

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	108.8656	108.2770	0.736	1.908
ZF	118.6563	118.2100	1.458	1.458
ZN	124.9219	124.2950	2.145	6.005
2y	100.1094	100.0350	0.818	1.917
5y	101.3125	101.1000	1.597	4.698
10y	101.6406	101.2050	2.561	8.613

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	98.8150	1.185	87	0.2377	JUN	
EDAU09	98.8250	1.175	178	0.4870	SEP	White Pack
EDAZ09	98.6700	1.330	269	0.7363	DEC	
EDAH10	98.6150	1.385	360	0.9856	MAR	
EDAM10	98.4550	1.545	451	1.2350	JUN	
EDAU10	98.2750	1.725	542	1.4843	SEP	Red Pack
EDAZ10	98.0700	1.930	633	1.7336	DEC	
EDAH11	97.9100	2.090	724	1.9829	MAR	
EDAM11	97.7000	2.300	815	2.2322	JUN	
EDAU11	97.5050	2.495	913	2.5007	SEP	Green Pack
EDAZ11	97.3050	2.695	1,004	2.7500	DEC	
EDAH12	97.1850	2.815	1,095	2.9993	MAR	
EDAM12	97.0650	2.935	1,186	3.2486	JUN	
EDAU12	96.9600	3.040	1,277	3.4980	SEP	Blue Pack
EDAZ12	96.8500	3.150	1,368	3.7473	DEC	
EDAH13	96.8050	3.195	1,459	3.9966	MAR	
EDAM13	96.7350	3.265	1,550	4.2459	JUN	
EDAU13	96.6750	3.325	1,641	4.4952	SEP	Gold Pack
EDAZ13	96.6350	3.365	1,732	4.7445	DEC	
EDAH14	96.6000	3.400	1,823	4.9939	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	1.290	3.375	9873.13	
Red Pack	1.856	4.500	9817.75	Pack Prices
Green Pack	2.629	3.375	9742.38	
Blue Pack	3.147	0.250	9692.00	
Gold Pack		-0.125	9664.38	

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 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)

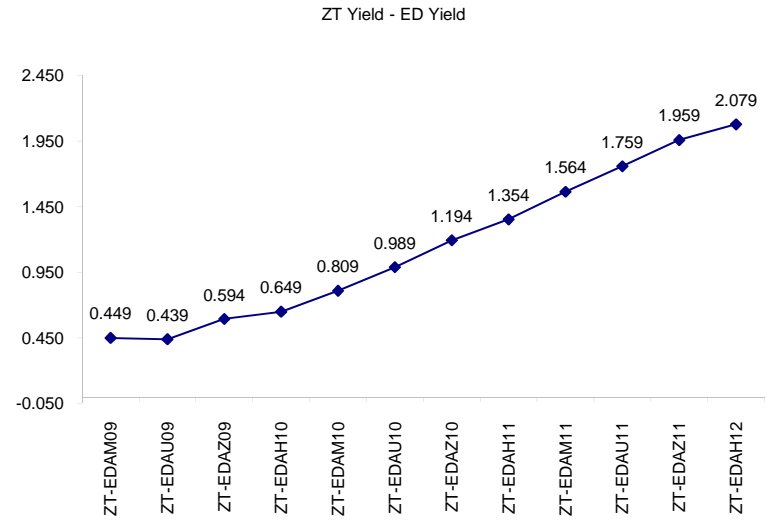
Correlations for the US Cash Treasuries are done on a YIELD basis. Therefore, you'll see negative values. The reason for this is due to the new issues. Every new issue takes too long to 'catch up' because the correlation formula looks back 10days. So, it's much easier to formulate the correlations based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

	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	10.05	0.449	ZT-EDAM09	89
EDAU09	10.04	0.439	ZT-EDAU09	92
EDAZ09	10.20	0.594	ZT-EDAZ09	95
EDAH10	10.25	0.649	ZT-EDAH10	95
EDAM10	10.41	0.809	ZT-EDAM10	94
EDAU10	10.59	0.989	ZT-EDAU10	92
EDAZ10	10.80	1.194	ZT-EDAZ10	92
EDAH11	10.96	1.354	ZT-EDAH11	93
EDAM11	11.17	1.564	ZT-EDAM11	93
EDAU11	11.36	1.759	ZT-EDAU11	94
EDAZ11	11.56	1.959	ZT-EDAZ11	94
EDAH12	11.68	2.079	ZT-EDAH12	94

Price = Outright Decimal Price - Euro Contract Price

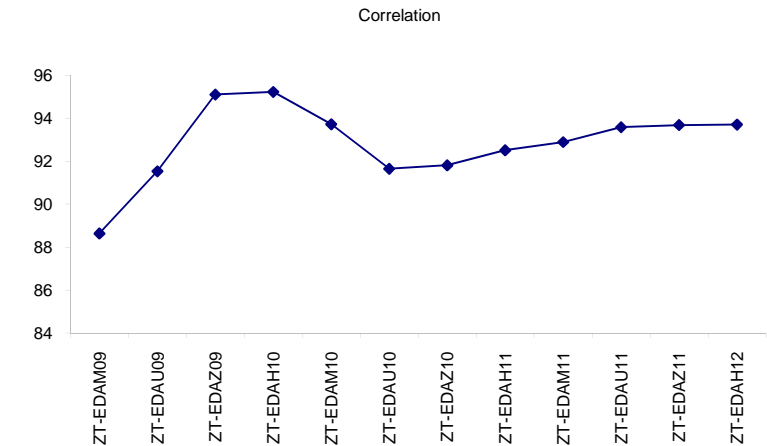
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



