

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	108.5938	108.1900	0.890	1.852
ZF	117.5531	117.1770	1.692	4.051
ZN	122.0625	122.0200	2.507	5.909
2y	99.8906	99.2850	0.932	1.904
5y	99.3906	99.1250	1.877	4.691
10y	98.5625	98.1800	2.918	8.480

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	98.9600	1.040	52	0.1418	JUN	
EDAU09	98.8950	1.105	143	0.3911	SEP	White Pack
EDAZ09	98.6800	1.320	234	0.6404	DEC	
EDAH10	98.5450	1.455	325	0.8897	MAR	
EDAM10	98.3150	1.685	416	1.1391	JUN	
EDAU10	98.0950	1.905	507	1.3884	SEP	Red Pack
EDAZ10	97.8500	2.150	598	1.6377	DEC	
EDAH11	97.6600	2.340	689	1.8870	MAR	
EDAM11	97.4400	2.560	780	2.1363	JUN	
EDAU11	97.2500	2.750	878	2.4048	SEP	Green Pack
EDAZ11	97.0650	2.935	969	2.6541	DEC	
EDAH12	96.9550	3.045	1,060	2.9034	MAR	
EDAM12	96.8400	3.160	1,151	3.1528	JUN	
EDAU12	96.7500	3.250	1,242	3.4021	SEP	Blue Pack
EDAZ12	96.6450	3.355	1,333	3.6514	DEC	
EDAH13	96.6050	3.395	1,424	3.9007	MAR	
EDAM13	96.5600	3.440	1,515	4.1500	JUN	
EDAU13	96.4850	3.515	1,606	4.3993	SEP	Gold Pack
EDAZ13	96.3900	3.610	1,697	4.6487	DEC	
EDAH14	96.3450	3.655	1,788	4.8980	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.251	1.000	9877.00	Pack Prices
Red Pack	2.059	-0.125	9798.00	
Green Pack	2.882	-1.000	9717.75	
Blue Pack	3.363	-0.250	9671.00	
Gold Pack		0.125	9643.00	

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.

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Correlations (Important)

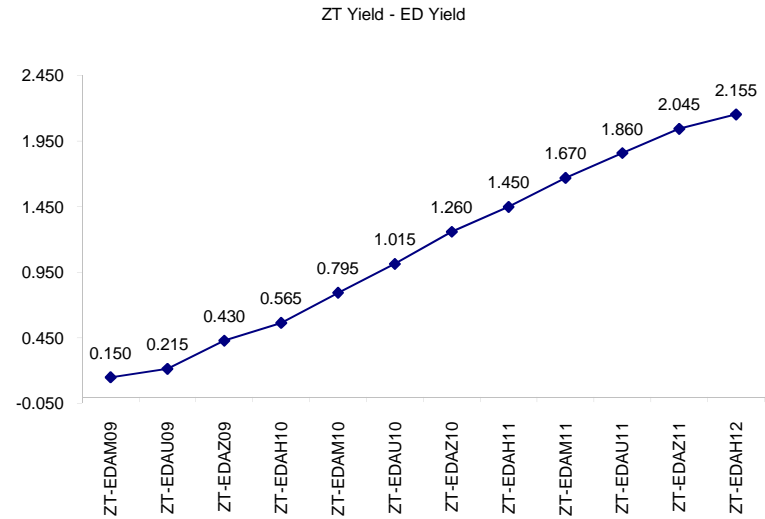
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.63	0.150	ZT-EDAM09	41
EDAU09	9.70	0.215	ZT-EDAU09	75
EDAZ09	9.91	0.430	ZT-EDAZ09	88
EDAH10	10.05	0.565	ZT-EDAH10	94
EDAM10	10.28	0.795	ZT-EDAM10	95
EDAU10	10.50	1.015	ZT-EDAU10	94
EDAZ10	10.74	1.260	ZT-EDAZ10	93
EDAH11	10.93	1.450	ZT-EDAH11	91
EDAM11	11.15	1.670	ZT-EDAM11	90
EDAU11	11.34	1.860	ZT-EDAU11	88
EDAZ11	11.53	2.045	ZT-EDAZ11	87
EDAH12	11.64	2.155	ZT-EDAH12	86

Price = Outright Decimal Price - Euro Contract Price

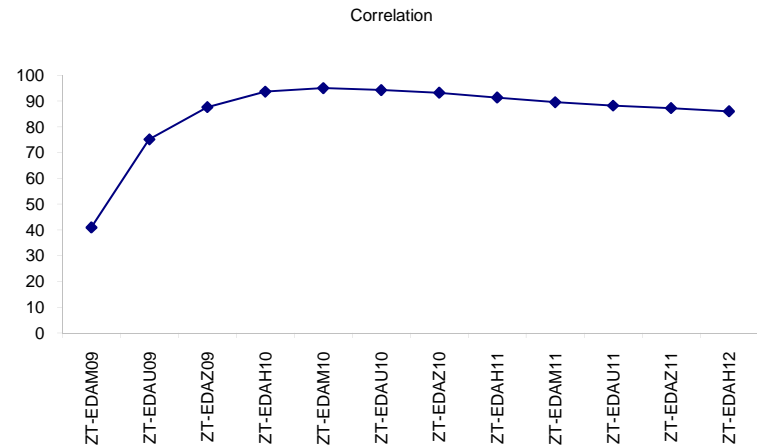
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			ZT Duration	Spread Duration	
EDAM09	0.1418	1.8523	1.7105	ZT-EDAM09		
EDAU09	0.3911	1.8523	1.4612	ZT-EDAU09		
EDAZ09	0.6404	1.8523	1.2118	ZT-EDAZ09		
EDAH10	0.8897	1.8523	0.9625	ZT-EDAH10		
EDAM10	1.1391	1.8523	0.7132	ZT-EDAM10		
EDAU10	1.3884	1.8523	0.4639	ZT-EDAU10		
EDAZ10	1.6377	1.8523	0.2146	ZT-EDAZ10		
EDAH11	1.8870	1.8523	-0.0347	ZT-EDAH11		
EDAM11	2.1363	1.8523	-0.2840	ZT-EDAM11		
EDAU11	2.4048	1.8523	-0.5525	ZT-EDAU11		
EDAZ11	2.6541	1.8523	-0.8019	ZT-EDAZ11		
EDAH12	2.9034	1.8523	-1.0512	ZT-EDAH12		

