

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	107.0625	107.020	1.798	1.96
ZF	113.5313	113.170	2.604	4.16
ZN	117.5781	117.185	3.145	6.32
2y	100.928	100.2970	1.888	1.92
5y	102.116	102.0370	2.664	4.56
10y	104.156	104.0500	3.496	8.15

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	97.180	2.820	#VALUE!	#VALUE!		
EDAZ08	96.970	3.030	89	0.243	DEC	White Pack
EDAH09	97.355	2.645	180	0.492	MAR	
EDAM09	97.355	2.645	271	0.742	JUN	
EDAU09	97.285	2.715	362	0.991	SEP	
EDAZ09	96.990	3.010	453	1.240	DEC	Red Pack
EDAH10	96.810	3.190	544	1.490	MAR	
EDAM10	96.545	3.455	635	1.739	JUN	
EDAU10	96.315	3.685	726	1.988	SEP	
EDAZ10	96.100	3.900	817	2.238	DEC	Green Pack
EDAH11	95.995	4.005	908	2.487	MAR	
EDAM11	95.910	4.090	999	2.736	JUN	
EDAU11	95.870	4.130	1097	3.005	SEP	
EDAZ11	95.775	4.225	1188	3.254	DEC	Blue Pack
EDAH12	95.785	4.215	1279	3.503	MAR	
EDAM12	95.770	4.230	1370	3.753	JUN	
EDAU12	95.680	4.320	1461	4.002	SEP	
EDAZ12	95.595	4.405	1552	4.251	DEC	Gold Pack
EDAH13	95.560	4.440	1643	4.501	MAR	
EDAM13	95.585	4.415	1734	4.750	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	2.817	-8.500	9724.125	
Red Pack	3.410	-2.500	9666.500	Pack Prices
Green Pack	4.129	-2.625	9596.875	
Blue Pack		-1.250	9576.250	
Gold Pack		0.000	9558.875	

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.

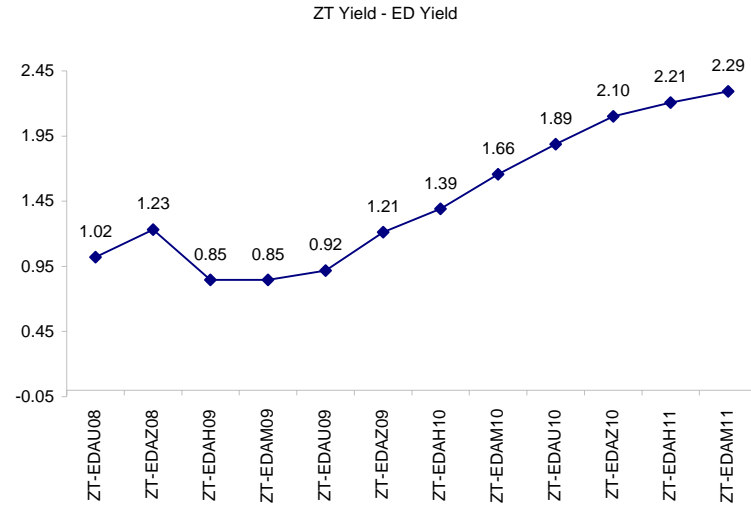
jgoulding@ghco.com

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.

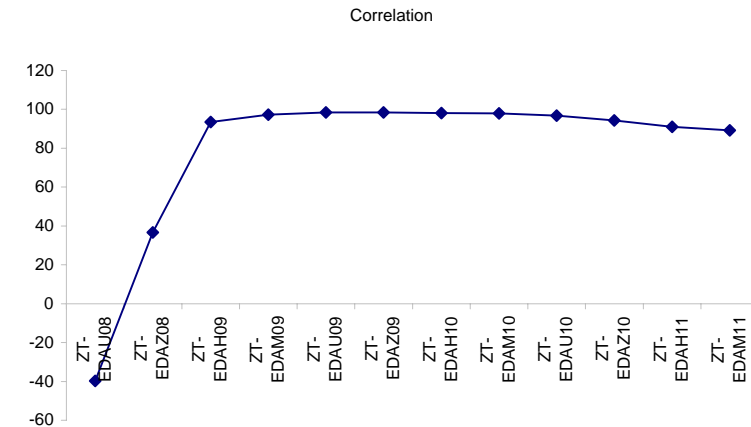
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	9.882	1.02	ZT-EDAU08	-39.758
EDAZ08	10.093	1.23	ZT-EDAZ08	36.749
EDAH09	9.707	0.85	ZT-EDAH09	93.491
EDAM09	9.707	0.85	ZT-EDAM09	97.276
EDAU09	9.777	0.92	ZT-EDAU09	98.470
EDAZ09	10.073	1.21	ZT-EDAZ09	98.488
EDAH10	10.253	1.39	ZT-EDAH10	98.146
EDAM10	10.518	1.66	ZT-EDAM10	97.895
EDAU10	10.748	1.89	ZT-EDAU10	96.781
EDAZ10	10.963	2.10	ZT-EDAZ10	94.237
EDAH11	11.068	2.21	ZT-EDAH11	91.052
EDAM11	11.153	2.29	ZT-EDAM11	89.160

