

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

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.

Treasury Futures and Cash				
	Last Decimal	Last 32	Last Yield*	MDuration
ZT	108.8500	108.2720	0.816	1.766
ZF	116.1313	116.0420	2.091	3.954
ZN	117.7656	117.2450	3.107	5.910
2y	99.8344	99.2670	0.954	1.974
5y	99.2656	99.0850	2.403	4.653
10y	95.5000	95.1600	3.667	8.434

Eurodollars (ED)						
	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAM09	99.3075	0.692	18	0.0486	JUN	
EDAU09	99.2300	0.770	109	0.2980	SEP	White Pack
EDAZ09	99.0050	0.995	200	0.5473	DEC	
EDAH10	98.8500	1.150	291	0.7966	MAR	
EDAM10	98.5700	1.430	382	1.0459	JUN	
EDAU10	98.2600	1.740	473	1.2952	SEP	Red Pack
EDAZ10	97.8950	2.105	564	1.5445	DEC	
EDAH11	97.5800	2.420	655	1.7939	MAR	
EDAM11	97.2200	2.780	746	2.0432	JUN	
EDAU11	96.8750	3.125	844	2.3117	SEP	Green Pack
EDAZ11	96.5100	3.490	935	2.5610	DEC	
EDAH12	96.2400	3.760	1,026	2.8103	MAR	
EDAM12	95.9850	4.015	1,117	3.0596	JUN	
EDAU12	95.7600	4.240	1,208	3.3089	SEP	Blue Pack
EDAZ12	95.5650	4.435	1,299	3.5582	DEC	
EDAH13	95.4350	4.565	1,390	3.8076	MAR	
EDAM13	95.2800	4.720	1,481	4.0569	JUN	
EDAU13	95.1550	4.845	1,572	4.3062	SEP	Gold Pack
EDAZ13	94.9800	5.020	1,663	4.5555	DEC	
EDAH14	94.9100	5.090	1,754	4.8048	MAR	

	Last Yield	Net Yield	Last Price	
White Pack	0.917	1.313	9909.81	
Red Pack	1.960	2.000	9807.63	Pack Prices
Green Pack	3.362	0.625	9671.13	
Blue Pack	4.421	-5.375	9568.63	
Gold Pack	5.049	-10.250	9508.13	

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.

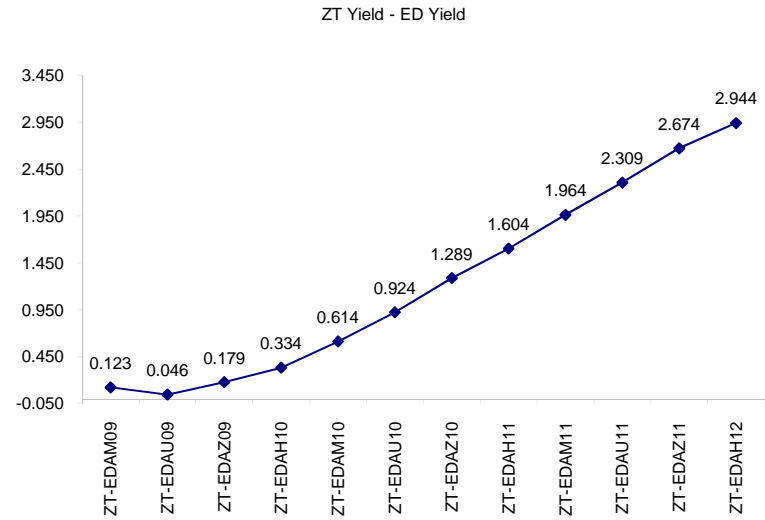
jgoulding@ghco.com

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.