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

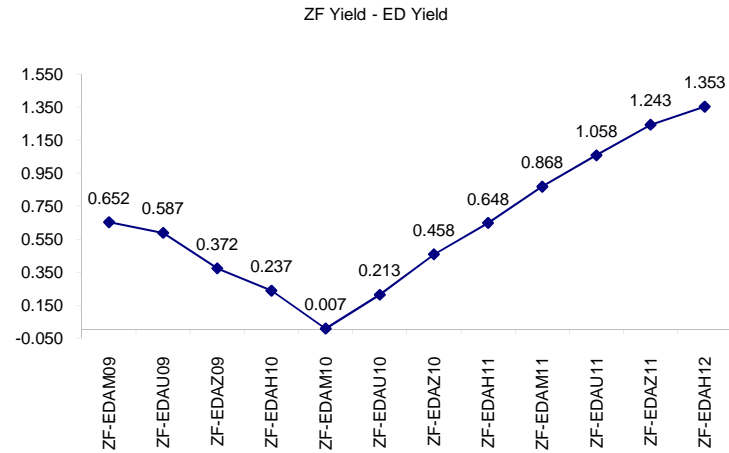


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	18.59	0.652	ZF-EDAM09	39
EDAU09	18.66	0.587	ZF-EDAU09	74
EDAZ09	18.87	0.372	ZF-EDAZ09	85
EDAH10	19.01	0.237	ZF-EDAH10	92
EDAM10	19.24	0.007	ZF-EDAM10	95
EDAU10	19.46	0.213	ZF-EDAU10	96
EDAZ10	19.70	0.458	ZF-EDAZ10	97
EDAH11	19.89	0.648	ZF-EDAH11	97
EDAM11	20.11	0.868	ZF-EDAM11	96
EDAU11	20.30	1.058	ZF-EDAU11	96
EDAZ11	20.49	1.243	ZF-EDAZ11	95
EDAH12	20.60	1.353	ZF-EDAH12	95

Price = Outright Decimal Price - Euro Contract Price

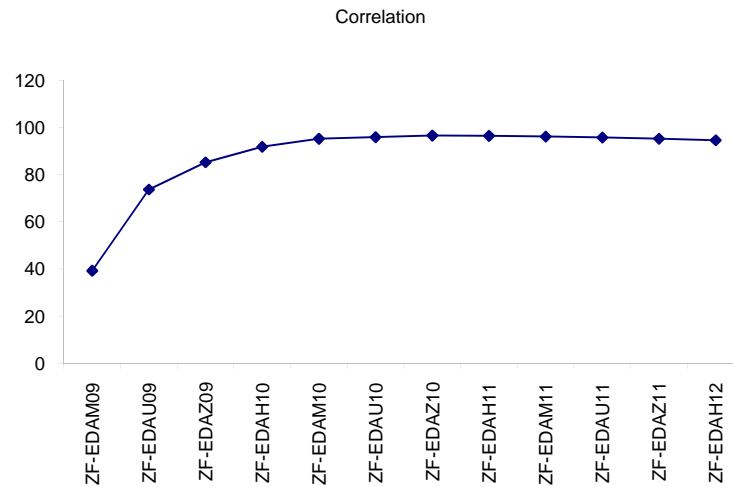
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	ZF Duration	Spread Duration	
EDAM09	0.1418	4.0505	3.9087	ZF-EDAM09
EDAU09	0.3911	4.0505	3.6594	ZF-EDAU09
EDAZ09	0.6404	4.0505	3.4101	ZF-EDAZ09
EDAH10	0.8897	4.0505	3.1608	ZF-EDAH10
EDAM10	1.1391	4.0505	2.9115	ZF-EDAM10
EDAU10	1.3884	4.0505	2.6622	ZF-EDAU10
EDAZ10	1.6377	4.0505	2.4129	ZF-EDAZ10
EDAH11	1.8870	4.0505	2.1635	ZF-EDAH11
EDAM11	2.1363	4.0505	1.9142	ZF-EDAM11
EDAU11	2.4048	4.0505	1.6457	ZF-EDAU11
EDAZ11	2.6541	4.0505	1.3964	ZF-EDAZ11
EDAH12	2.9034	4.0505	1.1471	ZF-EDAH12

