

## The Morning Email: TERM TEDS & Dirty TEDS

### Table of Contents

<b>Pg1</b>	Overview and hedges	<b>Pg10</b>	2y Basis TED Curve
<b>Pg2</b>	Dirty TED: ZT vs Eurodollar Contracts	<b>Pg11</b>	5y Basis TED Curve
<b>Pg3</b>	Dirty TED: ZF vs Eurodollar Contracts	<b>Pg12</b>	10y Basis TED Curve
<b>Pg4</b>	Dirty TED: ZN vs Eurodollar Contracts		
<b>Pg5</b>	TERM TED: 2y vs Eurodollar Contracts		
<b>Pg6</b>	TERM TED: 5y vs Eurodollar Contracts		
<b>Pg7</b>	TERM TED: 10y vs Eurodollar Contracts		
<b>Pg8</b>	Dirty TED Curve		
<b>Pg9</b>	TED Curve		

**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.**

Want something added? Let me know: [jgoulding@ghco.com](mailto: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.

F.I. Futures and Cash				
	Last Decimal	Last 32	Last Yield*	**MDuration
ZT	101.6313	101.202	4.999	1.88
ZF	103.4688	103.150	5.116	3.96
ZN	104.7344	104.235	5.185	5.78
2y	99.719	99.2300	5.023	2.02
5y	98.547	98.1750	5.084	4.28
10y	94.984	94.3150	5.150	7.81

\*Futures use CTD for Last Yield

\*\*Mduration = Modified Macaulay Duration

Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month
EDAM07	94.640	5.360	0	-0.001	JUN
EDAU07	94.635	5.365	91	0.249	SEP
EDAZ07	94.625	5.375	182	0.498	DEC
EDAH08	94.645	5.355	273	0.747	MAR
EDAM08	94.665	5.335	364	0.997	JUN
EDAU08	94.655	5.345	455	1.246	SEP
EDAZ08	94.630	5.370	546	1.495	DEC
EDAH09	94.600	5.400	637	1.745	MAR
EDAM09	94.565	5.435	728	1.994	JUN
EDAU09	94.535	5.465	819	2.243	SEP
EDAZ09	94.495	5.505	910	2.492	DEC
EDAH10	94.480	5.520	1001	2.742	MAR

White  
Pack

Red  
Pack

Green  
Pack

**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](mailto:jgoulding@ghco.com)

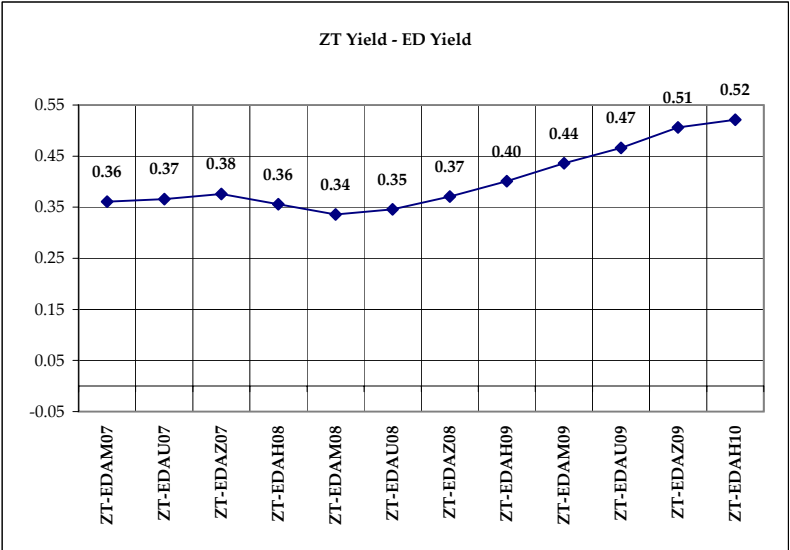
**Eurodollar Color Codes for Individual Year Strips:**

Color	Year	Contracts
White	One	1 – 4
Red	Two	5 – 8
Green	Three	9 – 12
Blue	Four	13 – 16
Gold	Five	17 – 20
Purple	Six	21 – 24
Orange	Seven	25 – 28
Pink	Eight	29 – 32
Silver	Nine	33 – 36
Copper	Ten	37 – 40

Dirty TED: ZT vs Eurodollar Contracts

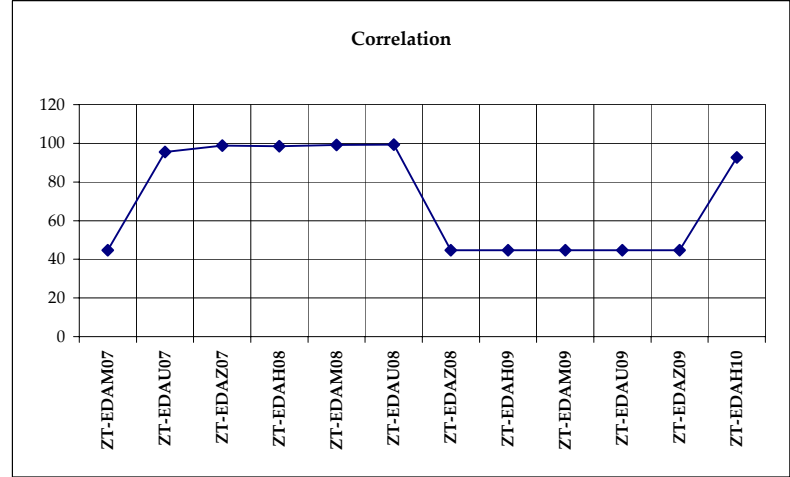
ZT				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	6.991	0.36	ZT-EDAM07	44.675
EDAU07	6.996	0.37	ZT-EDAU07	95.424
EDAZ07	7.006	0.38	ZT-EDAZ07	98.798
EDAH08	6.986	0.36	ZT-EDAH08	98.466
EDAM08	6.966	0.34	ZT-EDAM08	99.216
EDAU08	6.976	0.35	ZT-EDAU08	99.372
EDAZ08	7.001	0.37	ZT-EDAZ08	44.675
EDAH09	7.031	0.40	ZT-EDAH09	44.675
EDAM09	7.066	0.44	ZT-EDAM09	44.675
EDAU09	7.096	0.47	ZT-EDAU09	44.675
EDAZ09	7.136	0.51	ZT-EDAZ09	44.675
EDAH10	7.151	0.52	ZT-EDAH10	92.748