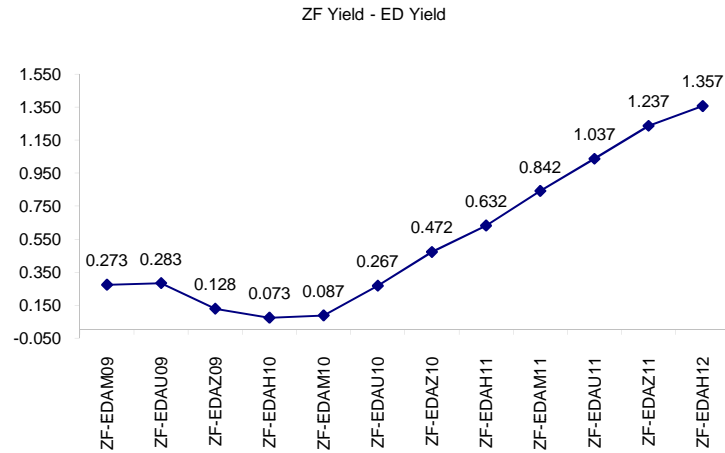
	ED Duration as Fraction of year			ZT Duration	Spread Duration	
EDAM09	0.2377	1.9077	1.6700	ZT-EDAM09		
EDAU09	0.4870	1.9077	1.4207	ZT-EDAU09		
EDAZ09	0.7363	1.9077	1.1714	ZT-EDAZ09		
EDAH10	0.9856	1.9077	0.9221	ZT-EDAH10		
EDAM10	1.2350	1.9077	0.6728	ZT-EDAM10		
EDAU10	1.4843	1.9077	0.4235	ZT-EDAU10		
EDAZ10	1.7336	1.9077	0.1741	ZT-EDAZ10		
EDAH11	1.9829	1.9077	-0.0752	ZT-EDAH11		
EDAM11	2.2322	1.9077	-0.3245	ZT-EDAM11		
EDAU11	2.5007	1.9077	-0.5930	ZT-EDAU11		
EDAZ11	2.7500	1.9077	-0.8423	ZT-EDAZ11		
EDAH12	2.9993	1.9077	-1.0916	ZT-EDAH12		

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



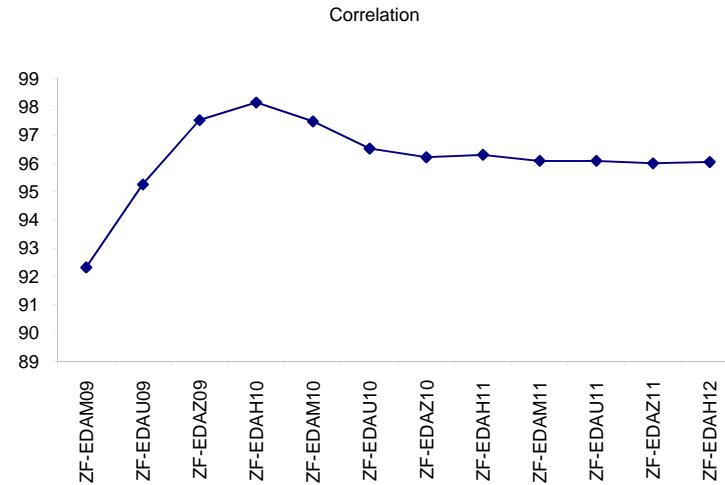
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	19.84	0.273	ZF-EDAM09	92
EDAU09	19.83	0.283	ZF-EDAU09	95
EDAZ09	19.99	0.128	ZF-EDAZ09	98
EDAH10	20.04	0.073	ZF-EDAH10	98
EDAM10	20.20	0.087	ZF-EDAM10	97
EDAU10	20.38	0.267	ZF-EDAU10	97
EDAZ10	20.59	0.472	ZF-EDAZ10	96
EDAH11	20.75	0.632	ZF-EDAH11	96
EDAM11	20.96	0.842	ZF-EDAM11	96
EDAU11	21.15	1.037	ZF-EDAU11	96
EDAZ11	21.35	1.237	ZF-EDAZ11	96
EDAH12	21.47	1.357	ZF-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		ZF Duration	Spread Duration	
EDAM09	0.2377	1.4581	1.2204	1.2204	ZF-EDAM09
EDAU09	0.4870	1.4581	0.9711	0.9711	ZF-EDAU09
EDAZ09	0.7363	1.4581	0.7217	0.7217	ZF-EDAZ09
EDAH10	0.9856	1.4581	0.4724	0.4724	ZF-EDAH10
EDAM10	1.2350	1.4581	0.2231	0.2231	ZF-EDAM10
EDAU10	1.4843	1.4581	-0.0262	-0.0262	ZF-EDAU10
EDAZ10	1.7336	1.4581	-0.2755	-0.2755	ZF-EDAZ10
EDAH11	1.9829	1.4581	-0.5248	-0.5248	ZF-EDAH11
EDAM11	2.2322	1.4581	-0.7742	-0.7742	ZF-EDAM11
EDAU11	2.5007	1.4581	-1.0426	-1.0426	ZF-EDAU11
EDAZ11	2.7500	1.4581	-1.2920	-1.2920	ZF-EDAZ11
EDAH12	2.9993	1.4581	-1.5413	-1.5413	ZF-EDAH12

