

The Morning Email: TERM TEDS & Dirty TEDS

Table of Contents

Pg 1	Quotes
Pg 2	Dirty TED: ZT vs Eurodollar Contracts
Pg 3	Dirty TED: ZF vs Eurodollar Contracts
Pg 4	Dirty TED: ZN vs Eurodollar Contracts
Pg 5	TERM TED: 2y vs Eurodollar Contracts
Pg 6	TERM TED: 5y vs Eurodollar Contracts
Pg 7	TERM TED: 10y vs Eurodollar Contracts
Pg 8	Dirty TED Curve
Pg 9	TED Curve
Pg 10	2y Basis TED Curve
Pg 11	5y Basis TED Curve
Pg 12	10y Basis TED Curve
Pg 13	Packs

Want something added? Let me know: jgoulding@ghco.com

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Treasury Futures and Cash				
	Last Decimal	Last Feb-00	Last Yield*	MDuration
ZT	108.3344	108.1070	1.035	1.844
ZF	114.8906	114.2850	2.354	4.117
ZN	116.0625	116.0200	3.200	5.744
2y	100.1781	100.0570	1.030	1.897
5y	100.1938	100.0620	2.582	4.585
10y	95.3125	95.1000	3.697	8.270

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU09	99.4750	0.525	49	0.1336	SEP	
EDAZ09	99.2550	0.745	140	0.3829	DEC	White Pack
EDAH10	99.0050	0.995	231	0.6322	MAR	Pack
EDAM10	98.6250	1.375	322	0.8815	JUN	
EDAU10	98.2300	1.770	413	1.1308	SEP	
EDAZ10	97.8300	2.170	504	1.3801	DEC	Red Pack
EDAH11	97.4650	2.535	595	1.6295	MAR	Pack
EDAM11	97.1000	2.900	686	1.8788	JUN	
EDAU11	96.7700	3.230	784	2.1473	SEP	
EDAZ11	96.4400	3.560	875	2.3966	DEC	Green Pack
EDAH12	96.2200	3.780	966	2.6459	MAR	Pack
EDAM12	96.0000	4.000	1,057	2.8952	JUN	
EDAU12	95.7700	4.230	1,148	3.1445	SEP	
EDAZ12	95.5800	4.420	1,239	3.3938	DEC	Blue Pack
EDAH13	95.4900	4.510	1,330	3.6432	MAR	Pack
EDAM13	95.3500	4.650	1,421	3.8925	JUN	
EDAU13	95.3300	4.670	1,512	4.1418	SEP	
EDAZ13	95.1100	4.890	1,603	4.3911	DEC	Gold Pack
EDAH14	95.0850	4.915	1,694	4.6404	MAR	Pack
EDAM14	95.0150	4.985	1,785	4.8897	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	0.925	0.000	9909.00	
Red Pack	2.391	-0.362	9765.63	Pack Prices
Green Pack	3.727	-0.475	9635.75	
Blue Pack	4.565	-0.800	9554.75	
Gold Pack		-0.237	9513.13	

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

IF : '#VALUE!', then, no quote being provided by exchange.

If color of cell is orange, it's simply a 'note' for me.

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.

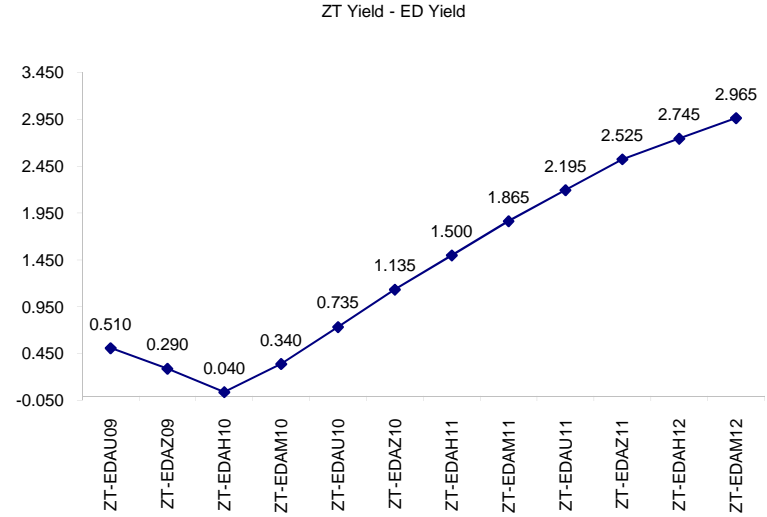
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Correlations (Important)

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. So, it's much easier to formulate the correlations based on yield than price.

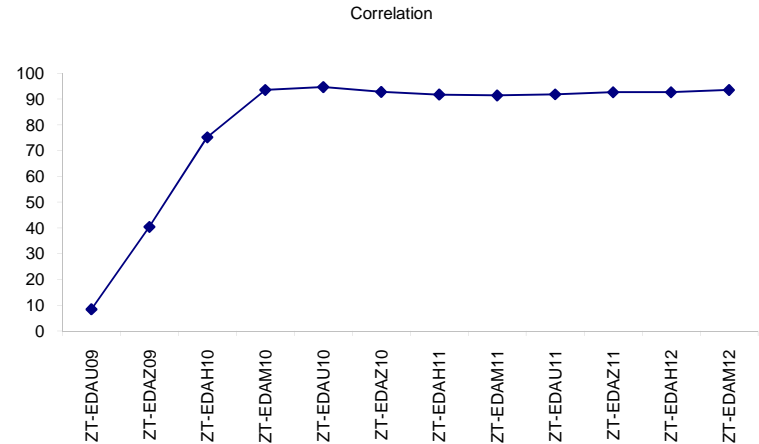
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	8.86	0.510	ZT-EDAU09	8
EDAZ09	9.08	0.290	ZT-EDAZ09	40
EDAH10	9.33	0.040	ZT-EDAH10	75
EDAM10	9.71	0.340	ZT-EDAM10	94
EDAU10	10.10	0.735	ZT-EDAU10	95
EDAZ10	10.50	1.135	ZT-EDAZ10	93
EDAH11	10.87	1.500	ZT-EDAH11	92
EDAM11	11.23	1.865	ZT-EDAM11	91
EDAU11	11.56	2.195	ZT-EDAU11	92
EDAZ11	11.89	2.525	ZT-EDAZ11	93
EDAH12	12.11	2.745	ZT-EDAH12	93
EDAM12	12.33	2.965	ZT-EDAM12	94

