

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	106.3750	106.120	2.170	1.97
ZF	112.6625	112.212	2.817	4.17
ZN	116.7031	116.225	3.313	6.33
2y	100.281	100.0900	2.229	1.90
5y	100.969	100.3100	2.914	4.57
10y	103.203	103.0650	3.613	8.15

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	97.190	2.810	5	0.013	SEP	
EDAZ08	97.125	2.875	96	0.262	DEC	White
EDAH09	97.210	2.790	187	0.512	MAR	Pack
EDAM09	97.095	2.905	278	0.761	JUN	
EDAU09	96.915	3.085	369	1.010	SEP	
EDAZ09	96.655	3.345	460	1.260	DEC	Red
EDAH10	96.505	3.495	551	1.509	MAR	Pack
EDAM10	96.315	3.685	642	1.758	JUN	
EDAU10	96.155	3.845	733	2.008	SEP	
EDAZ10	96.010	3.990	824	2.257	DEC	Green
EDAH11	95.935	4.065	915	2.506	MAR	Pack
EDAM11	95.855	4.145	1006	2.755	JUN	
EDAU11	95.790	4.210	1104	3.024	SEP	
EDAZ11	95.735	4.265	1195	3.273	DEC	Blue Pack
EDAH12	95.710	4.290	1286	3.523	MAR	
EDAM12	95.660	4.340	1377	3.772	JUN	
EDAU12	95.540	4.460	1468	4.021	SEP	
EDAZ12	95.510	4.490	1559	4.271	DEC	Gold Pack
EDAH13	95.490	4.510	1650	4.520	MAR	
EDAM13	95.405	4.595	1741	4.769	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	2.905	-2.187	9715.500	
Red Pack	3.479	-0.625	9659.750	Pack
Green Pack	4.108	0.625	9598.875	Prices
Blue Pack	4.382	0.125	9572.375	
Gold Pack	4.629	-5.250	9548.625	

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.

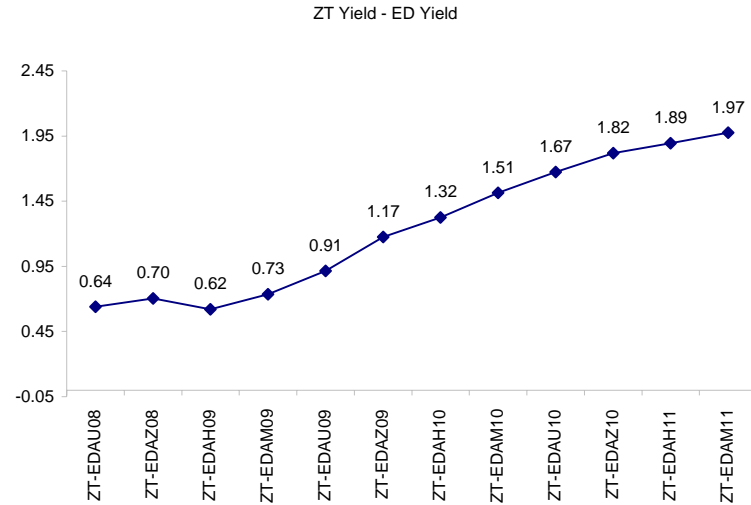
jgoulding@ghco.com

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.

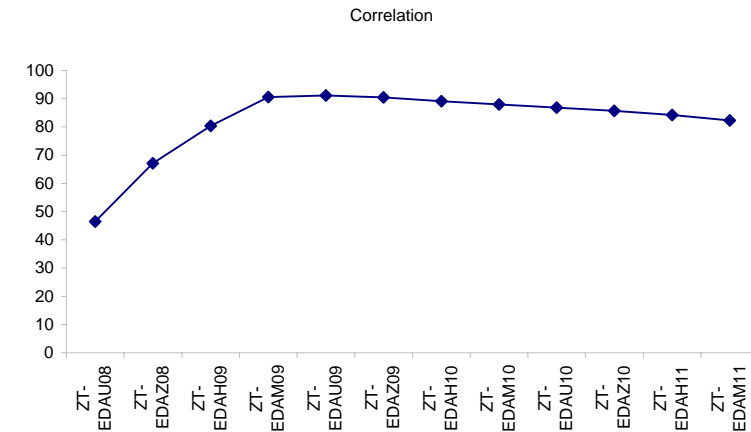
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	9.185	0.64	ZT-EDAU08	46.516
EDAZ08	9.250	0.70	ZT-EDAZ08	67.132
EDAH09	9.165	0.62	ZT-EDAH09	80.395
EDAM09	9.280	0.73	ZT-EDAM09	90.631
EDAU09	9.460	0.91	ZT-EDAU09	91.153
EDAZ09	9.720	1.17	ZT-EDAZ09	90.519
EDAH10	9.870	1.32	ZT-EDAH10	89.095
EDAM10	10.060	1.51	ZT-EDAM10	87.958
EDAU10	10.220	1.67	ZT-EDAU10	86.897
EDAZ10	10.365	1.82	ZT-EDAZ10	85.676
EDAH11	10.440	1.89	ZT-EDAH11	84.226
EDAM11	10.520	1.97	ZT-EDAM11	82.335

