

The Morning Email: TERM TEDS & Dirty TEDS

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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

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.

Quotes

F.I. Futures and Cash					
	Last Decimal	Last 32	Last Yield*	MDuration	
ZT	104.8125	104.260	3.158	1.84	
ZF	110.0625	110.020	3.459	3.81	
ZN	113.4844	113.155	3.711	5.75	
2y	100.891	100.2850	3.139	1.75	
5y	101.944	101.3020	3.438	4.44	
10y	102.016	102.0050	4.001	8.07	

Eurodollars (ED)							
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month		
EDAZ07	95.060	4.940	19	0.051	DEC	White Pack	
EDAH08	95.695	4.305	110	0.301	MAR		
EDAM08	96.125	3.875	201	0.550	JUN		
EDAU08	96.355	3.645	292	0.799	SEP	Red Pack	
EDAZ08	96.440	3.560	383	1.049	DEC		
EDAH09	96.420	3.580	474	1.298	MAR		
EDAM09	96.315	3.685	565	1.547	JUN	Green Pack	
EDAU09	96.190	3.810	656	1.797	SEP		
EDAZ09	96.045	3.955	747	2.046	DEC		
EDAH10	95.925	4.075	838	2.295	MAR	Blue Pack	
EDAM10	95.805	4.195	929	2.545	JUN		
EDAU10	95.720	4.280	1020	2.794	SEP		
EDAZ10	95.615	4.385	1111	3.043	DEC	Gold Pack	
EDAH11	95.580	4.420	1202	3.292	MAR		
EDAM11	95.460	4.540	1293	3.542	JUN		
EDAU11	95.385	4.615	1391	3.810	SEP		
EDAZ11	95.330	4.670	1482	4.060	DEC		
EDAH12	95.240	4.760	1573	4.309	MAR		
EDAM12	95.105	4.895	1664	4.558	JUN		
EDAU12	95.100	4.900	1755	4.808	SEP		

Notes

Futures use CTD for Last Yield

Mduration = Modified Macaulay Duration

#VALUE! = no quote being provided by exchange.

	Last Yield	Net Yield	Last Price	
Q.ED.White	4.295	-8.250	9580.875	Pack Prices
Q.ED.Red	3.744	-5.875	9634.125	
Q.ED.Green	4.227	-4.125	9587.375	
Q.ED.Blue		-0.625	9550.500	
Q.ED.Gold		0.000	9520.875	

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

Overview of Hedging

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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

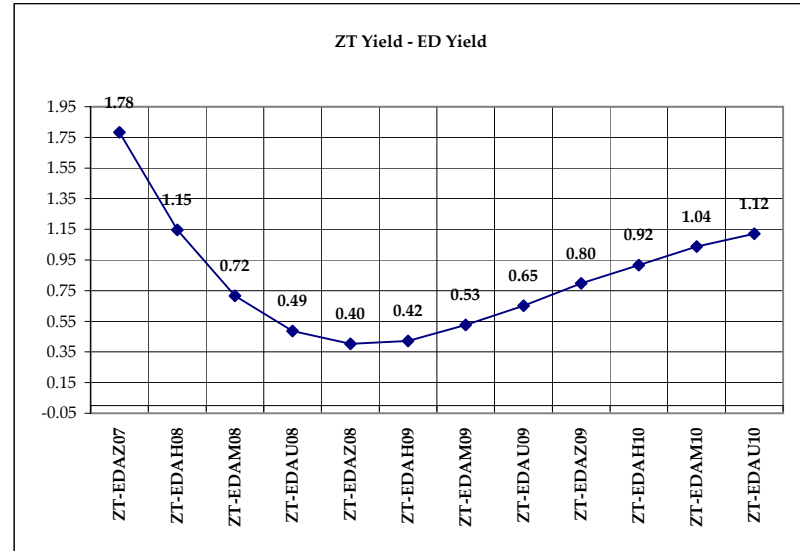
Eurodollar Color Codes for Individual Year Strips:

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)
EDAZ07	9.753	1.78	ZT-EDAZ07	15.003
EDAH08	9.118	1.15	ZT-EDAH08	72.984
EDAM08	8.688	0.72	ZT-EDAM08	93.824
EDAU08	8.458	0.49	ZT-EDAU08	96.456
EDAZ08	8.373	0.40	ZT-EDAZ08	95.940
EDAH09	8.393	0.42	ZT-EDAH09	94.988
EDAM09	8.498	0.53	ZT-EDAM09	94.000
EDAU09	8.623	0.65	ZT-EDAU09	92.886
EDAZ09	8.768	0.80	ZT-EDAZ09	92.017
EDAH10	8.888	0.92	ZT-EDAH10	90.512
EDAM10	9.008	1.04	ZT-EDAM10	89.457
EDAU10	9.093	1.12	ZT-EDAU10	86.929

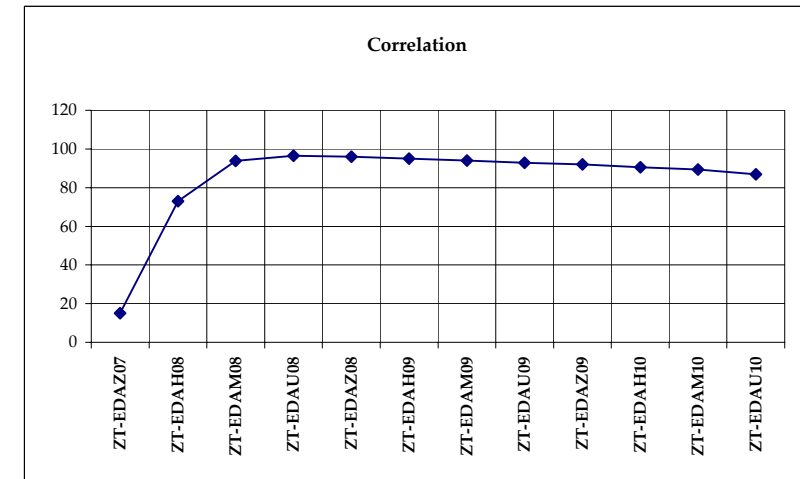
Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
 *Correlation = ED Correlation to Treasury Future over 10 days



