	-90
EDAH11	2.19	1.399	2y-EDAH11	-90
EDAM11	2.40	1.609	2y-EDAM11	-90
EDAU11	2.59	1.804	2y-EDAU11	-90
EDAZ11	2.79	1.999	2y-EDAZ11	-90
EDAH12	2.90	2.109	2y-EDAH12	-90

Price = Outright Decimal Price - Euro Contract Price

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

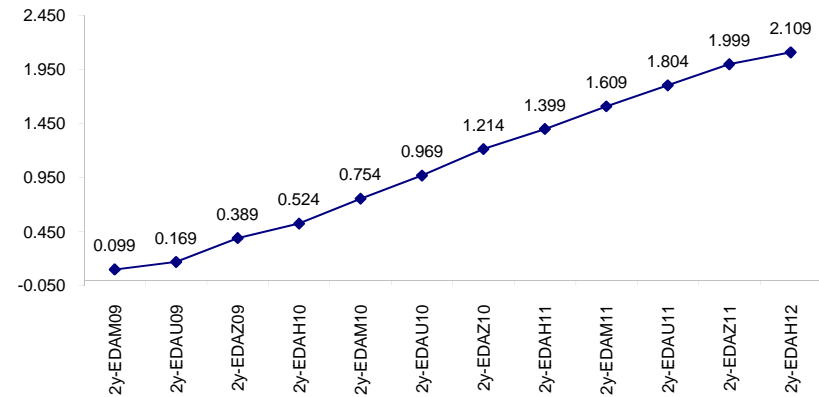
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

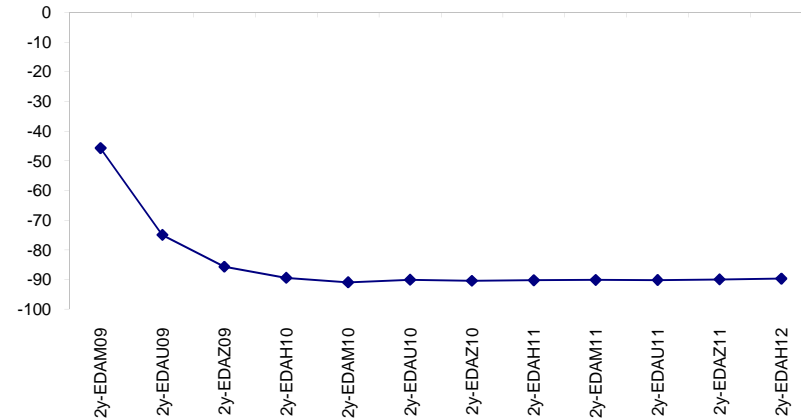
	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.1445	1.9122	1.7677	2y-EDAM09
EDAU09	0.3938	1.9122	1.5183	2y-EDAU09
EDAZ09	0.6432	1.9122	1.2690	2y-EDAZ09
EDAH10	0.8925	1.9122	1.0197	2y-EDAH10
EDAM10	1.1418	1.9122	0.7704	2y-EDAM10
EDAU10	1.3911	1.9122	0.5211	2y-EDAU10
EDAZ10	1.6404	1.9122	0.2718	2y-EDAZ10
EDAH11	1.8897	1.9122	0.0225	2y-EDAH11
EDAM11	2.1391	1.9122	-0.2269	2y-EDAM11
EDAU11	2.4075	1.9122	-0.4954	2y-EDAU11
EDAZ11	2.6569	1.9122	-0.7447	2y-EDAZ11
EDAH12	2.9062	1.9122	-0.9940	2y-EDAH12

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)
EDAM09	0.35	0.840	5y-EDAM09	-56
EDAU09	0.42	0.770	5y-EDAU09	-79
EDAZ09	0.64	0.550	5y-EDAZ09	-86
EDAH10	0.77	0.415	5y-EDAH10	-88
EDAM10	1.00	0.185	5y-EDAM10	-89
EDAU10	1.22	0.030	5y-EDAU10	-89
EDAZ10	1.46	0.275	5y-EDAZ10	-90
EDAH11	1.65	0.460	5y-EDAH11	-91
EDAM11	1.86	0.670	5y-EDAM11	-92
EDAU11	2.05	0.865	5y-EDAU11	-94
EDAZ11	2.25	1.060	5y-EDAZ11	-95
EDAH12	2.36	1.170	5y-EDAH12	-96