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



	ED Duration as Fraction of year			ZT Duration	Spread Duration	
EDAU09	0.1336	1.8438	1.7103	ZT-EDAU09		
EDAZ09	0.3829	1.8438	1.4610	ZT-EDAZ09		
EDAH10	0.6322	1.8438	1.2117	ZT-EDAH10		
EDAM10	0.8815	1.8438	0.9623	ZT-EDAM10		
EDAU10	1.1308	1.8438	0.7130	ZT-EDAU10		
EDAZ10	1.3801	1.8438	0.4637	ZT-EDAZ10		
EDAH11	1.6295	1.8438	0.2144	ZT-EDAH11		
EDAM11	1.8788	1.8438	-0.0349	ZT-EDAM11		
EDAU11	2.1473	1.8438	-0.3034	ZT-EDAU11		
EDAZ11	2.3966	1.8438	-0.5527	ZT-EDAZ11		
EDAH12	2.6459	1.8438	-0.8020	ZT-EDAH12		
EDAM12	2.8952	1.8438	-1.0514	ZT-EDAM12		

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

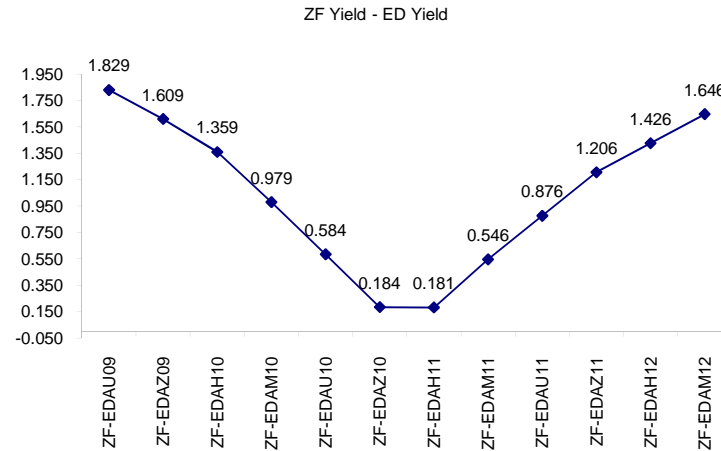


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	15.42	1.829	ZF-EDAU09	-12
EDAZ09	15.64	1.609	ZF-EDAZ09	21
EDAH10	15.89	1.359	ZF-EDAH10	60
EDAM10	16.27	0.979	ZF-EDAM10	87
EDAU10	16.66	0.584	ZF-EDAU10	92
EDAZ10	17.06	0.184	ZF-EDAZ10	89
EDAH11	17.43	0.181	ZF-EDAH11	88
EDAM11	17.79	0.546	ZF-EDAM11	87
EDAU11	18.12	0.876	ZF-EDAU11	87
EDAZ11	18.45	1.206	ZF-EDAZ11	89
EDAH12	18.67	1.426	ZF-EDAH12	90
EDAM12	18.89	1.646	ZF-EDAM12	93

Price = Outright Decimal Price - Euro Contract Price

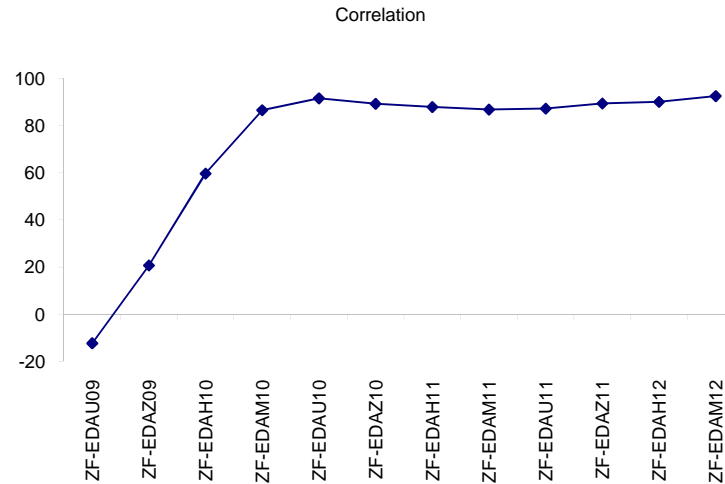
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAU09	0.1336	4.1173	3.9837	ZF-EDAU09	
EDAZ09	0.3829	4.1173	3.7344	ZF-EDAZ09	
EDAH10	0.6322	4.1173	3.4851	ZF-EDAH10	
EDAM10	0.8815	4.1173	3.2358	ZF-EDAM10	
EDAU10	1.1308	4.1173	2.9864	ZF-EDAU10	
EDAZ10	1.3801	4.1173	2.7371	ZF-EDAZ10	
EDAH11	1.6295	4.1173	2.4878	ZF-EDAH11	
EDAM11	1.8788	4.1173	2.2385	ZF-EDAM11	
EDAU11	2.1473	4.1173	1.9700	ZF-EDAU11	
EDAZ11	2.3966	4.1173	1.7207	ZF-EDAZ11	
EDAH12	2.6459	4.1173	1.4714	ZF-EDAH12	
EDAM12	2.8952	4.1173	1.2221	ZF-EDAM12	