GE Duration as Fraction of year

	ZT Duration	Spread Duration	
EDAZ07	0.051	1.84	ZT-EDAZ07
EDAH08	0.301	1.84	ZT-EDAH08
EDAM08	0.550	1.84	ZT-EDAM08
EDAU08	0.799	1.84	ZT-EDAU08
EDAZ08	1.049	1.84	ZT-EDAZ08
EDAH09	1.298	1.84	ZT-EDAH09
EDAM09	1.547	1.84	ZT-EDAM09
EDAU09	1.797	1.84	ZT-EDAU09
EDAZ09	2.046	1.84	(0.21) ZT-EDAZ09
EDAH10	2.295	1.84	(0.46) ZT-EDAH10
EDAM10	2.545	1.84	(0.71) ZT-EDAM10
EDAU10	2.794	1.84	(0.95) ZT-EDAU10

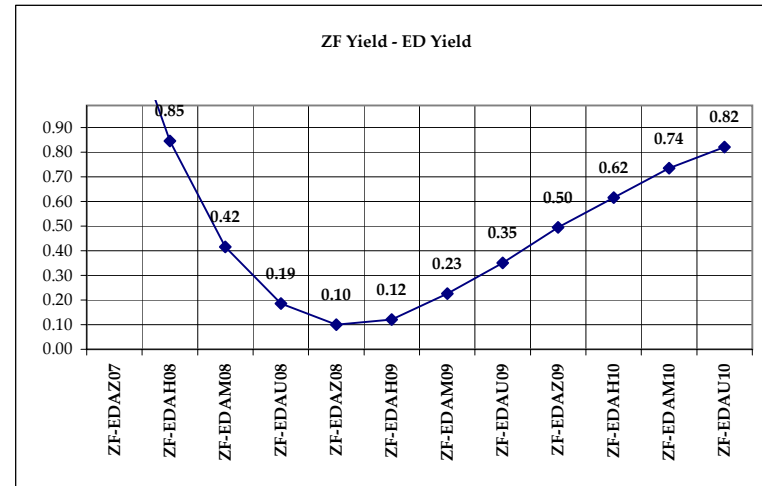
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

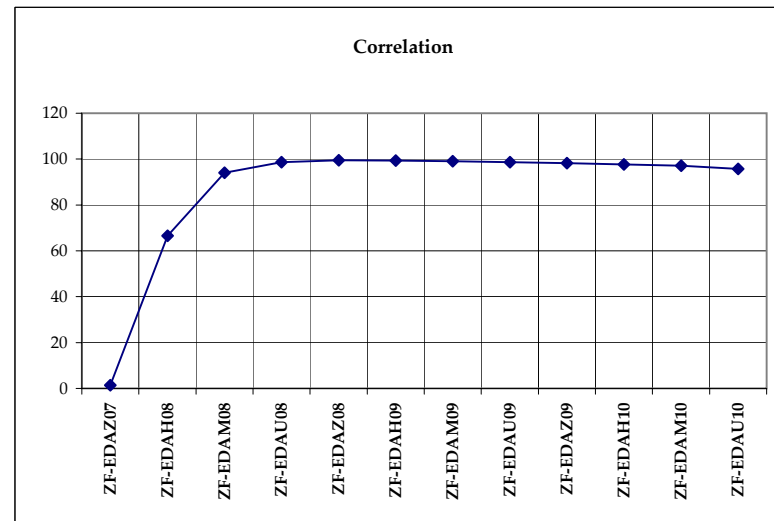
ZF				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	15.00	1.48	ZF-EDAZ07	1.334
EDAH08	14.37	0.85	ZF-EDAH08	66.621
EDAM08	13.94	0.42	ZF-EDAM08	94.086
EDAU08	13.71	0.19	ZF-EDAU08	98.691
EDAZ08	13.62	0.10	ZF-EDAZ08	99.460
EDAH09	13.64	0.12	ZF-EDAH09	99.366
EDAM09	13.75	0.23	ZF-EDAM09	99.021
EDAU09	13.87	0.35	ZF-EDAU09	98.606
EDAZ09	14.02	0.50	ZF-EDAZ09	98.281
EDAH10	14.14	0.62	ZF-EDAH10	97.610
EDAM10	14.26	0.74	ZF-EDAM10	97.094
EDAU10	14.34	0.82	ZF-EDAU10	95.695

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		
EDAZ07	0.051	3.81	3.76	ZF-EDAZ07
EDAH08	0.301	3.81	3.51	ZF-EDAH08
EDAM08	0.550	3.81	3.26	ZF-EDAM08
EDAU08	0.799	3.81	3.01	ZF-EDAU08
EDAZ08	1.049	3.81	2.76	ZF-EDAZ08
EDAH09	1.298	3.81	2.51	ZF-EDAH09
EDAM09	1.547	3.81	2.26	ZF-EDAM09
EDAU09	1.797	3.81	2.01	ZF-EDAU09
EDAZ09	2.046	3.81	1.77	ZF-EDAZ09
EDAH10	2.295	3.81	1.52	ZF-EDAH10
EDAM10	2.545	3.81	1.27	ZF-EDAM10
EDAU10	2.794	3.81	1.02	ZF-EDAU10

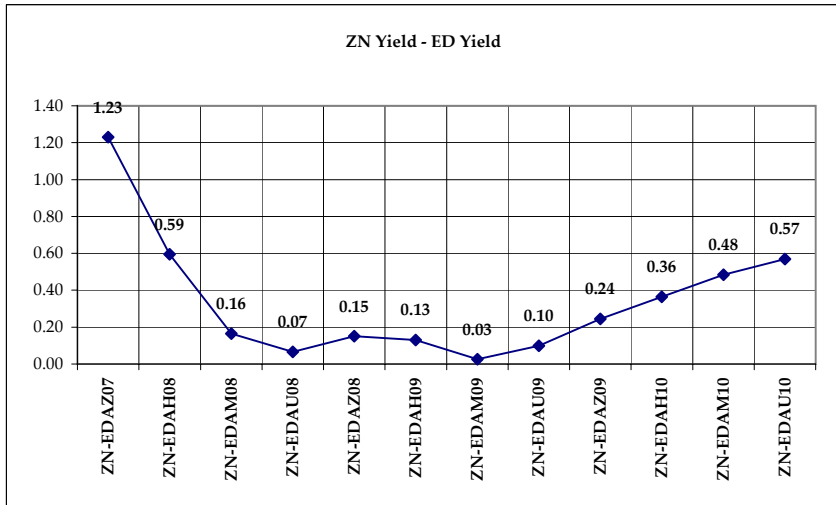
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZN vs Eurodollar Contracts

