The Morning Email: TERM TEDS & Dirty TEDS

Table of Contents

Also new, correlation matrixes for all contracts.

Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com

	F.I. Futures and Cash			
	Last Decimal	Last 32	Last Yield*	**MDuration
ZT	102.0219	102.007	4.795	1.75
ZF	105.0938	105.030	4.670	3.80
ZN	107.3906	107.125	4.704	5.75
Blank				
2y	99.491	99.1570	4.776	1.83
5y	99.241	99.0770	4.673	4.37
10y	98.047	98.0150	4.748	7.93

*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	94.648	5.352	31	0.084	JUN	White Pack
EDAU07	94.720	5.280	122	0.334	SEP	
EDAZ07	94.830	5.170	213	0.583	DEC	
EDAH08	94.955	5.045	304	0.832	MAR	
EDAM08	95.050	4.950	395	1.082	JUN	Red Pack
EDAU08	95.095	4.905	486	1.331	SEP	
EDAZ08	95.110	4.890	577	1.580	DEC	
EDAH09	95.115	4.885	668	1.829	MAR	
EDAM09	95.100	4.900	759	2.079	JUN	Green Pack
EDAU09	95.080	4.920	850	2.328	SEP	
EDAZ09	95.035	4.965	941	2.577	DEC	
EDAH10	95.005	4.995	1032	2.827	MAR	

Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com

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:

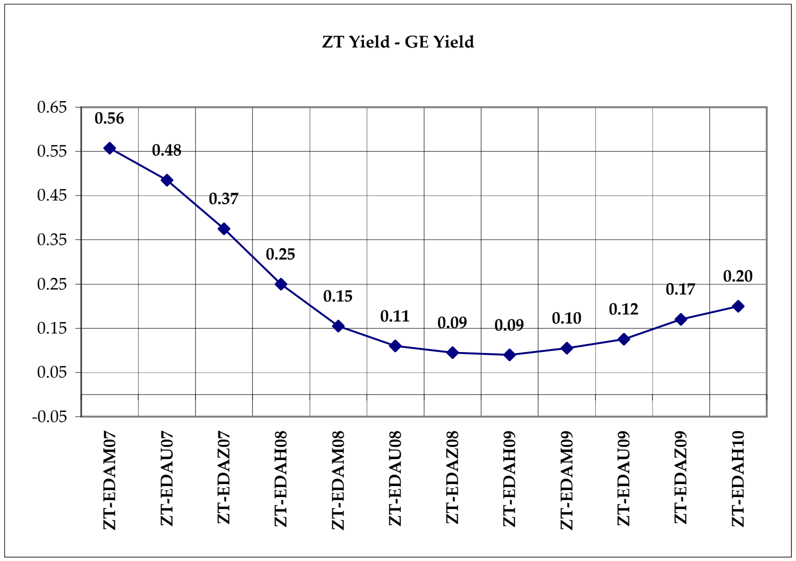
Color	Year	Contracts
White	One	1 – 4
Red	Two	5 – 8
Green	Three	9 – 12
Blue	Four	13 – 16
Gold	Five	17 – 20
Purple	Six	21 – 24
Orange	Seven	25 – 28
Pink	Eight	29 – 32
Silver	Nine	33 – 36
Copper	Ten	37 – 40

..

Dirty TED: ZT vs Eurodollar Contracts

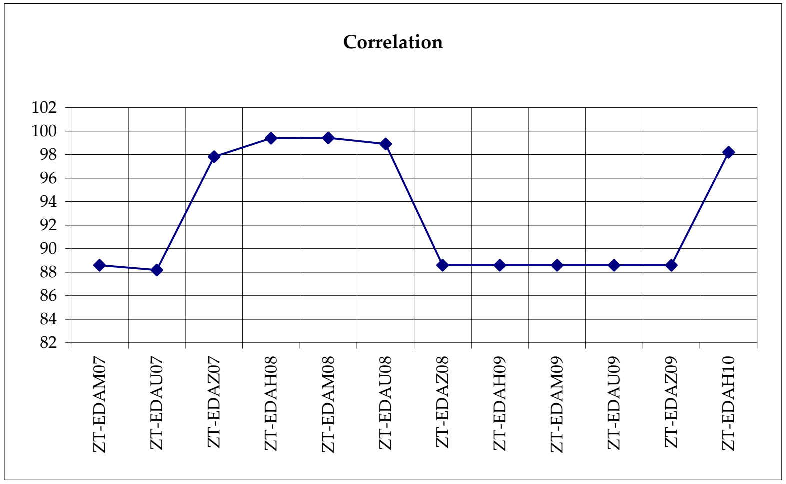
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	7.374	0.56	ZT-EDAM07	88.582
EDAU07	7.302	0.48	ZT-EDAU07	88.170
EDAZ07	7.192	0.37	ZT-EDAZ07	97.813
EDAH08	7.067	0.25	ZT-EDAH08	99.385
EDAM08	6.972	0.15	ZT-EDAM08	99.420
EDAU08	6.927	0.11	ZT-EDAU08	98.897
EDAZ08	6.912	0.09	ZT-EDAZ08	88.582
EDAH09	6.907	0.09	ZT-EDAH09	88.582
EDAM09	6.922	0.10	ZT-EDAM09	88.582
EDAU09	6.942	0.12	ZT-EDAU09	88.582
EDAZ09	6.987	0.17	ZT-EDAZ09	88.582
EDAH10	7.017	0.20	ZT-EDAH10	98.177

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	0.084	1.75	1.67	ZT-EDAM07
EDAU07	0.334	1.75	1.42	ZT-EDAU07
EDAZ07	0.583	1.75	1.17	ZT-EDAZ07
EDAH08	0.832	1.75	0.92	ZT-EDAH08
EDAM08	1.082	1.75	0.67	ZT-EDAM08
EDAU08	1.331	1.75	0.42	ZT-EDAU08
EDAZ08	1.580	1.75	0.17	ZT-EDAZ08
EDAH09	1.829	1.75	(0.08)	ZT-EDAH09
EDAM09	2.079	1.75	(0.33)	ZT-EDAM09
EDAU09	2.328	1.75	(0.57)	ZT-EDAU09
EDAZ09	2.577	1.75	(0.82)	ZT-EDAZ09
EDAH10	2.827	1.75	(1.07)	ZT-EDAH10

