

The Morning Email: TERM TEDS & Dirty TEDS

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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	105.7656	105.245	2.400	1.92
ZF	111.0531	111.017	3.089	4.14
ZN	114.2031	114.065	3.506	6.01
2y	100.406	100.1300	2.411	1.92
5y	101.453	101.1450	3.183	4.55
10y	99.906	99.2900	3.884	8.17

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.320	2.680	12	0.032	JUN
EDAU08	97.225	2.775	103	0.282	SEP White
EDAZ08	97.035	2.965	194	0.531	DEC Pack
EDAH09	96.910	3.090	285	0.780	MAR
EDAM09	96.705	3.295	376	1.029	JUN
EDAU09	96.490	3.510	467	1.279	SEP Red Pack
EDAZ09	96.255	3.745	558	1.528	DEC
EDAH10	96.085	3.915	649	1.777	MAR
EDAM10	95.915	4.085	740	2.027	JUN
EDAU10	95.770	4.230	831	2.276	SEP Green
EDAZ10	95.620	4.380	922	2.525	DEC Pack
EDAH11	95.540	4.460	1013	2.775	MAR
EDAM11	95.450	4.550	1104	3.024	JUN
EDAU11	95.380	4.620	1202	3.292	SEP Blue Pack
EDAZ11	95.325	4.675	1293	3.542	DEC
EDAH12	95.280	4.720	1384	3.791	MAR
EDAM12	95.260	4.740	1475	4.040	JUN
EDAU12	95.195	4.805	1566	4.290	SEP Gold Pack
EDAZ12	95.130	4.870	1657	4.539	DEC
EDAH13	95.095	4.905	1748	4.788	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.939	0.062	9712.250	Pack Prices
Red Pack	3.700	0.750	9638.375	
Green Pack	4.395	0.000	9571.125	
Blue Pack		-0.375	9537.375	
Gold Pack		0.000	9517.750	

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.

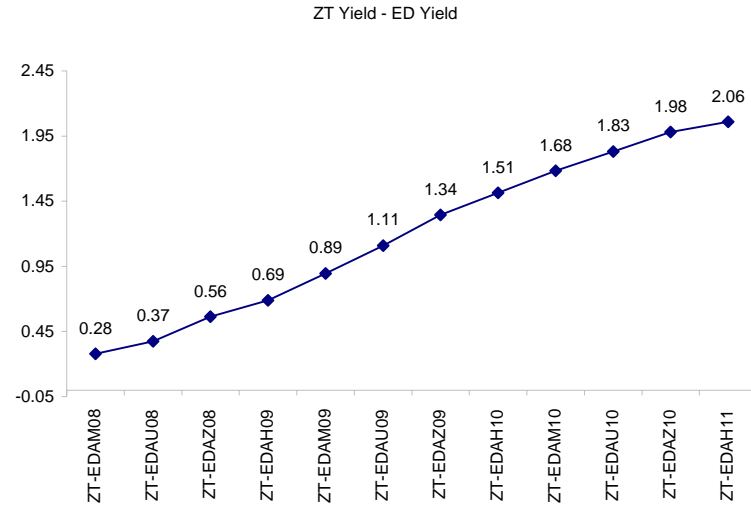
jgoulding@ghco.com

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.

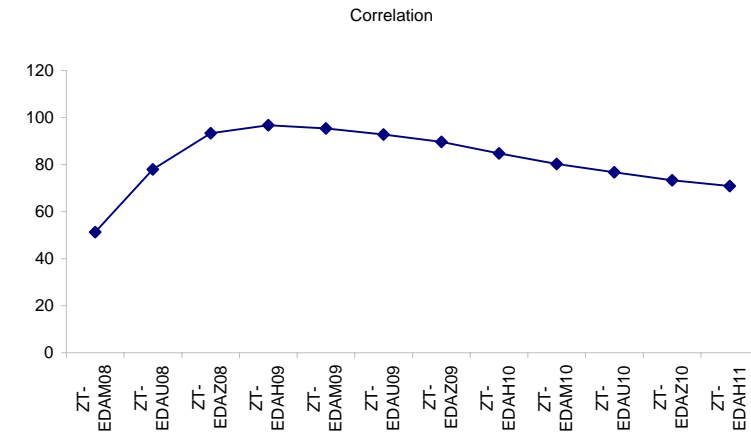
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.446	0.28	ZT-EDAM08	51.272
EDAU08	8.541	0.37	ZT-EDAU08	77.980
EDAZ08	8.731	0.56	ZT-EDAZ08	93.343
EDAH09	8.856	0.69	ZT-EDAH09	96.748
EDAM09	9.061	0.89	ZT-EDAM09	95.311
EDAU09	9.276	1.11	ZT-EDAU09	92.813
EDAZ09	9.511	1.34	ZT-EDAZ09	89.709
EDAH10	9.681	1.51	ZT-EDAH10	84.735
EDAM10	9.851	1.68	ZT-EDAM10	80.339
EDAU10	9.996	1.83	ZT-EDAU10	76.721
EDAZ10	10.146	1.98	ZT-EDAZ10	73.295
EDAH11	10.226	2.06	ZT-EDAH11	70.869

