

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	108.2656	108.0850	0.973	1.936
ZF	114.2250	114.0720	2.400	4.251
ZN	114.7813	114.2500	3.298	5.872
2y	99.7969	99.2550	0.975	1.956
5y	98.3969	98.1270	2.593	4.673
10y	94.9063	94.2900	3.742	8.399

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	99.3275	0.672	10	0.0267	JUN	
EDAU09	99.2150	0.785	101	0.2761	SEP	White Pack
EDAZ09	98.9550	1.045	192	0.5254	DEC	
EDAH10	98.7650	1.235	283	0.7747	MAR	
EDAM10	98.4600	1.540	374	1.0240	JUN	
EDAU10	98.1350	1.865	465	1.2733	SEP	Red Pack
EDAZ10	97.7550	2.245	556	1.5226	DEC	
EDAH11	97.4200	2.580	647	1.7720	MAR	
EDAM11	97.0450	2.955	738	2.0213	JUN	
EDAU11	96.6850	3.315	836	2.2898	SEP	Green Pack
EDAZ11	96.3150	3.685	927	2.5391	DEC	
EDAH12	96.0500	3.950	1,018	2.7884	MAR	
EDAM12	95.8100	4.190	1,109	3.0377	JUN	
EDAU12	95.5800	4.420	1,200	3.2870	SEP	Blue Pack
EDAZ12	95.3850	4.615	1,291	3.5363	DEC	
EDAH13	95.2650	4.735	1,382	3.7857	MAR	
EDAM13	95.1600	4.840	1,473	4.0350	JUN	
EDAU13	95.0400	4.960	1,564	4.2843	SEP	Gold Pack
EDAZ13	94.8900	5.110	1,655	4.5336	DEC	
EDAH14	94.8350	5.165	1,746	4.7829	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	0.950	-3.937	9906.56	Pack Prices
Red Pack	2.097	-5.875	9794.25	
Green Pack	3.556	-5.250	9652.38	
Blue Pack	4.604	-3.375	9551.00	
Gold Pack		-0.500	9498.50	

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)

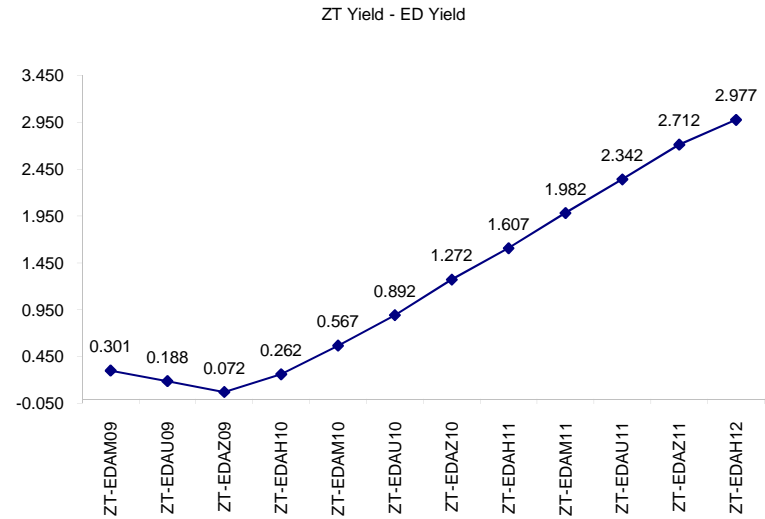
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAM09	8.94	0.301	ZT-EDAM09	58
EDAU09	9.05	0.188	ZT-EDAU09	94
EDAZ09	9.31	0.072	ZT-EDAZ09	95
EDAH10	9.50	0.262	ZT-EDAH10	90
EDAM10	9.81	0.567	ZT-EDAM10	86
EDAU10	10.13	0.892	ZT-EDAU10	84
EDAZ10	10.51	1.272	ZT-EDAZ10	80
EDAH11	10.85	1.607	ZT-EDAH11	74
EDAM11	11.22	1.982	ZT-EDAM11	69
EDAU11	11.58	2.342	ZT-EDAU11	67
EDAZ11	11.95	2.712	ZT-EDAZ11	65
EDAH12	12.22	2.977	ZT-EDAH12	63

Price = Outright Decimal Price - Euro Contract Price

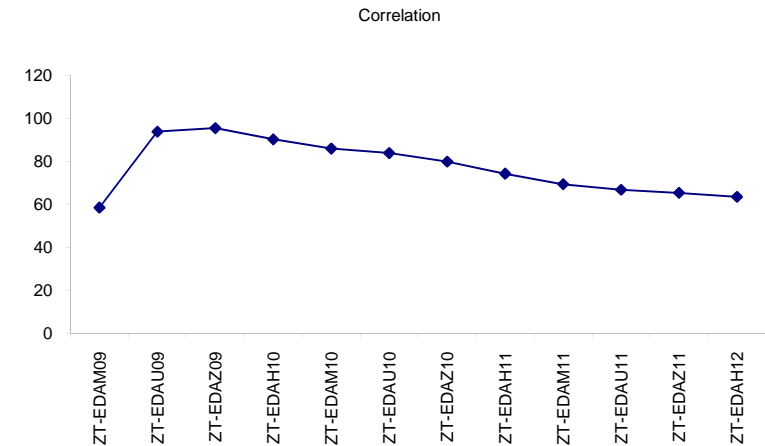
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			ZT Duration	Spread Duration
EDAM09	0.0267	1.9362	1.9095	ZT-EDAM09	
EDAU09	0.2761	1.9362	1.6602	ZT-EDAU09	
EDAZ09	0.5254	1.9362	1.4109	ZT-EDAZ09	
EDAH10	0.7747	1.9362	1.1615	ZT-EDAH10	
EDAM10	1.0240	1.9362	0.9122	ZT-EDAM10	
EDAU10	1.2733	1.9362	0.6629	ZT-EDAU10	
EDAZ10	1.5226	1.9362	0.4136	ZT-EDAZ10	
EDAH11	1.7720	1.9362	0.1643	ZT-EDAH11	
EDAM11	2.0213	1.9362	-0.0850	ZT-EDAM11	
EDAU11	2.2898	1.9362	-0.3535	ZT-EDAU11	
EDAZ11	2.5391	1.9362	-0.6028	ZT-EDAZ11	
EDAH12	2.7884	1.9362	-0.8522	ZT-EDAH12	