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	
EDAU08	0.013	1.97	1.96	ZT-EDAU08	
EDAZ08	0.262	1.97	1.71	ZT-EDAZ08	
EDAH09	0.512	1.97	1.46	ZT-EDAH09	
EDAM09	0.761	1.97	1.21	ZT-EDAM09	
EDAU09	1.010	1.97	0.96	ZT-EDAU09	
EDAZ09	1.260	1.97	0.71	ZT-EDAZ09	
EDAH10	1.509	1.97	0.46	ZT-EDAH10	
EDAM10	1.758	1.97	0.21	ZT-EDAM10	
EDAU10	2.008	1.97	(0.04)	ZT-EDAU10	
EDAZ10	2.257	1.97	(0.28)	ZT-EDAZ10	
EDAH11	2.506	1.97	(0.53)	ZT-EDAH11	
EDAM11	2.755	1.97	(0.78)	ZT-EDAM11	

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

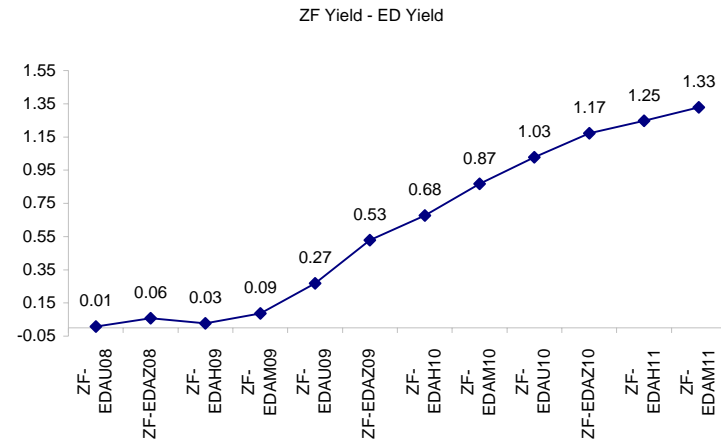


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	15.473	0.01	ZF-EDAU08	53.104
EDAZ08	15.538	0.06	ZF-EDAZ08	70.972
EDAH09	15.453	0.03	ZF-EDAH09	83.480
EDAM09	15.568	0.09	ZF-EDAM09	94.259
EDAU09	15.748	0.27	ZF-EDAU09	94.162
EDAZ09	16.008	0.53	ZF-EDAZ09	93.724
EDAH10	16.158	0.68	ZF-EDAH10	92.490
EDAM10	16.348	0.87	ZF-EDAM10	91.454
EDAU10	16.508	1.03	ZF-EDAU10	90.535
EDAZ10	16.653	1.17	ZF-EDAZ10	89.551
EDAH11	16.728	1.25	ZF-EDAH11	88.200
EDAM11	16.808	1.33	ZF-EDAM11	86.618

Price = Outright Decimal Price - Euro Contract Price

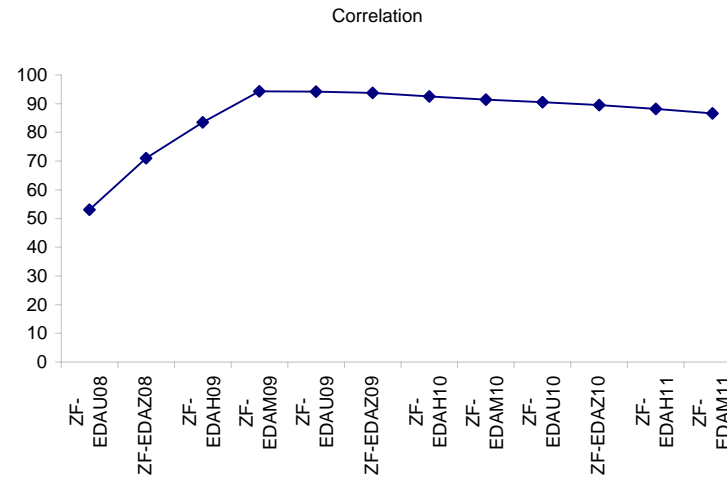
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZF Duration	Spread Duration	
EDAU08	0.013	4.17	4.16	ZF-EDAU08		
EDAZ08	0.262	4.17	3.91	ZF-EDAZ08		
EDAH09	0.512	4.17	3.66	ZF-EDAH09		
EDAM09	0.761	4.17	3.41	ZF-EDAM09		
EDAU09	1.010	4.17	3.16	ZF-EDAU09		
EDAZ09	1.260	4.17	2.91	ZF-EDAZ09		
EDAH10	1.509	4.17	2.66	ZF-EDAH10		
EDAM10	1.758	4.17	2.42	ZF-EDAM10		
EDAU10	2.008	4.17	2.17	ZF-EDAU10		
EDAZ10	2.257	4.17	1.92	ZF-EDAZ10		
EDAH11	2.506	4.17	1.67	ZF-EDAH11		
EDAM11	2.755	4.17	1.42	ZF-EDAM11		

