

The Morning Email: TERM TEDS & Dirty TEDS

Table of Contents

- Pg 1** Quotes
- Pg 2** Dirty TED: ZT vs Eurodollar Contracts
- Pg 3** Dirty TED: ZF vs Eurodollar Contracts
- Pg 4** Dirty TED: ZN vs Eurodollar Contracts
- Pg 5** TERM TED: 2y vs Eurodollar Contracts
- Pg 6** TERM TED: 5y vs Eurodollar Contracts
- Pg 7** TERM TED: 10y vs Eurodollar Contracts
- Pg 8** Dirty TED Curve
- Pg 9** TED Curve
- Pg 10** 2y Basis TED Curve
- Pg 11** 5y Basis TED Curve
- Pg 12** 10y Basis TED Curve
- Pg 13** Packs

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	108.5781	108.1850	0.911	1.863
ZF	117.6156	117.1970	1.678	4.062
ZN	122.4063	122.1300	2.454	5.924
2y	99.8750	99.2800	0.936	1.915
5y	99.4688	99.1500	1.860	4.702
10y	98.7344	98.2350	2.897	8.493

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	98.8950	1.105	54	0.1473	JUN	
EDAU09	98.8300	1.170	145	0.3966	SEP	White Pack
EDAZ09	98.6100	1.390	236	0.6459	DEC	
EDAH10	98.4950	1.505	327	0.8952	MAR	
EDAM10	98.2850	1.715	418	1.1445	JUN	
EDAU10	98.0800	1.920	509	1.3939	SEP	Red Pack
EDAZ10	97.8500	2.150	600	1.6432	DEC	
EDAH11	97.6800	2.320	691	1.8925	MAR	
EDAM11	97.4750	2.525	782	2.1418	JUN	
EDAU11	97.2850	2.715	880	2.4103	SEP	Green Pack
EDAZ11	97.0950	2.905	971	2.6596	DEC	
EDAH12	96.9900	3.010	1,062	2.9089	MAR	
EDAM12	96.8800	3.120	1,153	3.1582	JUN	
EDAU12	96.7850	3.215	1,244	3.4076	SEP	Blue Pack
EDAZ12	96.6850	3.315	1,335	3.6569	DEC	
EDAH13	96.6300	3.370	1,426	3.9062	MAR	
EDAM13	96.5650	3.435	1,517	4.1555	JUN	
EDAU13	96.5100	3.490	1,608	4.4048	SEP	Gold Pack
EDAZ13	96.4250	3.575	1,699	4.6541	DEC	
EDAH14	96.3950	3.605	1,790	4.9035	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.315	2.500	9870.75	
Red Pack	2.065	0.250	9797.38	Pack Prices
Green Pack	2.847	0.750	9721.13	
Blue Pack	3.327	3.750	9674.50	
Gold Pack	3.607	5.125	9647.38	

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)

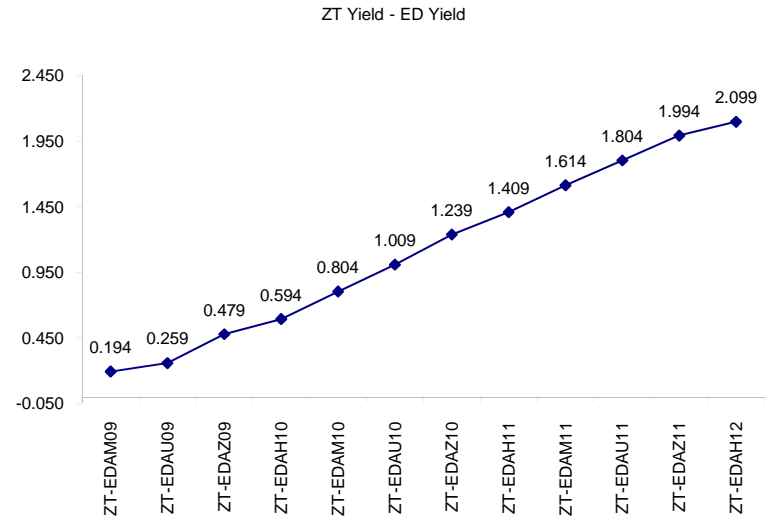
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based on yield than price.

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.68	0.194	ZT-EDAM09	57
EDAU09	9.75	0.259	ZT-EDAU09	77
EDAZ09	9.97	0.479	ZT-EDAZ09	86
EDAH10	10.08	0.594	ZT-EDAH10	88
EDAM10	10.29	0.804	ZT-EDAM10	88
EDAU10	10.50	1.009	ZT-EDAU10	87
EDAZ10	10.73	1.239	ZT-EDAZ10	87
EDAH11	10.90	1.409	ZT-EDAH11	86
EDAM11	11.10	1.614	ZT-EDAM11	86
EDAU11	11.29	1.804	ZT-EDAU11	85
EDAZ11	11.48	1.994	ZT-EDAZ11	85
EDAH12	11.59	2.099	ZT-EDAH12	84