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year				
	Fraction of year	ZT Duration	Spread Duration	
EDAM07	-0.001	1.88	1.88	ZT-EDAM07
EDAU07	0.249	1.88	1.63	ZT-EDAU07
EDAZ07	0.498	1.88	1.39	ZT-EDAZ07
EDAH08	0.747	1.88	1.14	ZT-EDAH08
EDAM08	0.997	1.88	0.89	ZT-EDAM08
EDAU08	1.246	1.88	0.64	ZT-EDAU08
EDAZ08	1.495	1.88	0.39	ZT-EDAZ08
EDAH09	1.745	1.88	0.14	ZT-EDAH09
EDAM09	1.994	1.88	(0.11)	ZT-EDAM09
EDAU09	2.243	1.88	(0.36)	ZT-EDAU09
EDAZ09	2.492	1.88	(0.61)	ZT-EDAZ09
EDAH10	2.742	1.88	(0.86)	ZT-EDAH10

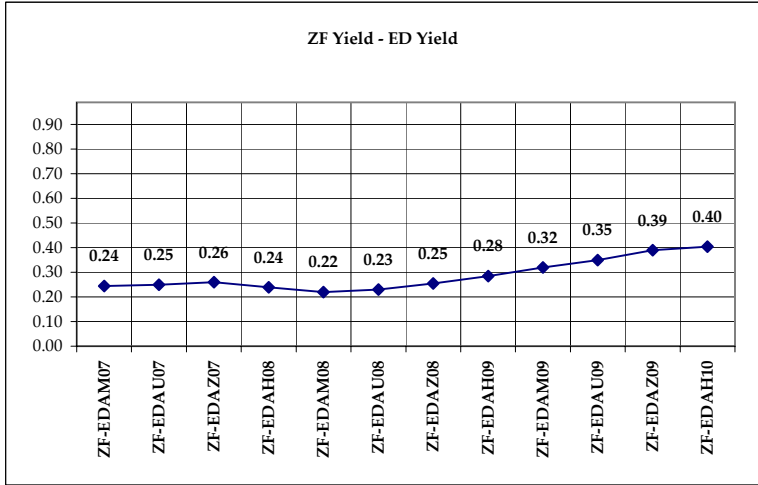
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

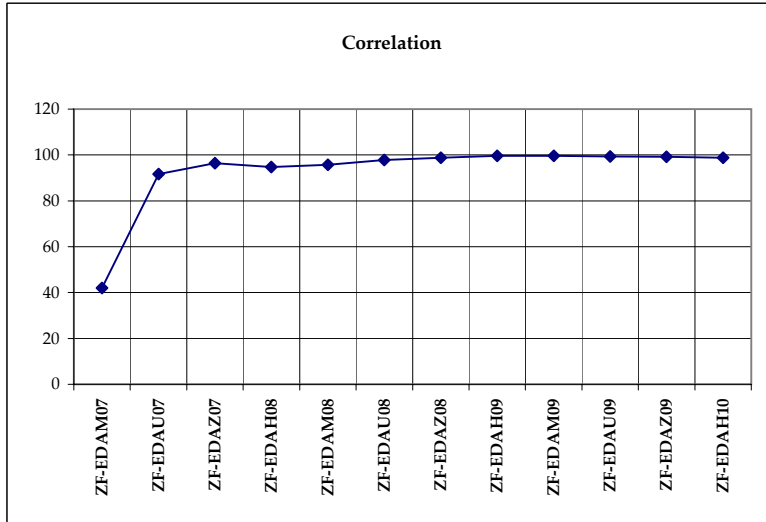
ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	8.83	0.24	ZF-EDAM07	42.033
EDAU07	8.83	0.25	ZF-EDAU07	91.658
EDAZ07	8.84	0.26	ZF-EDAZ07	96.387
EDAH08	8.82	0.24	ZF-EDAH08	94.711
EDAM08	8.80	0.22	ZF-EDAM08	95.764
EDAU08	8.81	0.23	ZF-EDAU08	97.785
EDAZ08	8.84	0.25	ZF-EDAZ08	98.726
EDAH09	8.87	0.28	ZF-EDAH09	99.611
EDAM09	8.90	0.32	ZF-EDAM09	99.673
EDAU09	8.93	0.35	ZF-EDAU09	99.362
EDAZ09	8.97	0.39	ZF-EDAZ09	99.250
EDAH10	8.99	0.40	ZF-EDAH10	98.743

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days



	GE Duration as Fraction of year	ZF Duration	Spread Duration	
EDAM07	-0.001	3.96	3.97	ZF-EDAM07
EDAU07	0.249	3.96	3.72	ZF-EDAU07
EDAZ07	0.498	3.96	3.47	ZF-EDAZ07
EDAH08	0.747	3.96	3.22	ZF-EDAH08
EDAM08	0.997	3.96	2.97	ZF-EDAM08
EDAU08	1.246	3.96	2.72	ZF-EDAU08
EDAZ08	1.495	3.96	2.47	ZF-EDAZ08
EDAH09	1.745	3.96	2.22	ZF-EDAH09
EDAM09	1.994	3.96	1.97	ZF-EDAM09
EDAU09	2.243	3.96	1.72	ZF-EDAU09
EDAZ09	2.492	3.96	1.47	ZF-EDAZ09
EDAH10	2.742	3.96	1.22	ZF-EDAH10

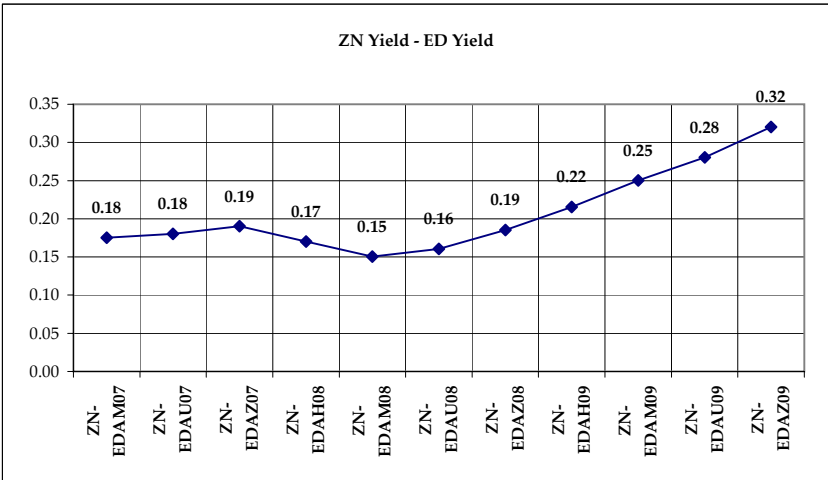
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZN vs Eurodollar Contracts

