

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	108.4063	108.130	0.638	1.93
ZF	117.7500	117.240	1.409	1.41
ZN	125.1250	125.040	2.449	6.46
2y	100.734	100.2350	0.878	1.96
5y	101.453	101.1450	1.692	4.74
10y	108.969	108.3100	2.713	8.35

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ08	97.908	2.093	13	0.035	DEC	
EDAH09	98.170	1.830	104	0.284	MAR	White Pack
EDAM09	98.185	1.815	195	0.534	JUN	
EDAU09	98.160	1.840	286	0.783	SEP	
EDAZ09	98.065	1.935	377	1.032	DEC	
EDAH10	98.065	1.935	468	1.282	MAR	Red Pack
EDAM10	97.970	2.030	559	1.531	JUN	
EDAU10	97.845	2.155	650	1.780	SEP	
EDAZ10	97.630	2.370	741	2.029	DEC	
EDAH11	97.510	2.490	832	2.279	MAR	Green Pack
EDAM11	97.300	2.700	923	2.528	JUN	
EDAU11	97.110	2.890	1021	2.797	SEP	
EDAZ11	96.915	3.085	1112	3.046	DEC	
EDAH12	96.885	3.115	1203	3.295	MAR	Blue Pack
EDAM12	96.800	3.200	1294	3.545	JUN	
EDAU12	96.740	3.260	1385	3.794	SEP	
EDAZ12	96.520	3.480	1476	4.043	DEC	
EDAH13	96.635	3.365	1567	4.292	MAR	Gold Pack
EDAM13	96.500	3.500	1658	4.542	JUN	
EDZU13	#VALUE!	#VALUE!	1840	5.040	DEC	

	Last Yield	Net Yield	Last Price	
White Pack	1.930	2.250	9810.563	Pack Prices
Red Pack	2.052	-0.750	9798.625	
Green Pack	2.666	2.750	9738.750	
Blue Pack	3.235	3.375	9683.500	
Gold Pack		0.000	9653.125	

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.

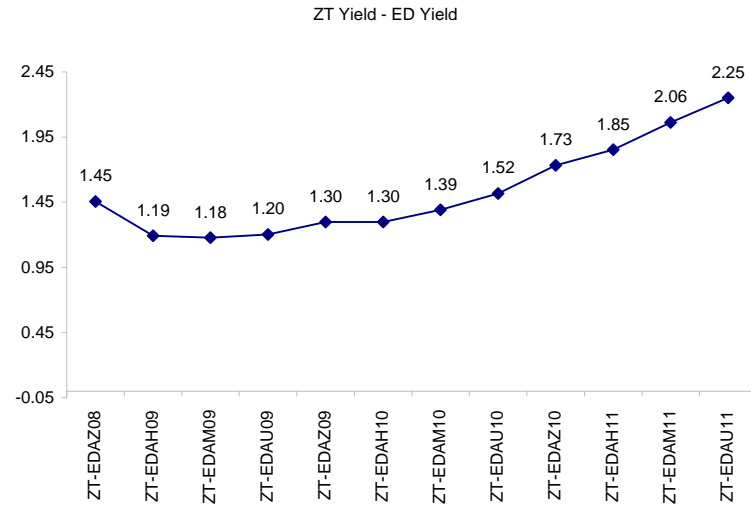
jgoulding@ghco.com

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.

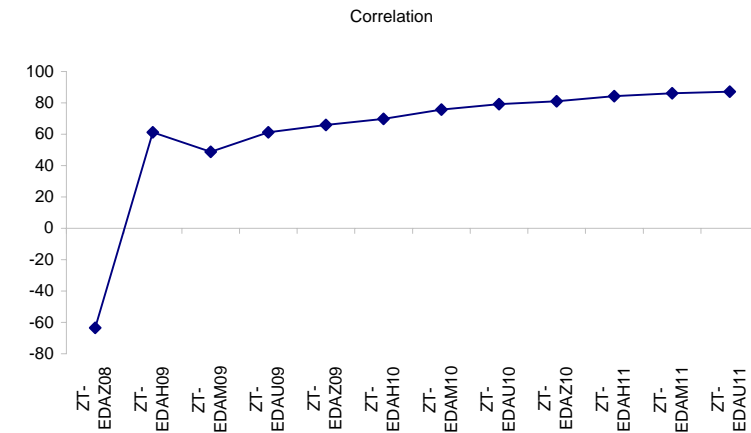
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	10.499	1.45	ZT-EDAZ08	-63.369
EDAH09	10.236	1.19	ZT-EDAH09	61.148
EDAM09	10.221	1.18	ZT-EDAM09	48.741
EDAU09	10.246	1.20	ZT-EDAU09	61.148
EDAZ09	10.341	1.30	ZT-EDAZ09	65.943
EDAH10	10.341	1.30	ZT-EDAH10	69.840
EDAM10	10.436	1.39	ZT-EDAM10	75.728
EDAU10	10.561	1.52	ZT-EDAU10	79.221
EDAZ10	10.776	1.73	ZT-EDAZ10	81.010
EDAH11	10.896	1.85	ZT-EDAH11	84.291
EDAM11	11.106	2.06	ZT-EDAM11	86.100
EDAU11	11.296	2.25	ZT-EDAU11	87.052