Price = Outright Decimal Price - Euro Contract Price

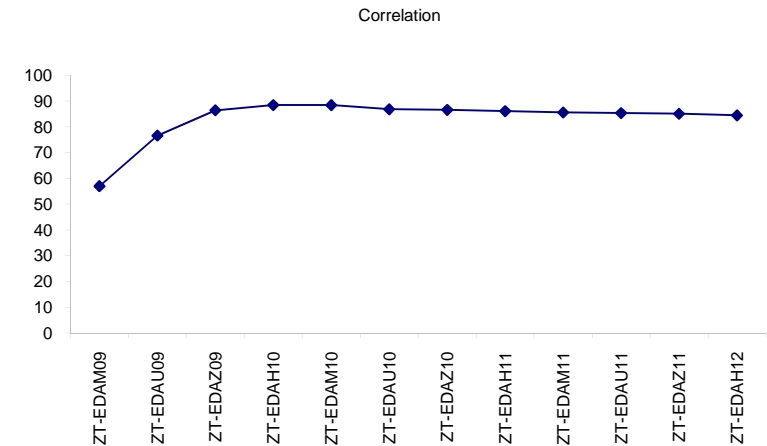
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



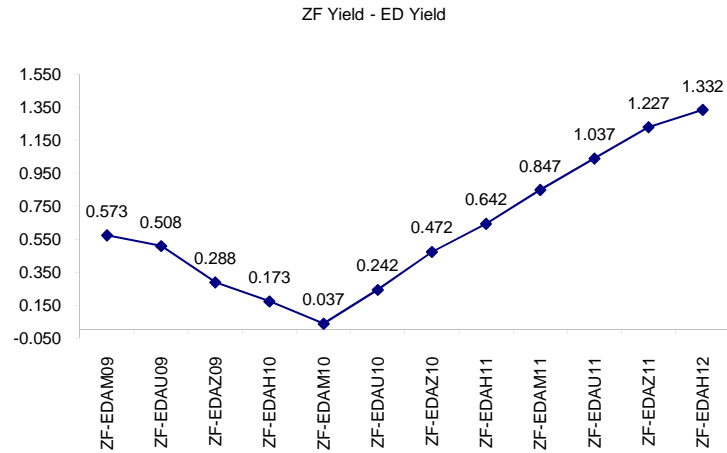
	ED Duration as Fraction of year			
	ZT Duration	Spread Duration		
EDAM09	0.1473	1.8629	1.7157	ZT-EDAM09
EDAU09	0.3966	1.8629	1.4663	ZT-EDAU09
EDAZ09	0.6459	1.8629	1.2170	ZT-EDAZ09
EDAH10	0.8952	1.8629	0.9677	ZT-EDAH10
EDAM10	1.1445	1.8629	0.7184	ZT-EDAM10
EDAU10	1.3939	1.8629	0.4691	ZT-EDAU10
EDAZ10	1.6432	1.8629	0.2198	ZT-EDAZ10
EDAH11	1.8925	1.8629	-0.0295	ZT-EDAH11
EDAM11	2.1418	1.8629	-0.2789	ZT-EDAM11
EDAU11	2.4103	1.8629	-0.5474	ZT-EDAU11
EDAZ11	2.6596	1.8629	-0.7967	ZT-EDAZ11
EDAH12	2.9089	1.8629	-1.0460	ZT-EDAH12

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



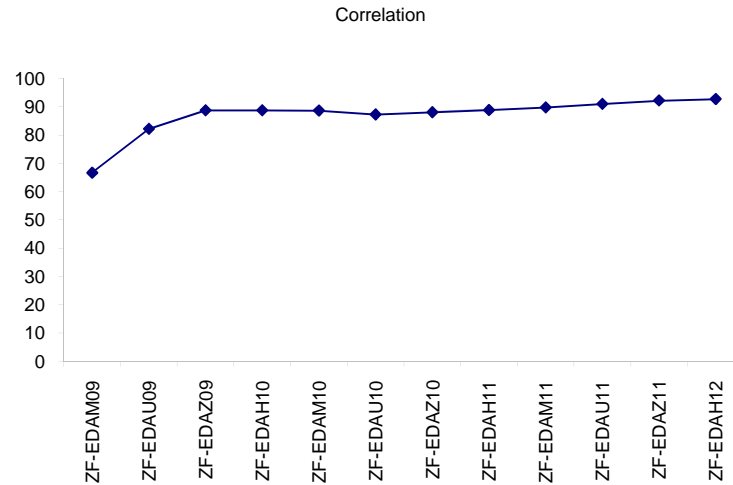
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	18.72	0.573	ZF-EDAM09	67
EDAU09	18.79	0.508	ZF-EDAU09	82
EDAZ09	19.01	0.288	ZF-EDAZ09	89
EDAH10	19.12	0.173	ZF-EDAH10	89
EDAM10	19.33	0.037	ZF-EDAM10	89
EDAU10	19.54	0.242	ZF-EDAU10	87
EDAZ10	19.77	0.472	ZF-EDAZ10	88
EDAH11	19.94	0.642	ZF-EDAH11	89
EDAM11	20.14	0.847	ZF-EDAM11	90
EDAU11	20.33	1.037	ZF-EDAU11	91
EDAZ11	20.52	1.227	ZF-EDAZ11	92
EDAH12	20.63	1.332	ZF-EDAH12	93

