

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	106.1000	106.032	2.307	1.78
ZF	111.4375	111.140	3.070	3.91
ZN	114.7031	114.225	3.744	5.86
2y	99.500	99.1600	2.386	1.92
5y	99.803	99.2570	3.166	4.57
10y	96.719	96.2300	3.907	8.11

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM08	97.375	2.625	40	0.109	JUN
EDAU08	97.335	2.665	131	0.358	SEP White
EDAZ08	97.085	2.915	222	0.608	DEC Pack
EDAH09	96.905	3.095	313	0.857	MAR
EDAM09	96.700	3.300	404	1.106	JUN
EDAU09	96.515	3.485	495	1.356	SEP Red Pack
EDAZ09	96.315	3.685	586	1.605	DEC
EDAH10	96.175	3.825	677	1.854	MAR
EDAM10	96.025	3.975	768	2.103	JUN
EDAU10	95.870	4.130	859	2.353	SEP Green
EDAZ10	95.720	4.280	950	2.602	DEC Pack
EDAH11	95.630	4.370	1041	2.851	MAR
EDAM11	95.535	4.465	1132	3.101	JUN
EDAU11	95.445	4.555	1230	3.369	SEP Blue Pack
EDAZ11	95.400	4.600	1321	3.619	DEC
EDAH12	95.350	4.650	1412	3.868	MAR
EDAM12	95.255	4.745	1503	4.117	JUN
EDAU12	95.180	4.820	1594	4.366	SEP Gold Pack
EDAZ12	95.145	4.855	1685	4.616	DEC
EDAH13	95.080	4.920	1776	4.865	MAR

	Last Yield	Net Yield	Last Price	
White Pack	2.885	0.000	9717.500	
Red Pack	3.656	-3.375	9642.625	Pack Prices
Green Pack	4.292	-3.250	9581.125	
Blue Pack	4.684	-2.000	9543.250	
Gold Pack		-1.250	9518.500	

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.

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.

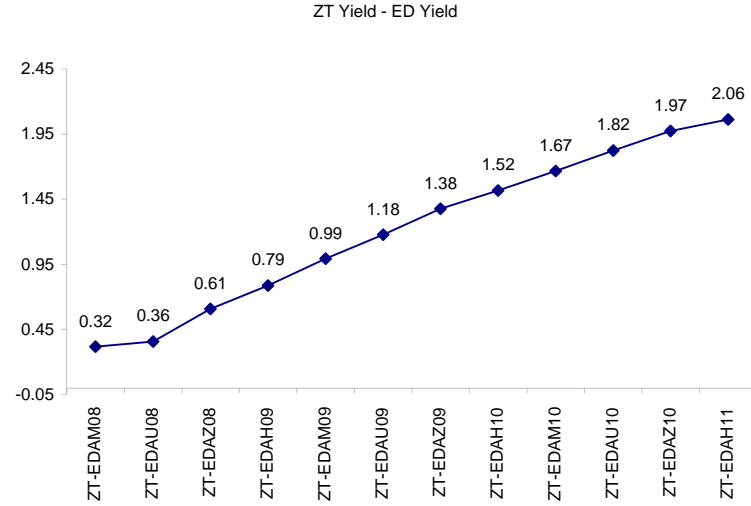
jgoulding@ghco.com

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.

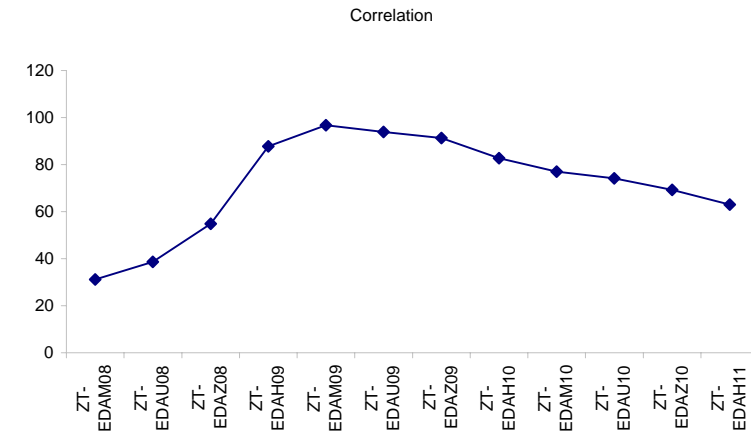
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	8.725	0.32	ZT-EDAM08	31.111
EDAU08	8.765	0.36	ZT-EDAU08	38.641
EDAZ08	9.015	0.61	ZT-EDAZ08	54.798
EDAH09	9.195	0.79	ZT-EDAH09	87.698
EDAM09	9.400	0.99	ZT-EDAM09	96.683
EDAU09	9.585	1.18	ZT-EDAU09	93.885
EDAZ09	9.785	1.38	ZT-EDAZ09	91.332
EDAH10	9.925	1.52	ZT-EDAH10	82.726
EDAM10	10.075	1.67	ZT-EDAM10	77.056
EDAU10	10.230	1.82	ZT-EDAU10	74.121
EDAZ10	10.380	1.97	ZT-EDAZ10	69.248
EDAH11	10.470	2.06	ZT-EDAH11	62.929