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

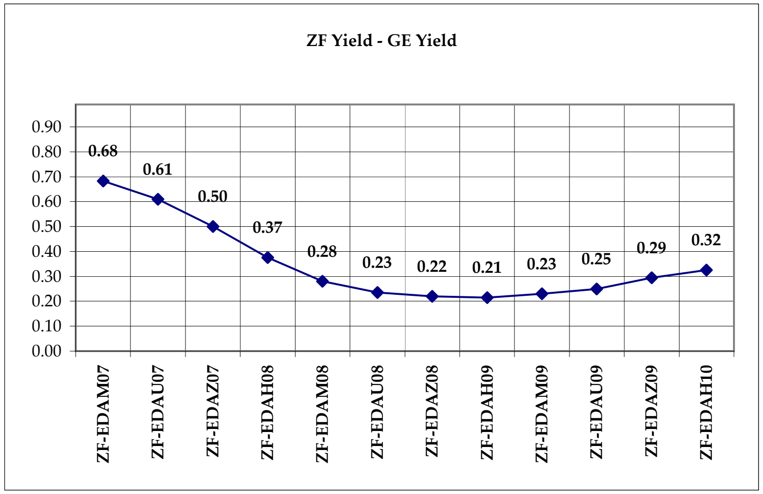


Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com

Dirty TED: ZF vs Eurodollar Contracts

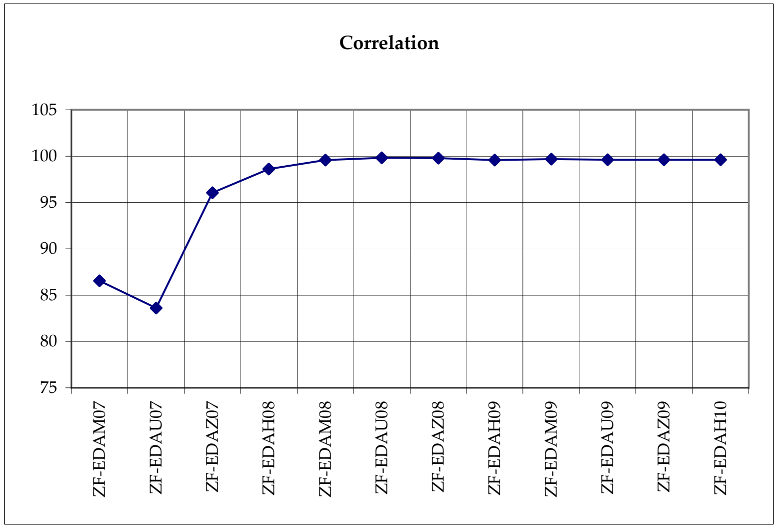
	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	10.45	0.68	ZF-EDAM07	86.540
EDAU07	10.37	0.61	ZF-EDAU07	83.599
EDAZ07	10.26	0.50	ZF-EDAZ07	96.043
EDAH08	10.14	0.37	ZF-EDAH08	98.594
EDAM08	10.04	0.28	ZF-EDAM08	99.577
EDAU08	10.00	0.23	ZF-EDAU08	99.817
EDAZ08	9.98	0.22	ZF-EDAZ08	99.776
EDAH09	9.98	0.21	ZF-EDAH09	99.582
EDAM09	9.99	0.23	ZF-EDAM09	99.686
EDAU09	10.01	0.25	ZF-EDAU09	99.601
EDAZ09	10.06	0.29	ZF-EDAZ09	99.601
EDAH10	10.09	0.32	ZF-EDAH10	99.601

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	0.084	3.80	3.72	ZF-EDAM07
EDAU07	0.334	3.80	3.47	ZF-EDAU07
EDAZ07	0.583	3.80	3.22	ZF-EDAZ07
EDAH08	0.832	3.80	2.97	ZF-EDAH08
EDAM08	1.082	3.80	2.72	ZF-EDAM08
EDAU08	1.331	3.80	2.47	ZF-EDAU08
EDAZ08	1.580	3.80	2.22	ZF-EDAZ08
EDAH09	1.829	3.80	1.97	ZF-EDAH09
EDAM09	2.079	3.80	1.72	ZF-EDAM09
EDAU09	2.328	3.80	1.47	ZF-EDAU09
EDAZ09	2.577	3.80	1.22	ZF-EDAZ09
EDAH10	2.827	3.80	0.98	ZF-EDAH10