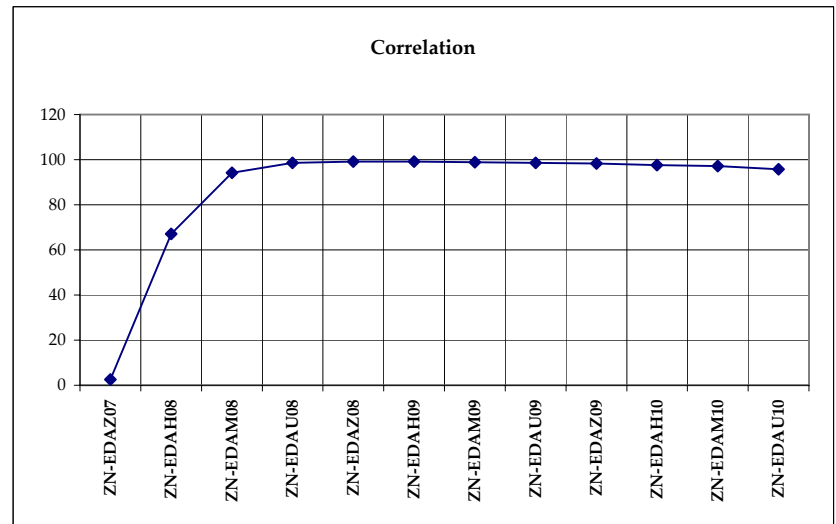
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	18.42	1.23	ZN-EDAZ07	2.56
EDAH08	17.79	0.59	ZN-EDAH08	67.12
EDAM08	17.36	0.16	ZN-EDAM08	94.19
EDAU08	17.13	0.07	ZN-EDAU08	98.55
EDAZ08	17.04	0.15	ZN-EDAZ08	99.21
EDAH09	17.06	0.13	ZN-EDAH09	99.13
EDAM09	17.17	0.03	ZN-EDAM09	98.85
EDAU09	17.29	0.10	ZN-EDAU09	98.54
EDAZ09	17.44	0.24	ZN-EDAZ09	98.35
EDAH10	17.56	0.36	ZN-EDAH10	97.61
EDAM10	17.68	0.48	ZN-EDAM10	97.09
EDAU10	17.76	0.57	ZN-EDAU10	95.69

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	
EDAZ07	0.051	5.75	5.70	ZN-EDAZ07
EDAH08	0.301	5.75	5.45	ZN-EDAH08
EDAM08	0.550	5.75	5.20	ZN-EDAM08
EDAU08	0.799	5.75	4.95	ZN-EDAU08
EDAZ08	1.049	5.75	4.70	ZN-EDAZ08
EDAH09	1.298	5.75	4.45	ZN-EDAH09
EDAM09	1.547	5.75	4.20	ZN-EDAM09
EDAU09	1.797	5.75	3.95	ZN-EDAU09
EDAZ09	2.046	5.75	3.70	ZN-EDAZ09
EDAH10	2.295	5.75	3.45	ZN-EDAH10
EDAM10	2.545	5.75	3.21	ZN-EDAM10
EDAU10	2.794	5.75	2.96	ZN-EDAU10

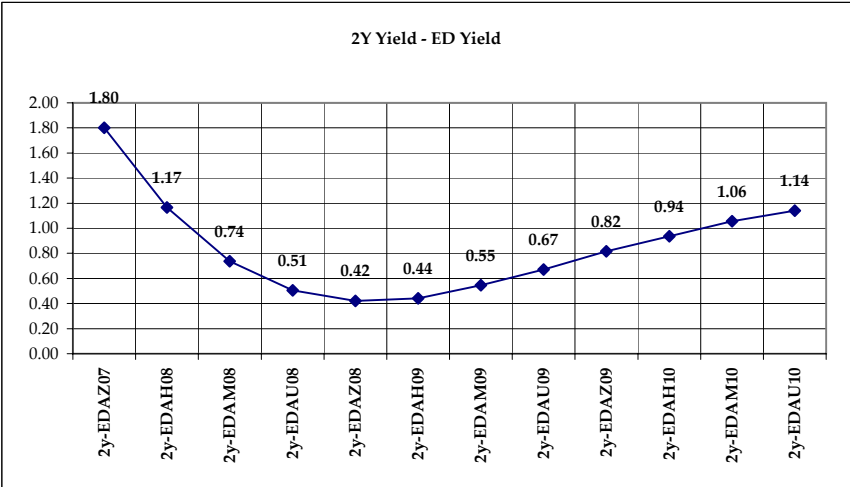
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 2y vs Eurodollar Contracts

	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	5.83	1.80	2y-EDAZ07	-18.225
EDAH08	5.20	1.17	2y-EDAH08	-74.659
EDAM08	4.77	0.74	2y-EDAM08	-93.510
EDAU08	4.54	0.51	2y-EDAU08	-95.582
EDAZ08	4.45	0.42	2y-EDAZ08	-93.510
EDAH09	4.47	0.44	2y-EDAH09	-94.080
EDAM09	4.58	0.55	2y-EDAM09	-93.260
EDAU09	4.70	0.67	2y-EDAU09	-92.191
EDAZ09	4.85	0.82	2y-EDAZ09	-91.220
EDAH10	4.97	0.94	2y-EDAH10	-89.730
EDAM10	5.09	1.06	2y-EDAM10	-88.626
EDAU10	5.17	1.14	2y-EDAU10	-86.130

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.