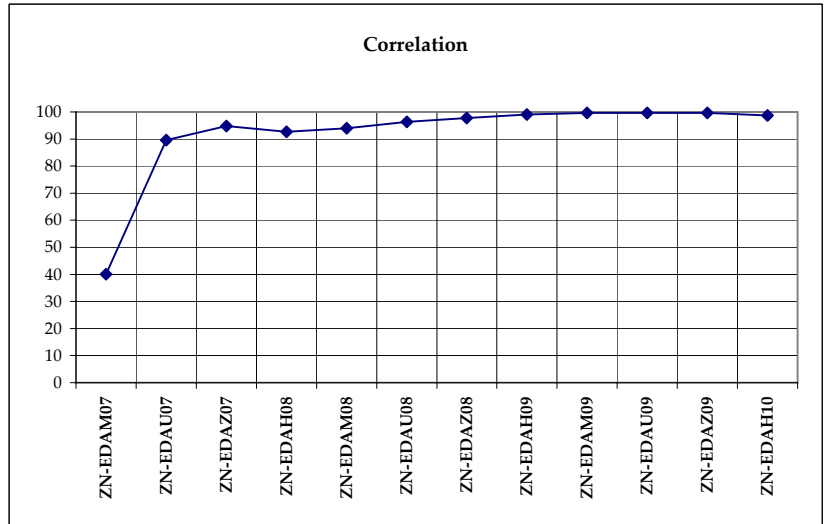
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	10.09	0.18	ZN-EDAM07	40.06
EDAU07	10.10	0.18	ZN-EDAU07	89.64
EDAZ07	10.11	0.19	ZN-EDAZ07	94.83
EDAH08	10.09	0.17	ZN-EDAH08	92.73
EDAM08	10.07	0.15	ZN-EDAM08	93.94
EDAU08	10.08	0.16	ZN-EDAU08	96.38
EDAZ08	10.10	0.19	ZN-EDAZ08	97.73
EDAH09	10.13	0.22	ZN-EDAH09	99.11
EDAM09	10.17	0.25	ZN-EDAM09	99.69
EDAU09	10.20	0.28	ZN-EDAU09	99.61
EDAZ09	10.24	0.32	ZN-EDAZ09	99.62
EDAH10	10.25	0.34	ZN-EDAH10	98.74

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days



	GE Duration as Fraction of year	ZN Duration	Spread Duration	
EDAM07	-0.001	5.78	5.78	ZN-EDAM07
EDAU07	0.249	5.78	5.53	ZN-EDAU07
EDAZ07	0.498	5.78	5.28	ZN-EDAZ07
EDAH08	0.747	5.78	5.03	ZN-EDAH08
EDAM08	0.997	5.78	4.78	ZN-EDAM08
EDAU08	1.246	5.78	4.53	ZN-EDAU08
EDAZ08	1.495	5.78	4.28	ZN-EDAZ08
EDAH09	1.745	5.78	4.03	ZN-EDAH09
EDAM09	1.994	5.78	3.78	ZN-EDAM09
EDAU09	2.243	5.78	3.53	ZN-EDAU09
EDAZ09	2.492	5.78	3.28	ZN-EDAZ09
EDAH10	2.742	5.78	3.03	ZN-EDAH10

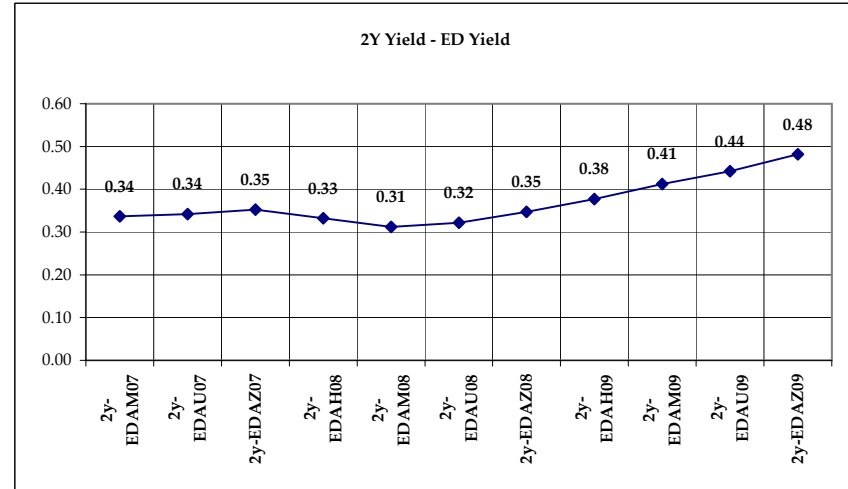
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	5.08	0.34	2y-EDAM07	-57.131
EDAU07	5.08	0.34	2y-EDAU07	-82.413
EDAZ07	5.09	0.35	2y-EDAZ07	-87.342
EDAH08	5.07	0.33	2y-EDAH08	-87.591
EDAM08	5.05	0.31	2y-EDAM08	-89.341
EDAU08	5.06	0.32	2y-EDAU08	-90.694
EDAZ08	5.09	0.35	2y-EDAZ08	-57.131
EDAH09	5.12	0.38	2y-EDAH09	-57.131
EDAM09	5.15	0.41	2y-EDAM09	-57.131
EDAU09	5.18	0.44	2y-EDAU09	-57.131
EDAZ09	5.22	0.48	2y-EDAZ09	-57.131
EDAH10	5.24	0.50	2y-EDAH10	-89.910

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days.  
 These are measuring YIELD correlations.

