

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	108.7188	108.2300	0.889	1.825
ZF	117.0000	117.0000	1.845	4.020
ZN	120.8281	120.2650	2.699	5.870
2y	99.8500	99.2720	0.951	1.959
5y	99.1719	99.0550	2.051	4.728
10y	96.5156	96.1650	3.165	8.427

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	99.1000	0.900	40	0.1089	JUN	
EDAU09	99.0500	0.950	131	0.3582	SEP	White Pack
EDAZ09	98.8500	1.150	222	0.6076	DEC	
EDAH10	98.7050	1.295	313	0.8569	MAR	
EDAM10	98.4550	1.545	404	1.1062	JUN	
EDAU10	98.2000	1.800	495	1.3555	SEP	Red Pack
EDAZ10	97.8900	2.110	586	1.6048	DEC	
EDAH11	97.6400	2.360	677	1.8541	MAR	
EDAM11	97.3600	2.640	768	2.1035	JUN	
EDAU11	97.1150	2.885	866	2.3719	SEP	Green Pack
EDAZ11	96.8700	3.130	957	2.6213	DEC	
EDAH12	96.7200	3.280	1,048	2.8706	MAR	
EDAM12	96.5700	3.430	1,139	3.1199	JUN	
EDAU12	96.4500	3.550	1,230	3.3692	SEP	Blue Pack
EDAZ12	96.3150	3.685	1,321	3.6185	DEC	
EDAH13	96.2700	3.730	1,412	3.8678	MAR	
EDAM13	96.1800	3.820	1,503	4.1172	JUN	
EDAU13	96.1200	3.880	1,594	4.3665	SEP	Gold Pack
EDAZ13	95.9900	4.010	1,685	4.6158	DEC	
EDAH14	95.9600	4.040	1,776	4.8651	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.092	2.375	9892.63	
Red Pack	1.991	1.875	9804.63	Pack Prices
Green Pack	3.048	-1.250	9701.63	
Blue Pack	3.682	-3.750	9640.13	
Gold Pack	4.032	-4.500	9606.25	

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)

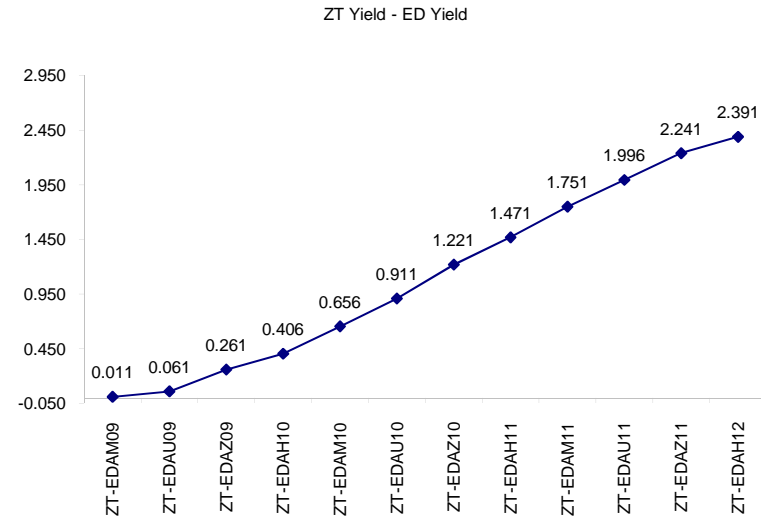
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.62	0.011	ZT-EDAM09	72
EDAU09	9.67	0.061	ZT-EDAU09	75
EDAZ09	9.87	0.261	ZT-EDAZ09	82
EDAH10	10.01	0.406	ZT-EDAH10	88
EDAM10	10.26	0.656	ZT-EDAM10	89
EDAU10	10.52	0.911	ZT-EDAU10	85
EDAZ10	10.83	1.221	ZT-EDAZ10	60
EDAH11	11.08	1.471	ZT-EDAH11	16
EDAM11	11.36	1.751	ZT-EDAM11	-19
EDAU11	11.60	1.996	ZT-EDAU11	-32
EDAZ11	11.85	2.241	ZT-EDAZ11	-40
EDAH12	12.00	2.391	ZT-EDAH12	-46

Price = Outright Decimal Price - Euro Contract Price

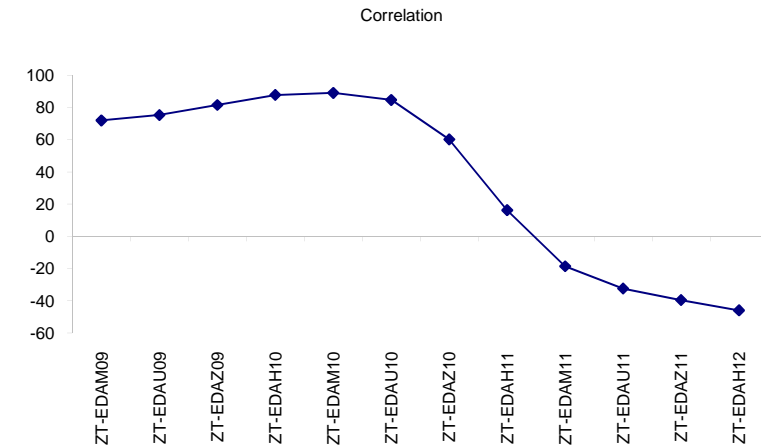
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			ZT Duration	Spread Duration	
EDAM09	0.1089	1.8251	1.7162	ZT-EDAM09		
EDAU09	0.3582	1.8251	1.4668	ZT-EDAU09		
EDAZ09	0.6076	1.8251	1.2175	ZT-EDAZ09		
EDAH10	0.8569	1.8251	0.9682	ZT-EDAH10		
EDAM10	1.1062	1.8251	0.7189	ZT-EDAM10		
EDAU10	1.3555	1.8251	0.4696	ZT-EDAU10		
EDAZ10	1.6048	1.8251	0.2203	ZT-EDAZ10		
EDAH11	1.8541	1.8251	-0.0291	ZT-EDAH11		
EDAM11	2.1035	1.8251	-0.2784	ZT-EDAM11		
EDAU11	2.3719	1.8251	-0.5469	ZT-EDAU11		
EDAZ11	2.6213	1.8251	-0.7962	ZT-EDAZ11		
EDAH12	2.8706	1.8251	-1.0455	ZT-EDAH12		

