The Morning Email: TERM TEDS & Dirty TEDS

Table of Contents

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

12/10/2007 5:58	Page A

Quotes

	F.I. Futures and Cash			
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	104.8281	104.265	3.120	1.90
ZF	109.7031	109.225	3.495	4.02
ZN	112.5156	112.165	3.845	5.95
2y	99.984	99.3150	3.130	1.89
5y	99.375	99.1200	3.512	4.53
10y	101.031	101.0100	4.122	8.02

	Eurodollars (ED)					
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAZ07	95.000	5.000	7	0.018	DEC	White Pack
EDAH08	95.565	4.435	98	0.268	MAR	
EDAM08	95.995	4.005	189	0.517	JUN	
EDAU08	96.235	3.765	280	0.766	SEP	
EDAZ08	96.330	3.670	371	1.016	DEC	Red Pack
EDAH09	96.320	3.680	462	1.265	MAR	
EDAM09	96.220	3.780	553	1.514	JUN	
EDAU09	96.090	3.910	644	1.764	SEP	
EDAZ09	95.950	4.050	735	2.013	DEC	Green Pack
EDAH10	95.820	4.180	826	2.262	MAR	
EDAM10	95.680	4.320	917	2.512	JUN	
EDAU10	95.585	4.415	1008	2.761	SEP	
EDAZ10	#VALUE!	#VALUE!	1099	3.010	DEC	Blue Pack
EDAH11	#VALUE!	#VALUE!	1190	3.260	MAR	
EDAM11	#VALUE!	#VALUE!	1281	3.509	JUN	
EDAU11	95.230	4.770	1379	3.777	SEP	
EDAZ11	#VALUE!	#VALUE!	1470	4.027	DEC	Gold Pack
EDAH12	95.085	4.915	1561	4.276	MAR	
EDAM12	94.995	5.005	1652	4.525	JUN	
EDAU12	94.925	5.075	1743	4.775	SEP	

	Last Yield	Net Yield	Last Price	
Q.ED.White	4.409	-4.000	9569.875	Pack Prices
Q.ED.Red	3.848	-4.750	9624.000	
Q.ED.Green	4.346	-3.250	9575.875	
Q.ED.Blue		0.000	9535.875	
Q.ED.Gold		0.000	9502.250	

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
Mduration = Modified Macaulay Duration
#VALUE! = no quote being provided by exchange.

Overview of Hedging

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:

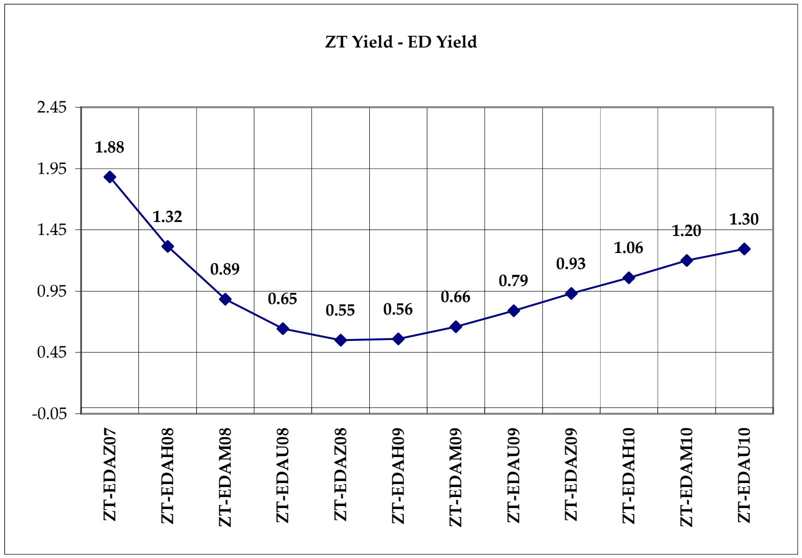
Color	Year	Contracts
White	One	1 – 4
Red	Two	5 – 8
Green	Three	9 – 12
Blue	Four	13 – 16
Gold	Five	17 – 20
Purple	Six	21 – 24
Orange	Seven	25 – 28
Pink	Eight	29 – 32
Silver	Nine	33 – 36
Copper	Ten	37 – 40

12/10/2007 5:58	Page 1

Dirty TED: ZT vs Eurodollar Contracts

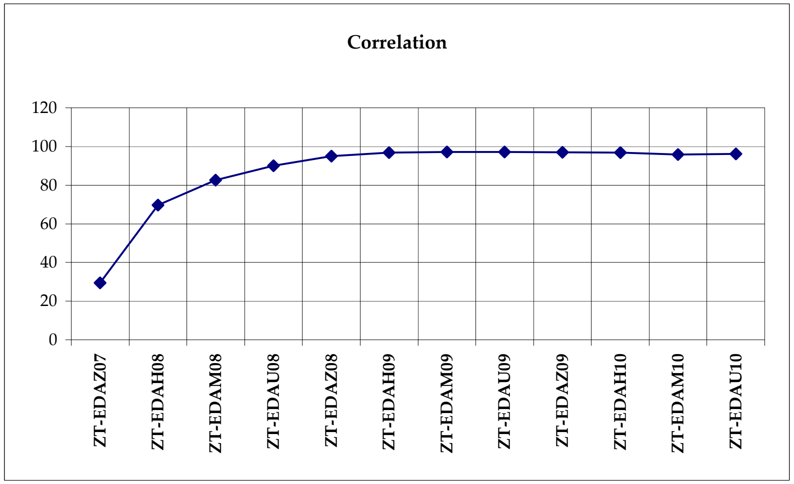
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	9.828	1.88	ZT-EDAZ07	29.491
EDAH08	9.263	1.32	ZT-EDAH08	69.688
EDAM08	8.833	0.89	ZT-EDAM08	82.544
EDAU08	8.593	0.65	ZT-EDAU08	89.989
EDAZ08	8.498	0.55	ZT-EDAZ08	95.015
EDAH09	8.508	0.56	ZT-EDAH09	96.874
EDAM09	8.608	0.66	ZT-EDAM09	97.182
EDAU09	8.738	0.79	ZT-EDAU09	97.129
EDAZ09	8.878	0.93	ZT-EDAZ09	97.037
EDAH10	9.008	1.06	ZT-EDAH10	96.762
EDAM10	9.148	1.20	ZT-EDAM10	95.891
EDAU10	9.243	1.30	ZT-EDAU10	96.142

