

## The Morning Email: TERM TEDS & Dirty TEDS

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		F.I. Futures and Cash			
		Last Decimal	Last 32	Last Yield*	**MDuration
Blank	ZT	102.2875	102.092	4.657	1.80
	ZF	105.7031	105.225	4.515	3.85
	ZN	108.1875	108.060	4.590	5.81
	2y	99.741	99.2370	4.633	1.88
	5y	99.803	99.2570	4.543	4.42
	10y	99.844	99.2700	4.644	7.72

\*Futures use CTD for Last Yield

\*\*Mduration = Modified Macaulay Duration

Eurodollars (ED)							
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month		
F.EDAM07	94.665	5.335	46	0.125	JUN	} White Pack	
F.EDAU07	94.770	5.230	137	0.375	SEP		
F.EDAZ07	94.945	5.055	228	0.624	DEC		
F.EDAH08	95.135	4.865	319	0.873	MAR	} Red Pack	
F.EDAM08	95.265	4.735	410	1.123	JUN		
F.EDAU08	95.320	4.680	501	1.372	SEP		
F.EDAZ08	95.325	4.675	592	1.621	DEC	} Green Pack	
F.EDAH09	95.315	4.685	683	1.871	MAR		
F.EDAM09	95.275	4.725	774	2.120	JUN		
F.EDAU09	95.225	4.775	865	2.369	SEP		
F.EDAZ09	95.175	4.825	956	2.619	DEC		
F.EDAH10	95.165	4.835	1047	2.868	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.

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

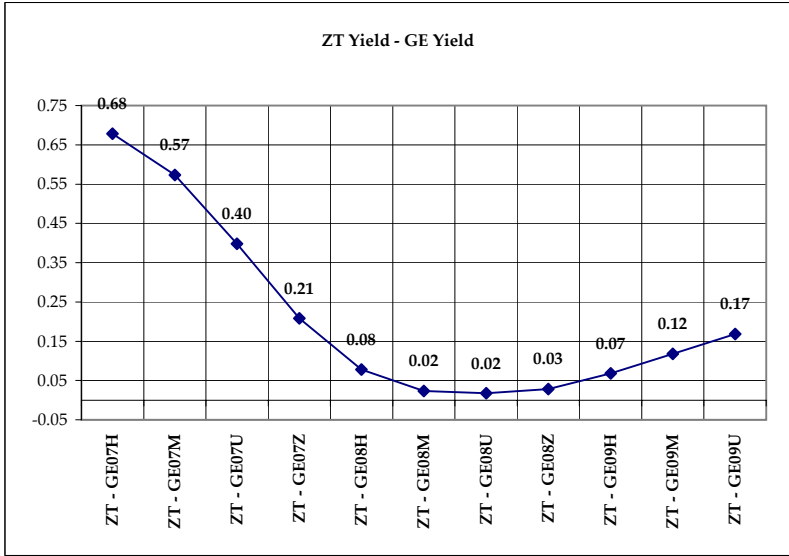
Color	Year	Contracts
White	One	1 – 4
Red	Two	5 – 8
Green	Three	9 – 12
Blue	Four	13 – 16
Gold	Five	17 – 20
Purple	Six	21 – 24
Orange	Seven	25 – 28
Pink	Eight	29 – 32
Silver	Nine	33 – 36
Copper	Ten	37 – 40

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Dirty TED: ZT vs Eurodollar Contracts

ZT			
	Spread Price	Spread Yield	Spread Name
F.EDAM07	7.622	0.68	ZT - GE07H
F.EDAU07	7.518	0.57	ZT - GE07M
F.EDAZ07	7.342	0.40	ZT - GE07U
F.EDAH08	7.152	0.21	ZT - GE07Z
F.EDAM08	7.022	0.08	ZT - GE08H
F.EDAU08	6.967	0.02	ZT - GE08M
F.EDAZ08	6.962	0.02	ZT - GE08U
F.EDAH09	6.973	0.03	ZT - GE08Z
F.EDAM09	7.012	0.07	ZT - GE09H
F.EDAU09	7.062	0.12	ZT - GE09M
F.EDAZ09	7.113	0.17	ZT - GE09U
F.EDAH10	7.122	0.18	ZT - GE09Z

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)