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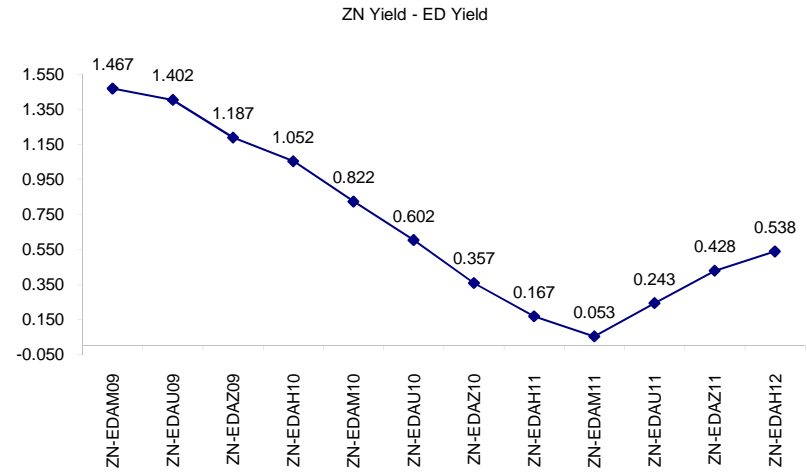


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAM09	23.10	1.467	ZN-EDAM09	37
EDAU09	23.17	1.402	ZN-EDAU09	70
EDAZ09	23.38	1.187	ZN-EDAZ09	80
EDAH10	23.52	1.052	ZN-EDAH10	88
EDAM10	23.75	0.822	ZN-EDAM10	93
EDAU10	23.97	0.602	ZN-EDAU10	95
EDAZ10	24.21	0.357	ZN-EDAZ10	96
EDAH11	24.40	0.167	ZN-EDAH11	97
EDAM11	24.62	0.053	ZN-EDAM11	98
EDAU11	24.81	0.243	ZN-EDAU11	98
EDAZ11	25.00	0.428	ZN-EDAZ11	97
EDAH12	25.11	0.538	ZN-EDAH12	96

Price = Outright Decimal Price - Euro Contract Price

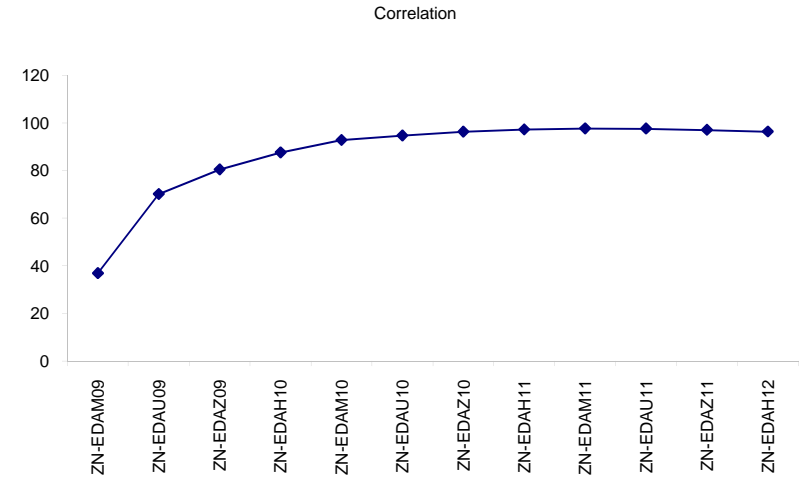
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			ZN Spread Duration
	Fraction of year	ZN Duration	Spread Duration	
EDAM09	0.1418	5.9095	5.7677	ZN-EDAM09
EDAU09	0.3911	5.9095	5.5183	ZN-EDAU09
EDAZ09	0.6404	5.9095	5.2690	ZN-EDAZ09
EDAH10	0.8897	5.9095	5.0197	ZN-EDAH10
EDAM10	1.1391	5.9095	4.7704	ZN-EDAM10
EDAU10	1.3884	5.9095	4.5211	ZN-EDAU10
EDAZ10	1.6377	5.9095	4.2718	ZN-EDAZ10
EDAH11	1.8870	5.9095	4.0225	ZN-EDAH11
EDAM11	2.1363	5.9095	3.7731	ZN-EDAM11
EDAU11	2.4048	5.9095	3.5047	ZN-EDAU11
EDAZ11	2.6541	5.9095	3.2553	ZN-EDAZ11
EDAH12	2.9034	5.9095	3.0060	ZN-EDAH12

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

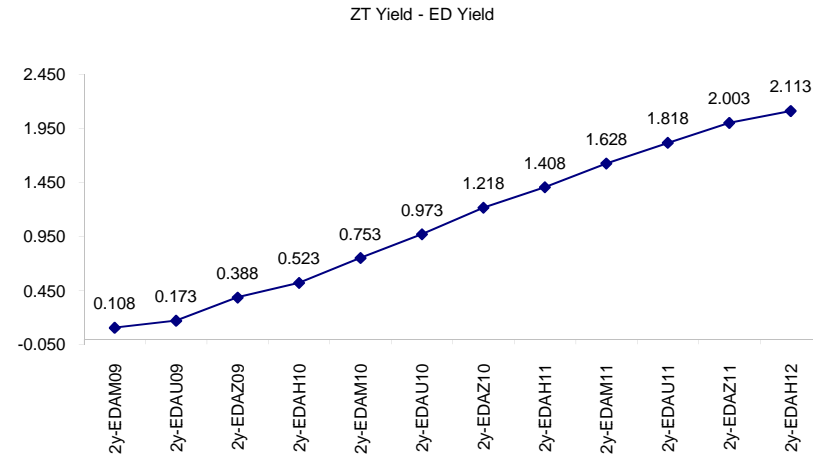


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.93	0.108	2y-EDAM09	-42
EDAU09	1.00	0.173	2y-EDAU09	-76
EDAZ09	1.21	0.388	2y-EDAZ09	-88
EDAH10	1.35	0.523	2y-EDAH10	-93
EDAM10	1.58	0.753	2y-EDAM10	-94
EDAU10	1.80	0.973	2y-EDAU10	-92
EDAZ10	2.04	1.218	2y-EDAZ10	-91
EDAH11	2.23	1.408	2y-EDAH11	-89
EDAM11	2.45	1.628	2y-EDAM11	-88
EDAU11	2.64	1.818	2y-EDAU11	-87
EDAZ11	2.83	2.003	2y-EDAZ11	-86
EDAH12	2.94	2.113	2y-EDAH12	-86