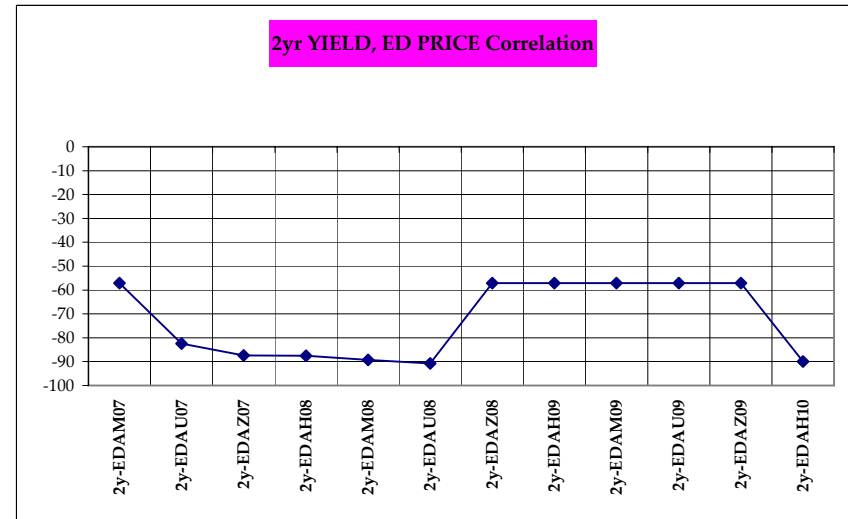


GE Duration as

	Fraction of year	2Y Duration	Spread Duration	
EDAM07	-0.001	2.02	2.02	2y-EDAM07
EDAU07	0.249	2.02	1.77	2y-EDAU07
EDAZ07	0.498	2.02	1.52	2y-EDAZ07
EDAH08	0.747	2.02	1.27	2y-EDAH08
EDAM08	0.997	2.02	1.02	2y-EDAM08
EDAU08	1.246	2.02	0.77	2y-EDAU08
EDAZ08	1.495	2.02	0.53	2y-EDAZ08
EDAH09	1.745	2.02	0.28	2y-EDAH09
EDAM09	1.994	2.02	0.03	2y-EDAM09
EDAU09	2.243	2.02	(0.22)	2y-EDAU09
EDAZ09	2.492	2.02	(0.47)	2y-EDAZ09
EDAH10	2.742	2.02	(0.72)	2y-EDAH10

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

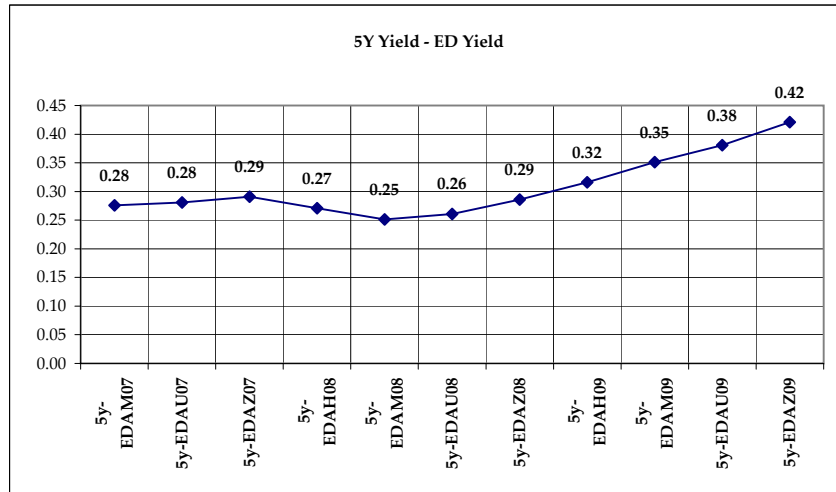
2yr YIELD, ED PRICE Correlation



TERM TED: 5y vs Eurodollar Contracts

5y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	3.91	0.28	5y-EDAM07	-45.612
EDAU07	3.91	0.28	5y-EDAU07	-87.739
EDAZ07	3.92	0.29	5y-EDAZ07	-91.359
EDAH08	3.90	0.27	5y-EDAH08	-90.565
EDAM08	3.88	0.25	5y-EDAM08	-92.689
EDAU08	3.89	0.26	5y-EDAU08	-95.048
EDAZ08	3.92	0.29	5y-EDAZ08	-45.612
EDAH09	3.95	0.32	5y-EDAH09	-45.612
EDAM09	3.98	0.35	5y-EDAM09	-45.612
EDAU09	4.01	0.38	5y-EDAU09	-45.612
EDAZ09	4.05	0.42	5y-EDAZ09	-45.612
EDAH10	4.07	0.44	5y-EDAH10	-97.274

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days  
 These are measuring YIELD correlations.

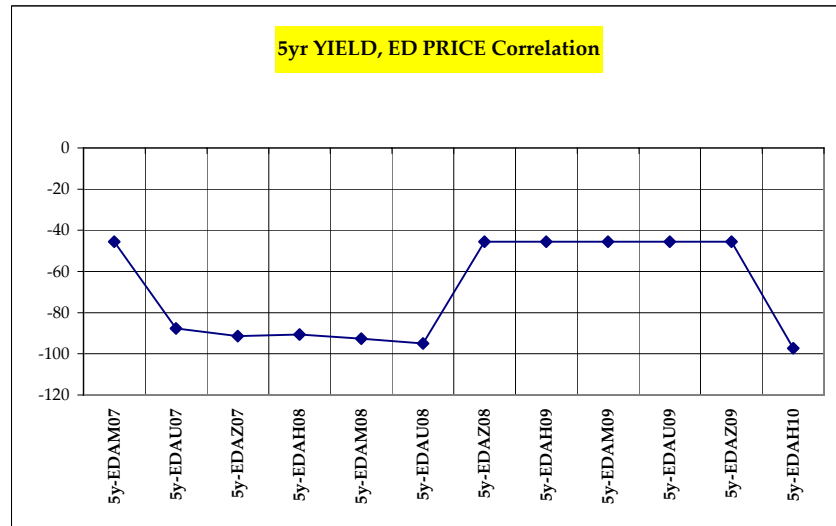


GE Duration as

	Fraction of year	5Y Duration	Spread Duration	
EDAM07	-0.001	4.28	4.28	5y-EDAM07
EDAU07	0.249	4.28	4.03	5y-EDAU07
EDAZ07	0.498	4.28	3.78	5y-EDAZ07
EDAH08	0.747	4.28	3.53	5y-EDAH08
EDAM08	0.997	4.28	3.28	5y-EDAM08
EDAU08	1.246	4.28	3.03	5y-EDAU08
EDAZ08	1.495	4.28	2.79	5y-EDAZ08
EDAH09	1.745	4.28	2.54	5y-EDAH09
EDAM09	1.994	4.28	2.29	5y-EDAM09
EDAU09	2.243	4.28	2.04	5y-EDAU09
EDAZ09	2.492	4.28	1.79	5y-EDAZ09
EDAH10	2.742	4.28	1.54	5y-EDAH10