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



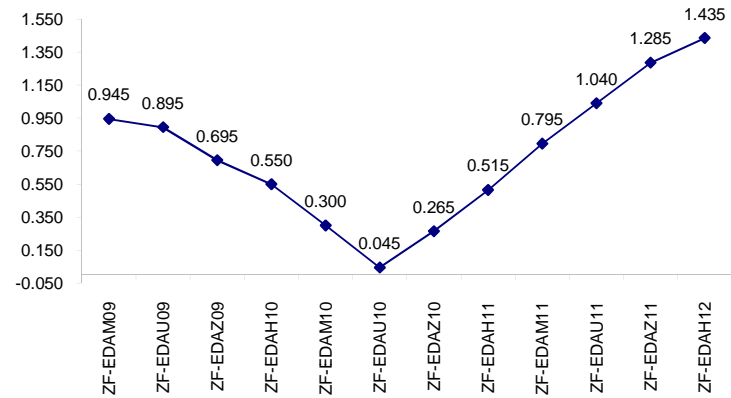
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	17.90	0.945	ZF-EDAM09	-71
EDAU09	17.95	0.895	ZF-EDAU09	-63
EDAZ09	18.15	0.695	ZF-EDAZ09	-50
EDAH10	18.30	0.550	ZF-EDAH10	-43
EDAM10	18.55	0.300	ZF-EDAM10	-32
EDAU10	18.80	0.045	ZF-EDAU10	-12
EDAZ10	19.11	0.265	ZF-EDAZ10	31
EDAH11	19.36	0.515	ZF-EDAH11	73
EDAM11	19.64	0.795	ZF-EDAM11	91
EDAU11	19.89	1.040	ZF-EDAU11	94
EDAZ11	20.13	1.285	ZF-EDAZ11	94
EDAH12	20.28	1.435	ZF-EDAH12	94

Price = Outright Decimal Price - Euro Contract Price

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

*Correlation = ED Correlation to Treasury Future over 10 days

ZF Yield - ED Yield

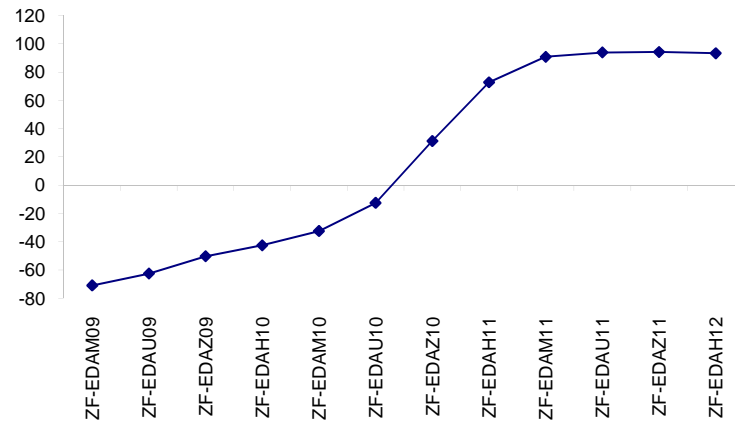


ED Duration as

	Fraction of year	ZF Duration	Spread Duration	
EDAM09	0.1089	4.0196	3.9106	ZF-EDAM09
EDAU09	0.3582	4.0196	3.6613	ZF-EDAU09
EDAZ09	0.6076	4.0196	3.4120	ZF-EDAZ09
EDAH10	0.8569	4.0196	3.1627	ZF-EDAH10
EDAM10	1.1062	4.0196	2.9134	ZF-EDAM10
EDAU10	1.3555	4.0196	2.6640	ZF-EDAU10
EDAZ10	1.6048	4.0196	2.4147	ZF-EDAZ10
EDAH11	1.8541	4.0196	2.1654	ZF-EDAH11
EDAM11	2.1035	4.0196	1.9161	ZF-EDAM11
EDAU11	2.3719	4.0196	1.6476	ZF-EDAU11
EDAZ11	2.6213	4.0196	1.3983	ZF-EDAZ11
EDAH12	2.8706	4.0196	1.1490	ZF-EDAH12