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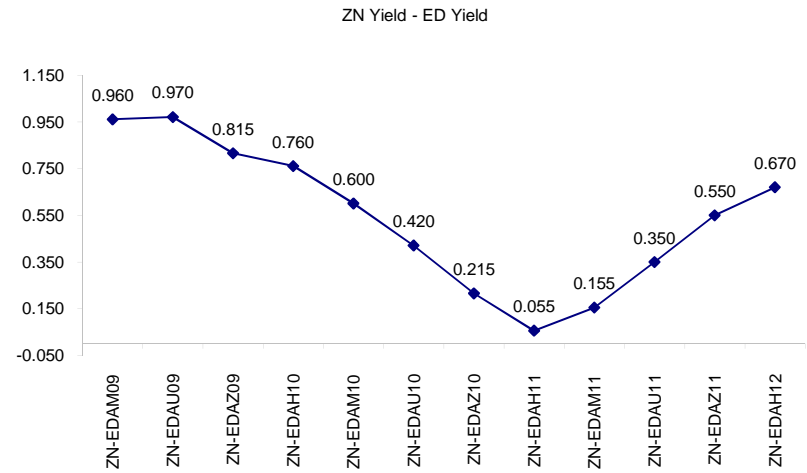


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAM09	26.11	0.960	ZN-EDAM09	92
EDAU09	26.10	0.970	ZN-EDAU09	94
EDAZ09	26.25	0.815	ZN-EDAZ09	98
EDAH10	26.31	0.760	ZN-EDAH10	98
EDAM10	26.47	0.600	ZN-EDAM10	98
EDAU10	26.65	0.420	ZN-EDAU10	96
EDAZ10	26.85	0.215	ZN-EDAZ10	96
EDAH11	27.01	0.055	ZN-EDAH11	97
EDAM11	27.22	0.155	ZN-EDAM11	97
EDAU11	27.42	0.350	ZN-EDAU11	97
EDAZ11	27.62	0.550	ZN-EDAZ11	97
EDAH12	27.74	0.670	ZN-EDAH12	98

Price = Outright Decimal Price - Euro Contract Price

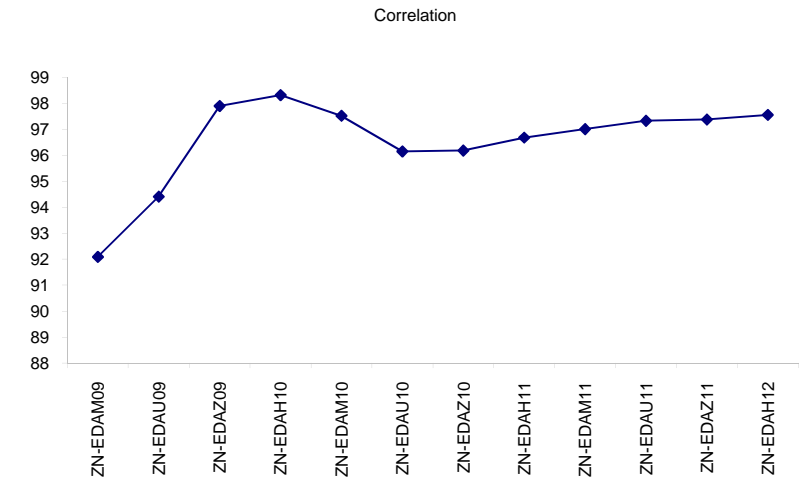
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			ZN Spread Duration
	Fraction of year	ZN Duration	Spread Duration	
EDAM09	0.2377	6.0045	5.7668	ZN-EDAM09
EDAU09	0.4870	6.0045	5.5175	ZN-EDAU09
EDAZ09	0.7363	6.0045	5.2682	ZN-EDAZ09
EDAH10	0.9856	6.0045	5.0189	ZN-EDAH10
EDAM10	1.2350	6.0045	4.7696	ZN-EDAM10
EDAU10	1.4843	6.0045	4.5203	ZN-EDAU10
EDAZ10	1.7336	6.0045	4.2710	ZN-EDAZ10
EDAH11	1.9829	6.0045	4.0216	ZN-EDAH11
EDAM11	2.2322	6.0045	3.7723	ZN-EDAM11
EDAU11	2.5007	6.0045	3.5038	ZN-EDAU11
EDAZ11	2.7500	6.0045	3.2545	ZN-EDAZ11
EDAH12	2.9993	6.0045	3.0052	ZN-EDAH12

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



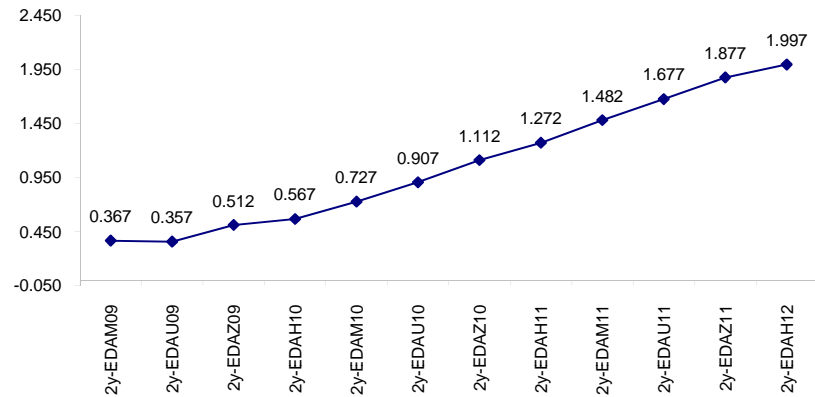
	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	1.29	0.367	2y-EDAM09	-87
EDAU09	1.28	0.357	2y-EDAU09	-90
EDAZ09	1.44	0.512	2y-EDAZ09	-94
EDAH10	1.49	0.567	2y-EDAH10	-95
EDAM10	1.65	0.727	2y-EDAM10	-94
EDAU10	1.83	0.907	2y-EDAU10	-92
EDAZ10	2.04	1.112	2y-EDAZ10	-92
EDAH11	2.20	1.272	2y-EDAH11	-93
EDAM11	2.41	1.482	2y-EDAM11	-93
EDAU11	2.60	1.677	2y-EDAU11	-94
EDAZ11	2.80	1.877	2y-EDAZ11	-94
EDAH12	2.92	1.997	2y-EDAH12	-95