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



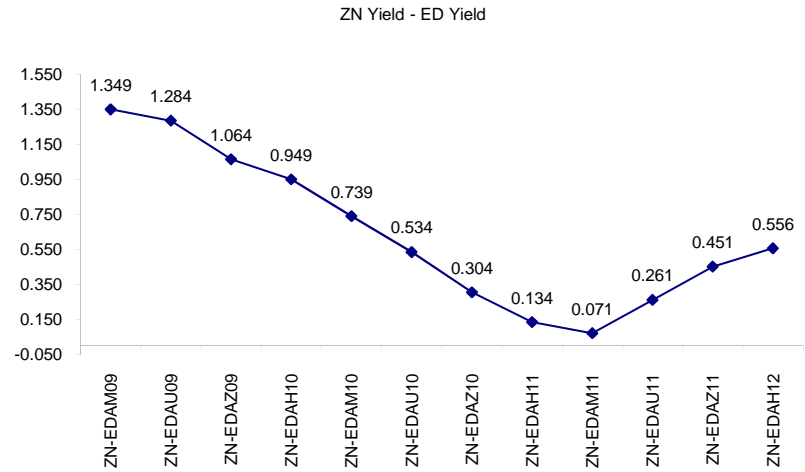
	ED Duration as Fraction of year			
	Fraction of year	ZF Duration	Spread Duration	
EDAM09	0.1473	4.0617	3.9144	ZF-EDAM09
EDAU09	0.3966	4.0617	3.6651	ZF-EDAU09
EDAZ09	0.6459	4.0617	3.4158	ZF-EDAZ09
EDAH10	0.8952	4.0617	3.1665	ZF-EDAH10
EDAM10	1.1445	4.0617	2.9172	ZF-EDAM10
EDAU10	1.3939	4.0617	2.6679	ZF-EDAU10
EDAZ10	1.6432	4.0617	2.4185	ZF-EDAZ10
EDAH11	1.8925	4.0617	2.1692	ZF-EDAH11
EDAM11	2.1418	4.0617	1.9199	ZF-EDAM11
EDAU11	2.4103	4.0617	1.6514	ZF-EDAU11
EDAZ11	2.6596	4.0617	1.4021	ZF-EDAZ11
EDAH12	2.9089	4.0617	1.1528	ZF-EDAH12

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



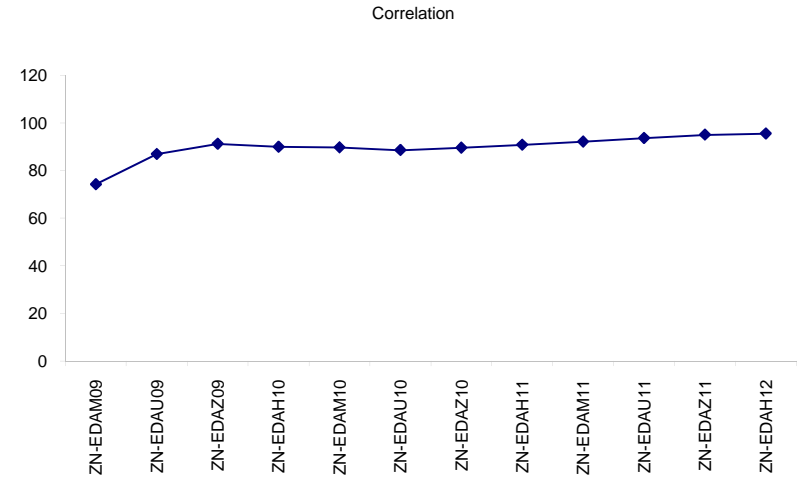
	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAM09	23.51	1.349	ZN-EDAM09	74
EDAU09	23.58	1.284	ZN-EDAU09	87
EDAZ09	23.80	1.064	ZN-EDAZ09	91
EDAH10	23.91	0.949	ZN-EDAH10	90
EDAM10	24.12	0.739	ZN-EDAM10	90
EDAU10	24.33	0.534	ZN-EDAU10	89
EDAZ10	24.56	0.304	ZN-EDAZ10	90
EDAH11	24.73	0.134	ZN-EDAH11	91
EDAM11	24.93	0.071	ZN-EDAM11	92
EDAU11	25.12	0.261	ZN-EDAU11	94
EDAZ11	25.31	0.451	ZN-EDAZ11	95
EDAH12	25.42	0.556	ZN-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	ZN Duration	Spread Duration	
EDAM09	0.1473	5.9241	5.7768	ZN-EDAM09
EDAU09	0.3966	5.9241	5.5275	ZN-EDAU09
EDAZ09	0.6459	5.9241	5.2782	ZN-EDAZ09
EDAH10	0.8952	5.9241	5.0289	ZN-EDAH10
EDAM10	1.1445	5.9241	4.7796	ZN-EDAM10
EDAU10	1.3939	5.9241	4.5303	ZN-EDAU10
EDAZ10	1.6432	5.9241	4.2809	ZN-EDAZ10
EDAH11	1.8925	5.9241	4.0316	ZN-EDAH11
EDAM11	2.1418	5.9241	3.7823	ZN-EDAM11
EDAU11	2.4103	5.9241	3.5138	ZN-EDAU11
EDAZ11	2.6596	5.9241	3.2645	ZN-EDAZ11
EDAH12	2.9089	5.9241	3.0152	ZN-EDAH12