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

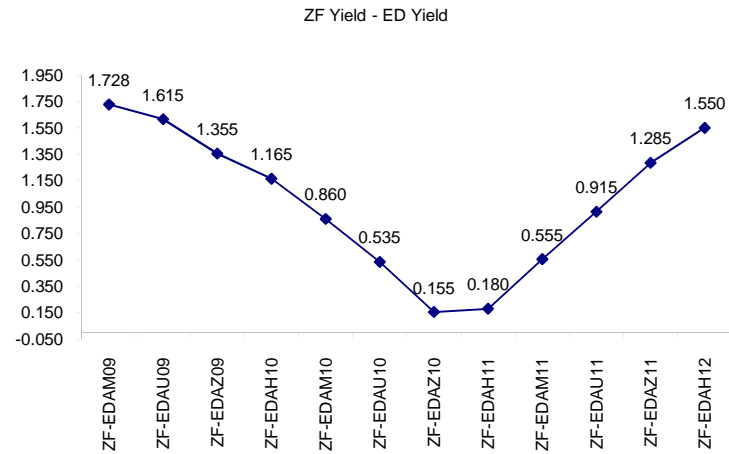


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	14.90	1.728	ZF-EDAM09	-25
EDAU09	15.01	1.615	ZF-EDAU09	40
EDAZ09	15.27	1.355	ZF-EDAZ09	71
EDAH10	15.46	1.165	ZF-EDAH10	86
EDAM10	15.77	0.860	ZF-EDAM10	92
EDAU10	16.09	0.535	ZF-EDAU10	94
EDAZ10	16.47	0.155	ZF-EDAZ10	96
EDAH11	16.81	0.180	ZF-EDAH11	97
EDAM11	17.18	0.555	ZF-EDAM11	98
EDAU11	17.54	0.915	ZF-EDAU11	98
EDAZ11	17.91	1.285	ZF-EDAZ11	99
EDAH12	18.18	1.550	ZF-EDAH12	98

Price = Outright Decimal Price - Euro Contract Price

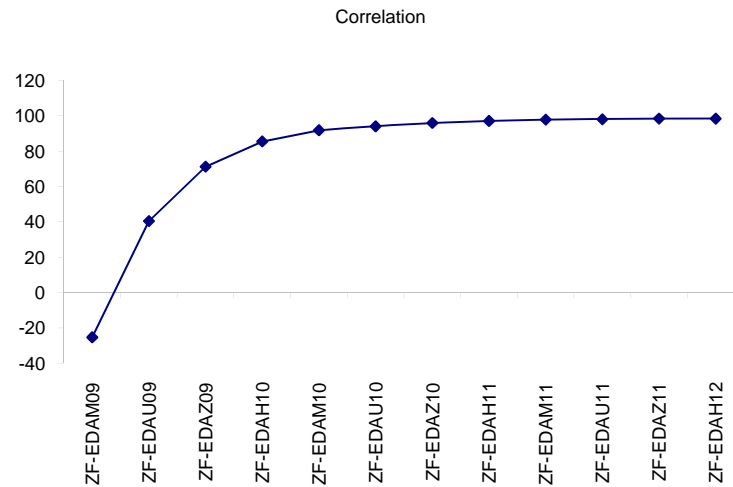
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM09	0.0267	4.2511	4.2244	ZF-EDAM09	
EDAU09	0.2761	4.2511	3.9750	ZF-EDAU09	
EDAZ09	0.5254	4.2511	3.7257	ZF-EDAZ09	
EDAH10	0.7747	4.2511	3.4764	ZF-EDAH10	
EDAM10	1.0240	4.2511	3.2271	ZF-EDAM10	
EDAU10	1.2733	4.2511	2.9778	ZF-EDAU10	
EDAZ10	1.5226	4.2511	2.7285	ZF-EDAZ10	
EDAH11	1.7720	4.2511	2.4792	ZF-EDAH11	
EDAM11	2.0213	4.2511	2.2298	ZF-EDAM11	
EDAU11	2.2898	4.2511	1.9613	ZF-EDAU11	
EDAZ11	2.5391	4.2511	1.7120	ZF-EDAZ11	
EDAH12	2.7884	4.2511	1.4627	ZF-EDAH12	