Price = Outright Decimal Price - Euro Contract Price

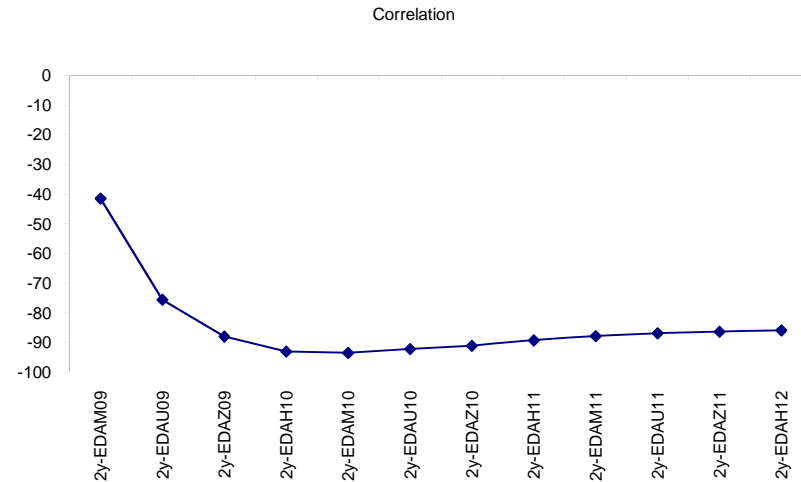
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



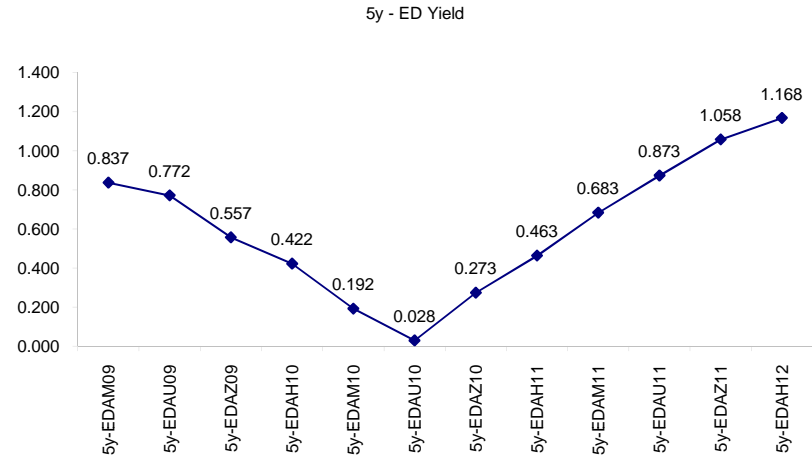
	ED Duration as		Spread Duration	
	Fraction of year	2Y Duration		
EDAM09	0.1418	1.9043	1.7625	2y-EDAM09
EDAU09	0.3911	1.9043	1.5132	2y-EDAU09
EDAZ09	0.6404	1.9043	1.2639	2y-EDAZ09
EDAH10	0.8897	1.9043	1.0146	2y-EDAH10
EDAM10	1.1391	1.9043	0.7653	2y-EDAM10
EDAU10	1.3884	1.9043	0.5159	2y-EDAU10
EDAZ10	1.6377	1.9043	0.2666	2y-EDAZ10
EDAH11	1.8870	1.9043	0.0173	2y-EDAH11
EDAM11	2.1363	1.9043	-0.2320	2y-EDAM11
EDAU11	2.4048	1.9043	-0.5005	2y-EDAU11
EDAZ11	2.6541	1.9043	-0.7498	2y-EDAZ11
EDAH12	2.9034	1.9043	-0.9991	2y-EDAH12

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



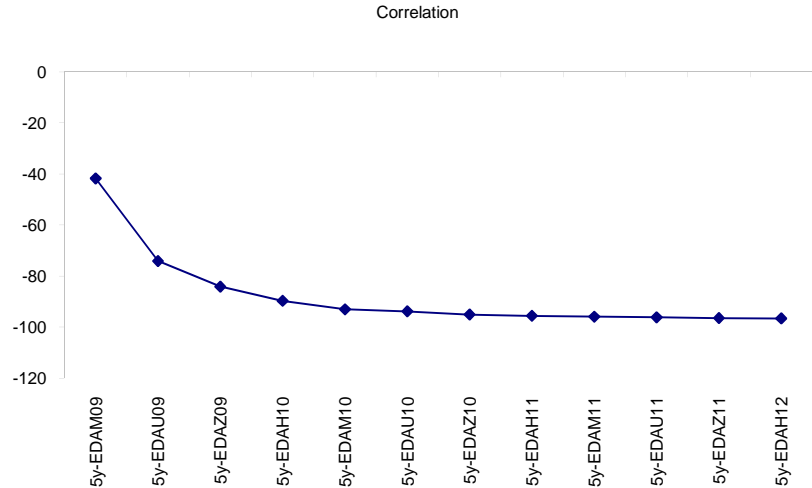
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.43	0.837	5y-EDAM09	-42
EDAU09	0.50	0.772	5y-EDAU09	-74
EDAZ09	0.71	0.557	5y-EDAZ09	-84
EDAH10	0.85	0.422	5y-EDAH10	-90
EDAM10	1.08	0.192	5y-EDAM10	-93
EDAU10	1.30	0.028	5y-EDAU10	-94
EDAZ10	1.54	0.273	5y-EDAZ10	-95
EDAH11	1.73	0.463	5y-EDAH11	-96
EDAM11	1.95	0.683	5y-EDAM11	-96
EDAU11	2.14	0.873	5y-EDAU11	-96
EDAZ11	2.33	1.058	5y-EDAZ11	-96
EDAH12	2.44	1.168	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