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	0.109	1.78	1.67	ZT-EDAM08		
EDAU08	0.358	1.78	1.42	ZT-EDAU08		
EDAZ08	0.608	1.78	1.17	ZT-EDAZ08		
EDAH09	0.857	1.78	0.92	ZT-EDAH09		
EDAM09	1.106	1.78	0.67	ZT-EDAM09		
EDAU09	1.356	1.78	0.42	ZT-EDAU09		
EDAZ09	1.605	1.78	0.17	ZT-EDAZ09		
EDAH10	1.854	1.78	(0.08)	ZT-EDAH10		
EDAM10	2.103	1.78	(0.33)	ZT-EDAM10		
EDAU10	2.353	1.78	(0.58)	ZT-EDAU10		
EDAZ10	2.602	1.78	(0.83)	ZT-EDAZ10		
EDAH11	2.851	1.78	(1.08)	ZT-EDAH11		

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

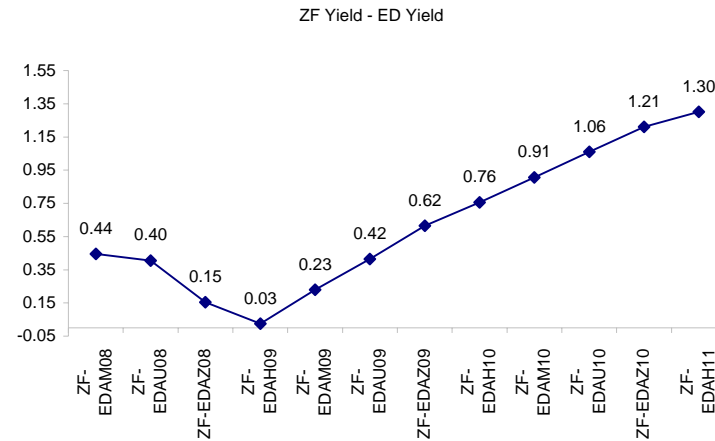


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	14.063	0.44	ZF-EDAM08	36.309
EDAU08	14.103	0.40	ZF-EDAU08	42.221
EDAZ08	14.353	0.15	ZF-EDAZ08	56.230
EDAH09	14.533	0.03	ZF-EDAH09	89.270
EDAM09	14.738	0.23	ZF-EDAM09	94.394
EDAU09	14.923	0.42	ZF-EDAU09	88.117
EDAZ09	15.123	0.62	ZF-EDAZ09	82.229
EDAH10	15.263	0.76	ZF-EDAH10	77.377
EDAM10	15.413	0.91	ZF-EDAM10	79.670
EDAU10	15.568	1.06	ZF-EDAU10	86.786
EDAZ10	15.718	1.21	ZF-EDAZ10	90.064
EDAH11	15.808	1.30	ZF-EDAH11	89.094

Price = Outright Decimal Price - Euro Contract Price

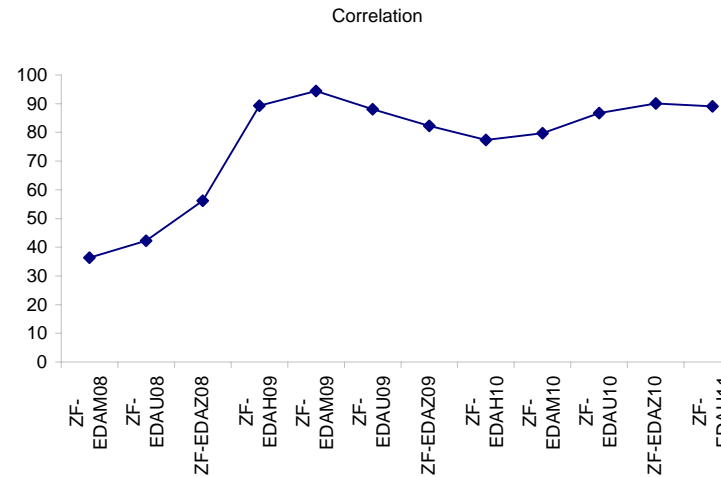
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM08	0.109	3.91	3.81	ZF-EDAM08	
EDAU08	0.358	3.91	3.56	ZF-EDAU08	
EDAZ08	0.608	3.91	3.31	ZF-EDAZ08	
EDAH09	0.857	3.91	3.06	ZF-EDAH09	
EDAM09	1.106	3.91	2.81	ZF-EDAM09	
EDAU09	1.356	3.91	2.56	ZF-EDAU09	
EDAZ09	1.605	3.91	2.31	ZF-EDAZ09	
EDAH10	1.854	3.91	2.06	ZF-EDAH10	
EDAM10	2.103	3.91	1.81	ZF-EDAM10	
EDAU10	2.353	3.91	1.56	ZF-EDAU10	
EDAZ10	2.602	3.91	1.31	ZF-EDAZ10	
EDAH11	2.851	3.91	1.06	ZF-EDAH11	

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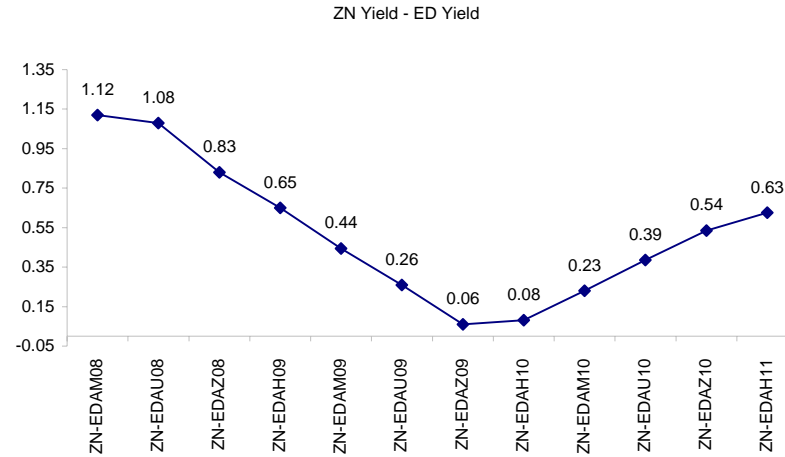


ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	17.328	1.12	ZN-EDAM08	-21.457
EDAU08	17.368	1.08	ZN-EDAU08	-15.720
EDAZ08	17.618	0.83	ZN-EDAZ08	-0.713
EDAH09	17.798	0.65	ZN-EDAH09	48.916
EDAM09	18.003	0.44	ZN-EDAM09	72.861
EDAU09	18.188	0.26	ZN-EDAU09	79.973
EDAZ09	18.388	0.06	ZN-EDAZ09	79.425
EDAH10	18.528	0.08	ZN-EDAH10	77.377
EDAM10	18.678	0.23	ZN-EDAM10	79.670
EDAU10	18.833	0.39	ZN-EDAU10	86.786
EDAZ10	18.983	0.54	ZN-EDAZ10	90.064
EDAH11	19.073	0.63	ZN-EDAH11	89.094

Price = Outright Decimal Price - Euro Contract Price

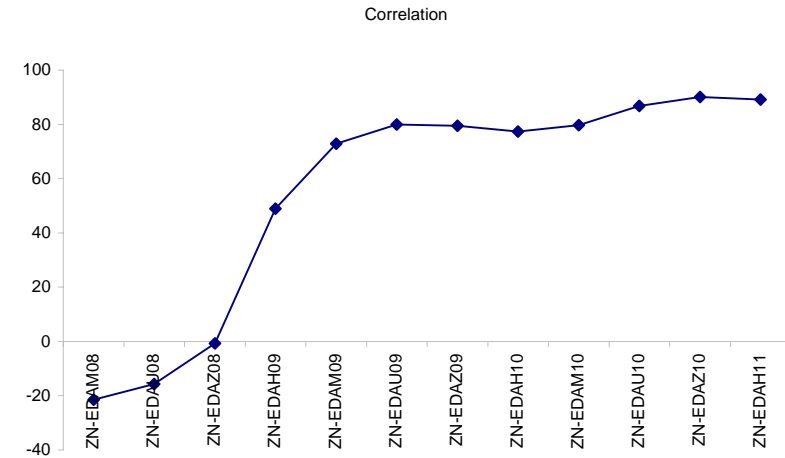
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				ZN Duration	Spread Duration	
EDAM08	0.109	5.86	5.75	ZN-EDAM08		
EDAU08	0.358	5.86	5.50	ZN-EDAU08		
EDAZ08	0.608	5.86	5.25	ZN-EDAZ08		
EDAH09	0.857	5.86	5.00	ZN-EDAH09		
EDAM09	1.106	5.86	4.75	ZN-EDAM09		
EDAU09	1.356	5.86	4.50	ZN-EDAU09		
EDAZ09	1.605	5.86	4.25	ZN-EDAZ09		
EDAH10	1.854	5.86	4.00	ZN-EDAH10		
EDAM10	2.103	5.86	3.75	ZN-EDAM10		
EDAU10	2.353	5.86	3.51	ZN-EDAU10		
EDAZ10	2.602	5.86	3.26	ZN-EDAZ10		
EDAH11	2.851	5.86	3.01	ZN-EDAH11		

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

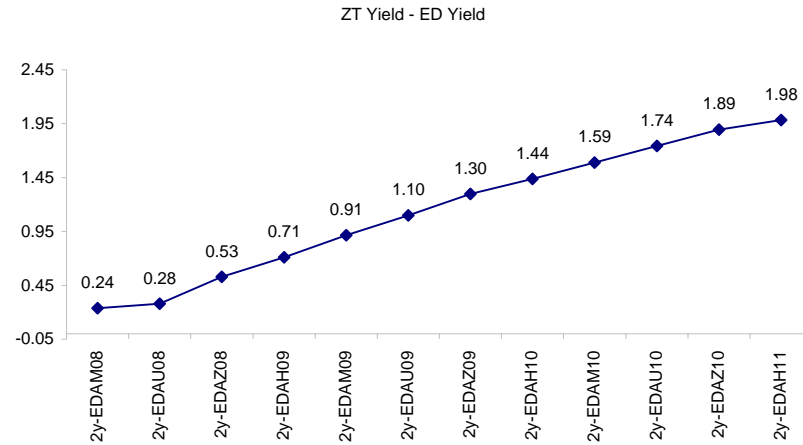


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.125	0.24	2y-EDAM08	3.231
EDAU08	2.165	0.28	2y-EDAU08	-5.270
EDAZ08	2.415	0.53	2y-EDAZ08	-22.989
EDAH09	2.595	0.71	2y-EDAH09	-66.927
EDAM09	2.800	0.91	2y-EDAM09	-86.943
EDAU09	2.985	1.10	2y-EDAU09	-92.292
EDAZ09	3.185	1.30	2y-EDAZ09	-93.134
EDAH10	3.325	1.44	2y-EDAH10	-89.792
EDAM10	3.475	1.59	2y-EDAM10	-84.167
EDAU10	3.630	1.74	2y-EDAU10	-76.979
EDAZ10	3.780	1.89	2y-EDAZ10	-67.515
EDAH11	3.870	1.98	2y-EDAH11	-59.071