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

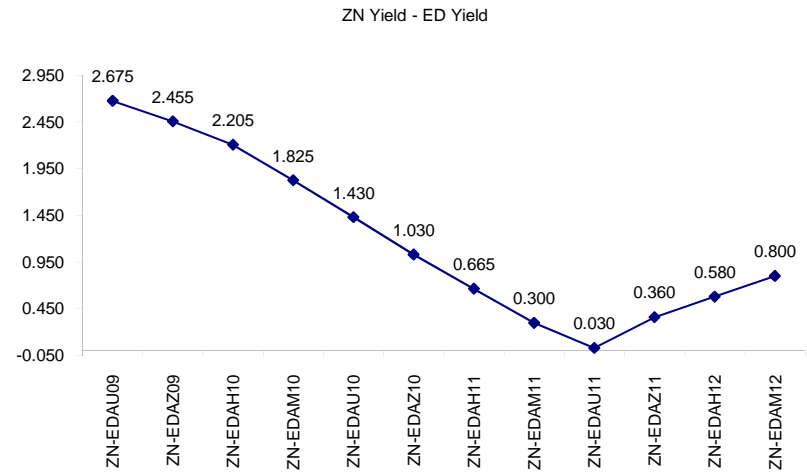


	ZN			Correlation* (percent)
	Spread Price	Spread Yield	Spread Name	
EDAU09	16.59	2.675	ZN-EDAU09	-23
EDAZ09	16.81	2.455	ZN-EDAZ09	12
EDAH10	17.06	2.205	ZN-EDAH10	55
EDAM10	17.44	1.825	ZN-EDAM10	85
EDAU10	17.83	1.430	ZN-EDAU10	92
EDAZ10	18.23	1.030	ZN-EDAZ10	90
EDAH11	18.60	0.665	ZN-EDAH11	89
EDAM11	18.96	0.300	ZN-EDAM11	87
EDAU11	19.29	0.030	ZN-EDAU11	87
EDAZ11	19.62	0.360	ZN-EDAZ11	89
EDAH12	19.84	0.580	ZN-EDAH12	90
EDAM12	20.06	0.800	ZN-EDAM12	93

Price = Outright Decimal Price - Euro Contract Price

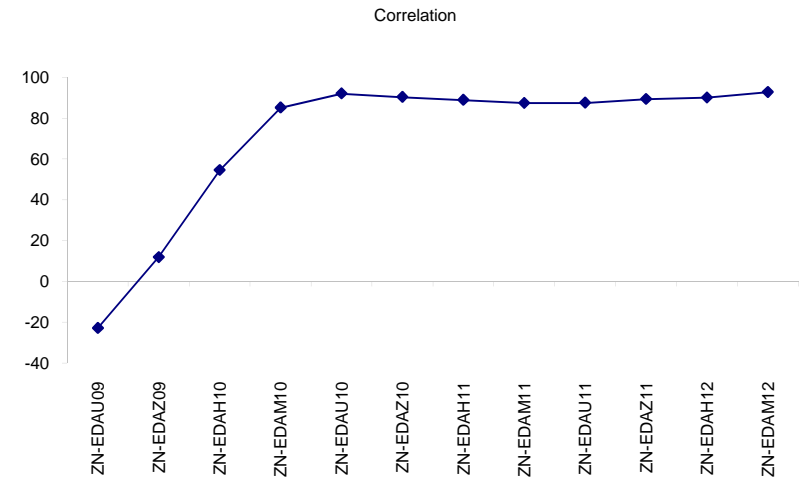
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



	ED Duration as			ZN Spread Duration
	Fraction of year	Duration	Duration	
EDAU09	0.1336	5.7441	5.6106	ZN-EDAU09
EDAZ09	0.3829	5.7441	5.3612	ZN-EDAZ09
EDAH10	0.6322	5.7441	5.1119	ZN-EDAH10
EDAM10	0.8815	5.7441	4.8626	ZN-EDAM10
EDAU10	1.1308	5.7441	4.6133	ZN-EDAU10
EDAZ10	1.3801	5.7441	4.3640	ZN-EDAZ10
EDAH11	1.6295	5.7441	4.1147	ZN-EDAH11
EDAM11	1.8788	5.7441	3.8654	ZN-EDAM11
EDAU11	2.1473	5.7441	3.5969	ZN-EDAU11
EDAZ11	2.3966	5.7441	3.3476	ZN-EDAZ11
EDAH12	2.6459	5.7441	3.0982	ZN-EDAH12
EDAM12	2.8952	5.7441	2.8489	ZN-EDAM12