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	0.018	1.90	1.88	ZT-EDAZ07
EDAH08	0.268	1.90	1.63	ZT-EDAH08
EDAM08	0.517	1.90	1.38	ZT-EDAM08
EDAU08	0.766	1.90	1.13	ZT-EDAU08
EDAZ08	1.016	1.90	0.88	ZT-EDAZ08
EDAH09	1.265	1.90	0.63	ZT-EDAH09
EDAM09	1.514	1.90	0.38	ZT-EDAM09
EDAU09	1.764	1.90	0.13	ZT-EDAU09
EDAZ09	2.013	1.90	(0.12)	ZT-EDAZ09
EDAH10	2.262	1.90	(0.37)	ZT-EDAH10
EDAM10	2.512	1.90	(0.61)	ZT-EDAM10
EDAU10	2.761	1.90	(0.86)	ZT-EDAU10

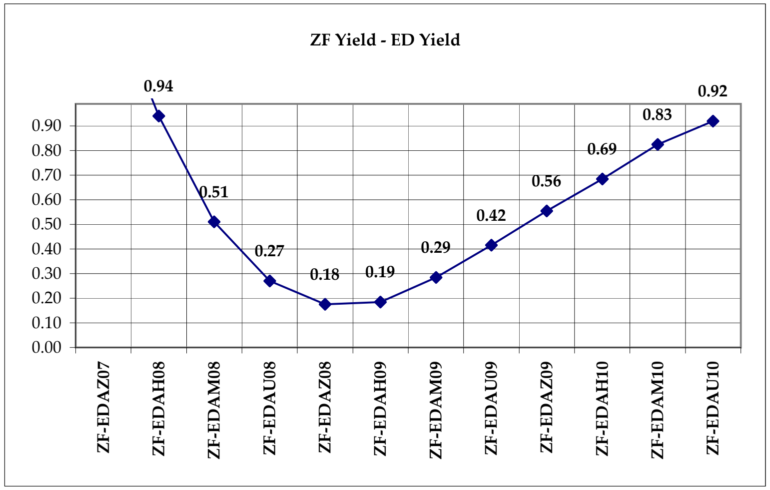
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

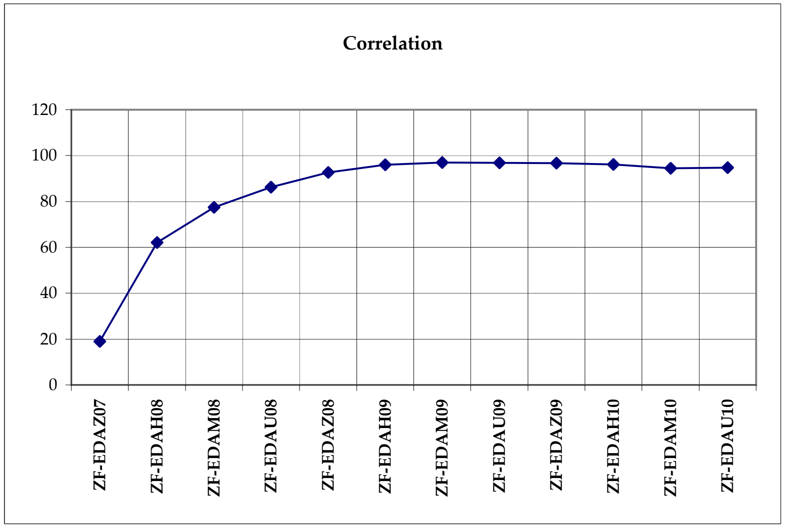
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	14.70	1.51	ZF-EDAZ07	19.008
EDAH08	14.14	0.94	ZF-EDAH08	62.101
EDAM08	13.71	0.51	ZF-EDAM08	77.491
EDAU08	13.47	0.27	ZF-EDAU08	86.196
EDAZ08	13.37	0.18	ZF-EDAZ08	92.658
EDAH09	13.38	0.19	ZF-EDAH09	95.983
EDAM09	13.48	0.29	ZF-EDAM09	96.968
EDAU09	13.61	0.42	ZF-EDAU09	96.824
EDAZ09	13.75	0.56	ZF-EDAZ09	96.762
EDAH10	13.88	0.69	ZF-EDAH10	96.165
EDAM10	14.02	0.83	ZF-EDAM10	94.443
EDAU10	14.12	0.92	ZF-EDAU10	94.797

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	0.018	4.02	4.00	ZF-EDAZ07
EDAH08	0.268	4.02	3.75	ZF-EDAH08
EDAM08	0.517	4.02	3.50	ZF-EDAM08
EDAU08	0.766	4.02	3.25	ZF-EDAU08
EDAZ08	1.016	4.02	3.00	ZF-EDAZ08
EDAH09	1.265	4.02	2.75	ZF-EDAH09
EDAM09	1.514	4.02	2.50	ZF-EDAM09
EDAU09	1.764	4.02	2.25	ZF-EDAU09
EDAZ09	2.013	4.02	2.00	ZF-EDAZ09
EDAH10	2.262	4.02	1.75	ZF-EDAH10
EDAM10	2.512	4.02	1.50	ZF-EDAM10
EDAU10	2.761	4.02	1.25	ZF-EDAU10

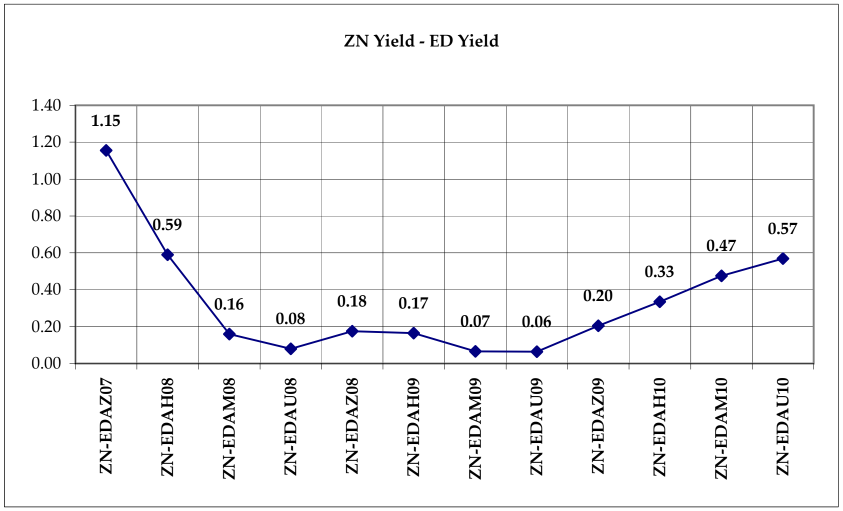
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZN vs Eurodollar Contracts