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

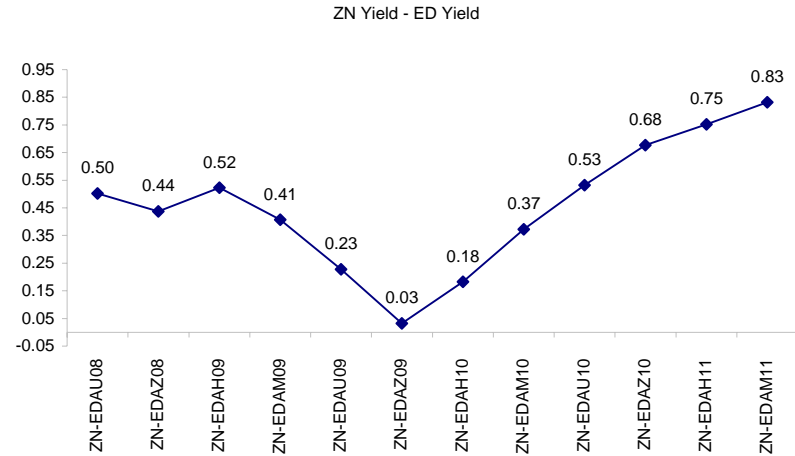


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	19.513	0.50	ZN-EDAU08	58.331
EDAZ08	19.578	0.44	ZN-EDAZ08	75.691
EDAH09	19.493	0.52	ZN-EDAH09	87.273
EDAM09	19.608	0.41	ZN-EDAM09	95.137
EDAU09	19.788	0.23	ZN-EDAU09	96.223
EDAZ09	20.048	0.03	ZN-EDAZ09	95.633
EDAH10	20.198	0.18	ZN-EDAH10	92.490
EDAM10	20.388	0.37	ZN-EDAM10	91.454
EDAU10	20.548	0.53	ZN-EDAU10	90.535
EDAZ10	20.693	0.68	ZN-EDAZ10	89.551
EDAH11	20.768	0.75	ZN-EDAH11	88.200
EDAM11	20.848	0.83	ZN-EDAM11	86.618

Price = Outright Decimal Price - Euro Contract Price

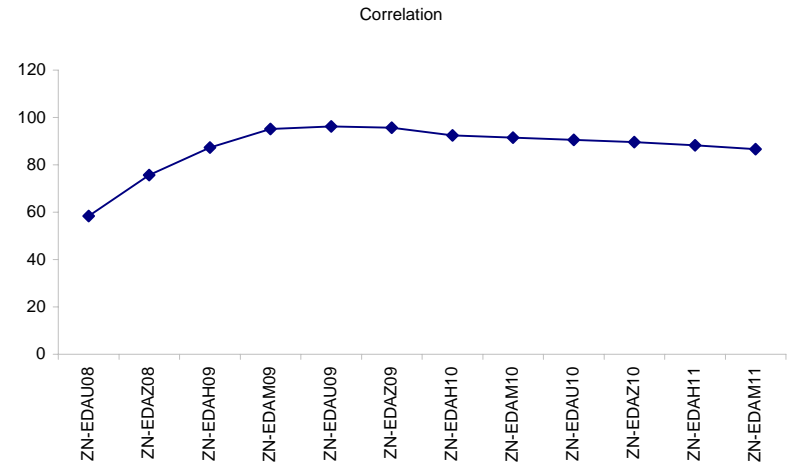
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAU08	0.013	6.33	6.31	ZN-EDAU08		
EDAZ08	0.262	6.33	6.06	ZN-EDAZ08		
EDAH09	0.512	6.33	5.81	ZN-EDAH09		
EDAM09	0.761	6.33	5.57	ZN-EDAM09		
EDAU09	1.010	6.33	5.32	ZN-EDAU09		
EDAZ09	1.260	6.33	5.07	ZN-EDAZ09		
EDAH10	1.509	6.33	4.82	ZN-EDAH10		
EDAM10	1.758	6.33	4.57	ZN-EDAM10		
EDAU10	2.008	6.33	4.32	ZN-EDAU10		
EDAZ10	2.257	6.33	4.07	ZN-EDAZ10		
EDAH11	2.506	6.33	3.82	ZN-EDAH11		
EDAM11	2.755	6.33	3.57	ZN-EDAM11		

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

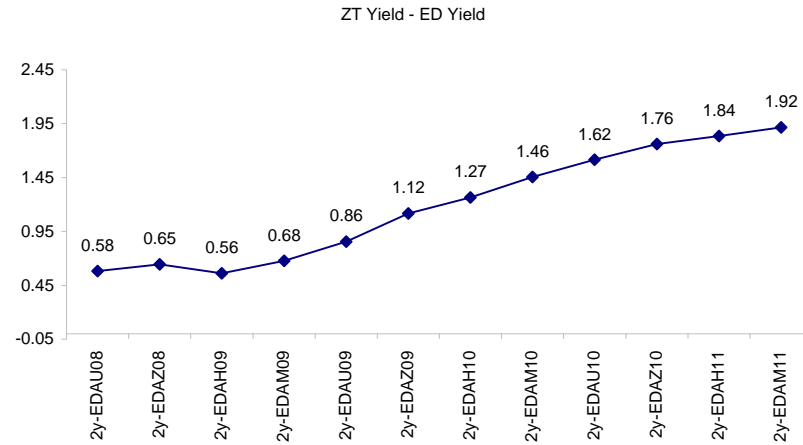


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.091	0.58	2y-EDAU08	-46.197
EDAZ08	3.156	0.65	2y-EDAZ08	-64.064
EDAH09	3.071	0.56	2y-EDAH09	-76.759
EDAM09	3.186	0.68	2y-EDAM09	-71.609
EDAU09	3.366	0.86	2y-EDAU09	-78.780
EDAZ09	3.626	1.12	2y-EDAZ09	-75.487
EDAH10	3.776	1.27	2y-EDAH10	-71.455
EDAM10	3.966	1.46	2y-EDAM10	-68.956
EDAU10	4.126	1.62	2y-EDAU10	-67.503
EDAZ10	4.271	1.76	2y-EDAZ10	-66.102
EDAH11	4.346	1.84	2y-EDAH11	-65.077
EDAM11	4.426	1.92	2y-EDAM11	-64.264