Price = Outright Decimal Price - Euro Contract Price

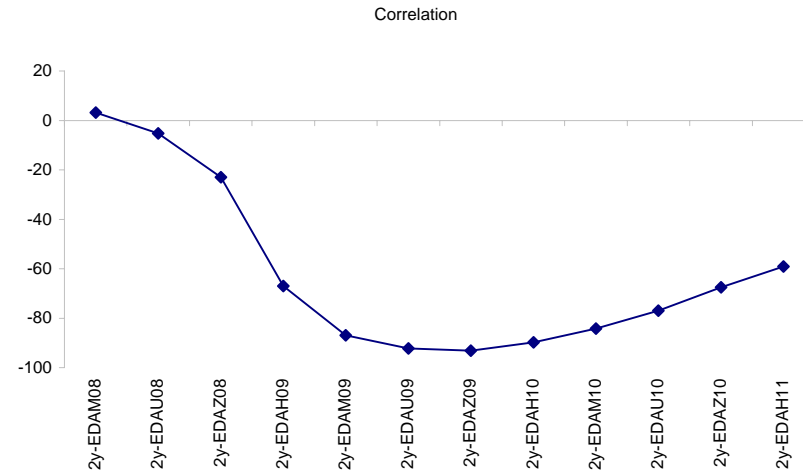
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAM08	0.109	1.92	1.81	2y-EDAM08	
EDAU08	0.358	1.92	1.57	2y-EDAU08	
EDAZ08	0.608	1.92	1.32	2y-EDAZ08	
EDAH09	0.857	1.92	1.07	2y-EDAH09	
EDAM09	1.106	1.92	0.82	2y-EDAM09	
EDAU09	1.356	1.92	0.57	2y-EDAU09	
EDAZ09	1.605	1.92	0.32	2y-EDAZ09	
EDAH10	1.854	1.92	0.07	2y-EDAH10	
EDAM10	2.103	1.92	(0.18)	2y-EDAM10	
EDAU10	2.353	1.92	(0.43)	2y-EDAU10	
EDAZ10	2.602	1.92	(0.68)	2y-EDAZ10	
EDAH11	2.851	1.92	(0.93)	2y-EDAH11	

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

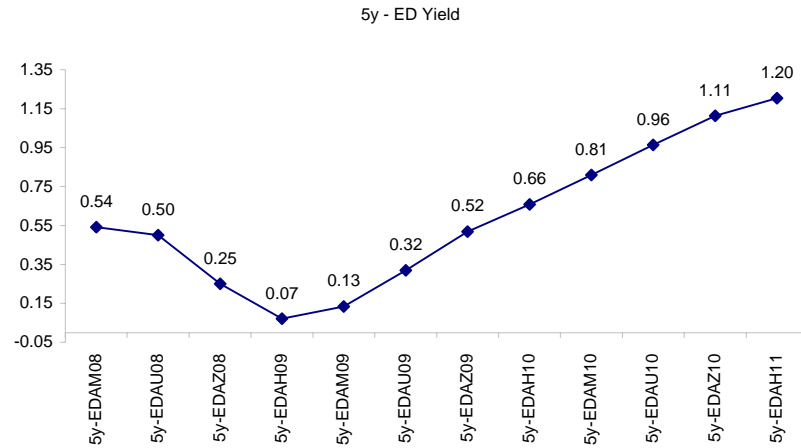


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM08	2.428	0.54	5y-EDAM08	10.142
EDAU08	2.468	0.50	5y-EDAU08	2.745
EDAZ08	2.718	0.25	5y-EDAZ08	10.142
EDAH09	2.898	0.07	5y-EDAH09	-60.992
EDAM09	3.103	0.13	5y-EDAM09	-82.100
EDAU09	3.288	0.32	5y-EDAU09	-86.580
EDAZ09	3.488	0.52	5y-EDAZ09	-84.769
EDAH10	3.628	0.66	5y-EDAH10	-87.087
EDAM10	3.778	0.81	5y-EDAM10	-89.615
EDAU10	3.933	0.96	5y-EDAU10	-90.989
EDAZ10	4.083	1.11	5y-EDAZ10	-87.350
EDAH11	4.173	1.20	5y-EDAH11	-82.804

Price = Outright Decimal Price - Euro Contract Price

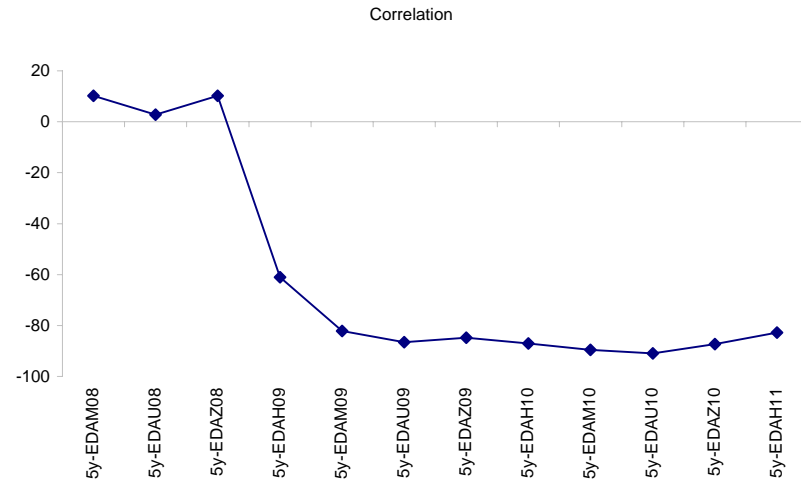
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAM08	0.109	4.57	4.46	5y-EDAM08
EDAU08	0.358	4.57	4.21	5y-EDAU08
EDAZ08	0.608	4.57	3.97	5y-EDAZ08
EDAH09	0.857	4.57	3.72	5y-EDAH09
EDAM09	1.106	4.57	3.47	5y-EDAM09
EDAU09	1.356	4.57	3.22	5y-EDAU09
EDAZ09	1.605	4.57	2.97	5y-EDAZ09
EDAH10	1.854	4.57	2.72	5y-EDAH10
EDAM10	2.103	4.57	2.47	5y-EDAM10
EDAU10	2.353	4.57	2.22	5y-EDAU10
EDAZ10	2.602	4.57	1.97	5y-EDAZ10
EDAH11	2.851	4.57	1.72	5y-EDAH11