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	#VALUE!	1.96	#VALUE!	ZT-EDAU08	
EDAZ08	0.243	1.96	1.71	ZT-EDAZ08	
EDAH09	0.492	1.96	1.47	ZT-EDAH09	
EDAM09	0.742	1.96	1.22	ZT-EDAM09	
EDAU09	0.991	1.96	0.97	ZT-EDAU09	
EDAZ09	1.240	1.96	0.72	ZT-EDAZ09	
EDAH10	1.490	1.96	0.47	ZT-EDAH10	
EDAM10	1.739	1.96	0.22	ZT-EDAM10	
EDAU10	1.988	1.96	(0.03)	ZT-EDAU10	
EDAZ10	2.238	1.96	(0.28)	ZT-EDAZ10	
EDAH11	2.487	1.96	(0.53)	ZT-EDAH11	
EDAM11	2.736	1.96	(0.78)	ZT-EDAM11	

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

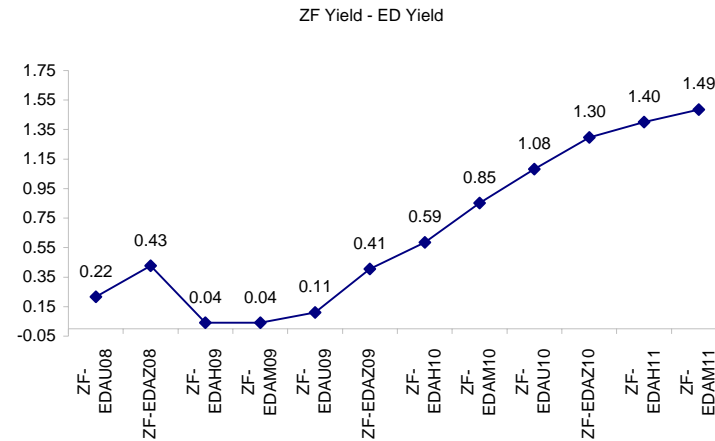


ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	16.351	0.22	ZF-EDAU08	-34.073
EDAZ08	16.561	0.43	ZF-EDAZ08	40.971
EDAH09	16.176	0.04	ZF-EDAH09	92.373
EDAM09	16.176	0.04	ZF-EDAM09	95.785
EDAU09	16.246	0.11	ZF-EDAU09	96.118
EDAZ09	16.541	0.41	ZF-EDAZ09	95.883
EDAH10	16.721	0.59	ZF-EDAH10	95.017
EDAM10	16.986	0.85	ZF-EDAM10	95.332
EDAU10	17.216	1.08	ZF-EDAU10	94.849
EDAZ10	17.431	1.30	ZF-EDAZ10	93.524
EDAH11	17.536	1.40	ZF-EDAH11	91.254
EDAM11	17.621	1.49	ZF-EDAM11	89.310

Price = Outright Decimal Price - Euro Contract Price

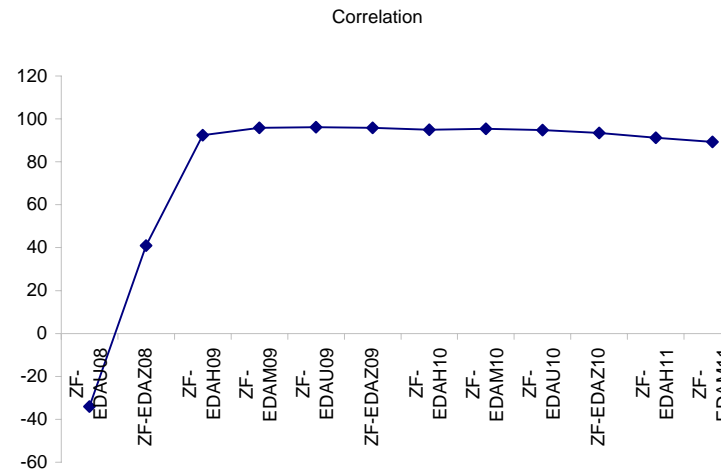
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



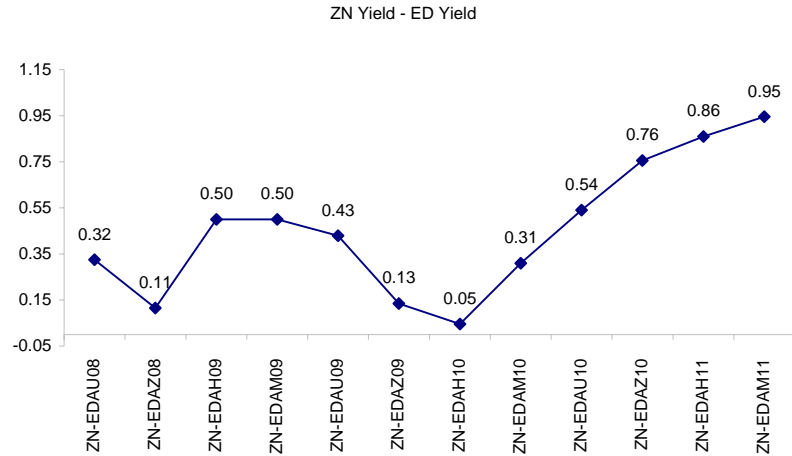
ED Duration as Fraction of year	ZF Duration	Spread Duration	
EDAU08	#VALUE!	4.16	#VALUE!
EDAZ08	0.243	4.16	3.92
EDAH09	0.492	4.16	3.67
EDAM09	0.742	4.16	3.42
EDAU09	0.991	4.16	3.17
EDAZ09	1.240	4.16	2.92
EDAH10	1.490	4.16	2.67
EDAM10	1.739	4.16	2.42
EDAU10	1.988	4.16	2.17
EDAZ10	2.238	4.16	1.92
EDAH11	2.487	4.16	1.67
EDAM11	2.736	4.16	1.42