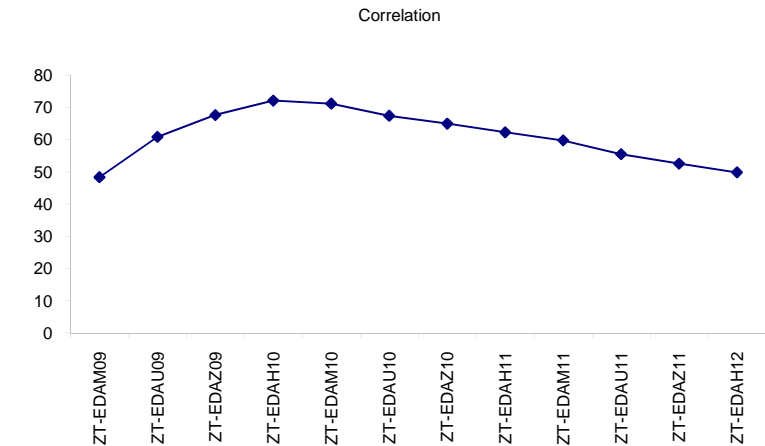
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	9.54	0.123	ZT-EDAM09	48
EDAU09	9.62	0.046	ZT-EDAU09	61
EDAZ09	9.85	0.179	ZT-EDAZ09	68
EDAH10	10.00	0.334	ZT-EDAH10	72
EDAM10	10.28	0.614	ZT-EDAM10	71
EDAU10	10.59	0.924	ZT-EDAU10	67
EDAZ10	10.96	1.289	ZT-EDAZ10	65
EDAH11	11.27	1.604	ZT-EDAH11	62
EDAM11	11.63	1.964	ZT-EDAM11	60
EDAU11	11.98	2.309	ZT-EDAU11	55
EDAZ11	12.34	2.674	ZT-EDAZ11	53
EDAH12	12.61	2.944	ZT-EDAH12	50

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	
EDAM09	0.0486	1.7659	1.7173	ZT-EDAM09		
EDAU09	0.2980	1.7659	1.4680	ZT-EDAU09		
EDAZ09	0.5473	1.7659	1.2187	ZT-EDAZ09		
EDAH10	0.7966	1.7659	0.9693	ZT-EDAH10		
EDAM10	1.0459	1.7659	0.7200	ZT-EDAM10		
EDAU10	1.2952	1.7659	0.4707	ZT-EDAU10		
EDAZ10	1.5445	1.7659	0.2214	ZT-EDAZ10		
EDAH11	1.7939	1.7659	-0.0279	ZT-EDAH11		
EDAM11	2.0432	1.7659	-0.2772	ZT-EDAM11		
EDAU11	2.3117	1.7659	-0.5457	ZT-EDAU11		
EDAZ11	2.5610	1.7659	-0.7950	ZT-EDAZ11		
EDAH12	2.8103	1.7659	-1.0444	ZT-EDAH12		

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

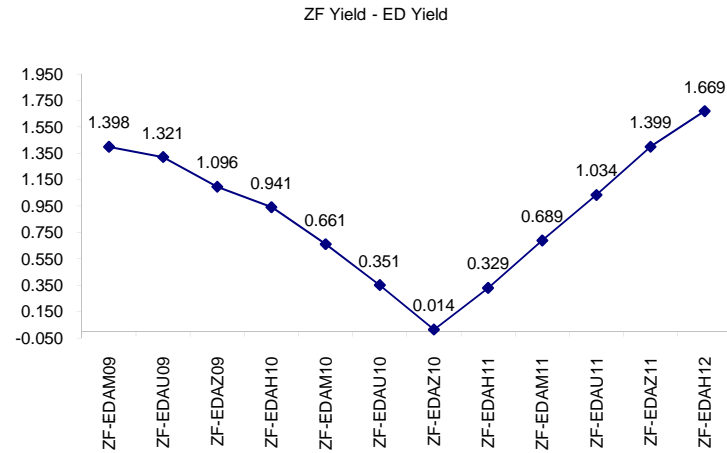


	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	16.82	1.398	ZF-EDAM09	20
EDAU09	16.90	1.321	ZF-EDAU09	48
EDAZ09	17.13	1.096	ZF-EDAZ09	72
EDAH10	17.28	0.941	ZF-EDAH10	78
EDAM10	17.56	0.661	ZF-EDAM10	84
EDAU10	17.87	0.351	ZF-EDAU10	90
EDAZ10	18.24	0.014	ZF-EDAZ10	94
EDAH11	18.55	0.329	ZF-EDAH11	96
EDAM11	18.91	0.689	ZF-EDAM11	97
EDAU11	19.26	1.034	ZF-EDAU11	98
EDAZ11	19.62	1.399	ZF-EDAZ11	98
EDAH12	19.89	1.669	ZF-EDAH12	98