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

Correlation

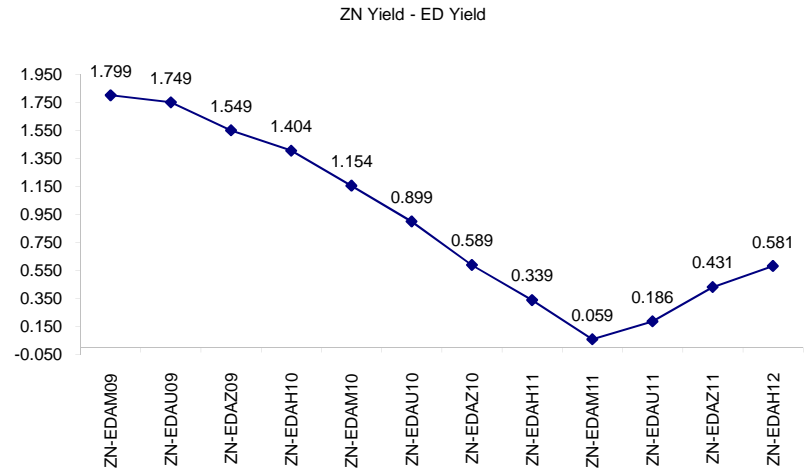


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	21.73	1.799	ZN-EDAM09	-79
EDAU09	21.78	1.749	ZN-EDAU09	-71
EDAZ09	21.98	1.549	ZN-EDAZ09	-61
EDAH10	22.12	1.404	ZN-EDAH10	-57
EDAM10	22.37	1.154	ZN-EDAM10	-48
EDAU10	22.63	0.899	ZN-EDAU10	-28
EDAZ10	22.94	0.589	ZN-EDAZ10	18
EDAH11	23.19	0.339	ZN-EDAH11	66
EDAM11	23.47	0.059	ZN-EDAM11	90
EDAU11	23.71	0.186	ZN-EDAU11	95
EDAZ11	23.96	0.431	ZN-EDAZ11	97
EDAH12	24.11	0.581	ZN-EDAH12	97

Price = Outright Decimal Price - Euro Contract Price

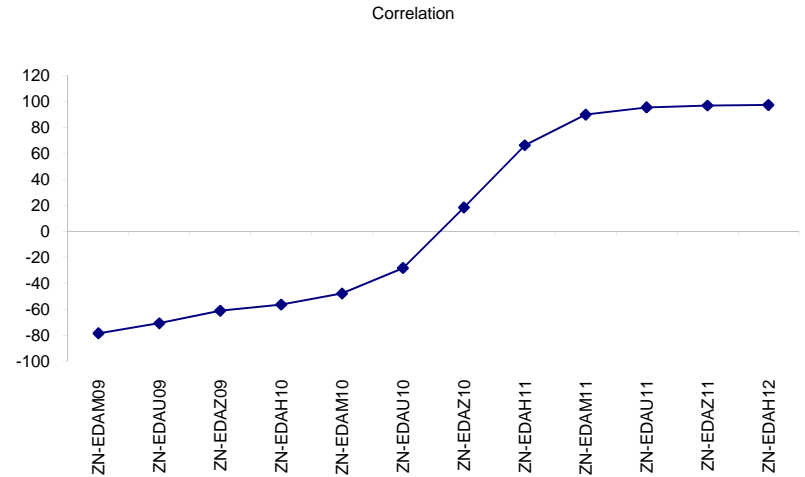
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year			
	Fraction of year	ZN Duration	Spread Duration
EDAM09	0.1089	5.8696	5.7607
EDAU09	0.3582	5.8696	5.5114
EDAZ09	0.6076	5.8696	5.2621
EDAH10	0.8569	5.8696	5.0128
EDAM10	1.1062	5.8696	4.7635
EDAU10	1.3555	5.8696	4.5141
EDAZ10	1.6048	5.8696	4.2648
EDAH11	1.8541	5.8696	4.0155
EDAM11	2.1035	5.8696	3.7662
EDAU11	2.3719	5.8696	3.4977
EDAZ11	2.6213	5.8696	3.2484
EDAH12	2.8706	5.8696	2.9991

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

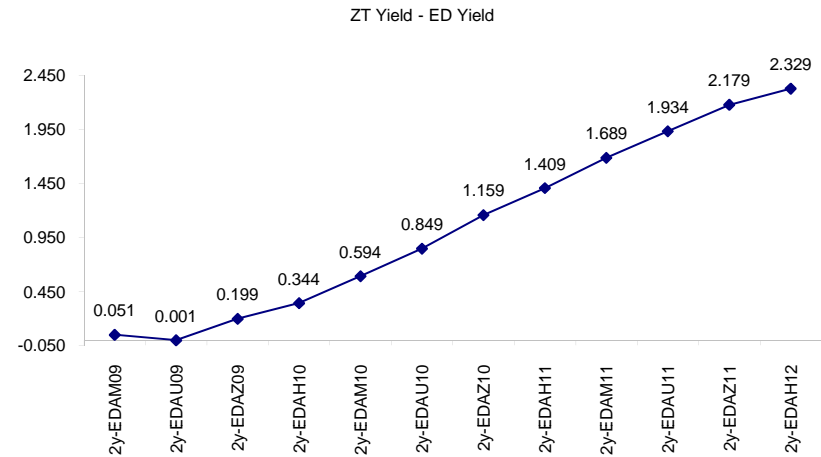


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.75	0.051	2y-EDAM09	11
EDAU09	0.80	0.001	2y-EDAU09	6
EDAZ09	1.00	0.199	2y-EDAZ09	-7
EDAH10	1.15	0.344	2y-EDAH10	-17
EDAM10	1.40	0.594	2y-EDAM10	-24
EDAU10	1.65	0.849	2y-EDAU10	-30
EDAZ10	1.96	1.159	2y-EDAZ10	-37
EDAH11	2.21	1.409	2y-EDAH11	-39
EDAM11	2.49	1.689	2y-EDAM11	-34
EDAU11	2.74	1.934	2y-EDAU11	-30
EDAZ11	2.98	2.179	2y-EDAZ11	-28
EDAH12	3.13	2.329	2y-EDAH12	-25

