

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

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Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	107.5313	107.1700	1.340	1.913
ZF	113.3656	113.1170	2.558	4.228
ZN	114.4063	114.1300	3.383	5.848
2y	99.1719	99.0550	1.301	1.933
5y	97.5063	97.1620	2.792	4.648
10y	94.4531	94.1450	3.800	8.374

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	99.3750	0.625	3	0.0076	JUN	
EDAU09	99.2600	0.740	94	0.2569	SEP	White Pack
EDAZ09	98.8900	1.110	185	0.5062	DEC	
EDAH10	98.5400	1.460	276	0.7555	MAR	
EDAM10	98.1250	1.875	367	1.0048	JUN	
EDAU10	97.7250	2.275	458	1.2541	SEP	Red Pack
EDAZ10	97.3200	2.680	549	1.5034	DEC	
EDAH11	96.9700	3.030	640	1.7528	MAR	
EDAM11	96.6000	3.400	731	2.0021	JUN	
EDAU11	96.2750	3.725	829	2.2706	SEP	Green Pack
EDAZ11	95.9650	4.035	920	2.5199	DEC	
EDAH12	95.7550	4.245	1,011	2.7692	MAR	
EDAM12	95.5600	4.440	1,102	3.0185	JUN	
EDAU12	95.4300	4.570	1,193	3.2678	SEP	Blue Pack
EDAZ12	95.2850	4.715	1,284	3.5171	DEC	
EDAH13	95.1800	4.820	1,375	3.7665	MAR	
EDAM13	95.0000	5.000	1,466	4.0158	JUN	
EDAU13	94.9300	5.070	1,557	4.2651	SEP	Gold Pack
EDAZ13	94.8350	5.165	1,648	4.5144	DEC	
EDAH14	94.7600	5.240	1,739	4.7637	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.000	3.250	9901.63	
Red Pack	2.515	7.500	9753.50	Pack Prices
Green Pack	3.943	7.000	9614.88	
Blue Pack	4.756	9.625	9536.38	
Gold Pack		0.000	9485.88	

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)

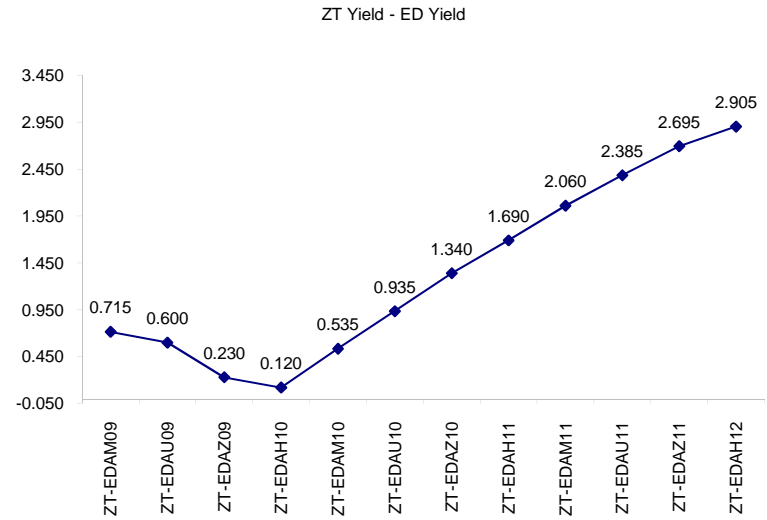
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	8.16	0.715	ZT-EDAM09	29
EDAU09	8.27	0.600	ZT-EDAU09	59
EDAZ09	8.64	0.230	ZT-EDAZ09	88
EDAH10	8.99	0.120	ZT-EDAH10	97
EDAM10	9.41	0.535	ZT-EDAM10	99
EDAU10	9.81	0.935	ZT-EDAU10	100
EDAZ10	10.21	1.340	ZT-EDAZ10	100
EDAH11	10.56	1.690	ZT-EDAH11	99
EDAM11	10.93	2.060	ZT-EDAM11	99
EDAU11	11.26	2.385	ZT-EDAU11	99
EDAZ11	11.57	2.695	ZT-EDAZ11	99
EDAH12	11.78	2.905	ZT-EDAH12	98

Price = Outright Decimal Price - Euro Contract Price

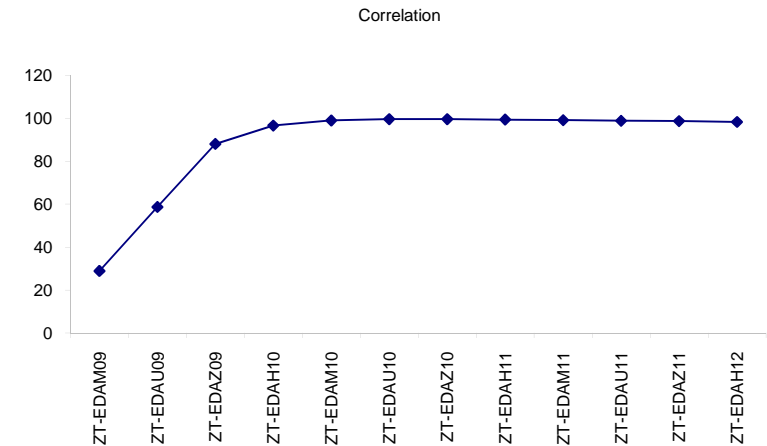
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZT Duration	Spread Duration	
EDAM09	0.0076	1.9129	1.9054	1.9054	ZT-EDAM09
EDAU09	0.2569	1.9129	1.6561	1.6561	ZT-EDAU09
EDAZ09	0.5062	1.9129	1.4067	1.4067	ZT-EDAZ09
EDAH10	0.7555	1.9129	1.1574	1.1574	ZT-EDAH10
EDAM10	1.0048	1.9129	0.9081	0.9081	ZT-EDAM10
EDAU10	1.2541	1.9129	0.6588	0.6588	ZT-EDAU10
EDAZ10	1.5034	1.9129	0.4095	0.4095	ZT-EDAZ10
EDAH11	1.7528	1.9129	0.1602	0.1602	ZT-EDAH11
EDAM11	2.0021	1.9129	-0.0891	-0.0891	ZT-EDAM11
EDAU11	2.2706	1.9129	-0.3576	-0.3576	ZT-EDAU11
EDAZ11	2.5199	1.9129	-0.6070	-0.6070	ZT-EDAZ11
EDAH12	2.7692	1.9129	-0.8563	-0.8563	ZT-EDAH12