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

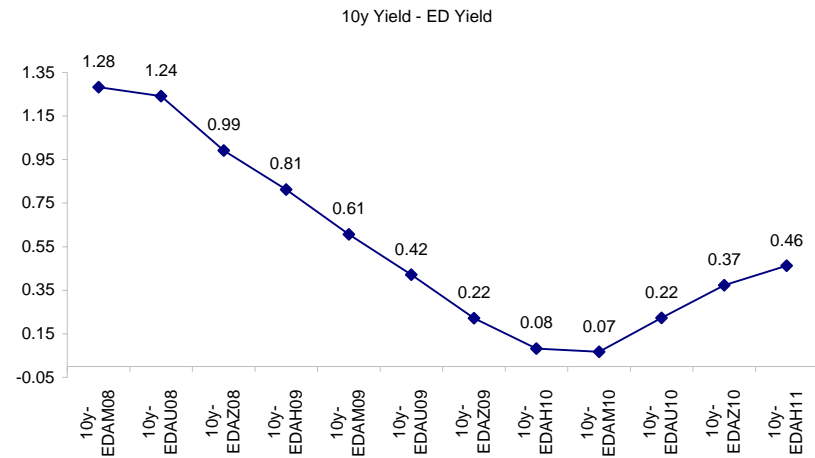


	10y			Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAM08	2.428	1.28	10y-EDAM08	13.086
EDAU08	2.468	1.24	10y-EDAU08	7.037
EDAZ08	2.718	0.99	10y-EDAZ08	13.086
EDAH09	2.898	0.81	10y-EDAH09	-51.705
EDAM09	3.103	0.61	10y-EDAM09	-71.244
EDAU09	3.288	0.42	10y-EDAU09	-74.966
EDAZ09	3.488	0.22	10y-EDAZ09	-73.416
EDAH10	3.628	0.08	10y-EDAH10	-78.992
EDAM10	3.778	0.07	10y-EDAM10	-86.333
EDAU10	3.933	0.22	10y-EDAU10	-92.537
EDAZ10	4.083	0.37	10y-EDAZ10	-93.759
EDAH11	4.173	0.46	10y-EDAH11	-92.435

Price = Outright Decimal Price - Euro Contract Price

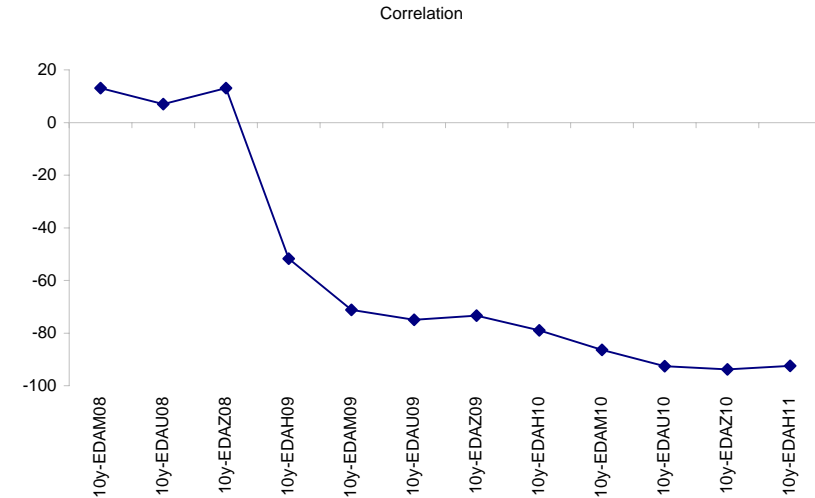
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			
	Fraction of year	10Y Duration	Spread Duration	
EDAM08	0.109	8.11	8.00	10y-EDAM08
EDAU08	0.358	8.11	7.75	10y-EDAU08
EDAZ08	0.608	8.11	7.50	10y-EDAZ08
EDAH09	0.857	8.11	7.25	10y-EDAH09
EDAM09	1.106	8.11	7.00	10y-EDAM09
EDAU09	1.356	8.11	6.75	10y-EDAU09
EDAZ09	1.605	8.11	6.50	10y-EDAZ09
EDAH10	1.854	8.11	6.25	10y-EDAH10
EDAM10	2.103	8.11	6.00	10y-EDAM10
EDAU10	2.353	8.11	5.75	10y-EDAU10
EDAZ10	2.602	8.11	5.50	10y-EDAZ10
EDAH11	2.851	8.11	5.25	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.