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	
EDAZ08	0.035	1.93	1.89
EDAH09	0.284	1.93	1.64
EDAM09	0.534	1.93	1.39
EDAU09	0.783	1.93	1.14
EDAZ09	1.032	1.93	0.89
EDAH10	1.282	1.93	0.65
EDAM10	1.531	1.93	0.40
EDAU10	1.780	1.93	0.15
EDAZ10	2.029	1.93	(0.10)
EDAH11	2.279	1.93	(0.35)
EDAM11	2.528	1.93	(0.60)
EDAU11	2.797	1.93	(0.87)

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

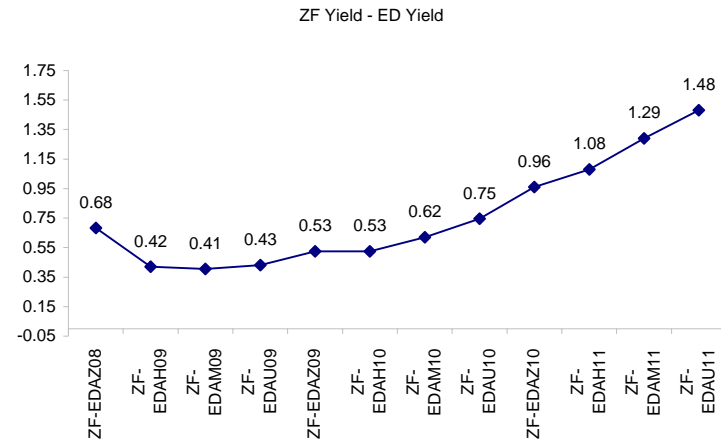


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	19.843	0.68	ZF-EDAZ08	-53.253
EDAH09	19.580	0.42	ZF-EDAH09	40.388
EDAM09	19.565	0.41	ZF-EDAM09	67.079
EDAU09	19.590	0.43	ZF-EDAU09	79.894
EDAZ09	19.685	0.53	ZF-EDAZ09	85.085
EDAH10	19.685	0.53	ZF-EDAH10	88.808
EDAM10	19.780	0.62	ZF-EDAM10	93.225
EDAU10	19.905	0.75	ZF-EDAU10	96.160
EDAZ10	20.120	0.96	ZF-EDAZ10	97.329
EDAH11	20.240	1.08	ZF-EDAH11	98.256
EDAM11	20.450	1.29	ZF-EDAM11	97.635
EDAU11	20.640	1.48	ZF-EDAU11	97.056

Price = Outright Decimal Price - Euro Contract Price

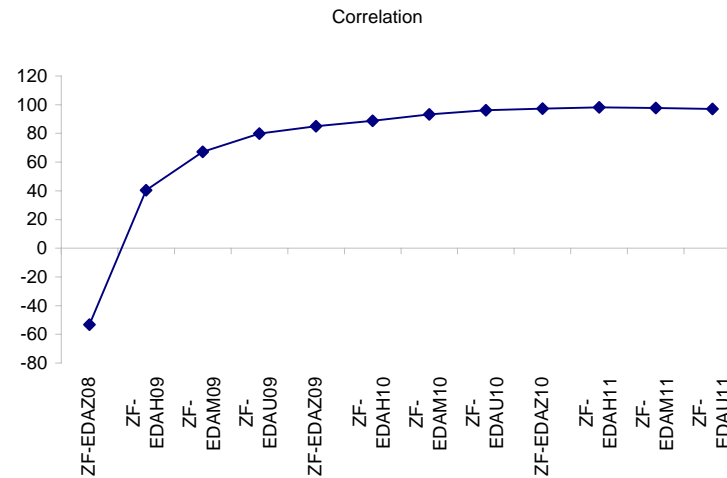
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAZ08	0.035	1.41	1.37	ZF-EDAZ08		
EDAH09	0.284	1.41	1.12	ZF-EDAH09		
EDAM09	0.534	1.41	0.88	ZF-EDAM09		
EDAU09	0.783	1.41	0.63	ZF-EDAU09		
EDAZ09	1.032	1.41	0.38	ZF-EDAZ09		
EDAH10	1.282	1.41	0.13	ZF-EDAH10		
EDAM10	1.531	1.41	(0.12)	ZF-EDAM10		
EDAU10	1.780	1.41	(0.37)	ZF-EDAU10		
EDAZ10	2.029	1.41	(0.62)	ZF-EDAZ10		
EDAH11	2.279	1.41	(0.87)	ZF-EDAH11		
EDAM11	2.528	1.41	(1.12)	ZF-EDAM11		
EDAU11	2.797	1.41	(1.39)	ZF-EDAU11		