Price = Outright Decimal Price - Euro Contract Price

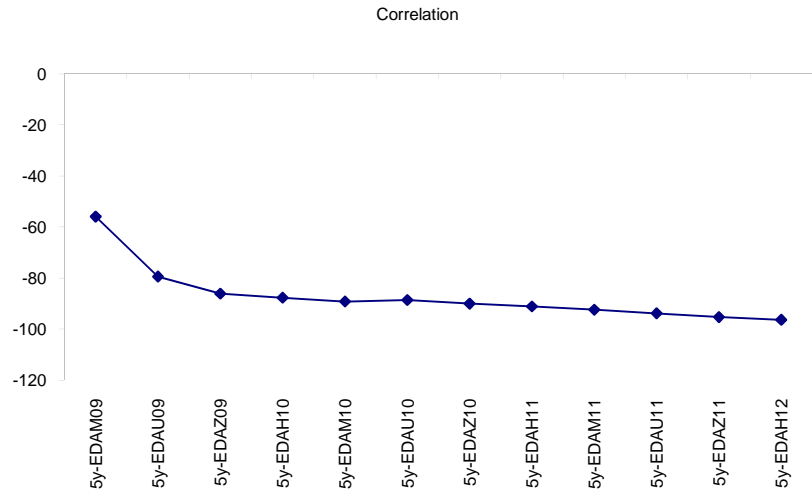
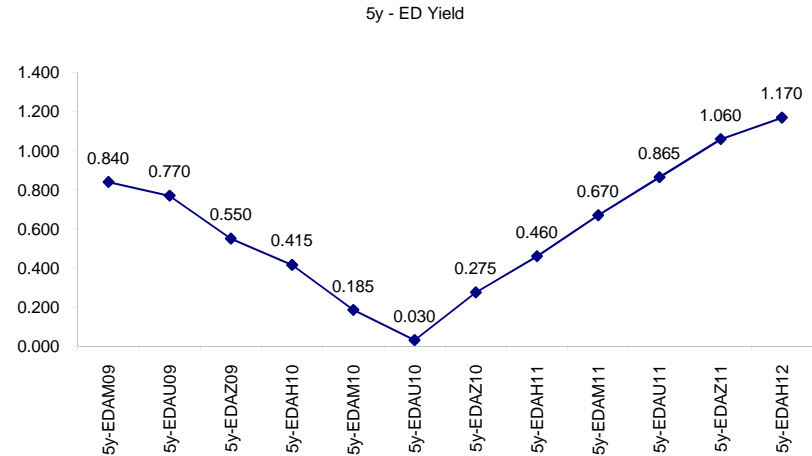
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days