Price = Outright Decimal Price - Euro Contract Price

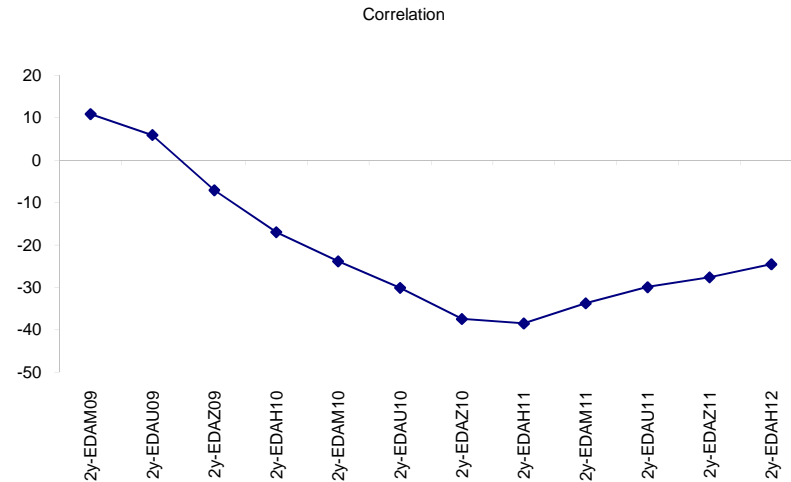
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as		Spread Duration	
	Fraction of year	2Y Duration		
EDAM09	0.1089	1.9586	1.8497	2y-EDAM09
EDAU09	0.3582	1.9586	1.6004	2y-EDAU09
EDAZ09	0.6076	1.9586	1.3511	2y-EDAZ09
EDAH10	0.8569	1.9586	1.1017	2y-EDAH10
EDAM10	1.1062	1.9586	0.8524	2y-EDAM10
EDAU10	1.3555	1.9586	0.6031	2y-EDAU10
EDAZ10	1.6048	1.9586	0.3538	2y-EDAZ10
EDAH11	1.8541	1.9586	0.1045	2y-EDAH11
EDAM11	2.1035	1.9586	-0.1448	2y-EDAM11
EDAU11	2.3719	1.9586	-0.4133	2y-EDAU11
EDAZ11	2.6213	1.9586	-0.6626	2y-EDAZ11
EDAH12	2.8706	1.9586	-0.9120	2y-EDAH12

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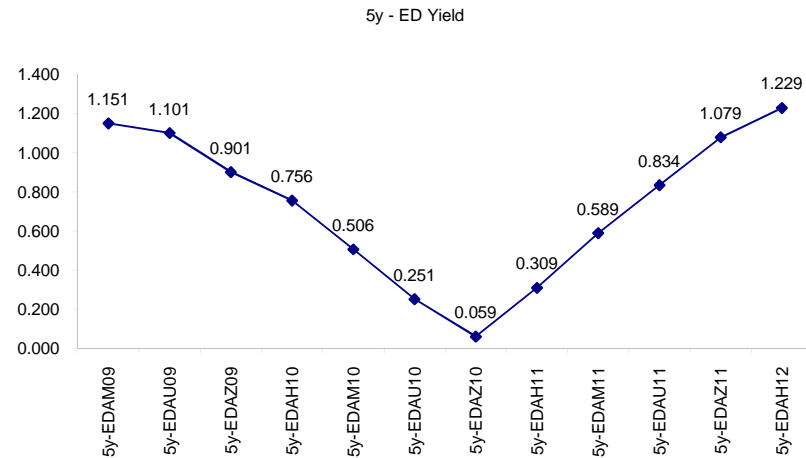


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.07	1.151	5y-EDAM09	81
EDAU09	0.12	1.101	5y-EDAU09	75
EDAZ09	0.32	0.901	5y-EDAZ09	64
EDAH10	0.47	0.756	5y-EDAH10	58
EDAM10	0.72	0.506	5y-EDAM10	48
EDAU10	0.97	0.251	5y-EDAU10	30
EDAZ10	1.28	0.059	5y-EDAZ10	-13
EDAH11	1.53	0.309	5y-EDAH11	-60
EDAM11	1.81	0.589	5y-EDAM11	-84
EDAU11	2.06	0.834	5y-EDAU11	-90
EDAZ11	2.30	1.079	5y-EDAZ11	-92
EDAH12	2.45	1.229	5y-EDAH12	-93

