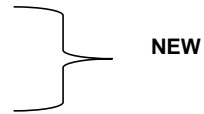


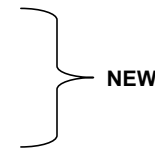
## The Morning Email: TERM TEDS & Dirty TEDS

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**Also new, correlation matrixes for all contracts.**

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	101.9438	101.302	4.895	1.90
ZF	104.5156	104.165	4.825	4.02
ZN	106.5000	106.160	4.851	5.84
Blank				
2y	99.969	99.3100	4.892	2.07
5y	99.663	99.2120	4.827	4.34
10y	97.063	97.0200	4.874	7.89

\*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	18	0.049	JUN	} White Pack
EDAU07	94.670	5.330	109	0.298	SEP	
EDAZ07	94.735	5.265	200	0.547	DEC	
EDAH08	94.825	5.175	291	0.797	MAR	} Red Pack
EDAM08	94.880	5.120	382	1.046	JUN	
EDAU08	94.905	5.095	473	1.295	SEP	
EDAZ08	94.910	5.090	564	1.545	DEC	} Green Pack
EDAH09	94.910	5.090	655	1.794	MAR	
EDAM09	94.895	5.105	746	2.043	JUN	
EDAU09	94.860	5.140	837	2.292	SEP	
EDAZ09	94.825	5.175	928	2.542	DEC	
EDAH10	94.805	5.195	1019	2.791	MAR	

**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)

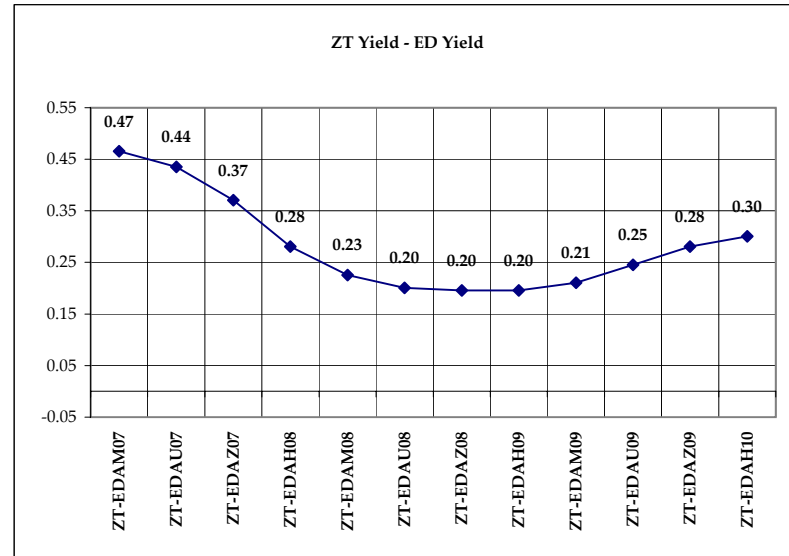
**Eurodollar Color Codes for Individual Year Strips:**

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	7.304	0.47	ZT-EDAM07	93.058
EDAU07	7.274	0.44	ZT-EDAU07	92.602
EDAZ07	7.209	0.37	ZT-EDAZ07	97.662
EDAH08	7.119	0.28	ZT-EDAH08	97.905
EDAM08	7.064	0.23	ZT-EDAM08	98.659
EDAU08	7.039	0.20	ZT-EDAU08	98.691
EDAZ08	7.034	0.20	ZT-EDAZ08	93.058
EDAH09	7.034	0.20	ZT-EDAH09	93.058
EDAM09	7.049	0.21	ZT-EDAM09	93.058
EDAU09	7.084	0.25	ZT-EDAU09	93.058
EDAZ09	7.119	0.28	ZT-EDAZ09	93.058
EDAH10	7.139	0.30	ZT-EDAH10	96.659

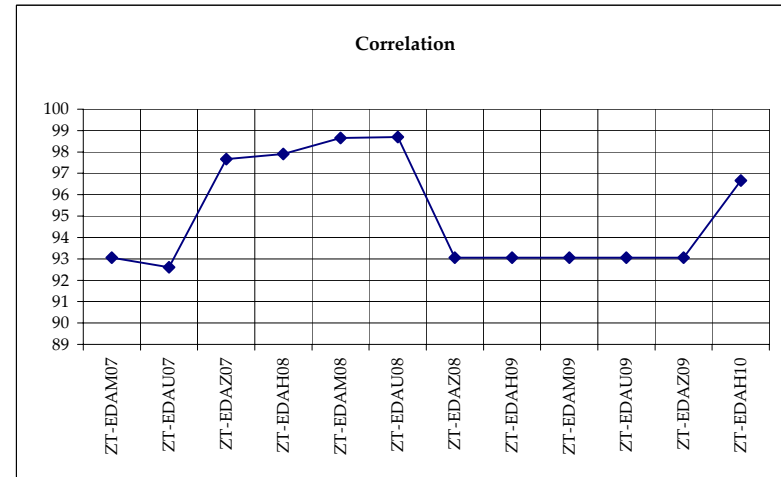
Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as

	Fraction of year	ZT Duration	Spread Duration	
EDAM07	0.049	1.90	1.85	ZT-EDAM07
EDAU07	0.298	1.90	1.60	ZT-EDAU07
EDAZ07	0.547	1.90	1.35	ZT-EDAZ07
EDAH08	0.797	1.90	1.10	ZT-EDAH08
EDAM08	1.046	1.90	0.85	ZT-EDAM08
EDAU08	1.295	1.90	0.60	ZT-EDAU08
EDAZ08	1.545	1.90	0.35	ZT-EDAZ08
EDAH09	1.794	1.90	0.10	ZT-EDAH09
EDAM09	2.043	1.90	(0.15)	ZT-EDAM09
EDAU09	2.292	1.90	(0.40)	ZT-EDAU09
EDAZ09	2.542	1.90	(0.65)	ZT-EDAZ09
EDAH10	2.791	1.90	(0.90)	ZT-EDAH10