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

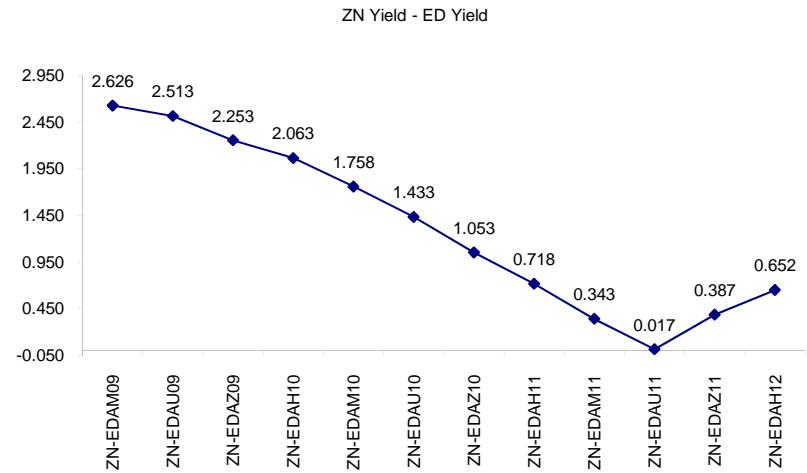


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	15.45	2.626	ZN-EDAM09	-25
EDAU09	15.57	2.513	ZN-EDAU09	40
EDAZ09	15.83	2.253	ZN-EDAZ09	71
EDAH10	16.02	2.063	ZN-EDAH10	85
EDAM10	16.32	1.758	ZN-EDAM10	91
EDAU10	16.65	1.433	ZN-EDAU10	94
EDAZ10	17.03	1.053	ZN-EDAZ10	96
EDAH11	17.36	0.718	ZN-EDAH11	97
EDAM11	17.74	0.343	ZN-EDAM11	98
EDAU11	18.10	0.017	ZN-EDAU11	98
EDAZ11	18.47	0.387	ZN-EDAZ11	98
EDAH12	18.73	0.652	ZN-EDAH12	98

Price = Outright Decimal Price - Euro Contract Price

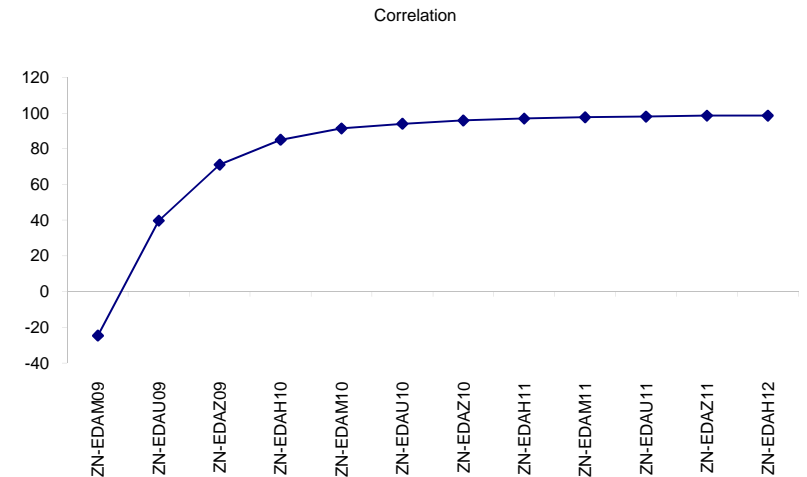
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year			
	Fraction of year	ZN Duration	Spread Duration
EDAM09	0.0267	5.8717	5.8449
EDAU09	0.2761	5.8717	5.5956
EDAZ09	0.5254	5.8717	5.3463
EDAH10	0.7747	5.8717	5.0970
EDAM10	1.0240	5.8717	4.8477
EDAU10	1.2733	5.8717	4.5984
EDAZ10	1.5226	5.8717	4.3490
EDAH11	1.7720	5.8717	4.0997
EDAM11	2.0213	5.8717	3.8504
EDAU11	2.2898	5.8717	3.5819
EDAZ11	2.5391	5.8717	3.3326
EDAH12	2.7884	5.8717	3.0833

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



	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.47	0.303	2y-EDAM09	1
EDAU09	0.58	0.190	2y-EDAU09	-50
EDAZ09	0.84	0.070	2y-EDAZ09	-75
EDAH10	1.03	0.260	2y-EDAH10	-85
EDAM10	1.34	0.565	2y-EDAM10	-90
EDAU10	1.66	0.890	2y-EDAU10	-91
EDAZ10	2.04	1.270	2y-EDAZ10	-90
EDAH11	2.38	1.605	2y-EDAH11	-88
EDAM11	2.75	1.980	2y-EDAM11	-85
EDAU11	3.11	2.340	2y-EDAU11	-85
EDAZ11	3.48	2.710	2y-EDAZ11	-84
EDAH12	3.75	2.975	2y-EDAH12	-84

Price = Outright Decimal Price - Euro Contract Price

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

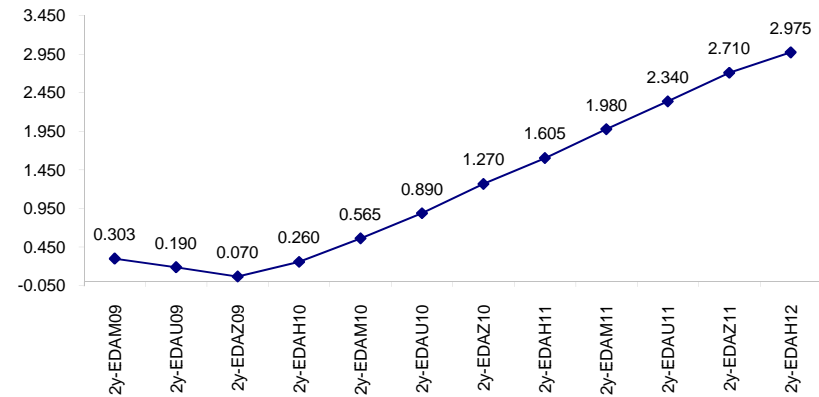
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