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

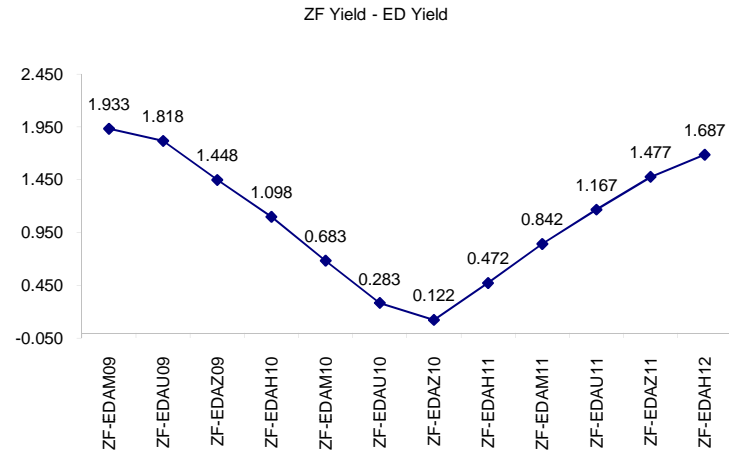


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	13.99	1.933	ZF-EDAM09	36
EDAU09	14.11	1.818	ZF-EDAU09	65
EDAZ09	14.48	1.448	ZF-EDAZ09	91
EDAH10	14.83	1.098	ZF-EDAH10	98
EDAM10	15.24	0.683	ZF-EDAM10	99
EDAU10	15.64	0.283	ZF-EDAU10	99
EDAZ10	16.05	0.122	ZF-EDAZ10	99
EDAH11	16.40	0.472	ZF-EDAH11	99
EDAM11	16.77	0.842	ZF-EDAM11	98
EDAU11	17.09	1.167	ZF-EDAU11	98
EDAZ11	17.40	1.477	ZF-EDAZ11	99
EDAH12	17.61	1.687	ZF-EDAH12	99

Price = Outright Decimal Price - Euro Contract Price

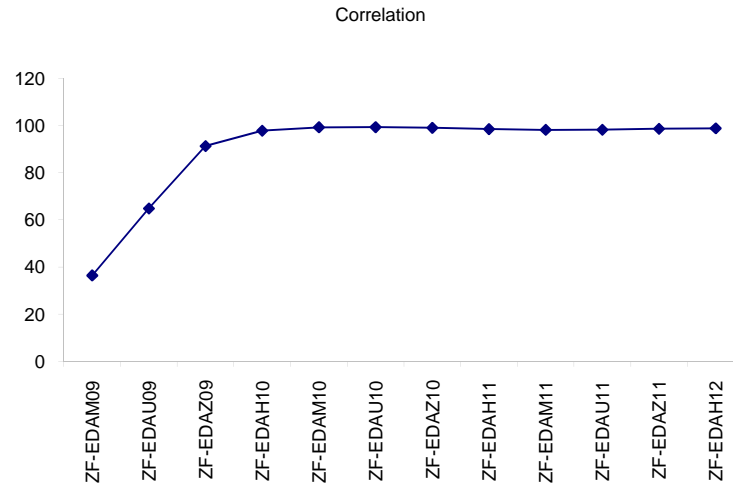
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM09	0.0076	4.2282	4.2206	ZF-EDAM09	
EDAU09	0.2569	4.2282	3.9713	ZF-EDAU09	
EDAZ09	0.5062	4.2282	3.7220	ZF-EDAZ09	
EDAH10	0.7555	4.2282	3.4727	ZF-EDAH10	
EDAM10	1.0048	4.2282	3.2234	ZF-EDAM10	
EDAU10	1.2541	4.2282	2.9741	ZF-EDAU10	
EDAZ10	1.5034	4.2282	2.7247	ZF-EDAZ10	
EDAH11	1.7528	4.2282	2.4754	ZF-EDAH11	
EDAM11	2.0021	4.2282	2.2261	ZF-EDAM11	
EDAU11	2.2706	4.2282	1.9576	ZF-EDAU11	
EDAZ11	2.5199	4.2282	1.7083	ZF-EDAZ11	
EDAH12	2.7692	4.2282	1.4590	ZF-EDAH12	