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



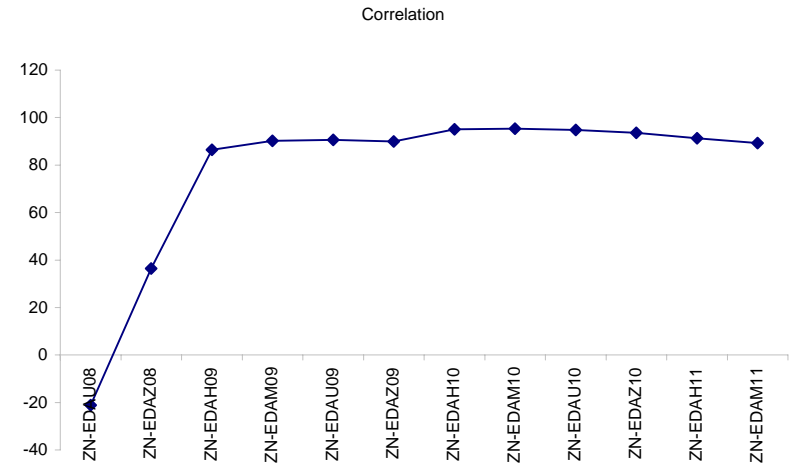
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	20.398	0.32	ZN-EDAU08	-21.171
EDAZ08	20.608	0.11	ZN-EDAZ08	36.372
EDAH09	20.223	0.50	ZN-EDAH09	86.479
EDAM09	20.223	0.50	ZN-EDAM09	90.225
EDAU09	20.293	0.43	ZN-EDAU09	90.549
EDAZ09	20.588	0.13	ZN-EDAZ09	89.952
EDAH10	20.768	0.05	ZN-EDAH10	95.017
EDAM10	21.033	0.31	ZN-EDAM10	95.332
EDAU10	21.263	0.54	ZN-EDAU10	94.849
EDAZ10	21.478	0.76	ZN-EDAZ10	93.524
EDAH11	21.583	0.86	ZN-EDAH11	91.254
EDAM11	21.668	0.95	ZN-EDAM11	89.310

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	ZN Duration	Spread Duration	
EDAU08	#VALUE!	6.32	#VALUE!	ZN-EDAU08
EDAZ08	0.243	6.32	6.08	ZN-EDAZ08
EDAH09	0.492	6.32	5.83	ZN-EDAH09
EDAM09	0.742	6.32	5.58	ZN-EDAM09
EDAU09	0.991	6.32	5.33	ZN-EDAU09
EDAZ09	1.240	6.32	5.08	ZN-EDAZ09
EDAH10	1.490	6.32	4.83	ZN-EDAH10
EDAM10	1.739	6.32	4.58	ZN-EDAM10
EDAU10	1.988	6.32	4.33	ZN-EDAU10
EDAZ10	2.238	6.32	4.08	ZN-EDAZ10
EDAH11	2.487	6.32	3.83	ZN-EDAH11
EDAM11	2.736	6.32	3.58	ZN-EDAM11

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

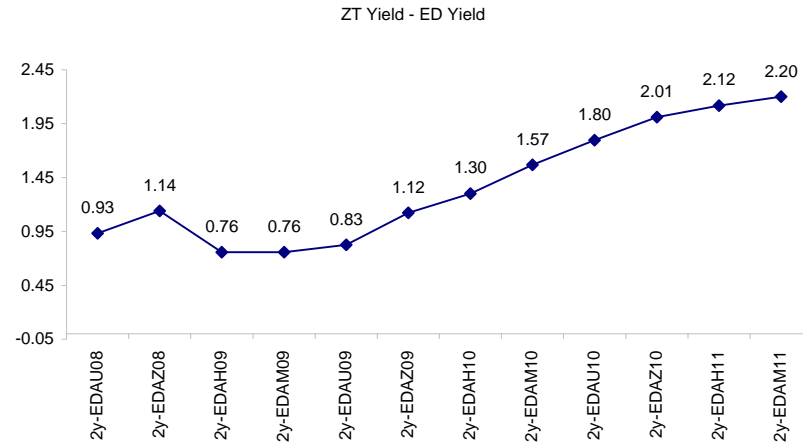


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	3.748	0.93	2y-EDAU08	32.024
EDAZ08	3.958	1.14	2y-EDAZ08	-30.707
EDAH09	3.573	0.76	2y-EDAH09	-91.375
EDAM09	3.573	0.76	2y-EDAM09	-95.532
EDAU09	3.643	0.83	2y-EDAU09	-97.249
EDAZ09	3.938	1.12	2y-EDAZ09	-96.882
EDAH10	4.118	1.30	2y-EDAH10	-96.570
EDAM10	4.383	1.57	2y-EDAM10	-96.237
EDAU10	4.613	1.80	2y-EDAU10	-95.084
EDAZ10	4.828	2.01	2y-EDAZ10	-92.606
EDAH11	4.933	2.12	2y-EDAH11	-89.557
EDAM11	5.018	2.20	2y-EDAM11	-88.408