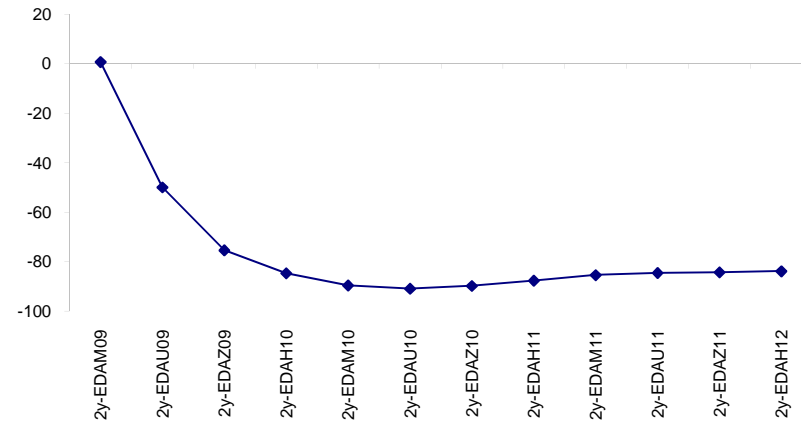
	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.0267	1.9556	1.9288	2y-EDAM09
EDAU09	0.2761	1.9556	1.6795	2y-EDAU09
EDAZ09	0.5254	1.9556	1.4302	2y-EDAZ09
EDAH10	0.7747	1.9556	1.1809	2y-EDAH10
EDAM10	1.0240	1.9556	0.9316	2y-EDAM10
EDAU10	1.2733	1.9556	0.6823	2y-EDAU10
EDAZ10	1.5226	1.9556	0.4329	2y-EDAZ10
EDAH11	1.7720	1.9556	0.1836	2y-EDAH11
EDAM11	2.0213	1.9556	-0.0657	2y-EDAM11
EDAU11	2.2898	1.9556	-0.3342	2y-EDAU11
EDAZ11	2.5391	1.9556	-0.5835	2y-EDAZ11
EDAH12	2.7884	1.9556	-0.8328	2y-EDAH12

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

ZT Yield - ED Yield



Correlation

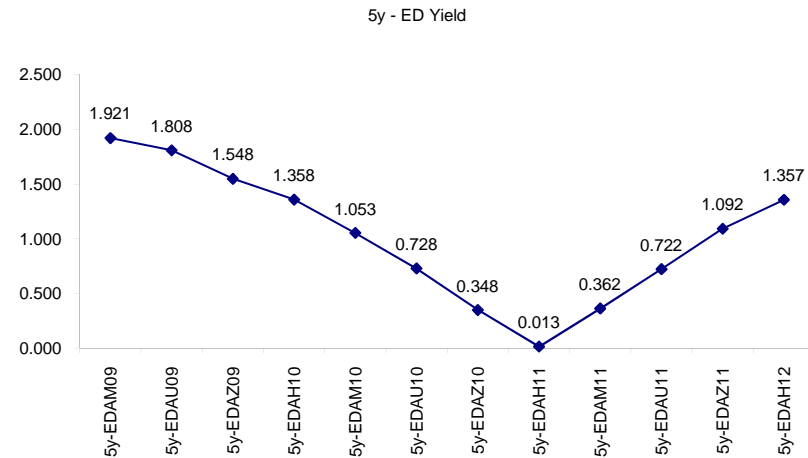


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	-0.93	1.921	5y-EDAM09	47
EDAU09	-0.82	1.808	5y-EDAU09	-15
EDAZ09	-0.56	1.548	5y-EDAZ09	-56
EDAH10	-0.37	1.358	5y-EDAH10	-78
EDAM10	-0.06	1.053	5y-EDAM10	-88
EDAU10	0.26	0.728	5y-EDAU10	-92
EDAZ10	0.64	0.348	5y-EDAZ10	-94
EDAH11	0.98	0.013	5y-EDAH11	-95
EDAM11	1.35	0.362	5y-EDAM11	-96
EDAU11	1.71	0.722	5y-EDAU11	-96
EDAZ11	2.08	1.092	5y-EDAZ11	-97
EDAH12	2.35	1.357	5y-EDAH12	-97

Price = Outright Decimal Price - Euro Contract Price

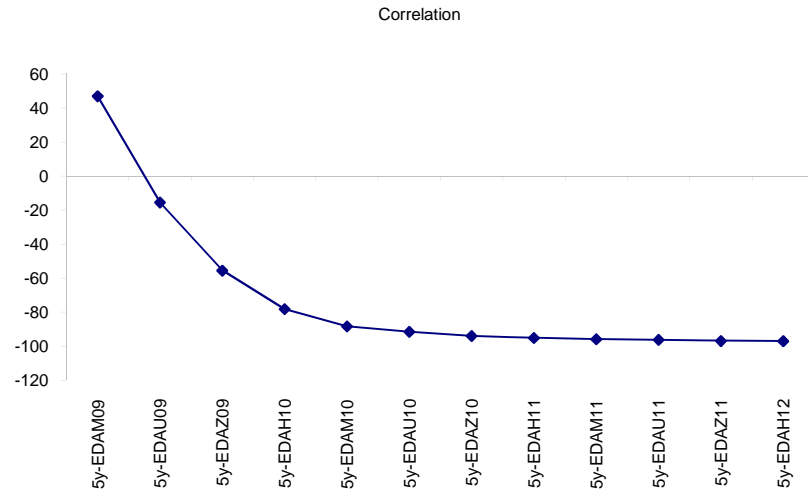
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