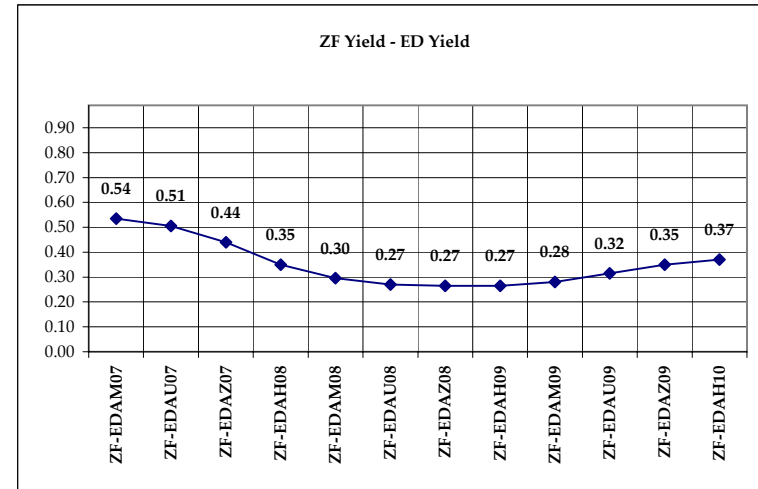
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

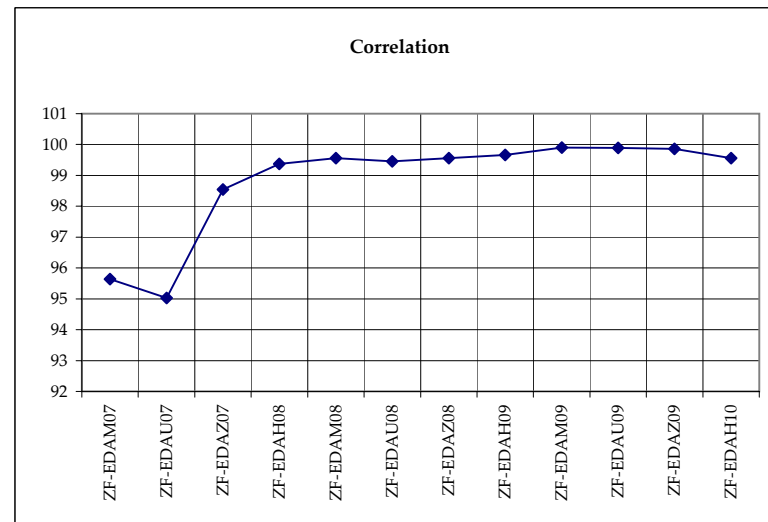
ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	9.88	0.54	ZF-EDAM07	95.644
EDAU07	9.85	0.51	ZF-EDAU07	95.027
EDAZ07	9.78	0.44	ZF-EDAZ07	98.539
EDAH08	9.69	0.35	ZF-EDAH08	99.371
EDAM08	9.64	0.30	ZF-EDAM08	99.561
EDAU08	9.61	0.27	ZF-EDAU08	99.452
EDAZ08	9.61	0.27	ZF-EDAZ08	99.555
EDAH09	9.61	0.27	ZF-EDAH09	99.665
EDAM09	9.62	0.28	ZF-EDAM09	99.899
EDAU09	9.66	0.32	ZF-EDAU09	99.890
EDAZ09	9.69	0.35	ZF-EDAZ09	99.855
EDAH10	9.71	0.37	ZF-EDAH10	99.559

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	0.049	4.02	3.97	ZF-EDAM07
EDAU07	0.298	4.02	3.72	ZF-EDAU07
EDAZ07	0.547	4.02	3.47	ZF-EDAZ07
EDAH08	0.797	4.02	3.22	ZF-EDAH08
EDAM08	1.046	4.02	2.97	ZF-EDAM08
EDAU08	1.295	4.02	2.73	ZF-EDAU08
EDAZ08	1.545	4.02	2.48	ZF-EDAZ08
EDAH09	1.794	4.02	2.23	ZF-EDAH09
EDAM09	2.043	4.02	1.98	ZF-EDAM09
EDAU09	2.292	4.02	1.73	ZF-EDAU09
EDAZ09	2.542	4.02	1.48	ZF-EDAZ09
EDAH10	2.791	4.02	1.23	ZF-EDAH10

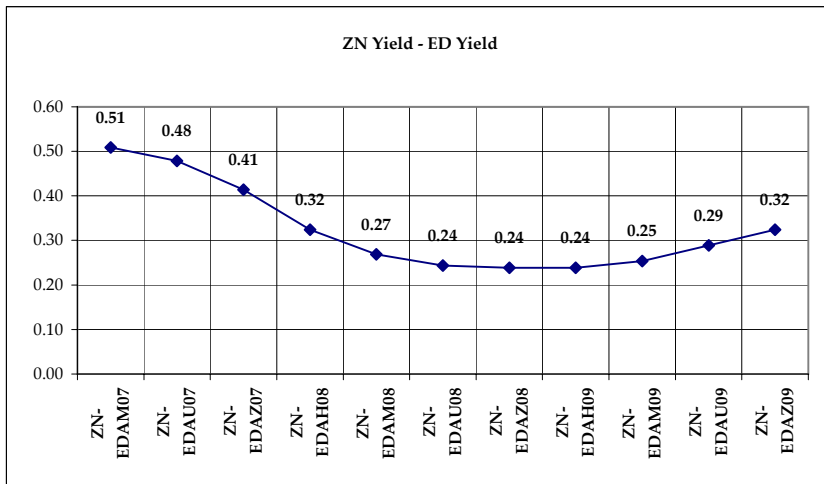
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZN vs Eurodollar Contracts