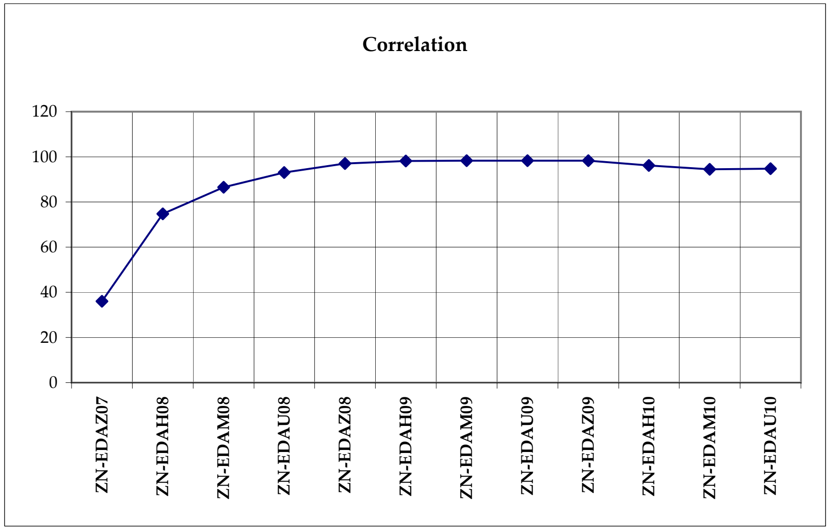
	ZN			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	17.52	1.15	ZN-EDAZ07	36.05
EDAH08	16.95	0.59	ZN-EDAH08	74.82
EDAM08	16.52	0.16	ZN-EDAM08	86.55
EDAU08	16.28	0.08	ZN-EDAU08	92.98
EDAZ08	16.19	0.18	ZN-EDAZ08	96.98
EDAH09	16.20	0.17	ZN-EDAH09	98.15
EDAM09	16.30	0.07	ZN-EDAM09	98.28
EDAU09	16.43	0.06	ZN-EDAU09	98.33
EDAZ09	16.57	0.20	ZN-EDAZ09	98.31
EDAH10	16.70	0.33	ZN-EDAH10	96.17
EDAM10	16.84	0.47	ZN-EDAM10	94.44
EDAU10	16.93	0.57	ZN-EDAU10	94.80

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	0.018	5.95	5.94	ZN-EDAZ07
EDAH08	0.268	5.95	5.69	ZN-EDAH08
EDAM08	0.517	5.95	5.44	ZN-EDAM08
EDAU08	0.766	5.95	5.19	ZN-EDAU08
EDAZ08	1.016	5.95	4.94	ZN-EDAZ08
EDAH09	1.265	5.95	4.69	ZN-EDAH09
EDAM09	1.514	5.95	4.44	ZN-EDAM09
EDAU09	1.764	5.95	4.19	ZN-EDAU09
EDAZ09	2.013	5.95	3.94	ZN-EDAZ09
EDAH10	2.262	5.95	3.69	ZN-EDAH10
EDAM10	2.512	5.95	3.44	ZN-EDAM10
EDAU10	2.761	5.95	3.19	ZN-EDAU10

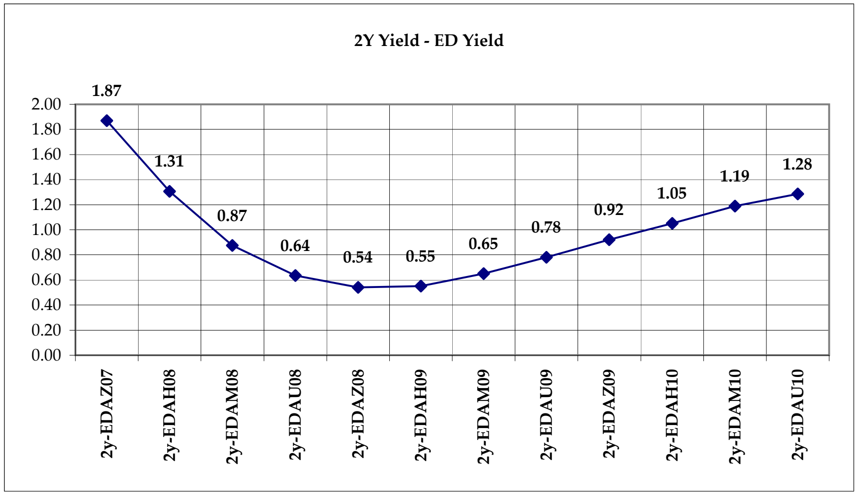
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 2y vs Eurodollar Contracts

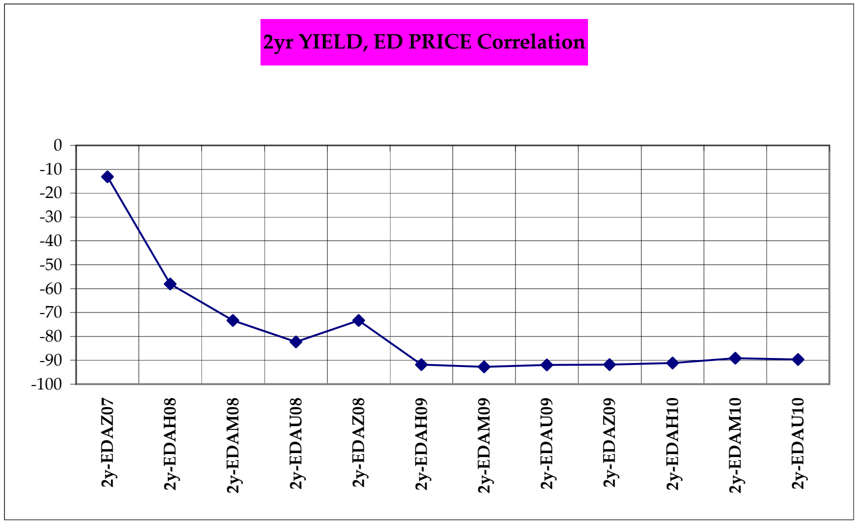
	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	4.98	1.87	2y-EDAZ07	-13.191
EDAH08	4.42	1.31	2y-EDAH08	-58.100
EDAM08	3.99	0.87	2y-EDAM08	-73.265
EDAU08	3.75	0.64	2y-EDAU08	-82.241
EDAZ08	3.65	0.54	2y-EDAZ08	-73.265
EDAH09	3.66	0.55	2y-EDAH09	-91.841
EDAM09	3.76	0.65	2y-EDAM09	-92.712
EDAU09	3.89	0.78	2y-EDAU09	-92.005
EDAZ09	4.03	0.92	2y-EDAZ09	-91.865
EDAH10	4.16	1.05	2y-EDAH10	-91.093
EDAM10	4.30	1.19	2y-EDAM10	-89.086
EDAU10	4.40	1.28	2y-EDAU10	-89.695