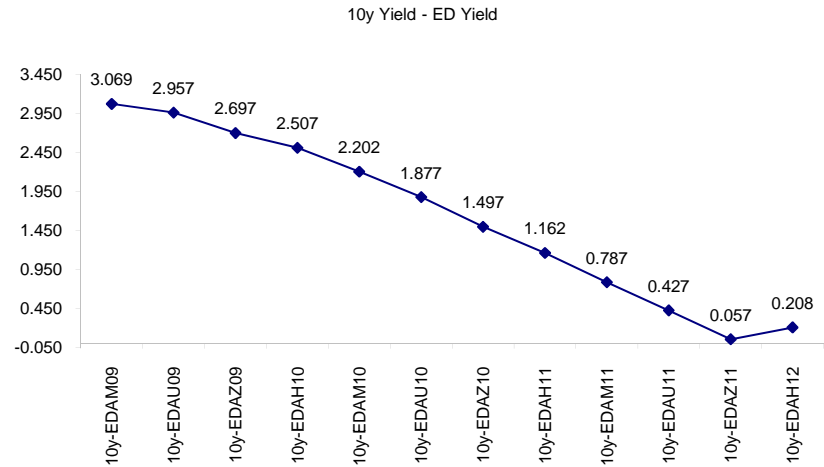
	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAM09	0.0267	4.6726	4.6458	5y-EDAM09	
EDAU09	0.2761	4.6726	4.3965	5y-EDAU09	
EDAZ09	0.5254	4.6726	4.1472	5y-EDAZ09	
EDAH10	0.7747	4.6726	3.8979	5y-EDAH10	
EDAM10	1.0240	4.6726	3.6485	5y-EDAM10	
EDAU10	1.2733	4.6726	3.3992	5y-EDAU10	
EDAZ10	1.5226	4.6726	3.1499	5y-EDAZ10	
EDAH11	1.7720	4.6726	2.9006	5y-EDAH11	
EDAM11	2.0213	4.6726	2.6513	5y-EDAM11	
EDAU11	2.2898	4.6726	2.3828	5y-EDAU11	
EDAZ11	2.5391	4.6726	2.1335	5y-EDAZ11	
EDAH12	2.7884	4.6726	1.8842	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	-0.93	3.069	10y-EDAM09	3
EDAU09	-0.82	2.957	10y-EDAU09	-49
EDAZ09	-0.56	2.697	10y-EDAZ09	-80
EDAH10	-0.37	2.507	10y-EDAH10	-89
EDAM10	-0.06	2.202	10y-EDAM10	-92
EDAU10	0.26	1.877	10y-EDAU10	-93
EDAZ10	0.64	1.497	10y-EDAZ10	-91
EDAH11	0.98	1.162	10y-EDAH11	-87
EDAM11	1.35	0.787	10y-EDAM11	-85
EDAU11	1.71	0.427	10y-EDAU11	-85
EDAZ11	2.08	0.057	10y-EDAZ11	-85
EDAH12	2.35	0.208	10y-EDAH12	-85

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	0.0267	8.3988	8.3721	10y-EDAM09
EDAU09	0.2761	8.3988	8.1228	10y-EDAU09
EDAZ09	0.5254	8.3988	7.8735	10y-EDAZ09
EDAH10	0.7747	8.3988	7.6242	10y-EDAH10
EDAM10	1.0240	8.3988	7.3748	10y-EDAM10
EDAU10	1.2733	8.3988	7.1255	10y-EDAU10
EDAZ10	1.5226	8.3988	6.8762	10y-EDAZ10
EDAH11	1.7720	8.3988	6.6269	10y-EDAH11
EDAM11	2.0213	8.3988	6.3776	10y-EDAM11
EDAU11	2.2898	8.3988	6.1091	10y-EDAU11
EDAZ11	2.5391	8.3988	5.8598	10y-EDAZ11
EDAH12	2.7884	8.3988	5.6105	10y-EDAH12