Price = Outright Decimal Price - Euro Contract Price

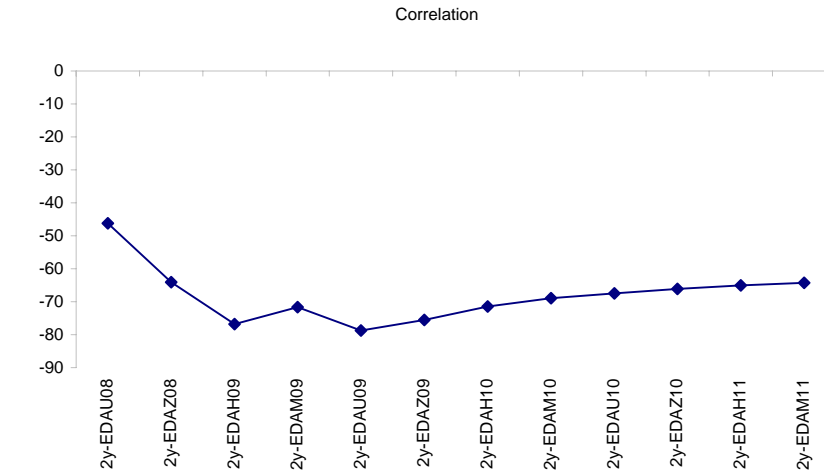
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAU08	0.013	1.90	1.89	2y-EDAU08	
EDAZ08	0.262	1.90	1.64	2y-EDAZ08	
EDAH09	0.512	1.90	1.39	2y-EDAH09	
EDAM09	0.761	1.90	1.14	2y-EDAM09	
EDAU09	1.010	1.90	0.89	2y-EDAU09	
EDAZ09	1.260	1.90	0.64	2y-EDAZ09	
EDAH10	1.509	1.90	0.39	2y-EDAH10	
EDAM10	1.758	1.90	0.14	2y-EDAM10	
EDAU10	2.008	1.90	(0.11)	2y-EDAU10	
EDAZ10	2.257	1.90	(0.36)	2y-EDAZ10	
EDAH11	2.506	1.90	(0.61)	2y-EDAH11	
EDAM11	2.755	1.90	(0.86)	2y-EDAM11	

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

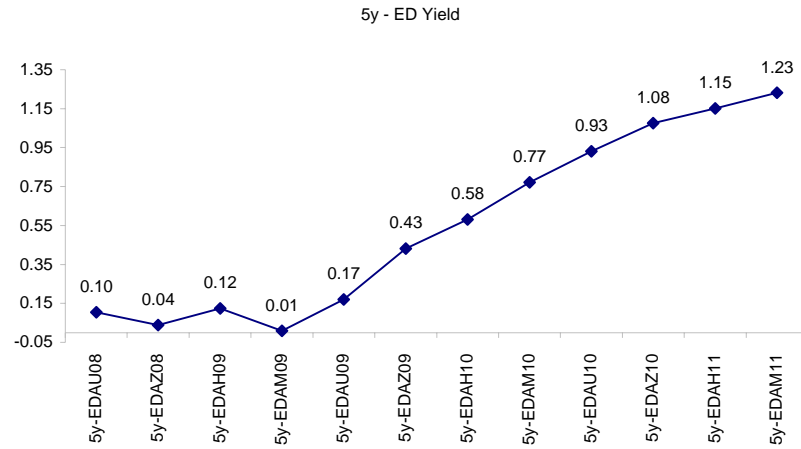


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.779	0.10	5y-EDAU08	-57.138
EDAZ08	3.844	0.04	5y-EDAZ08	-74.082
EDAH09	3.759	0.12	5y-EDAH09	-86.922
EDAM09	3.874	0.01	5y-EDAM09	-85.641
EDAU09	4.054	0.17	5y-EDAU09	-91.859
EDAZ09	4.314	0.43	5y-EDAZ09	-90.038
EDAH10	4.464	0.58	5y-EDAH10	-87.150
EDAM10	4.654	0.77	5y-EDAM10	-85.117
EDAU10	4.814	0.93	5y-EDAU10	-83.970
EDAZ10	4.959	1.08	5y-EDAZ10	-82.854
EDAH11	5.034	1.15	5y-EDAH11	-81.948
EDAM11	5.114	1.23	5y-EDAM11	-81.080

Price = Outright Decimal Price - Euro Contract Price

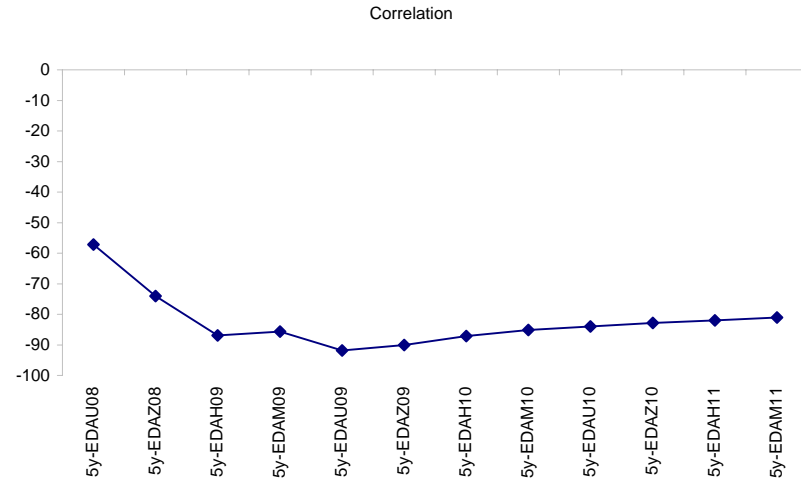
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	5Y Duration	Spread Duration	
EDAU08	0.013	4.57	4.56	5y-EDAU08
EDAZ08	0.262	4.57	4.31	5y-EDAZ08
EDAH09	0.512	4.57	4.06	5y-EDAH09
EDAM09	0.761	4.57	3.81	5y-EDAM09
EDAU09	1.010	4.57	3.56	5y-EDAU09
EDAZ09	1.260	4.57	3.31	5y-EDAZ09
EDAH10	1.509	4.57	3.06	5y-EDAH10
EDAM10	1.758	4.57	2.81	5y-EDAM10
EDAU10	2.008	4.57	2.57	5y-EDAU10
EDAZ10	2.257	4.57	2.32	5y-EDAZ10
EDAH11	2.506	4.57	2.07	5y-EDAH11
EDAM11	2.755	4.57	1.82	5y-EDAM11