Price = Outright Decimal Price - Euro Contract Price

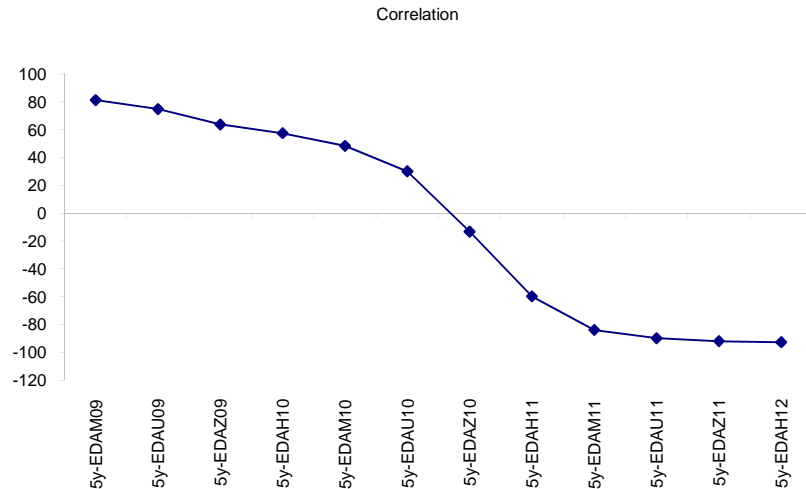
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAM09	0.1089	4.7276	4.6186	5y-EDAM09	
EDAU09	0.3582	4.7276	4.3693	5y-EDAU09	
EDAZ09	0.6076	4.7276	4.1200	5y-EDAZ09	
EDAH10	0.8569	4.7276	3.8707	5y-EDAH10	
EDAM10	1.1062	4.7276	3.6214	5y-EDAM10	
EDAU10	1.3555	4.7276	3.3720	5y-EDAU10	
EDAZ10	1.6048	4.7276	3.1227	5y-EDAZ10	
EDAH11	1.8541	4.7276	2.8734	5y-EDAH11	
EDAM11	2.1035	4.7276	2.6241	5y-EDAM11	
EDAU11	2.3719	4.7276	2.3556	5y-EDAU11	
EDAZ11	2.6213	4.7276	2.1063	5y-EDAZ11	
EDAH12	2.8706	4.7276	1.8570	5y-EDAH12	

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

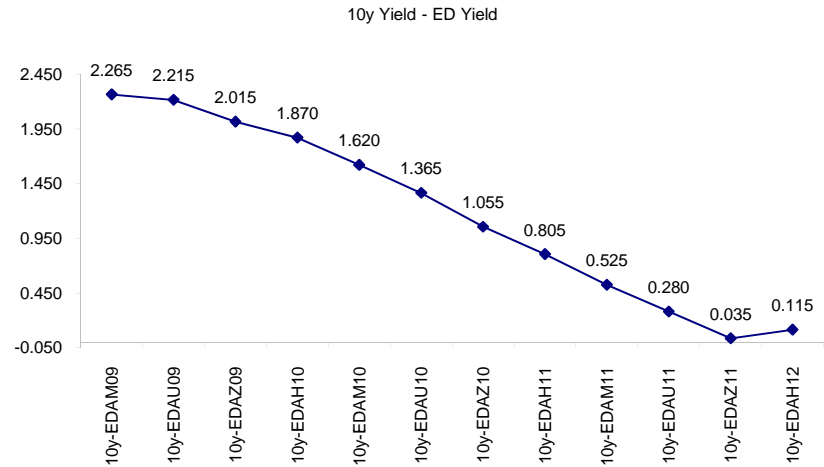


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.07	2.265	10y-EDAM09	85
EDAU09	0.12	2.215	10y-EDAU09	79
EDAZ09	0.32	2.015	10y-EDAZ09	70
EDAH10	0.47	1.870	10y-EDAH10	65
EDAM10	0.72	1.620	10y-EDAM10	58
EDAU10	0.97	1.365	10y-EDAU10	39
EDAZ10	1.28	1.055	10y-EDAZ10	-8
EDAH11	1.53	0.805	10y-EDAH11	-58
EDAM11	1.81	0.525	10y-EDAM11	-85
EDAU11	2.06	0.280	10y-EDAU11	-93
EDAZ11	2.30	0.035	10y-EDAZ11	-95
EDAH12	2.45	0.115	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	0.1089	8.4266	8.3177	10y-EDAM09		
EDAU09	0.3582	8.4266	8.0684	10y-EDAU09		
EDAZ09	0.6076	8.4266	7.8191	10y-EDAZ09		
EDAH10	0.8569	8.4266	7.5698	10y-EDAH10		
EDAM10	1.1062	8.4266	7.3204	10y-EDAM10		
EDAU10	1.3555	8.4266	7.0711	10y-EDAU10		
EDAZ10	1.6048	8.4266	6.8218	10y-EDAZ10		
EDAH11	1.8541	8.4266	6.5725	10y-EDAH11		
EDAM11	2.1035	8.4266	6.3232	10y-EDAM11		
EDAU11	2.3719	8.4266	6.0547	10y-EDAU11		
EDAZ11	2.6213	8.4266	5.8054	10y-EDAZ11		
EDAH12	2.8706	8.4266	5.5561	10y-EDAH12		