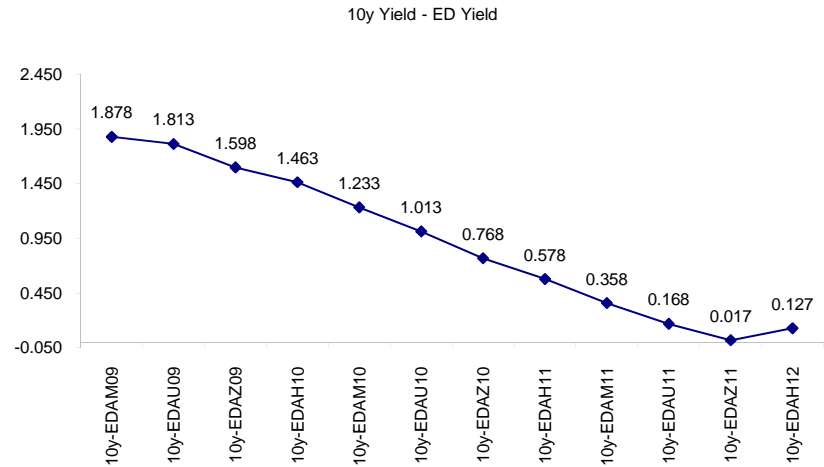
	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAM09	0.1418	4.6908	4.5490	5y-EDAM09	
EDAU09	0.3911	4.6908	4.2997	5y-EDAU09	
EDAZ09	0.6404	4.6908	4.0503	5y-EDAZ09	
EDAH10	0.8897	4.6908	3.8010	5y-EDAH10	
EDAM10	1.1391	4.6908	3.5517	5y-EDAM10	
EDAU10	1.3884	4.6908	3.3024	5y-EDAU10	
EDAZ10	1.6377	4.6908	3.0531	5y-EDAZ10	
EDAH11	1.8870	4.6908	2.8038	5y-EDAH11	
EDAM11	2.1363	4.6908	2.5545	5y-EDAM11	
EDAU11	2.4048	4.6908	2.2860	5y-EDAU11	
EDAZ11	2.6541	4.6908	2.0366	5y-EDAZ11	
EDAH12	2.9034	4.6908	1.7873	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	0.43	1.878	10y-EDAM09	-40
EDAU09	0.50	1.813	10y-EDAU09	-72
EDAZ09	0.71	1.598	10y-EDAZ09	-83
EDAH10	0.85	1.463	10y-EDAH10	-88
EDAM10	1.08	1.233	10y-EDAM10	-91
EDAU10	1.30	1.013	10y-EDAU10	-91
EDAZ10	1.54	0.768	10y-EDAZ10	-92
EDAH11	1.73	0.578	10y-EDAH11	-93
EDAM11	1.95	0.358	10y-EDAM11	-93
EDAU11	2.14	0.168	10y-EDAU11	-93
EDAZ11	2.33	0.017	10y-EDAZ11	-94
EDAH12	2.44	0.127	10y-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



	ED Duration as Fraction of year			
	10Y Duration	Spread Duration		
EDAM09	0.1418	8.4799	8.3381	10y-EDAM09
EDAU09	0.3911	8.4799	8.0888	10y-EDAU09
EDAZ09	0.6404	8.4799	7.8395	10y-EDAZ09
EDAH10	0.8897	8.4799	7.5902	10y-EDAH10
EDAM10	1.1391	8.4799	7.3409	10y-EDAM10
EDAU10	1.3884	8.4799	7.0916	10y-EDAU10
EDAZ10	1.6377	8.4799	6.8422	10y-EDAZ10
EDAH11	1.8870	8.4799	6.5929	10y-EDAH11
EDAM11	2.1363	8.4799	6.3436	10y-EDAM11
EDAU11	2.4048	8.4799	6.0751	10y-EDAU11
EDAZ11	2.6541	8.4799	5.8258	10y-EDAZ11
EDAH12	2.9034	8.4799	5.5765	10y-EDAH12