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

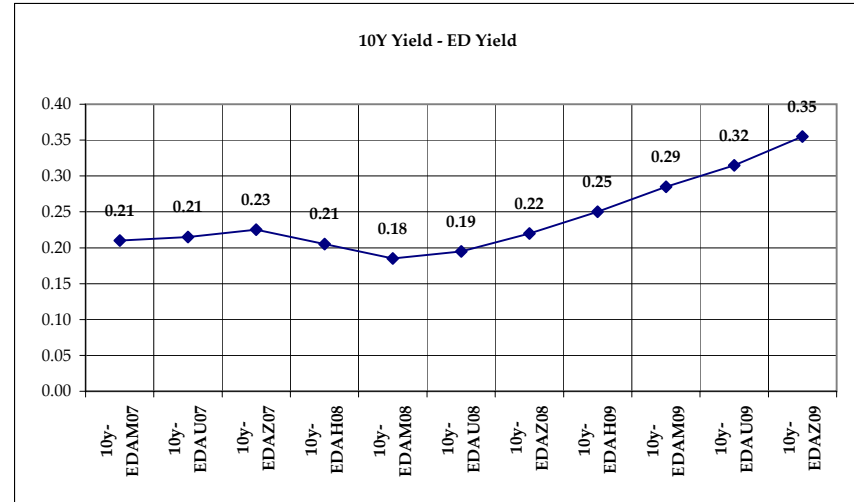
5yr YIELD, ED PRICE Correlation



TERM TED: 10y vs Eurodollar Contracts

	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	3.91	0.21	10y-EDAM07	-43.582
EDAU07	3.91	0.21	10y-EDAU07	-84.672
EDAZ07	3.92	0.23	10y-EDAZ07	-89.504
EDAH08	3.90	0.21	10y-EDAH08	-87.718
EDAM08	3.88	0.18	10y-EDAM08	-89.859
EDAU08	3.89	0.19	10y-EDAU08	-92.831
EDAZ08	3.92	0.22	10y-EDAZ08	-43.582
EDAH09	3.95	0.25	10y-EDAH09	-43.582
EDAM09	3.98	0.29	10y-EDAM09	-43.582
EDAU09	4.01	0.32	10y-EDAU09	-43.582
EDAZ09	4.05	0.35	10y-EDAZ09	-43.582
EDAH10	4.07	0.37	10y-EDAH10	-98.411

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days  
 These are measuring YIELD correlations.

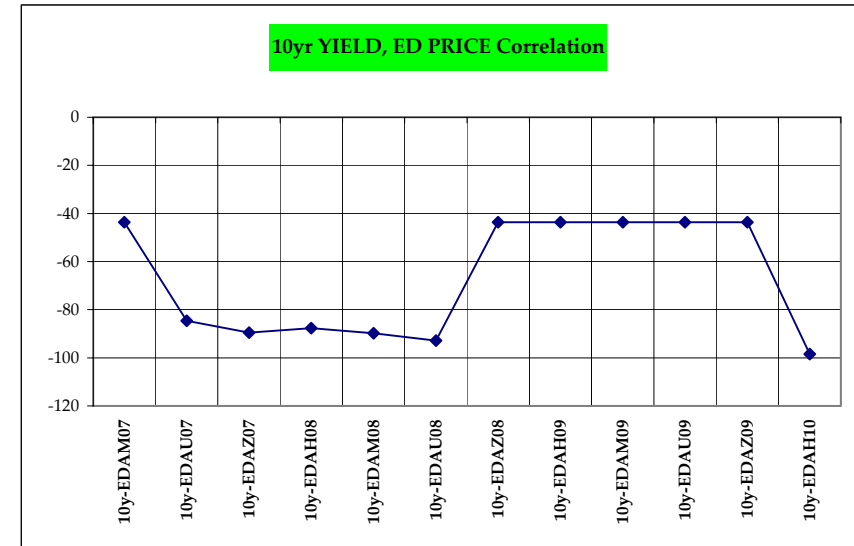


GE Duration as

	Fraction of year	10Y Duration	Spread Duration	
EDAM07	-0.001	7.81	7.81	10y-EDAM07
EDAU07	0.249	7.81	7.56	10y-EDAU07
EDAZ07	0.498	7.81	7.31	10y-EDAZ07
EDAH08	0.747	7.81	7.06	10y-EDAH08
EDAM08	0.997	7.81	6.81	10y-EDAM08
EDAU08	1.246	7.81	6.56	10y-EDAU08
EDAZ08	1.495	7.81	6.31	10y-EDAZ08
EDAH09	1.745	7.81	6.06	10y-EDAH09
EDAM09	1.994	7.81	5.81	10y-EDAM09
EDAU09	2.243	7.81	5.56	10y-EDAU09
EDAZ09	2.492	7.81	5.32	10y-EDAZ09
EDAH10	2.742	7.81	5.07	10y-EDAH10