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

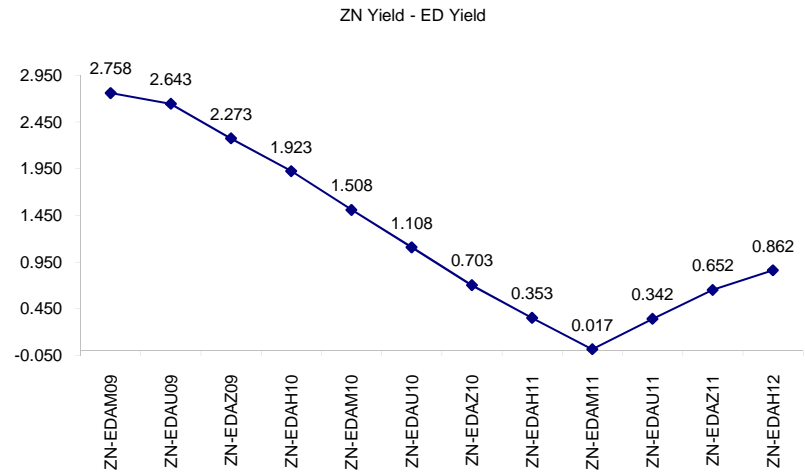


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	15.03	2.758	ZN-EDAM09	47
EDAU09	15.15	2.643	ZN-EDAU09	73
EDAZ09	15.52	2.273	ZN-EDAZ09	94
EDAH10	15.87	1.923	ZN-EDAH10	97
EDAM10	16.28	1.508	ZN-EDAM10	97
EDAU10	16.68	1.108	ZN-EDAU10	96
EDAZ10	17.09	0.703	ZN-EDAZ10	95
EDAH11	17.44	0.353	ZN-EDAH11	94
EDAM11	17.81	0.017	ZN-EDAM11	94
EDAU11	18.13	0.342	ZN-EDAU11	94
EDAZ11	18.44	0.652	ZN-EDAZ11	95
EDAH12	18.65	0.862	ZN-EDAH12	96

Price = Outright Decimal Price - Euro Contract Price

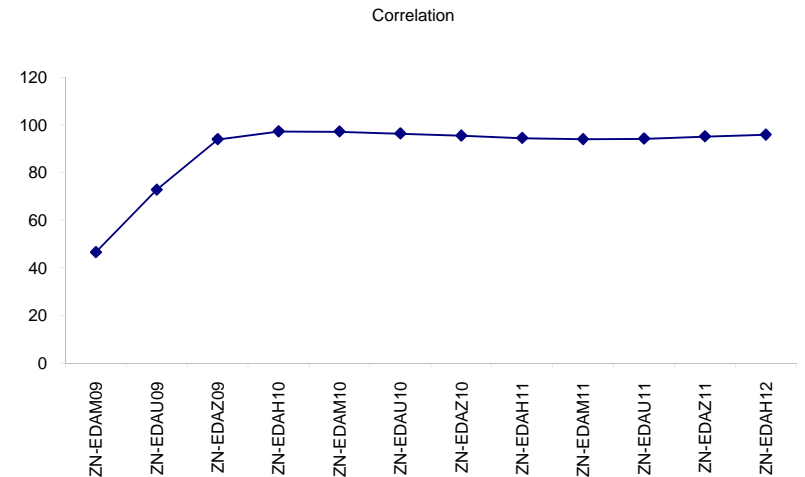
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as			
	Fraction of year	ZN Duration	Spread Duration
EDAM09	0.0076	5.8477	5.8401
EDAU09	0.2569	5.8477	5.5908
EDAZ09	0.5062	5.8477	5.3415
EDAH10	0.7555	5.8477	5.0922
EDAM10	1.0048	5.8477	4.8429
EDAU10	1.2541	5.8477	4.5935
EDAZ10	1.5034	5.8477	4.3442
EDAH11	1.7528	5.8477	4.0949
EDAM11	2.0021	5.8477	3.8456
EDAU11	2.2706	5.8477	3.5771
EDAZ11	2.5199	5.8477	3.3278
EDAH12	2.7692	5.8477	3.0785

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



	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	-0.20	0.676	2y-EDAM09	-25
EDAU09	-0.09	0.561	2y-EDAU09	-56
EDAZ09	0.28	0.191	2y-EDAZ09	-86
EDAH10	0.63	0.159	2y-EDAH10	-96
EDAM10	1.05	0.574	2y-EDAM10	-98
EDAU10	1.45	0.974	2y-EDAU10	-99
EDAZ10	1.85	1.379	2y-EDAZ10	-100
EDAH11	2.20	1.729	2y-EDAH11	-99
EDAM11	2.57	2.099	2y-EDAM11	-99
EDAU11	2.90	2.424	2y-EDAU11	-99
EDAZ11	3.21	2.734	2y-EDAZ11	-99
EDAH12	3.42	2.944	2y-EDAH12	-98