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



	GE Duration as Fraction of year	2Y Duration	Spread Duration	
EDAZ07	0.018	1.89	1.88	2y-EDAZ07
EDAH08	0.268	1.89	1.63	2y-EDAH08
EDAM08	0.517	1.89	1.38	2y-EDAM08
EDAU08	0.766	1.89	1.13	2y-EDAU08
EDAZ08	1.016	1.89	0.88	2y-EDAZ08
EDAH09	1.265	1.89	0.63	2y-EDAH09
EDAM09	1.514	1.89	0.38	2y-EDAM09
EDAU09	1.764	1.89	0.13	2y-EDAU09
EDAZ09	2.013	1.89	(0.12)	2y-EDAZ09
EDAH10	2.262	1.89	(0.37)	2y-EDAH10
EDAM10	2.512	1.89	(0.62)	2y-EDAM10
EDAU10	2.761	1.89	(0.87)	2y-EDAU10

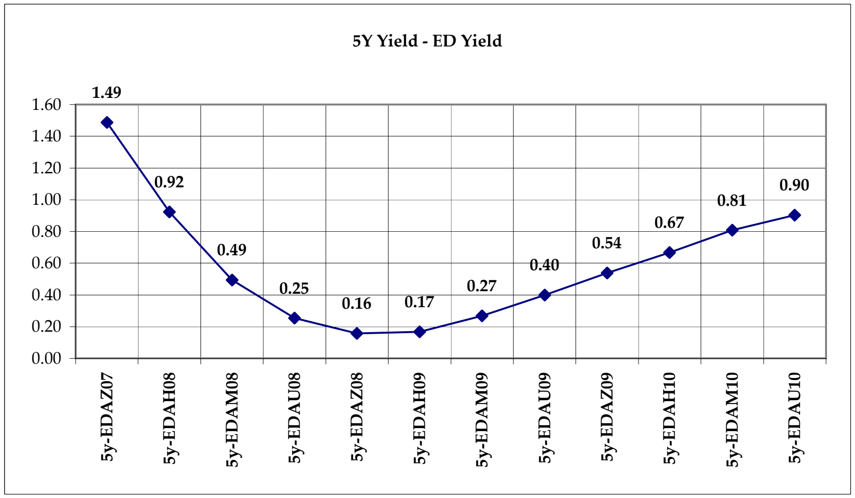
The farther away from 0 the spread duration is
the riskier the trade.



TERM TED: 5y vs Eurodollar Contracts

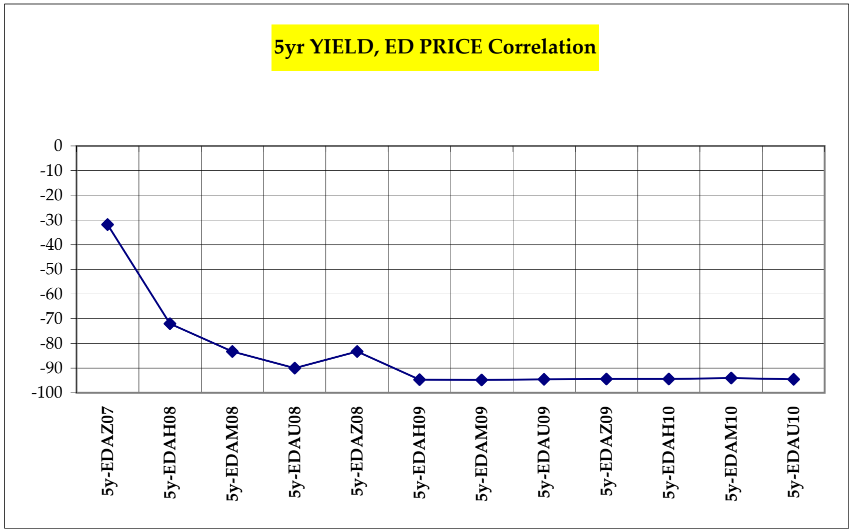
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	4.38	1.49	5y-EDAZ07	-31.929
EDAH08	3.81	0.92	5y-EDAH08	-72.003
EDAM08	3.38	0.49	5y-EDAM08	-83.297
EDAU08	3.14	0.25	5y-EDAU08	-90.016
EDAZ08	3.05	0.16	5y-EDAZ08	-83.297
EDAH09	3.06	0.17	5y-EDAH09	-94.689
EDAM09	3.16	0.27	5y-EDAM09	-94.759
EDAU09	3.29	0.40	5y-EDAU09	-94.505
EDAZ09	3.43	0.54	5y-EDAZ09	-94.424
EDAH10	3.56	0.67	5y-EDAH10	-94.466
EDAM10	3.70	0.81	5y-EDAM10	-94.081
EDAU10	3.79	0.90	5y-EDAU10	-94.542

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	0.018	4.53	4.51	5y-EDAZ07
EDAH08	0.268	4.53	4.26	5y-EDAH08
EDAM08	0.517	4.53	4.01	5y-EDAM08
EDAU08	0.766	4.53	3.77	5y-EDAU08
EDAZ08	1.016	4.53	3.52	5y-EDAZ08
EDAH09	1.265	4.53	3.27	5y-EDAH09
EDAM09	1.514	4.53	3.02	5y-EDAM09
EDAU09	1.764	4.53	2.77	5y-EDAU09
EDAZ09	2.013	4.53	2.52	5y-EDAZ09
EDAH10	2.262	4.53	2.27	5y-EDAH10
EDAM10	2.512	4.53	2.02	5y-EDAM10
EDAU10	2.761	4.53	1.77	5y-EDAU10