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



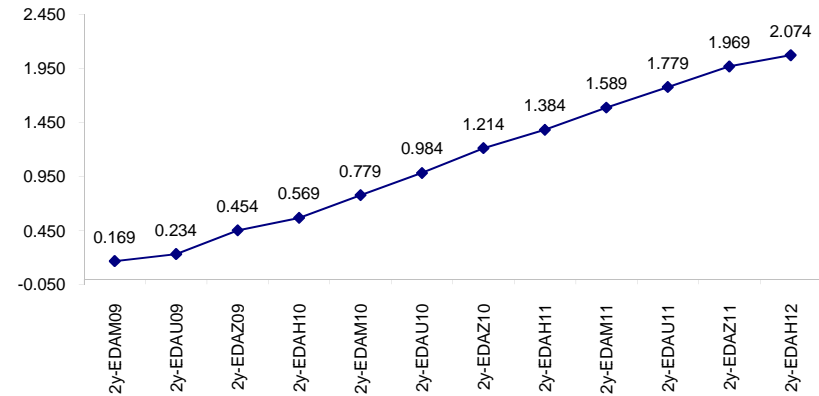
	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.98	0.169	2y-EDAM09	-56
EDAU09	1.05	0.234	2y-EDAU09	-76
EDAZ09	1.27	0.454	2y-EDAZ09	-85
EDAH10	1.38	0.569	2y-EDAH10	-87
EDAM10	1.59	0.779	2y-EDAM10	-87
EDAU10	1.80	0.984	2y-EDAU10	-85
EDAZ10	2.02	1.214	2y-EDAZ10	-86
EDAH11	2.19	1.384	2y-EDAH11	-85
EDAM11	2.40	1.589	2y-EDAM11	-86
EDAU11	2.59	1.779	2y-EDAU11	-86
EDAZ11	2.78	1.969	2y-EDAZ11	-86
EDAH12	2.88	2.074	2y-EDAH12	-86

Price = Outright Decimal Price - Euro Contract Price

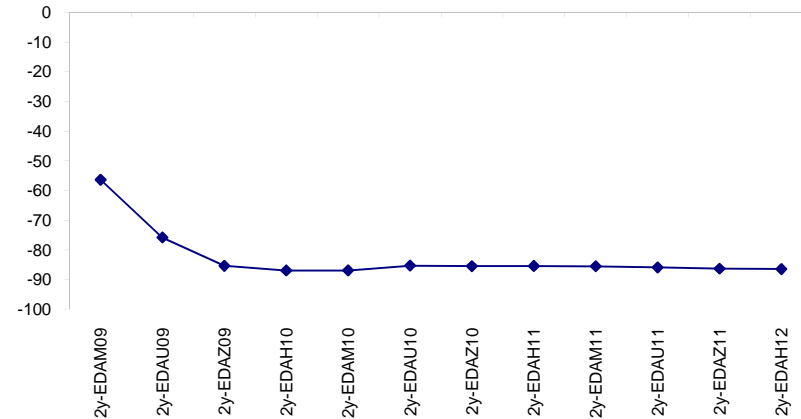
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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

ZT Yield - ED Yield



Correlation



ED Duration as

	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.1473	1.9152	1.7679	2y-EDAM09
EDAU09	0.3966	1.9152	1.5186	2y-EDAU09
EDAZ09	0.6459	1.9152	1.2692	2y-EDAZ09
EDAH10	0.8952	1.9152	1.0199	2y-EDAH10
EDAM10	1.1445	1.9152	0.7706	2y-EDAM10
EDAU10	1.3939	1.9152	0.5213	2y-EDAU10
EDAZ10	1.6432	1.9152	0.2720	2y-EDAZ10
EDAH11	1.8925	1.9152	0.0227	2y-EDAH11
EDAM11	2.1418	1.9152	-0.2267	2y-EDAM11
EDAU11	2.4103	1.9152	-0.4951	2y-EDAU11
EDAZ11	2.6596	1.9152	-0.7445	2y-EDAZ11
EDAH12	2.9089	1.9152	-0.9938	2y-EDAH12

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

	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.57	0.755	5y-EDAM09	-70
EDAU09	0.64	0.690	5y-EDAU09	-82
EDAZ09	0.86	0.470	5y-EDAZ09	-87
EDAH10	0.97	0.355	5y-EDAH10	-86
EDAM10	1.18	0.145	5y-EDAM10	-86
EDAU10	1.39	0.060	5y-EDAU10	-84
EDAZ10	1.62	0.290	5y-EDAZ10	-86
EDAH11	1.79	0.460	5y-EDAH11	-87
EDAM11	1.99	0.665	5y-EDAM11	-89
EDAU11	2.18	0.855	5y-EDAU11	-91
EDAZ11	2.37	1.045	5y-EDAZ11	-94
EDAH12	2.48	1.150	5y-EDAH12	-95

Price = Outright Decimal Price - Euro Contract Price

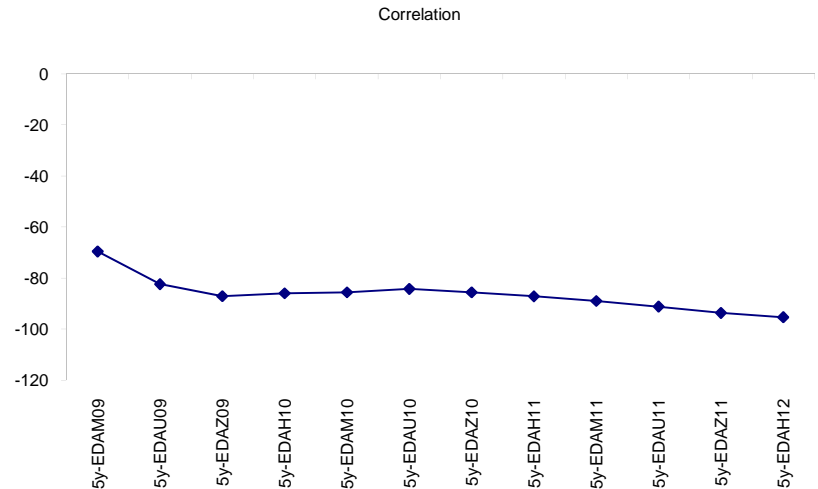
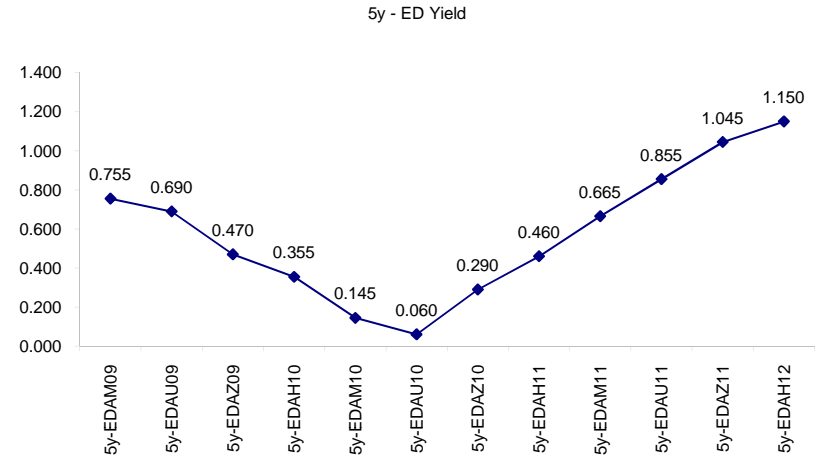
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days