GE Duration as Fraction of year		ZT Duration	Spread Duration	
F.EDAM07	0.125	1.80	1.67	ZT - GE07H
F.EDAU07	0.375	1.80	1.43	ZT - GE07M
F.EDAZ07	0.624	1.80	1.18	ZT - GE07U
F.EDAH08	0.873	1.80	0.93	ZT - GE07Z
F.EDAM08	1.123	1.80	0.68	ZT - GE08H
F.EDAU08	1.372	1.80	0.43	ZT - GE08M
F.EDAZ08	1.621	1.80	0.18	ZT - GE08U
F.EDAH09	1.871	1.80	(0.07)	ZT - GE08Z
F.EDAM09	2.120	1.80	(0.32)	ZT - GE09H
F.EDAU09	2.369	1.80	(0.57)	ZT - GE09M
F.EDAZ09	2.619	1.80	(0.82)	ZT - GE09U
F.EDAH10	2.868	1.80	(1.07)	ZT - GE09Z

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
F.EDAM07	11.04	0.82	ZF - GE07H
F.EDAU07	10.93	0.72	ZF - GE07M
F.EDAZ07	10.76	0.54	ZF - GE07U
F.EDAH08	10.57	0.35	ZF - GE07Z
F.EDAM08	10.44	0.22	ZF - GE08H
F.EDAU08	10.38	0.17	ZF - GE08M
F.EDAZ08	10.38	0.16	ZF - GE08U
F.EDAH09	10.39	0.17	ZF - GE08Z
F.EDAM09	10.43	0.21	ZF - GE09H
F.EDAU09	10.48	0.26	ZF - GE09M
F.EDAZ09	10.53	0.31	ZF - GE09U
F.EDAH10	10.54	0.32	ZF - GE09U

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)



	GE Duration as Fraction of year	ZF Duration	Spread Duration	
F.EDAM07	0.125	3.85	3.73	ZF - GE07H
F.EDAU07	0.375	3.85	3.48	ZF - GE07M
F.EDAZ07	0.624	3.85	3.23	ZF - GE07U
F.EDAH08	0.873	3.85	2.98	ZF - GE07Z
F.EDAM08	1.123	3.85	2.73	ZF - GE08H
F.EDAU08	1.372	3.85	2.48	ZF - GE08M
F.EDAZ08	1.621	3.85	2.23	ZF - GE08U
F.EDAH09	1.871	3.85	1.98	ZF - GE08Z
F.EDAM09	2.120	3.85	1.73	ZF - GE09H
F.EDAU09	2.369	3.85	1.48	ZF - GE09M
F.EDAZ09	2.619	3.85	1.23	ZF - GE09U
F.EDAH10	2.868	3.85	0.98	ZF - GE09U

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

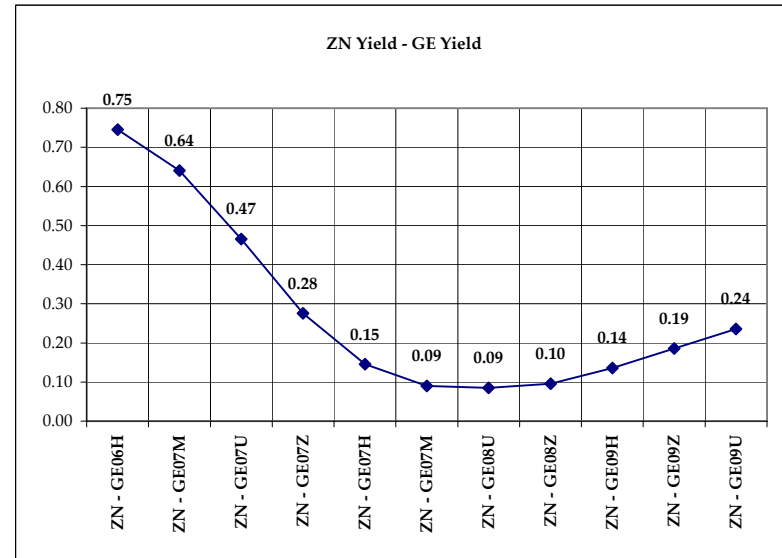
Dirty TED: ZN vs Eurodollar Contracts

ZN			
	Spread Price	Spread Yield	Spread Name
F.EDAM07	13.52	0.75	ZN - GE06H
F.EDAU07	13.42	0.64	ZN - GE07M
F.EDAZ07	13.24	0.47	ZN - GE07U
F.EDAH08	13.05	0.28	ZN - GE07Z
F.EDAM08	12.92	0.15	ZN - GE07H
F.EDAU08	12.87	0.09	ZN - GE07M
F.EDAZ08	12.86	0.09	ZN - GE08U
F.EDAH09	12.87	0.10	ZN - GE08Z
F.EDAM09	12.91	0.14	ZN - GE09H
F.EDAU09	12.96	0.19	ZN - GE09Z
F.EDAZ09	13.01	0.24	ZN - GE09U
F.EDAH10	13.02	0.25	ZN - GE09U