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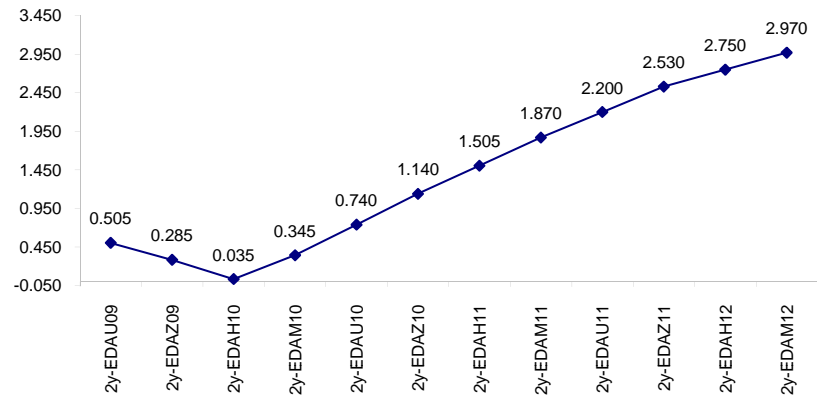
	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.70	0.505	2y-EDAU09	-5
EDAZ09	0.92	0.285	2y-EDAZ09	-35
EDAH10	1.17	0.035	2y-EDAH10	-69
EDAM10	1.55	0.345	2y-EDAM10	-90
EDAU10	1.95	0.740	2y-EDAU10	-93
EDAZ10	2.35	1.140	2y-EDAZ10	-90
EDAH11	2.71	1.505	2y-EDAH11	-89
EDAM11	3.08	1.870	2y-EDAM11	-88
EDAU11	3.41	2.200	2y-EDAU11	-88
EDAZ11	3.74	2.530	2y-EDAZ11	-90
EDAH12	3.96	2.750	2y-EDAH12	-89
EDAM12	4.18	2.970	2y-EDAM12	-90

Price = Outright Decimal Price - Euro Contract Price

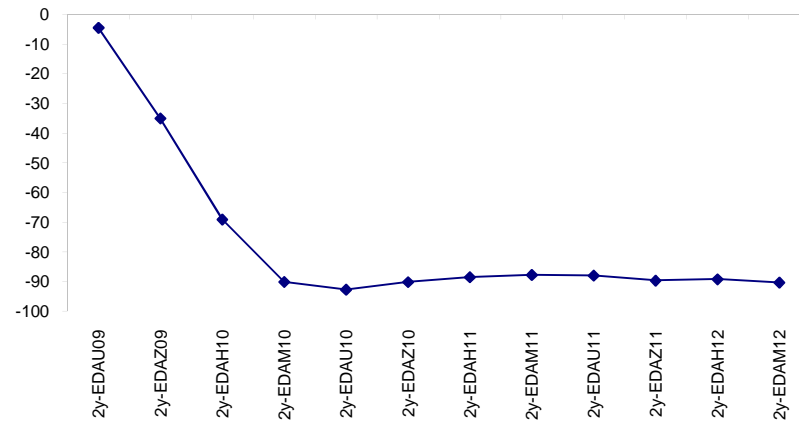
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days.

ZT Yield - ED Yield



Correlation



	ED Duration as		Spread Duration	
	Fraction of year	2Y Duration		
EDAU09	0.1336	1.8974	1.7639	2y-EDAU09
EDAZ09	0.3829	1.8974	1.5146	2y-EDAZ09
EDAH10	0.6322	1.8974	1.2652	2y-EDAH10
EDAM10	0.8815	1.8974	1.0159	2y-EDAM10
EDAU10	1.1308	1.8974	0.7666	2y-EDAU10
EDAZ10	1.3801	1.8974	0.5173	2y-EDAZ10
EDAH11	1.6295	1.8974	0.2680	2y-EDAH11
EDAM11	1.8788	1.8974	0.0187	2y-EDAM11
EDAU11	2.1473	1.8974	-0.2498	2y-EDAU11
EDAZ11	2.3966	1.8974	-0.4991	2y-EDAZ11
EDAH12	2.6459	1.8974	-0.7485	2y-EDAH12
EDAM12	2.8952	1.8974	-0.9978	2y-EDAM12

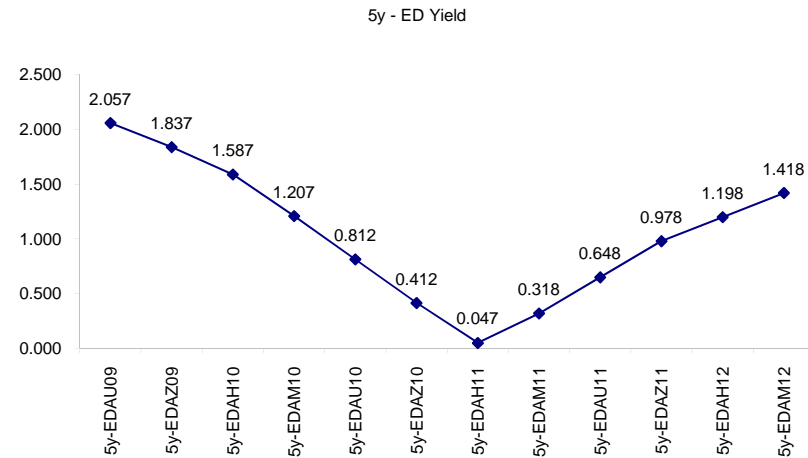
The farther away from 0 the spread duration is the riskier the trade.

5y				Correlation*
	Spread Price	Spread Yield	Spread Name	(percent)
EDAU09	0.72	2.057	5y-EDAU09	19
EDAZ09	0.94	1.837	5y-EDAZ09	-15
EDAH10	1.19	1.587	5y-EDAH10	-56
EDAM10	1.57	1.207	5y-EDAM10	-85
EDAU10	1.96	0.812	5y-EDAU10	-92
EDAZ10	2.36	0.412	5y-EDAZ10	-89
EDAH11	2.73	0.047	5y-EDAH11	-88
EDAM11	3.09	0.318	5y-EDAM11	-86
EDAU11	3.42	0.648	5y-EDAU11	-86
EDAZ11	3.75	0.978	5y-EDAZ11	-89
EDAH12	3.97	1.198	5y-EDAH12	-89
EDAM12	4.19	1.418	5y-EDAM12	-92