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

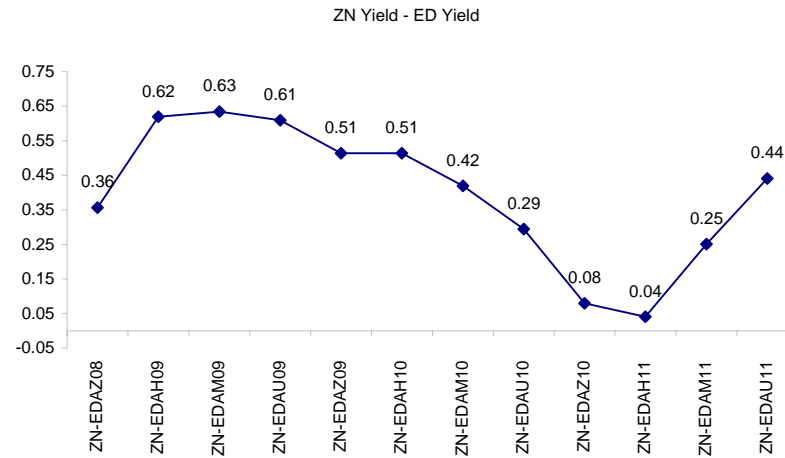


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	27.218	0.36	ZN-EDAZ08	-68.570
EDAH09	26.955	0.62	ZN-EDAH09	21.056
EDAM09	26.940	0.63	ZN-EDAM09	49.512
EDAU09	26.965	0.61	ZN-EDAU09	64.786
EDAZ09	27.060	0.51	ZN-EDAZ09	71.423
EDAH10	27.060	0.51	ZN-EDAH10	76.779
EDAM10	27.155	0.42	ZN-EDAM10	93.225
EDAU10	27.280	0.29	ZN-EDAU10	96.160
EDAZ10	27.495	0.08	ZN-EDAZ10	97.329
EDAH11	27.615	0.04	ZN-EDAH11	98.256
EDAM11	27.825	0.25	ZN-EDAM11	97.635
EDAU11	28.015	0.44	ZN-EDAU11	97.056

Price = Outright Decimal Price - Euro Contract Price

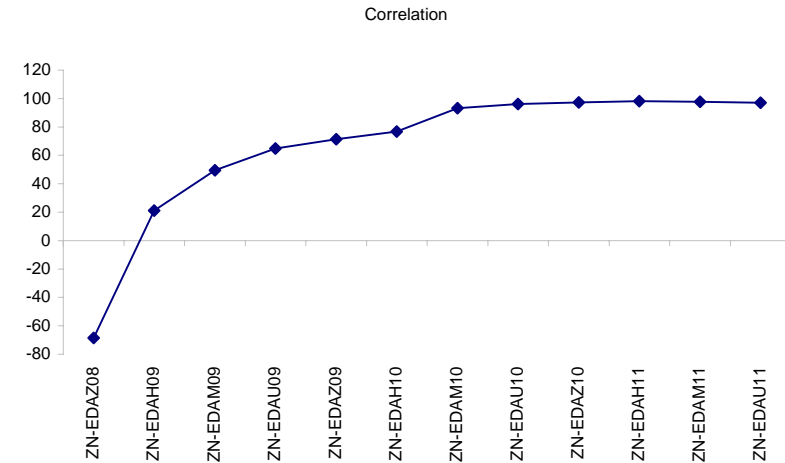
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAZ08	0.035	6.46	6.42	ZN-EDAZ08		
EDAH09	0.284	6.46	6.18	ZN-EDAH09		
EDAM09	0.534	6.46	5.93	ZN-EDAM09		
EDAU09	0.783	6.46	5.68	ZN-EDAU09		
EDAZ09	1.032	6.46	5.43	ZN-EDAZ09		
EDAH10	1.282	6.46	5.18	ZN-EDAH10		
EDAM10	1.531	6.46	4.93	ZN-EDAM10		
EDAU10	1.780	6.46	4.68	ZN-EDAU10		
EDAZ10	2.029	6.46	4.43	ZN-EDAZ10		
EDAH11	2.279	6.46	4.18	ZN-EDAH11		
EDAM11	2.528	6.46	3.93	ZN-EDAM11		
EDAU11	2.797	6.46	3.68	ZN-EDAU11		

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

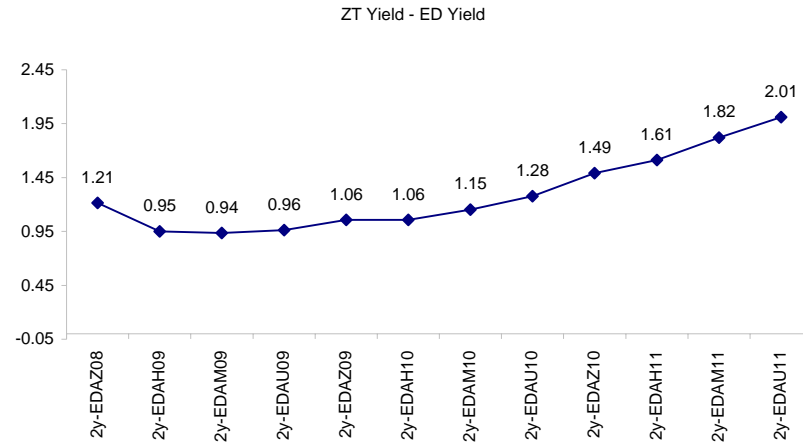


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	2.827	1.21	2y-EDAZ08	22.308
EDAH09	2.564	0.95	2y-EDAH09	-63.133
EDAM09	2.549	0.94	2y-EDAM09	-76.228
EDAU09	2.574	0.96	2y-EDAU09	-83.892
EDAZ09	2.669	1.06	2y-EDAZ09	-87.531
EDAH10	2.669	1.06	2y-EDAH10	-88.697
EDAM10	2.764	1.15	2y-EDAM10	-87.726
EDAU10	2.889	1.28	2y-EDAU10	-86.634
EDAZ10	3.104	1.49	2y-EDAZ10	-84.863
EDAH11	3.224	1.61	2y-EDAH11	-81.661
EDAM11	3.434	1.82	2y-EDAM11	-79.495
EDAU11	3.624	2.01	2y-EDAU11	-78.168