	ZN			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	11.86	0.51	ZN-EDAM07	96.08
EDAU07	11.83	0.48	ZN-EDAU07	96.57
EDAZ07	11.77	0.41	ZN-EDAZ07	97.42
EDAH08	11.68	0.32	ZN-EDAH08	98.04
EDAM08	11.62	0.27	ZN-EDAM08	97.20
EDAU08	11.60	0.24	ZN-EDAU08	96.82
EDAZ08	11.59	0.24	ZN-EDAZ08	97.02
EDAH09	11.59	0.24	ZN-EDAH09	97.31
EDAM09	11.61	0.25	ZN-EDAM09	98.17
EDAU09	11.64	0.29	ZN-EDAU09	98.66
EDAZ09	11.68	0.32	ZN-EDAZ09	99.20
EDAH10	11.70	0.34	ZN-EDAH10	99.56

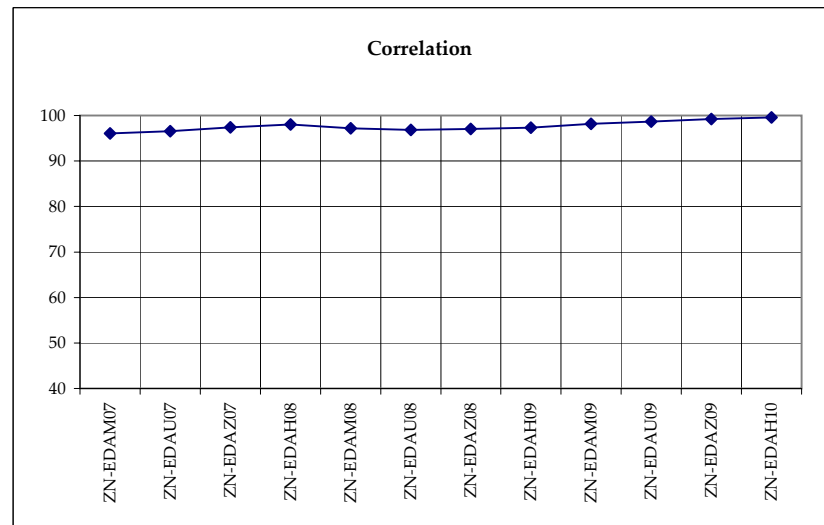
Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year

	ZN Duration	Spread Duration	
EDAM07	0.049	5.84	ZN-EDAM07
EDAU07	0.298	5.84	ZN-EDAU07
EDAZ07	0.547	5.84	ZN-EDAZ07
EDAH08	0.797	5.84	ZN-EDAH08
EDAM08	1.046	5.84	ZN-EDAM08
EDAU08	1.295	5.84	ZN-EDAU08
EDAZ08	1.545	5.84	ZN-EDAZ08
EDAH09	1.794	5.84	ZN-EDAH09
EDAM09	2.043	5.84	ZN-EDAM09
EDAU09	2.292	5.84	ZN-EDAU09
EDAZ09	2.542	5.84	ZN-EDAZ09
EDAH10	2.791	5.84	ZN-EDAH10

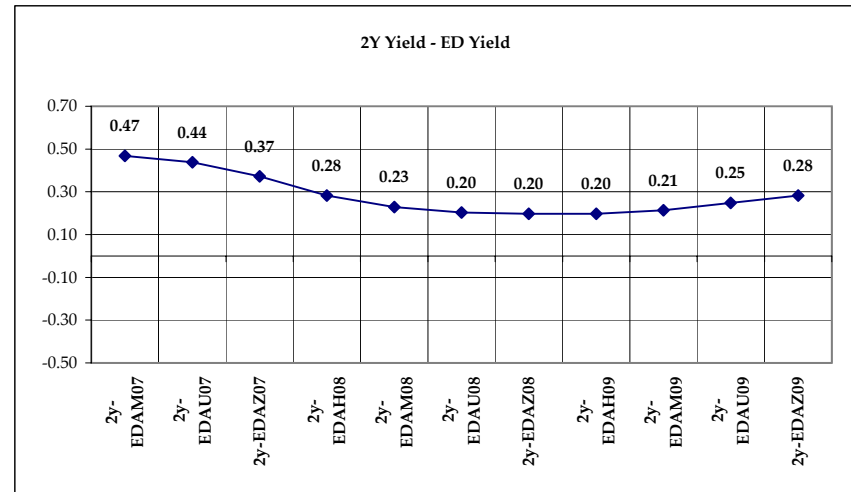
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	5.33	0.47	2y-EDAM07	-38.565
EDAU07	5.30	0.44	2y-EDAU07	-34.078
EDAZ07	5.23	0.37	2y-EDAZ07	-46.377
EDAH08	5.14	0.28	2y-EDAH08	-44.606
EDAM08	5.09	0.23	2y-EDAM08	-46.745
EDAU08	5.06	0.20	2y-EDAU08	-47.485
EDAZ08	5.06	0.20	2y-EDAZ08	-38.565
EDAH09	5.06	0.20	2y-EDAH09	-38.565
EDAM09	5.07	0.21	2y-EDAM09	-38.565
EDAU09	5.11	0.25	2y-EDAU09	-38.565
EDAZ09	5.14	0.28	2y-EDAZ09	-38.565
EDAH10	5.16	0.30	2y-EDAH10	-42.125