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

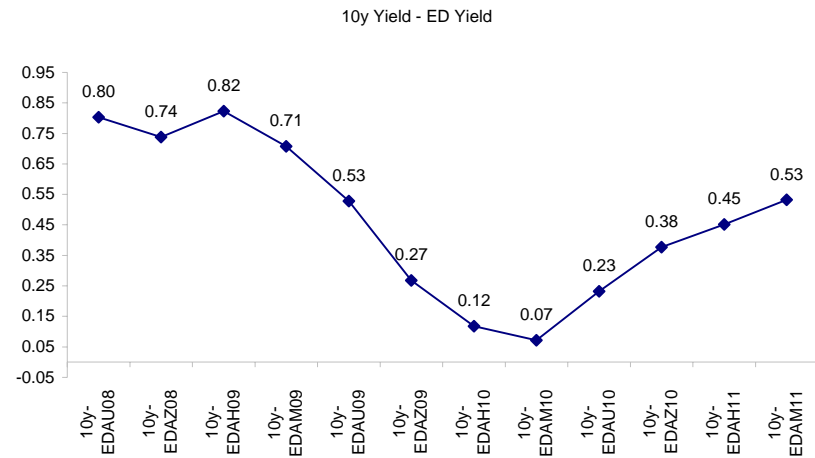


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.779	0.80	10y-EDAU08	-69.853
EDAZ08	3.844	0.74	10y-EDAZ08	-86.964
EDAH09	3.759	0.82	10y-EDAH09	-95.529
EDAM09	3.874	0.71	10y-EDAM09	-92.454
EDAU09	4.054	0.53	10y-EDAU09	-96.493
EDAZ09	4.314	0.27	10y-EDAZ09	-95.420
EDAH10	4.464	0.12	10y-EDAH10	-94.436
EDAM10	4.654	0.07	10y-EDAM10	-93.415
EDAU10	4.814	0.23	10y-EDAU10	-93.036
EDAZ10	4.959	0.38	10y-EDAZ10	-92.669
EDAH11	5.034	0.45	10y-EDAH11	-92.388
EDAM11	5.114	0.53	10y-EDAM11	-92.263

Price = Outright Decimal Price - Euro Contract Price

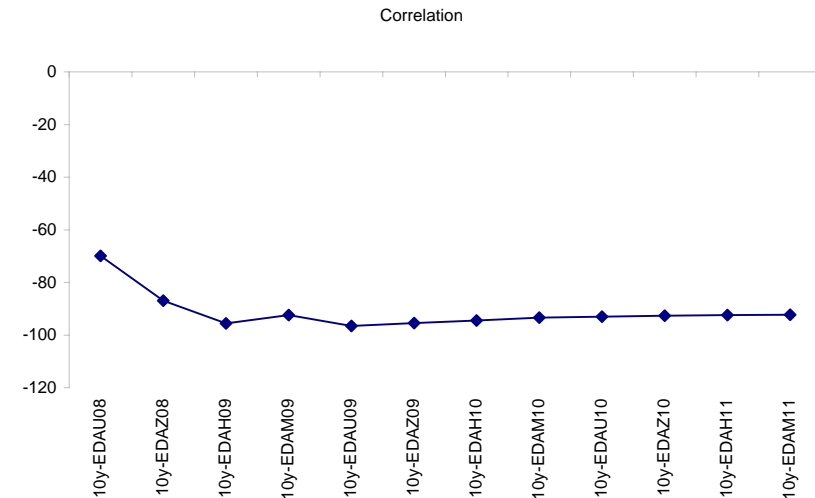
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.013	8.15	8.14	10y-EDAU08
EDAZ08	0.262	8.15	7.89	10y-EDAZ08
EDAH09	0.512	8.15	7.64	10y-EDAH09
EDAM09	0.761	8.15	7.39	10y-EDAM09
EDAU09	1.010	8.15	7.14	10y-EDAU09
EDAZ09	1.260	8.15	6.89	10y-EDAZ09
EDAH10	1.509	8.15	6.64	10y-EDAH10
EDAM10	1.758	8.15	6.39	10y-EDAM10
EDAU10	2.008	8.15	6.14	10y-EDAU10
EDAZ10	2.257	8.15	5.89	10y-EDAZ10
EDAH11	2.506	8.15	5.64	10y-EDAH11
EDAM11	2.755	8.15	5.39	10y-EDAM11

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.