Price = Outright Decimal Price - Euro Contract Price

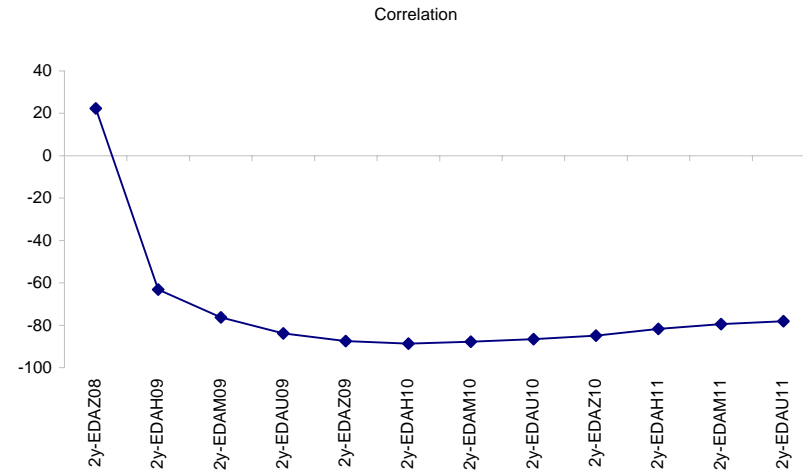
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAZ08	0.035	1.96	1.93	2y-EDAZ08	
EDAH09	0.284	1.96	1.68	2y-EDAH09	
EDAM09	0.534	1.96	1.43	2y-EDAM09	
EDAU09	0.783	1.96	1.18	2y-EDAU09	
EDAZ09	1.032	1.96	0.93	2y-EDAZ09	
EDAH10	1.282	1.96	0.68	2y-EDAH10	
EDAM10	1.531	1.96	0.43	2y-EDAM10	
EDAU10	1.780	1.96	0.18	2y-EDAU10	
EDAZ10	2.029	1.96	(0.06)	2y-EDAZ10	
EDAH11	2.279	1.96	(0.31)	2y-EDAH11	
EDAM11	2.528	1.96	(0.56)	2y-EDAM11	
EDAU11	2.797	1.96	(0.83)	2y-EDAU11	

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

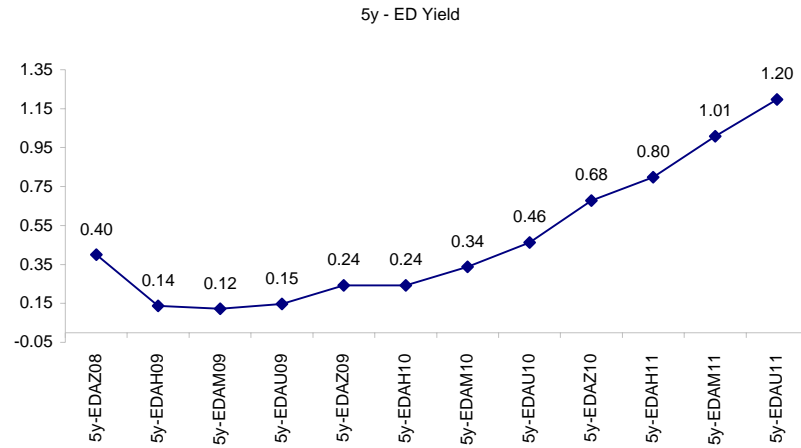


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.546	0.40	5y-EDAZ08	32.179
EDAH09	3.283	0.14	5y-EDAH09	-65.649
EDAM09	3.268	0.12	5y-EDAM09	-82.245
EDAU09	3.293	0.15	5y-EDAU09	-89.845
EDAZ09	3.388	0.24	5y-EDAZ09	-93.528
EDAH10	3.388	0.24	5y-EDAH10	-95.931
EDAM10	3.483	0.34	5y-EDAM10	-97.291
EDAU10	3.608	0.46	5y-EDAU10	-97.499
EDAZ10	3.823	0.68	5y-EDAZ10	-97.148
EDAH11	3.943	0.80	5y-EDAH11	-95.717
EDAM11	4.153	1.01	5y-EDAM11	-94.590
EDAU11	4.343	1.20	5y-EDAU11	-93.815

Price = Outright Decimal Price - Euro Contract Price

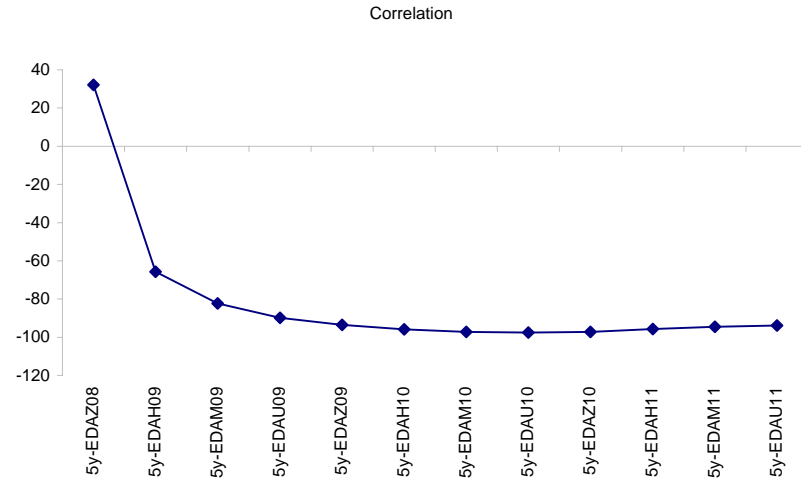
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAZ08	0.035	4.74	4.70	5y-EDAZ08	
EDAH09	0.284	4.74	4.45	5y-EDAH09	
EDAM09	0.534	4.74	4.20	5y-EDAM09	
EDAU09	0.783	4.74	3.95	5y-EDAU09	
EDAZ09	1.032	4.74	3.70	5y-EDAZ09	
EDAH10	1.282	4.74	3.46	5y-EDAH10	
EDAM10	1.531	4.74	3.21	5y-EDAM10	
EDAU10	1.780	4.74	2.96	5y-EDAU10	
EDAZ10	2.029	4.74	2.71	5y-EDAZ10	
EDAH11	2.279	4.74	2.46	5y-EDAH11	
EDAM11	2.528	4.74	2.21	5y-EDAM11	
EDAU11	2.797	4.74	1.94	5y-EDAU11	