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

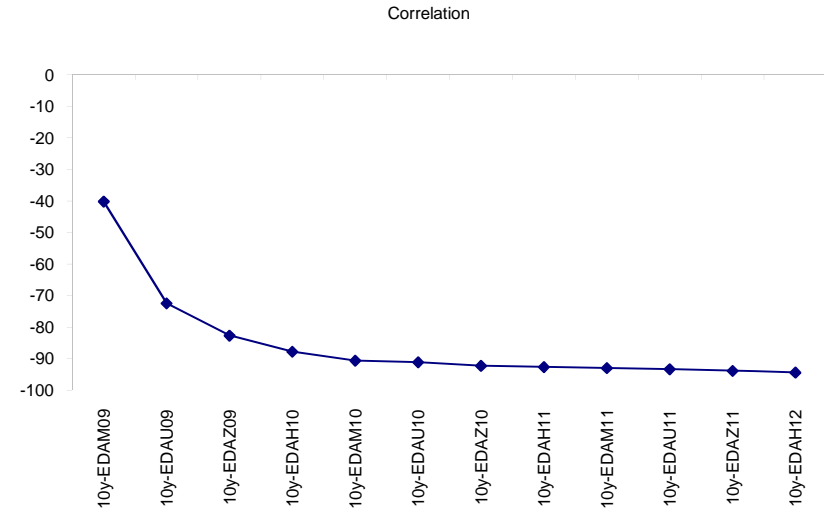


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