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Proxy Yield - Implied Euro Contract yield)

	GE Duration as Fraction of year	ZN Duration	Spread Duration	
F.EDAM07	0.125	5.81	5.68	ZN - GE06H
F.EDAU07	0.375	5.81	5.43	ZN - GE07M
F.EDAZ07	0.624	5.81	5.18	ZN - GE07U
F.EDAH08	0.873	5.81	4.93	ZN - GE07Z
F.EDAM08	1.123	5.81	4.68	ZN - GE07H
F.EDAU08	1.372	5.81	4.44	ZN - GE07M
F.EDAZ08	1.621	5.81	4.19	ZN - GE08U
F.EDAH09	1.871	5.81	3.94	ZN - GE08Z
F.EDAM09	2.120	5.81	3.69	ZN - GE09H
F.EDAU09	2.369	5.81	3.44	ZN - GE09Z
F.EDAZ09	2.619	5.81	3.19	ZN - GE09U
F.EDAH10	2.868	5.81	2.94	ZN - GE09U

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



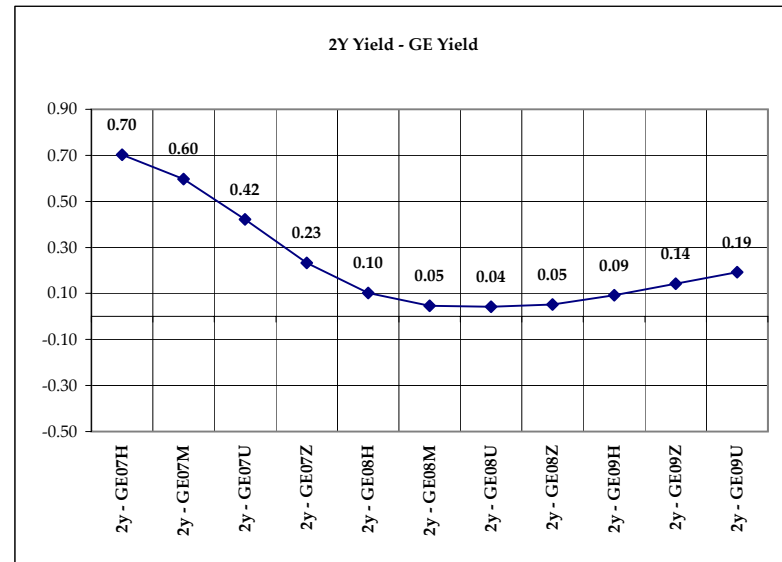
TERM TED: 2y vs Eurodollar Contracts

	2y		
	Spread Price	Spread Yield	Spread Name
F.EDAM07	5.08	0.70	2y - GE07H
F.EDAU07	4.97	0.60	2y - GE07M
F.EDAZ07	4.80	0.42	2y - GE07U
F.EDAH08	4.61	0.23	2y - GE07Z
F.EDAM08	4.48	0.10	2y - GE08H
F.EDAU08	4.42	0.05	2y - GE08M
F.EDAZ08	4.42	0.04	2y - GE08U
F.EDAH09	4.43	0.05	2y - GE08Z
F.EDAM09	4.47	0.09	2y - GE09H
F.EDAU09	4.52	0.14	2y - GE09Z
F.EDAZ09	4.57	0.19	2y - GE09U
F.EDAH10	4.58	0.20	2y - GE09U

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Cash Yield - Implied Euro Contract yield)

	GE Duration as Fraction of year	2Y Duration	Spread Duration	
F.EDAM07	0.125	1.88	1.76	2y - GE07H
F.EDAU07	0.375	1.88	1.51	2y - GE07M
F.EDAZ07	0.624	1.88	1.26	2y - GE07U
F.EDAH08	0.873	1.88	1.01	2y - GE07Z
F.EDAM08	1.123	1.88	0.76	2y - GE08H
F.EDAU08	1.372	1.88	0.51	2y - GE08M
F.EDAZ08	1.621	1.88	0.26	2y - GE08U
F.EDAH09	1.871	1.88	0.01	2y - GE08Z
F.EDAM09	2.120	1.88	(0.24)	2y - GE09H
F.EDAU09	2.369	1.88	(0.49)	2y - GE09Z
F.EDAZ09	2.619	1.88	(0.74)	2y - GE09U
F.EDAH10	2.868	1.88	(0.99)	2y - GE09U

