

The Morning Email: TERM TEDS & Dirty TEDS

Table of Contents

- Pg 1** Quotes

- Pg 2** Dirty TED: ZT vs Eurodollar Contracts

- Pg 3** Dirty TED: ZF vs Eurodollar Contracts

- Pg 4** Dirty TED: ZN vs Eurodollar Contracts

- Pg 5** TERM TED: 2y vs Eurodollar Contracts

- Pg 6** TERM TED: 5y vs Eurodollar Contracts

- Pg 7** TERM TED: 10y vs Eurodollar Contracts

- Pg 8** Dirty TED Curve

- Pg 9** TED Curve

- Pg 10** 2y Basis TED Curve

- Pg 11** 5y Basis TED Curve

- Pg 12** 10y Basis TED Curve

- Pg 13** Packs

- Pg 14** 2y, 5y, 10y Basis Curves vs ED

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	104.9125	104.292	2.863	1.91
ZF	108.9531	108.305	3.589	4.09
ZN	111.7969	111.255	4.046	6.49
2y	99.475	99.1520	2.899	1.88
5y	99.328	99.1050	3.644	4.49
10y	97.297	97.0950	4.209	8.09

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU08	96.825	3.175	89	0.243	SEP	
EDAZ08	96.465	3.535	180	0.492	DEC	White Pack
EDAH09	96.280	3.720	271	0.742	MAR	
EDAM09	96.080	3.920	362	0.991	JUN	
EDAU09	95.855	4.145	453	1.240	SEP	
EDAZ09	95.595	4.405	544	1.490	DEC	Red Pack
EDAH10	95.415	4.585	635	1.739	MAR	
EDAM10	95.245	4.755	726	1.988	JUN	
EDAU10	95.125	4.875	817	2.238	SEP	
EDAZ10	95.020	4.980	908	2.487	DEC	Green Pack
EDAH11	94.980	5.020	999	2.736	MAR	
EDAM11	94.940	5.060	1090	2.986	JUN	
EDAU11	94.920	5.080	1188	3.254	SEP	
EDAZ11	94.850	5.150	1279	3.503	DEC	Blue Pack
EDAH12	94.845	5.155	1370	3.753	MAR	
EDAM12	94.805	5.195	1461	4.002	JUN	
EDAU12	94.815	5.185	1552	4.251	SEP	
EDAZ12	94.775	5.225	1643	4.501	DEC	Gold Pack
EDAH13	94.745	5.255	1734	4.750	MAR	
EDAM13	94.715	5.285	1825	4.999	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	3.670	3.000	9641.250	
Red Pack	4.586	4.000	9552.750	Pack Prices
Green Pack	5.117	1.875	9501.625	
Blue Pack	5.284	-0.625	9485.500	
Gold Pack	5.381	0.875	9476.250	

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.

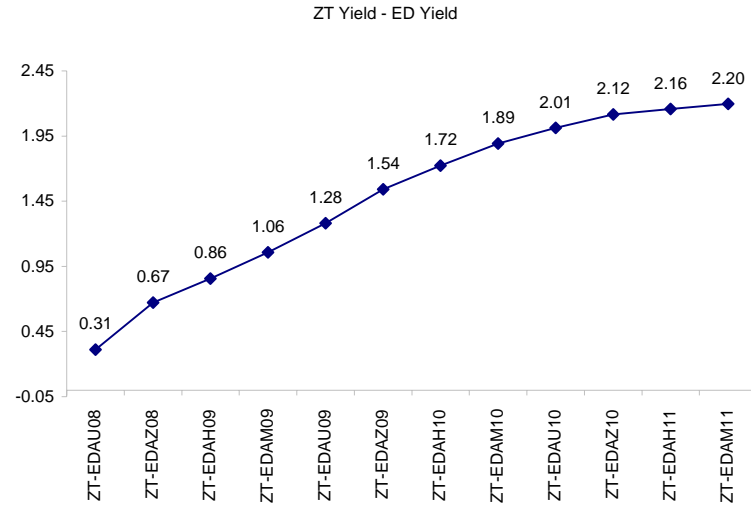
jgoulding@ghco.com

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.

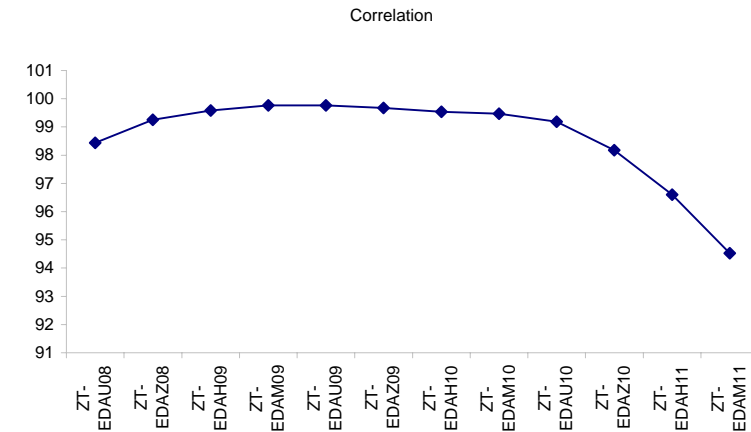
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	8.088	0.31	ZT-EDAU08	98.442
EDAZ08	8.448	0.67	ZT-EDAZ08	99.255
EDAH09	8.633	0.86	ZT-EDAH09	99.584
EDAM09	8.833	1.06	ZT-EDAM09	99.759
EDAU09	9.058	1.28	ZT-EDAU09	99.767
EDAZ09	9.318	1.54	ZT-EDAZ09	99.677
EDAH10	9.498	1.72	ZT-EDAH10	99.533
EDAM10	9.668	1.89	ZT-EDAM10	99.466
EDAU10	9.788	2.01	ZT-EDAU10	99.182
EDAZ10	9.893	2.12	ZT-EDAZ10	98.175
EDAH11	9.933	2.16	ZT-EDAH11	96.603
EDAM11	9.973	2.20	ZT-EDAM11	94.531