Price = Outright Decimal Price - Euro Contract Price

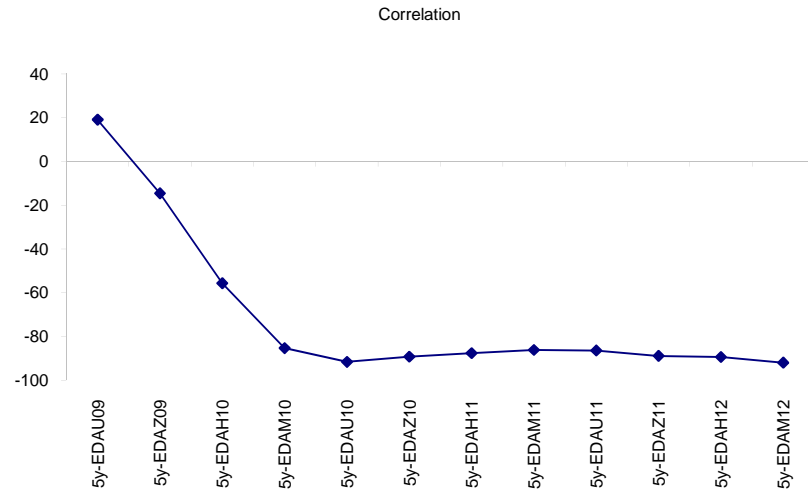
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				5Y Duration	Spread Duration	
EDAU09	0.1336	4.5851	4.4515	5y-EDAU09		
EDAZ09	0.3829	4.5851	4.2022	5y-EDAZ09		
EDAH10	0.6322	4.5851	3.9529	5y-EDAH10		
EDAM10	0.8815	4.5851	3.7036	5y-EDAM10		
EDAU10	1.1308	4.5851	3.4542	5y-EDAU10		
EDAZ10	1.3801	4.5851	3.2049	5y-EDAZ10		
EDAH11	1.6295	4.5851	2.9556	5y-EDAH11		
EDAM11	1.8788	4.5851	2.7063	5y-EDAM11		
EDAU11	2.1473	4.5851	2.4378	5y-EDAU11		
EDAZ11	2.3966	4.5851	2.1885	5y-EDAZ11		
EDAH12	2.6459	4.5851	1.9392	5y-EDAH12		
EDAM12	2.8952	4.5851	1.6899	5y-EDAM12		

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

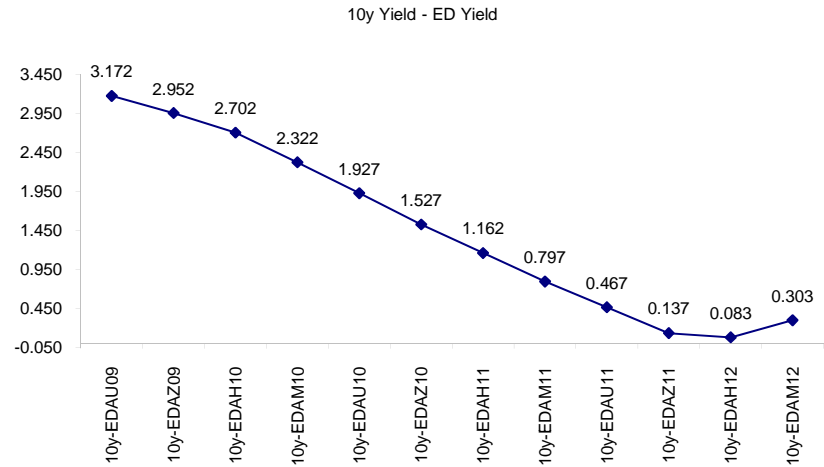


10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.72	3.172	10y-EDAU09	35
EDAZ09	0.94	2.952	10y-EDAZ09	1
EDAH10	1.19	2.702	10y-EDAH10	-45
EDAM10	1.57	2.322	10y-EDAM10	-80
EDAU10	1.96	1.927	10y-EDAU10	-90
EDAZ10	2.36	1.527	10y-EDAZ10	-88
EDAH11	2.73	1.162	10y-EDAH11	-86
EDAM11	3.09	0.797	10y-EDAM11	-84
EDAU11	3.42	0.467	10y-EDAU11	-84
EDAZ11	3.75	0.137	10y-EDAZ11	-86
EDAH12	3.97	0.083	10y-EDAH12	-87
EDAM12	4.19	0.303	10y-EDAM12	-90

Price = Outright Decimal Price - Euro Contract Price

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

*Correlation = ED Correlation to Treasury Future over 10 days



ED Duration as Fraction of year				10Y Duration	Spread Duration	
EDAU09	0.1336	8.2702	8.1367	10y-EDAU09		
EDAZ09	0.3829	8.2702	7.8874	10y-EDAZ09		
EDAH10	0.6322	8.2702	7.6380	10y-EDAH10		
EDAM10	0.8815	8.2702	7.3887	10y-EDAM10		
EDAU10	1.1308	8.2702	7.1394	10y-EDAU10		
EDAZ10	1.3801	8.2702	6.8901	10y-EDAZ10		
EDAH11	1.6295	8.2702	6.6408	10y-EDAH11		
EDAM11	1.8788	8.2702	6.3915	10y-EDAM11		
EDAU11	2.1473	8.2702	6.1230	10y-EDAU11		
EDAZ11	2.3966	8.2702	5.8737	10y-EDAZ11		
EDAH12	2.6459	8.2702	5.6244	10y-EDAH12		
EDAM12	2.8952	8.2702	5.3750	10y-EDAM12		