Price = Outright Decimal Price - Euro Contract Price

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

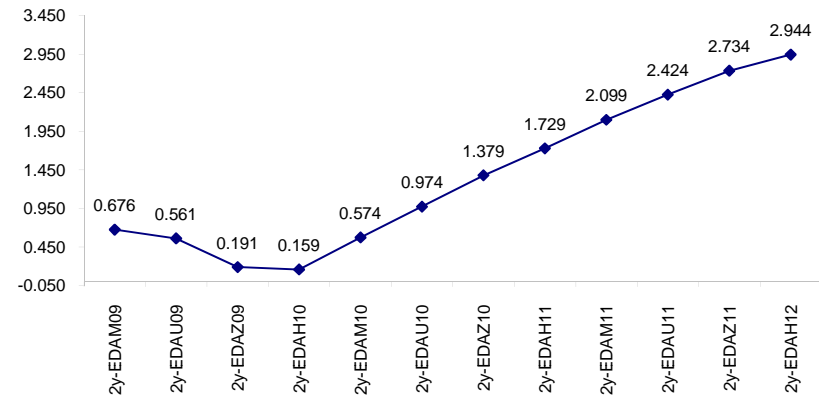
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

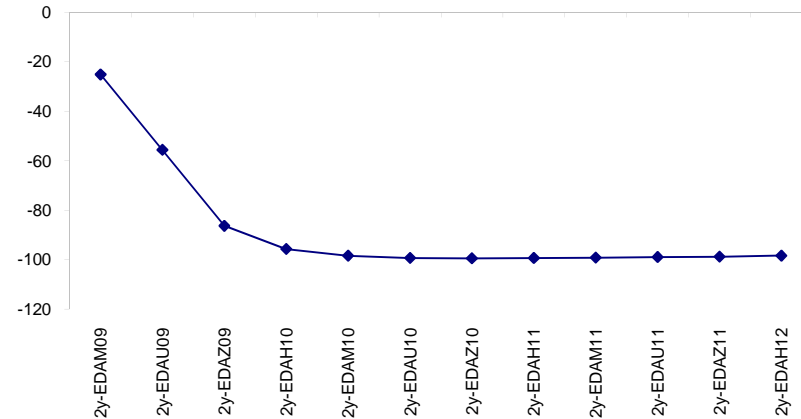
	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.0076	1.9330	1.9254	2y-EDAM09
EDAU09	0.2569	1.9330	1.6761	2y-EDAU09
EDAZ09	0.5062	1.9330	1.4268	2y-EDAZ09
EDAH10	0.7555	1.9330	1.1775	2y-EDAH10
EDAM10	1.0048	1.9330	0.9282	2y-EDAM10
EDAU10	1.2541	1.9330	0.6788	2y-EDAU10
EDAZ10	1.5034	1.9330	0.4295	2y-EDAZ10
EDAH11	1.7528	1.9330	0.1802	2y-EDAH11
EDAM11	2.0021	1.9330	-0.0691	2y-EDAM11
EDAU11	2.2706	1.9330	-0.3376	2y-EDAU11
EDAZ11	2.5199	1.9330	-0.5869	2y-EDAZ11
EDAH12	2.7692	1.9330	-0.8362	2y-EDAH12

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

ZT Yield - ED Yield



Correlation

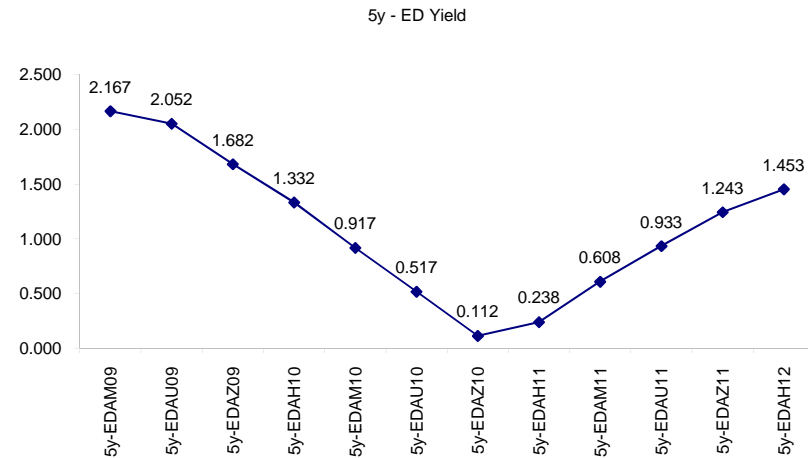


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	-1.87	2.167	5y-EDAM09	-29
EDAU09	-1.75	2.052	5y-EDAU09	-58
EDAZ09	-1.38	1.682	5y-EDAZ09	-87
EDAH10	-1.03	1.332	5y-EDAH10	-96
EDAM10	-0.62	0.917	5y-EDAM10	-98
EDAU10	-0.22	0.517	5y-EDAU10	-99
EDAZ10	0.19	0.112	5y-EDAZ10	-99
EDAH11	0.54	0.238	5y-EDAH11	-99
EDAM11	0.91	0.608	5y-EDAM11	-99
EDAU11	1.23	0.933	5y-EDAU11	-99
EDAZ11	1.54	1.243	5y-EDAZ11	-99
EDAH12	1.75	1.453	5y-EDAH12	-99