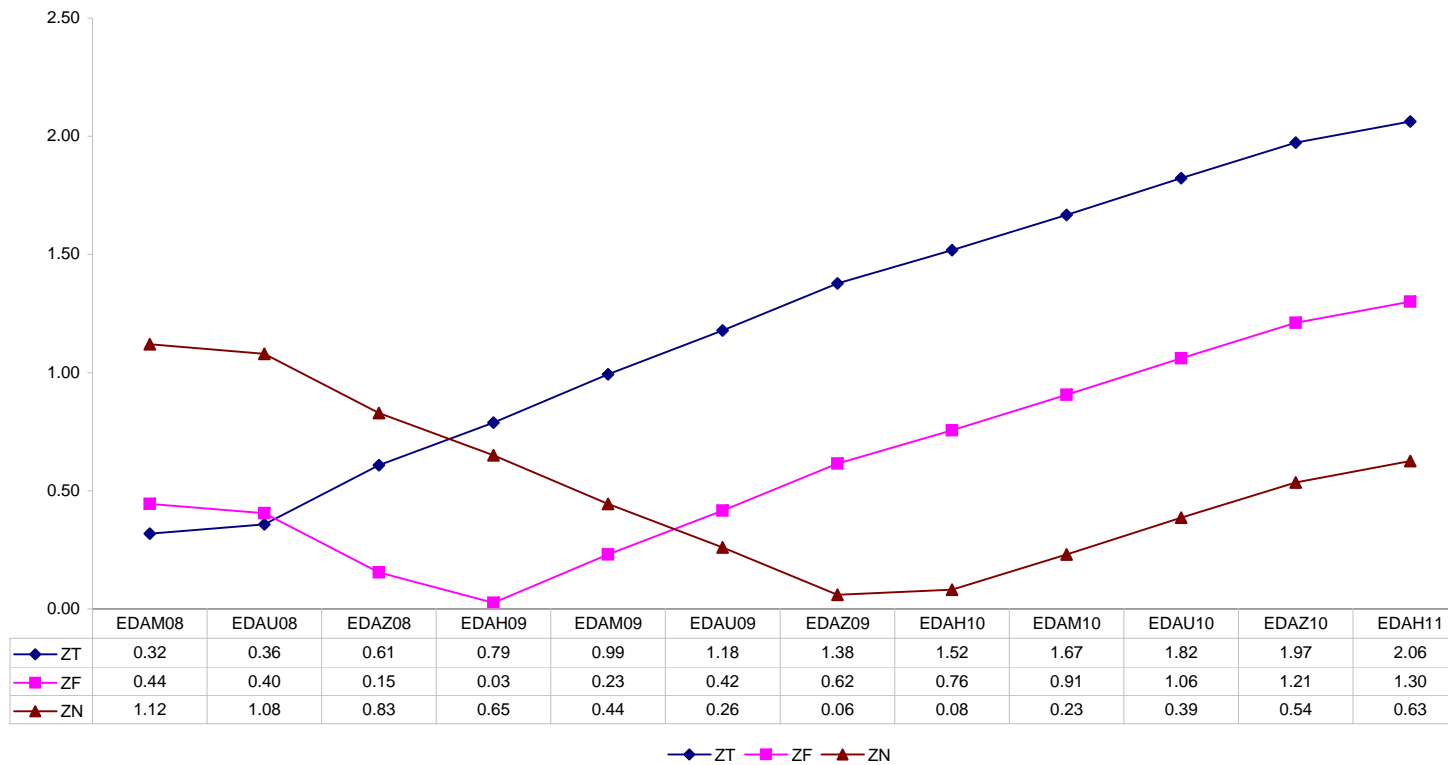
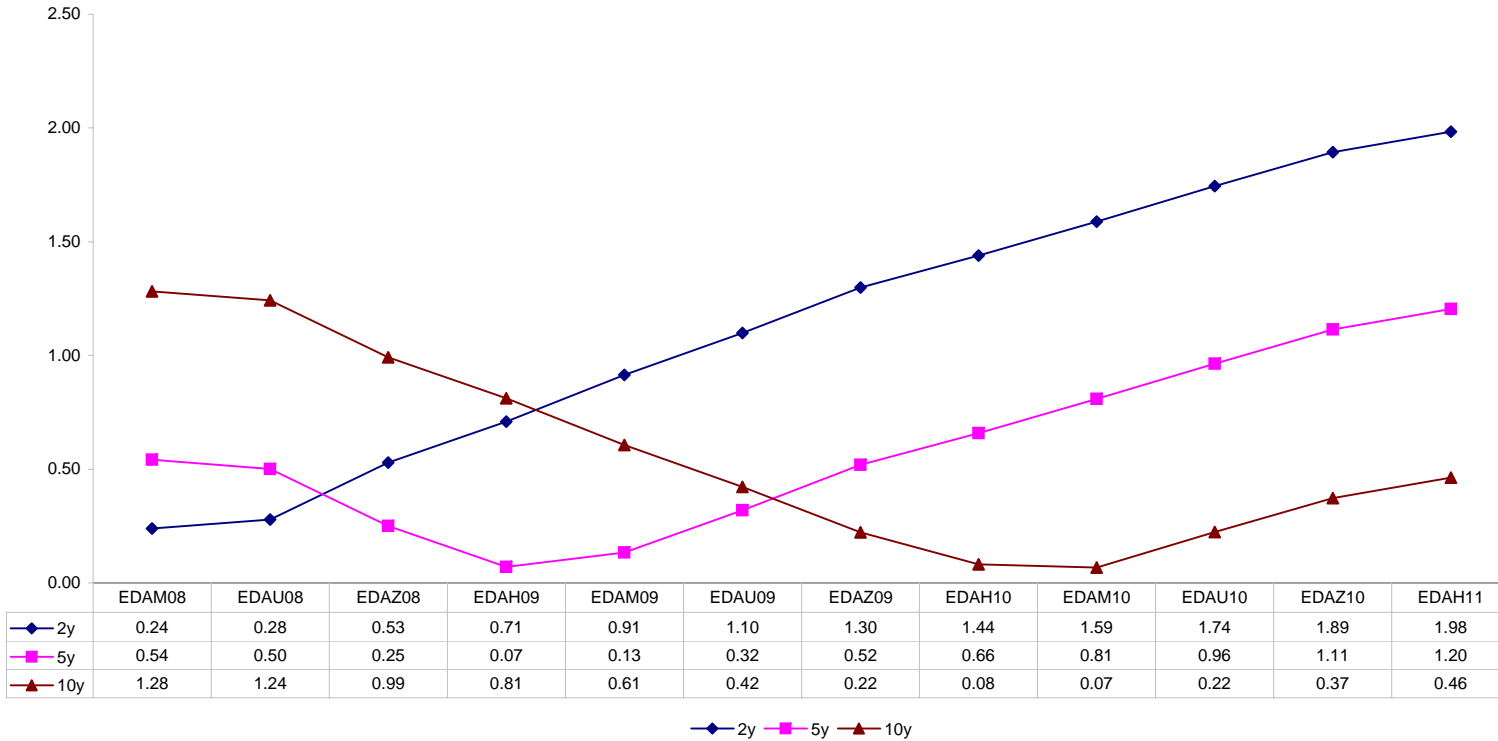
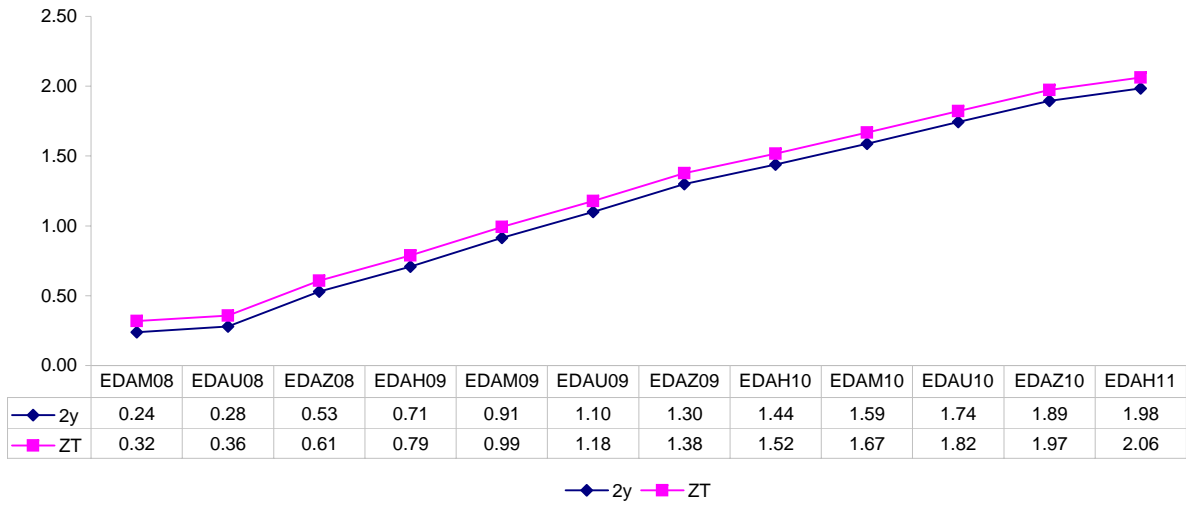