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

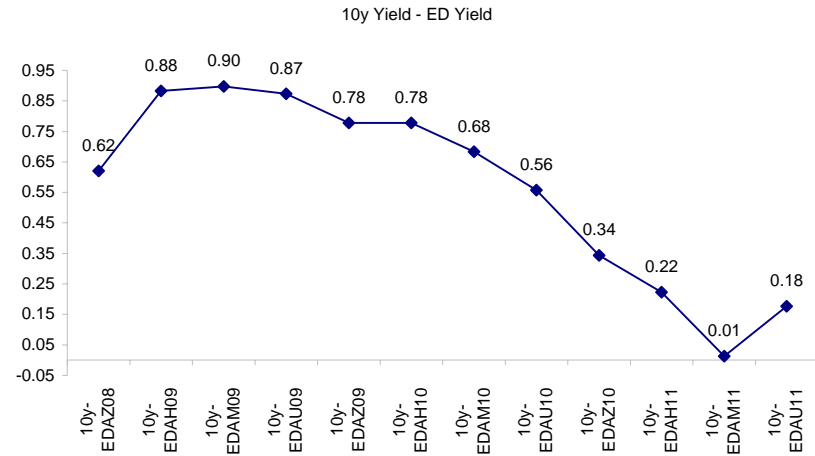


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ08	3.546	0.62	10y-EDAZ08	43.784
EDAH09	3.283	0.88	10y-EDAH09	-48.865
EDAM09	3.268	0.90	10y-EDAM09	-68.203
EDAU09	3.293	0.87	10y-EDAU09	-77.932
EDAZ09	3.388	0.78	10y-EDAZ09	-82.577
EDAH10	3.388	0.78	10y-EDAH10	-86.945
EDAM10	3.483	0.68	10y-EDAM10	-92.740
EDAU10	3.608	0.56	10y-EDAU10	-95.525
EDAZ10	3.823	0.34	10y-EDAZ10	-96.564
EDAH11	3.943	0.22	10y-EDAH11	-97.683
EDAM11	4.153	0.01	10y-EDAM11	-98.232
EDAU11	4.343	0.18	10y-EDAU11	-98.465

Price = Outright Decimal Price - Euro Contract Price

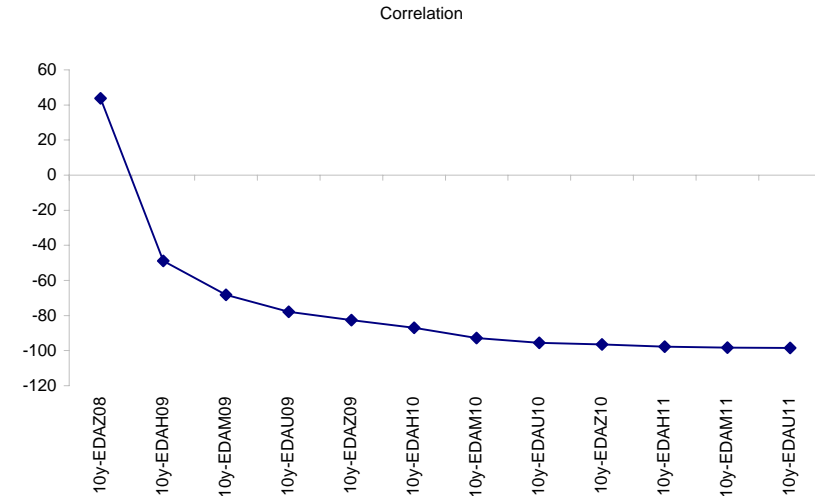
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as			
	Fraction of year	10Y Duration	Spread Duration
EDAZ08	0.035	8.35	8.31
EDAH09	0.284	8.35	8.06
EDAM09	0.534	8.35	7.81
EDAU09	0.783	8.35	7.56
EDAZ09	1.032	8.35	7.32
EDAH10	1.282	8.35	7.07
EDAM10	1.531	8.35	6.82
EDAU10	1.780	8.35	6.57
EDAZ10	2.029	8.35	6.32
EDAH11	2.279	8.35	6.07
EDAM11	2.528	8.35	5.82
EDAU11	2.797	8.35	5.55

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



Dirty TED Curve

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.