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	0.243	1.91	1.67	ZT-EDAU08		
EDAZ08	0.492	1.91	1.42	ZT-EDAZ08		
EDAH09	0.742	1.91	1.17	ZT-EDAH09		
EDAM09	0.991	1.91	0.92	ZT-EDAM09		
EDAU09	1.240	1.91	0.67	ZT-EDAU09		
EDAZ09	1.490	1.91	0.42	ZT-EDAZ09		
EDAH10	1.739	1.91	0.17	ZT-EDAH10		
EDAM10	1.988	1.91	(0.08)	ZT-EDAM10		
EDAU10	2.238	1.91	(0.33)	ZT-EDAU10		
EDAZ10	2.487	1.91	(0.58)	ZT-EDAZ10		
EDAH11	2.736	1.91	(0.83)	ZT-EDAH11		
EDAM11	2.986	1.91	(1.08)	ZT-EDAM11		

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

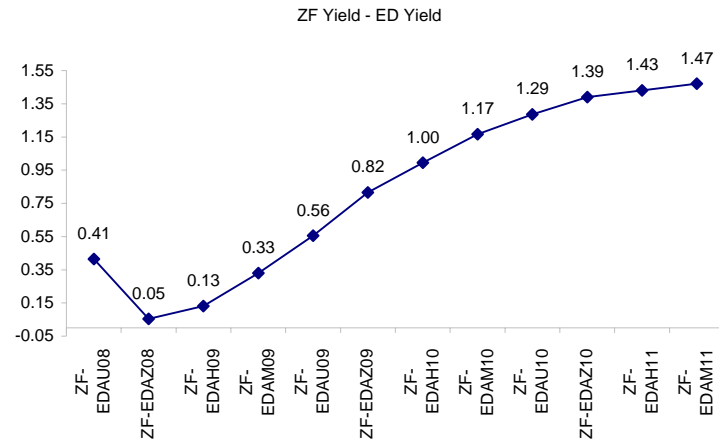


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	12.128	0.41	ZF-EDAU08	94.465
EDAZ08	12.488	0.05	ZF-EDAZ08	95.028
EDAH09	12.673	0.13	ZF-EDAH09	95.515
EDAM09	12.873	0.33	ZF-EDAM09	95.762
EDAU09	13.098	0.56	ZF-EDAU09	96.064
EDAZ09	13.358	0.82	ZF-EDAZ09	96.516
EDAH10	13.538	1.00	ZF-EDAH10	96.578
EDAM10	13.708	1.17	ZF-EDAM10	97.307
EDAU10	13.828	1.29	ZF-EDAU10	98.113
EDAZ10	13.933	1.39	ZF-EDAZ10	98.776
EDAH11	13.973	1.43	ZF-EDAH11	98.777
EDAM11	14.013	1.47	ZF-EDAM11	98.103

Price = Outright Decimal Price - Euro Contract Price

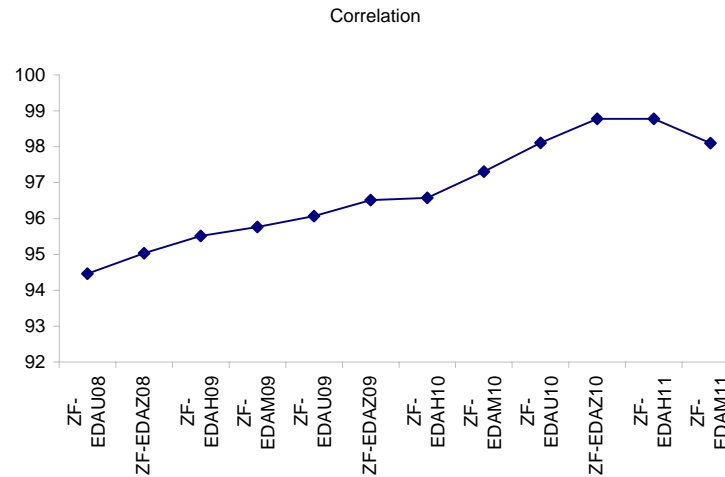
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



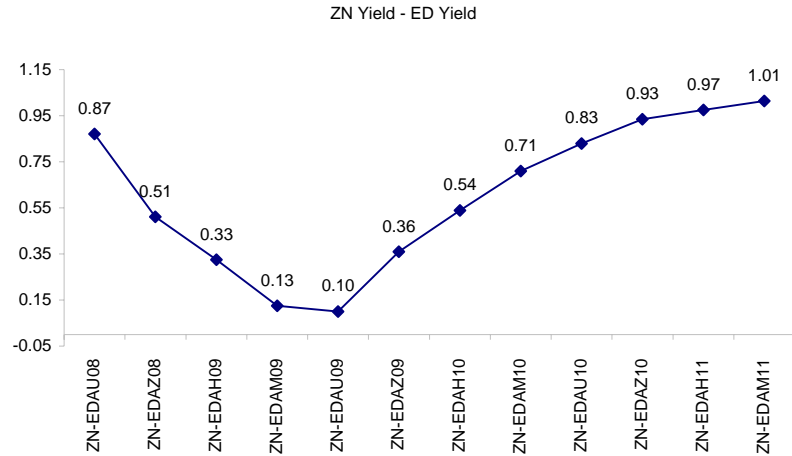
	ED Duration as Fraction of year			
	Fraction of year	ZF Duration	Spread Duration	
EDAU08	0.243	4.09	3.84	ZF-EDAU08
EDAZ08	0.492	4.09	3.59	ZF-EDAZ08
EDAH09	0.742	4.09	3.34	ZF-EDAH09
EDAM09	0.991	4.09	3.09	ZF-EDAM09
EDAU09	1.240	4.09	2.85	ZF-EDAU09
EDAZ09	1.490	4.09	2.60	ZF-EDAZ09
EDAH10	1.739	4.09	2.35	ZF-EDAH10
EDAM10	1.988	4.09	2.10	ZF-EDAM10
EDAU10	2.238	4.09	1.85	ZF-EDAU10
EDAZ10	2.487	4.09	1.60	ZF-EDAZ10
EDAH11	2.736	4.09	1.35	ZF-EDAH11
EDAM11	2.986	4.09	1.10	ZF-EDAM11