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	
EDAM08	0.032	1.92	1.89	ZT-EDAM08		
EDAU08	0.282	1.92	1.64	ZT-EDAU08		
EDAZ08	0.531	1.92	1.39	ZT-EDAZ08		
EDAH09	0.780	1.92	1.14	ZT-EDAH09		
EDAM09	1.029	1.92	0.89	ZT-EDAM09		
EDAU09	1.279	1.92	0.64	ZT-EDAU09		
EDAZ09	1.528	1.92	0.39	ZT-EDAZ09		
EDAH10	1.777	1.92	0.14	ZT-EDAH10		
EDAM10	2.027	1.92	(0.11)	ZT-EDAM10		
EDAU10	2.276	1.92	(0.36)	ZT-EDAU10		
EDAZ10	2.525	1.92	(0.61)	ZT-EDAZ10		
EDAH11	2.775	1.92	(0.86)	ZT-EDAH11		

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

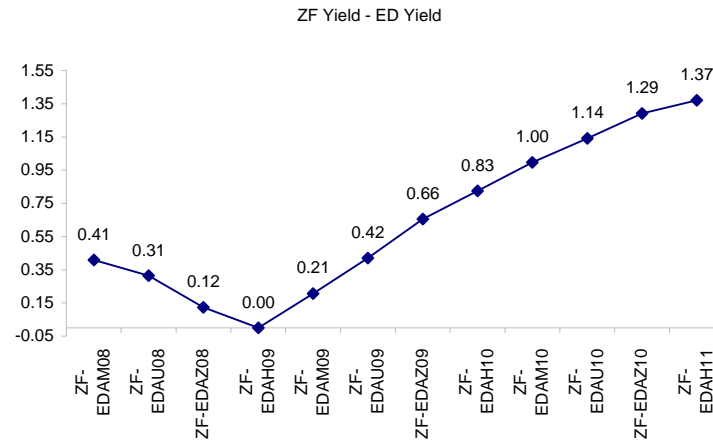


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	13.733	0.41	ZF-EDAM08	73.230
EDAU08	13.828	0.31	ZF-EDAU08	91.919
EDAZ08	14.018	0.12	ZF-EDAZ08	98.585
EDAH09	14.143	0.00	ZF-EDAH09	97.644
EDAM09	14.348	0.21	ZF-EDAM09	98.494
EDAU09	14.563	0.42	ZF-EDAU09	98.778
EDAZ09	14.798	0.66	ZF-EDAZ09	98.436
EDAH10	14.968	0.83	ZF-EDAH10	97.063
EDAM10	15.138	1.00	ZF-EDAM10	95.283
EDAU10	15.283	1.14	ZF-EDAU10	93.674
EDAZ10	15.433	1.29	ZF-EDAZ10	91.873
EDAH11	15.513	1.37	ZF-EDAH11	90.192

Price = Outright Decimal Price - Euro Contract Price

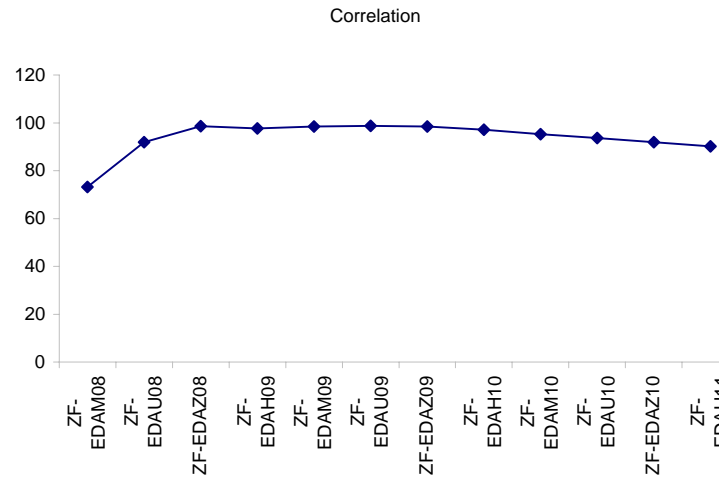
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.032	4.14	4.10	ZF-EDAM08	
EDAU08	0.282	4.14	3.86	ZF-EDAU08	
EDAZ08	0.531	4.14	3.61	ZF-EDAZ08	
EDAH09	0.780	4.14	3.36	ZF-EDAH09	
EDAM09	1.029	4.14	3.11	ZF-EDAM09	
EDAU09	1.279	4.14	2.86	ZF-EDAU09	
EDAZ09	1.528	4.14	2.61	ZF-EDAZ09	
EDAH10	1.777	4.14	2.36	ZF-EDAH10	
EDAM10	2.027	4.14	2.11	ZF-EDAM10	
EDAU10	2.276	4.14	1.86	ZF-EDAU10	
EDAZ10	2.525	4.14	1.61	ZF-EDAZ10	
EDAH11	2.775	4.14	1.36	ZF-EDAH11	