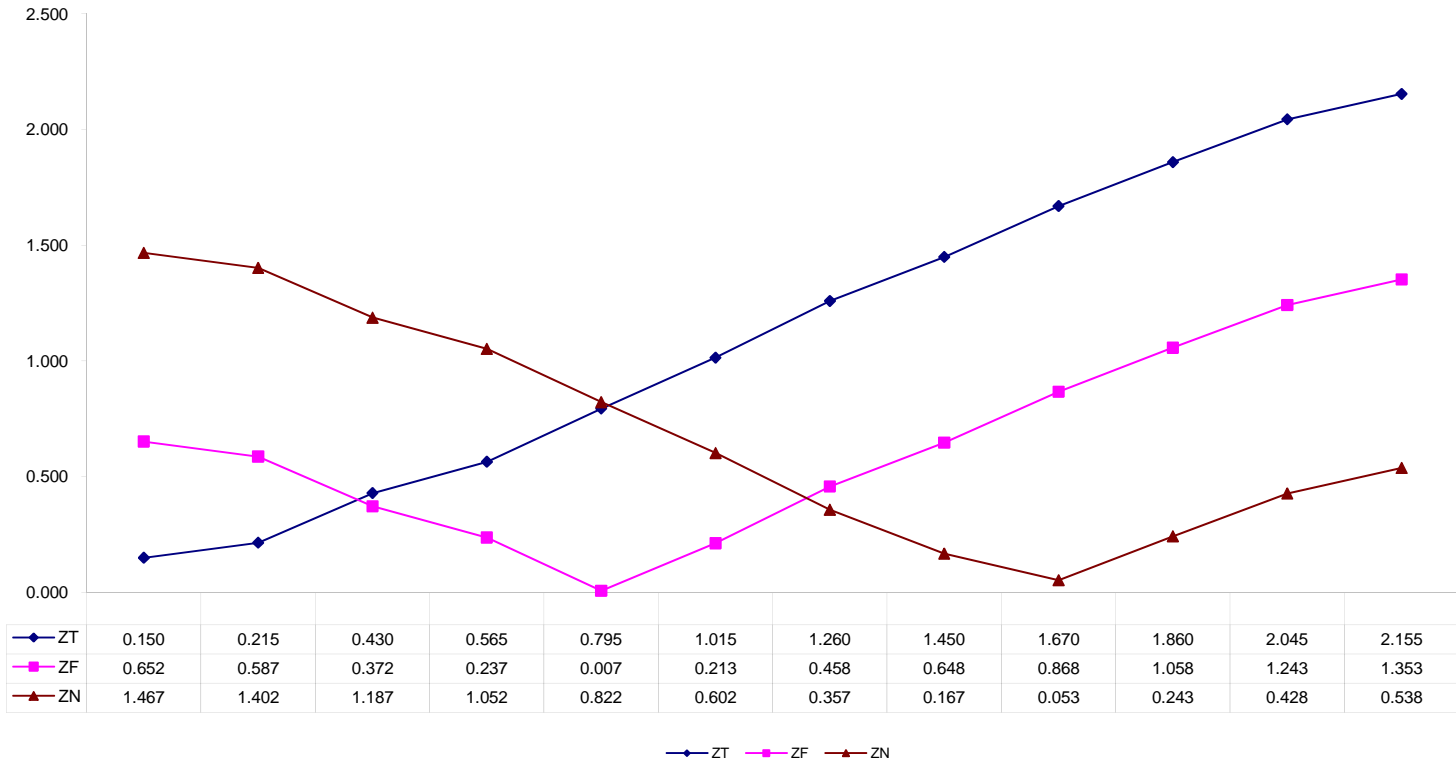
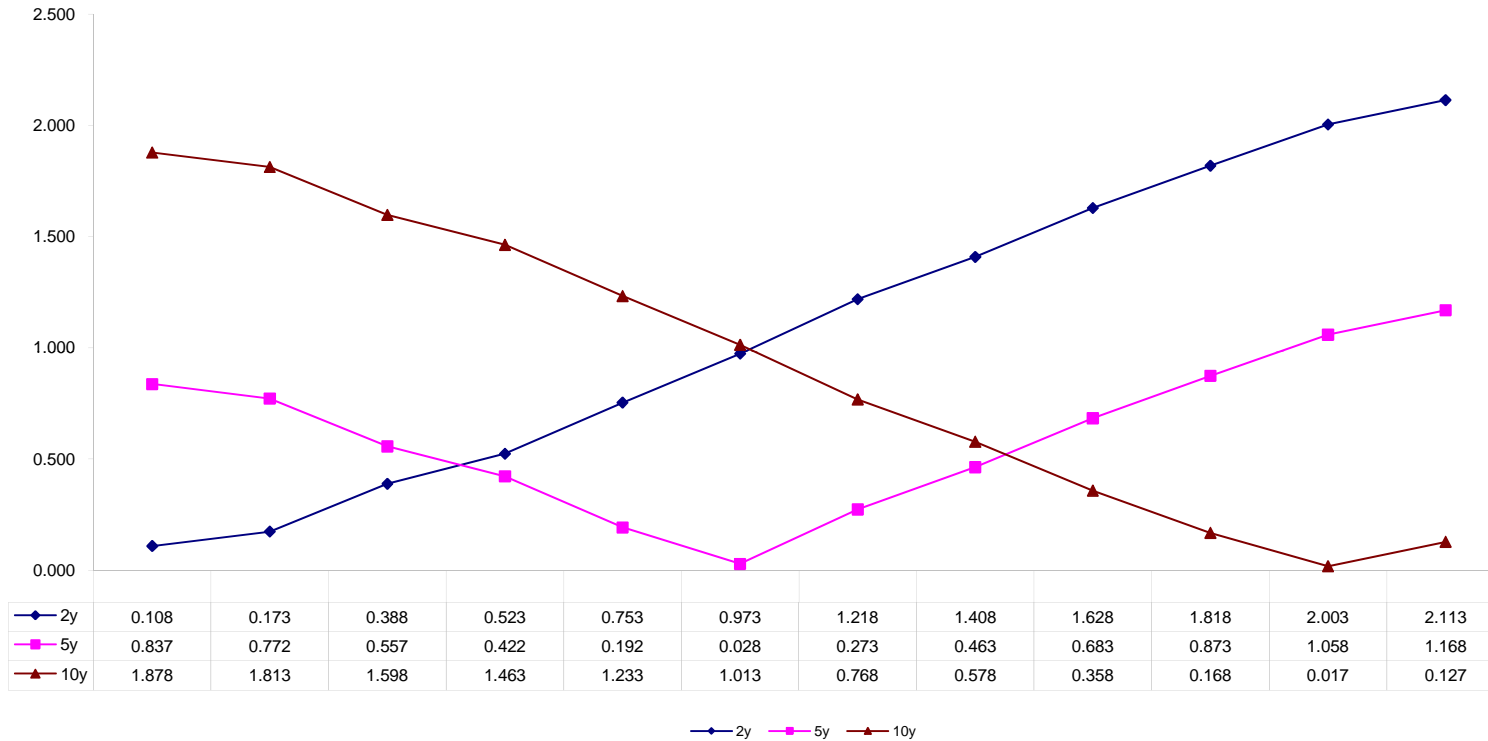
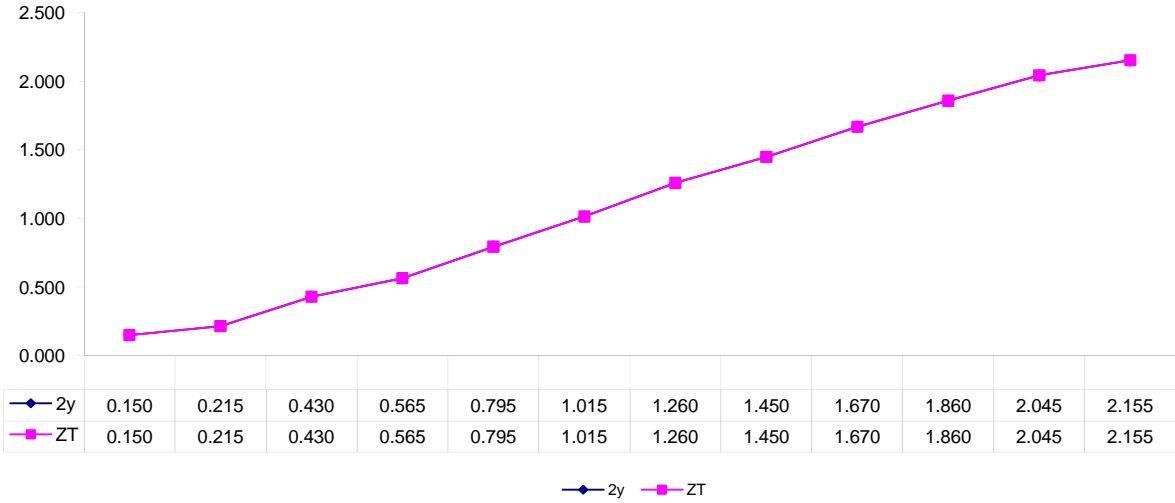
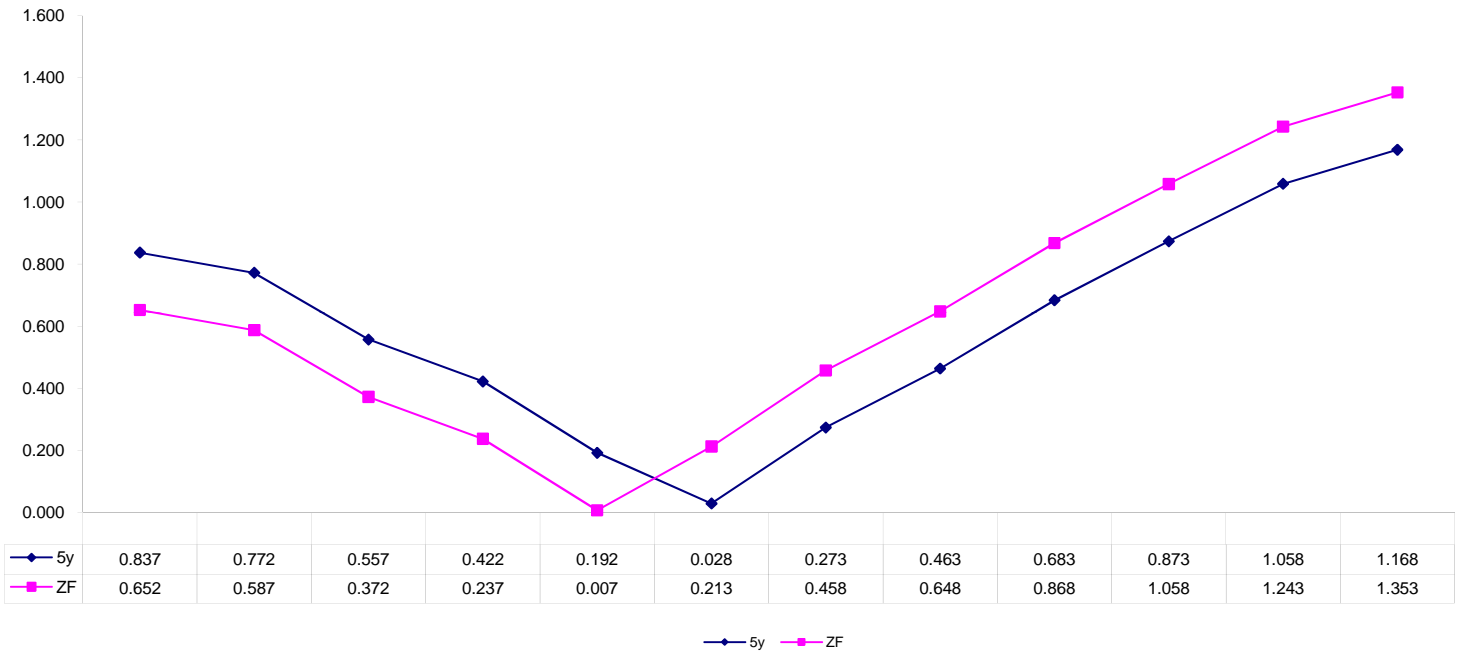