Price = Outright Decimal Price - Euro Contract Price

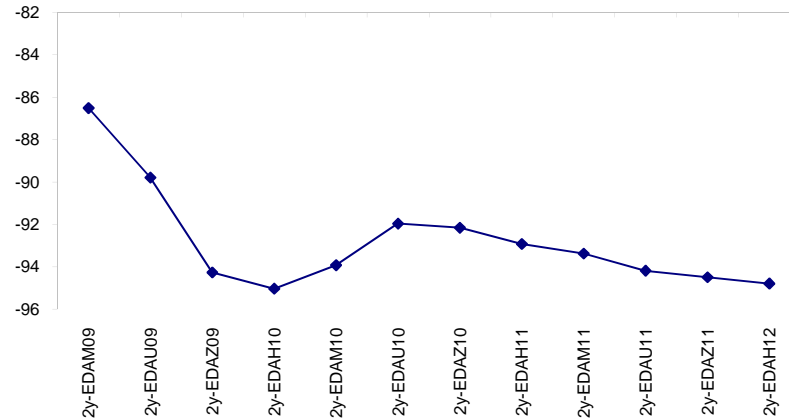
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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

ZT Yield - ED Yield



Correlation

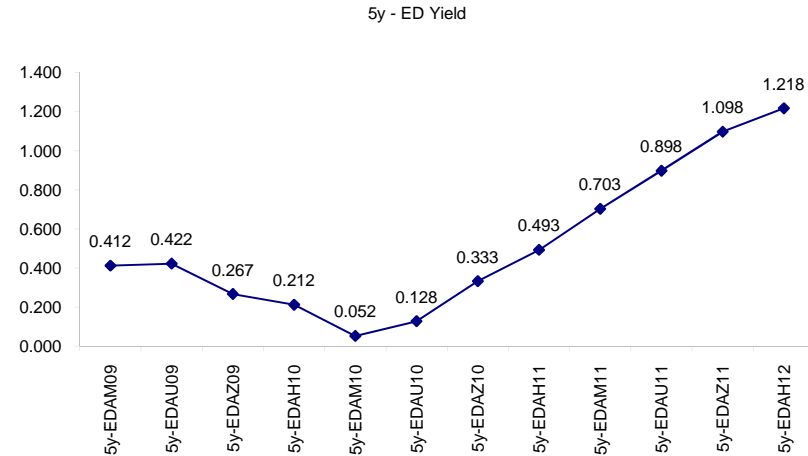


	ED Duration as		Spread Duration	
	Fraction of year	2Y Duration		
EDAM09	0.2377	1.9166	1.6790	2y-EDAM09
EDAU09	0.4870	1.9166	1.4296	2y-EDAU09
EDAZ09	0.7363	1.9166	1.1803	2y-EDAZ09
EDAH10	0.9856	1.9166	0.9310	2y-EDAH10
EDAM10	1.2350	1.9166	0.6817	2y-EDAM10
EDAU10	1.4843	1.9166	0.4324	2y-EDAU10
EDAZ10	1.7336	1.9166	0.1831	2y-EDAZ10
EDAH11	1.9829	1.9166	-0.0663	2y-EDAH11
EDAM11	2.2322	1.9166	-0.3156	2y-EDAM11
EDAU11	2.5007	1.9166	-0.5841	2y-EDAU11
EDAZ11	2.7500	1.9166	-0.8334	2y-EDAZ11
EDAH12	2.9993	1.9166	-1.0827	2y-EDAH12

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

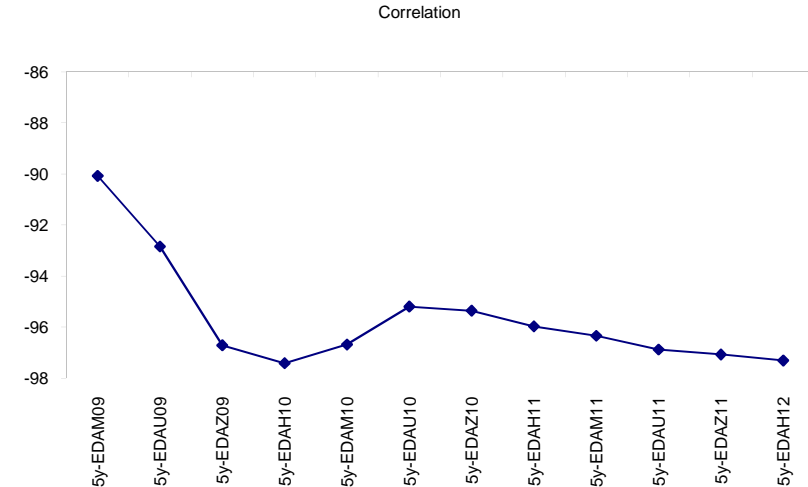
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	2.50	0.412	5y-EDAM09	-90
EDAU09	2.49	0.422	5y-EDAU09	-93
EDAZ09	2.64	0.267	5y-EDAZ09	-97
EDAH10	2.70	0.212	5y-EDAH10	-97
EDAM10	2.86	0.052	5y-EDAM10	-97
EDAU10	3.04	0.128	5y-EDAU10	-95
EDAZ10	3.24	0.333	5y-EDAZ10	-95
EDAH11	3.40	0.493	5y-EDAH11	-96
EDAM11	3.61	0.703	5y-EDAM11	-96
EDAU11	3.81	0.898	5y-EDAU11	-97
EDAZ11	4.01	1.098	5y-EDAZ11	-97
EDAH12	4.13	1.218	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