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

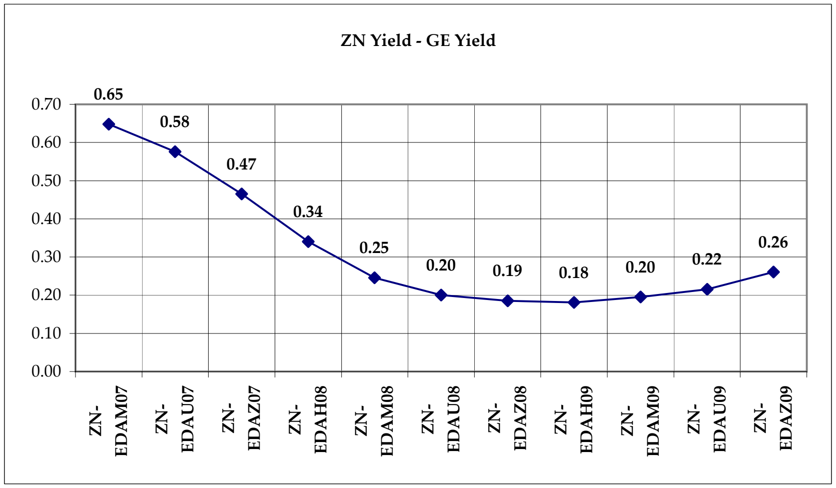


Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com

Dirty TED: ZN vs Eurodollar Contracts

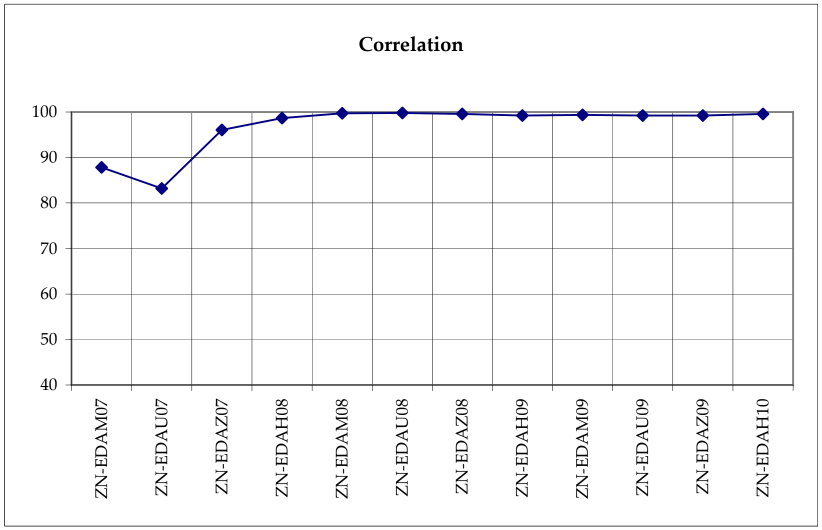
	ZN				
	Spread Price	Spread Yield	Spread Name		Correlation* (percent)
EDAM07	12.74	0.65	ZN-EDAM07		87.84
EDAU07	12.67	0.58	ZN-EDAU07		83.21
EDAZ07	12.56	0.47	ZN-EDAZ07		96.05
EDAH08	12.44	0.34	ZN-EDAH08		98.68
EDAM08	12.34	0.25	ZN-EDAM08		99.70
EDAU08	12.30	0.20	ZN-EDAU08		99.76
EDAZ08	12.28	0.19	ZN-EDAZ08		99.57
EDAH09	12.28	0.18	ZN-EDAH09		99.22
EDAM09	12.29	0.20	ZN-EDAM09		99.36
EDAU09	12.31	0.22	ZN-EDAU09		99.20
EDAZ09	12.36	0.26	ZN-EDAZ09		99.20
EDAH10	12.39	0.29	ZN-EDAH10		99.60

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	0.084	5.75	5.67	ZN-EDAM07
EDAU07	0.334	5.75	5.42	ZN-EDAU07
EDAZ07	0.583	5.75	5.17	ZN-EDAZ07
EDAH08	0.832	5.75	4.92	ZN-EDAH08
EDAM08	1.082	5.75	4.67	ZN-EDAM08
EDAU08	1.331	5.75	4.42	ZN-EDAU08
EDAZ08	1.580	5.75	4.17	ZN-EDAZ08
EDAH09	1.829	5.75	3.93	ZN-EDAH09
EDAM09	2.079	5.75	3.68	ZN-EDAM09
EDAU09	2.328	5.75	3.43	ZN-EDAU09
EDAZ09	2.577	5.75	3.18	ZN-EDAZ09
EDAH10	2.827	5.75	2.93	ZN-EDAH10

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

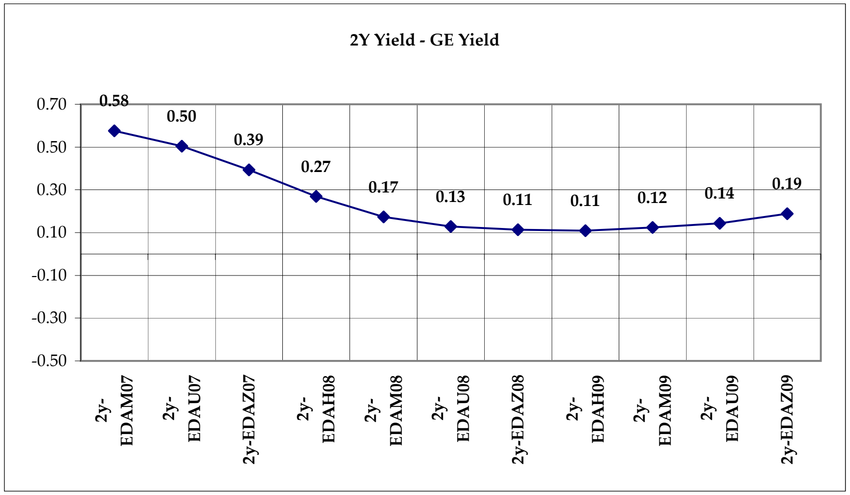


5/18/2007 5:42	Page 5

TERM TED: 2y vs Eurodollar Contracts

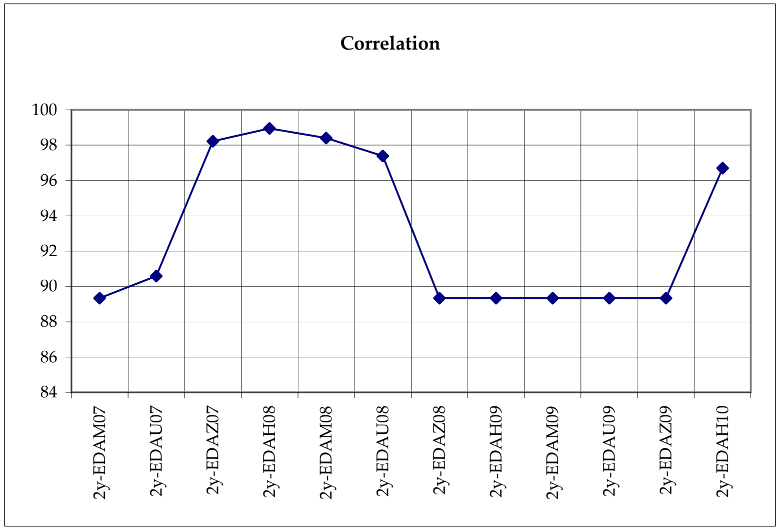
	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	4.84	0.58	2y-EDAM07	89.342
EDAU07	4.77	0.50	2y-EDAU07	90.580
EDAZ07	4.66	0.39	2y-EDAZ07	98.226
EDAH08	4.54	0.27	2y-EDAH08	98.947
EDAM08	4.44	0.17	2y-EDAM08	98.396
EDAU08	4.40	0.13	2y-EDAU08	97.382
EDAZ08	4.38	0.11	2y-EDAZ08	89.342
EDAH09	4.38	0.11	2y-EDAH09	89.342
EDAM09	4.39	0.12	2y-EDAM09	89.342
EDAU09	4.41	0.14	2y-EDAU09	89.342
EDAZ09	4.46	0.19	2y-EDAZ09	89.342
EDAH10	4.49	0.22	2y-EDAH10	96.699