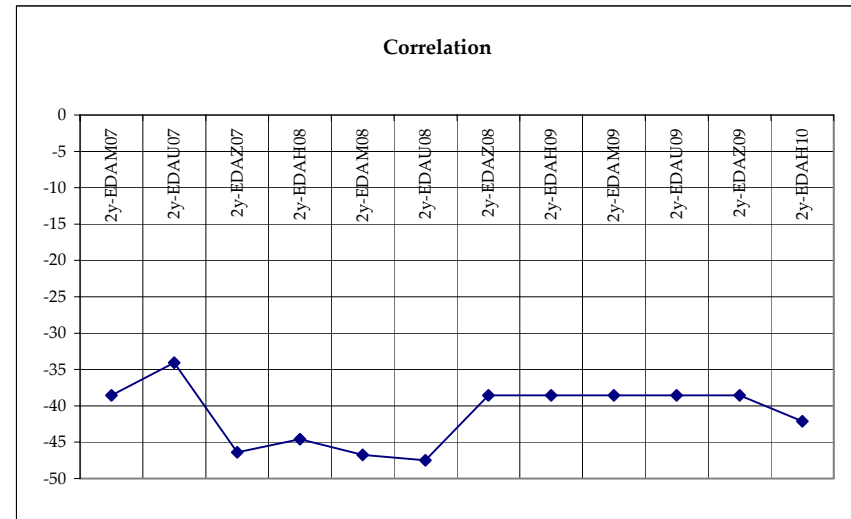
Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year

	2Y Duration	Spread Duration	
EDAM07	0.049	2.07	2y-EDAM07
EDAU07	0.298	2.07	2y-EDAU07
EDAZ07	0.547	2.07	2y-EDAZ07
EDAH08	0.797	2.07	2y-EDAH08
EDAM08	1.046	2.07	2y-EDAM08
EDAU08	1.295	2.07	2y-EDAU08
EDAZ08	1.545	2.07	2y-EDAZ08
EDAH09	1.794	2.07	2y-EDAH09
EDAM09	2.043	2.07	2y-EDAM09
EDAU09	2.292	2.07	(0.22) 2y-EDAU09
EDAZ09	2.542	2.07	(0.47) 2y-EDAZ09
EDAH10	2.791	2.07	(0.72) 2y-EDAH10

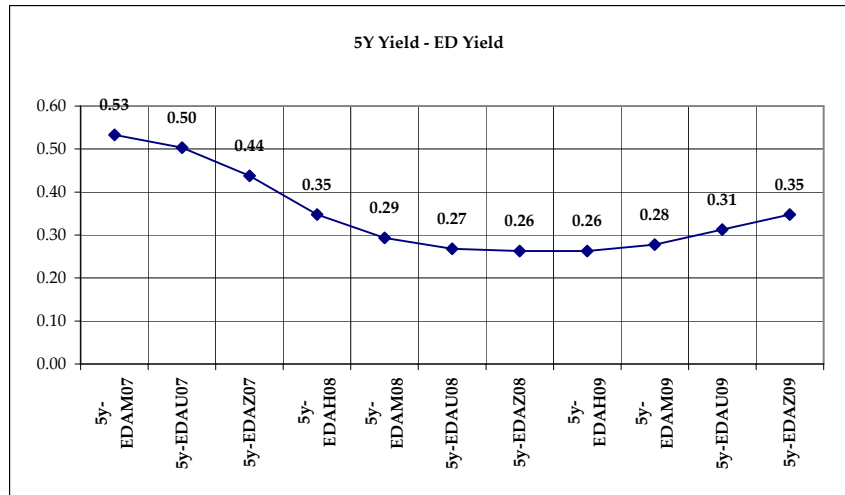
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 5y vs Eurodollar Contracts

5y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	5.02	0.53	5y-EDAM07	27.311
EDAU07	4.99	0.50	5y-EDAU07	18.627
EDAZ07	4.93	0.44	5y-EDAZ07	16.971
EDAH08	4.84	0.35	5y-EDAH08	22.584
EDAM08	4.78	0.29	5y-EDAM08	21.816
EDAU08	4.76	0.27	5y-EDAU08	20.004
EDAZ08	4.75	0.26	5y-EDAZ08	27.311
EDAH09	4.75	0.26	5y-EDAH09	27.311
EDAM09	4.77	0.28	5y-EDAM09	27.311
EDAU09	4.80	0.31	5y-EDAU09	27.311
EDAZ09	4.84	0.35	5y-EDAZ09	27.311
EDAH10	4.86	0.37	5y-EDAH10	26.643