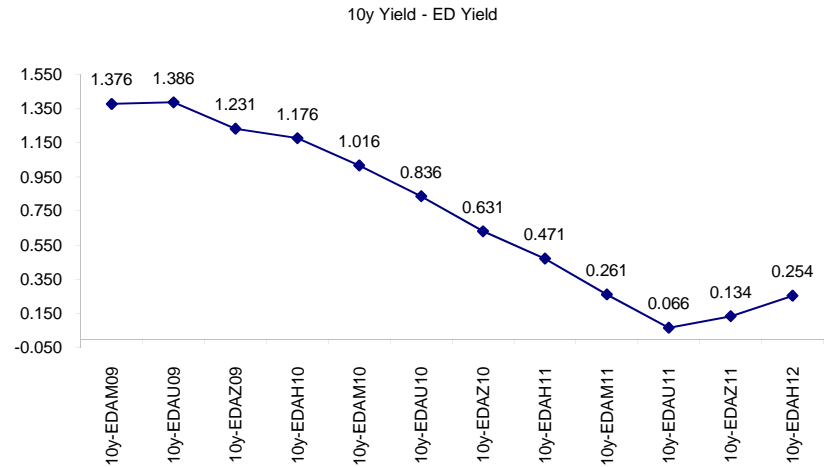
	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAM09	0.2377	4.6978	4.4601	5y-EDAM09	
EDAU09	0.4870	4.6978	4.2108	5y-EDAU09	
EDAZ09	0.7363	4.6978	3.9614	5y-EDAZ09	
EDAH10	0.9856	4.6978	3.7121	5y-EDAH10	
EDAM10	1.2350	4.6978	3.4628	5y-EDAM10	
EDAU10	1.4843	4.6978	3.2135	5y-EDAU10	
EDAZ10	1.7336	4.6978	2.9642	5y-EDAZ10	
EDAH11	1.9829	4.6978	2.7149	5y-EDAH11	
EDAM11	2.2322	4.6978	2.4656	5y-EDAM11	
EDAU11	2.5007	4.6978	2.1971	5y-EDAU11	
EDAZ11	2.7500	4.6978	1.9477	5y-EDAZ11	
EDAH12	2.9993	4.6978	1.6984	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	2.50	1.376	10y-EDAM09	-87
EDAU09	2.49	1.386	10y-EDAU09	-90
EDAZ09	2.64	1.231	10y-EDAZ09	-95
EDAH10	2.70	1.176	10y-EDAH10	-95
EDAM10	2.86	1.016	10y-EDAM10	-95
EDAU10	3.04	0.836	10y-EDAU10	-93
EDAZ10	3.24	0.631	10y-EDAZ10	-93
EDAH11	3.40	0.471	10y-EDAH11	-94
EDAM11	3.61	0.261	10y-EDAM11	-95
EDAU11	3.81	0.066	10y-EDAU11	-96
EDAZ11	4.01	0.134	10y-EDAZ11	-96
EDAH12	4.13	0.254	10y-EDAH12	-96

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS (Proxy Yield - Implied Euro Contract yield)
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ED Duration as Fraction of year				10Y Duration	Spread Duration	
EDAM09	0.2377	8.6128	8.3751	10y-EDAM09		
EDAU09	0.4870	8.6128	8.1258	10y-EDAU09		
EDAZ09	0.7363	8.6128	7.8765	10y-EDAZ09		
EDAH10	0.9856	8.6128	7.6272	10y-EDAH10		
EDAM10	1.2350	8.6128	7.3779	10y-EDAM10		
EDAU10	1.4843	8.6128	7.1286	10y-EDAU10		
EDAZ10	1.7336	8.6128	6.8792	10y-EDAZ10		
EDAH11	1.9829	8.6128	6.6299	10y-EDAH11		
EDAM11	2.2322	8.6128	6.3806	10y-EDAM11		
EDAU11	2.5007	8.6128	6.1121	10y-EDAU11		
EDAZ11	2.7500	8.6128	5.8628	10y-EDAZ11		
EDAH12	2.9993	8.6128	5.6135	10y-EDAH12		