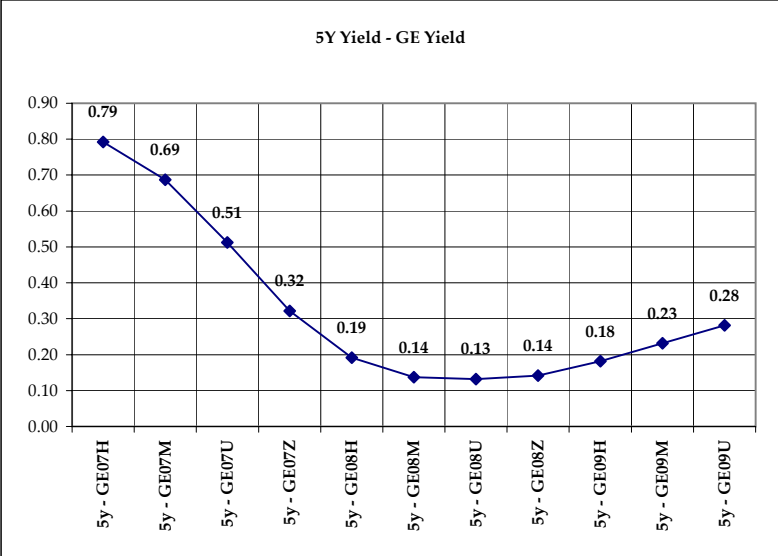
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 5y vs Eurodollar Contracts

5y			
	Spread Price	Spread Yield	Spread Name
F.EDAM07	5.14	0.79	5y - GE07H
F.EDAU07	5.03	0.69	5y - GE07M
F.EDAZ07	4.86	0.51	5y - GE07U
F.EDAH08	4.67	0.32	5y - GE07Z
F.EDAM08	4.54	0.19	5y - GE08H
F.EDAU08	4.48	0.14	5y - GE08M
F.EDAZ08	4.48	0.13	5y - GE08U
F.EDAH09	4.49	0.14	5y - GE08Z
F.EDAM09	4.53	0.18	5y - GE09H
F.EDAU09	4.58	0.23	5y - GE09M
F.EDAZ09	4.63	0.28	5y - GE09U
F.EDAH10	4.64	0.29	5y - GE09U

Price = Outright Decimal Price - Euro Contract Price  
 Yield = ABS(Cash Yield - Implied Euro Contract yield)



	GE Duration as Fraction of year	5Y Duration	Spread Duration	
F.EDAM07	0.125	4.42	4.30	5y - GE07H
F.EDAU07	0.375	4.42	4.05	5y - GE07M
F.EDAZ07	0.624	4.42	3.80	5y - GE07U
F.EDAH08	0.873	4.42	3.55	5y - GE07Z
F.EDAM08	1.123	4.42	3.30	5y - GE08H
F.EDAU08	1.372	4.42	3.05	5y - GE08M
F.EDAZ08	1.621	4.42	2.80	5y - GE08U
F.EDAH09	1.871	4.42	2.55	5y - GE08Z
F.EDAM09	2.120	4.42	2.30	5y - GE09H
F.EDAU09	2.369	4.42	2.05	5y - GE09M
F.EDAZ09	2.619	4.42	1.80	5y - GE09U
F.EDAH10	2.868	4.42	1.55	5y - GE09U

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
F.EDAM07	5.14	0.69	10y - GE07H
F.EDAU07	5.03	0.59	10y - GE07M
F.EDAZ07	4.86	0.41	10y - GE07U
F.EDAH08	4.67	0.22	10y - GE07Z
F.EDAM08	4.54	0.09	10y - GE08H
F.EDAU08	4.48	0.04	10y - GE08M
F.EDAZ08	4.48	0.03	10y - GE08U
F.EDAH09	4.49	0.04	10y - GE08Z
F.EDAM09	4.53	0.08	10y - GE09H
F.EDAU09	4.58	0.13	10y - GE09M
F.EDAZ09	4.63	0.18	10y - GE09U
F.EDAH10	4.64	0.19	10y - GE09U