ED Duration as

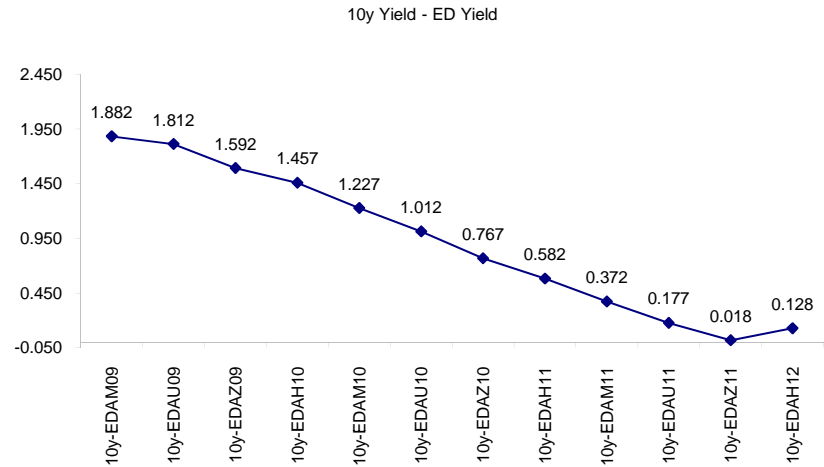
	Fraction of year	5Y Duration	Spread Duration	
EDAM09	0.1445	4.6982	4.5537	5y-EDAM09
EDAU09	0.3938	4.6982	4.3044	5y-EDAU09
EDAZ09	0.6432	4.6982	4.0551	5y-EDAZ09
EDAH10	0.8925	4.6982	3.8057	5y-EDAH10
EDAM10	1.1418	4.6982	3.5564	5y-EDAM10
EDAU10	1.3911	4.6982	3.3071	5y-EDAU10
EDAZ10	1.6404	4.6982	3.0578	5y-EDAZ10
EDAH11	1.8897	4.6982	2.8085	5y-EDAH11
EDAM11	2.1391	4.6982	2.5592	5y-EDAM11
EDAU11	2.4075	4.6982	2.2907	5y-EDAU11
EDAZ11	2.6569	4.6982	2.0414	5y-EDAZ11
EDAH12	2.9062	4.6982	1.7920	5y-EDAH12

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



10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.35	1.882	10y-EDAM09	-53
EDAU09	0.42	1.812	10y-EDAU09	-78
EDAZ09	0.64	1.592	10y-EDAZ09	-85
EDAH10	0.77	1.457	10y-EDAH10	-87
EDAM10	1.00	1.227	10y-EDAM10	-88
EDAU10	1.22	1.012	10y-EDAU10	-88
EDAZ10	1.46	0.767	10y-EDAZ10	-89
EDAH11	1.65	0.582	10y-EDAH11	-90
EDAM11	1.86	0.372	10y-EDAM11	-91
EDAU11	2.05	0.177	10y-EDAU11	-92
EDAZ11	2.25	0.018	10y-EDAZ11	-94
EDAH12	2.36	0.128	10y-EDAH12	-95

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	
EDAM09	0.1445	8.4856	8.3410	10y-EDAM09		
EDAU09	0.3938	8.4856	8.0917	10y-EDAU09		
EDAZ09	0.6432	8.4856	7.8424	10y-EDAZ09		
EDAH10	0.8925	8.4856	7.5931	10y-EDAH10		
EDAM10	1.1418	8.4856	7.3438	10y-EDAM10		
EDAU10	1.3911	8.4856	7.0945	10y-EDAU10		
EDAZ10	1.6404	8.4856	6.8451	10y-EDAZ10		
EDAH11	1.8897	8.4856	6.5958	10y-EDAH11		
EDAM11	2.1391	8.4856	6.3465	10y-EDAM11		
EDAU11	2.4075	8.4856	6.0780	10y-EDAU11		
EDAZ11	2.6569	8.4856	5.8287	10y-EDAZ11		
EDAH12	2.9062	8.4856	5.5794	10y-EDAH12		