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

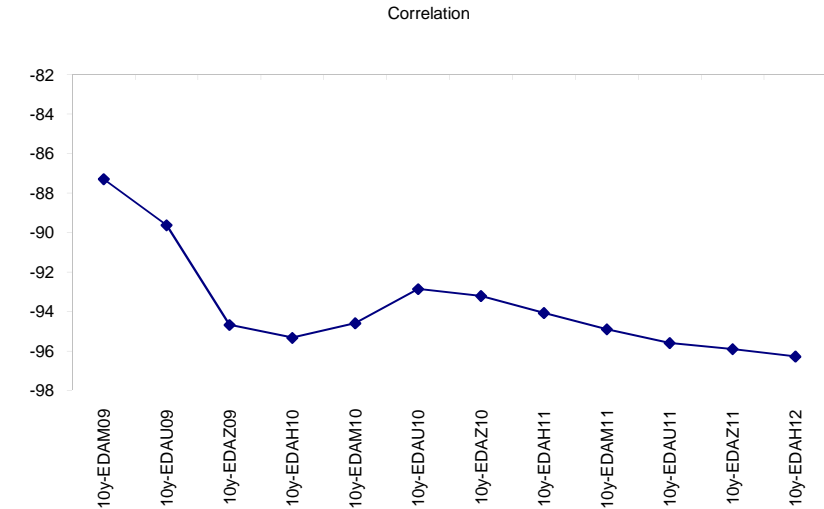


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