Price = Outright Decimal Price - Euro Contract Price

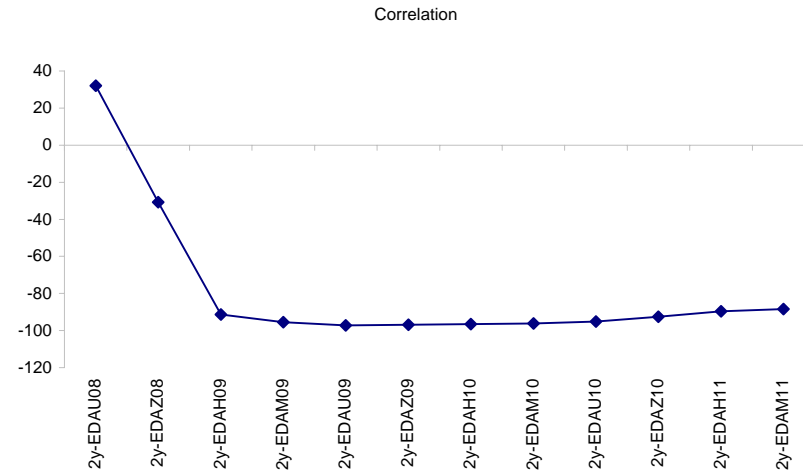
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year		2Y Duration	Spread Duration	
EDAU08	#VALUE!	1.92	#VALUE!	2y-EDAU08	
EDAZ08	0.243	1.92	1.68	2y-EDAZ08	
EDAH09	0.492	1.92	1.43	2y-EDAH09	
EDAM09	0.742	1.92	1.18	2y-EDAM09	
EDAU09	0.991	1.92	0.93	2y-EDAU09	
EDAZ09	1.240	1.92	0.68	2y-EDAZ09	
EDAH10	1.490	1.92	0.43	2y-EDAH10	
EDAM10	1.739	1.92	0.18	2y-EDAM10	
EDAU10	1.988	1.92	(0.07)	2y-EDAU10	
EDAZ10	2.238	1.92	(0.32)	2y-EDAZ10	
EDAH11	2.487	1.92	(0.57)	2y-EDAH11	
EDAM11	2.736	1.92	(0.82)	2y-EDAM11	

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

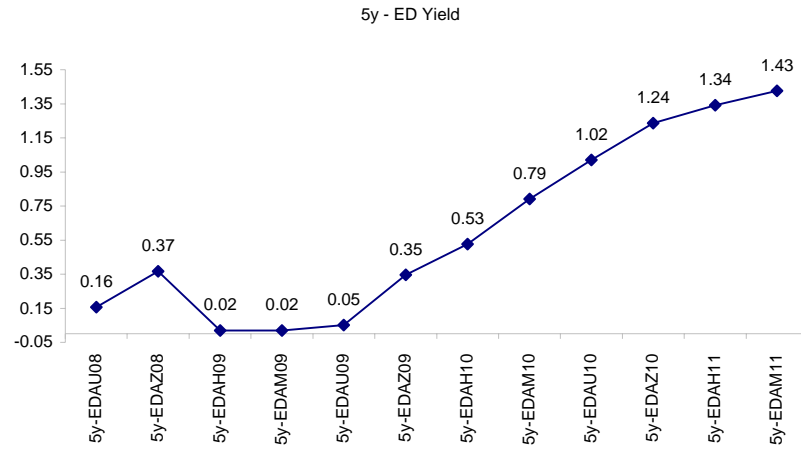


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	4.936	0.16	5y-EDAU08	25.929
EDAZ08	5.146	0.37	5y-EDAZ08	-33.763
EDAH09	4.761	0.02	5y-EDAH09	-91.317
EDAM09	4.761	0.02	5y-EDAM09	-95.160
EDAU09	4.831	0.05	5y-EDAU09	-96.324
EDAZ09	5.126	0.35	5y-EDAZ09	-95.860
EDAH10	5.306	0.53	5y-EDAH10	-95.333
EDAM10	5.571	0.79	5y-EDAM10	-95.408
EDAU10	5.801	1.02	5y-EDAU10	-94.741
EDAZ10	6.016	1.24	5y-EDAZ10	-93.061
EDAH11	6.121	1.34	5y-EDAH11	-90.686
EDAM11	6.206	1.43	5y-EDAM11	-89.484

Price = Outright Decimal Price - Euro Contract Price

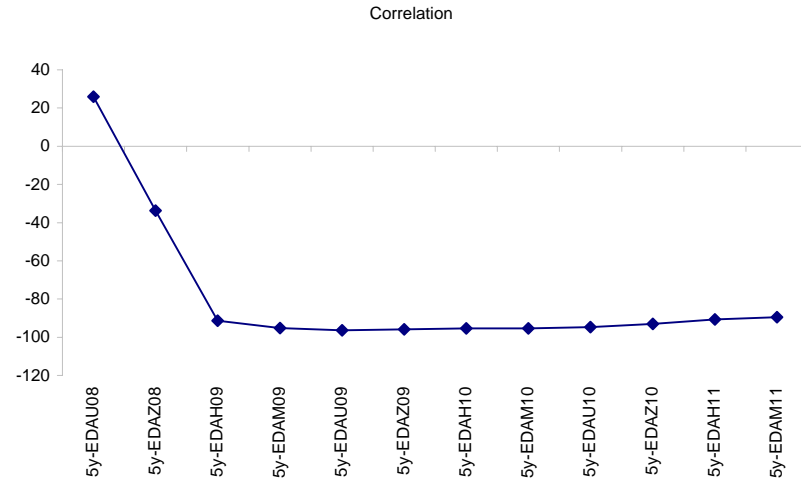
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAU08	#VALUE!		4.56	#VALUE!	5y-EDAU08
EDAZ08	0.243		4.56	4.32	5y-EDAZ08
EDAH09	0.492		4.56	4.07	5y-EDAH09
EDAM09	0.742		4.56	3.82	5y-EDAM09
EDAU09	0.991		4.56	3.57	5y-EDAU09
EDAZ09	1.240		4.56	3.32	5y-EDAZ09
EDAH10	1.490		4.56	3.07	5y-EDAH10
EDAM10	1.739		4.56	2.82	5y-EDAM10
EDAU10	1.988		4.56	2.57	5y-EDAU10
EDAZ10	2.238		4.56	2.32	5y-EDAZ10
EDAH11	2.487		4.56	2.07	5y-EDAH11
EDAM11	2.736		4.56	1.83	5y-EDAM11