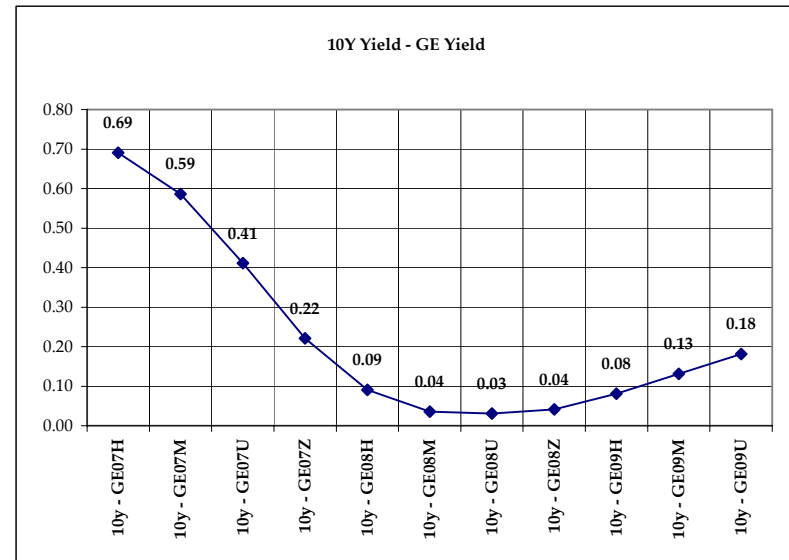
Price = Outright Decimal Price - Euro Contract Price

Yield = ABS(Cash Yield - Implied Euro Contract yield)

GE Duration as Fraction of year

	Fraction of year	10Y Duration	Spread Duration	
F.EDAM07	0.125	7.72	7.60	10y - GE07H
F.EDAU07	0.375	7.72	7.35	10y - GE07M
F.EDAZ07	0.624	7.72	7.10	10y - GE07U
F.EDAH08	0.873	7.72	6.85	10y - GE07Z
F.EDAM08	1.123	7.72	6.60	10y - GE08H
F.EDAU08	1.372	7.72	6.35	10y - GE08M
F.EDAZ08	1.621	7.72	6.10	10y - GE08U
F.EDAH09	1.871	7.72	5.85	10y - GE08Z
F.EDAM09	2.120	7.72	5.60	10y - GE09H
F.EDAU09	2.369	7.72	5.35	10y - GE09M
F.EDAZ09	2.619	7.72	5.10	10y - GE09U
F.EDAH10	2.868	7.72	4.85	10y - GE09U