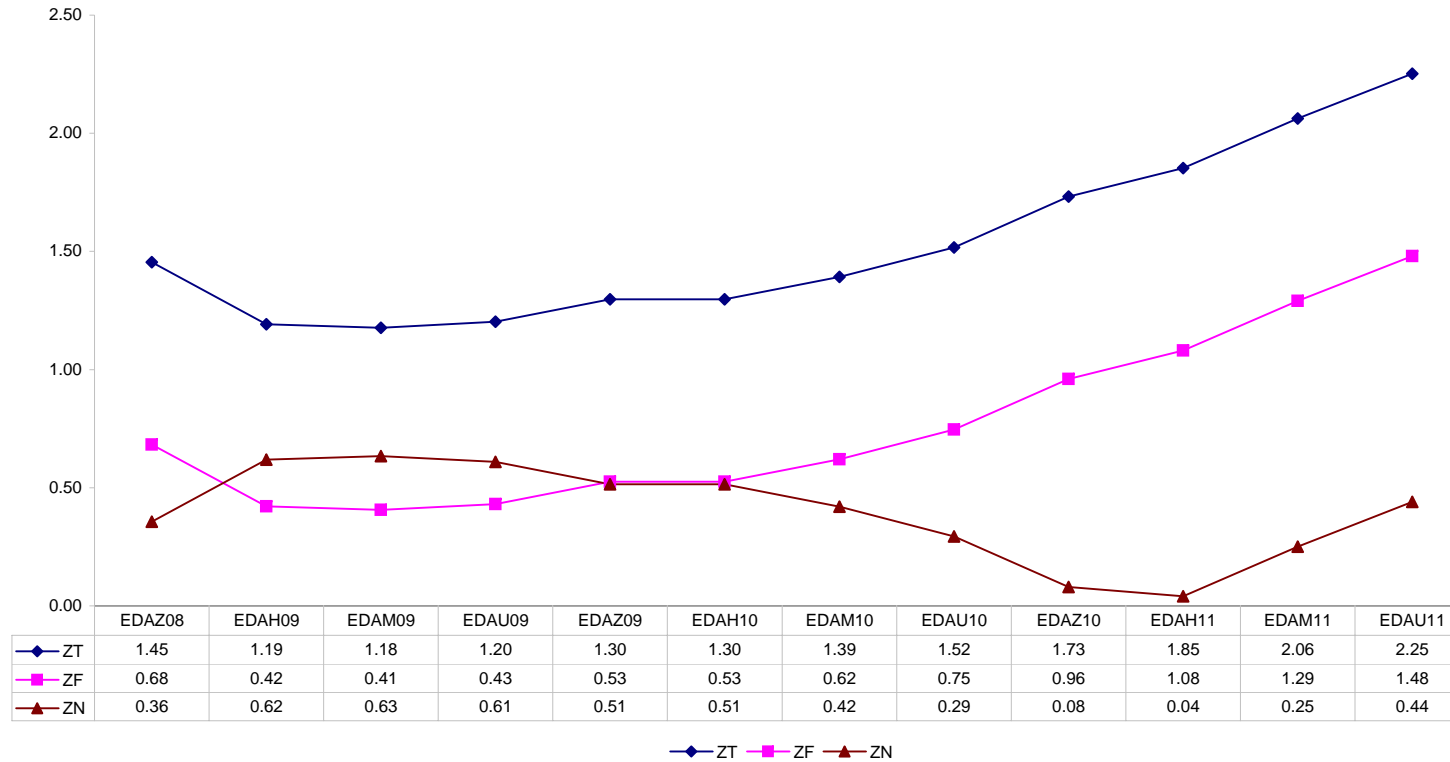
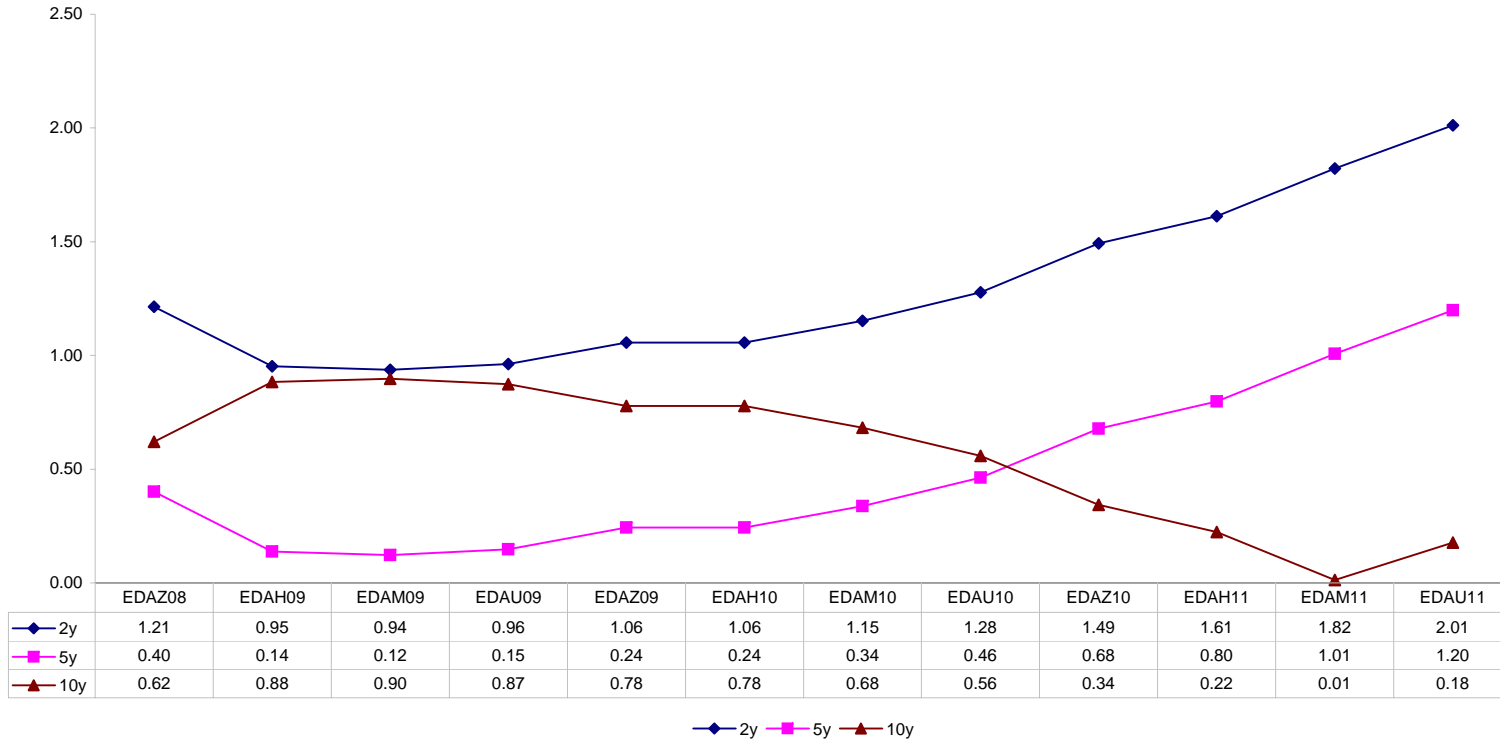
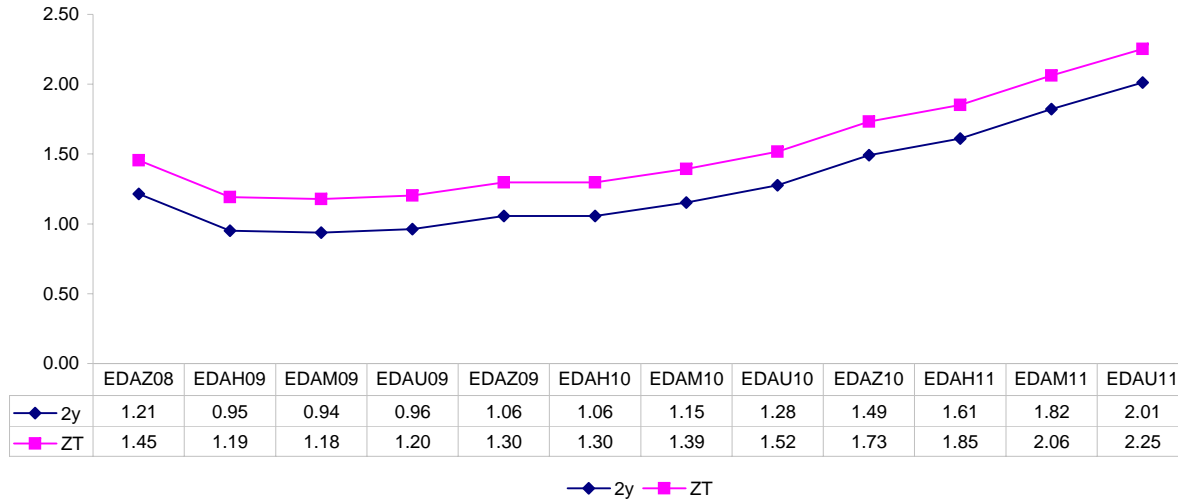