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

10yr YIELD, ED PRICE Correlation

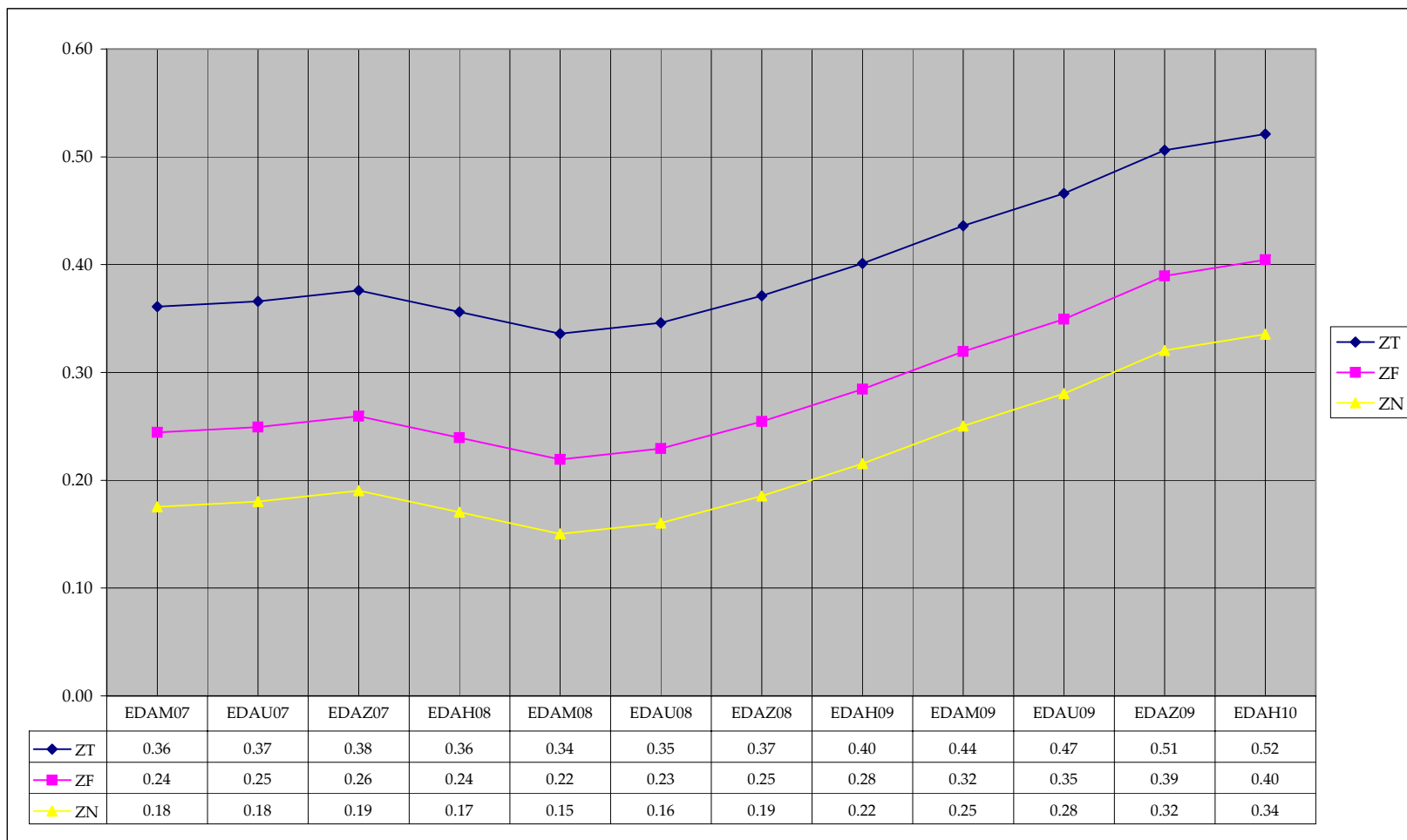


### Dirty TED Curve

6/18/2007 5:59

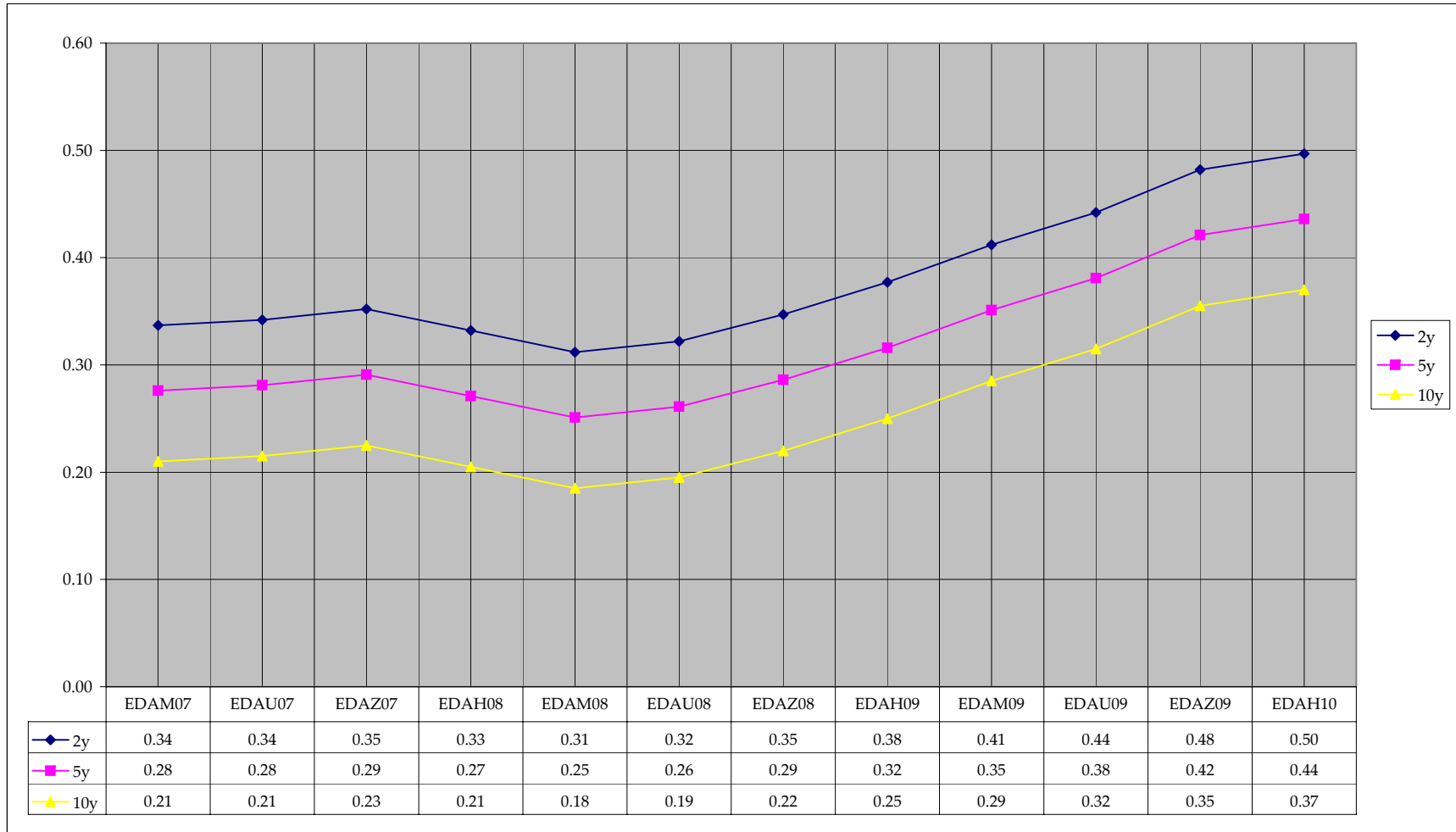
Page 8

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.