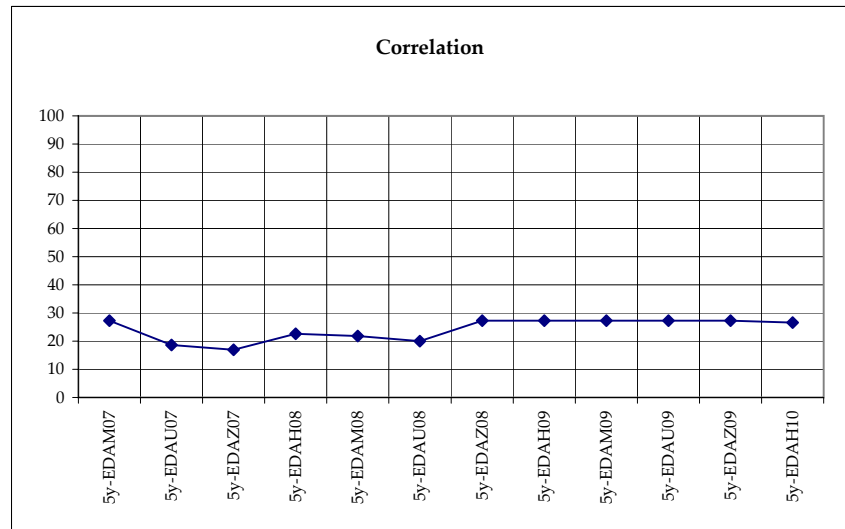
Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year

	5Y Duration	Spread Duration	
EDAM07	0.049	4.34	5y-EDAM07
EDAU07	0.298	4.34	5y-EDAU07
EDAZ07	0.547	4.34	5y-EDAZ07
EDAH08	0.797	4.34	5y-EDAH08
EDAM08	1.046	4.34	5y-EDAM08
EDAU08	1.295	4.34	5y-EDAU08
EDAZ08	1.545	4.34	5y-EDAZ08
EDAH09	1.794	4.34	5y-EDAH09
EDAM09	2.043	4.34	5y-EDAM09
EDAU09	2.292	4.34	5y-EDAU09
EDAZ09	2.542	4.34	5y-EDAZ09
EDAH10	2.791	4.34	5y-EDAH10

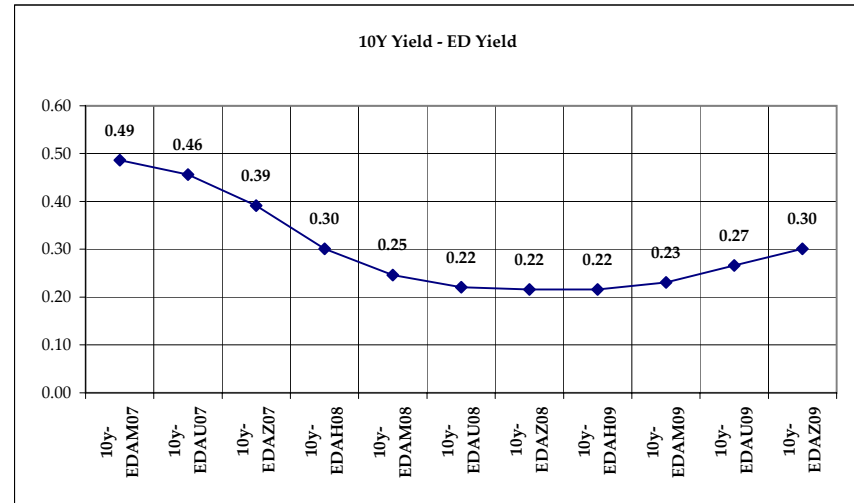
The farther away from 0 the spread duration is the riskier the trade.



**TERM TED: 10y vs Eurodollar Contracts**

	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	5.02	0.49	10y-EDAM07	94.295
EDAU07	4.99	0.46	10y-EDAU07	96.355
EDAZ07	4.93	0.39	10y-EDAZ07	96.644
EDAH08	4.84	0.30	10y-EDAH08	97.355
EDAM08	4.78	0.25	10y-EDAM08	96.654
EDAU08	4.76	0.22	10y-EDAU08	96.327
EDAZ08	4.75	0.22	10y-EDAZ08	94.295
EDAH09	4.75	0.22	10y-EDAH09	94.295
EDAM09	4.77	0.23	10y-EDAM09	94.295
EDAU09	4.80	0.27	10y-EDAU09	94.295
EDAZ09	4.84	0.30	10y-EDAZ09	94.295
EDAH10	4.86	0.32	10y-EDAH10	98.349

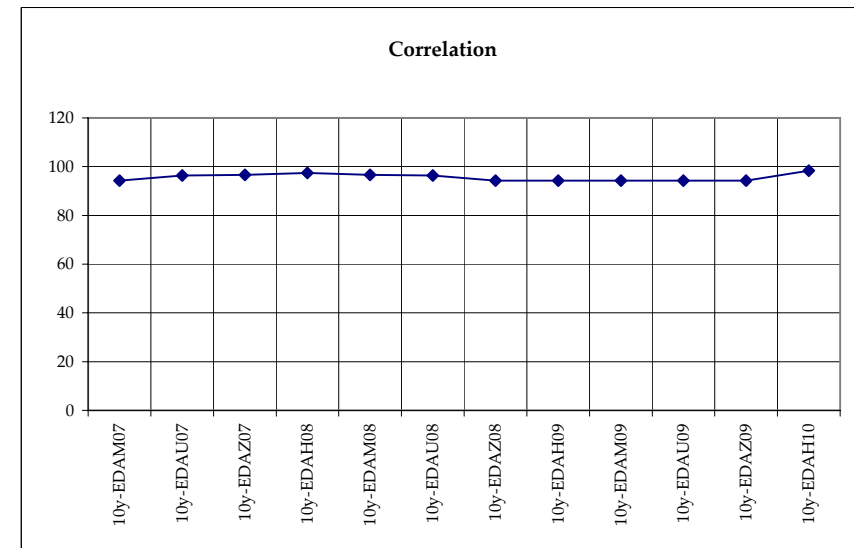
Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)  
 \*Correlation = ED Correlation to Treasury Future over 10 days