Price = Outright Decimal Price - Euro Contract Price

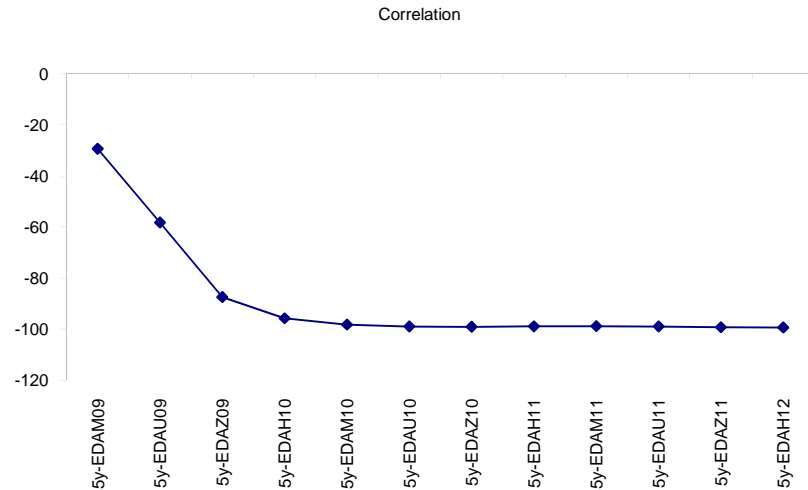
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



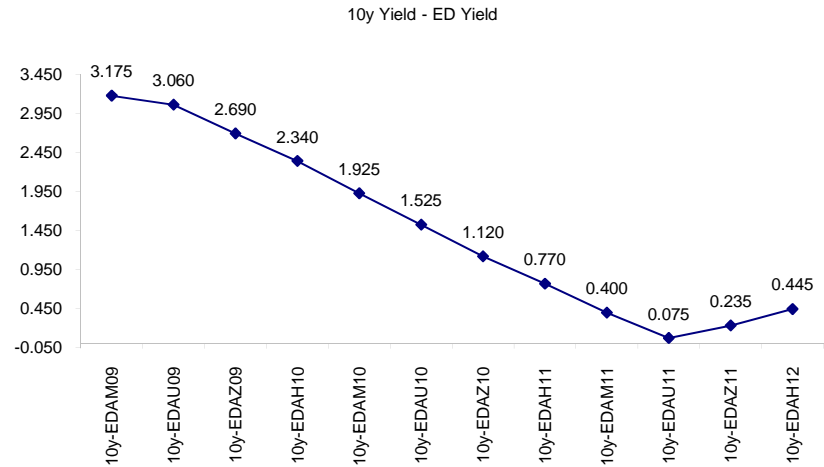
	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAM09	0.0076	4.6476	4.6401	5y-EDAM09	
EDAU09	0.2569	4.6476	4.3908	5y-EDAU09	
EDAZ09	0.5062	4.6476	4.1415	5y-EDAZ09	
EDAH10	0.7555	4.6476	3.8921	5y-EDAH10	
EDAM10	1.0048	4.6476	3.6428	5y-EDAM10	
EDAU10	1.2541	4.6476	3.3935	5y-EDAU10	
EDAZ10	1.5034	4.6476	3.1442	5y-EDAZ10	
EDAH11	1.7528	4.6476	2.8949	5y-EDAH11	
EDAM11	2.0021	4.6476	2.6456	5y-EDAM11	
EDAU11	2.2706	4.6476	2.3771	5y-EDAU11	
EDAZ11	2.5199	4.6476	2.1278	5y-EDAZ11	
EDAH12	2.7692	4.6476	1.8784	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	-1.87	3.175	10y-EDAM09	-29
EDAU09	-1.75	3.060	10y-EDAU09	-54
EDAZ09	-1.38	2.690	10y-EDAZ09	-82
EDAH10	-1.03	2.340	10y-EDAH10	-90
EDAM10	-0.62	1.925	10y-EDAM10	-93
EDAU10	-0.22	1.525	10y-EDAU10	-95
EDAZ10	0.19	1.120	10y-EDAZ10	-95
EDAH11	0.54	0.770	10y-EDAH11	-95
EDAM11	0.91	0.400	10y-EDAM11	-96
EDAU11	1.23	0.075	10y-EDAU11	-96
EDAZ11	1.54	0.235	10y-EDAZ11	-97
EDAH12	1.75	0.445	10y-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 Fraction of year				10Y Duration	Spread Duration	
EDAM09	0.0076	8.3738	8.3662	10y-EDAM09		
EDAU09	0.2569	8.3738	8.1169	10y-EDAU09		
EDAZ09	0.5062	8.3738	7.8676	10y-EDAZ09		
EDAH10	0.7555	8.3738	7.6183	10y-EDAH10		
EDAM10	1.0048	8.3738	7.3690	10y-EDAM10		
EDAU10	1.2541	8.3738	7.1197	10y-EDAU10		
EDAZ10	1.5034	8.3738	6.8704	10y-EDAZ10		
EDAH11	1.7528	8.3738	6.6210	10y-EDAH11		
EDAM11	2.0021	8.3738	6.3717	10y-EDAM11		
EDAU11	2.2706	8.3738	6.1032	10y-EDAU11		
EDAZ11	2.5199	8.3738	5.8539	10y-EDAZ11		
EDAH12	2.7692	8.3738	5.6046	10y-EDAH12		