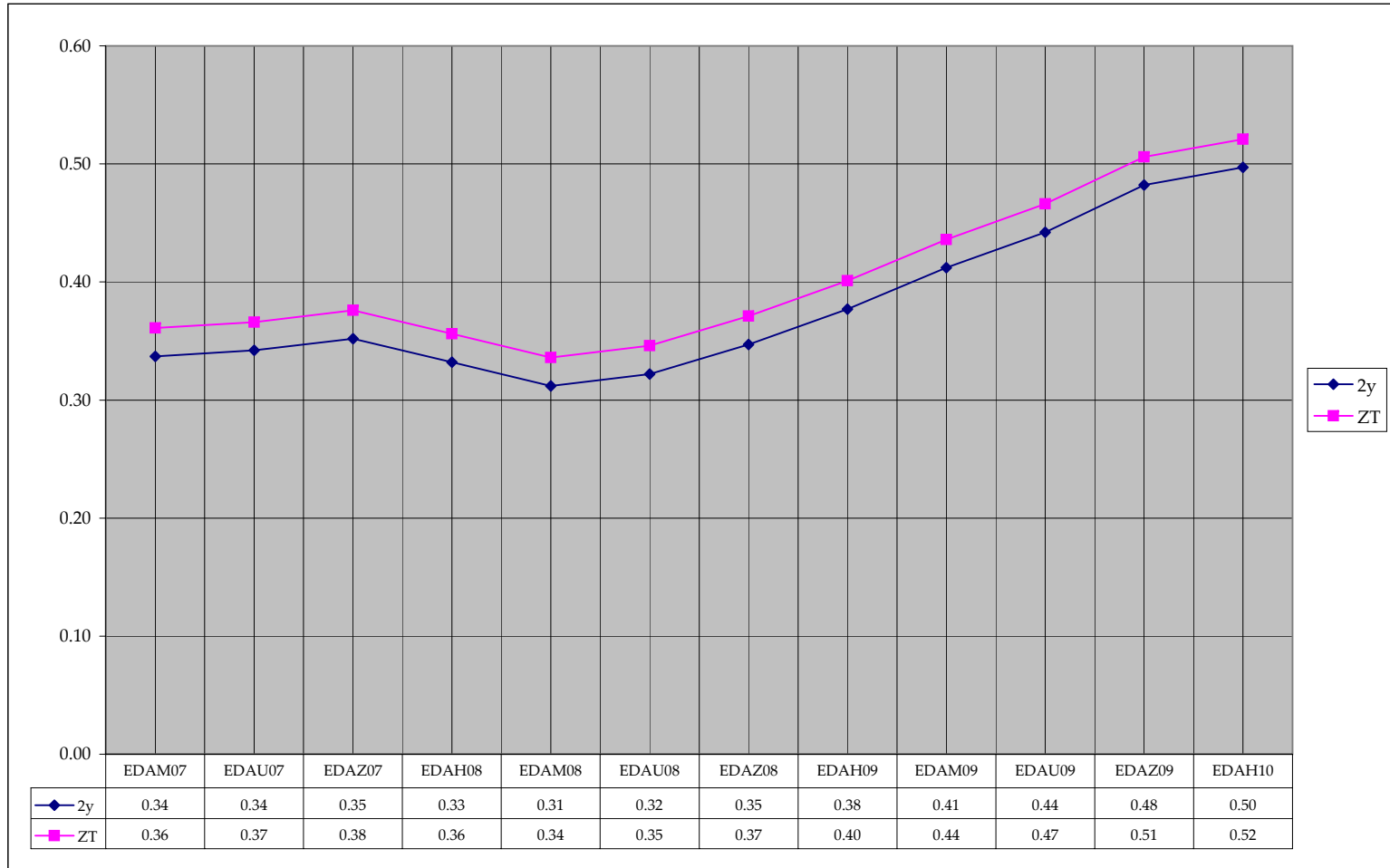


TED Curve

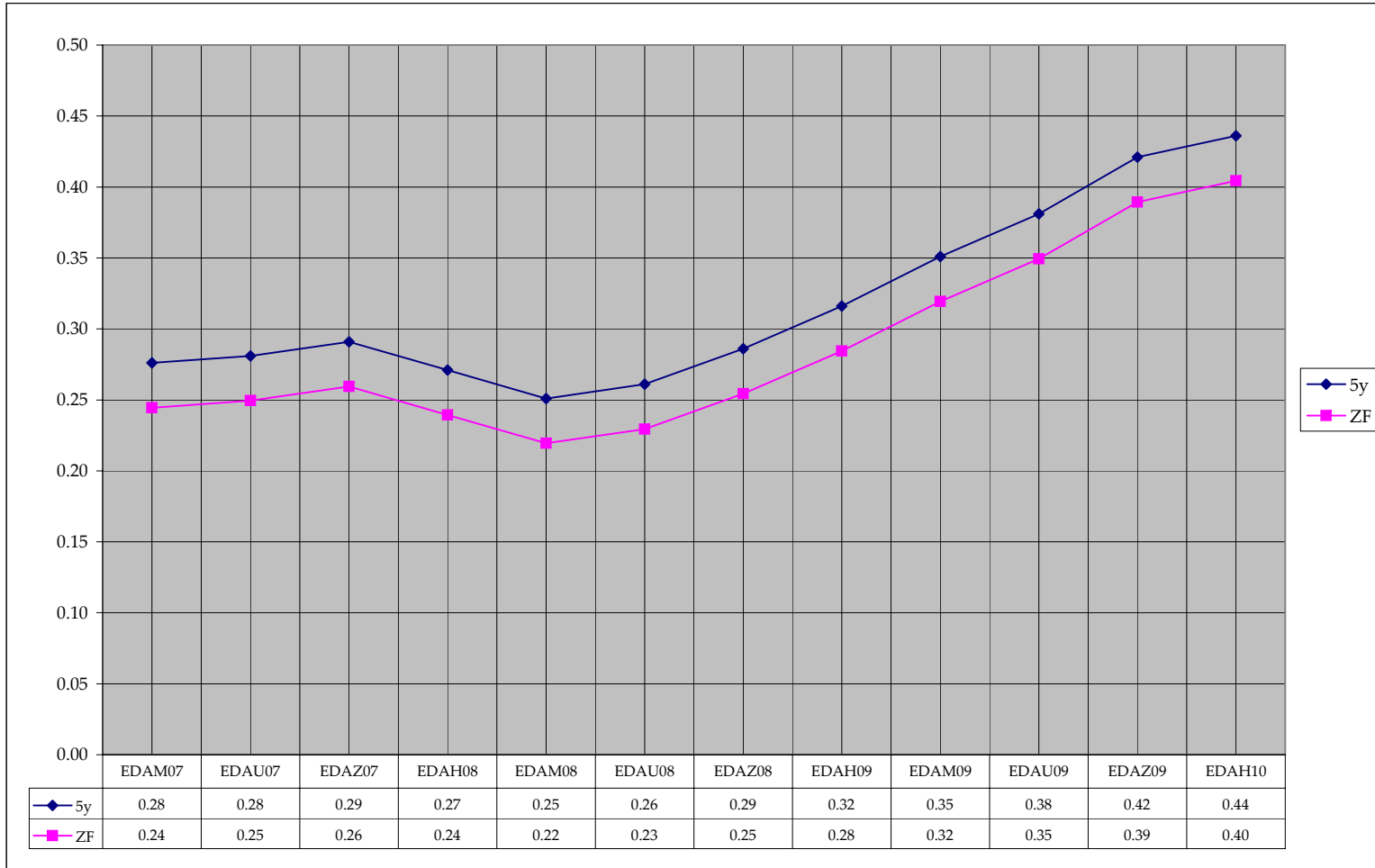
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



## 2y Basis TED Curve