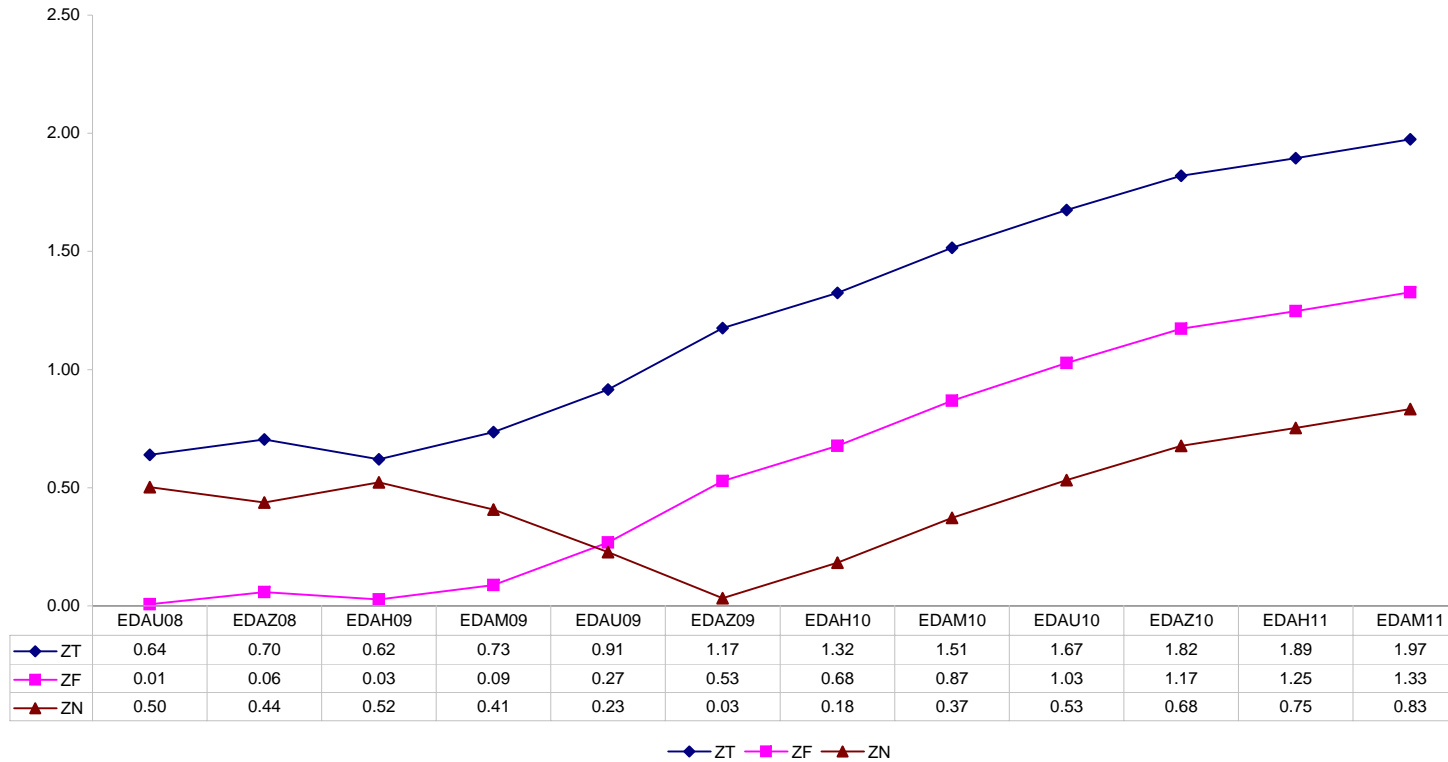
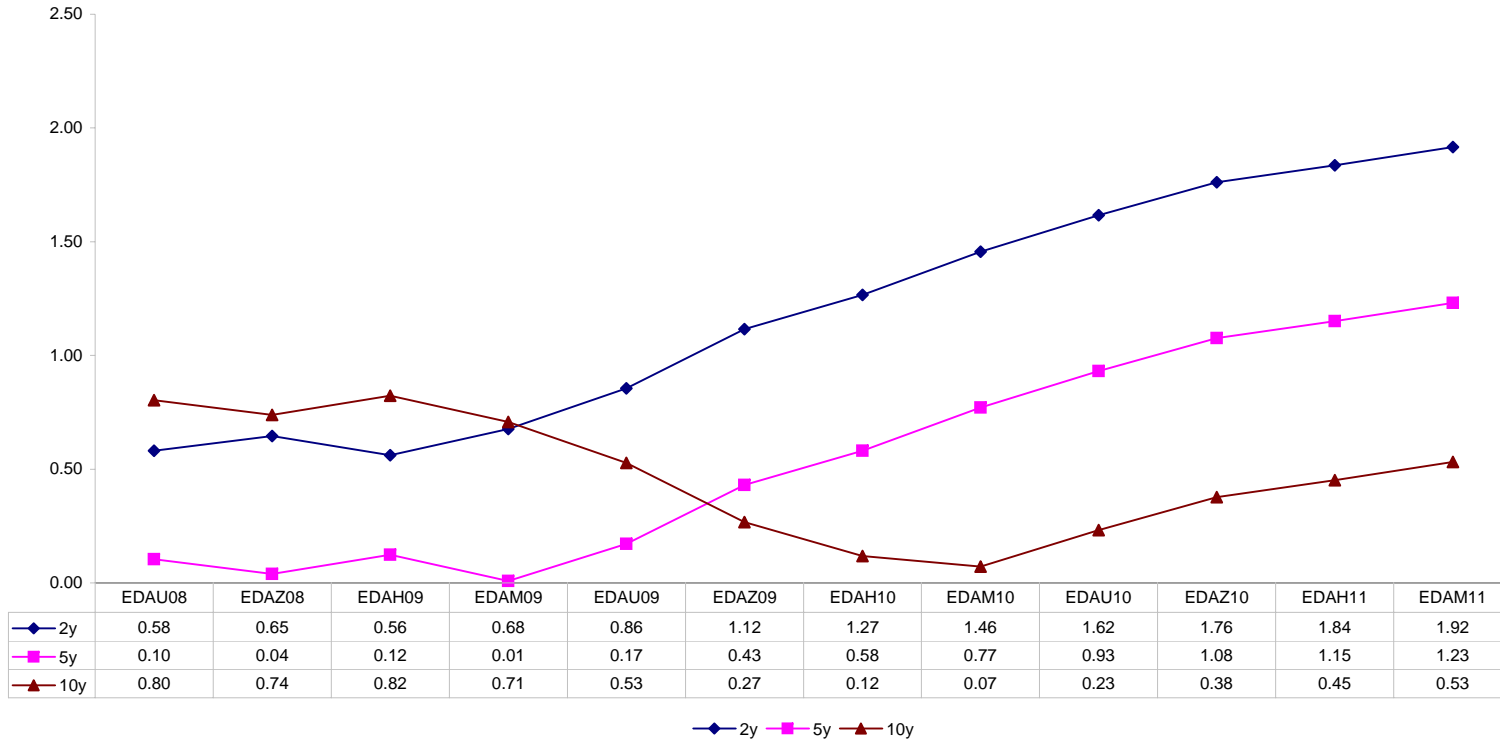
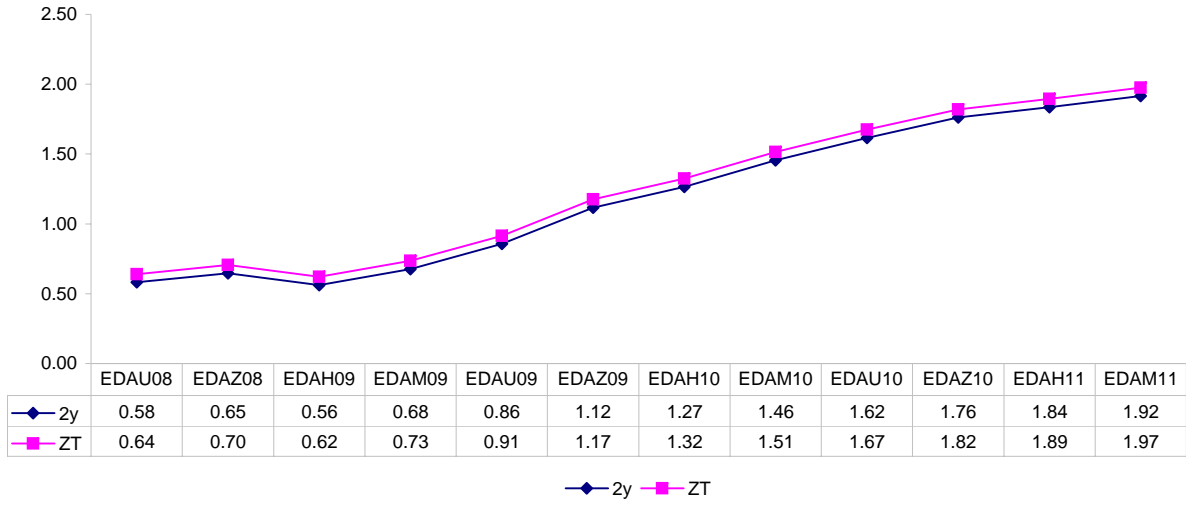