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

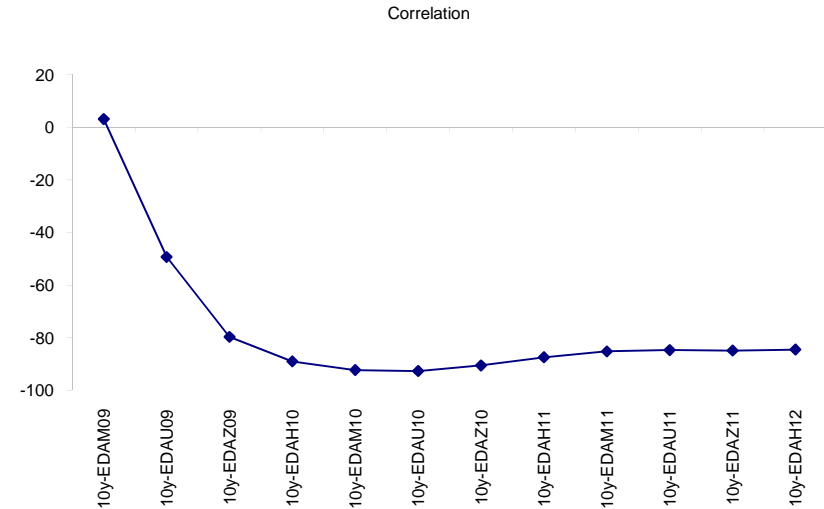


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