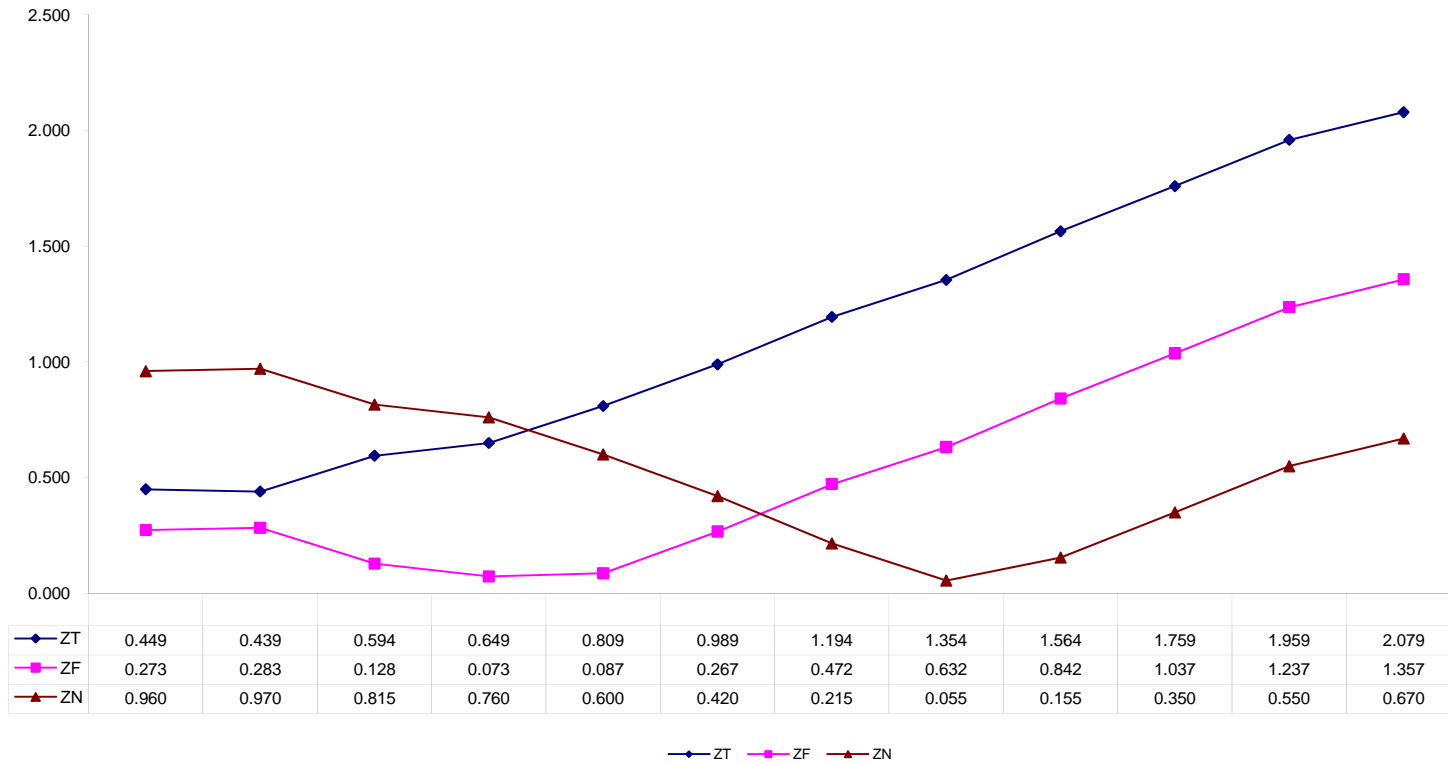
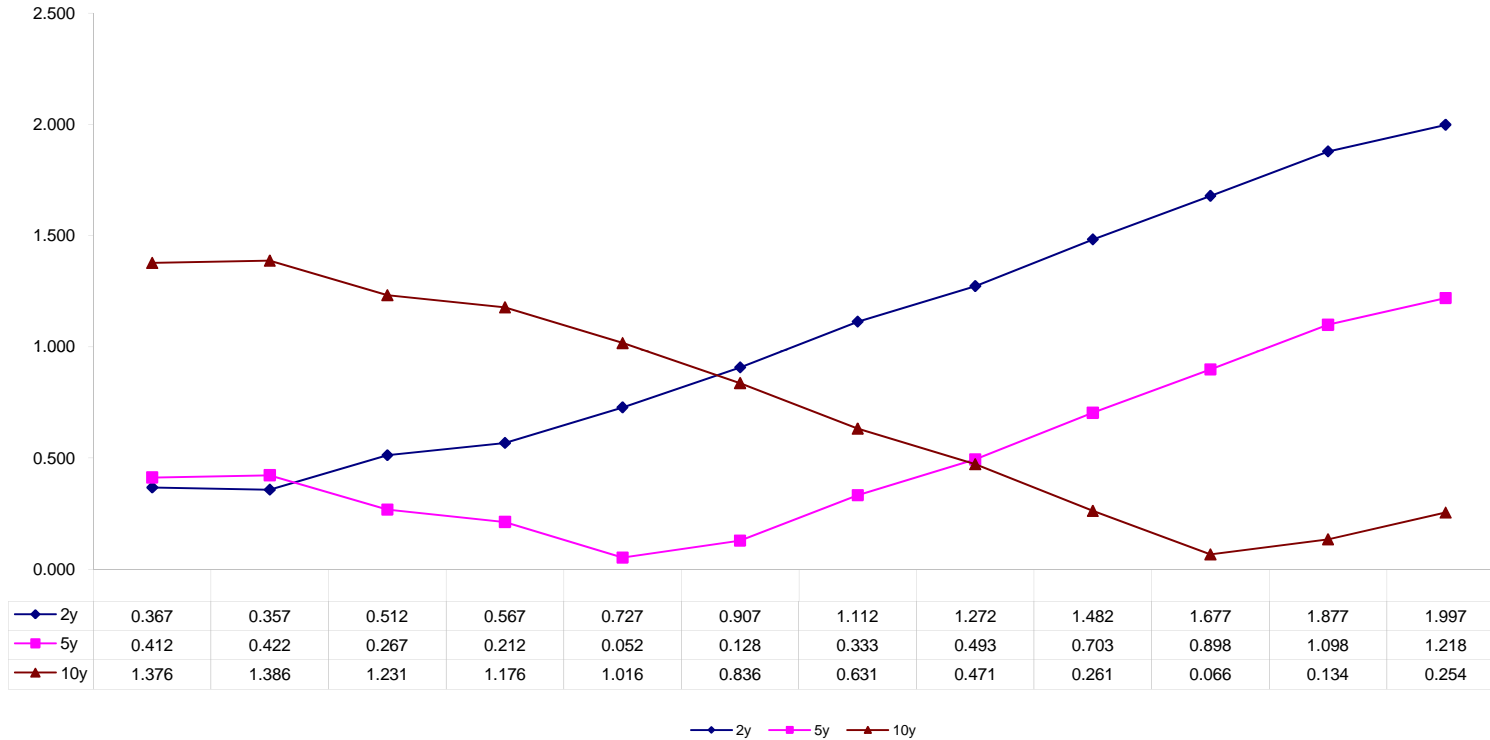
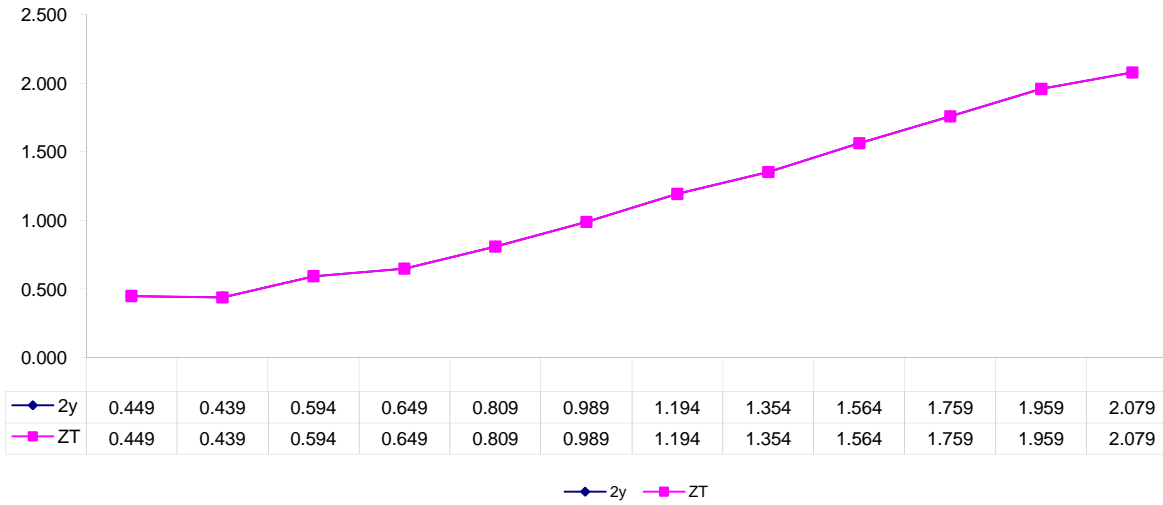
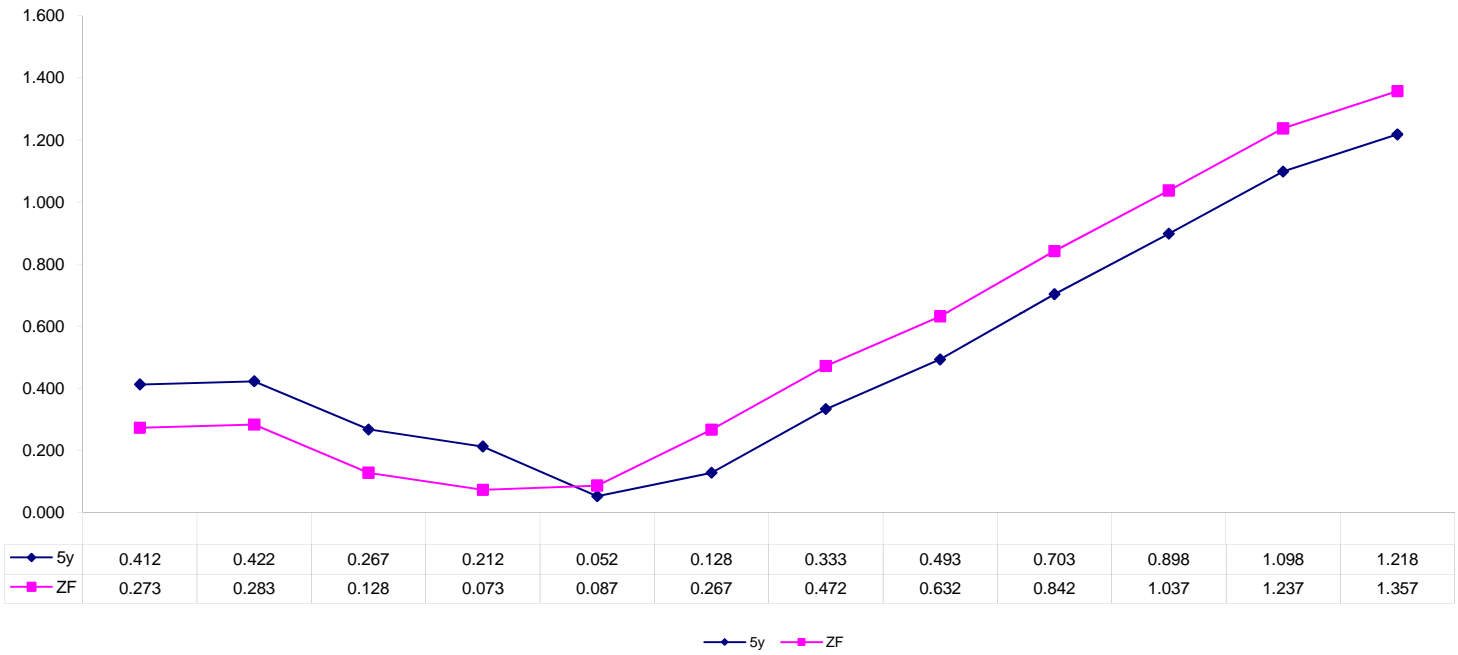