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



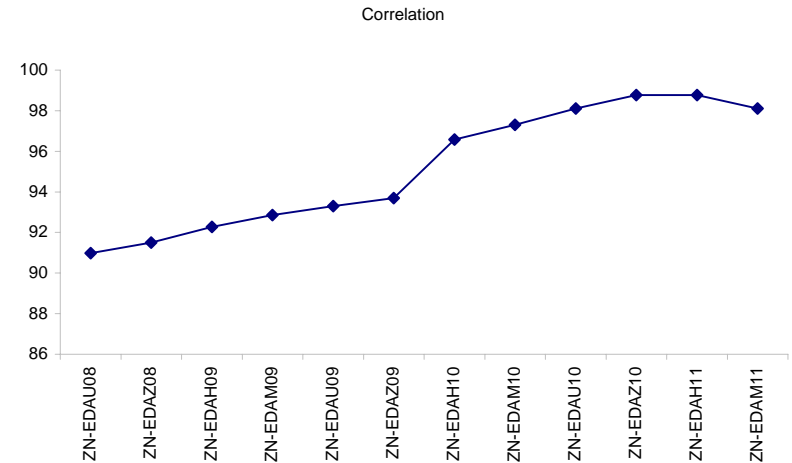
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	14.972	0.87	ZN-EDAU08	90.982
EDAZ08	15.332	0.51	ZN-EDAZ08	91.507
EDAH09	15.517	0.33	ZN-EDAH09	92.281
EDAM09	15.717	0.13	ZN-EDAM09	92.856
EDAU09	15.942	0.10	ZN-EDAU09	93.303
EDAZ09	16.202	0.36	ZN-EDAZ09	93.699
EDAH10	16.382	0.54	ZN-EDAH10	96.578
EDAM10	16.552	0.71	ZN-EDAM10	97.307
EDAU10	16.672	0.83	ZN-EDAU10	98.113
EDAZ10	16.777	0.93	ZN-EDAZ10	98.776
EDAH11	16.817	0.97	ZN-EDAH11	98.777
EDAM11	16.857	1.01	ZN-EDAM11	98.103

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	0.243	6.49	6.25	ZN-EDAU08		
EDAZ08	0.492	6.49	6.00	ZN-EDAZ08		
EDAH09	0.742	6.49	5.75	ZN-EDAH09		
EDAM09	0.991	6.49	5.50	ZN-EDAM09		
EDAU09	1.240	6.49	5.25	ZN-EDAU09		
EDAZ09	1.490	6.49	5.00	ZN-EDAZ09		
EDAH10	1.739	6.49	4.75	ZN-EDAH10		
EDAM10	1.988	6.49	4.50	ZN-EDAM10		
EDAU10	2.238	6.49	4.25	ZN-EDAU10		
EDAZ10	2.487	6.49	4.00	ZN-EDAZ10		
EDAH11	2.736	6.49	3.75	ZN-EDAH11		
EDAM11	2.986	6.49	3.51	ZN-EDAM11		

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

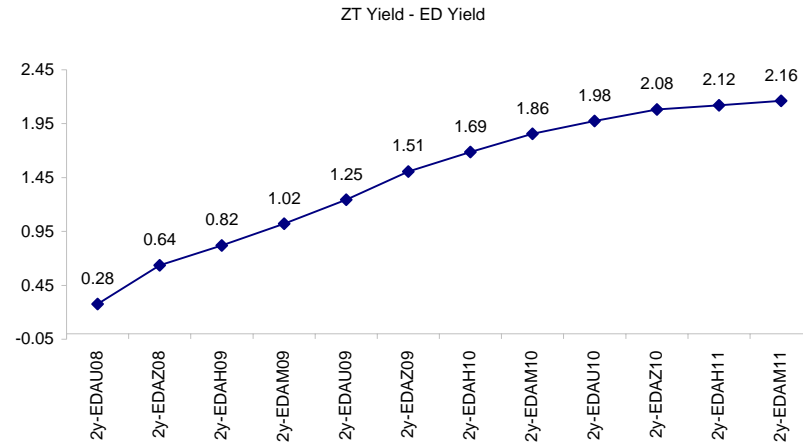


	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.650	0.28	2y-EDAU08	-97.523
EDAZ08	3.010	0.64	2y-EDAZ08	-98.052
EDAH09	3.195	0.82	2y-EDAH09	-98.543
EDAM09	3.395	1.02	2y-EDAM09	-99.078
EDAU09	3.620	1.25	2y-EDAU09	-99.219
EDAZ09	3.880	1.51	2y-EDAZ09	-99.063
EDAH10	4.060	1.69	2y-EDAH10	-98.675
EDAM10	4.230	1.86	2y-EDAM10	-98.424
EDAU10	4.350	1.98	2y-EDAU10	-98.202
EDAZ10	4.455	2.08	2y-EDAZ10	-97.232
EDAH11	4.495	2.12	2y-EDAH11	-95.834
EDAM11	4.535	2.16	2y-EDAM11	-93.981