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	0.084	1.83	1.75	2y-EDAM07
EDAU07	0.334	1.83	1.50	2y-EDAU07
EDAZ07	0.583	1.83	1.25	2y-EDAZ07
EDAH08	0.832	1.83	1.00	2y-EDAH08
EDAM08	1.082	1.83	0.75	2y-EDAM08
EDAU08	1.331	1.83	0.50	2y-EDAU08
EDAZ08	1.580	1.83	0.25	2y-EDAZ08
EDAH09	1.829	1.83	0.00	2y-EDAH09
EDAM09	2.079	1.83	(0.24)	2y-EDAM09
EDAU09	2.328	1.83	(0.49)	2y-EDAU09
EDAZ09	2.577	1.83	(0.74)	2y-EDAZ09
EDAH10	2.827	1.83	(0.99)	2y-EDAH10

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

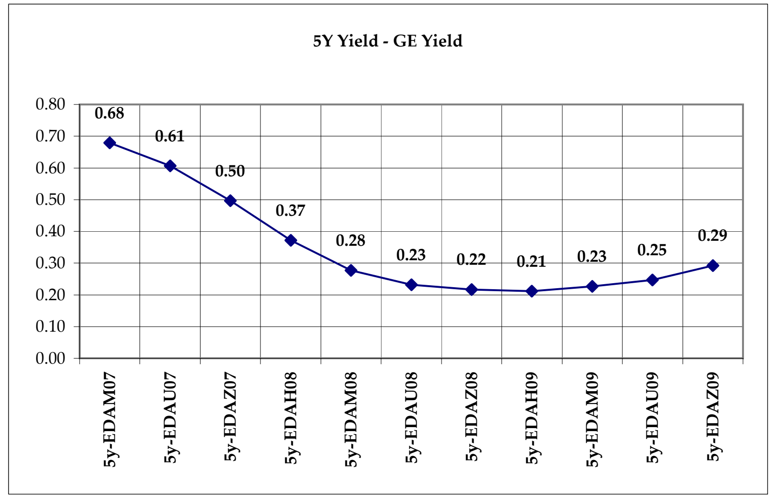


Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com

TERM TED: 5y vs Eurodollar Contracts

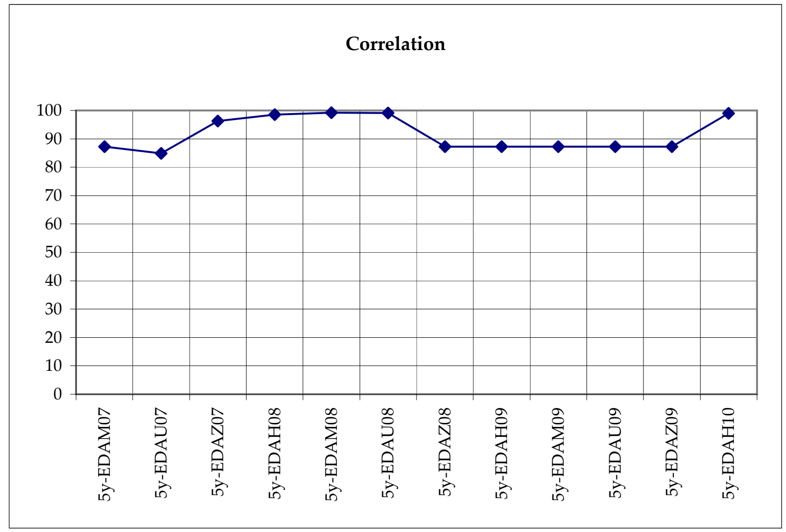
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	4.59	0.68	5y-EDAM07	87.249
EDAU07	4.52	0.61	5y-EDAU07	84.882
EDAZ07	4.41	0.50	5y-EDAZ07	96.290
EDAH08	4.29	0.37	5y-EDAH08	98.485
EDAM08	4.19	0.28	5y-EDAM08	99.203
EDAU08	4.15	0.23	5y-EDAU08	99.136
EDAZ08	4.13	0.22	5y-EDAZ08	87.249
EDAH09	4.13	0.21	5y-EDAH09	87.249
EDAM09	4.14	0.23	5y-EDAM09	87.249
EDAU09	4.16	0.25	5y-EDAU09	87.249
EDAZ09	4.21	0.29	5y-EDAZ09	87.249
EDAH10	4.24	0.32	5y-EDAH10	98.965

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	0.084	4.37	4.29	5y-EDAM07
EDAU07	0.334	4.37	4.04	5y-EDAU07
EDAZ07	0.583	4.37	3.79	5y-EDAZ07
EDAH08	0.832	4.37	3.54	5y-EDAH08
EDAM08	1.082	4.37	3.29	5y-EDAM08
EDAU08	1.331	4.37	3.04	5y-EDAU08
EDAZ08	1.580	4.37	2.79	5y-EDAZ08
EDAH09	1.829	4.37	2.54	5y-EDAH09
EDAM09	2.079	4.37	2.29	5y-EDAM09
EDAU09	2.328	4.37	2.04	5y-EDAU09
EDAZ09	2.577	4.37	1.79	5y-EDAZ09
EDAH10	2.827	4.37	1.54	5y-EDAH10