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

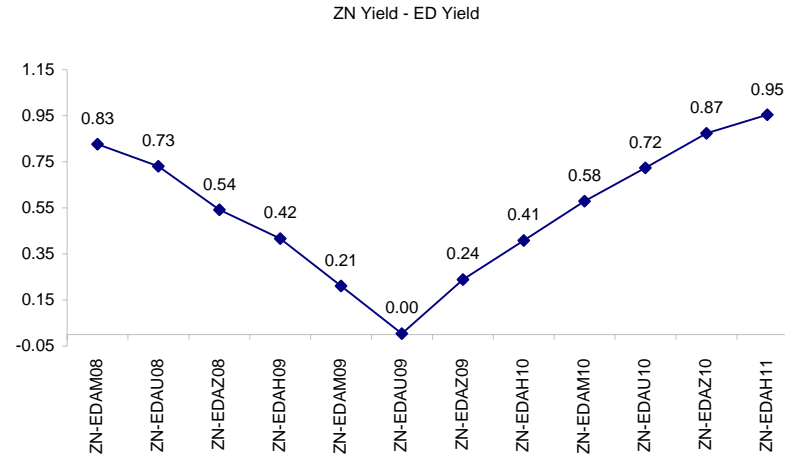


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	16.883	0.83	ZN-EDAM08	72.380
EDAU08	16.978	0.73	ZN-EDAU08	90.953
EDAZ08	17.168	0.54	ZN-EDAZ08	98.748
EDAH09	17.293	0.42	ZN-EDAH09	98.410
EDAM09	17.498	0.21	ZN-EDAM09	99.223
EDAU09	17.713	0.00	ZN-EDAU09	99.403
EDAZ09	17.948	0.24	ZN-EDAZ09	98.869
EDAH10	18.118	0.41	ZN-EDAH10	97.063
EDAM10	18.288	0.58	ZN-EDAM10	95.283
EDAU10	18.433	0.72	ZN-EDAU10	93.674
EDAZ10	18.583	0.87	ZN-EDAZ10	91.873
EDAH11	18.663	0.95	ZN-EDAH11	90.192

Price = Outright Decimal Price - Euro Contract Price

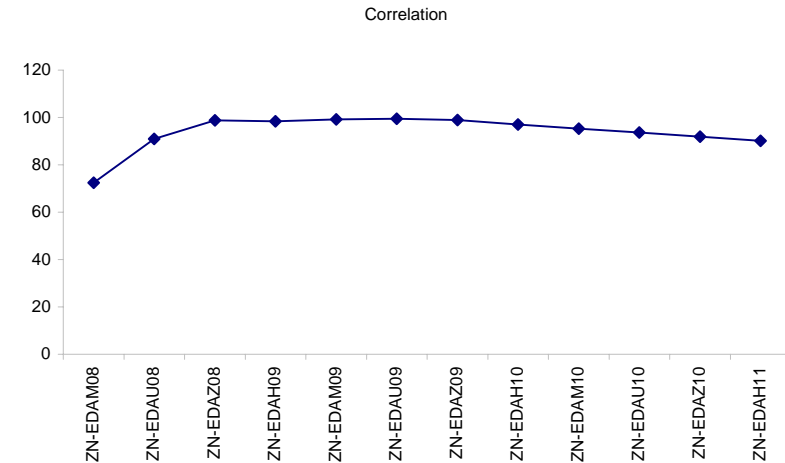
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAM08	0.032	6.01	5.98	ZN-EDAM08		
EDAU08	0.282	6.01	5.73	ZN-EDAU08		
EDAZ08	0.531	6.01	5.48	ZN-EDAZ08		
EDAH09	0.780	6.01	5.23	ZN-EDAH09		
EDAM09	1.029	6.01	4.98	ZN-EDAM09		
EDAU09	1.279	6.01	4.73	ZN-EDAU09		
EDAZ09	1.528	6.01	4.48	ZN-EDAZ09		
EDAH10	1.777	6.01	4.23	ZN-EDAH10		
EDAM10	2.027	6.01	3.98	ZN-EDAM10		
EDAU10	2.276	6.01	3.73	ZN-EDAU10		
EDAZ10	2.525	6.01	3.48	ZN-EDAZ10		
EDAH11	2.775	6.01	3.23	ZN-EDAH11		

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

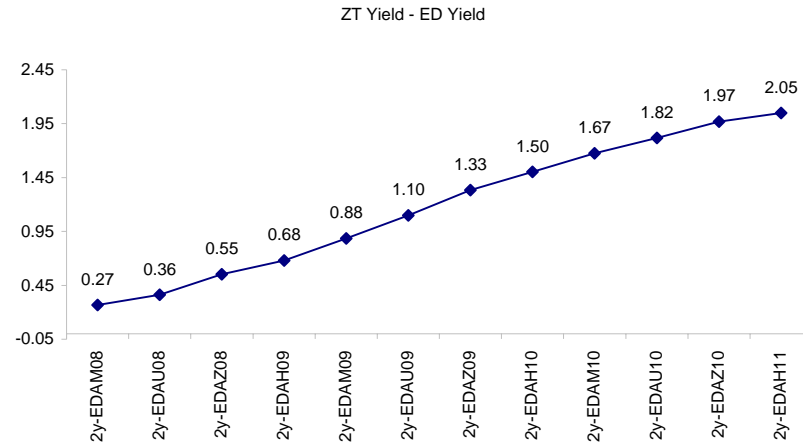


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	3.086	0.27	2y-EDAM08	-71.288
EDAU08	3.181	0.36	2y-EDAU08	-85.116
EDAZ08	3.371	0.55	2y-EDAZ08	-96.247
EDAH09	3.496	0.68	2y-EDAH09	-98.136
EDAM09	3.701	0.88	2y-EDAM09	-98.474
EDAU09	3.916	1.10	2y-EDAU09	-97.933
EDAZ09	4.151	1.33	2y-EDAZ09	-96.763
EDAH10	4.321	1.50	2y-EDAH10	-94.436
EDAM10	4.491	1.67	2y-EDAM10	-92.105
EDAU10	4.636	1.82	2y-EDAU10	-90.265
EDAZ10	4.786	1.97	2y-EDAZ10	-88.252
EDAH11	4.866	2.05	2y-EDAH11	-87.730