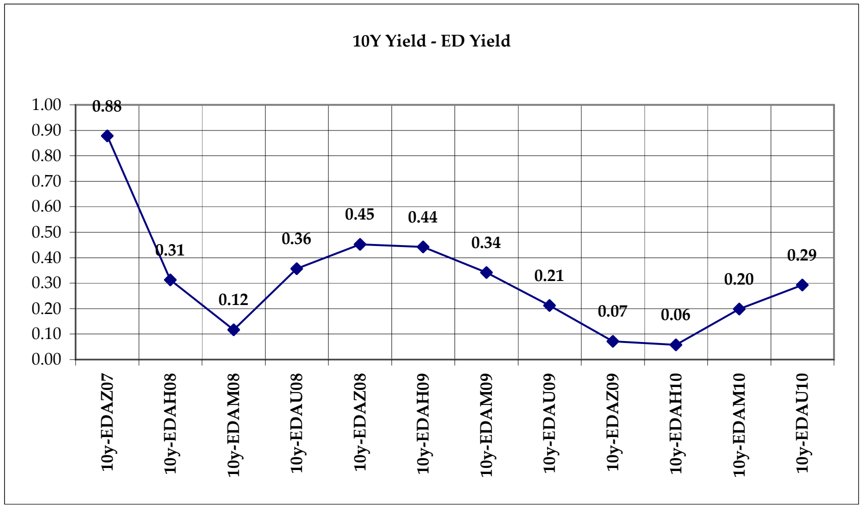
The farther away from 0 the spread duration is
the riskier the trade.



TERM TED: 10y vs Eurodollar Contracts

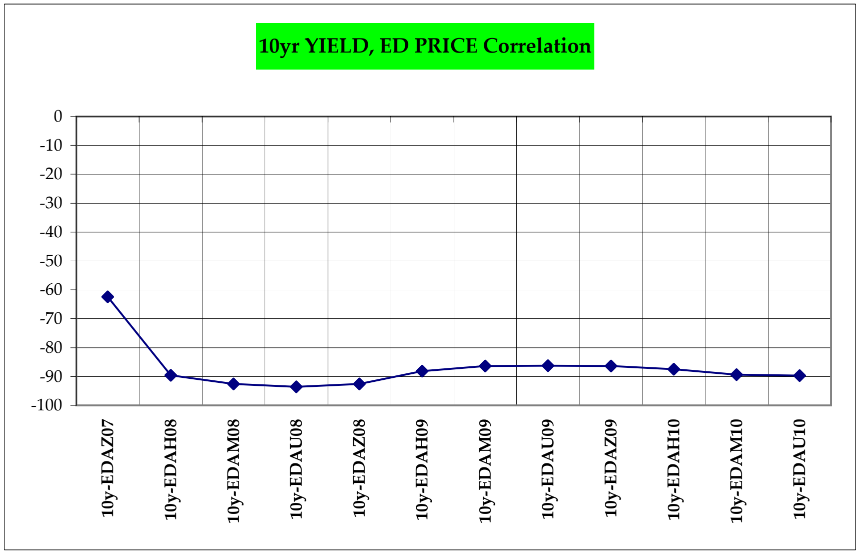
	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAZ07	4.38	0.88	10y-EDAZ07	-62.458
EDAH08	3.81	0.31	10y-EDAH08	-89.557
EDAM08	3.38	0.12	10y-EDAM08	-92.558
EDAU08	3.14	0.36	10y-EDAU08	-93.551
EDAZ08	3.05	0.45	10y-EDAZ08	-92.558
EDAH09	3.06	0.44	10y-EDAH09	-88.130
EDAM09	3.16	0.34	10y-EDAM09	-86.361
EDAU09	3.29	0.21	10y-EDAU09	-86.285
EDAZ09	3.43	0.07	10y-EDAZ09	-86.317
EDAH10	3.56	0.06	10y-EDAH10	-87.424
EDAM10	3.70	0.20	10y-EDAM10	-89.389
EDAU10	3.79	0.29	10y-EDAU10	-89.658

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.



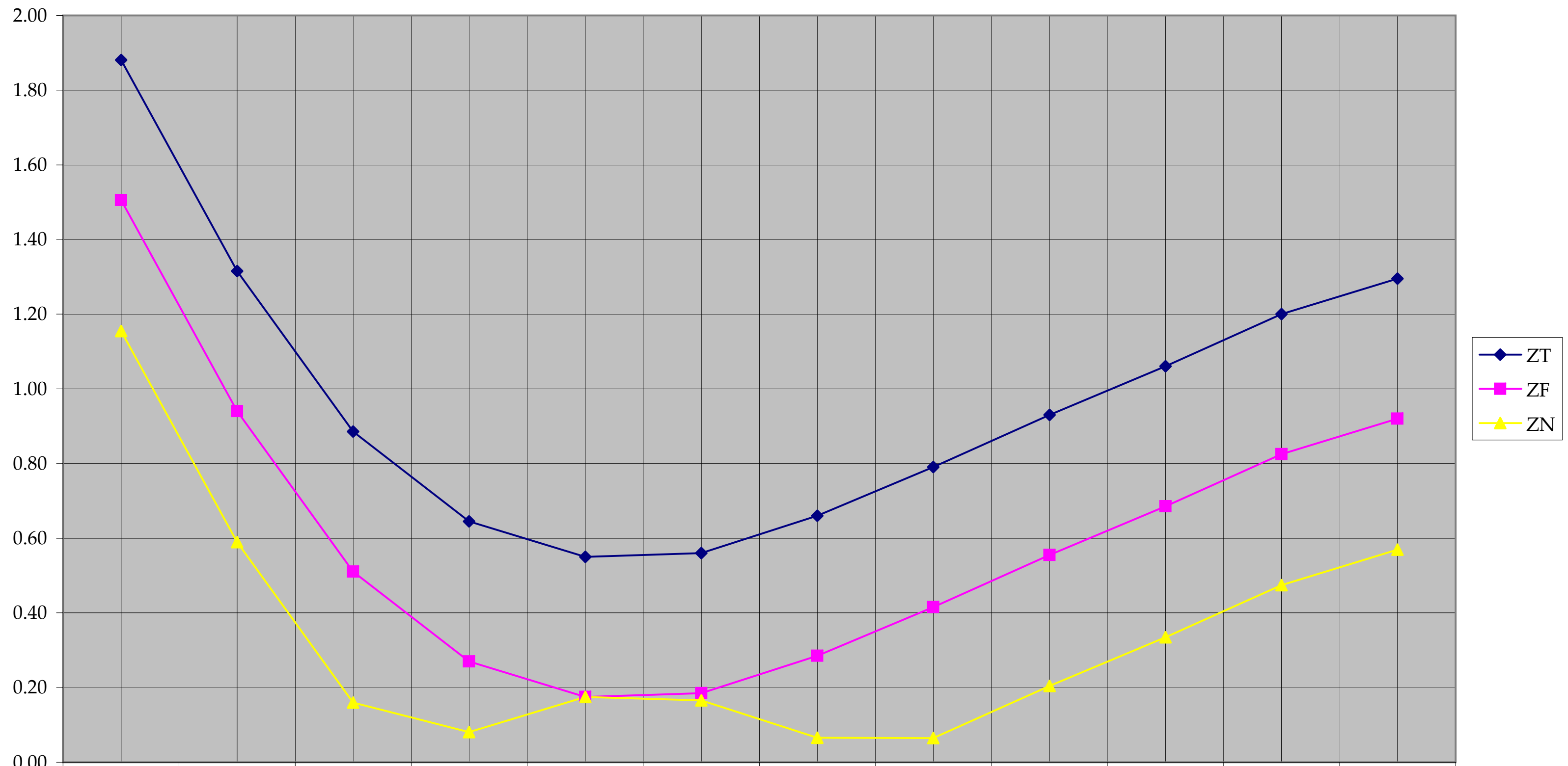
	GE Duration as Fraction of year	10Y Duration	Spread Duration	
EDAZ07	0.018	8.02	8.00	10y-EDAZ07
EDAH08	0.268	8.02	7.76	10y-EDAH08
EDAM08	0.517	8.02	7.51	10y-EDAM08
EDAU08	0.766	8.02	7.26	10y-EDAU08
EDAZ08	1.016	8.02	7.01	10y-EDAZ08
EDAH09	1.265	8.02	6.76	10y-EDAH09
EDAM09	1.514	8.02	6.51	10y-EDAM09
EDAU09	1.764	8.02	6.26	10y-EDAU09
EDAZ09	2.013	8.02	6.01	10y-EDAZ09
EDAH10	2.262	8.02	5.76	10y-EDAH10
EDAM10	2.512	8.02	5.51	10y-EDAM10
EDAU10	2.761	8.02	5.26	10y-EDAU10