ED Duration as

	Fraction of year	5Y Duration	Spread Duration	
EDAM09	0.1473	4.7021	4.5548	5y-EDAM09
EDAU09	0.3966	4.7021	4.3055	5y-EDAU09
EDAZ09	0.6459	4.7021	4.0562	5y-EDAZ09
EDAH10	0.8952	4.7021	3.8069	5y-EDAH10
EDAM10	1.1445	4.7021	3.5575	5y-EDAM10
EDAU10	1.3939	4.7021	3.3082	5y-EDAU10
EDAZ10	1.6432	4.7021	3.0589	5y-EDAZ10
EDAH11	1.8925	4.7021	2.8096	5y-EDAH11
EDAM11	2.1418	4.7021	2.5603	5y-EDAM11
EDAU11	2.4103	4.7021	2.2918	5y-EDAU11
EDAZ11	2.6596	4.7021	2.0425	5y-EDAZ11
EDAH12	2.9089	4.7021	1.7932	5y-EDAH12

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

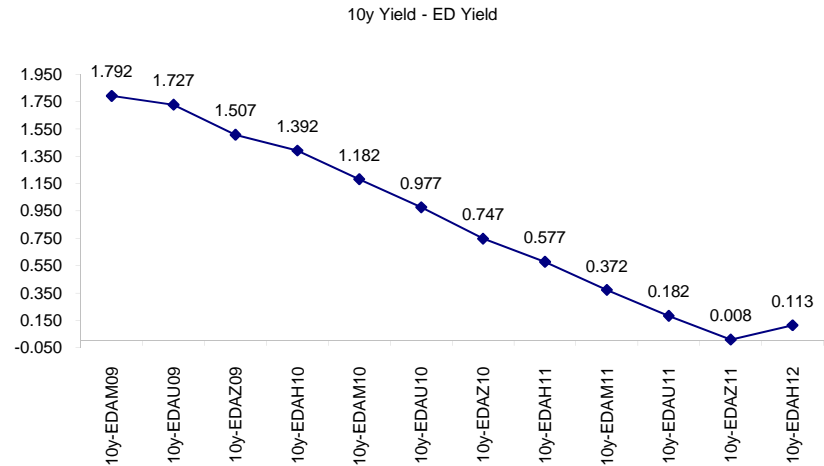


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.57	1.792	10y-EDAM09	-65
EDAU09	0.64	1.727	10y-EDAU09	-79
EDAZ09	0.86	1.507	10y-EDAZ09	-84
EDAH10	0.97	1.392	10y-EDAH10	-84
EDAM10	1.18	1.182	10y-EDAM10	-84
EDAU10	1.39	0.977	10y-EDAU10	-83
EDAZ10	1.62	0.747	10y-EDAZ10	-84
EDAH11	1.79	0.577	10y-EDAH11	-85
EDAM11	1.99	0.372	10y-EDAM11	-87
EDAU11	2.18	0.182	10y-EDAU11	-89
EDAZ11	2.37	0.008	10y-EDAZ11	-91
EDAH12	2.48	0.113	10y-EDAH12	-92

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	0.1473	8.4930	8.3457	10y-EDAM09		
EDAU09	0.3966	8.4930	8.0964	10y-EDAU09		
EDAZ09	0.6459	8.4930	7.8471	10y-EDAZ09		
EDAH10	0.8952	8.4930	7.5978	10y-EDAH10		
EDAM10	1.1445	8.4930	7.3485	10y-EDAM10		
EDAU10	1.3939	8.4930	7.0991	10y-EDAU10		
EDAZ10	1.6432	8.4930	6.8498	10y-EDAZ10		
EDAH11	1.8925	8.4930	6.6005	10y-EDAH11		
EDAM11	2.1418	8.4930	6.3512	10y-EDAM11		
EDAU11	2.4103	8.4930	6.0827	10y-EDAU11		
EDAZ11	2.6596	8.4930	5.8334	10y-EDAZ11		
EDAH12	2.9089	8.4930	5.5841	10y-EDAH12		