Price = Outright Decimal Price - Euro Contract Price

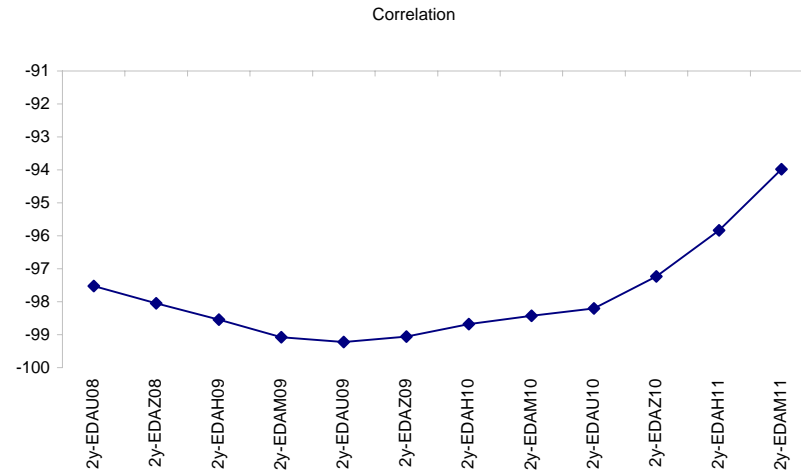
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

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



	ED Duration as Fraction of year			
	2Y Duration	Spread Duration		
EDAU08	0.243	1.88	1.64	2y-EDAU08
EDAZ08	0.492	1.88	1.39	2y-EDAZ08
EDAH09	0.742	1.88	1.14	2y-EDAH09
EDAM09	0.991	1.88	0.89	2y-EDAM09
EDAU09	1.240	1.88	0.64	2y-EDAU09
EDAZ09	1.490	1.88	0.39	2y-EDAZ09
EDAH10	1.739	1.88	0.14	2y-EDAH10
EDAM10	1.988	1.88	(0.11)	2y-EDAM10
EDAU10	2.238	1.88	(0.36)	2y-EDAU10
EDAZ10	2.487	1.88	(0.60)	2y-EDAZ10
EDAH11	2.736	1.88	(0.85)	2y-EDAH11
EDAM11	2.986	1.88	(1.10)	2y-EDAM11

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

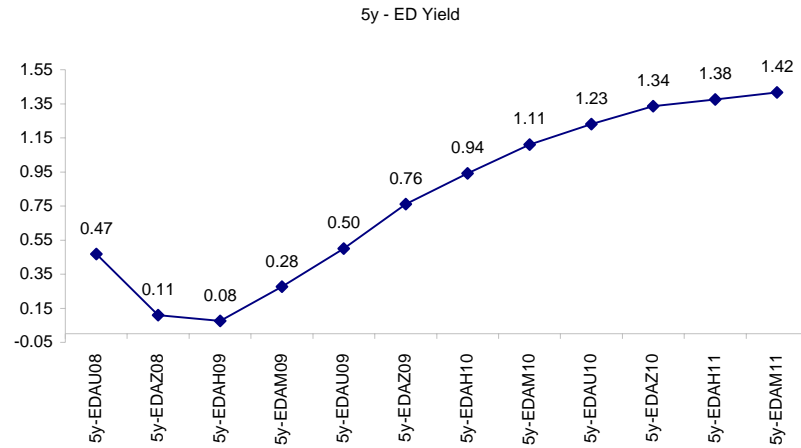


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.503	0.47	5y-EDAU08	-94.182
EDAZ08	2.863	0.11	5y-EDAZ08	-94.245
EDAH09	3.048	0.08	5y-EDAH09	-94.768
EDAM09	3.248	0.28	5y-EDAM09	-95.301
EDAU09	3.473	0.50	5y-EDAU09	-95.667
EDAZ09	3.733	0.76	5y-EDAZ09	-95.995
EDAH10	3.913	0.94	5y-EDAH10	-95.827
EDAM10	4.083	1.11	5y-EDAM10	-96.434
EDAU10	4.203	1.23	5y-EDAU10	-97.314
EDAZ10	4.308	1.34	5y-EDAZ10	-98.031
EDAH11	4.348	1.38	5y-EDAH11	-98.175
EDAM11	4.388	1.42	5y-EDAM11	-97.702

Price = Outright Decimal Price - Euro Contract Price

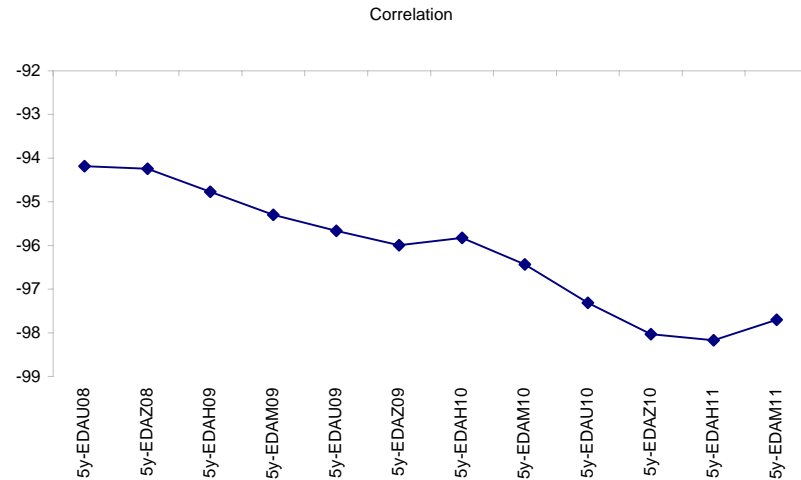
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	5Y Duration	Spread Duration	
EDAU08	0.243	4.49	4.25	5y-EDAU08
EDAZ08	0.492	4.49	4.00	5y-EDAZ08
EDAH09	0.742	4.49	3.75	5y-EDAH09
EDAM09	0.991	4.49	3.50	5y-EDAM09
EDAU09	1.240	4.49	3.25	5y-EDAU09
EDAZ09	1.490	4.49	3.01	5y-EDAZ09
EDAH10	1.739	4.49	2.76	5y-EDAH10
EDAM10	1.988	4.49	2.51	5y-EDAM10
EDAU10	2.238	4.49	2.26	5y-EDAU10
EDAZ10	2.487	4.49	2.01	5y-EDAZ10
EDAH11	2.736	4.49	1.76	5y-EDAH11
EDAM11	2.986	4.49	1.51	5y-EDAM11