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



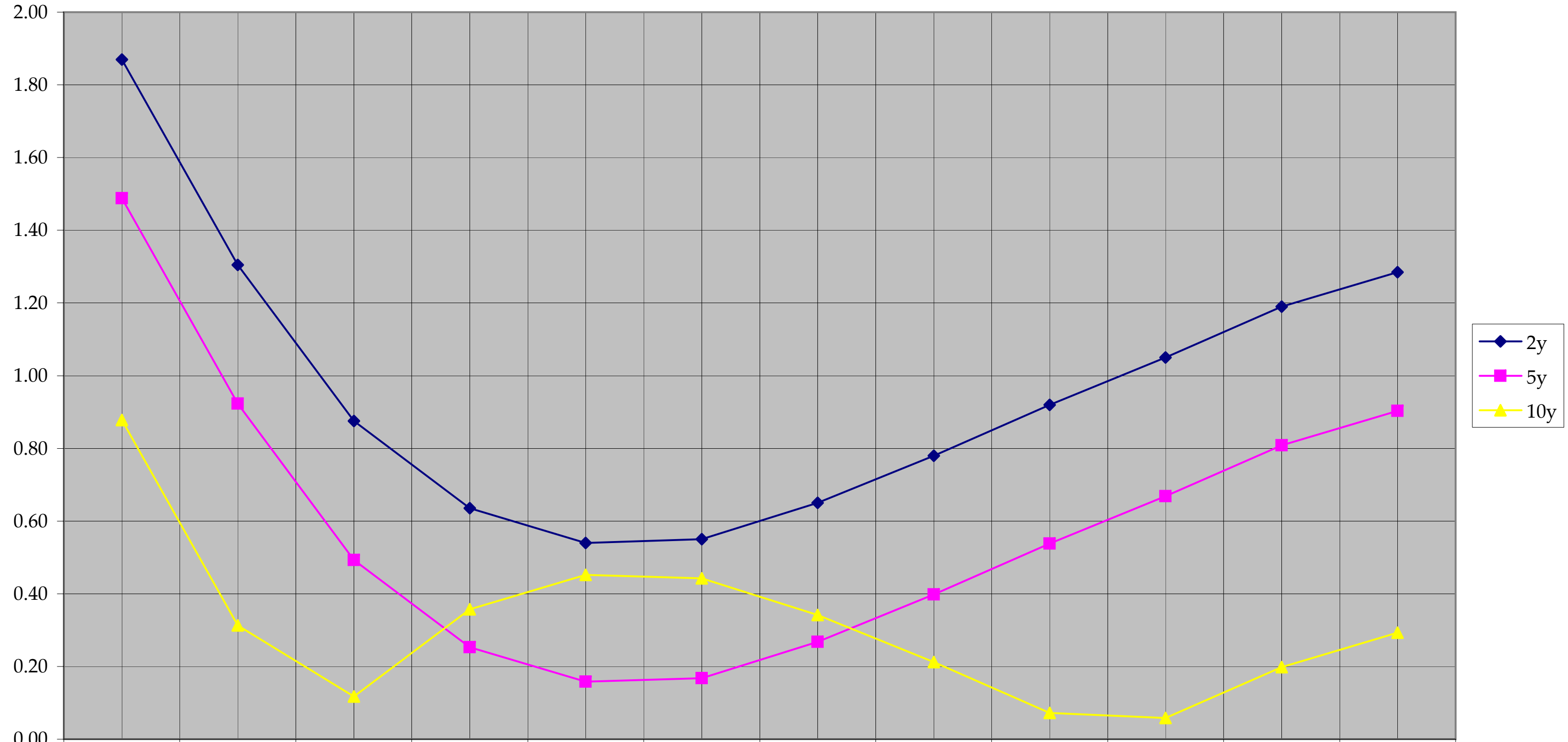
Dirty TED Curve

Chart values show the differences between ED contract and Treasury Futures conctract. 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.