Price = Outright Decimal Price - Euro Contract Price

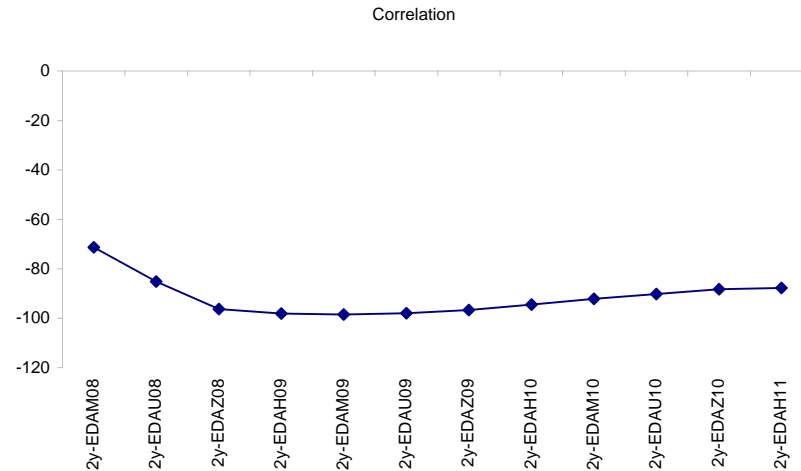
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAM08	0.032	1.92	1.89		2y-EDAM08
EDAU08	0.282	1.92	1.64		2y-EDAU08
EDAZ08	0.531	1.92	1.39		2y-EDAZ08
EDAH09	0.780	1.92	1.14		2y-EDAH09
EDAM09	1.029	1.92	0.90		2y-EDAM09
EDAU09	1.279	1.92	0.65		2y-EDAU09
EDAZ09	1.528	1.92	0.40		2y-EDAZ09
EDAH10	1.777	1.92	0.15		2y-EDAH10
EDAM10	2.027	1.92	(0.10)		2y-EDAM10
EDAU10	2.276	1.92	(0.35)		2y-EDAU10
EDAZ10	2.525	1.92	(0.60)		2y-EDAZ10
EDAH11	2.775	1.92	(0.85)		2y-EDAH11

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

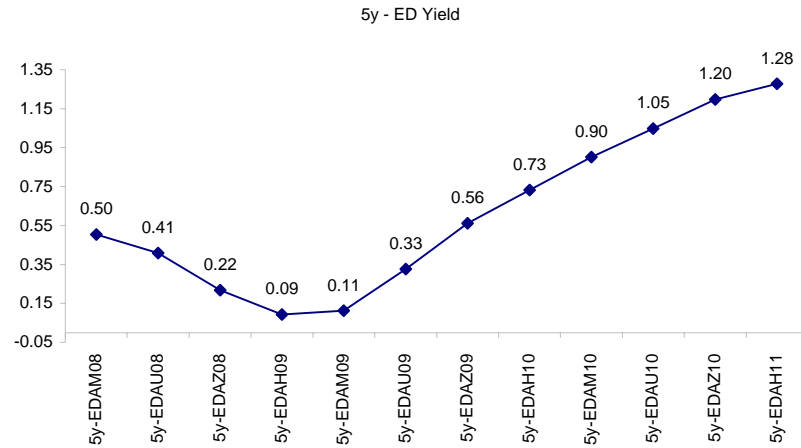


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	4.133	0.50	5y-EDAM08	-87.068
EDAU08	4.228	0.41	5y-EDAU08	-93.977
EDAZ08	4.418	0.22	5y-EDAZ08	-87.068
EDAH09	4.543	0.09	5y-EDAH09	-92.733
EDAM09	4.748	0.11	5y-EDAM09	-94.281
EDAU09	4.963	0.33	5y-EDAU09	-96.062
EDAZ09	5.198	0.56	5y-EDAZ09	-97.509
EDAH10	5.368	0.73	5y-EDAH10	-98.560
EDAM10	5.538	0.90	5y-EDAM10	-98.668
EDAU10	5.683	1.05	5y-EDAU10	-98.559
EDAZ10	5.833	1.20	5y-EDAZ10	-98.188
EDAH11	5.913	1.28	5y-EDAH11	-98.068

Price = Outright Decimal Price - Euro Contract Price

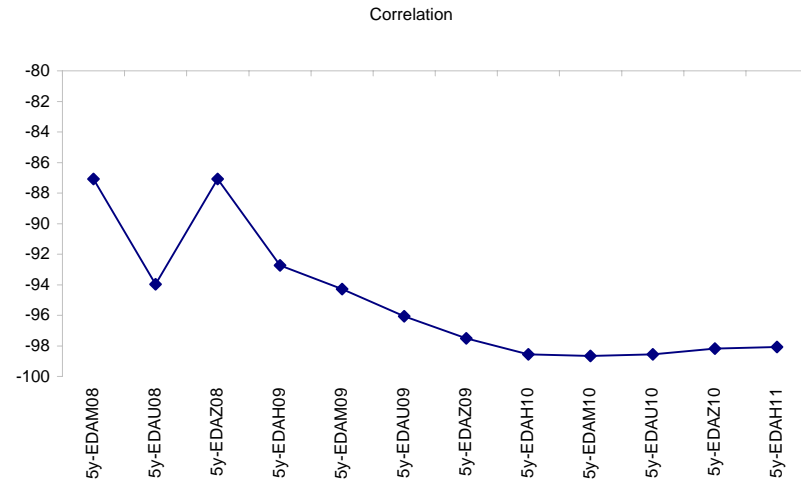
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.032	4.55	4.52	5y-EDAM08
EDAU08	0.282	4.55	4.27	5y-EDAU08
EDAZ08	0.531	4.55	4.02	5y-EDAZ08
EDAH09	0.780	4.55	3.77	5y-EDAH09
EDAM09	1.029	4.55	3.52	5y-EDAM09
EDAU09	1.279	4.55	3.27	5y-EDAU09
EDAZ09	1.528	4.55	3.02	5y-EDAZ09
EDAH10	1.777	4.55	2.77	5y-EDAH10
EDAM10	2.027	4.55	2.52	5y-EDAM10
EDAU10	2.276	4.55	2.27	5y-EDAU10
EDAZ10	2.525	4.55	2.02	5y-EDAZ10
EDAH11	2.775	4.55	1.77	5y-EDAH11