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

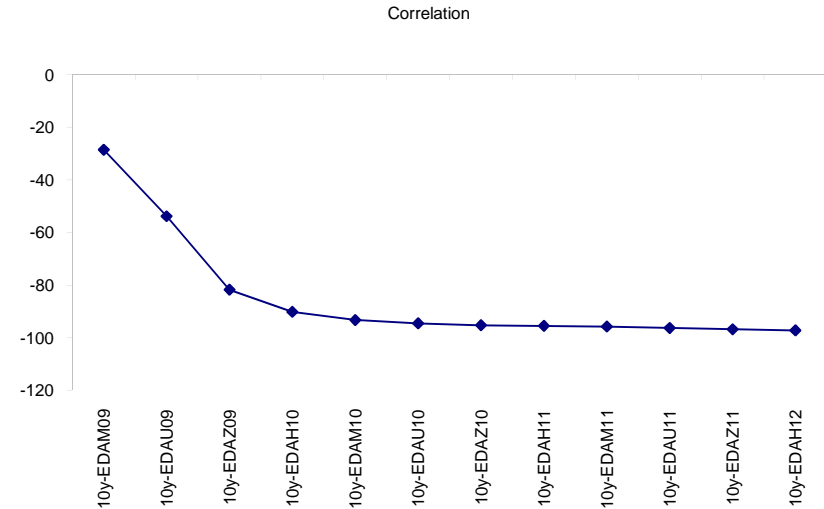


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