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

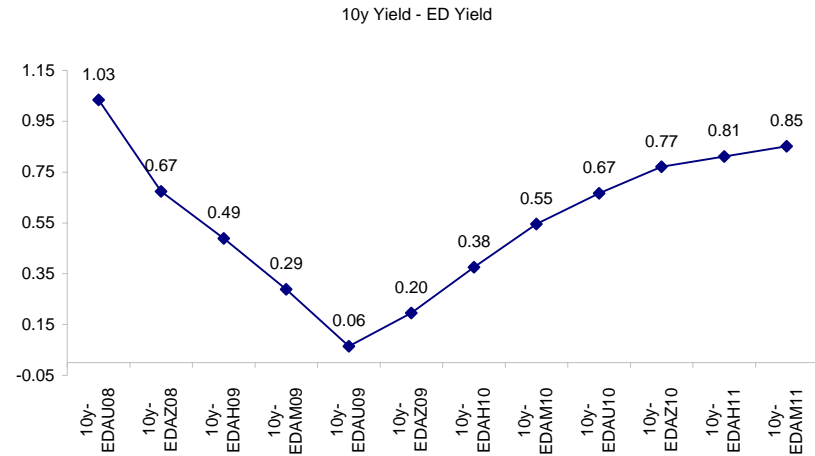


	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU08	2.503	1.03	10y-EDAU08	-86.753
EDAZ08	2.863	0.67	10y-EDAZ08	-86.439
EDAH09	3.048	0.49	10y-EDAH09	-87.034
EDAM09	3.248	0.29	10y-EDAM09	-87.493
EDAU09	3.473	0.06	10y-EDAU09	-87.970
EDAZ09	3.733	0.20	10y-EDAZ09	-88.593
EDAH10	3.913	0.38	10y-EDAH10	-88.526
EDAM10	4.083	0.55	10y-EDAM10	-89.839
EDAU10	4.203	0.67	10y-EDAU10	-91.780
EDAZ10	4.308	0.77	10y-EDAZ10	-94.118
EDAH11	4.348	0.81	10y-EDAH11	-95.746
EDAM11	4.388	0.85	10y-EDAM11	-96.639

Price = Outright Decimal Price - Euro Contract Price

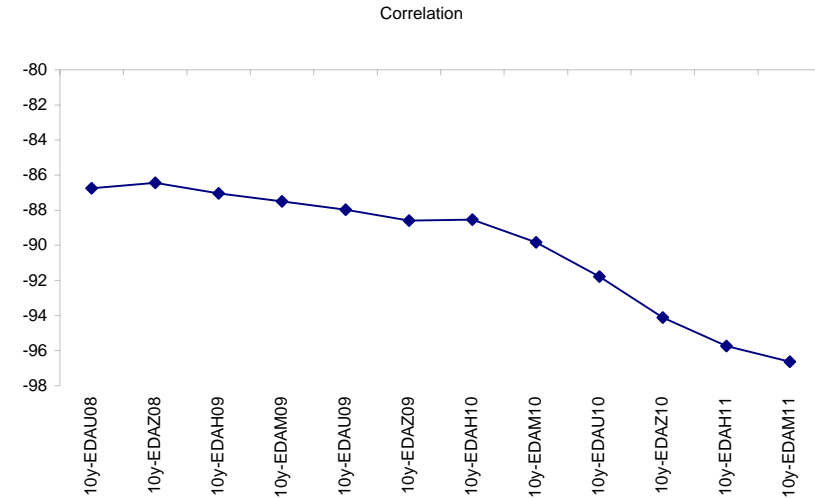
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year			
	Fraction of year	10Y Duration	Spread Duration	
EDAU08	0.243	8.09	7.85	10y-EDAU08
EDAZ08	0.492	8.09	7.60	10y-EDAZ08
EDAH09	0.742	8.09	7.35	10y-EDAH09
EDAM09	0.991	8.09	7.10	10y-EDAM09
EDAU09	1.240	8.09	6.85	10y-EDAU09
EDAZ09	1.490	8.09	6.60	10y-EDAZ09
EDAH10	1.739	8.09	6.35	10y-EDAH10
EDAM10	1.988	8.09	6.10	10y-EDAM10
EDAU10	2.238	8.09	5.85	10y-EDAU10
EDAZ10	2.487	8.09	5.60	10y-EDAZ10
EDAH11	2.736	8.09	5.36	10y-EDAH11
EDAM11	2.986	8.09	5.11	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.