**GE Duration as Fraction of year**

	10Y Duration	Spread Duration	
EDAM07	0.049	7.84	10y-EDAM07
EDAU07	0.298	7.59	10y-EDAU07
EDAZ07	0.547	7.34	10y-EDAZ07
EDAH08	0.797	7.09	10y-EDAH08
EDAM08	1.046	6.84	10y-EDAM08
EDAU08	1.295	6.59	10y-EDAU08
EDAZ08	1.545	6.35	10y-EDAZ08
EDAH09	1.794	6.10	10y-EDAH09
EDAM09	2.043	5.85	10y-EDAM09
EDAU09	2.292	5.60	10y-EDAU09
EDAZ09	2.542	5.35	10y-EDAZ09
EDAH10	2.791	5.10	10y-EDAH10

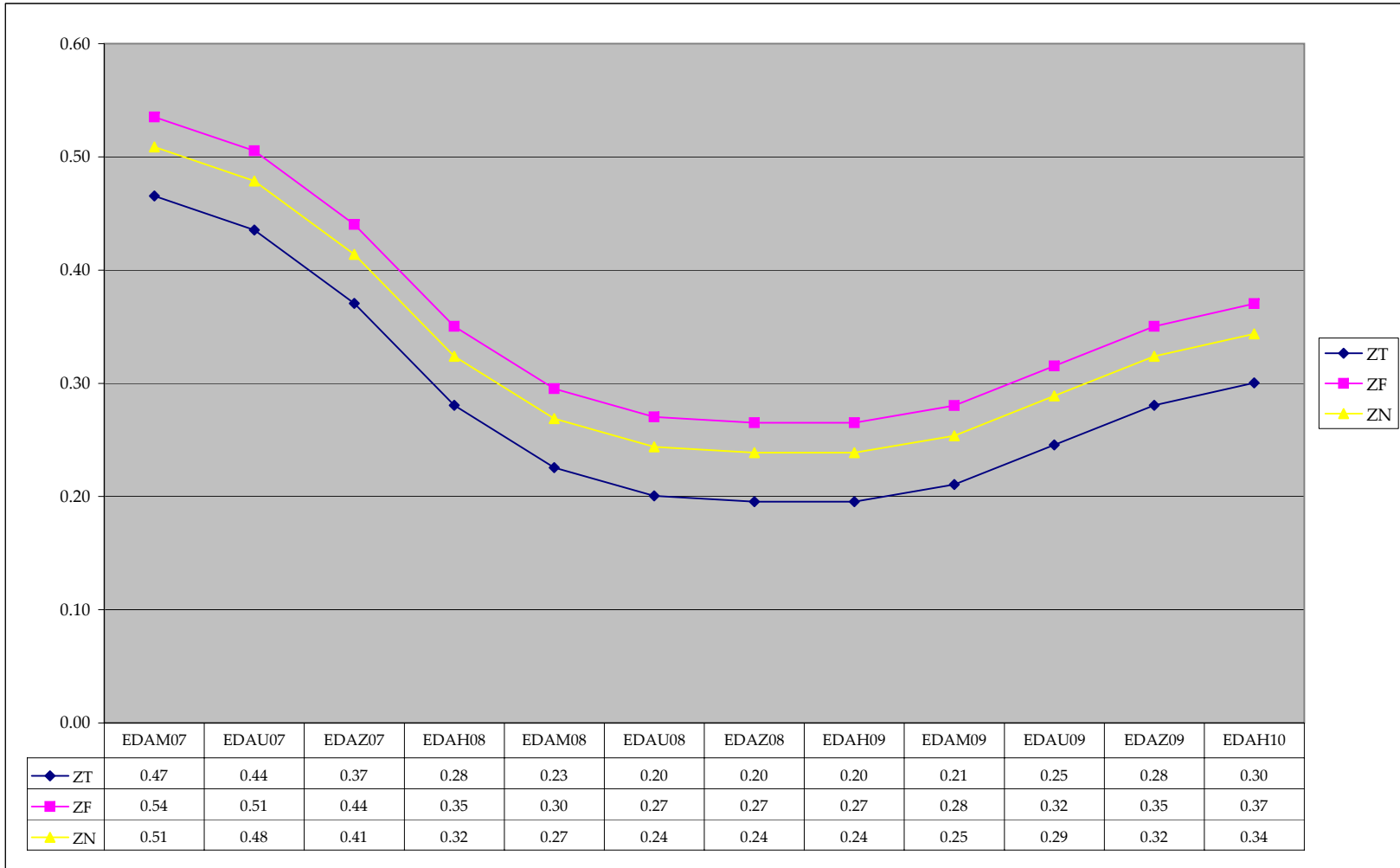
The farther away from 0 the spread duration is the riskier the trade.