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

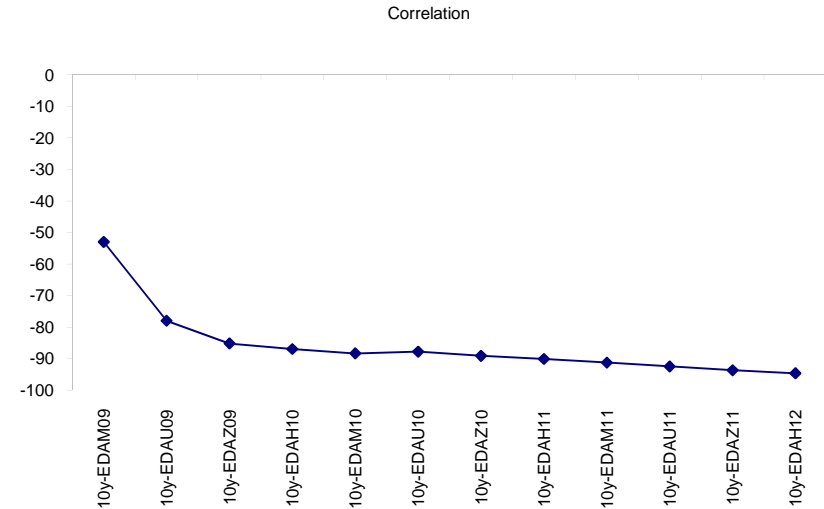