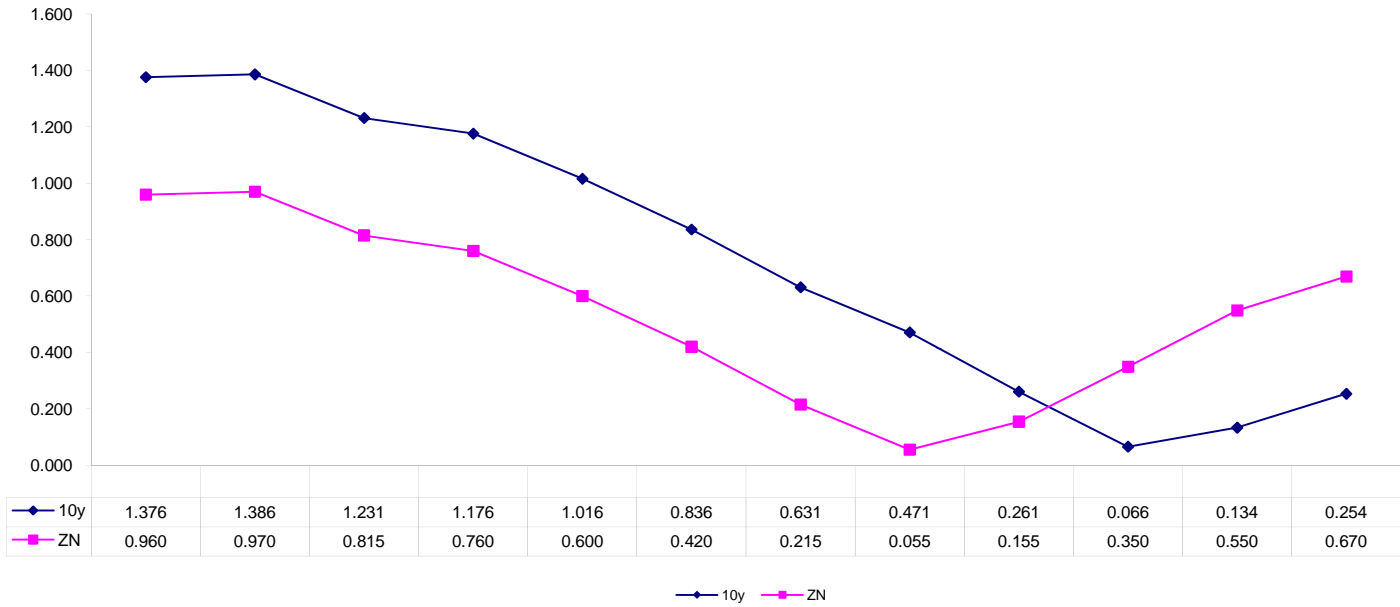
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	1.290	3.375	9873.1250
Red Pack	1.856	4.500	9817.7500
Green Pack	2.629	3.375	9742.3750
Blue Pack	3.147	0.250	9692.0000
Gold Pack		-0.125	9664.3750