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

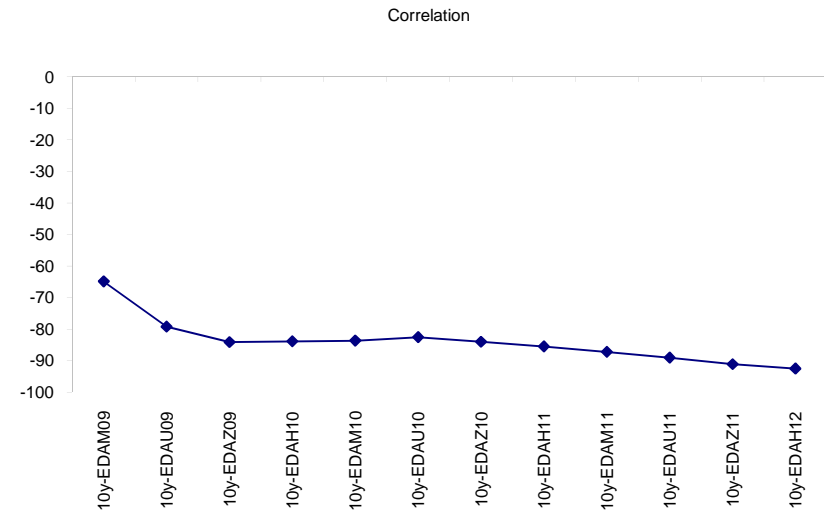


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