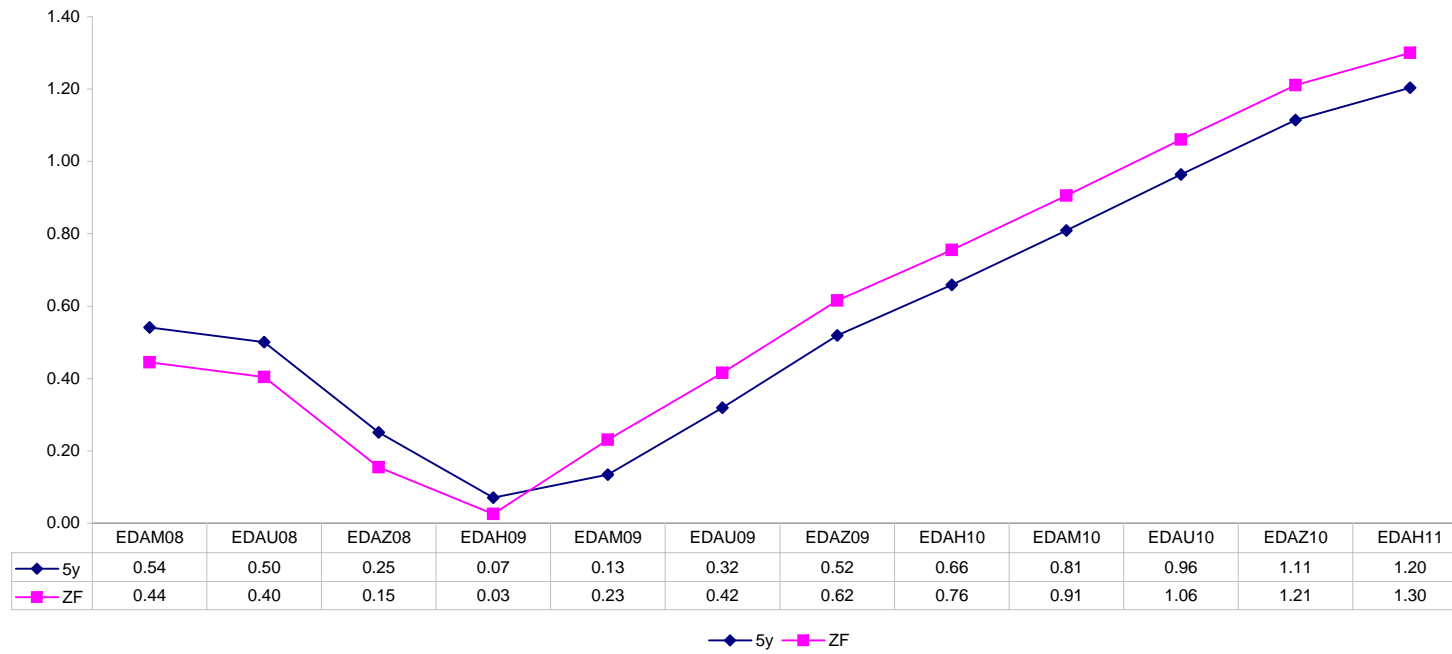
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