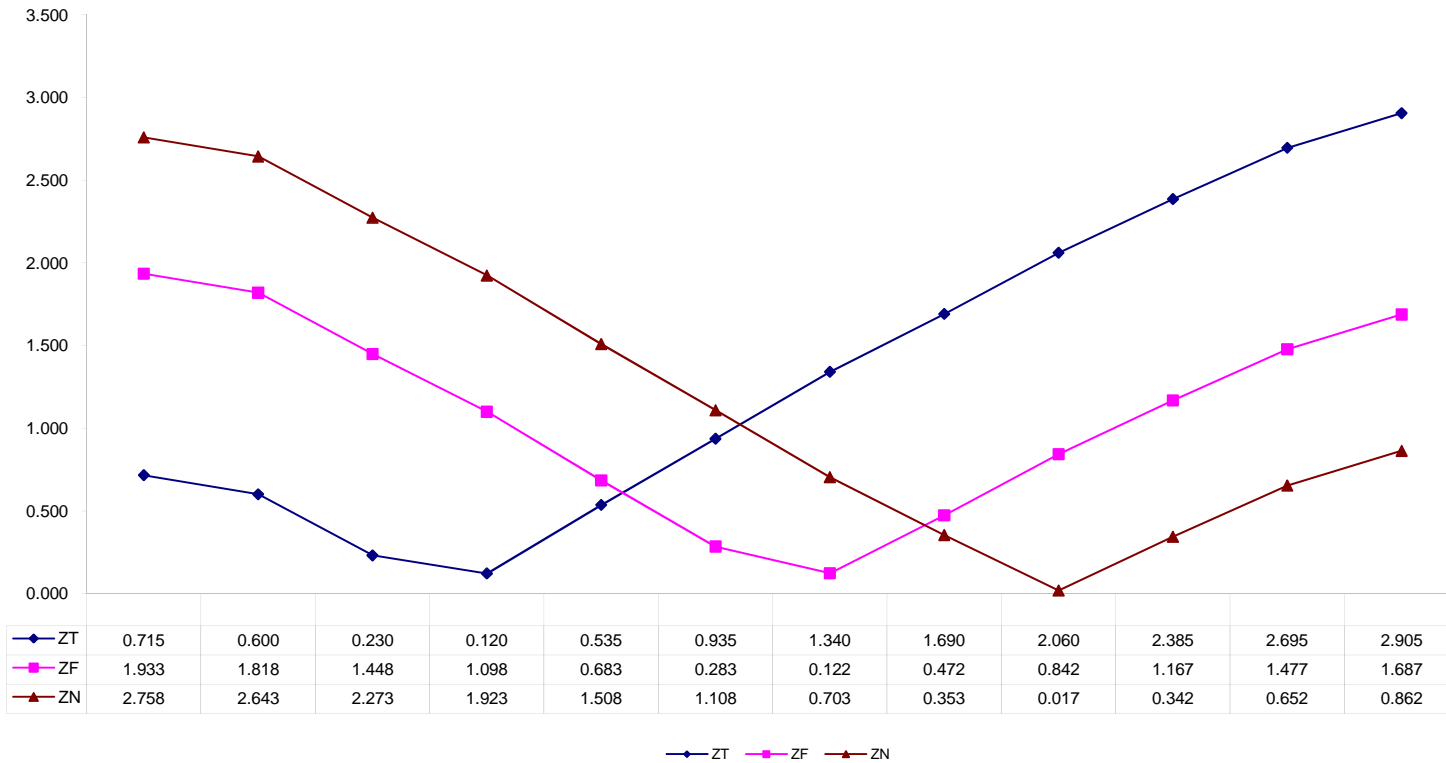
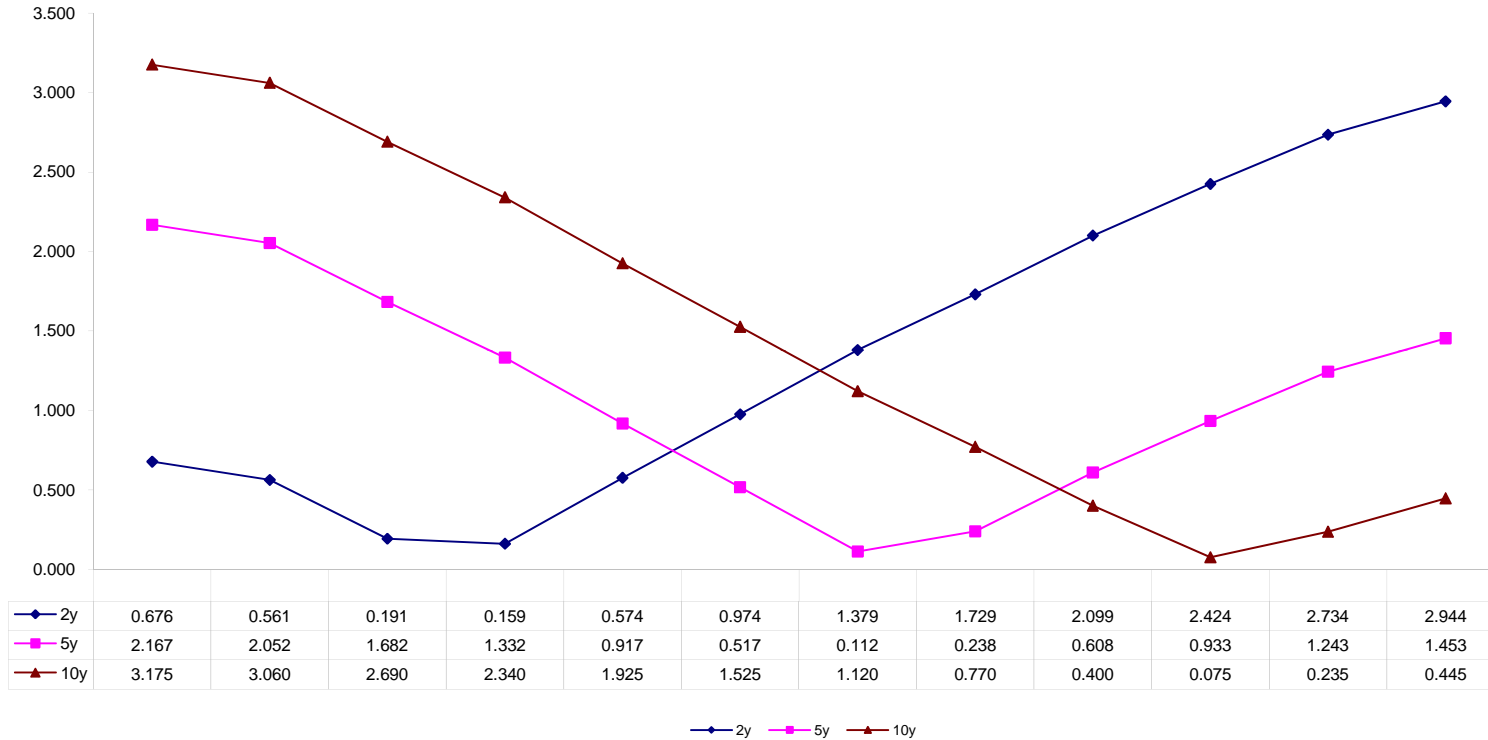
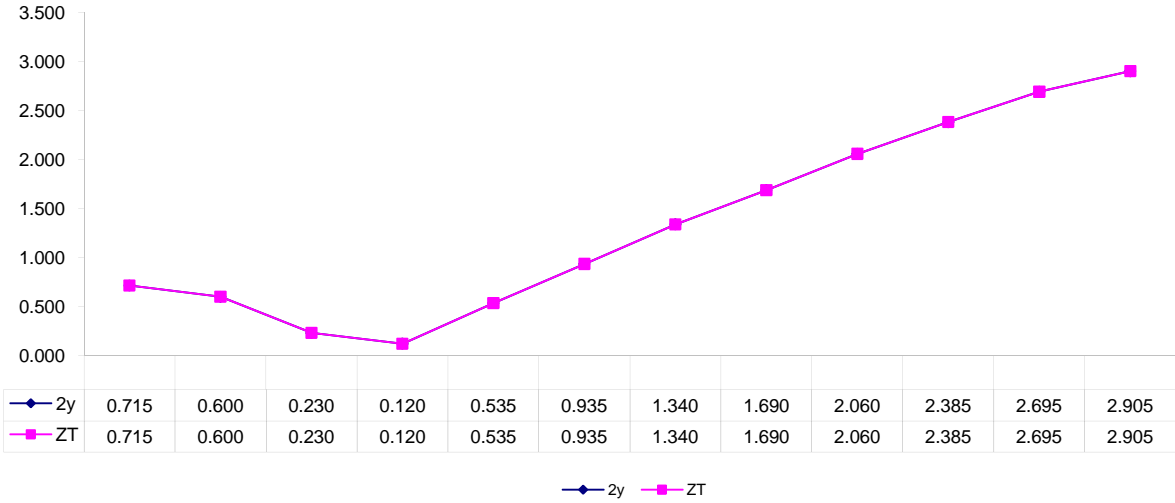
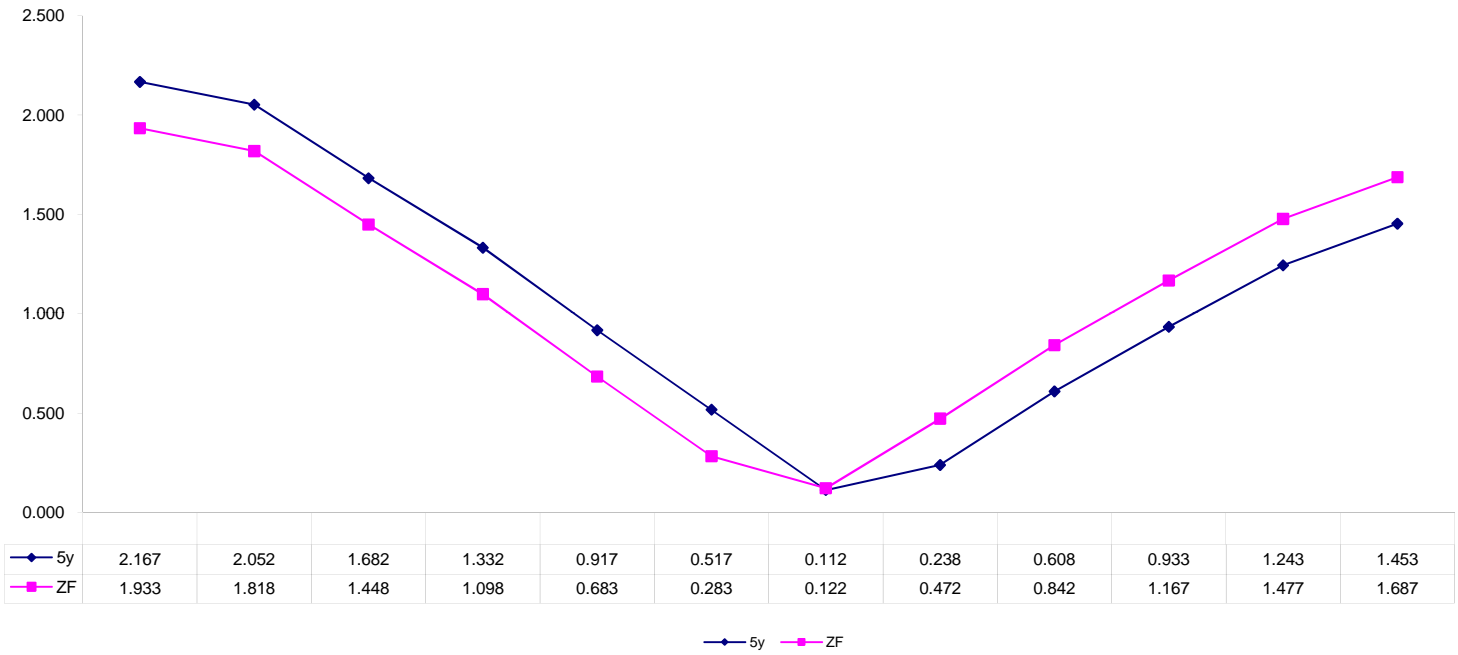