**Dirty TED Curve**

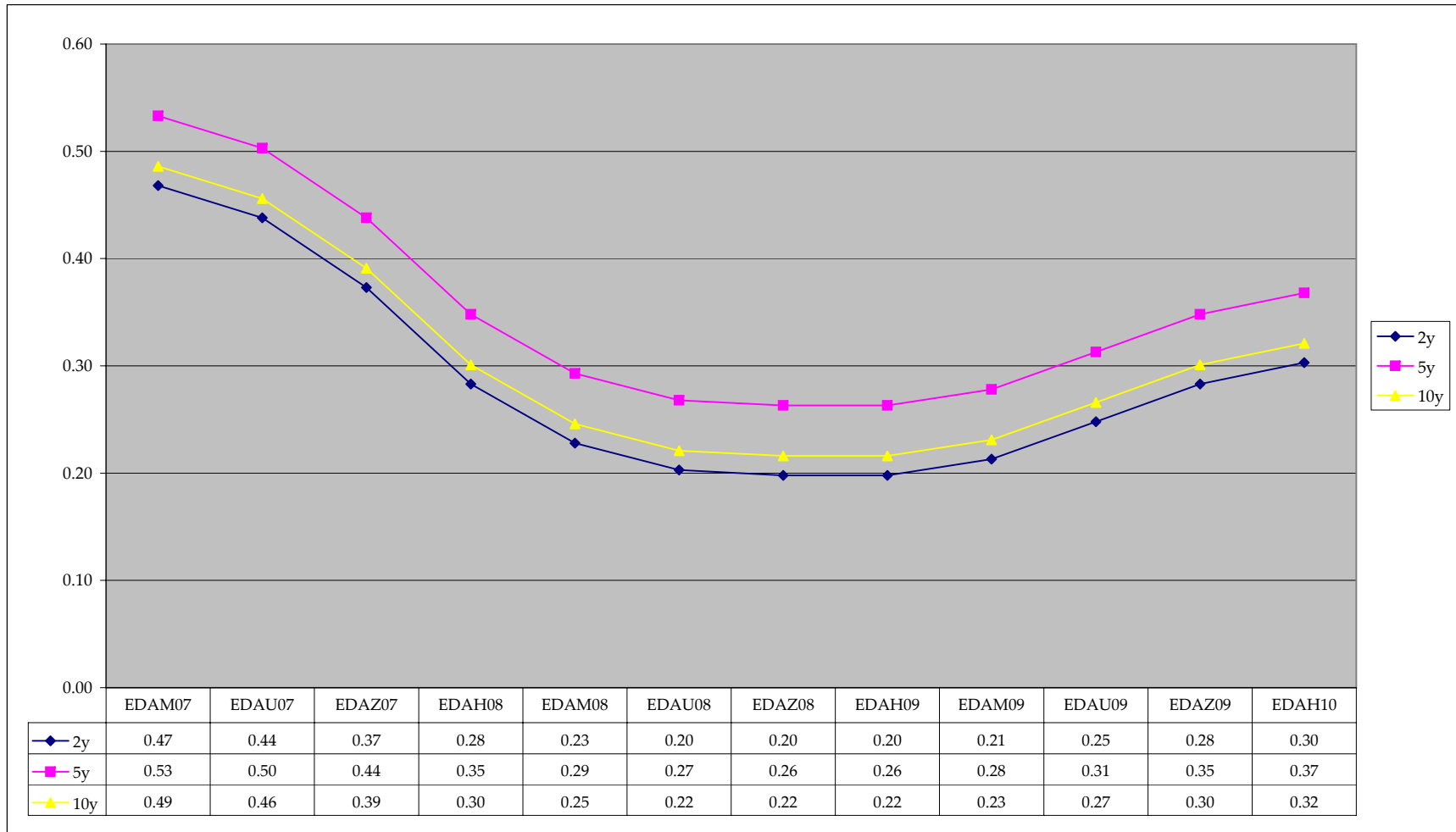
Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart.

Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

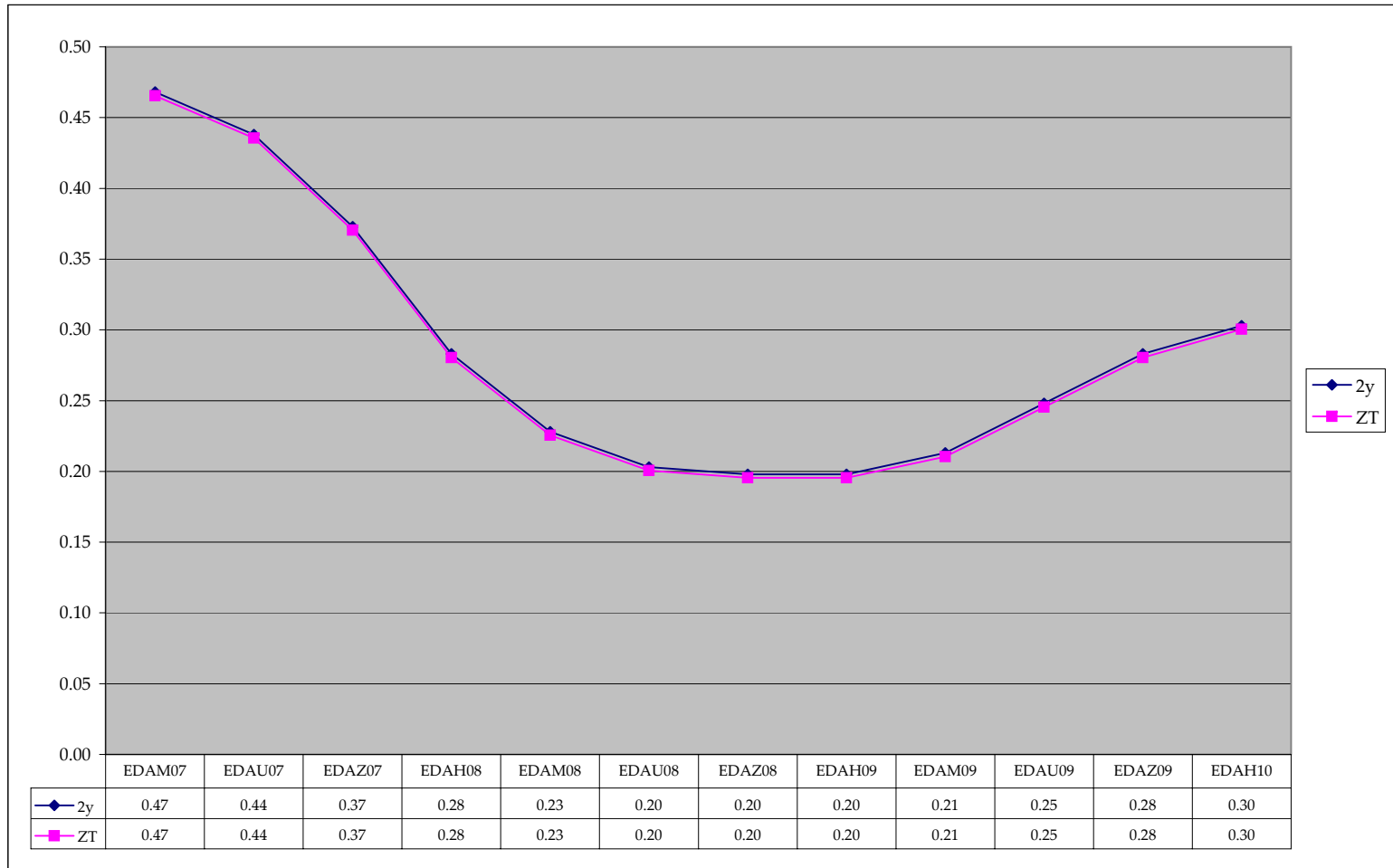


TED Curve

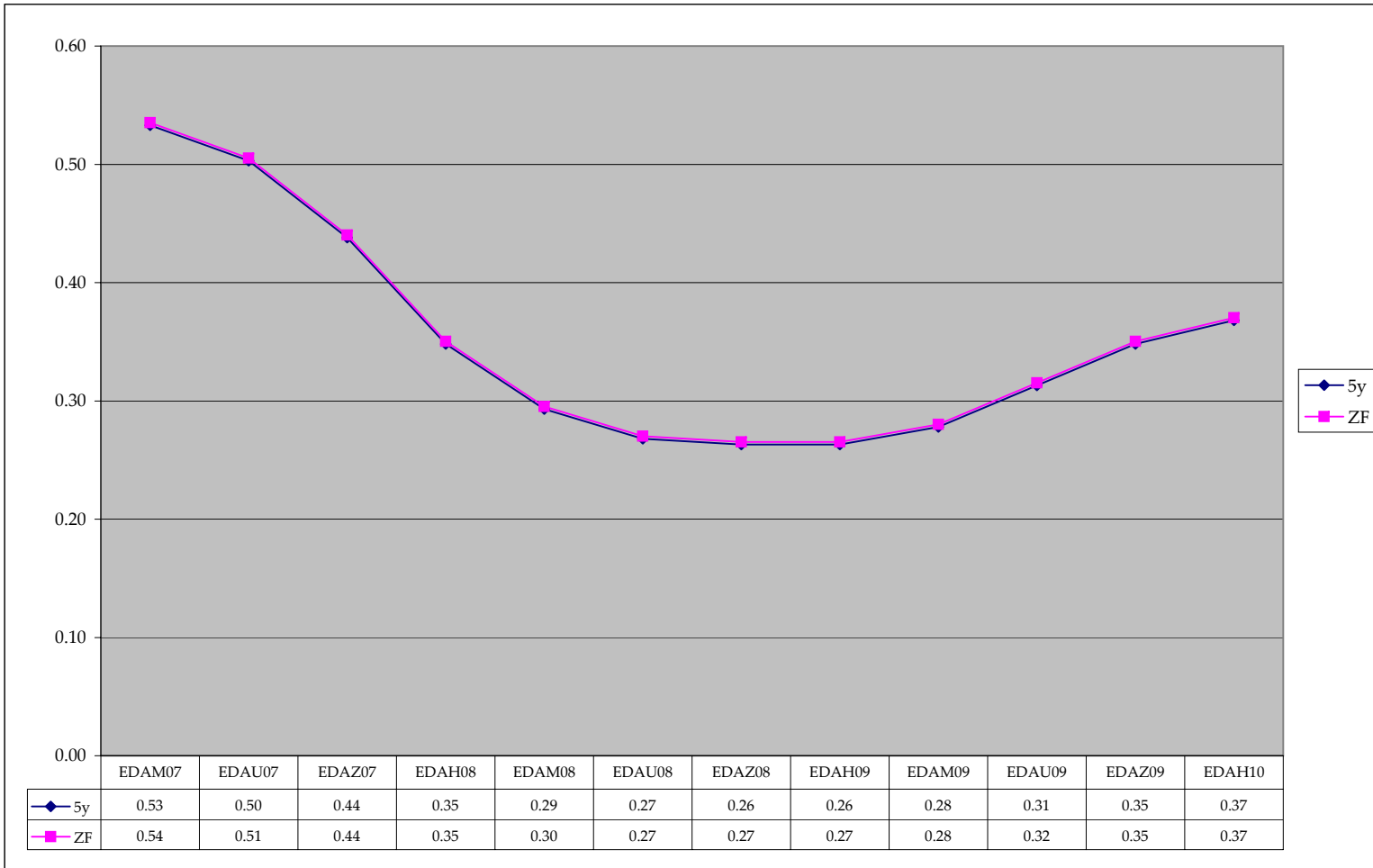
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve



## 5y Basis TED Curve



10y Basis TED Curve