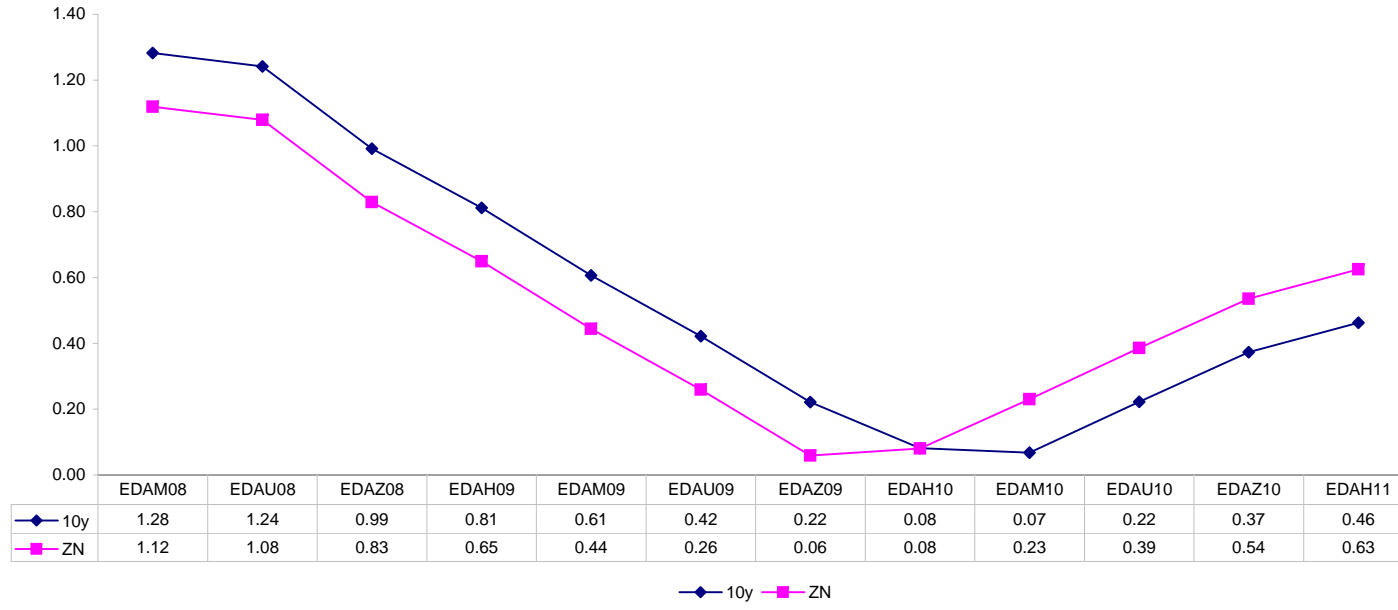
2y Basis TED Curve



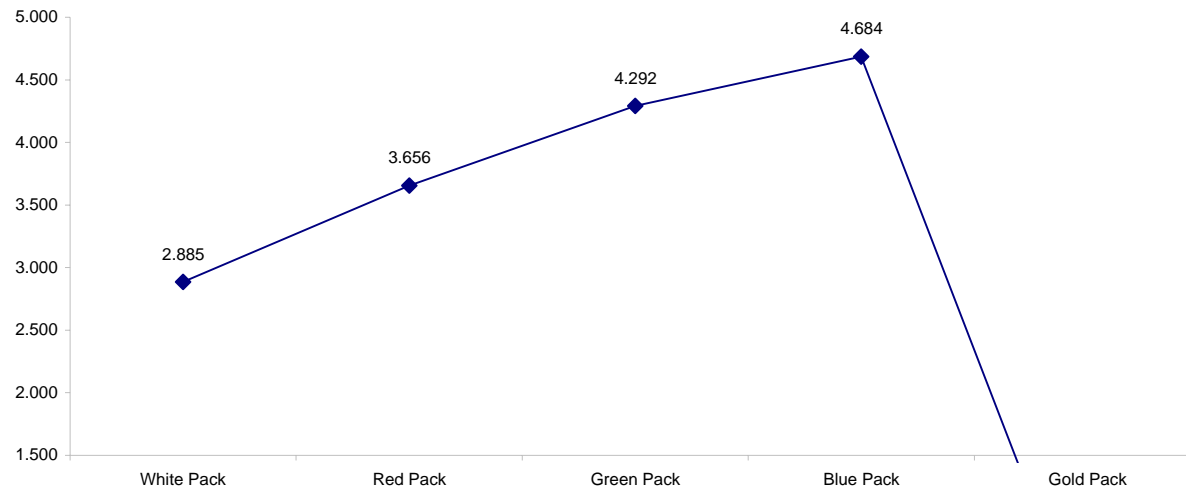
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.885	0.000	9717.500
Red Pack	3.656	-3.375	9642.625
Green Pack	4.292	-3.250	9581.125
Blue Pack	4.684	-2.000	9543.250
Gold Pack		-1.250	9518.500



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