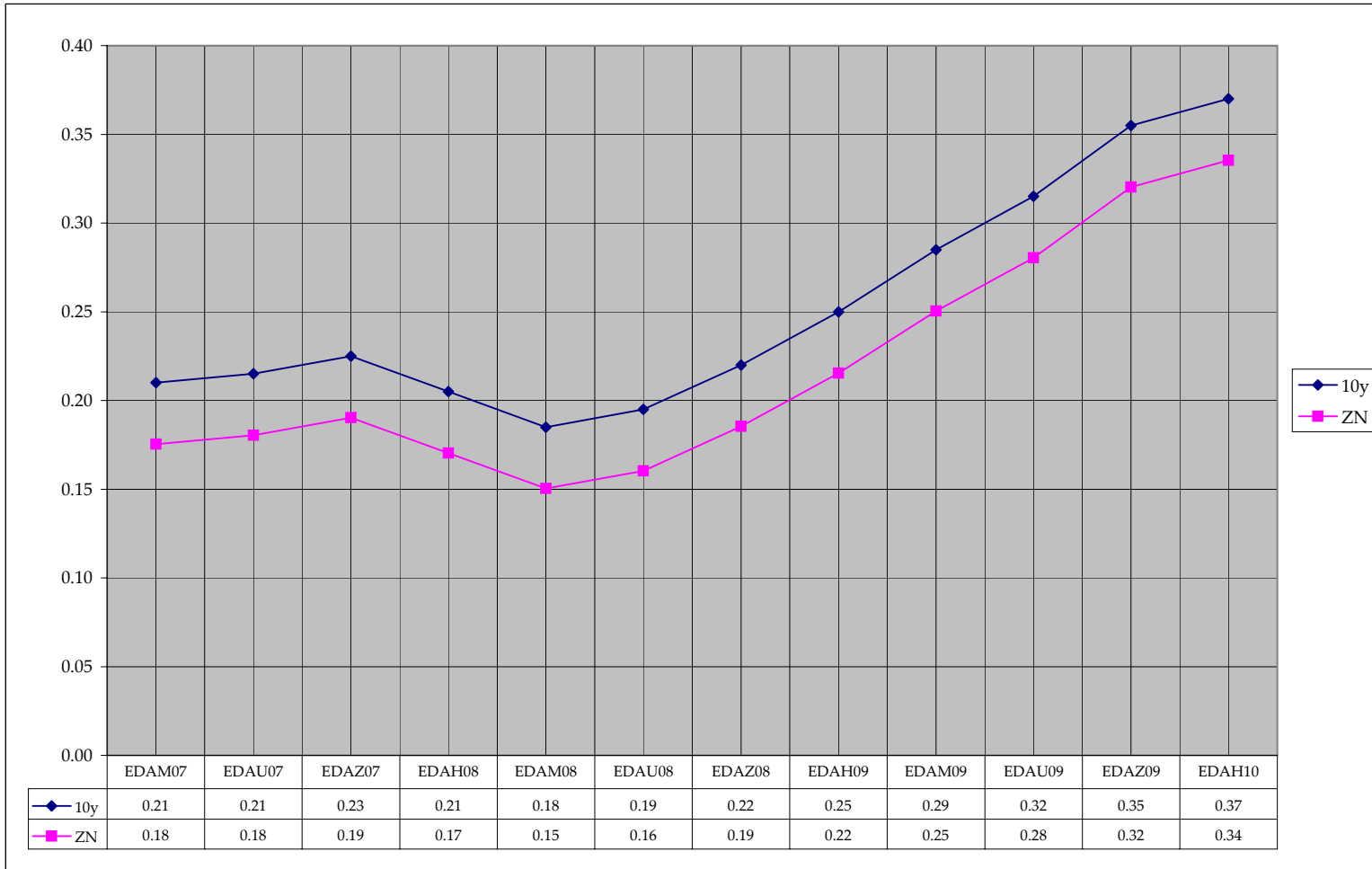


## 5y Basis TED Curve



Jim Goulding, [jgoulding@ghco.com](mailto:jgoulding@ghco.com)

10y Basis TED Curve



Jim Goulding, jgoulding@ghco.com