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

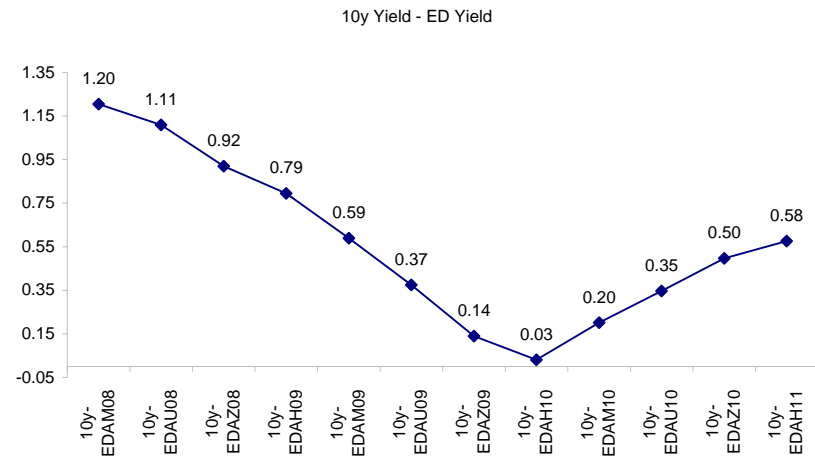


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	4.133	1.20	10y-EDAM08	-88.260
EDAU08	4.228	1.11	10y-EDAU08	-94.255
EDAZ08	4.418	0.92	10y-EDAZ08	-88.260
EDAH09	4.543	0.79	10y-EDAH09	-91.915
EDAM09	4.748	0.59	10y-EDAM09	-93.679
EDAU09	4.963	0.37	10y-EDAU09	-95.698
EDAZ09	5.198	0.14	10y-EDAZ09	-97.285
EDAH10	5.368	0.03	10y-EDAH10	-98.549
EDAM10	5.538	0.20	10y-EDAM10	-98.866
EDAU10	5.683	0.35	10y-EDAU10	-98.969
EDAZ10	5.833	0.50	10y-EDAZ10	-98.673
EDAH11	5.913	0.58	10y-EDAH11	-98.627

Price = Outright Decimal Price - Euro Contract Price

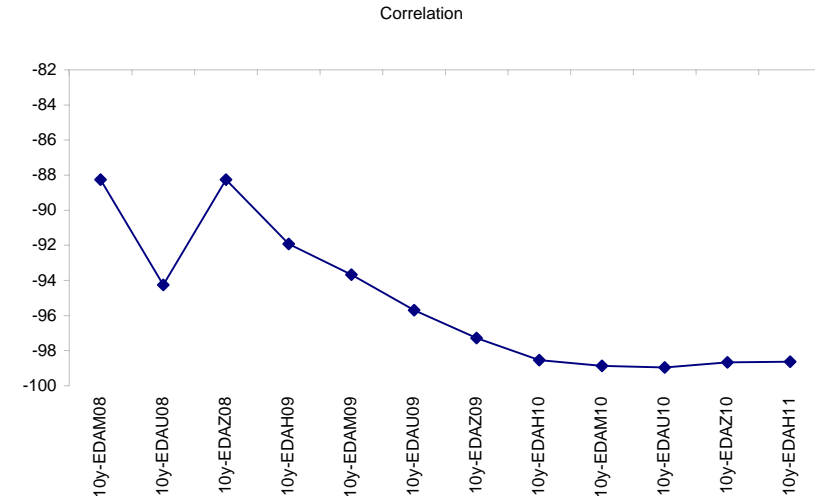
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAM08	0.032	8.17	8.14	10y-EDAM08
EDAU08	0.282	8.17	7.89	10y-EDAU08
EDAZ08	0.531	8.17	7.64	10y-EDAZ08
EDAH09	0.780	8.17	7.39	10y-EDAH09
EDAM09	1.029	8.17	7.14	10y-EDAM09
EDAU09	1.279	8.17	6.89	10y-EDAU09
EDAZ09	1.528	8.17	6.64	10y-EDAZ09
EDAH10	1.777	8.17	6.39	10y-EDAH10
EDAM10	2.027	8.17	6.14	10y-EDAM10
EDAU10	2.276	8.17	5.89	10y-EDAU10
EDAZ10	2.525	8.17	5.64	10y-EDAZ10
EDAH11	2.775	8.17	5.39	10y-EDAH11

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.