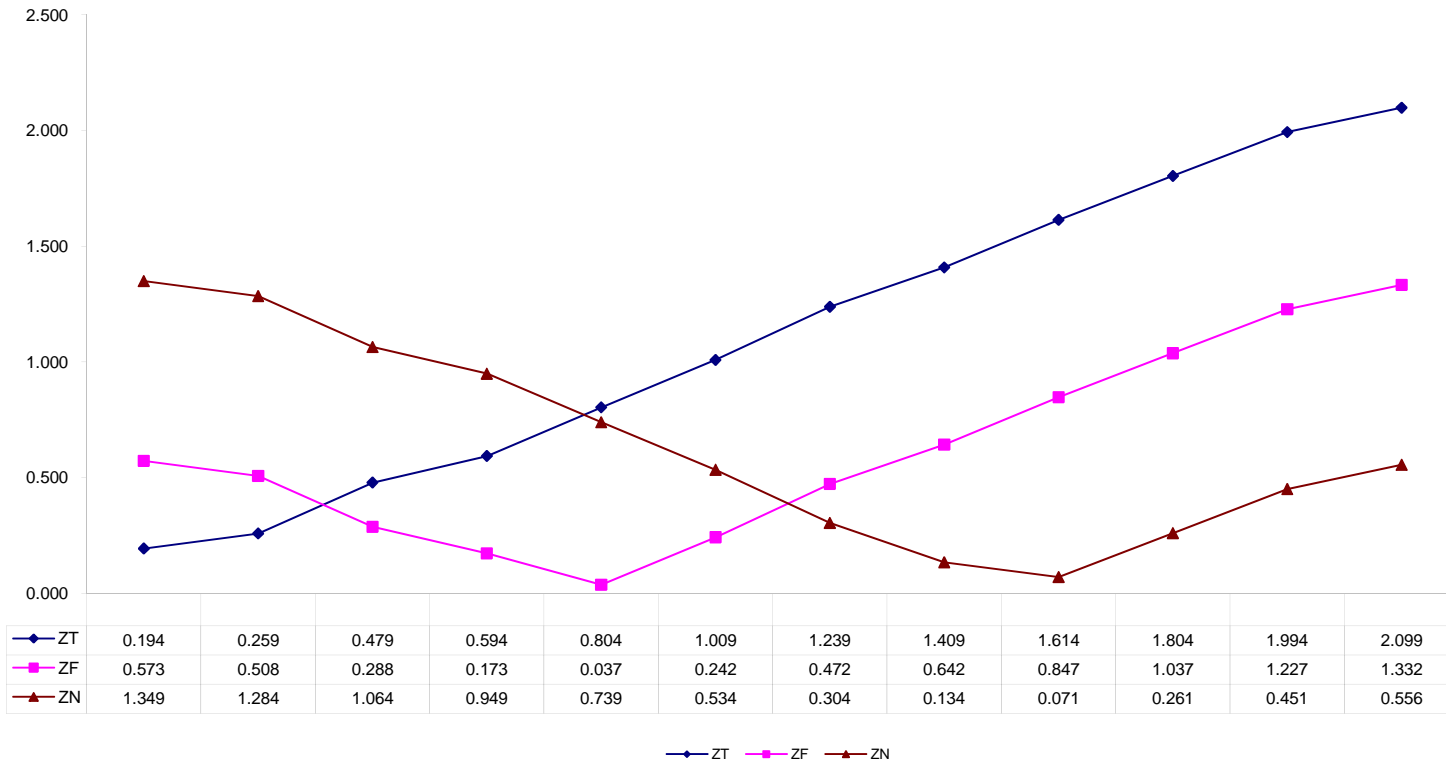
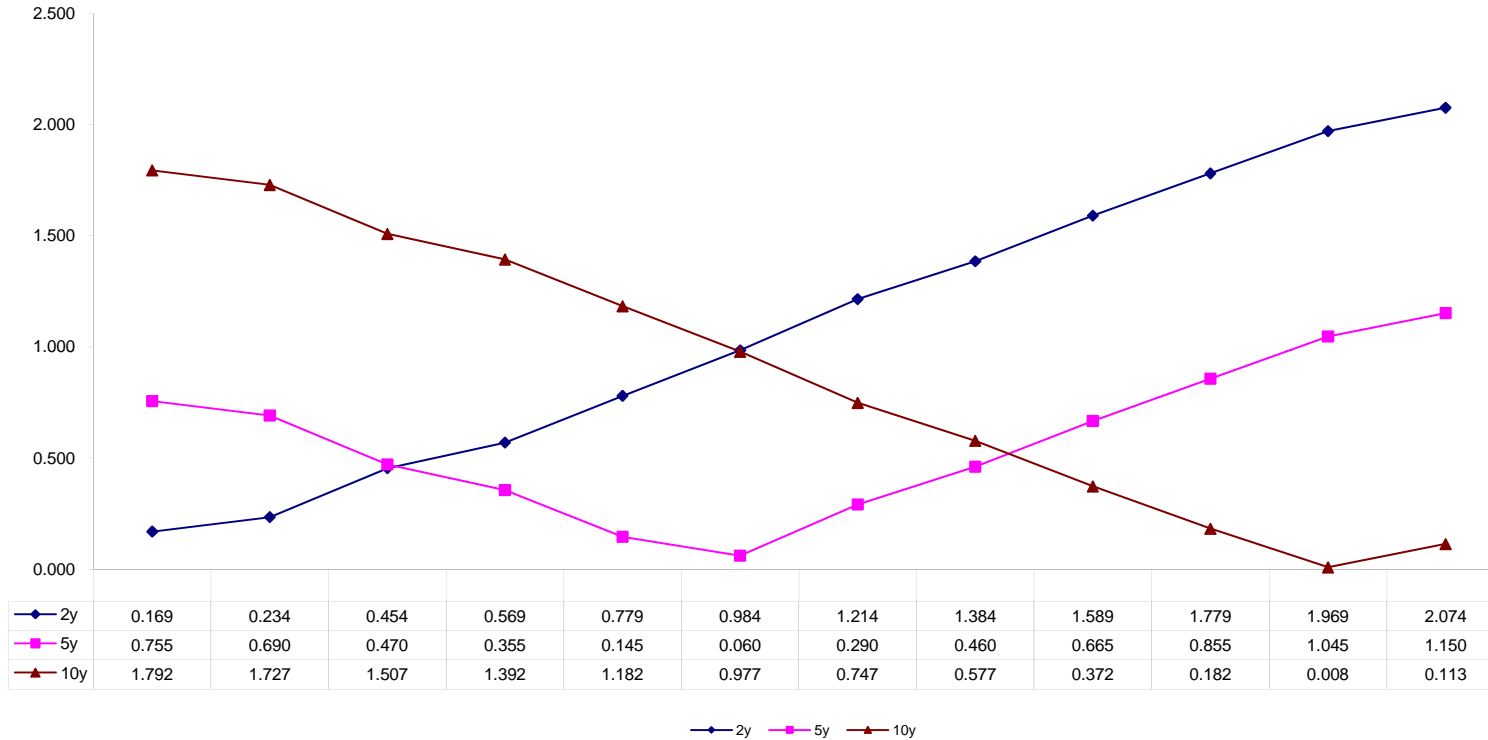
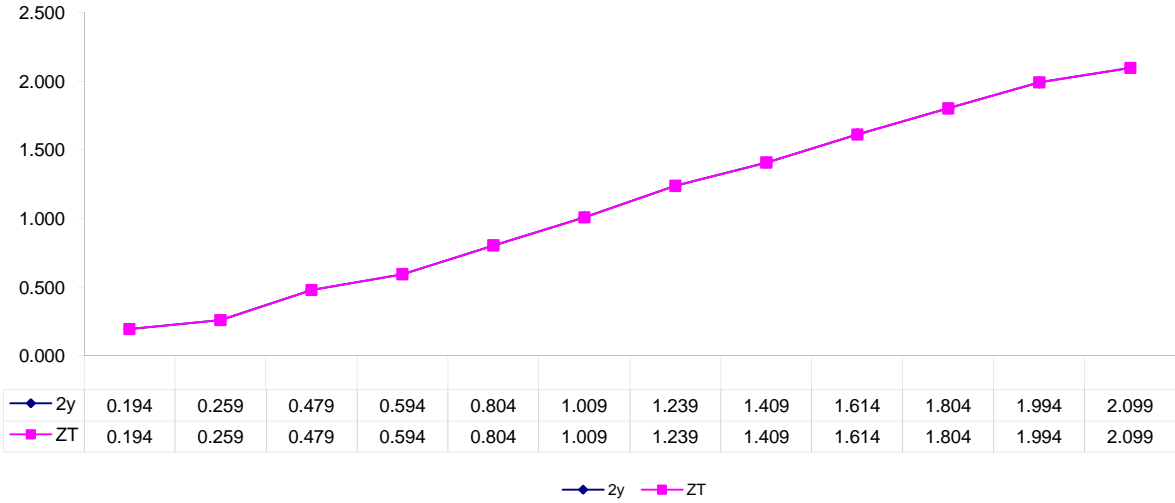
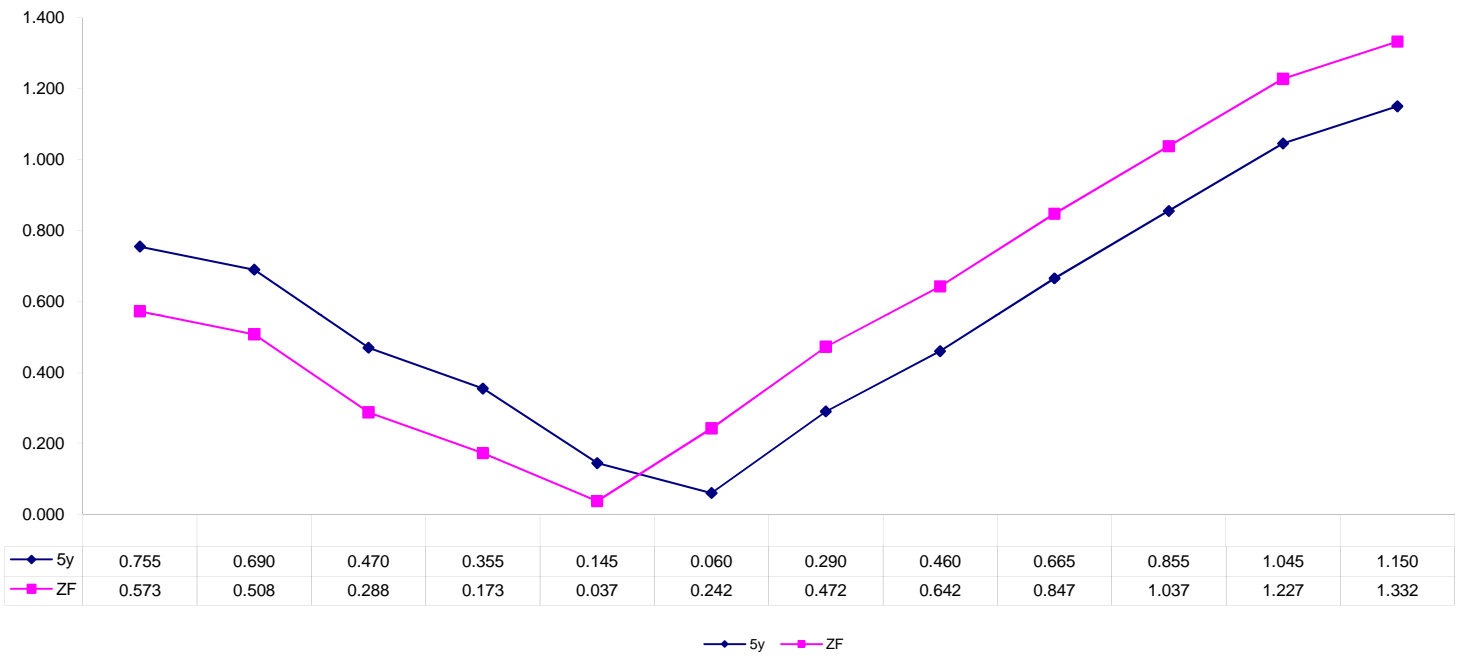