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

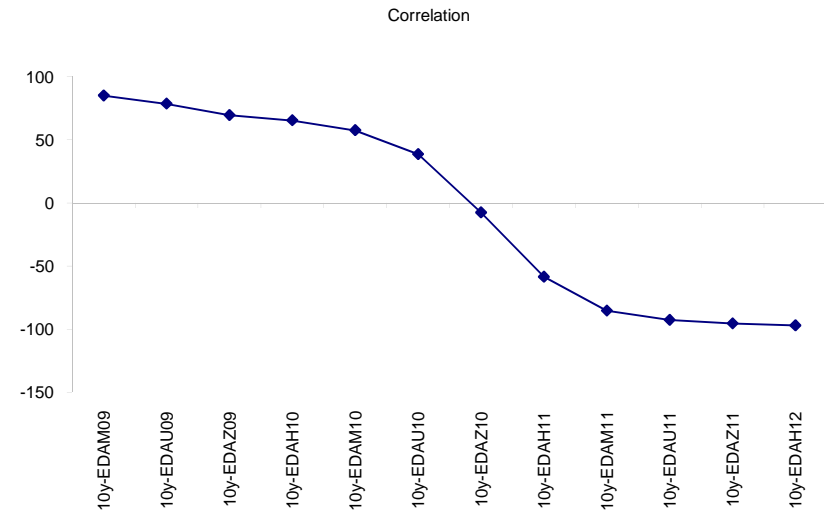


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