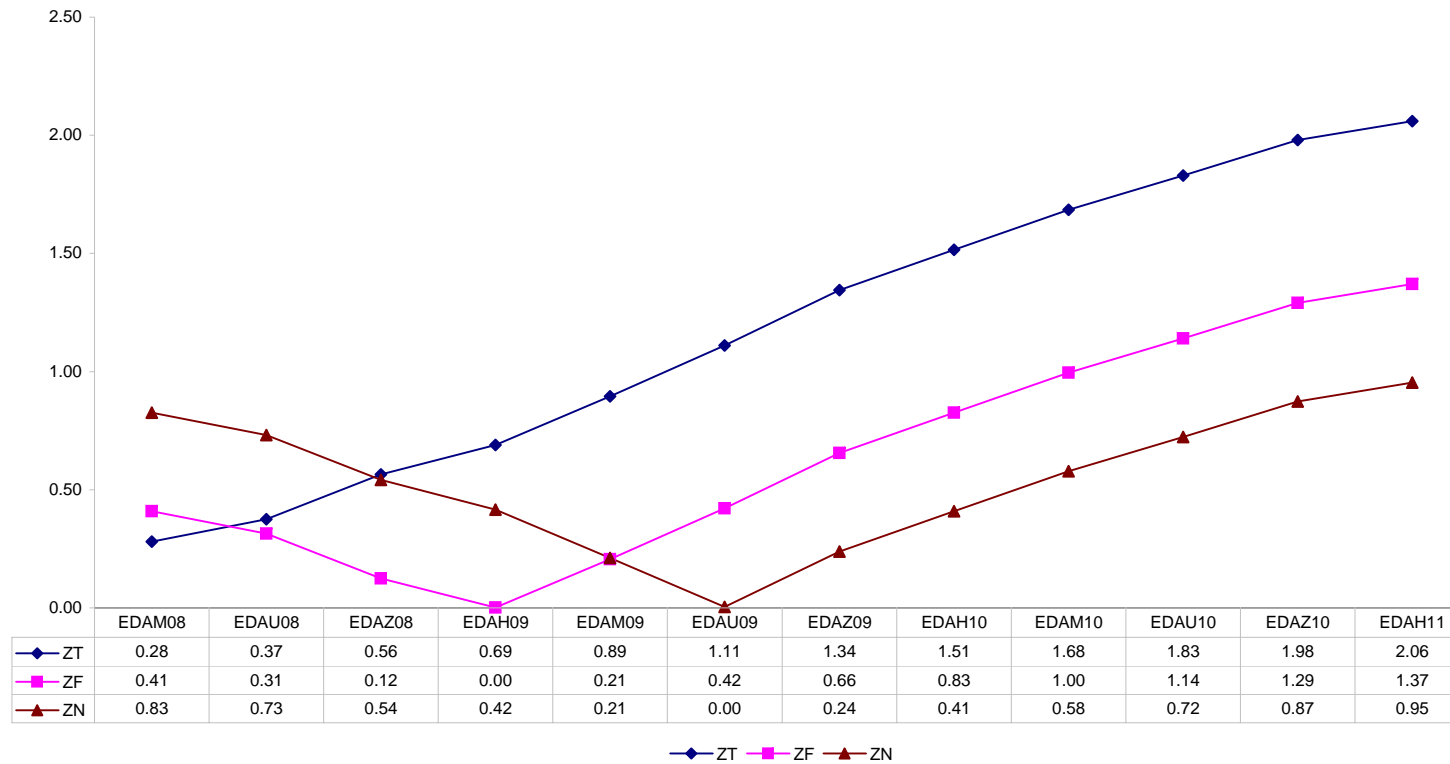
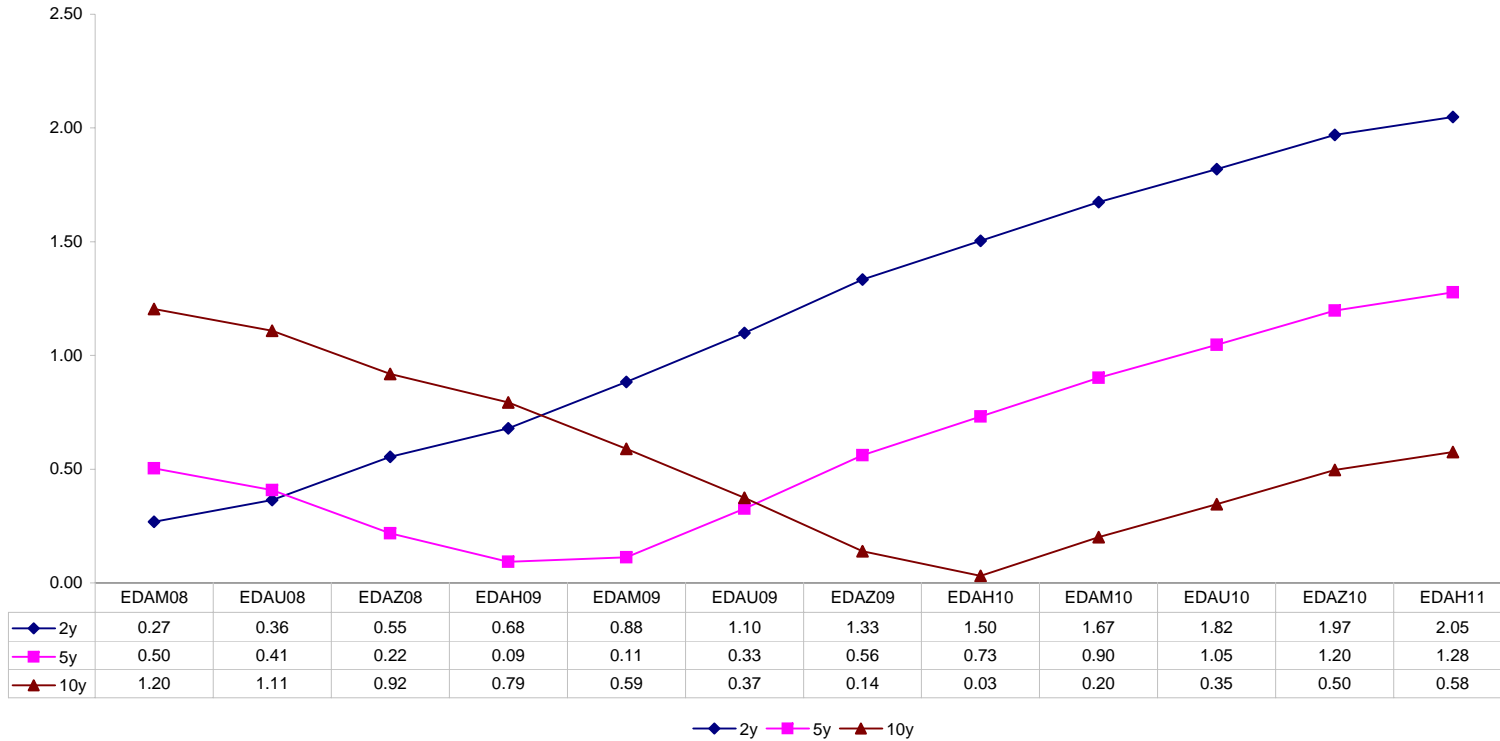
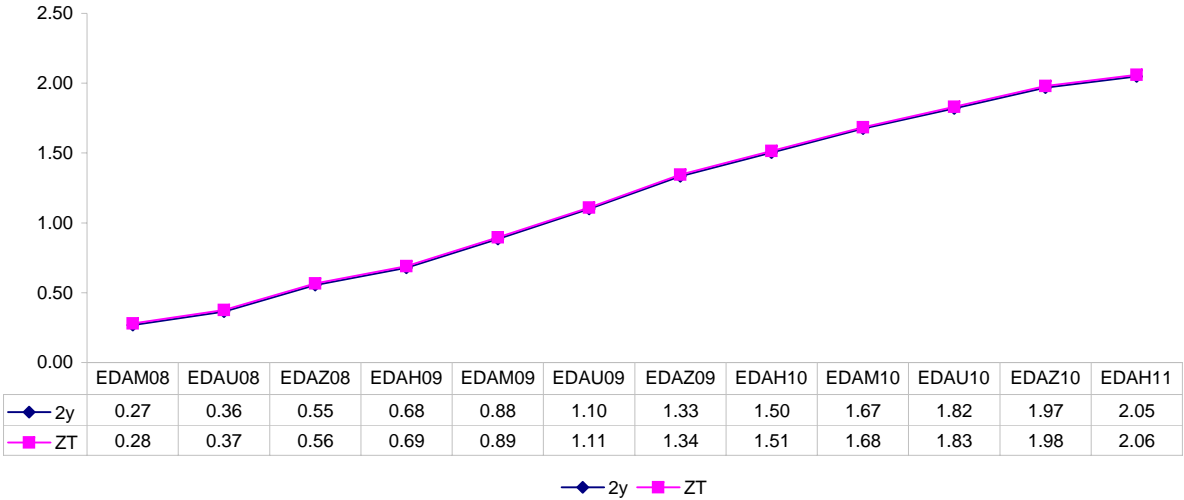