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

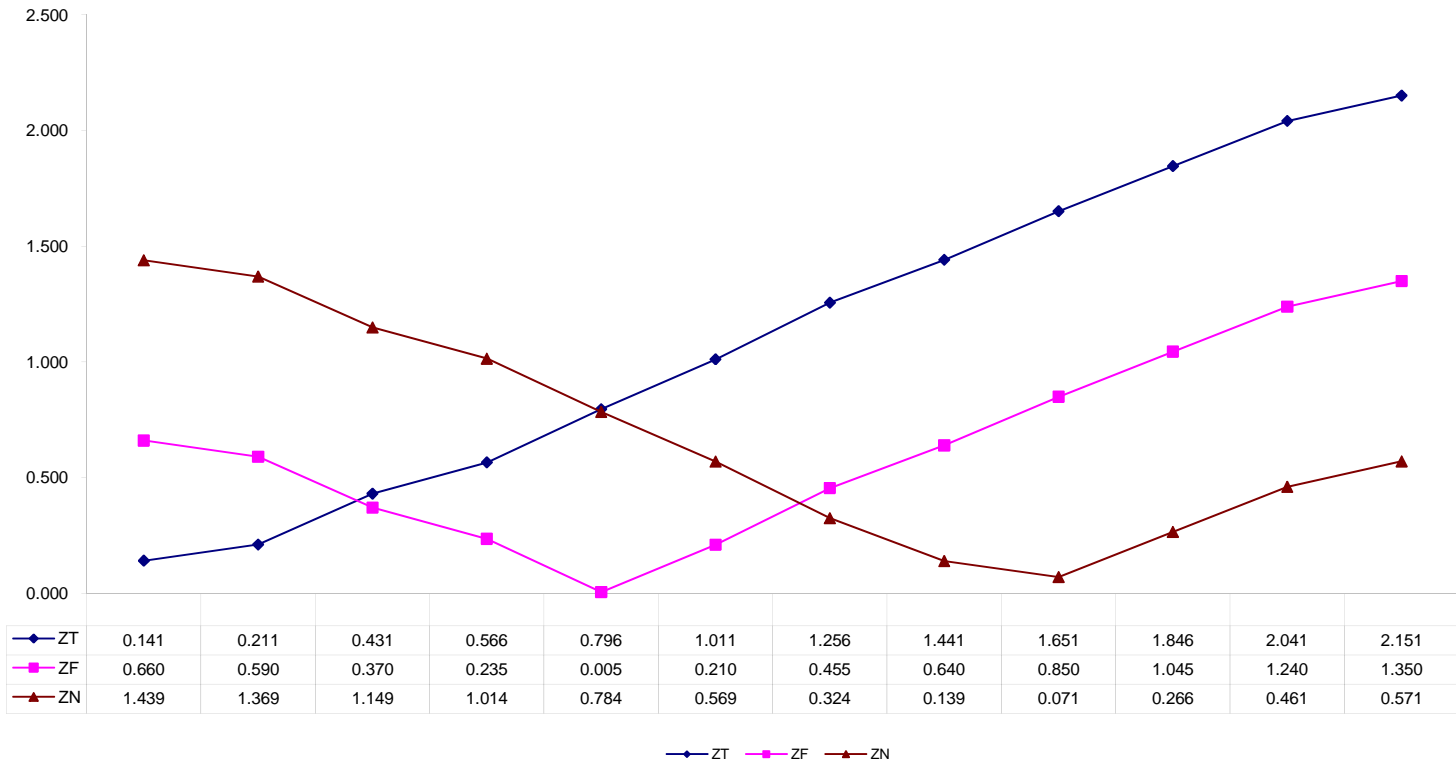