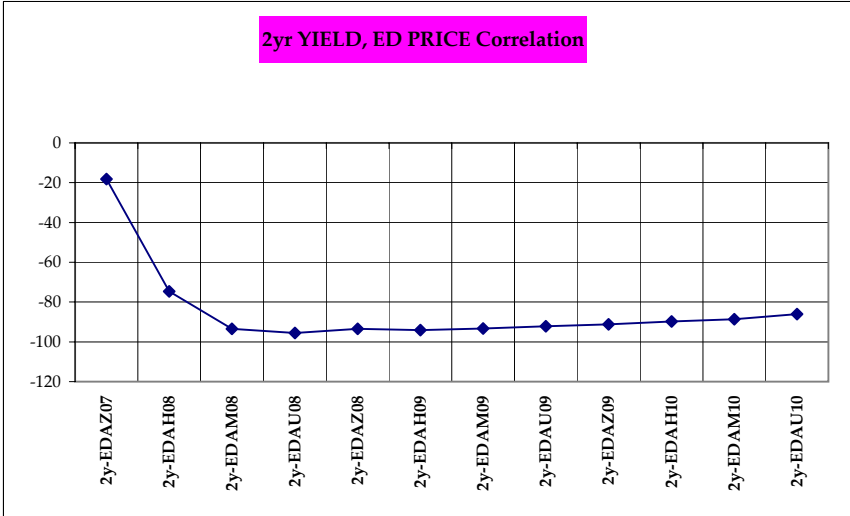


GE Duration as Fraction of year

	2Y Duration	Spread Duration	
EDAZ07	0.051	1.75	2y-EDAZ07
EDAH08	0.301	1.75	2y-EDAH08
EDAM08	0.550	1.20	2y-EDAM08
EDAU08	0.799	0.95	2y-EDAU08
EDAZ08	1.049	0.70	2y-EDAZ08
EDAH09	1.298	0.45	2y-EDAH09
EDAM09	1.547	0.20	2y-EDAM09
EDAU09	1.797	(0.05)	2y-EDAU09
EDAZ09	2.046	(0.30)	2y-EDAZ09
EDAH10	2.295	(0.54)	2y-EDAH10
EDAM10	2.545	(0.79)	2y-EDAM10
EDAU10	2.794	(1.04)	2y-EDAU10

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

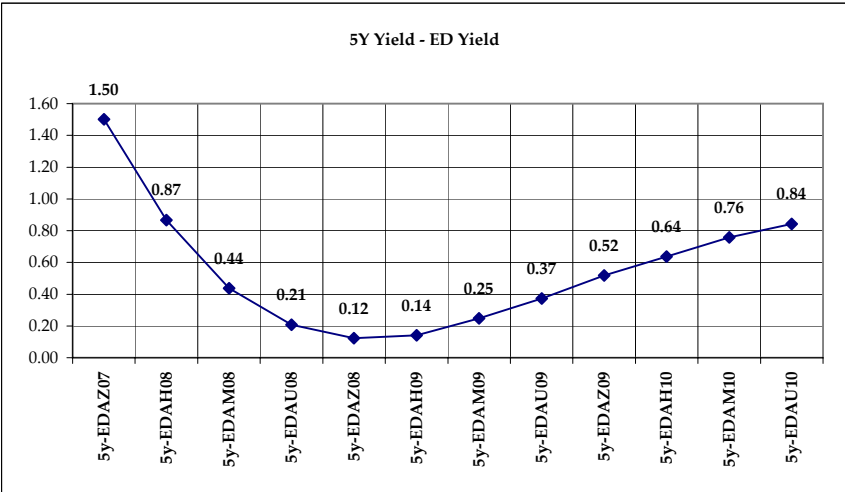
2yr YIELD, ED PRICE Correlation



TERM TED: 5y vs Eurodollar Contracts

5y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	6.88	1.50	5y-EDAZ07	-17.316
EDAH08	6.25	0.87	5y-EDAH08	-74.092
EDAM08	5.82	0.44	5y-EDAM08	-94.344
EDAU08	5.59	0.21	5y-EDAU08	-96.767
EDAZ08	5.50	0.12	5y-EDAZ08	-94.344
EDAH09	5.52	0.14	5y-EDAH09	-96.349
EDAM09	5.63	0.25	5y-EDAM09	-96.088
EDAU09	5.75	0.37	5y-EDAU09	-95.491
EDAZ09	5.90	0.52	5y-EDAZ09	-94.802
EDAH10	6.02	0.64	5y-EDAH10	-93.677
EDAM10	6.14	0.76	5y-EDAM10	-92.838
EDAU10	6.22	0.84	5y-EDAU10	-90.898

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.

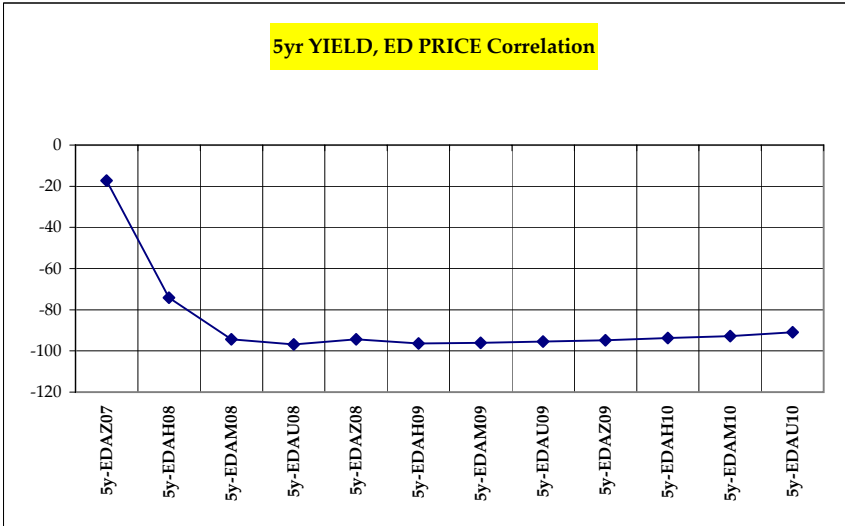


GE Duration as Fraction of year

	5Y Duration	Spread Duration	
EDAZ07	0.051	4.44	4.39 5y-EDAZ07
EDAH08	0.301	4.44	4.14 5y-EDAH08
EDAM08	0.550	4.44	3.89 5y-EDAM08
EDAU08	0.799	4.44	3.64 5y-EDAU08
EDAZ08	1.049	4.44	3.39 5y-EDAZ08
EDAH09	1.298	4.44	3.14 5y-EDAH09
EDAM09	1.547	4.44	2.89 5y-EDAM09
EDAU09	1.797	4.44	2.65 5y-EDAU09
EDAZ09	2.046	4.44	2.40 5y-EDAZ09
EDAH10	2.295	4.44	2.15 5y-EDAH10
EDAM10	2.545	4.44	1.90 5y-EDAM10
EDAU10	2.794	4.44	1.65 5y-EDAU10