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

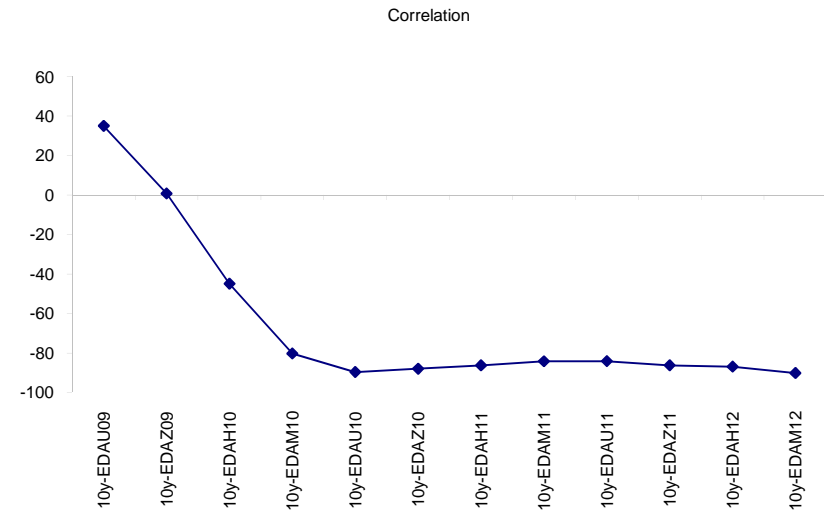


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