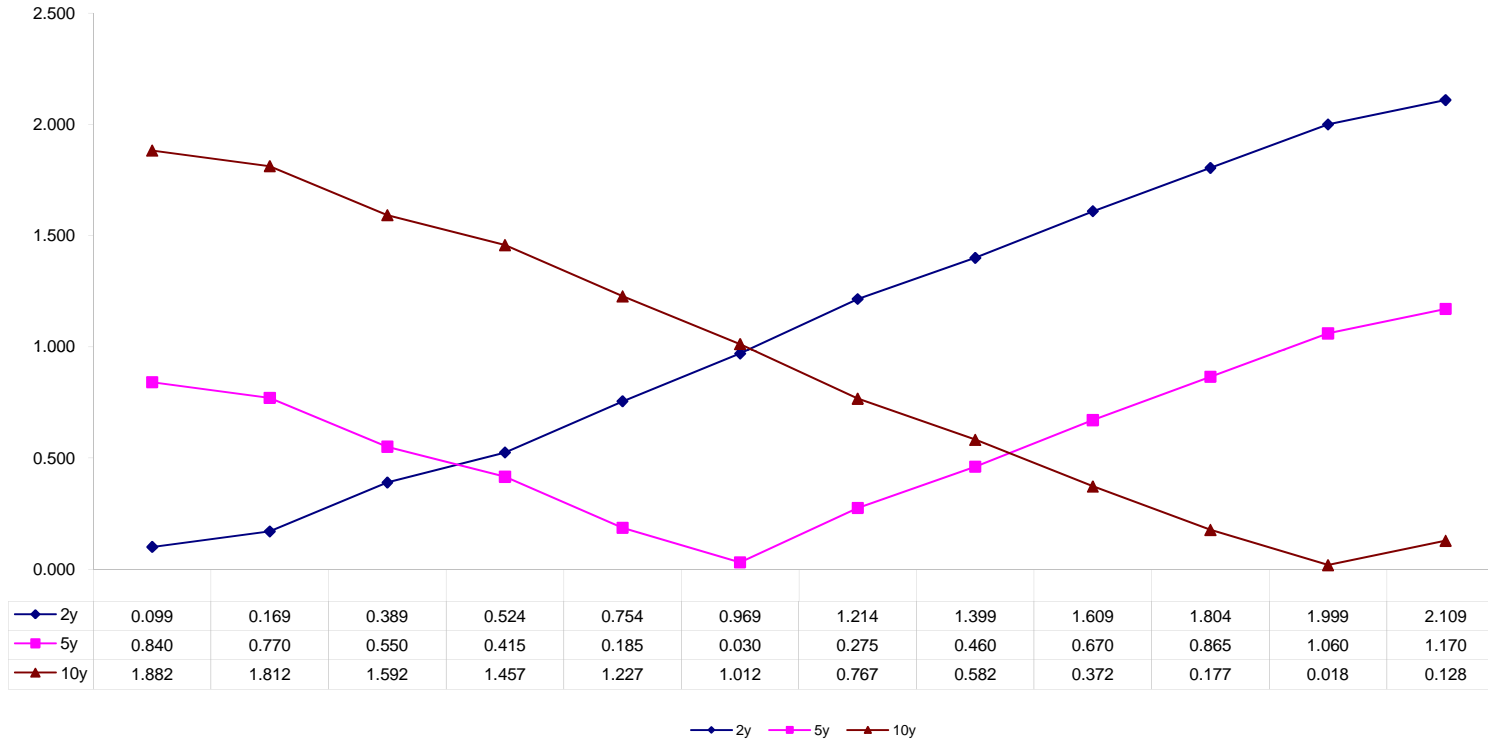
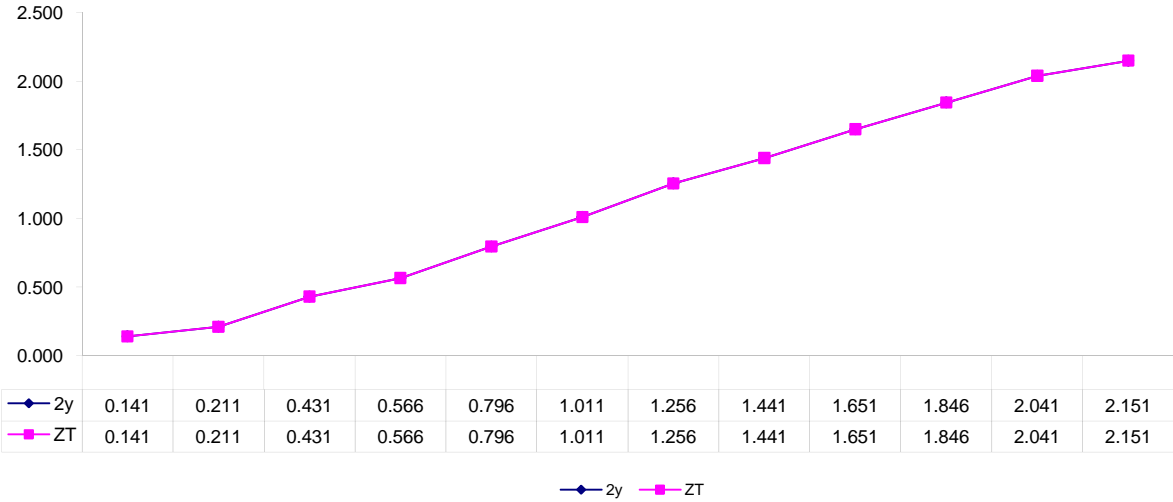
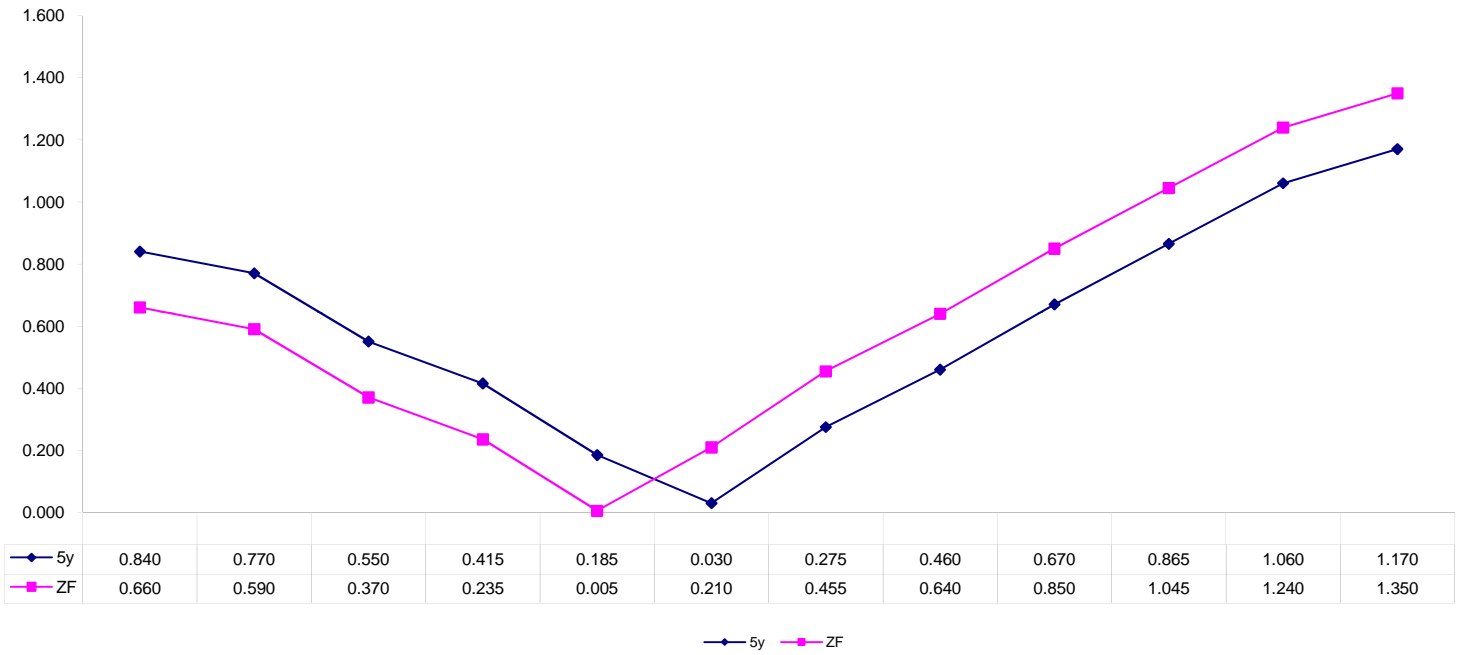