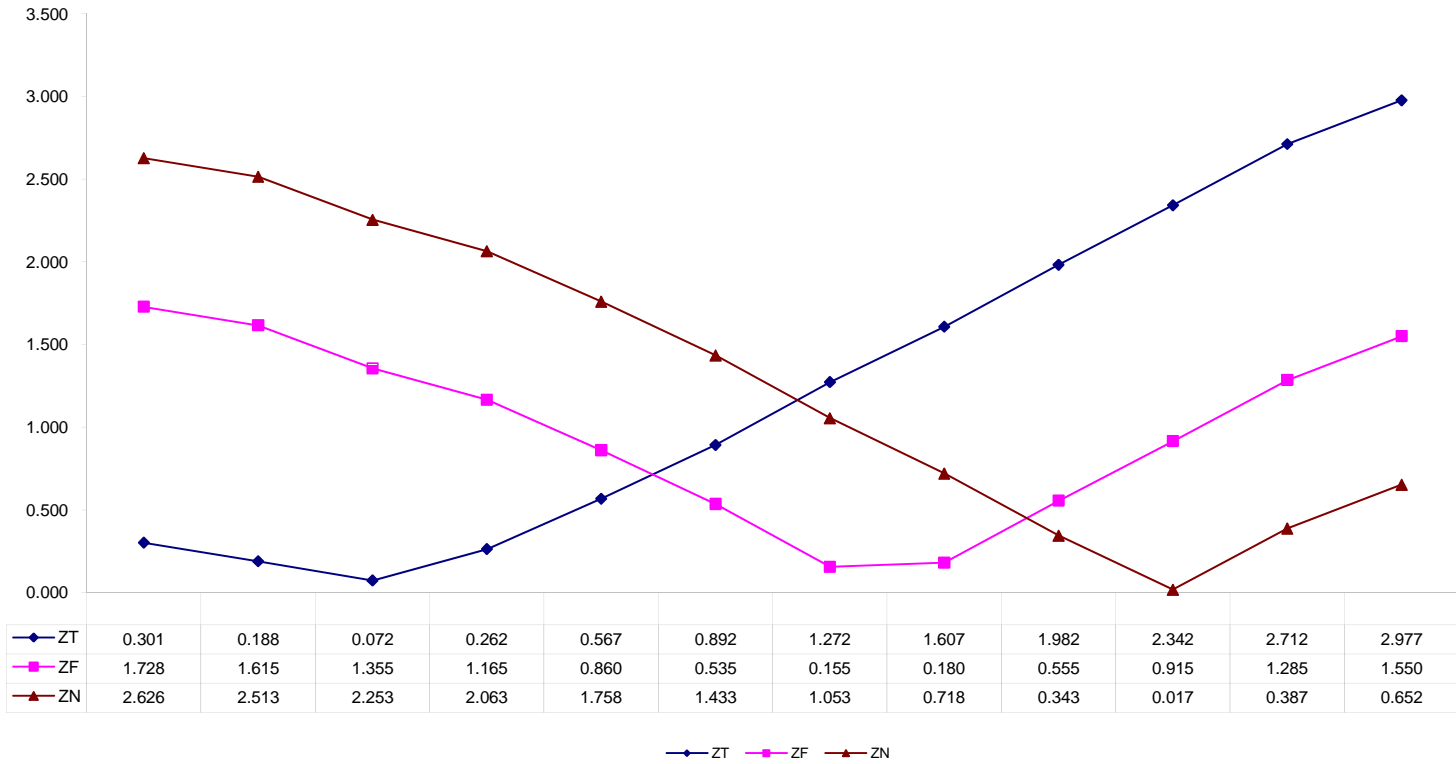
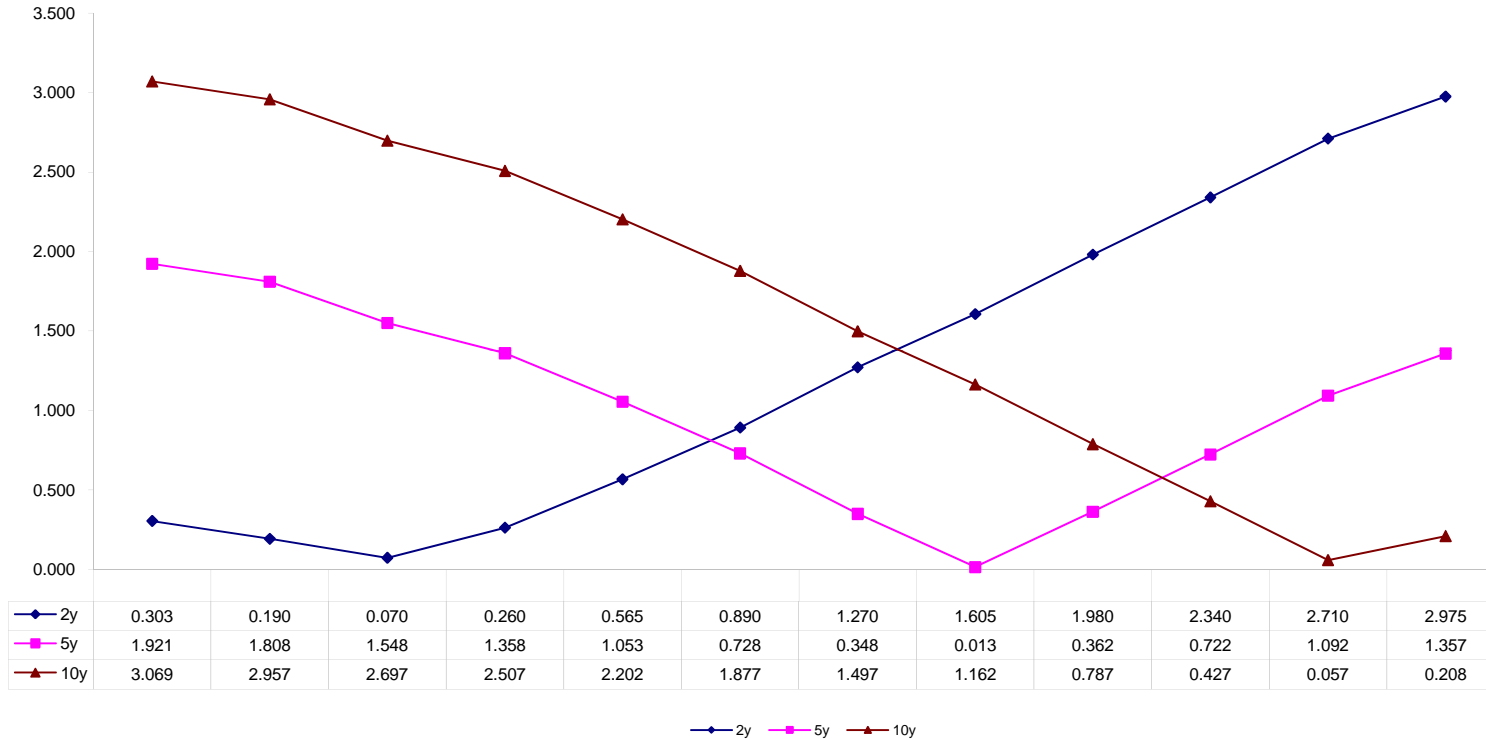
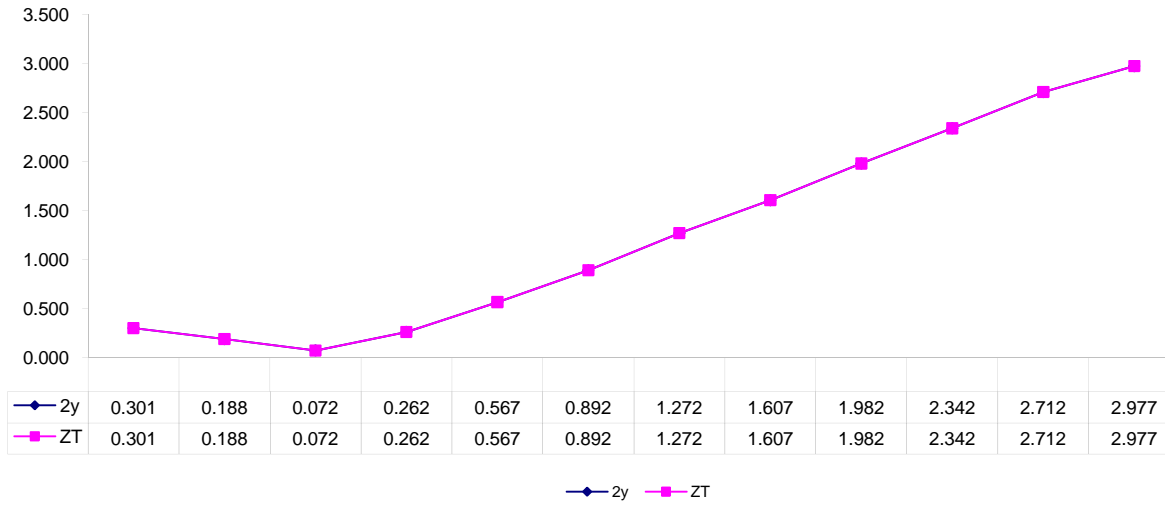
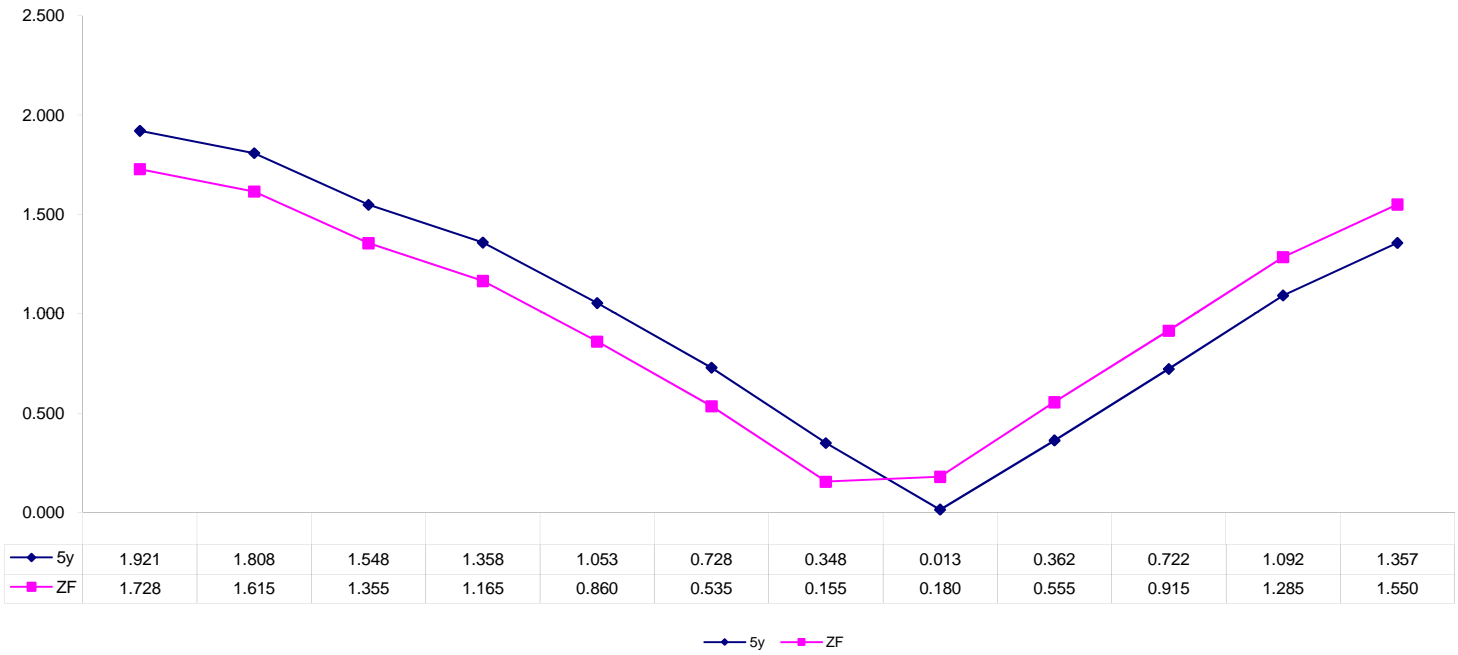