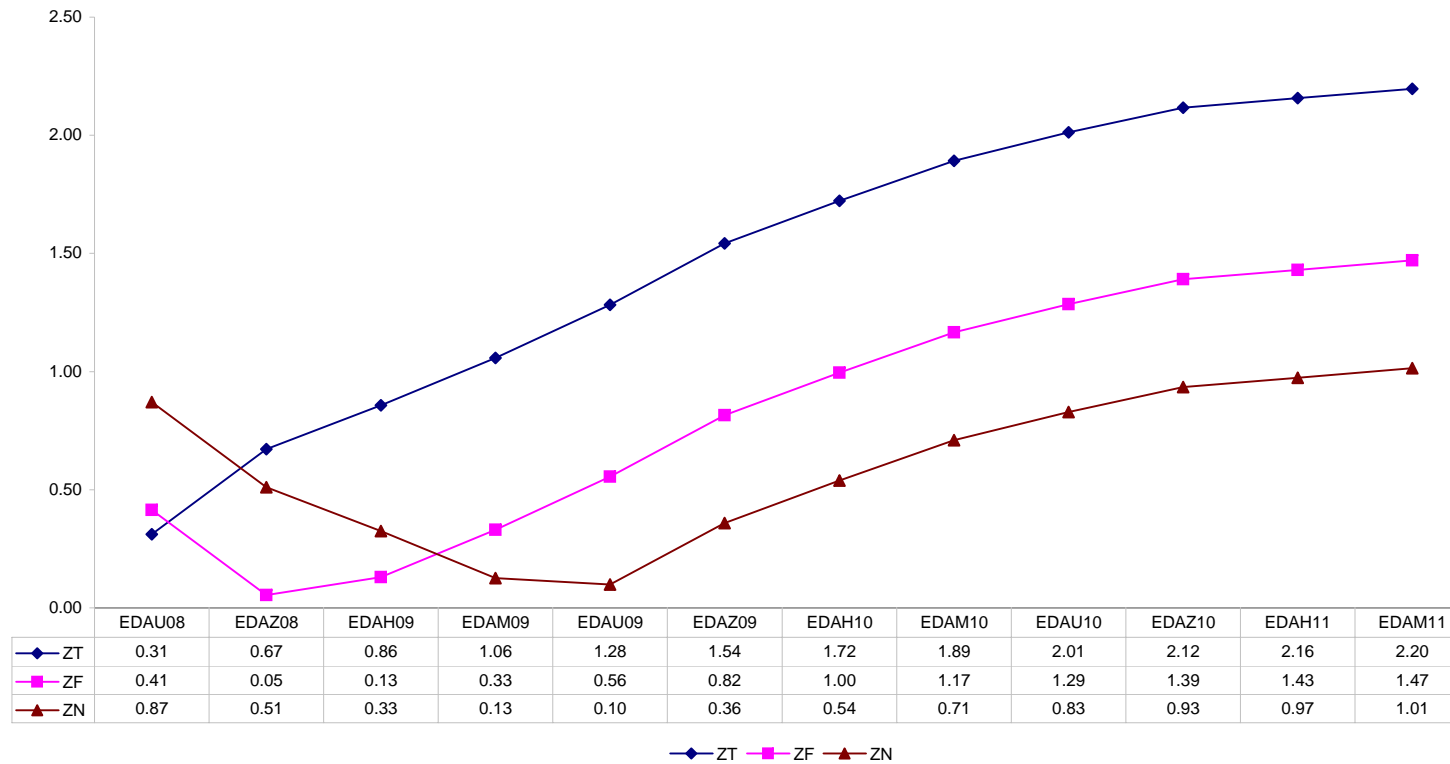
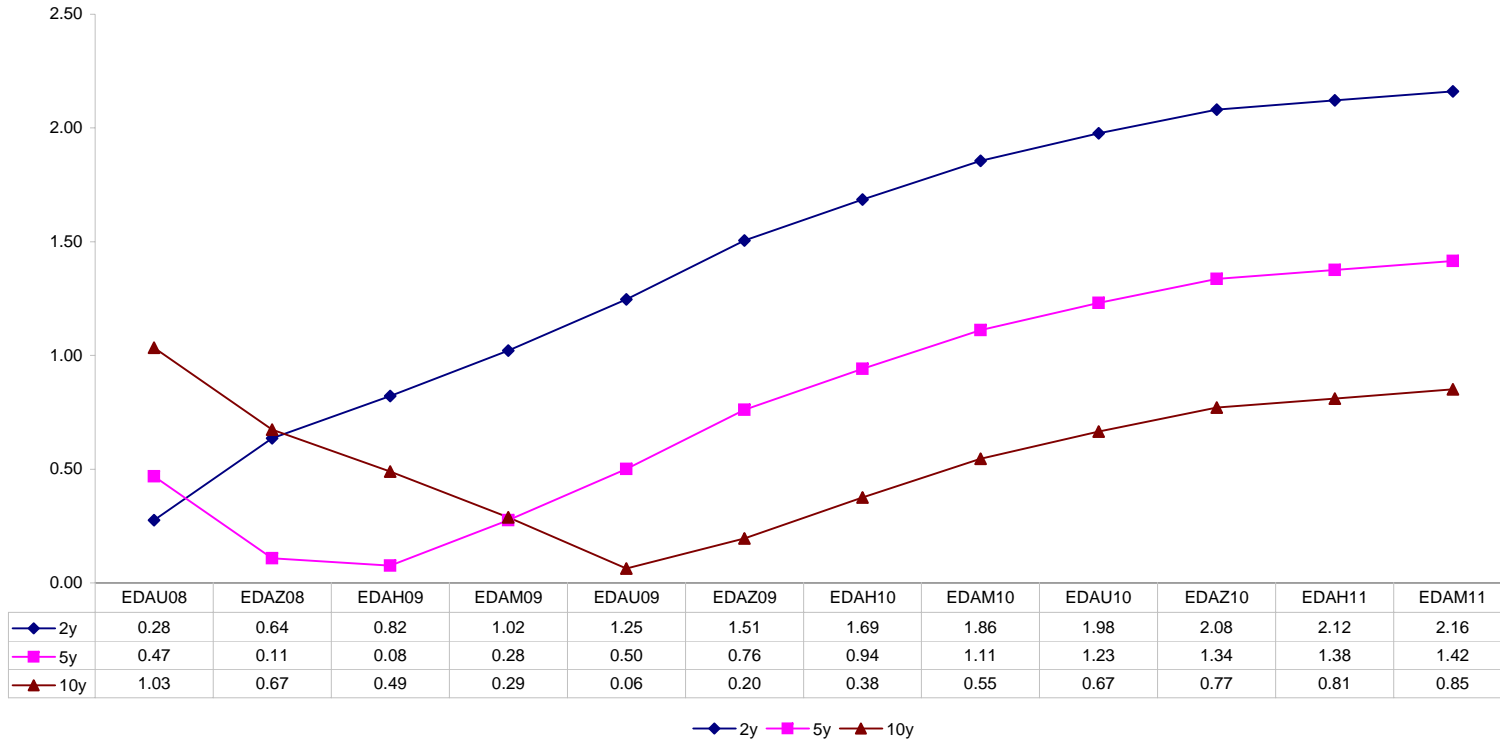
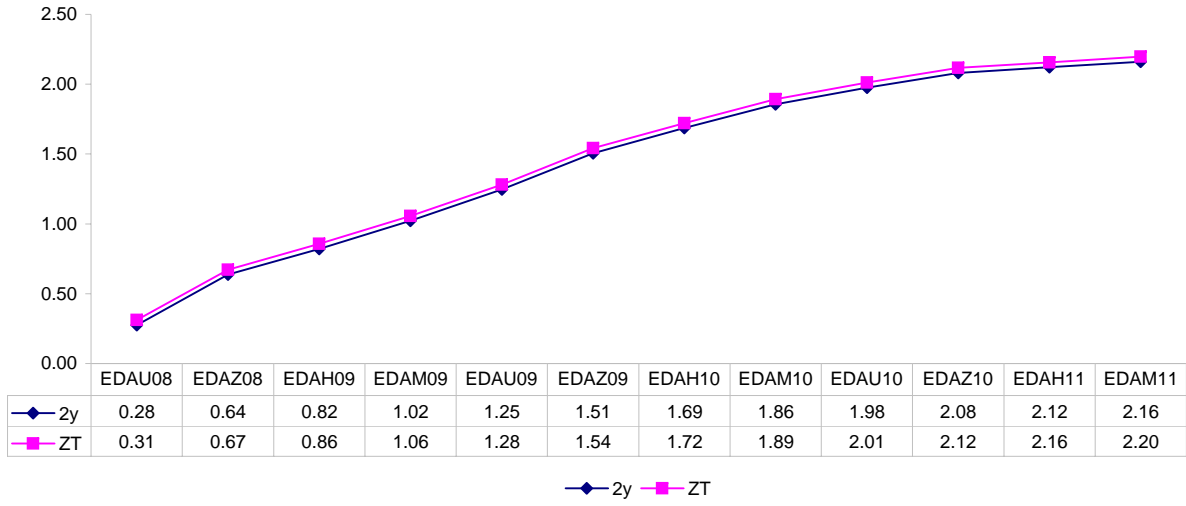