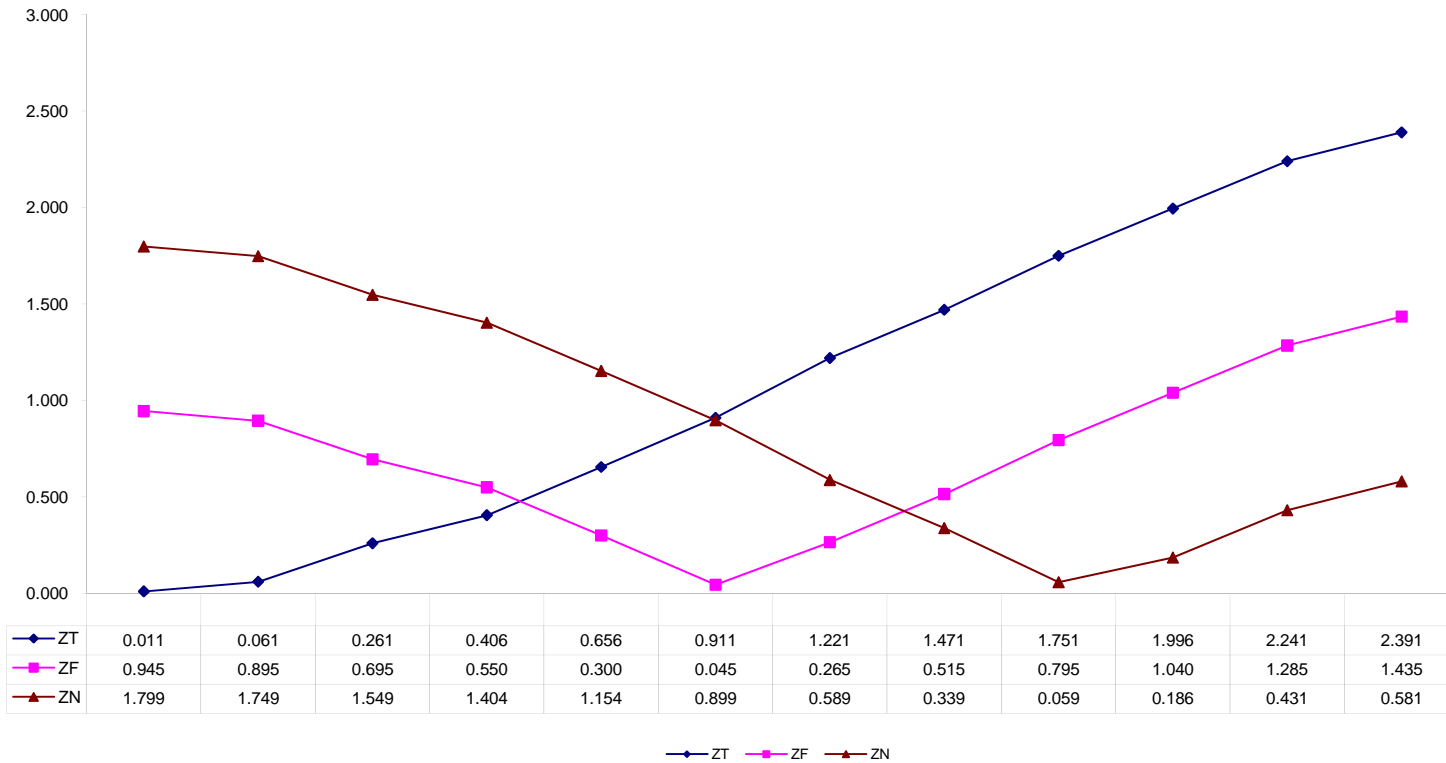
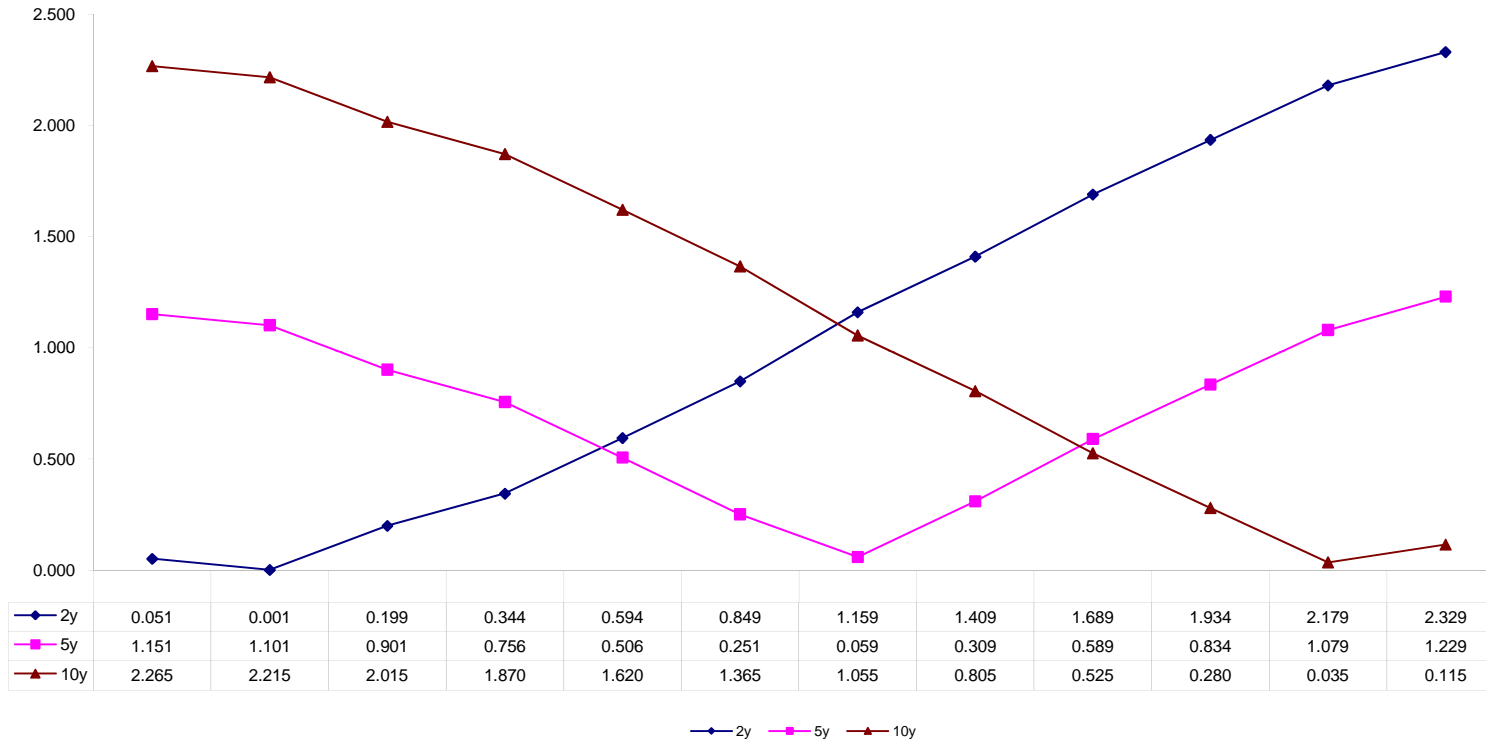
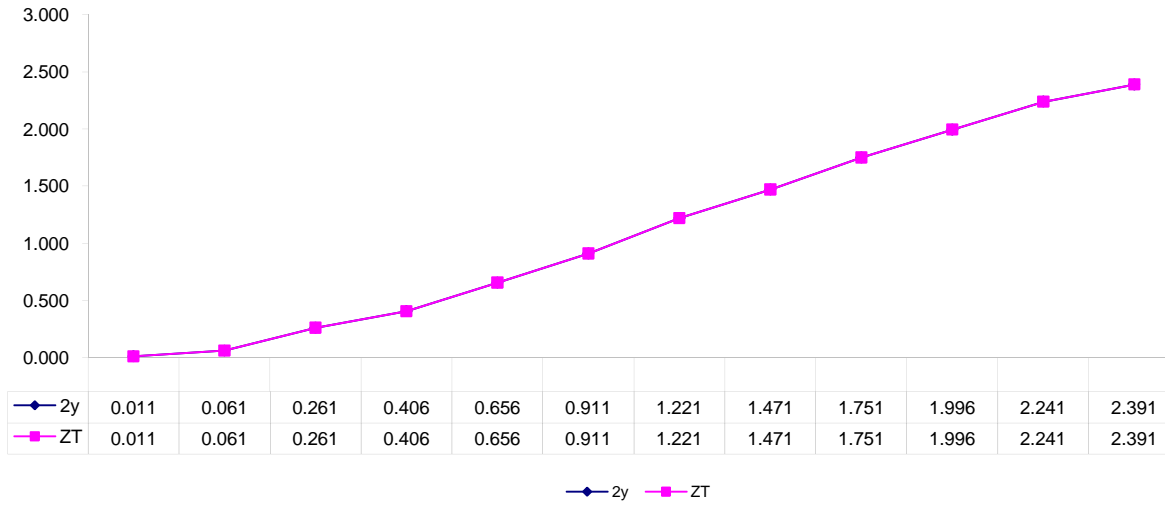
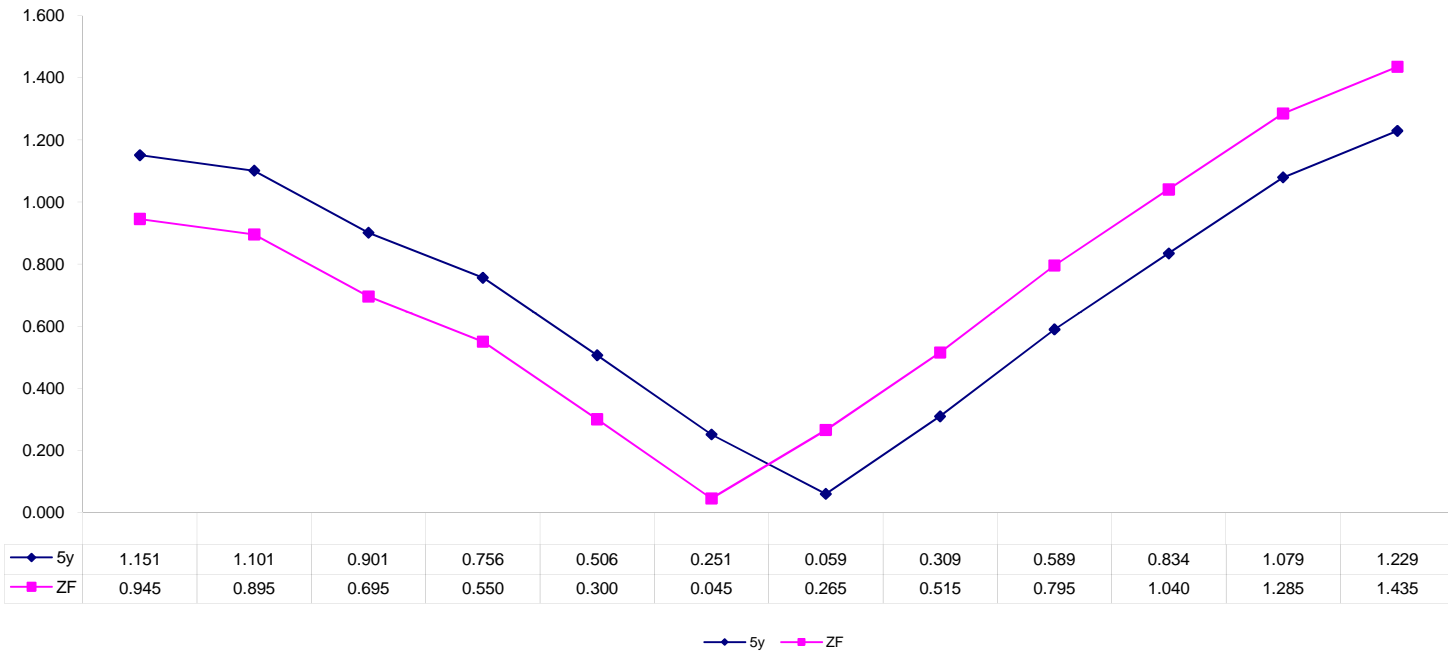