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

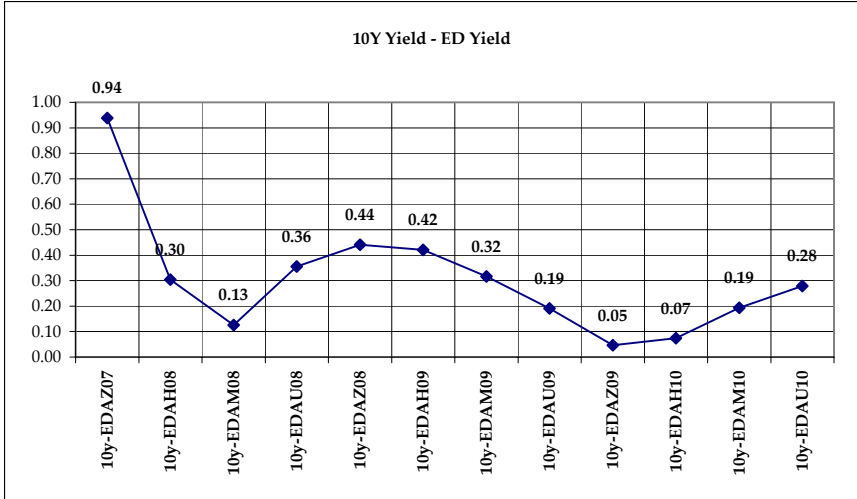
5yr YIELD, ED PRICE Correlation



TERM TED: 10y vs Eurodollar Contracts

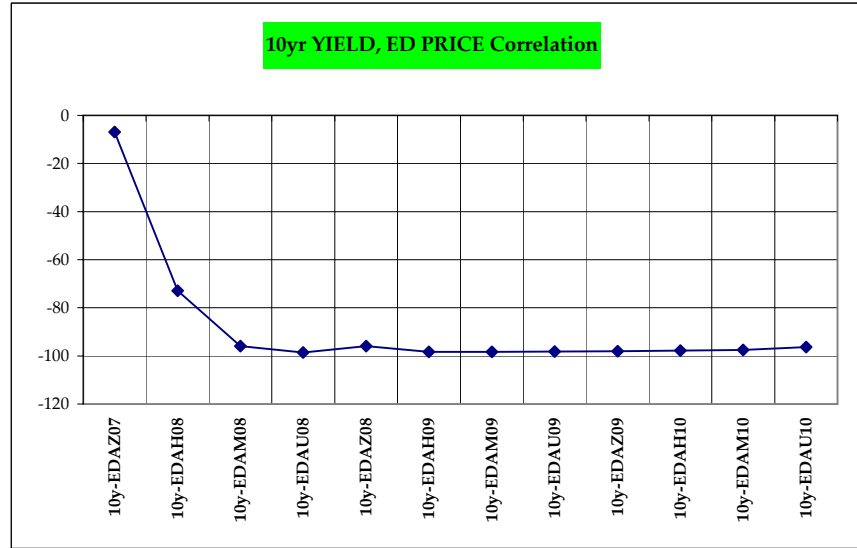
	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	6.88	0.94	10y-EDAZ07	-6.969
EDAH08	6.25	0.30	10y-EDAH08	-72.936
EDAM08	5.82	0.13	10y-EDAM08	-95.972
EDAU08	5.59	0.36	10y-EDAU08	-98.535
EDAZ08	5.50	0.44	10y-EDAZ08	-95.972
EDAH09	5.52	0.42	10y-EDAH09	-98.340
EDAM09	5.63	0.32	10y-EDAM09	-98.280
EDAU09	5.75	0.19	10y-EDAU09	-98.165
EDAZ09	5.90	0.05	10y-EDAZ09	-98.110
EDAH10	6.02	0.07	10y-EDAH10	-97.811
EDAM10	6.14	0.19	10y-EDAM10	-97.564
EDAU10	6.22	0.28	10y-EDAU10	-96.338

Price = Outright Decimal Price - Euro Contract Price
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)
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 These are measuring YIELD correlations.