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

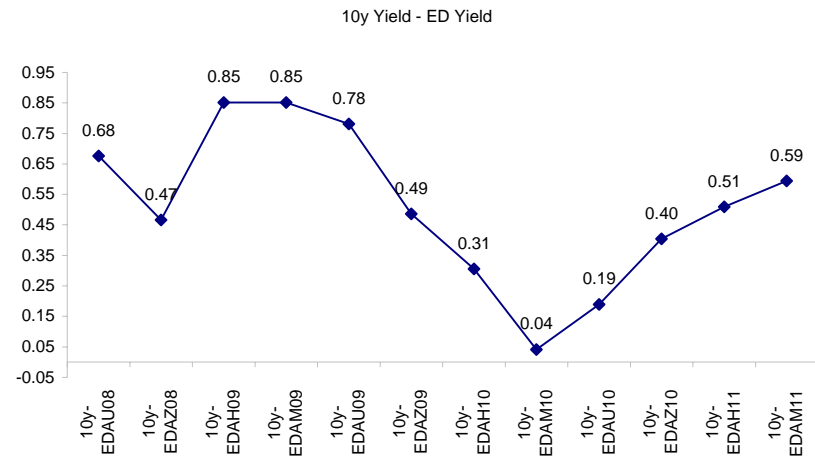


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	4.936	0.68	10y-EDAU08	8.836
EDAZ08	5.146	0.47	10y-EDAZ08	-40.883
EDAH09	4.761	0.85	10y-EDAH09	-91.866
EDAM09	4.761	0.85	10y-EDAM09	-94.159
EDAU09	4.831	0.78	10y-EDAU09	-93.760
EDAZ09	5.126	0.49	10y-EDAZ09	-93.239
EDAH10	5.306	0.31	10y-EDAH10	-92.778
EDAM10	5.571	0.04	10y-EDAM10	-93.718
EDAU10	5.801	0.19	10y-EDAU10	-94.443
EDAZ10	6.016	0.40	10y-EDAZ10	-94.819
EDAH11	6.121	0.51	10y-EDAH11	-94.176
EDAM11	6.206	0.59	10y-EDAM11	-93.574

Price = Outright Decimal Price - Euro Contract Price

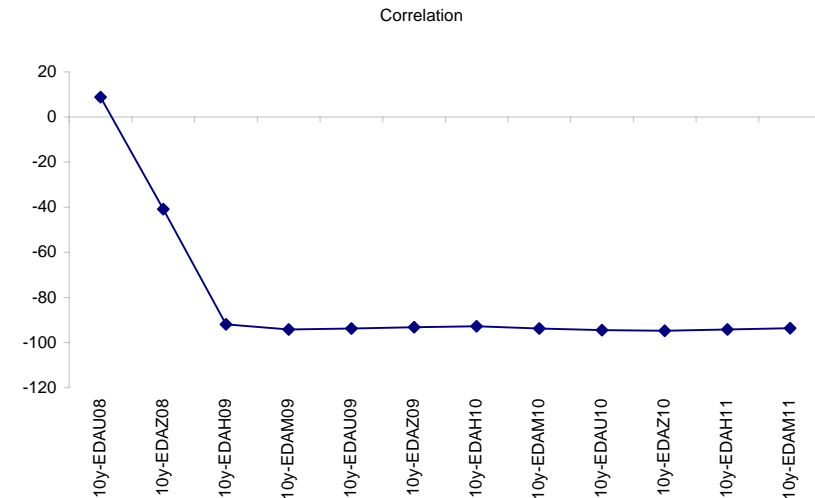
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		10Y Duration	Spread Duration	
EDAU08	#VALUE!		8.15	#VALUE!	10y-EDAU08
EDAZ08	0.243		8.15	7.90	10y-EDAZ08
EDAH09	0.492		8.15	7.65	10y-EDAH09
EDAM09	0.742		8.15	7.40	10y-EDAM09
EDAU09	0.991		8.15	7.15	10y-EDAU09
EDAZ09	1.240		8.15	6.90	10y-EDAZ09
EDAH10	1.490		8.15	6.66	10y-EDAH10
EDAM10	1.739		8.15	6.41	10y-EDAM10
EDAU10	1.988		8.15	6.16	10y-EDAU10
EDAZ10	2.238		8.15	5.91	10y-EDAZ10
EDAH11	2.487		8.15	5.66	10y-EDAH11
EDAM11	2.736		8.15	5.41	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.