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



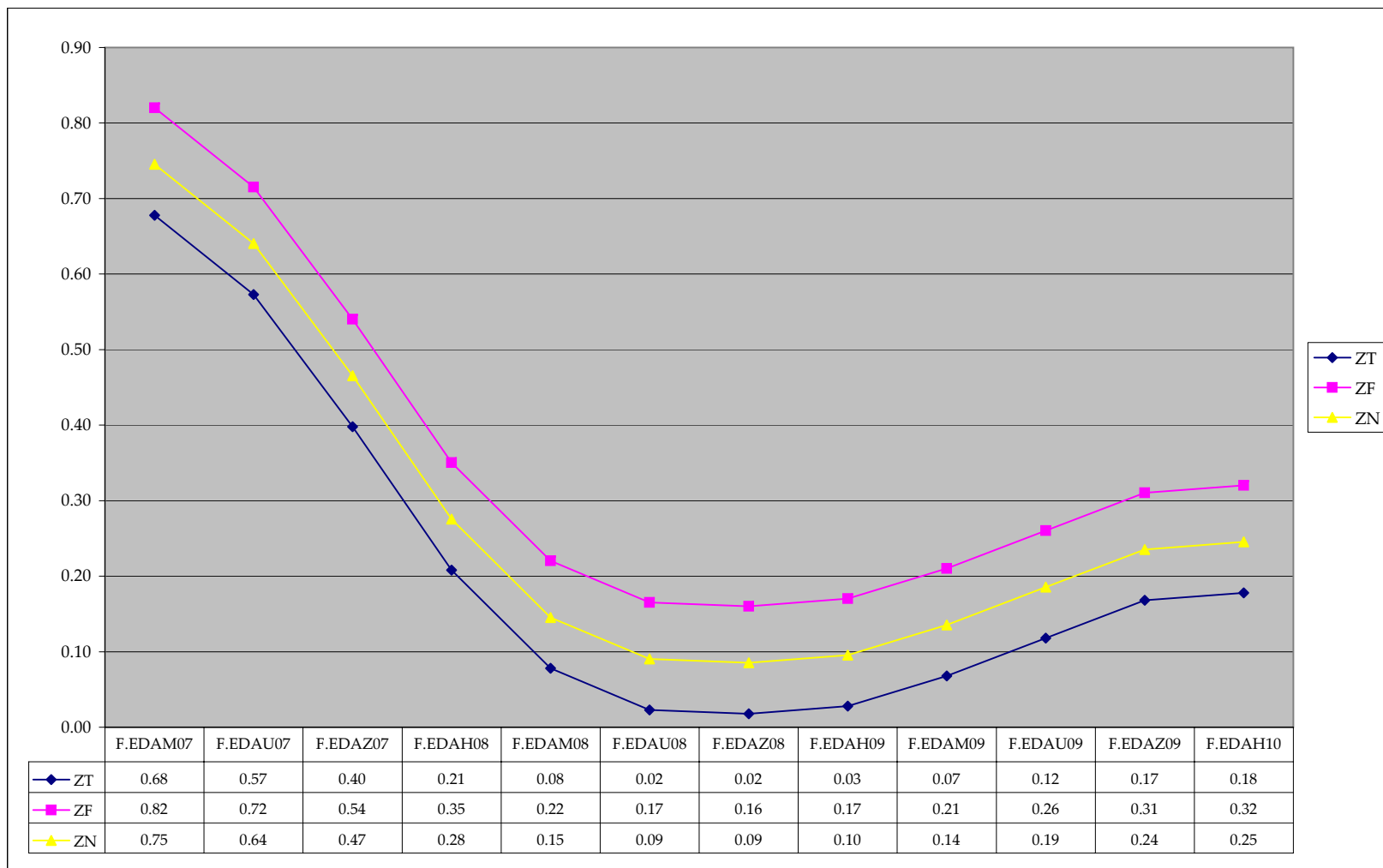
### Dirty TED Curve

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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.