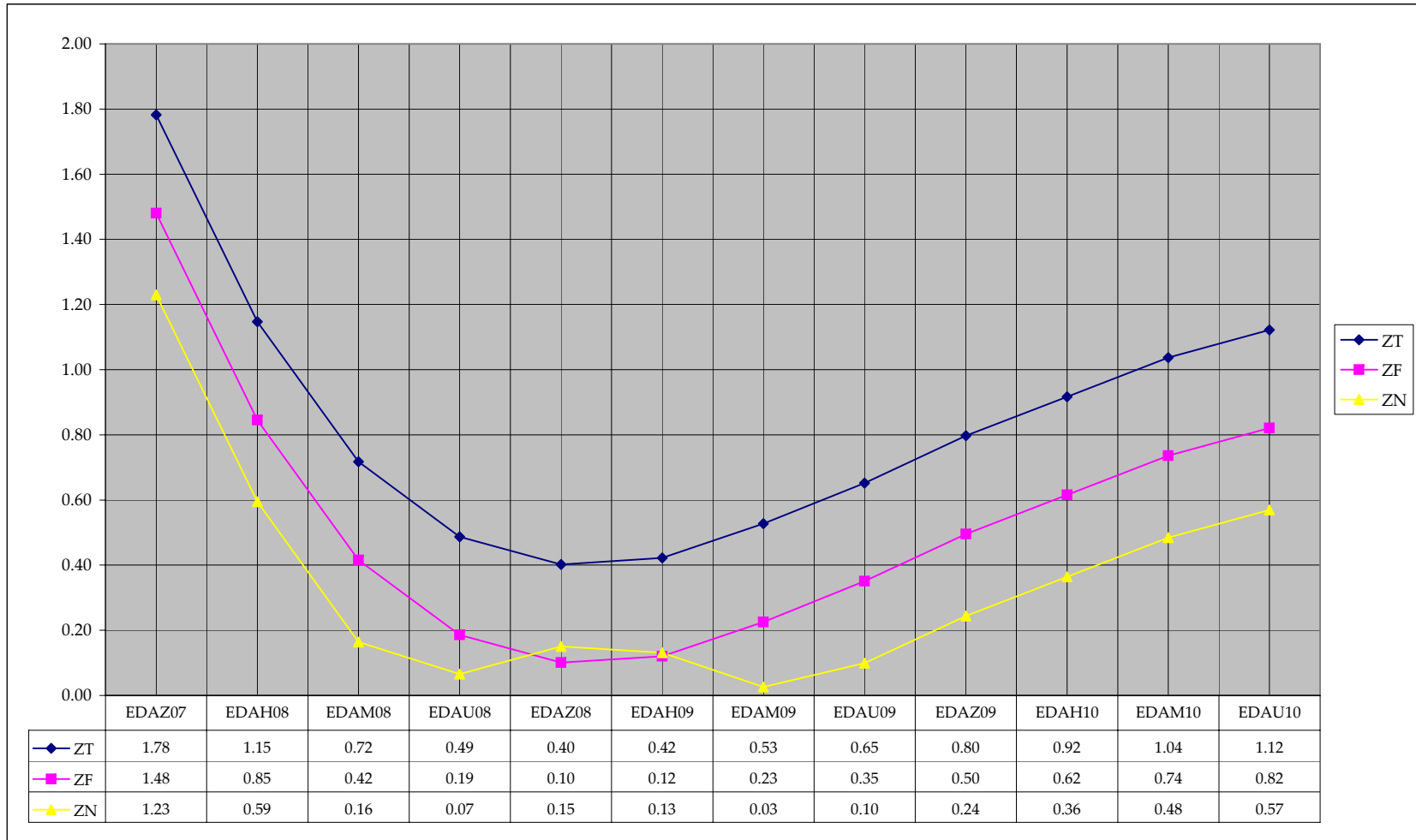
	GE Duration as Fraction of year		10Y Duration	Spread Duration	
EDAZ07	0.051		8.07	8.02	10y-EDAZ07
EDAH08	0.301		8.07	7.77	10y-EDAH08
EDAM08	0.550		8.07	7.52	10y-EDAM08
EDAU08	0.799		8.07	7.27	10y-EDAU08
EDAZ08	1.049		8.07	7.02	10y-EDAZ08
EDAH09	1.298		8.07	6.77	10y-EDAH09
EDAM09	1.547		8.07	6.52	10y-EDAM09
EDAU09	1.797		8.07	6.27	10y-EDAU09
EDAZ09	2.046		8.07	6.02	10y-EDAZ09
EDAH10	2.295		8.07	5.78	10y-EDAH10
EDAM10	2.545		8.07	5.53	10y-EDAM10
EDAU10	2.794		8.07	5.28	10y-EDAU10

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



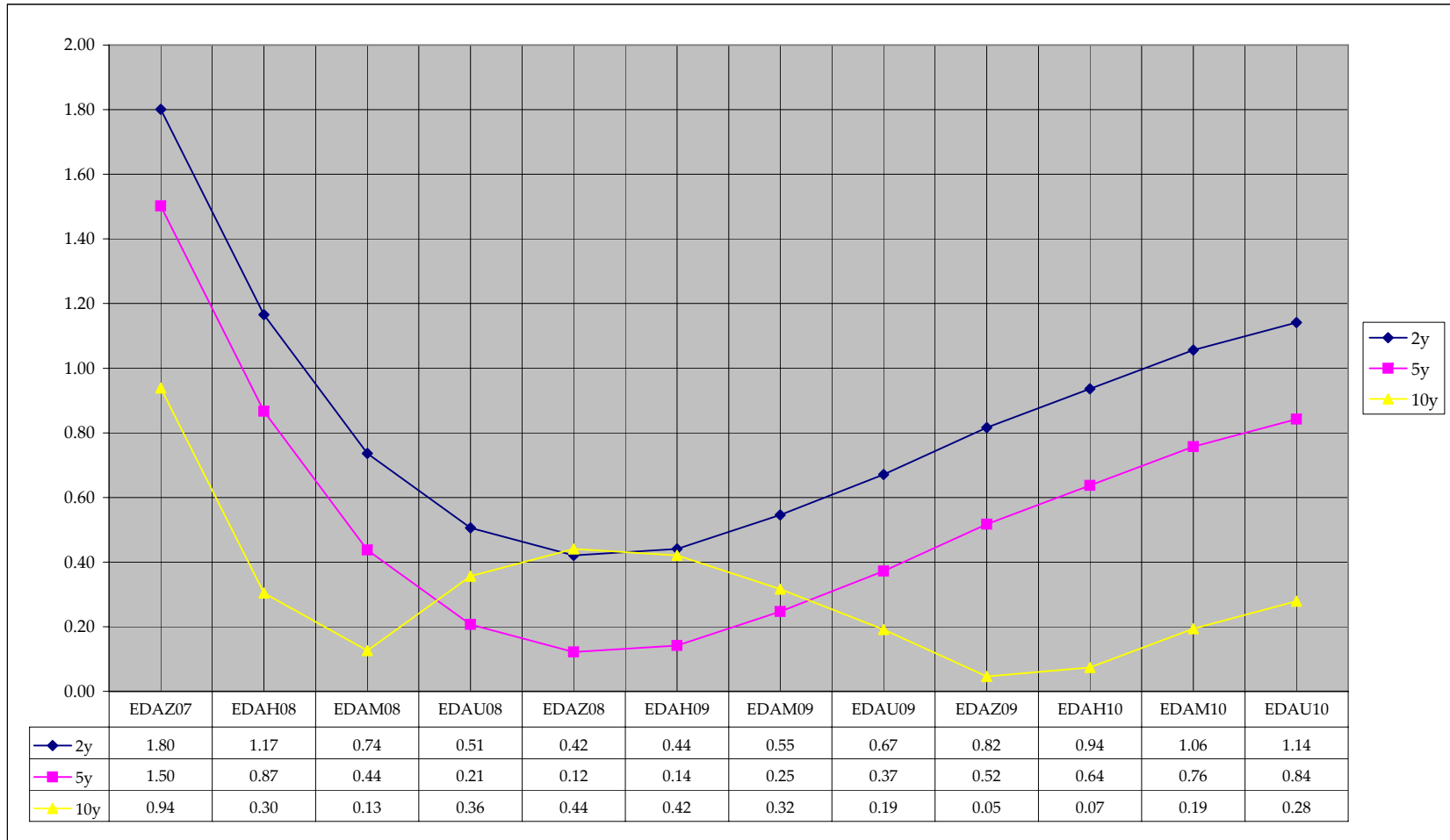
Dirty TED Curve

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.