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

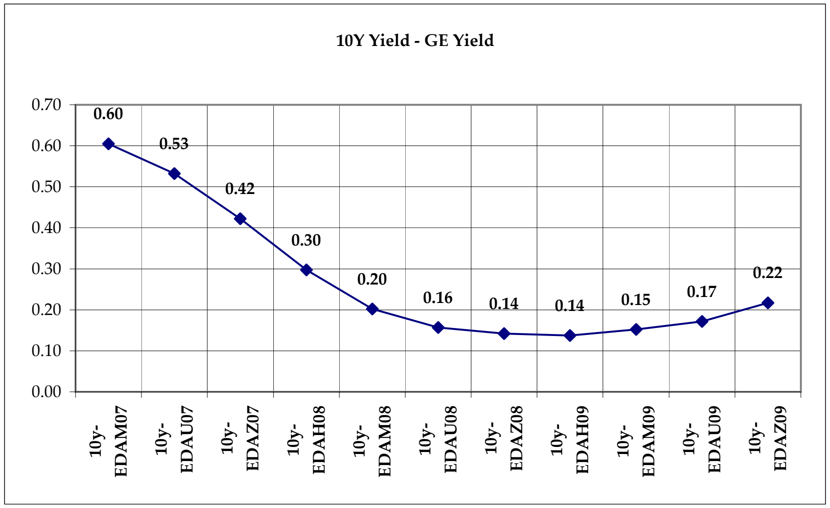


Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com

TERM TED: 10y vs Eurodollar Contracts

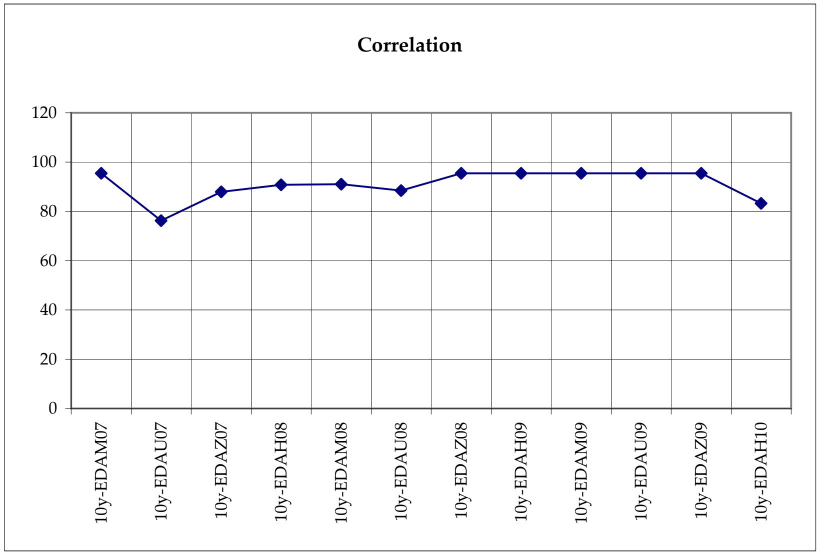
	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM07	4.59	0.60	10y-EDAM07	95.390
EDAU07	4.52	0.53	10y-EDAU07	76.176
EDAZ07	4.41	0.42	10y-EDAZ07	87.920
EDAH08	4.29	0.30	10y-EDAH08	90.729
EDAM08	4.19	0.20	10y-EDAM08	91.030
EDAU08	4.15	0.16	10y-EDAU08	88.475
EDAZ08	4.13	0.14	10y-EDAZ08	95.390
EDAH09	4.13	0.14	10y-EDAH09	95.390
EDAM09	4.14	0.15	10y-EDAM09	95.390
EDAU09	4.16	0.17	10y-EDAU09	95.390
EDAZ09	4.21	0.22	10y-EDAZ09	95.390
EDAH10	4.24	0.25	10y-EDAH10	83.303

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	0.084	7.93	7.85	10y-EDAM07
EDAU07	0.334	7.93	7.60	10y-EDAU07
EDAZ07	0.583	7.93	7.35	10y-EDAZ07
EDAH08	0.832	7.93	7.10	10y-EDAH08
EDAM08	1.082	7.93	6.85	10y-EDAM08
EDAU08	1.331	7.93	6.60	10y-EDAU08
EDAZ08	1.580	7.93	6.35	10y-EDAZ08
EDAH09	1.829	7.93	6.11	10y-EDAH09
EDAM09	2.079	7.93	5.86	10y-EDAM09
EDAU09	2.328	7.93	5.61	10y-EDAU09
EDAZ09	2.577	7.93	5.36	10y-EDAZ09
EDAH10	2.827	7.93	5.11	10y-EDAH10