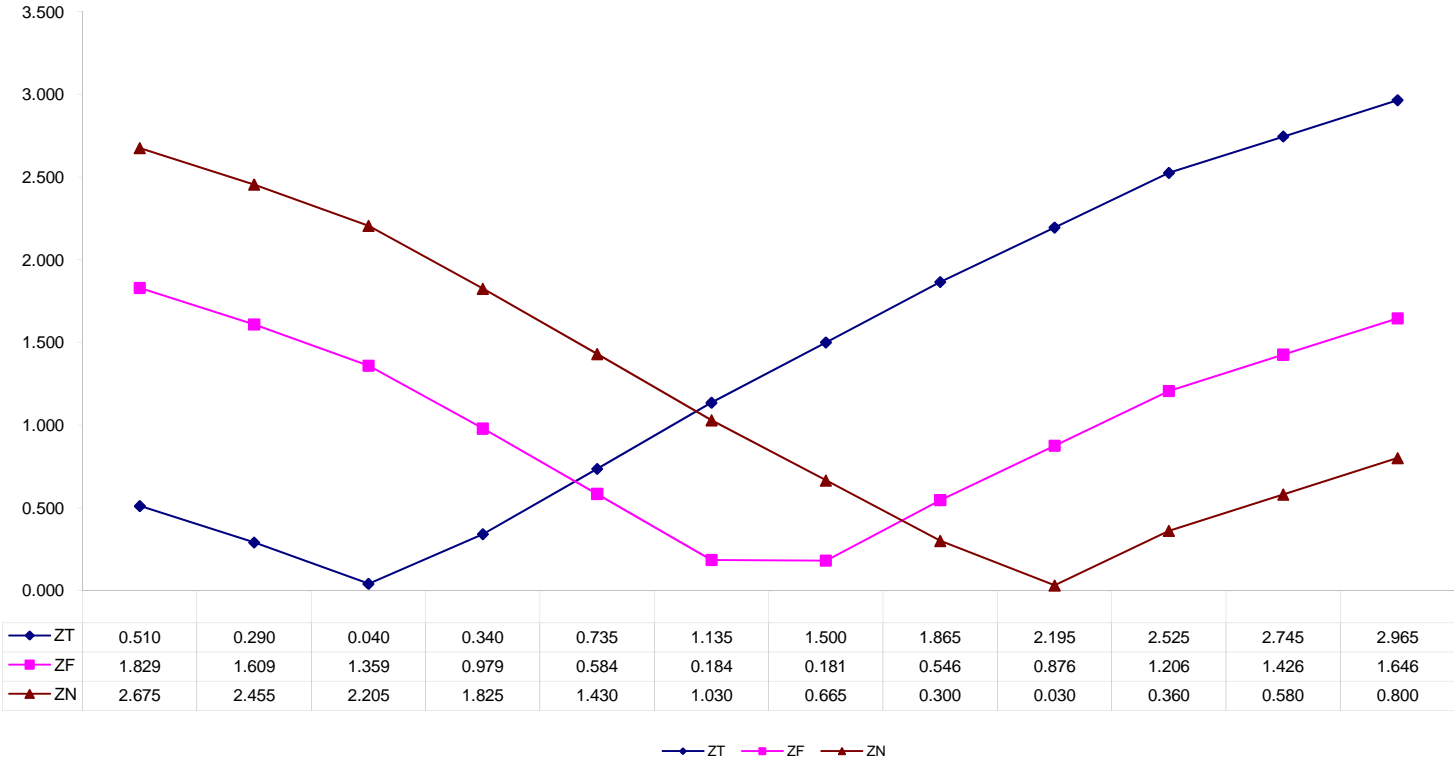
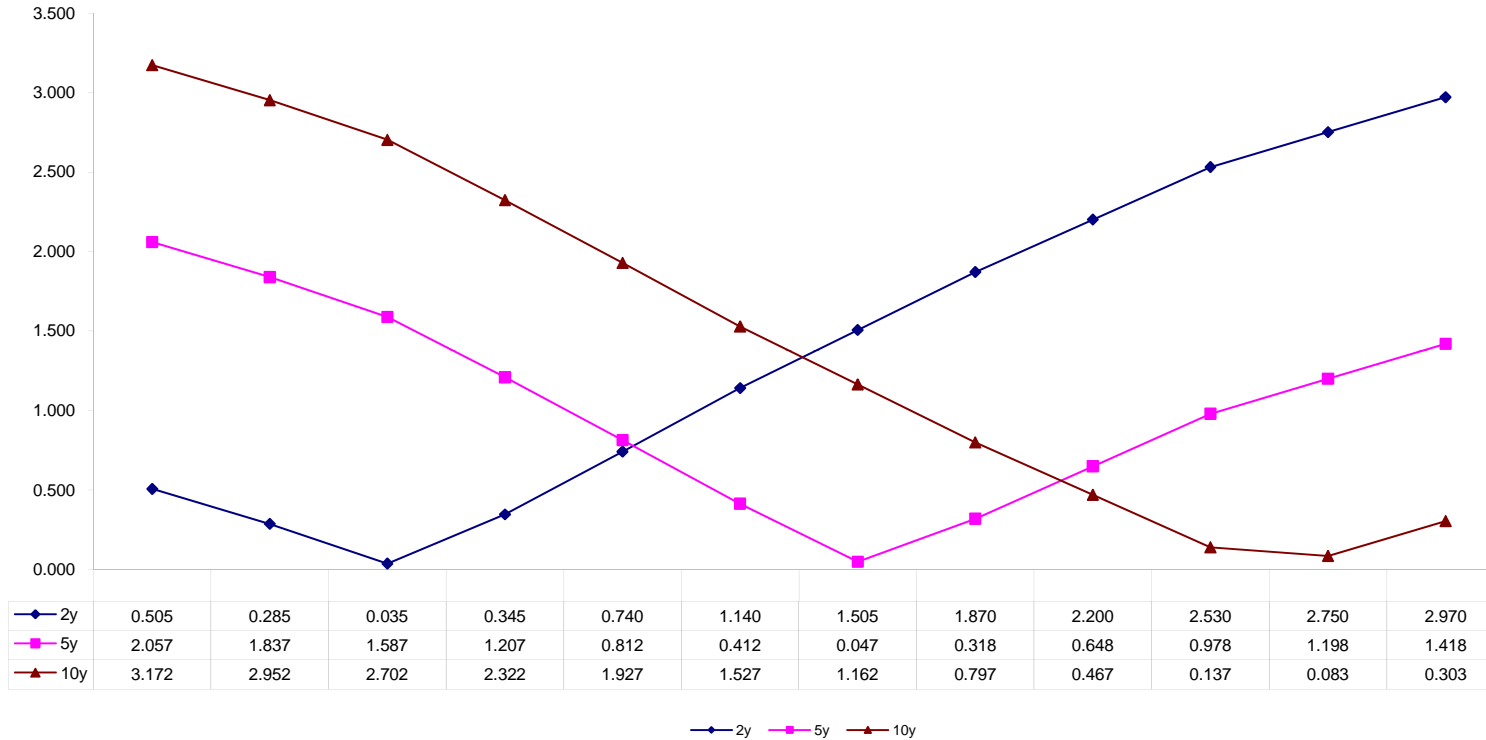
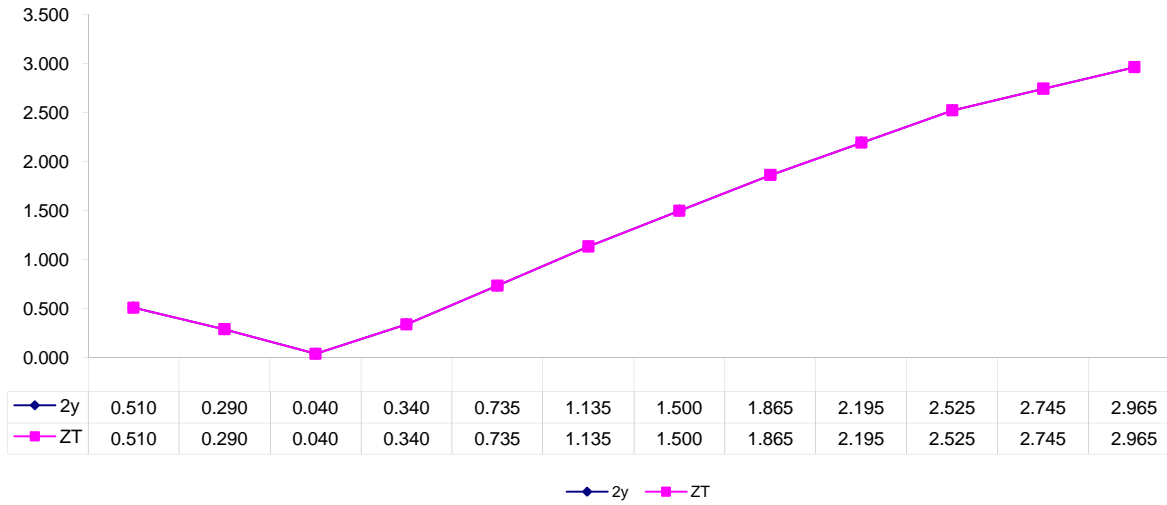
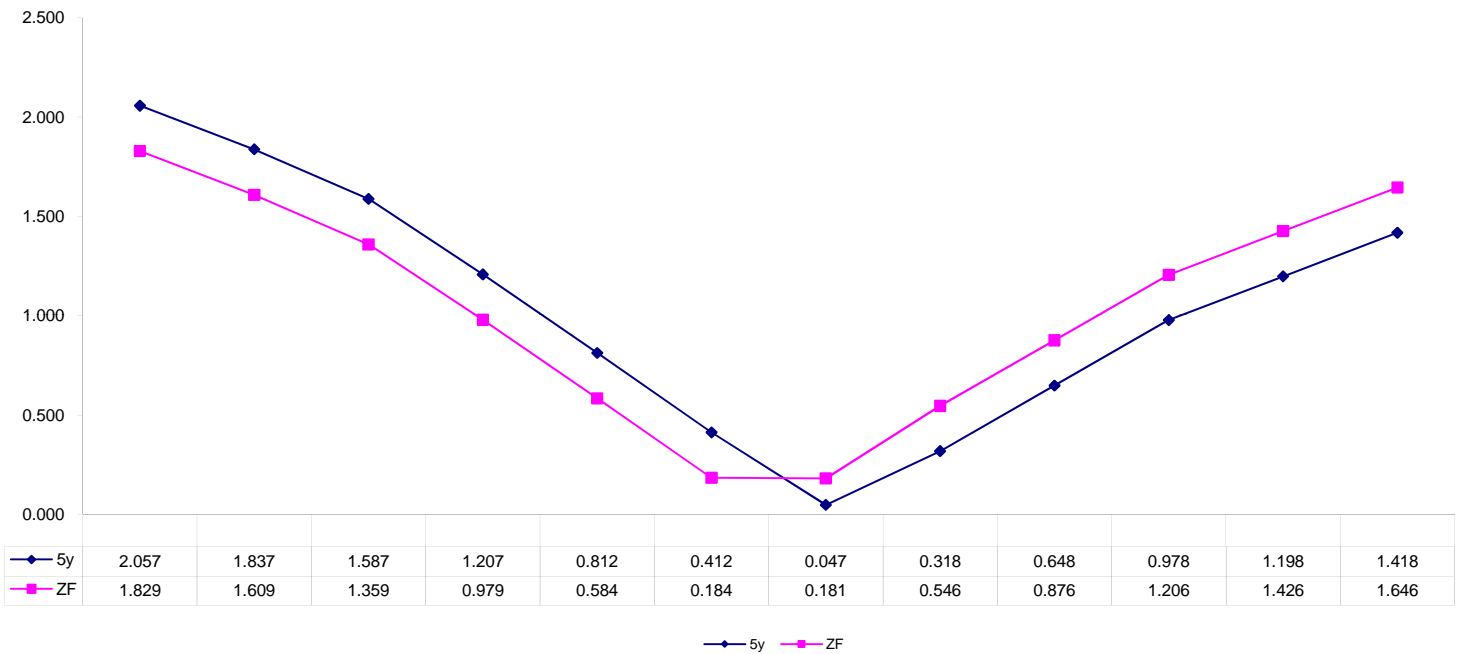