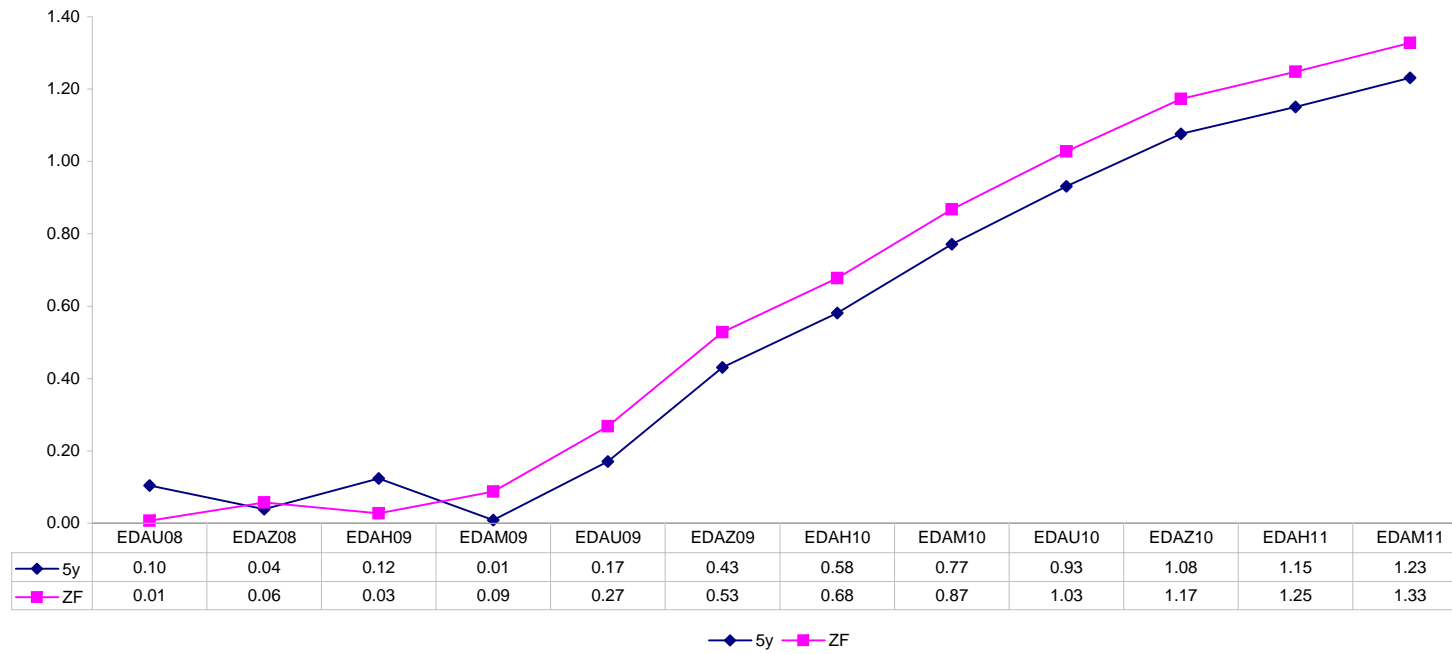
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