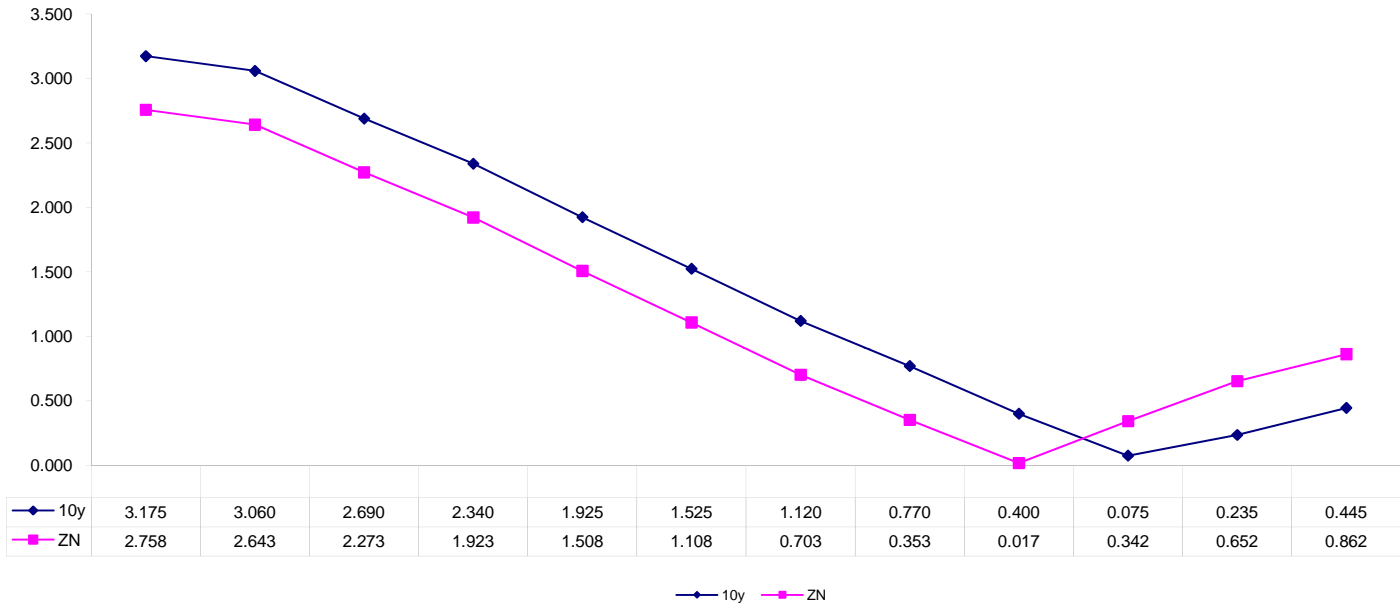
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.000	3.250	9901.6250
Red Pack	2.515	7.500	9753.5000
Green Pack	3.943	7.000	9614.8750
Blue Pack	4.756	9.625	9536.3750
Gold Pack		0.000	9485.8750