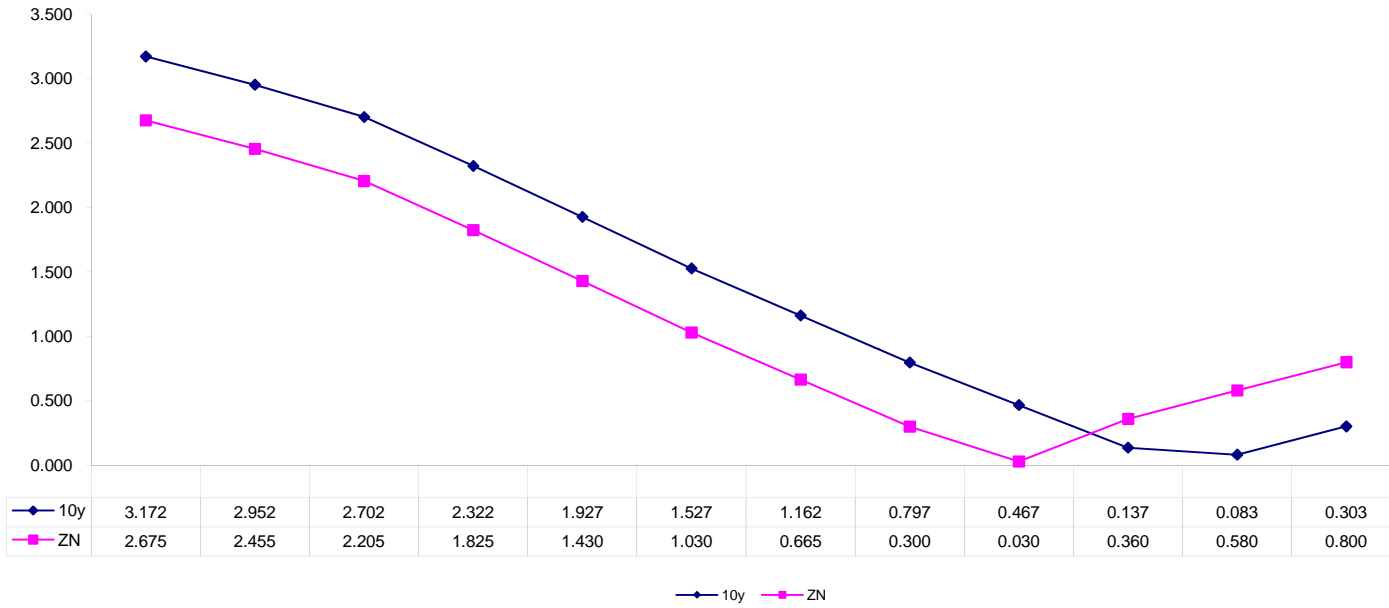
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	0.925	0.000	9909.0000
Red Pack	2.391	-0.362	9765.6250
Green Pack	3.727	-0.475	9635.7500
Blue Pack	4.565	-0.800	9554.7500
Gold Pack		-0.237	9513.1250