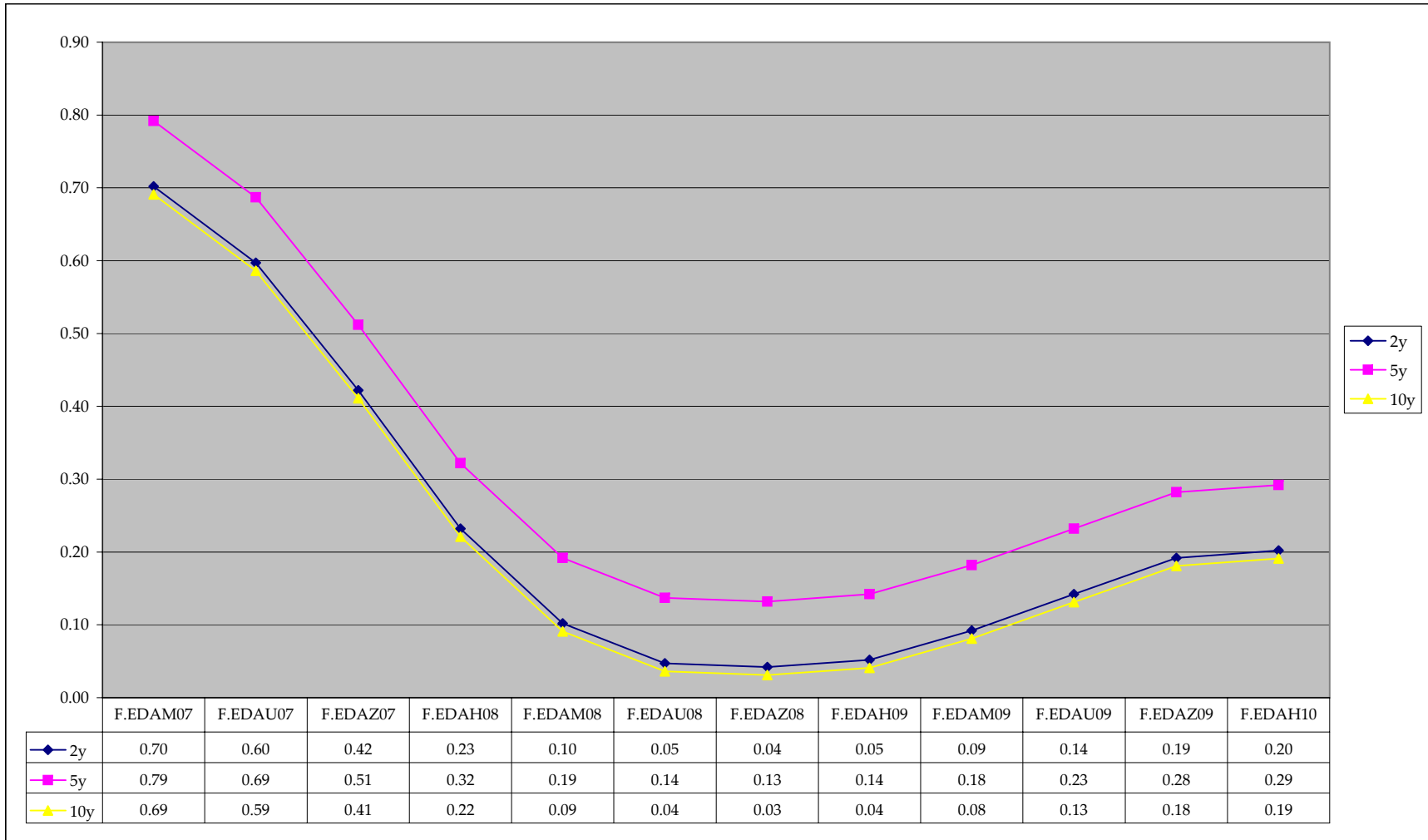


TED Curve

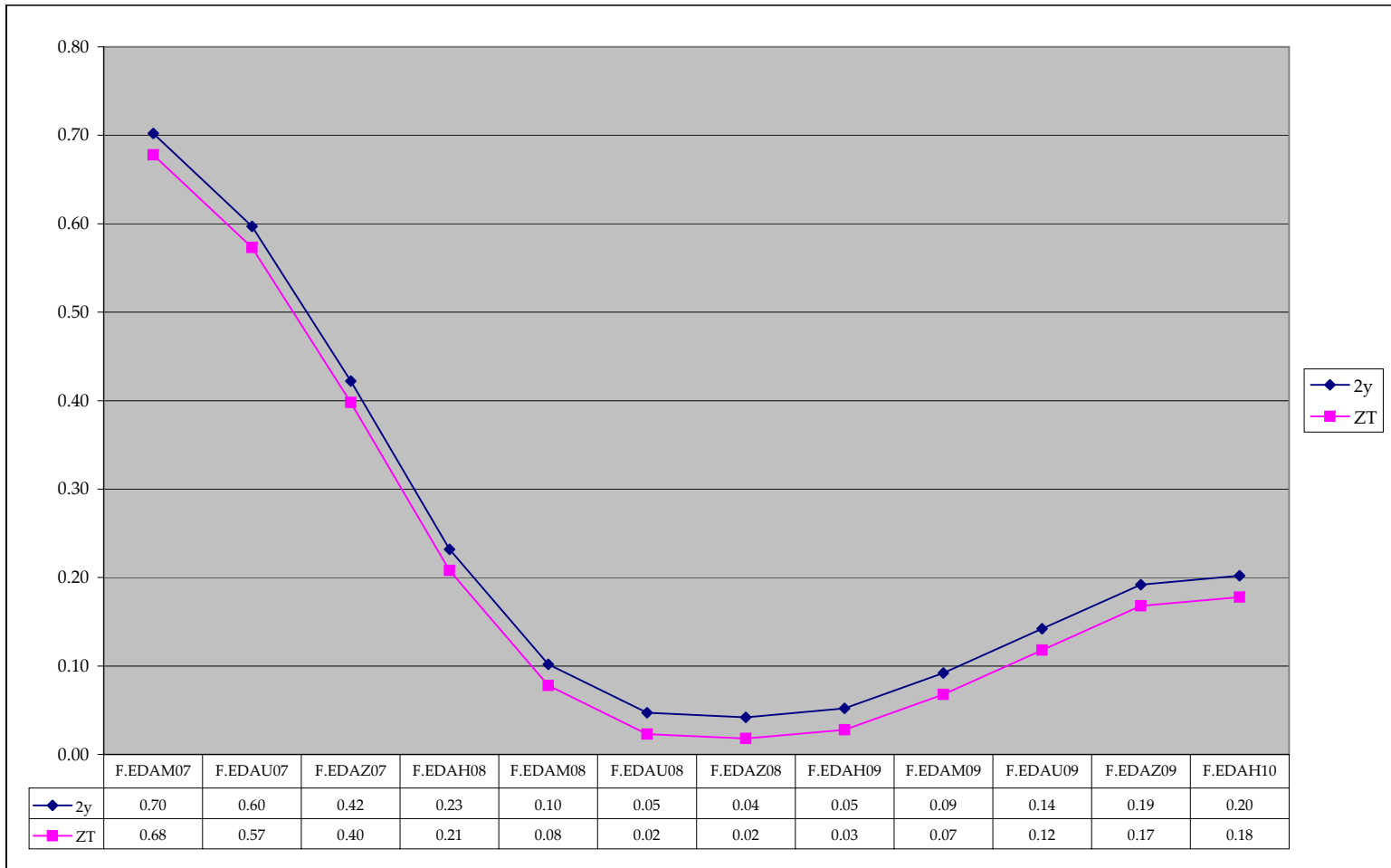
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