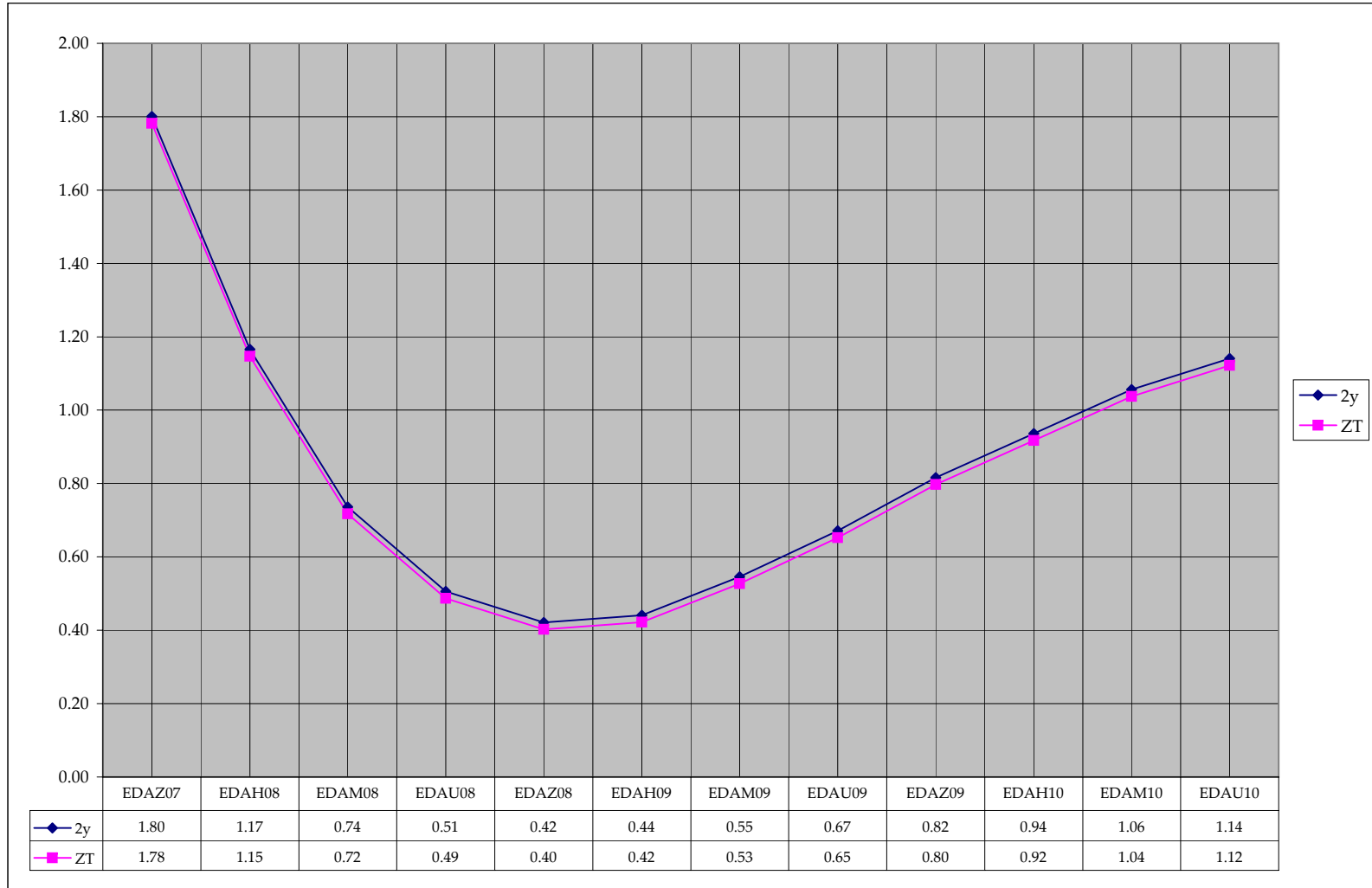


TED Curve

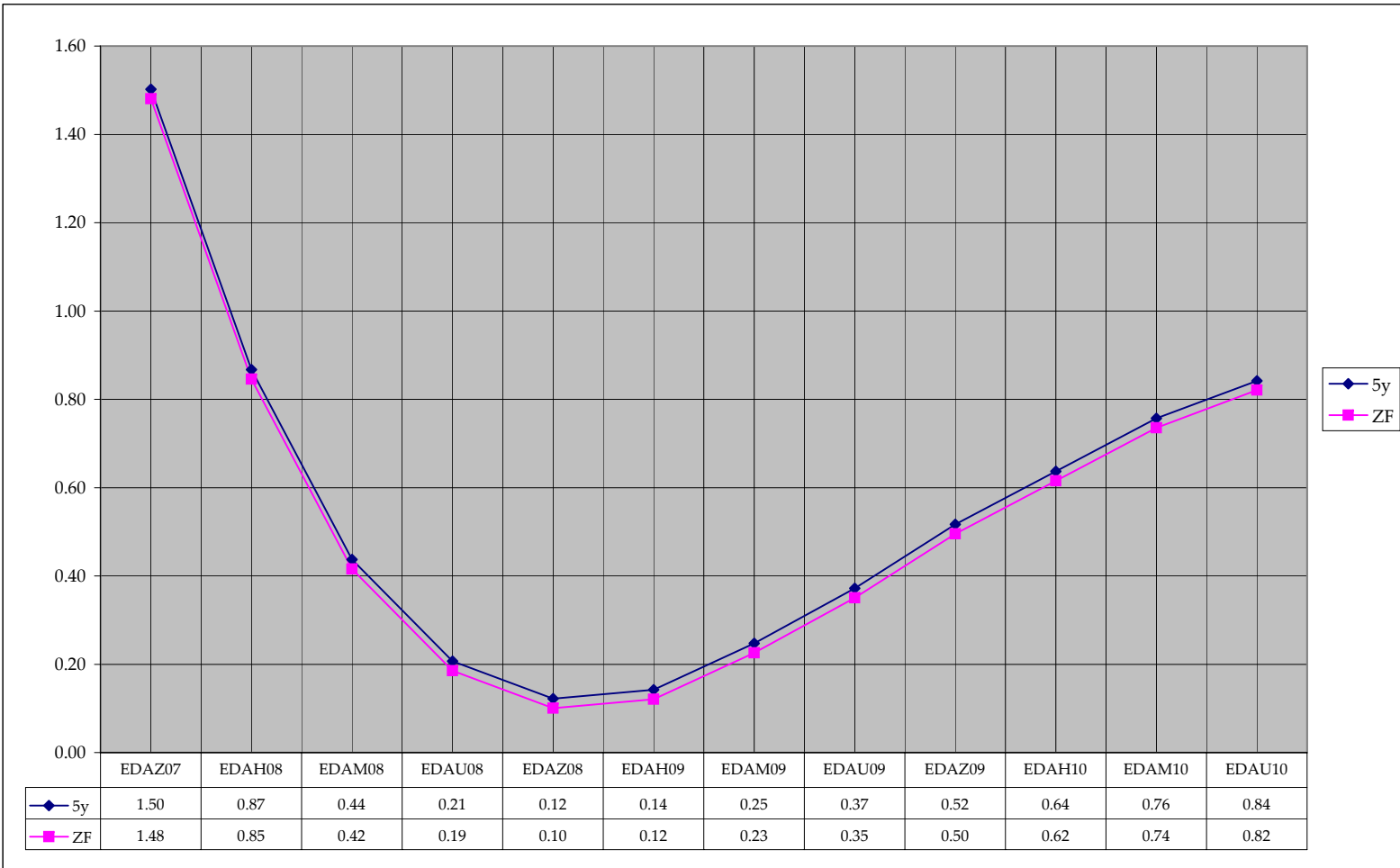
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



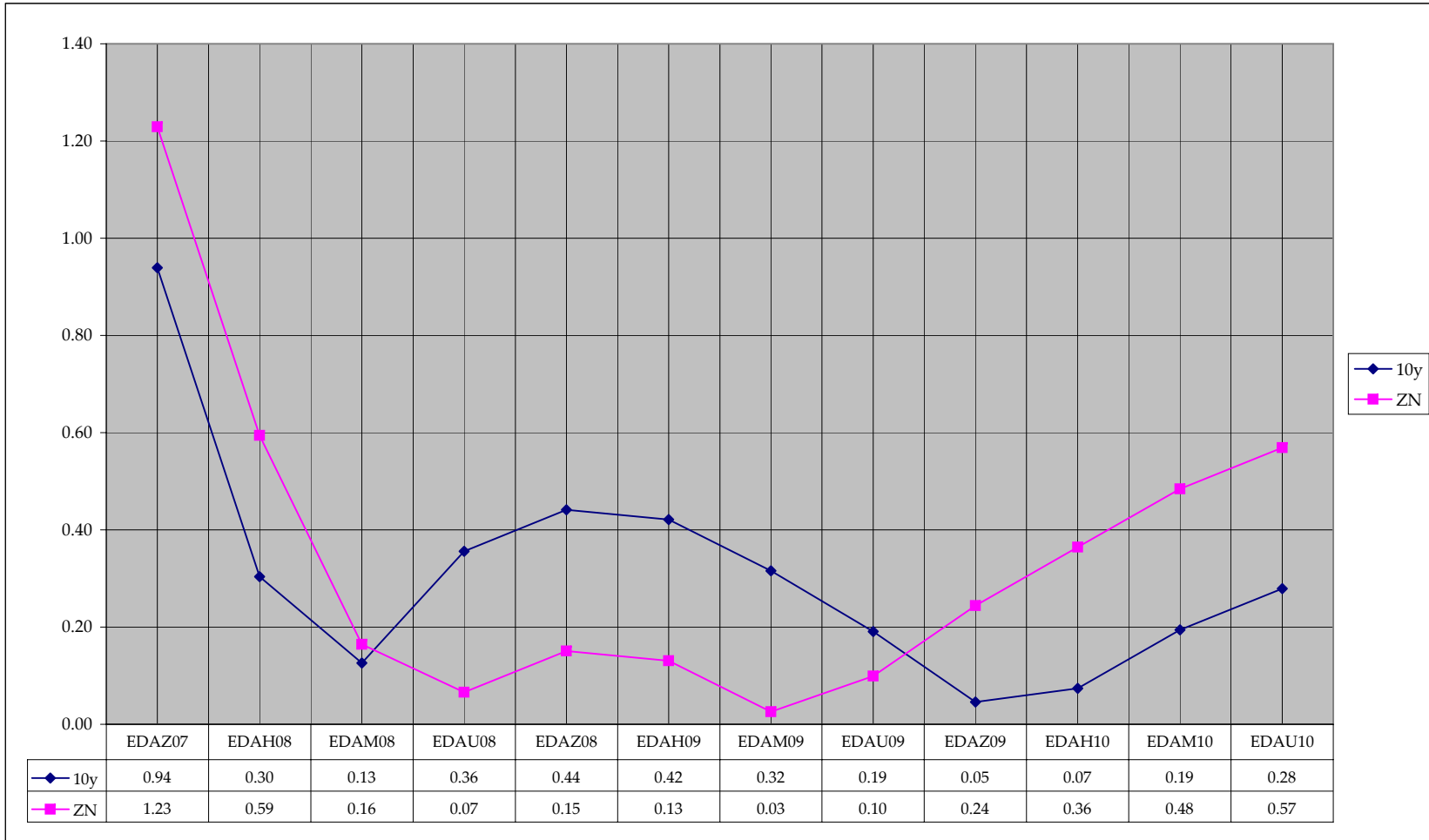
2y Basis TED Curve



5y Basis TED Curve



10y Basis TED Curve



Packs

	last Yield	Net Last Yield	Last Price
Q.ED.White	4.295	-8.250	9580.875
Q.ED.Red	3.744	-5.875	9634.125
Q.ED.Green	4.227	-4.125	9587.375
Q.ED.Blue	-0.625		9550.500
Q.ED.Gold		0.000	9520.875