Price = Outright Decimal Price - Euro Contract Price

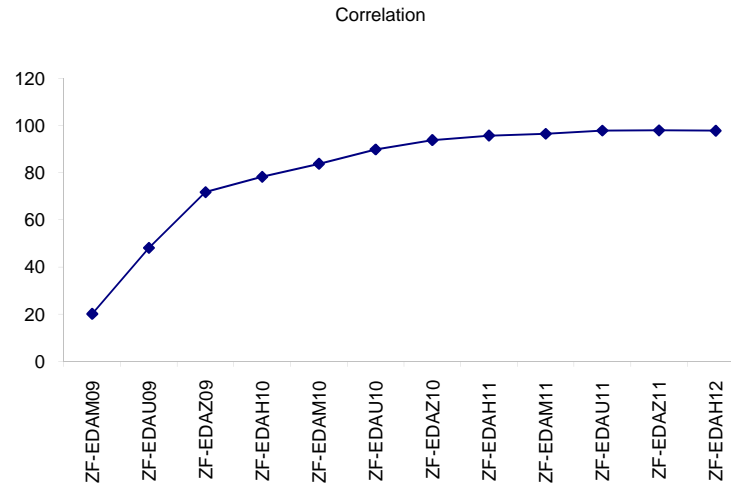
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



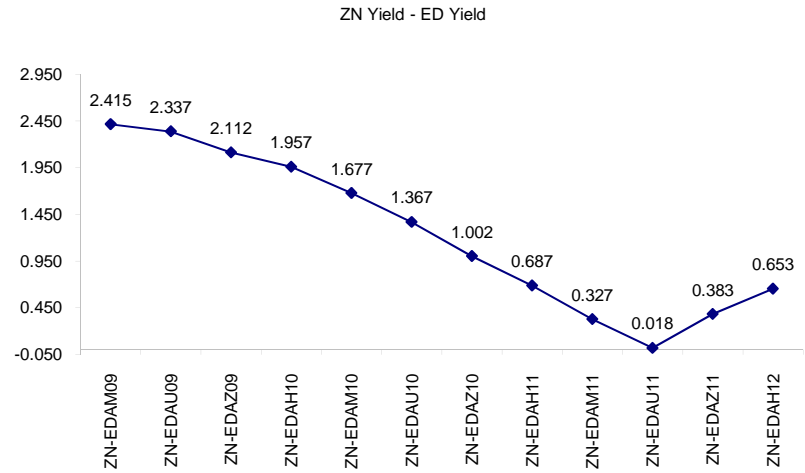
	ED Duration as Fraction of year		ZF Duration	Spread Duration	
EDAM09	0.0486	3.9539	3.9052	3.9052	ZF-EDAM09
EDAU09	0.2980	3.9539	3.6559	3.6559	ZF-EDAU09
EDAZ09	0.5473	3.9539	3.4066	3.4066	ZF-EDAZ09
EDAH10	0.7966	3.9539	3.1573	3.1573	ZF-EDAH10
EDAM10	1.0459	3.9539	2.9080	2.9080	ZF-EDAM10
EDAU10	1.2952	3.9539	2.6586	2.6586	ZF-EDAU10
EDAZ10	1.5445	3.9539	2.4093	2.4093	ZF-EDAZ10
EDAH11	1.7939	3.9539	2.1600	2.1600	ZF-EDAH11
EDAM11	2.0432	3.9539	1.9107	1.9107	ZF-EDAM11
EDAU11	2.3117	3.9539	1.6422	1.6422	ZF-EDAU11
EDAZ11	2.5610	3.9539	1.3929	1.3929	ZF-EDAZ11
EDAH12	2.8103	3.9539	1.1436	1.1436	ZF-EDAH12