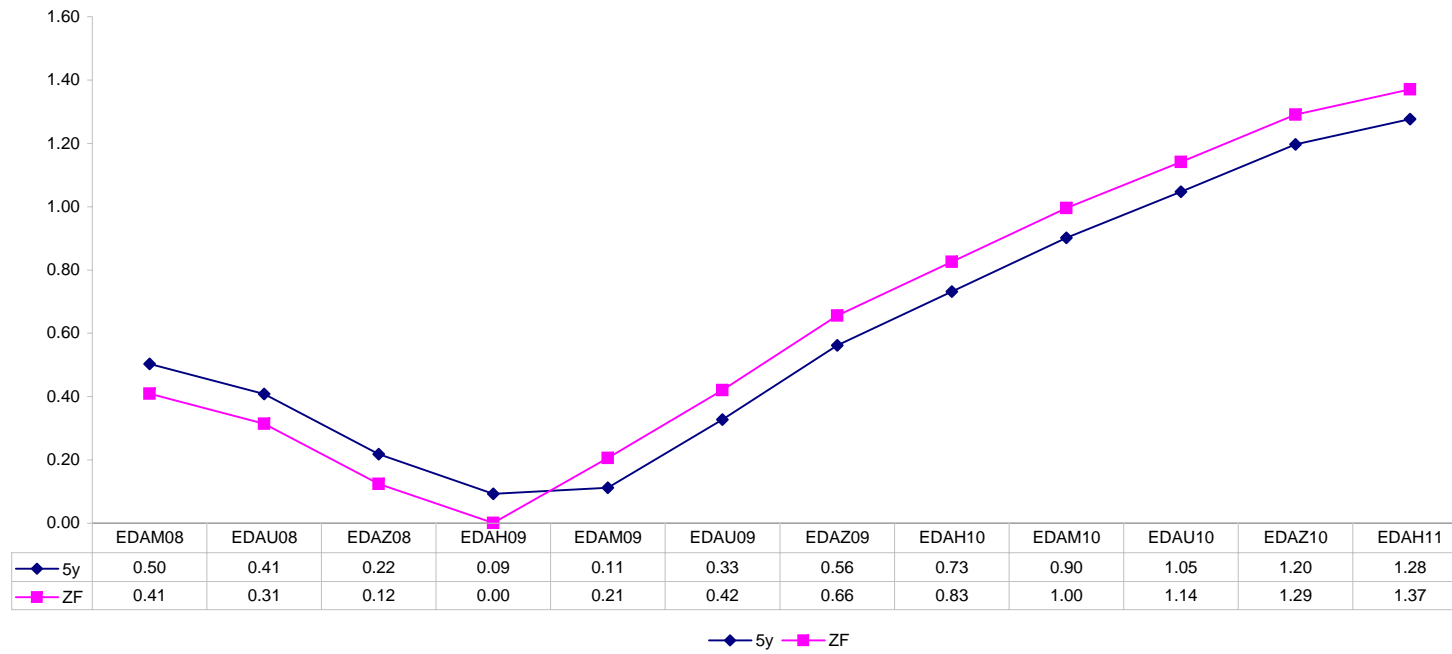
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