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

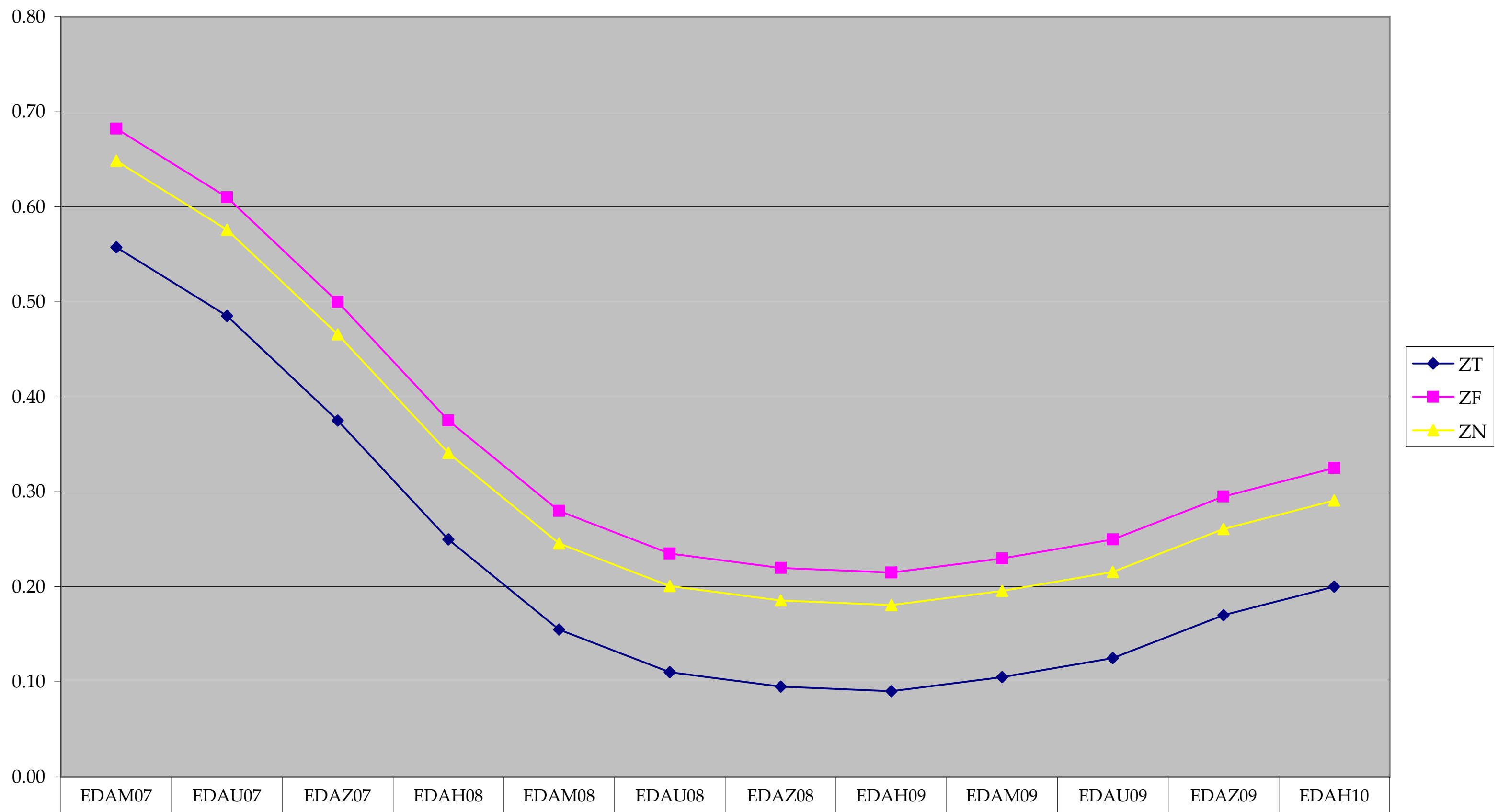


Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com

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.

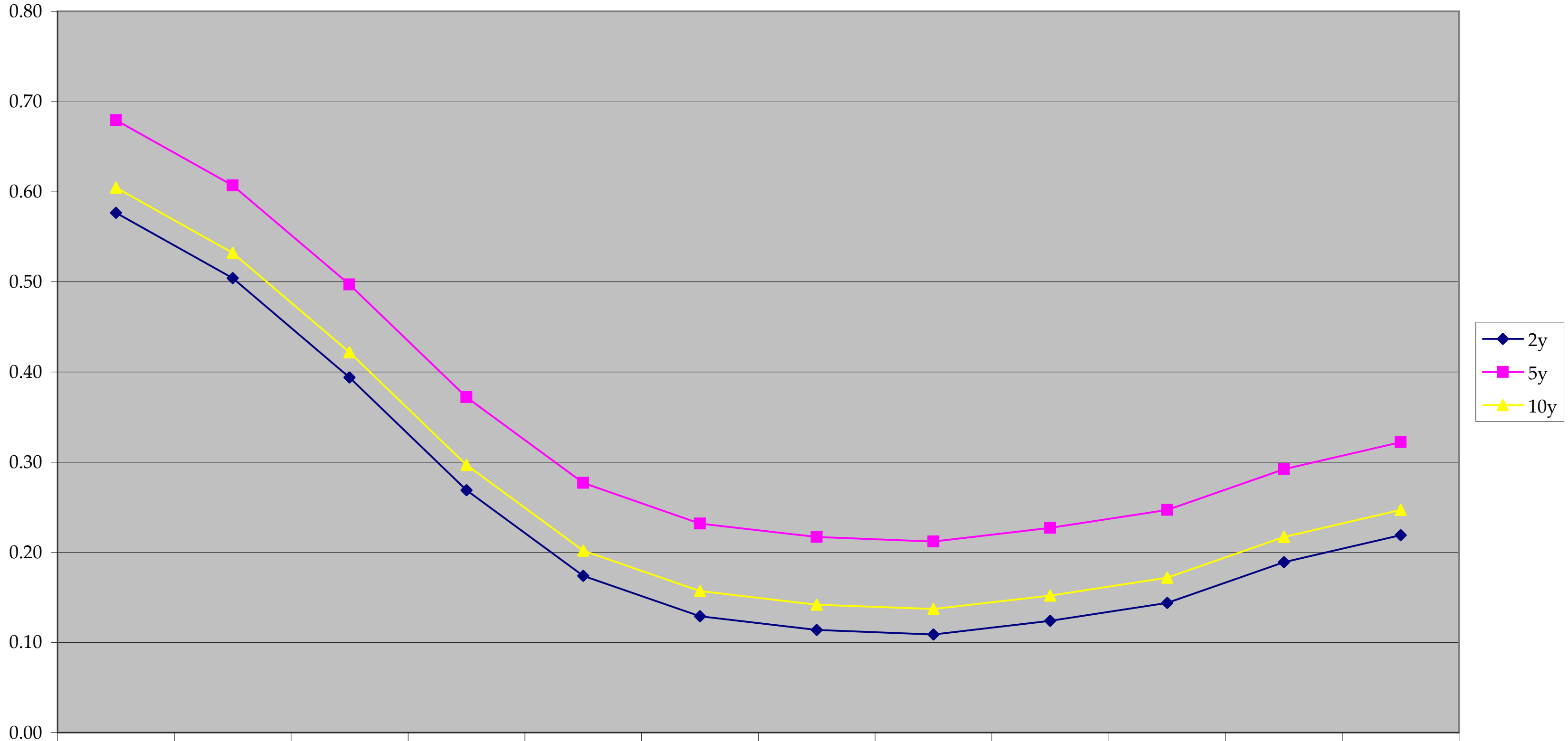


	EDAM07	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10
ZT	0.56	0.48	0.37	0.25	0.15	0.11	0.09	0.09	0.10	0.12	0.17	0.20
ZF	0.68	0.61	0.50	0.37	0.28	0.23	0.22	0.21	0.23	0.25	0.29	0.32
ZN	0.65	0.58	0.47	0.34	0.25	0.20	0.19	0.18	0.20	0.22	0.26	0.29

Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com

TED Curve

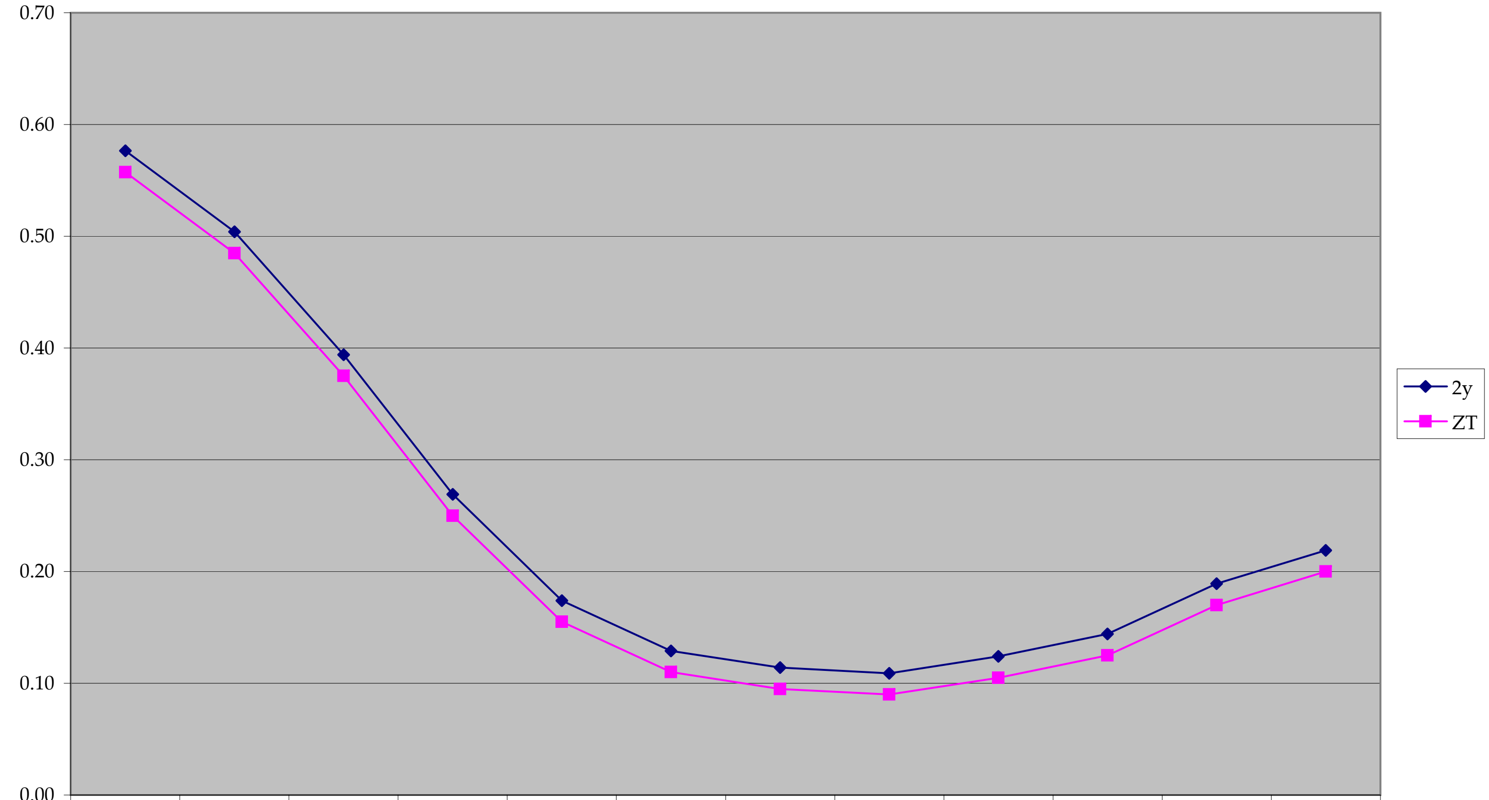
Chart values show the differences between ED contract and Treasury Cash conctract. Those values can be seen in the table at the bottom of the chart.
Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



	EDAM07	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10
2y	0.58	0.50	0.39	0.27	0.17	0.13	0.11	0.11	0.12	0.14	0.19	0.22
5y	0.68	0.61	0.50	0.37	0.28	0.23	0.22	0.21	0.23	0.25	0.29	0.32
10y	0.60	0.53	0.42	0.30	0.20	0.16	0.14	0.14	0.15	0.17	0.22	0.25

Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com

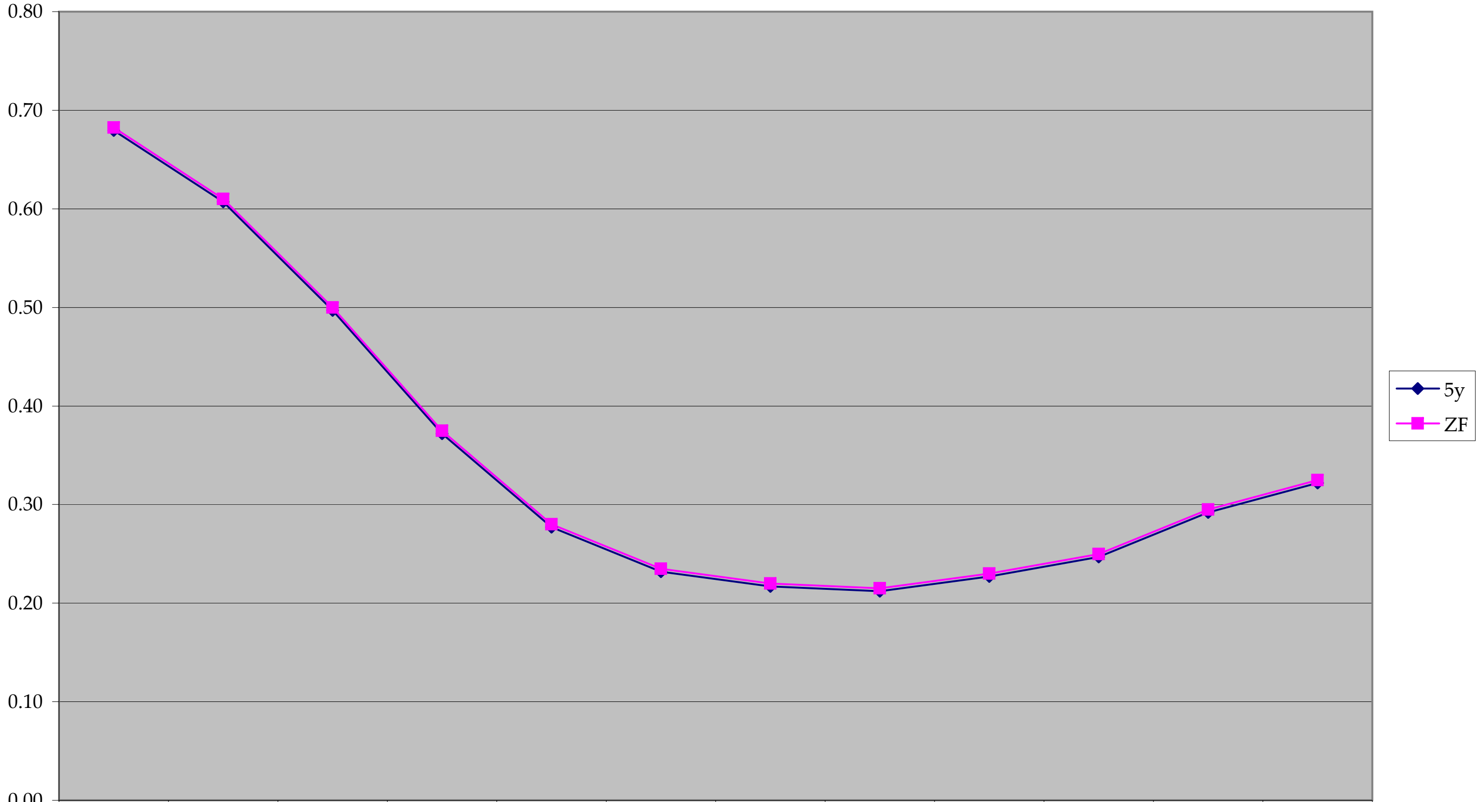
2y Basis TED Curve



	EDAM07	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10
2y	0.58	0.50	0.39	0.27	0.17	0.13	0.11	0.11	0.12	0.14	0.19	0.22
ZT	0.56	0.48	0.37	0.25	0.15	0.11	0.09	0.09	0.10	0.12	0.17	0.20

Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com

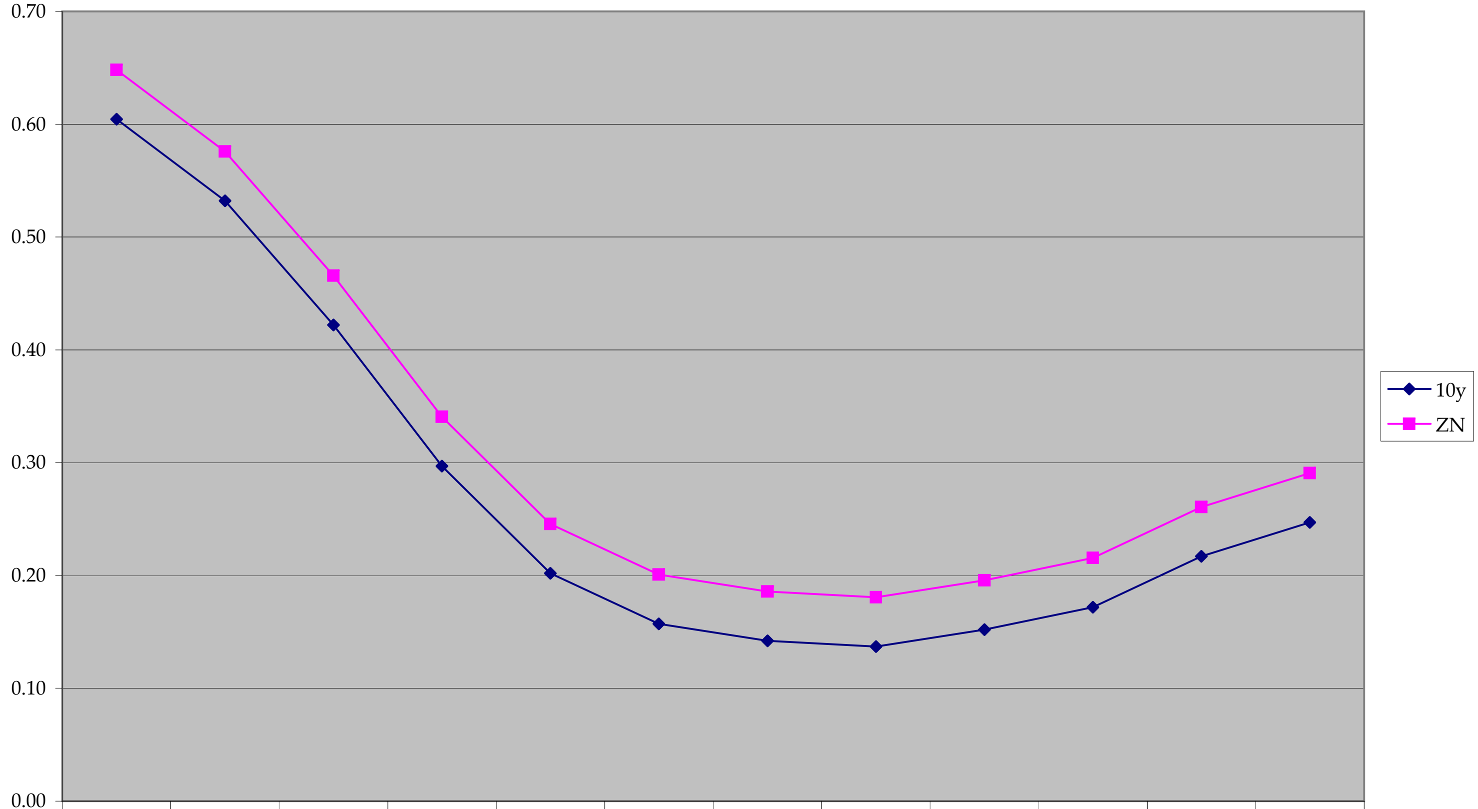
5y Basis TED Curve



	EDAM07	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10
5y	0.68	0.61	0.50	0.37	0.28	0.23	0.22	0.21	0.23	0.25	0.29	0.32
ZF	0.68	0.61	0.50	0.37	0.28	0.23	0.22	0.21	0.23	0.25	0.29	0.32

Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com

10y Basis TED Curve



	EDAM07	EDAU07	EDAZ07	EDAH08	EDAM08	EDAU08	EDAZ08	EDAH09	EDAM09	EDAU09	EDAZ09	EDAH10
10y	0.60	0.53	0.42	0.30	0.20	0.16	0.14	0.14	0.15	0.17	0.22	0.25
ZN	0.65	0.58	0.47	0.34	0.25	0.20	0.19	0.18	0.20	0.22	0.26	0.29

Jim Goulding, GH Traders LLC, Treas-Arb, Chicago, jgoulding@ghco.com