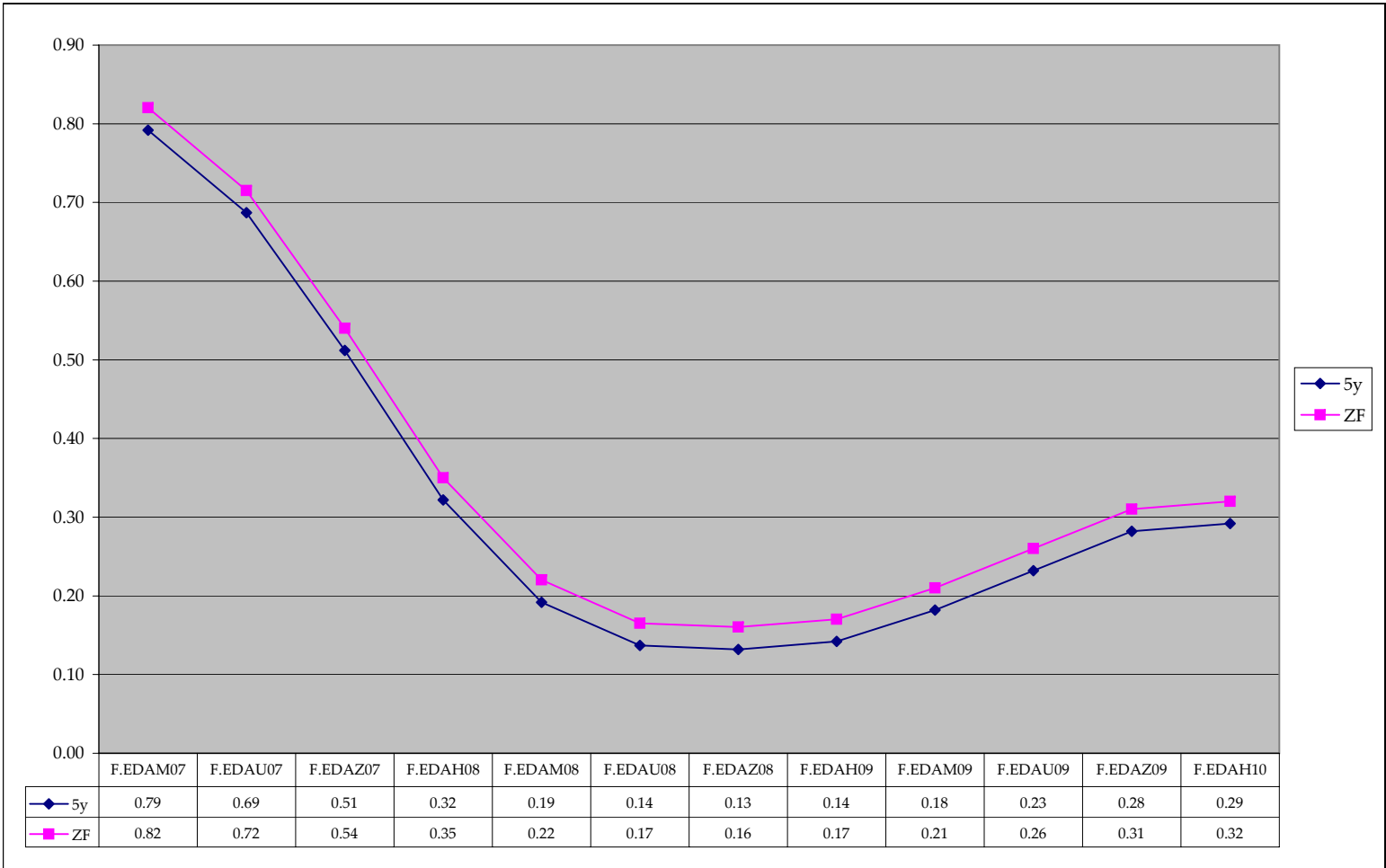
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve



### 5y Basis TED Curve



## 10y Basis TED Curve