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



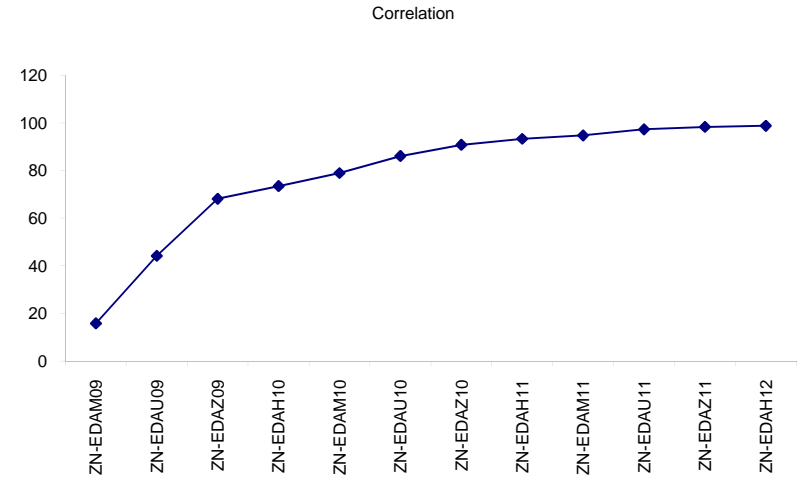
ZN				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	18.46	2.415	ZN-EDAM09	16
EDAU09	18.54	2.337	ZN-EDAU09	44
EDAZ09	18.76	2.112	ZN-EDAZ09	68
EDAH10	18.92	1.957	ZN-EDAH10	73
EDAM10	19.20	1.677	ZN-EDAM10	79
EDAU10	19.51	1.367	ZN-EDAU10	86
EDAZ10	19.87	1.002	ZN-EDAZ10	91
EDAH11	20.19	0.687	ZN-EDAH11	93
EDAM11	20.55	0.327	ZN-EDAM11	95
EDAU11	20.89	0.018	ZN-EDAU11	97
EDAZ11	21.26	0.383	ZN-EDAZ11	98
EDAH12	21.53	0.653	ZN-EDAH12	99

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			
	Fraction of year	ZN Duration	Spread Duration
EDAM09	0.0486	5.9104	5.8618
EDAU09	0.2980	5.9104	5.6125
EDAZ09	0.5473	5.9104	5.3631
EDAH10	0.7966	5.9104	5.1138
EDAM10	1.0459	5.9104	4.8645
EDAU10	1.2952	5.9104	4.6152
EDAZ10	1.5445	5.9104	4.3659
EDAH11	1.7939	5.9104	4.1166
EDAM11	2.0432	5.9104	3.8672
EDAU11	2.3117	5.9104	3.5988
EDAZ11	2.5610	5.9104	3.3494
EDAH12	2.8103	5.9104	3.1001

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



	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	0.53	0.262	2y-EDAM09	-11
EDAU09	0.60	0.184	2y-EDAU09	-37
EDAZ09	0.83	0.041	2y-EDAZ09	-61
EDAH10	0.98	0.196	2y-EDAH10	-77
EDAM10	1.26	0.476	2y-EDAM10	-89
EDAU10	1.57	0.786	2y-EDAU10	-94
EDAZ10	1.94	1.151	2y-EDAZ10	-95
EDAH11	2.25	1.466	2y-EDAH11	-96
EDAM11	2.61	1.826	2y-EDAM11	-94
EDAU11	2.96	2.171	2y-EDAU11	-93
EDAZ11	3.32	2.536	2y-EDAZ11	-91
EDAH12	3.59	2.806	2y-EDAH12	-89

Price = Outright Decimal Price - Euro Contract Price

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

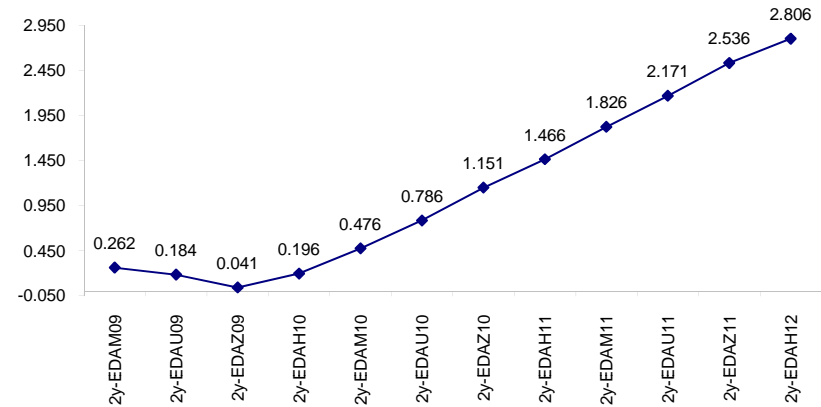
*Correlation = ED Correlation to Treasury Future over 10 days.