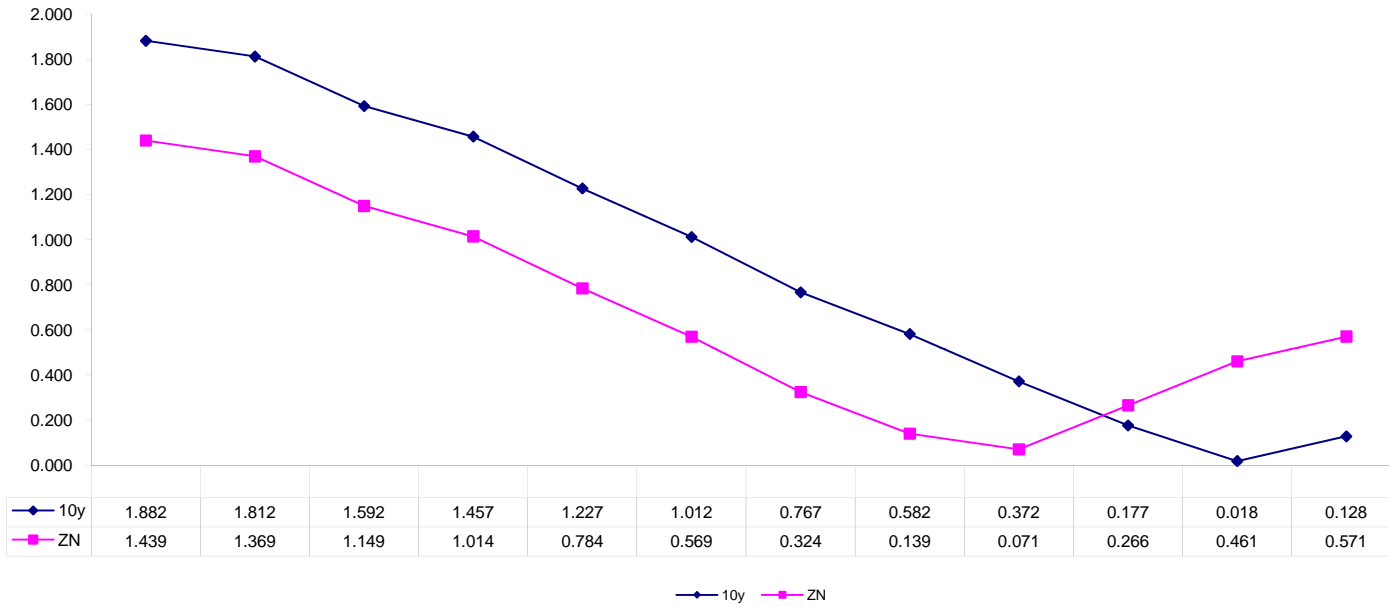
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.278	2.875	9874.3750
Red Pack	2.084	0.875	9795.5000
Green Pack	2.901	0.000	9715.8750
Blue Pack	3.403	0.500	9667.1250
Gold Pack		0.500	9638.3750