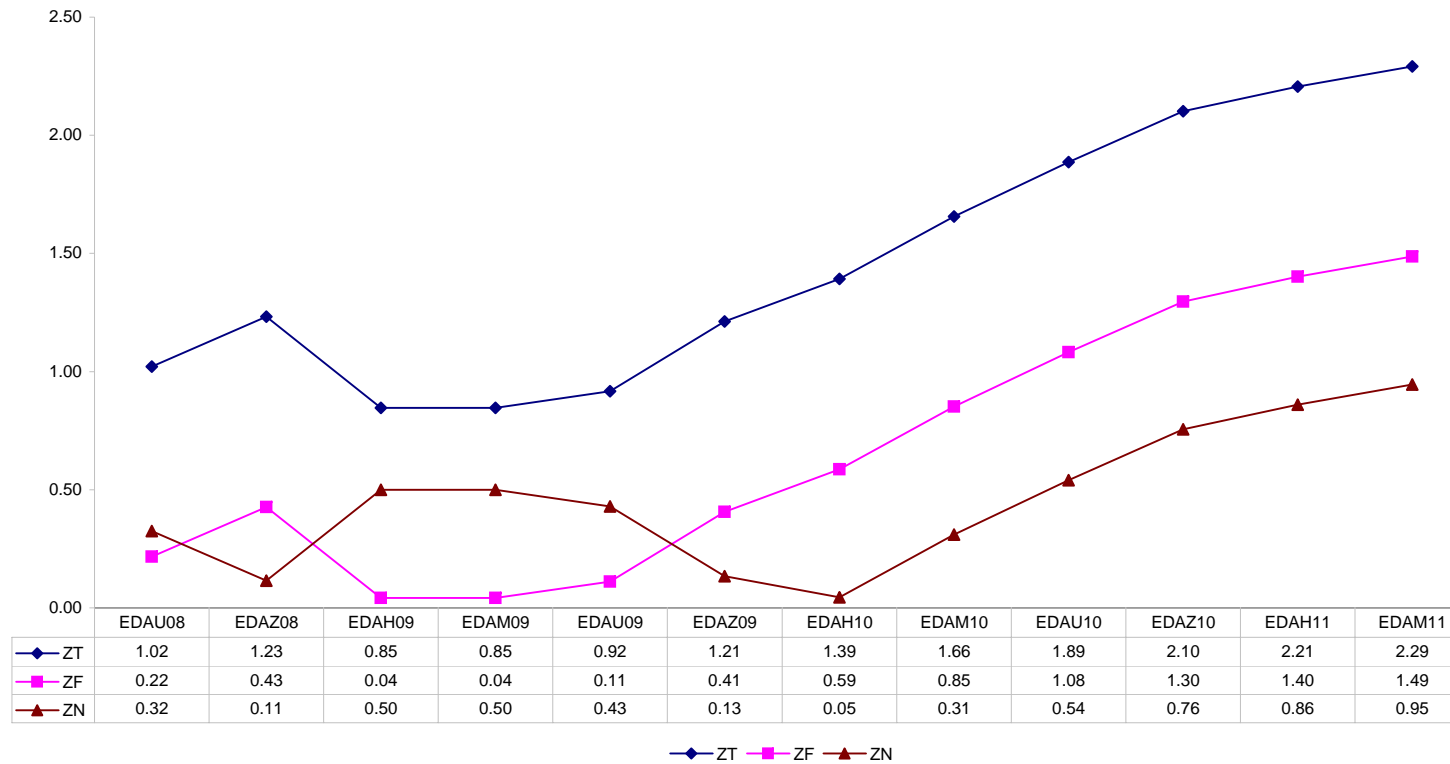
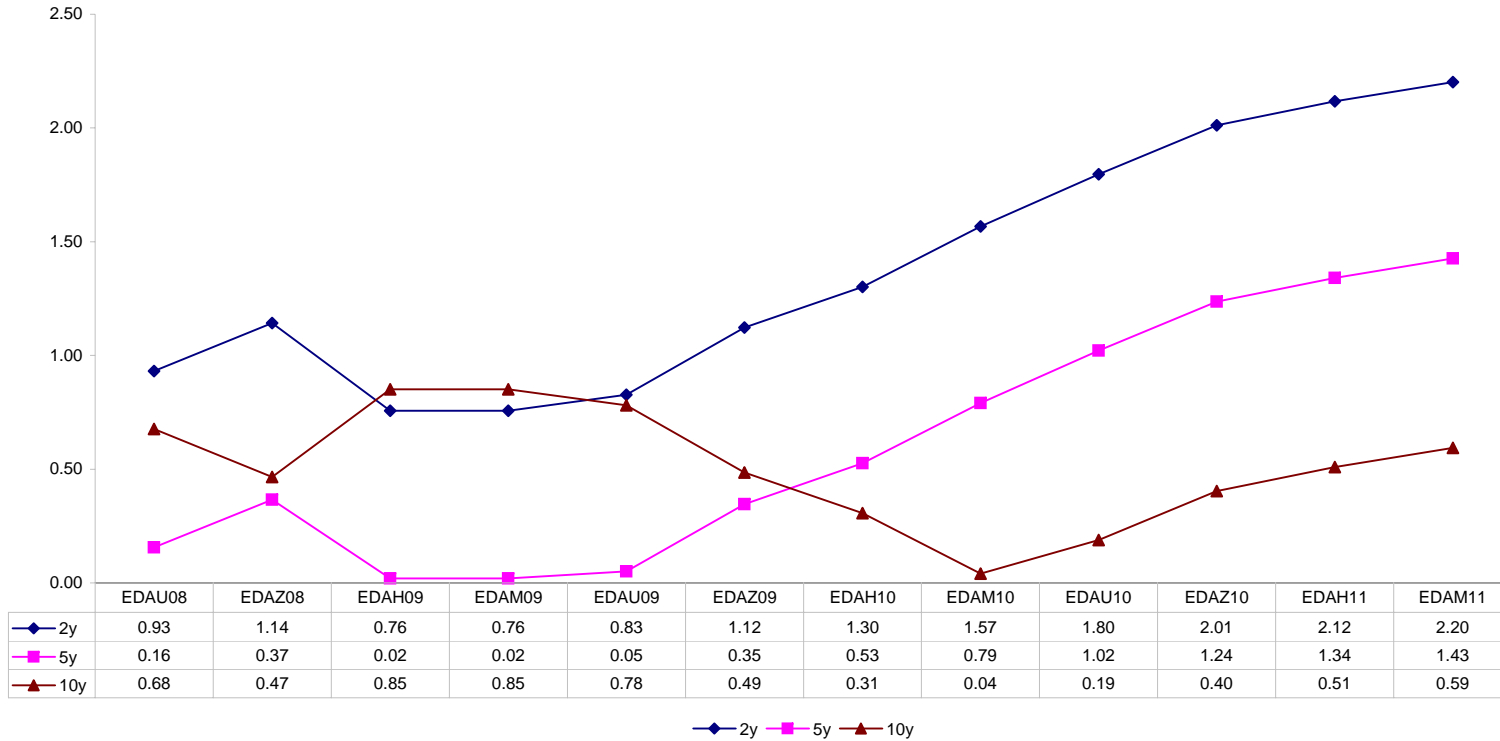
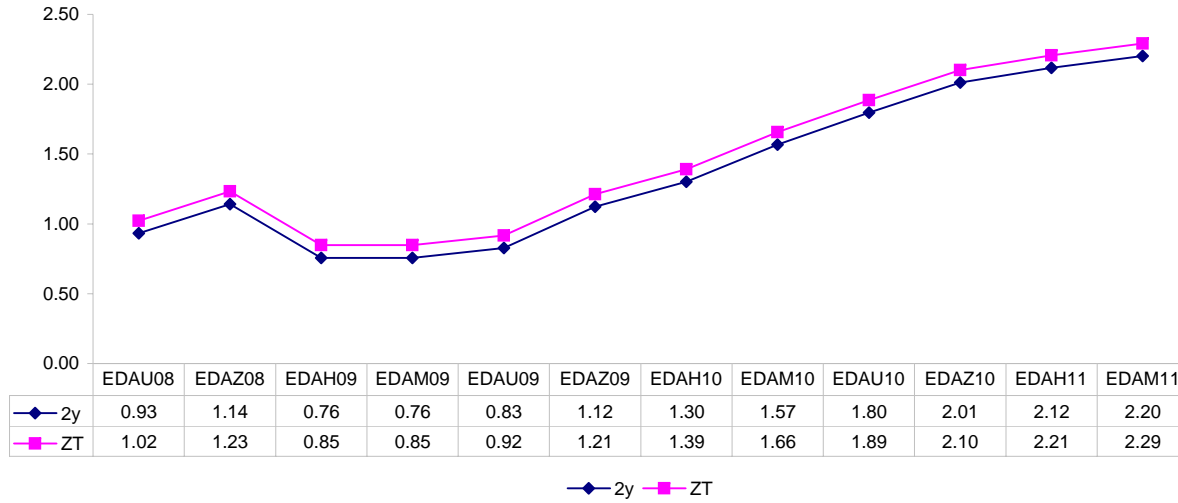