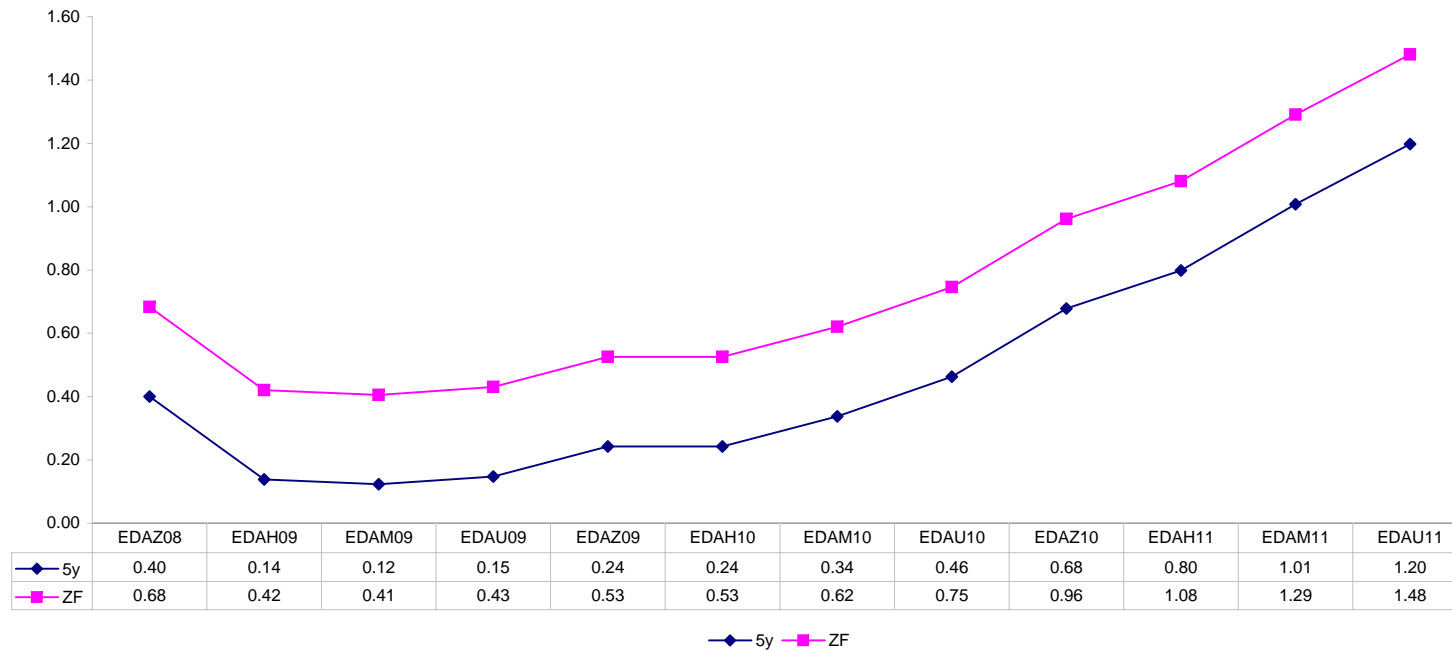
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