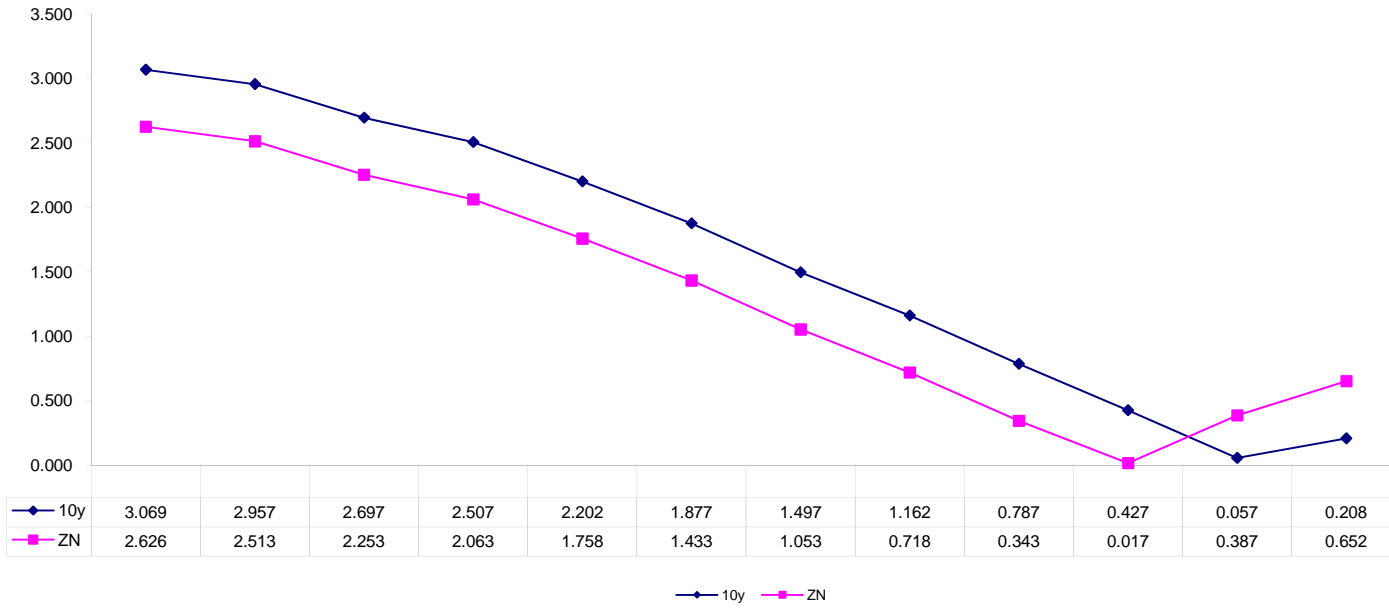
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	0.950	-3.937	9906.5625
Red Pack	2.097	-5.875	9794.2500
Green Pack	3.556	-5.250	9652.3750
Blue Pack	4.604	-3.375	9551.0000
Gold Pack		-0.500	9498.5000