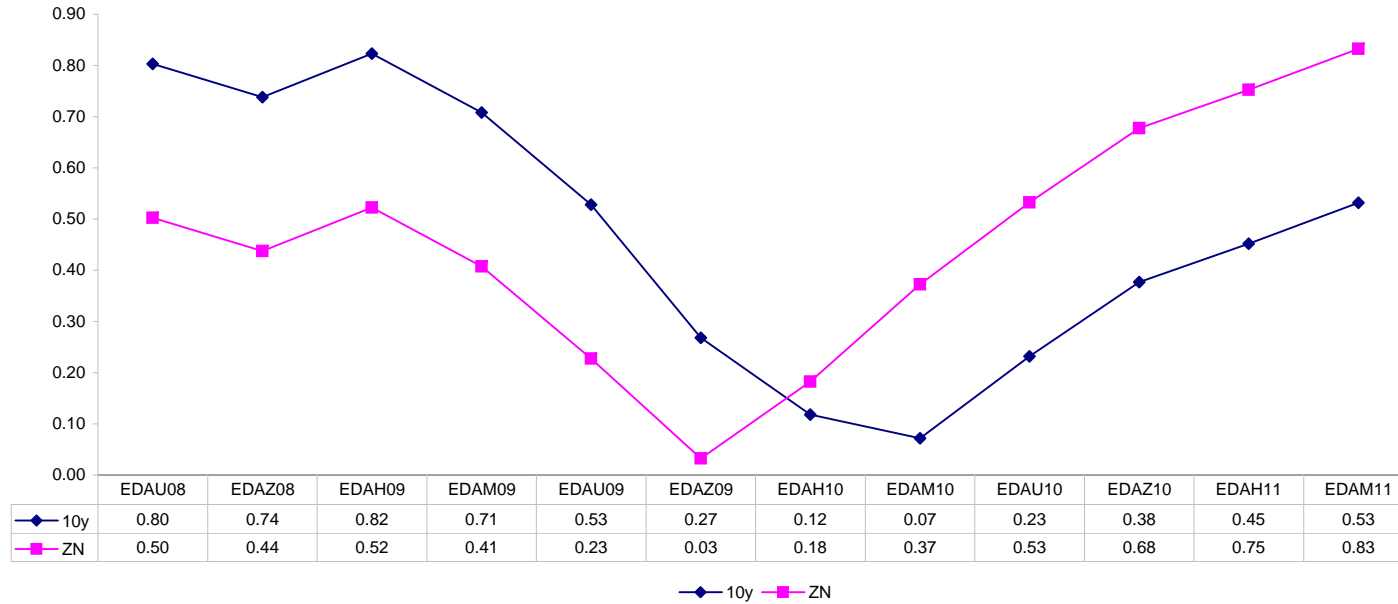
2y Basis TED Curve



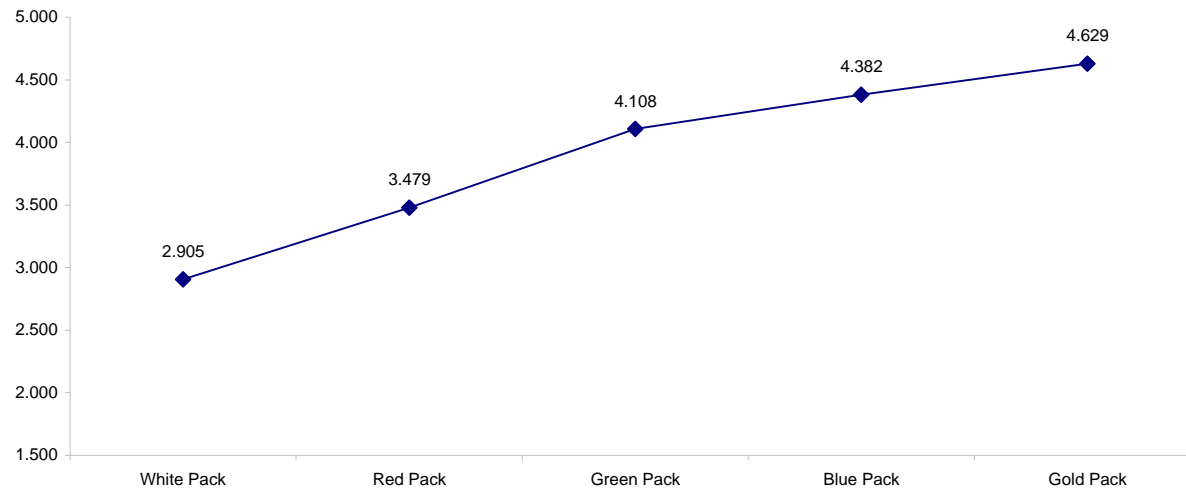
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.905	-2.187	9715.500
Red Pack	3.479	-0.625	9659.750
Green Pack	4.108	0.625	9598.875
Blue Pack	4.382	0.125	9572.375
Gold Pack	4.629	-5.250	9548.625



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