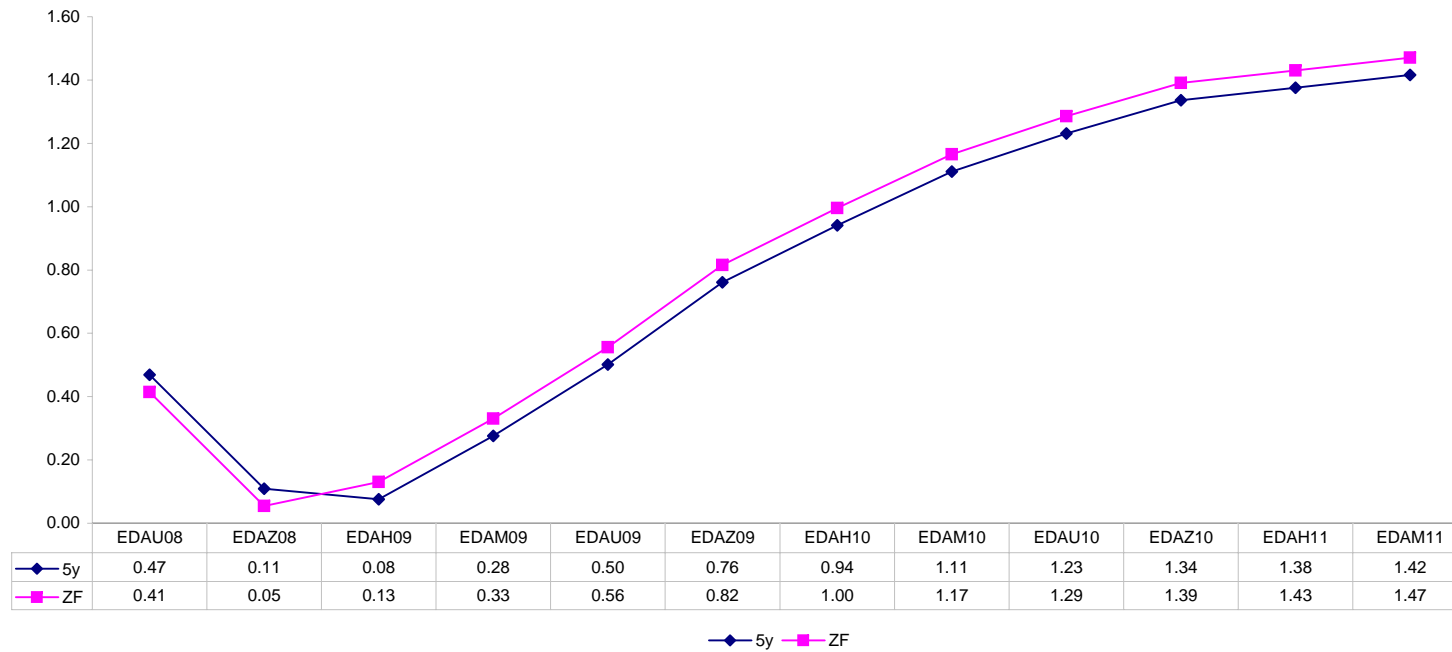
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