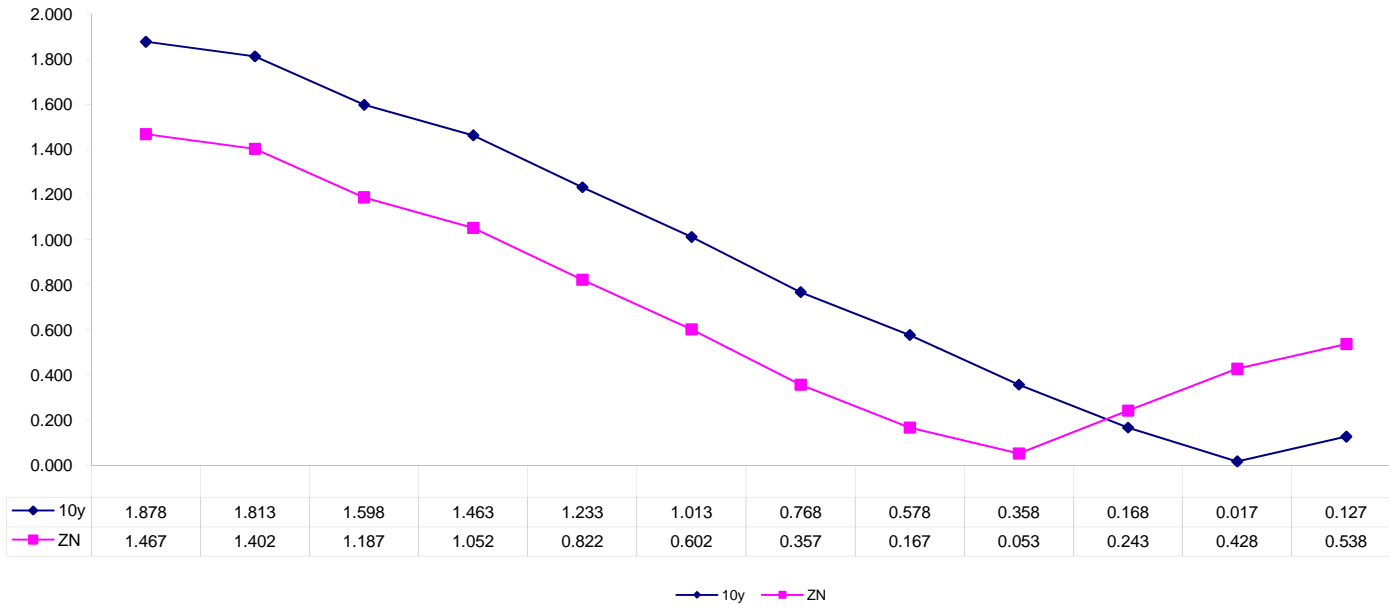
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.251	1.000	9877.0000
Red Pack	2.059	-0.125	9798.0000
Green Pack	2.882	-1.000	9717.7500
Blue Pack	3.363	-0.250	9671.0000
Gold Pack		0.125	9643.0000