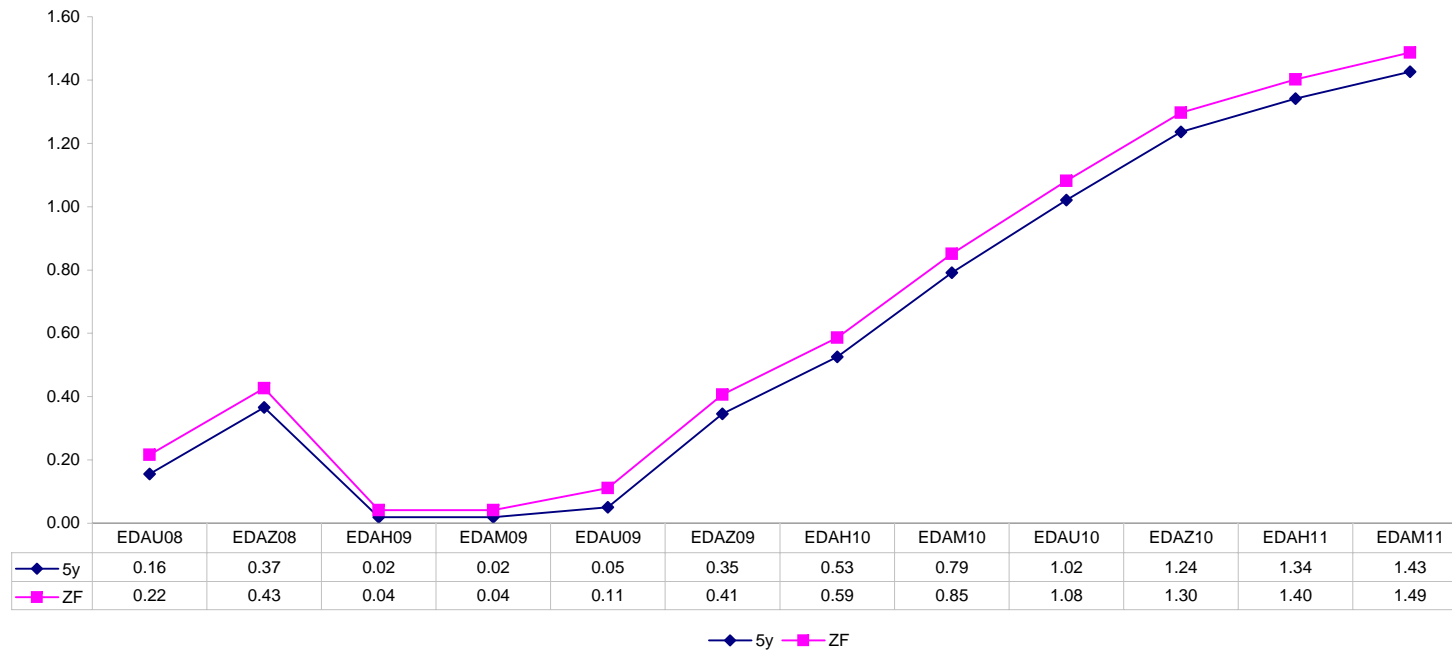
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