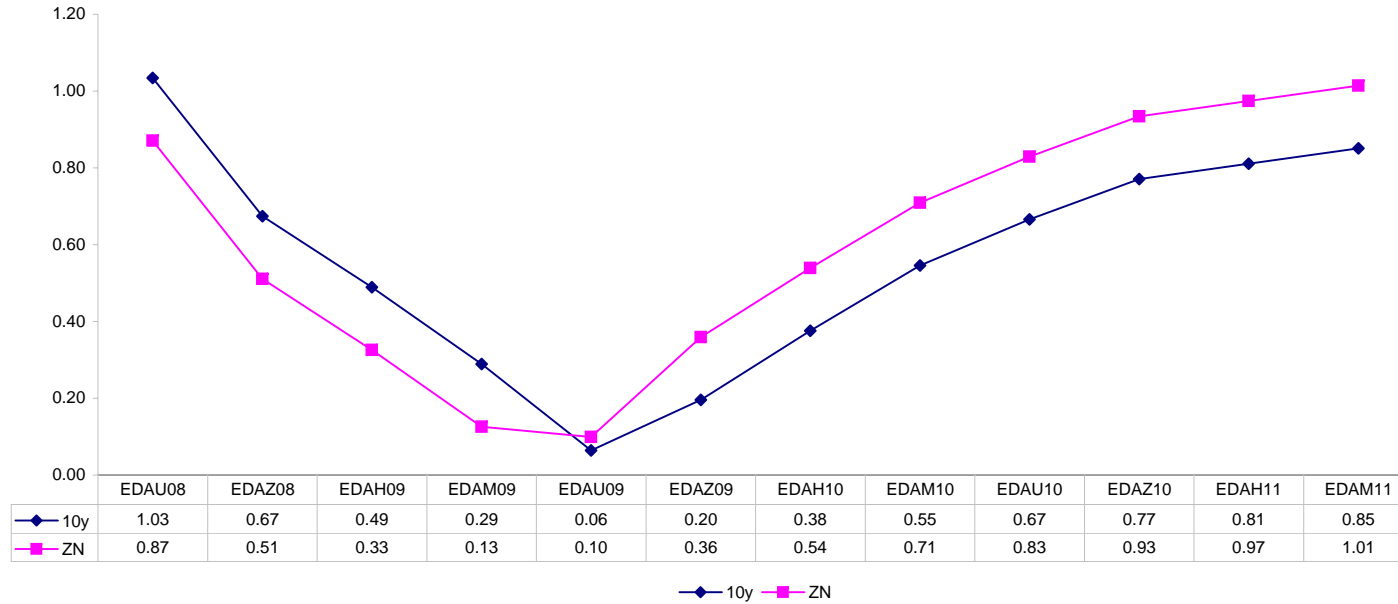
2y Basis TED Curve



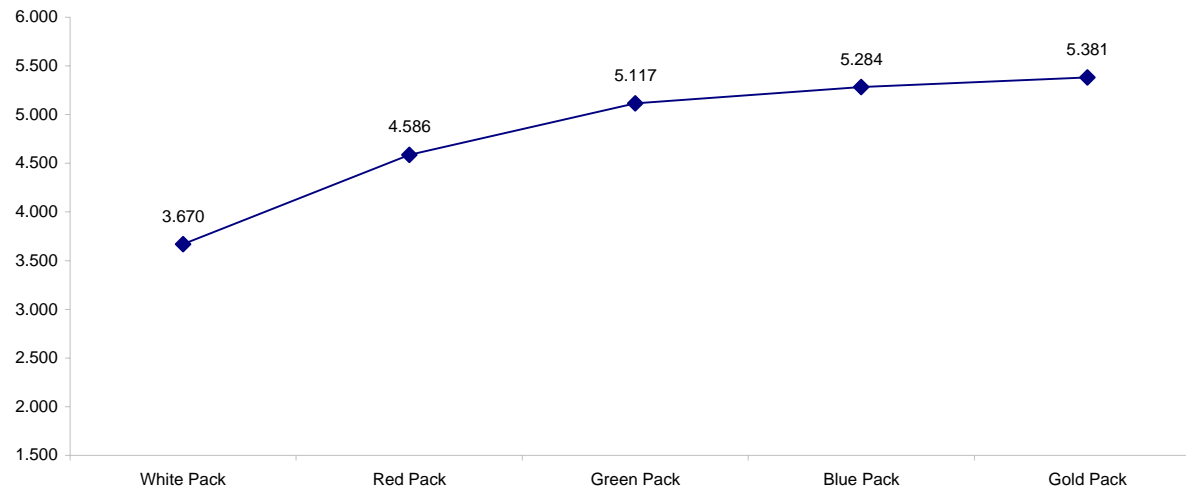
5y Basis TED Curve



10y Basis TED Curve



	Last Yield	Net Last Yield	Last Price
White Pack	3.670	3.000	9641.250
Red Pack	4.586	4.000	9552.750
Green Pack	5.117	1.875	9501.625
Blue Pack	5.284	-0.625	9485.500
Gold Pack	5.381	0.875	9476.250



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