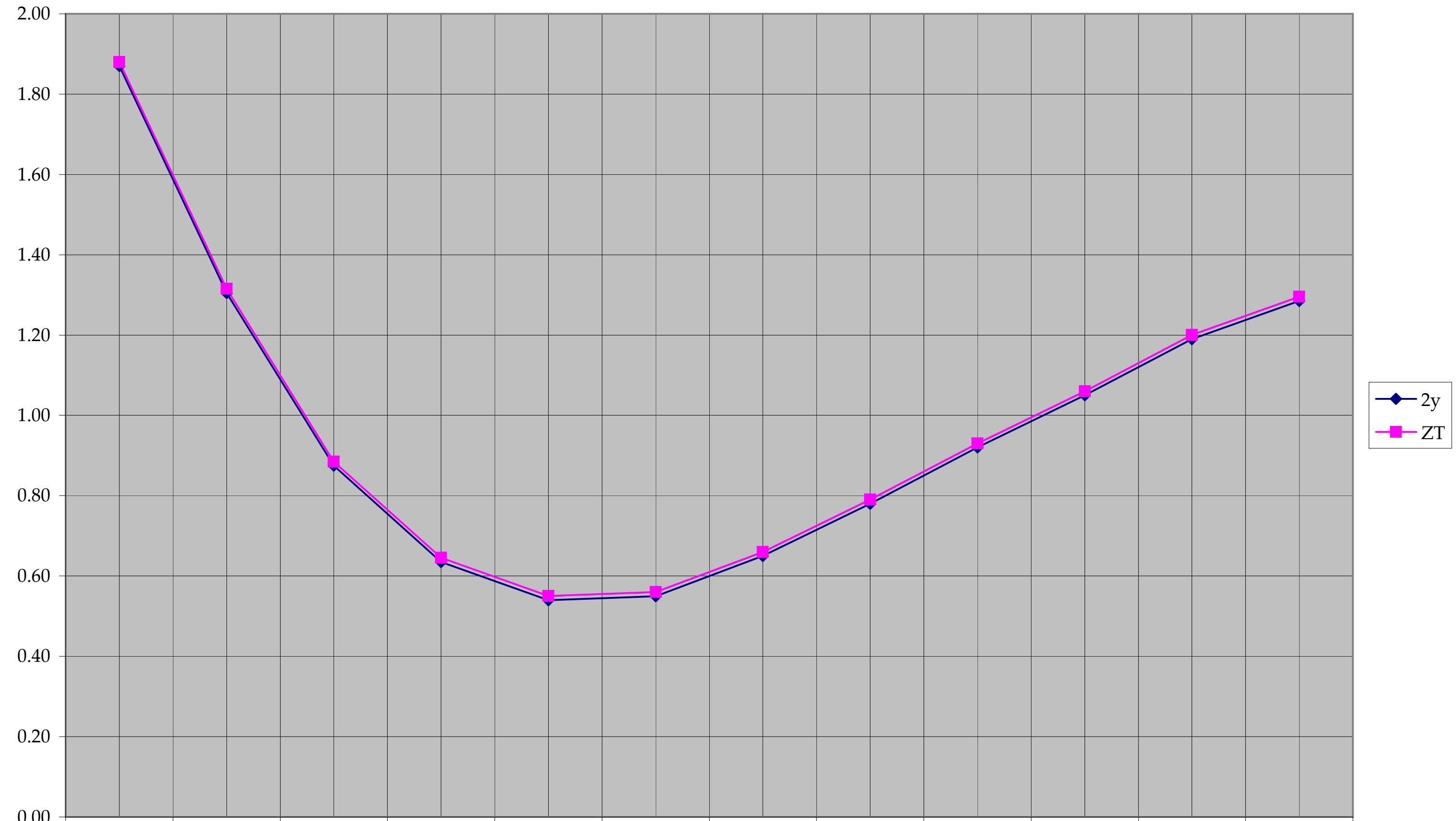
	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10	EDAU10
ZT	1.88	1.32	0.89	0.65	0.55	0.56	0.66	0.79	0.93	1.06	1.20	1.30
ZF	1.51	0.94	0.51	0.27	0.18	0.19	0.29	0.42	0.56	0.69	0.83	0.92
ZN	1.15	0.59	0.16	0.08	0.18	0.17	0.07	0.06	0.20	0.33	0.47	0.57

Chart values show the differences between ED contract and Treasury Cash conctract. 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.



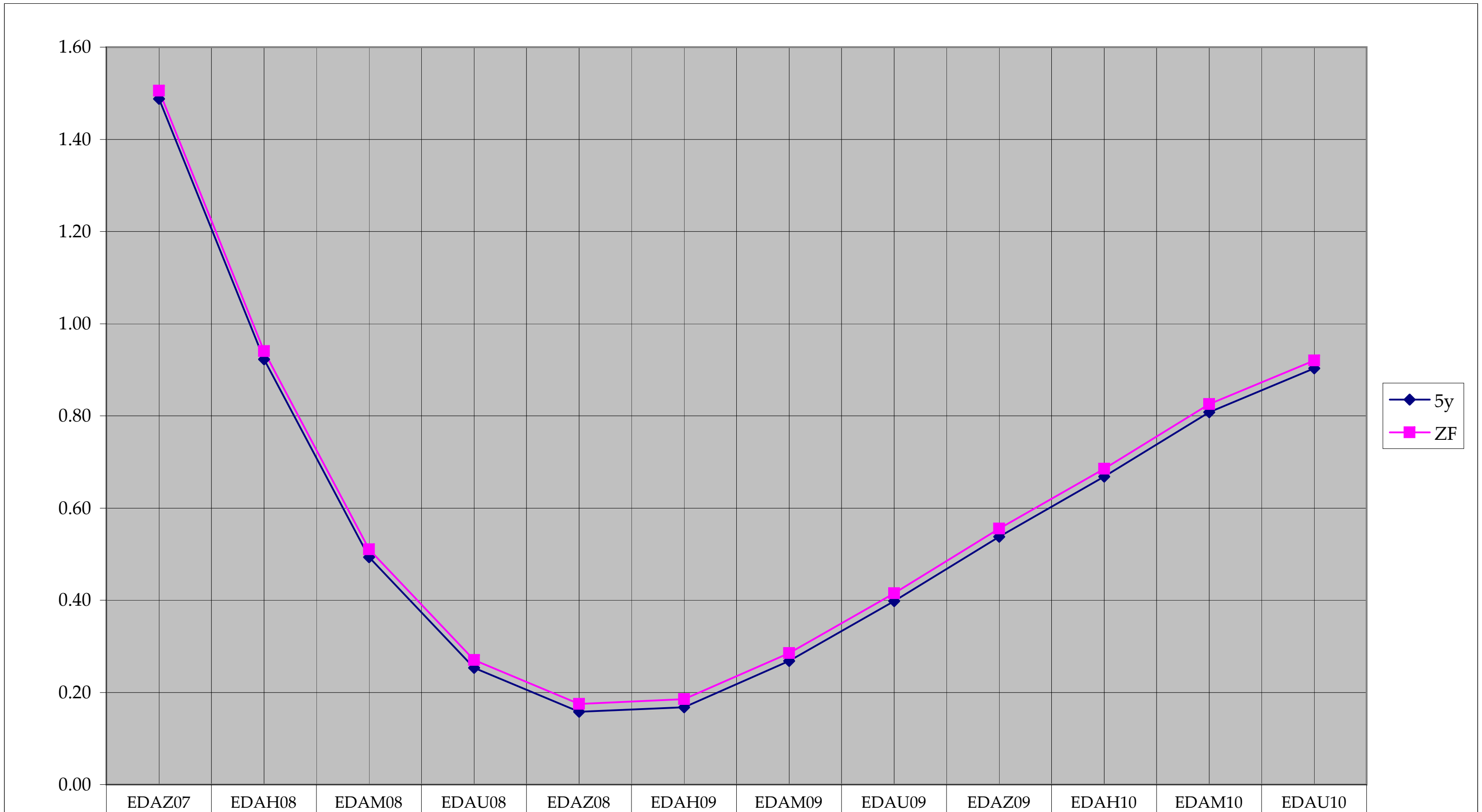
	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10	EDAU10
2y	1.87	1.31	0.87	0.64	0.54	0.55	0.65	0.78	0.92	1.05	1.19	1.28
5y	1.49	0.92	0.49	0.25	0.16	0.17	0.27	0.40	0.54	0.67	0.81	0.90
10y	0.88	0.31	0.12	0.36	0.45	0.44	0.34	0.21	0.07	0.06	0.20	0.29