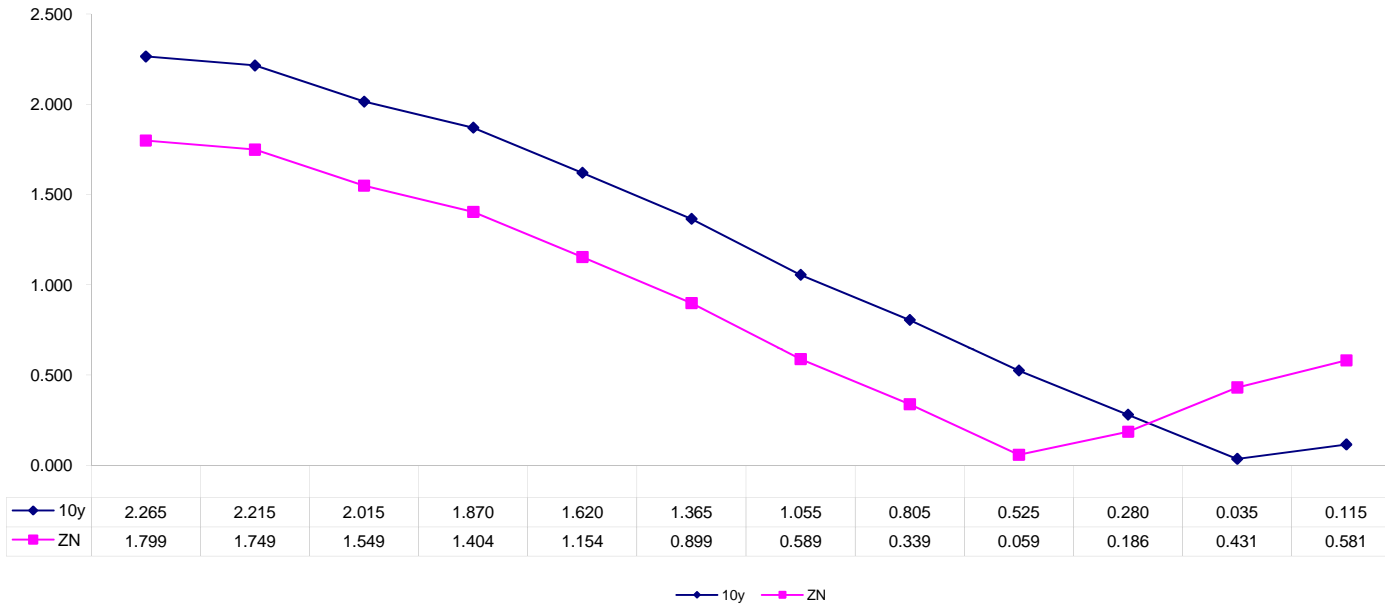
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.092	2.375	9892.6250
Red Pack	1.991	1.875	9804.6250
Green Pack	3.048	-1.250	9701.6250
Blue Pack	3.682	-3.750	9640.1250
Gold Pack	4.032	-4.500	9606.2500