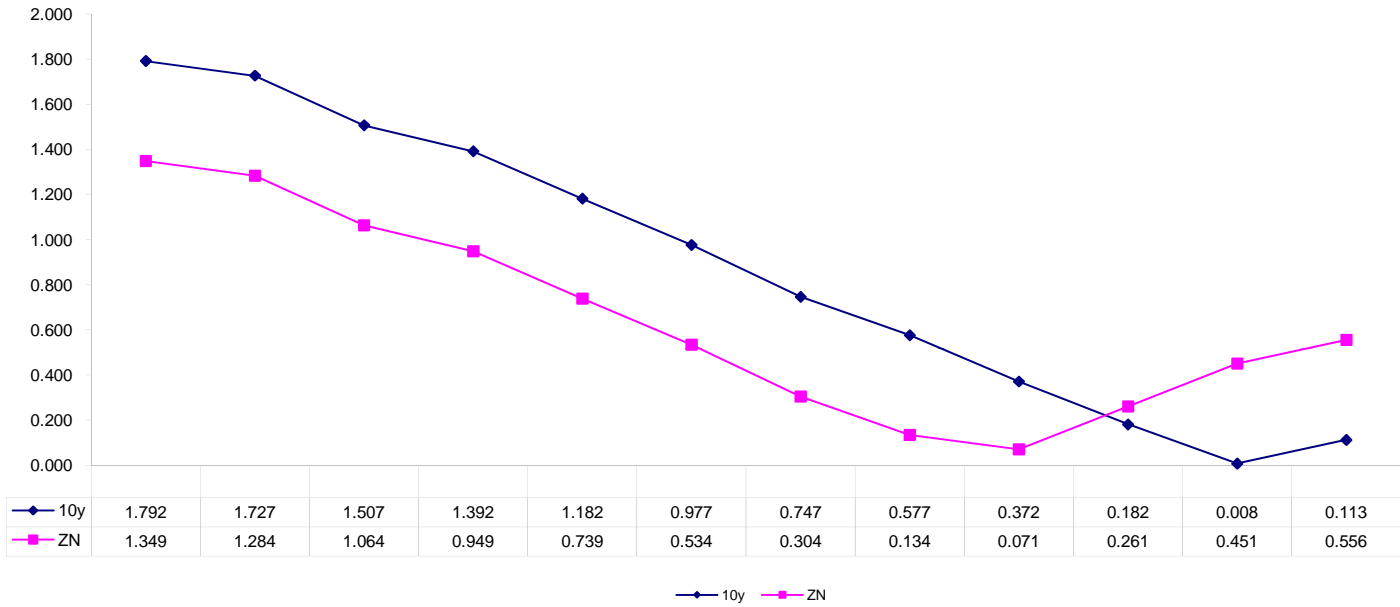
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.315	2.500	9870.7500
Red Pack	2.065	0.250	9797.3750
Green Pack	2.847	0.750	9721.1250
Blue Pack	3.327	3.750	9674.5000
Gold Pack	3.607	5.125	9647.3750