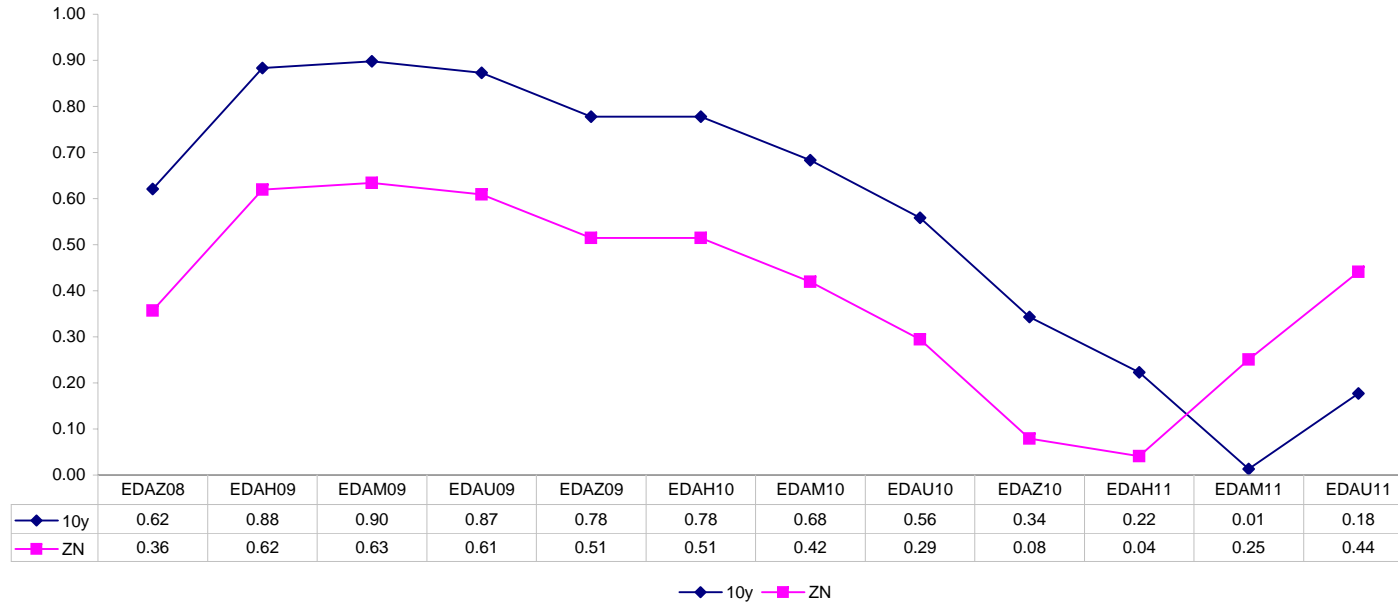
2y Basis TED Curve



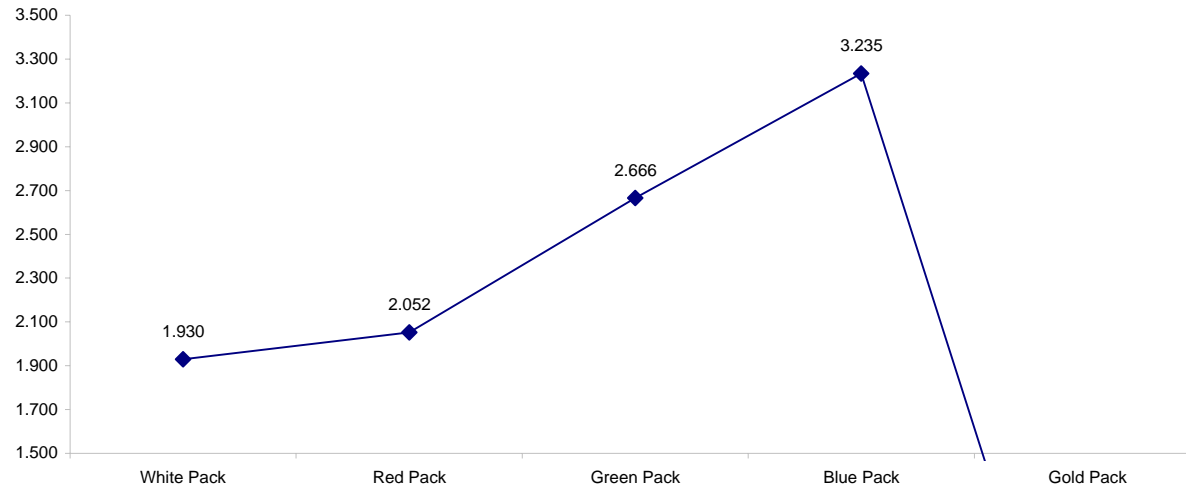
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	1.930	2.250	9810.563
Red Pack	2.052	-0.750	9798.625
Green Pack	2.666	2.750	9738.750
Blue Pack	3.235	3.375	9683.500
Gold Pack		0.000	9653.125



2y, 5y, 10y Basis Curves vs ED