2y Basis TED Curve



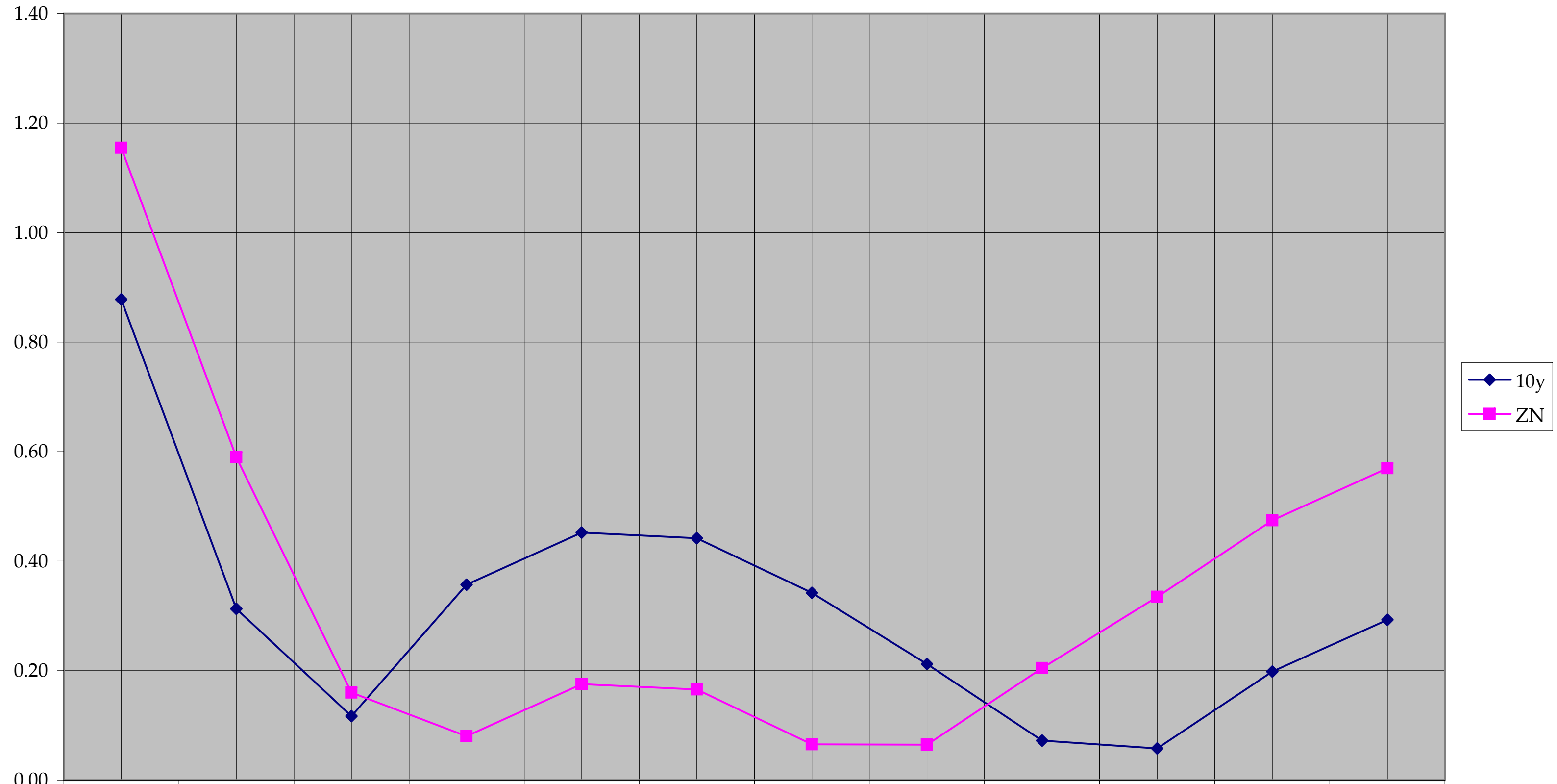
	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10	EDAU10
2y	1.87	1.31	0.87	0.64	0.54	0.55	0.65	0.78	0.92	1.05	1.19	1.28
ZT	1.88	1.32	0.89	0.65	0.55	0.56	0.66	0.79	0.93	1.06	1.20	1.30

5y Basis TED Curve



	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10	EDAU10
5y	1.49	0.92	0.49	0.25	0.16	0.17	0.27	0.40	0.54	0.67	0.81	0.90
ZF	1.51	0.94	0.51	0.27	0.18	0.19	0.29	0.42	0.56	0.69	0.83	0.92

10y Basis TED Curve



	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10	EDAM10	EDAU10
10y	0.88	0.31	0.12	0.36	0.45	0.44	0.34	0.21	0.07	0.06	0.20	0.29
ZN	1.15	0.59	0.16	0.08	0.18	0.17	0.07	0.06	0.20	0.33	0.47	0.57

Packs

12/10/2007 5:58	Page 12

	last Yield	Net Last Yield	Last Price
Q.ED.White	4.409	-4.000	9569.875
Q.ED.Red	3.848	-4.750	9624.000
Q.ED.Green	4.346	-3.250	9575.875
Q.ED.Blue		0.000	9535.875
Q.ED.Gold		0.000	9502.250