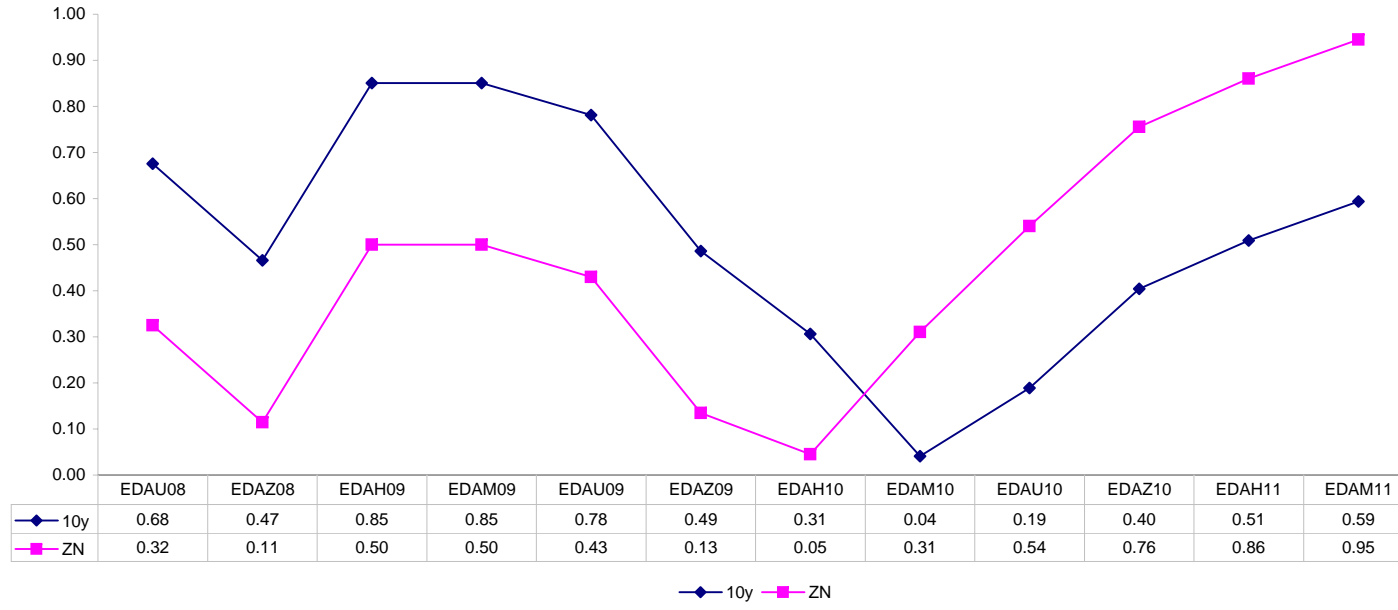
2y Basis TED Curve



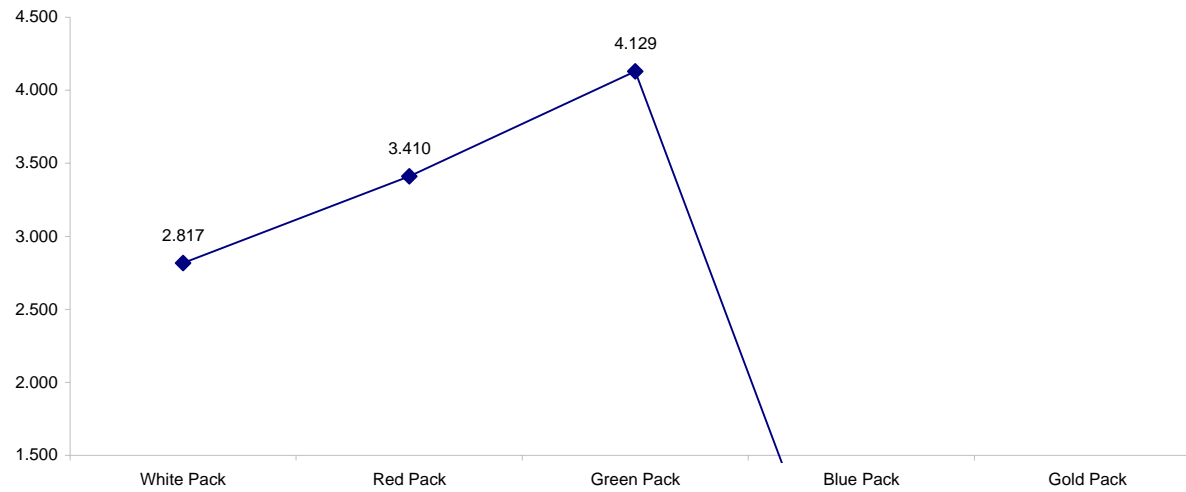
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	2.817	-8.500	9724.125
Red Pack	3.410	-2.500	9666.500
Green Pack	4.129	-2.625	9596.875
Blue Pack		-1.250	9576.250
Gold Pack		0.000	9558.875



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