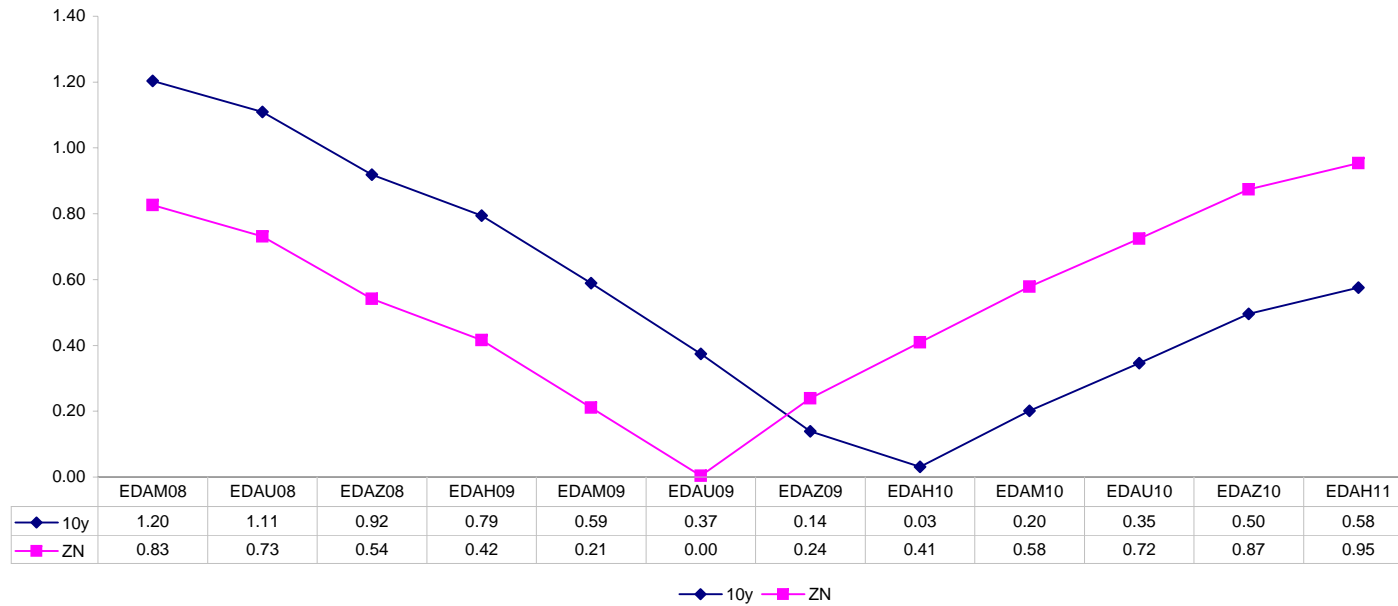
2y Basis TED Curve



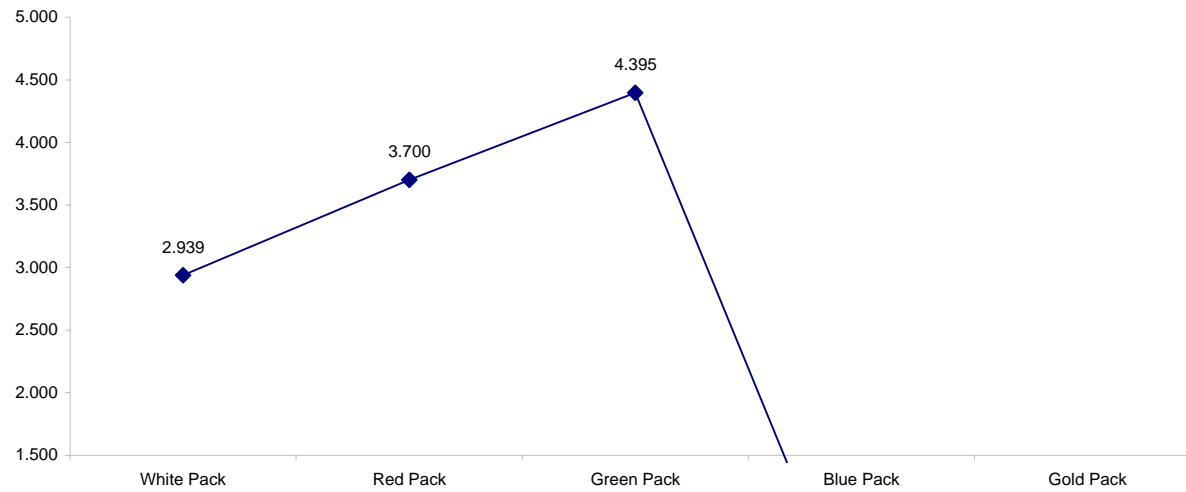
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.939	0.062	9712.250
Red Pack	3.700	0.750	9638.375
Green Pack	4.395	0.000	9571.125
Blue Pack		-0.375	9537.375
Gold Pack		0.000	9517.750



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