ED Duration as

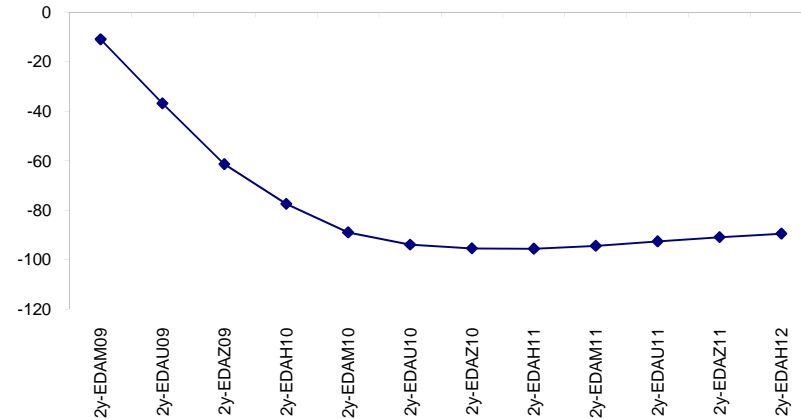
	Fraction of year	2Y Duration	Spread Duration	
EDAM09	0.0486	1.9744	1.9257	2y-EDAM09
EDAU09	0.2980	1.9744	1.6764	2y-EDAU09
EDAZ09	0.5473	1.9744	1.4271	2y-EDAZ09
EDAH10	0.7966	1.9744	1.1778	2y-EDAH10
EDAM10	1.0459	1.9744	0.9285	2y-EDAM10
EDAU10	1.2952	1.9744	0.6791	2y-EDAU10
EDAZ10	1.5445	1.9744	0.4298	2y-EDAZ10
EDAH11	1.7939	1.9744	0.1805	2y-EDAH11
EDAM11	2.0432	1.9744	-0.0688	2y-EDAM11
EDAU11	2.3117	1.9744	-0.3373	2y-EDAU11
EDAZ11	2.5610	1.9744	-0.5866	2y-EDAZ11
EDAH12	2.8103	1.9744	-0.8359	2y-EDAH12

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

ZT Yield - ED Yield



Correlation

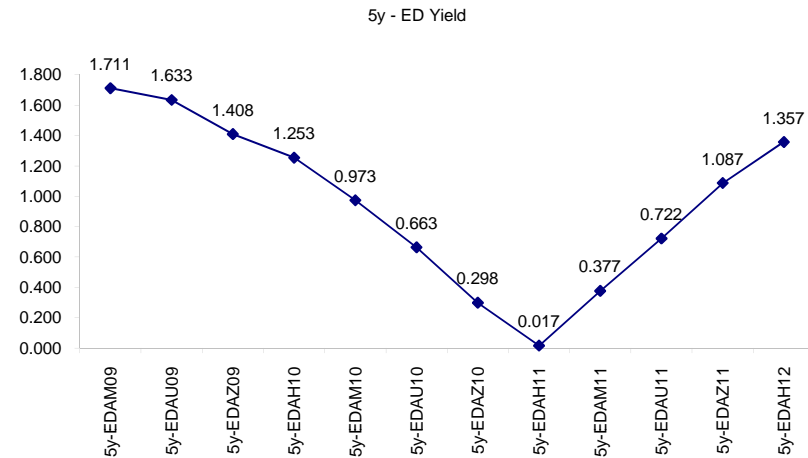


	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	-0.04	1.711	5y-EDAM09	5
EDAU09	0.04	1.633	5y-EDAU09	-25
EDAZ09	0.26	1.408	5y-EDAZ09	-55
EDAH10	0.42	1.253	5y-EDAH10	-72
EDAM10	0.70	0.973	5y-EDAM10	-84
EDAU10	1.01	0.663	5y-EDAU10	-92
EDAZ10	1.37	0.298	5y-EDAZ10	-96
EDAH11	1.69	0.017	5y-EDAH11	-98
EDAM11	2.05	0.377	5y-EDAM11	-98
EDAU11	2.39	0.722	5y-EDAU11	-99
EDAZ11	2.76	1.087	5y-EDAZ11	-99
EDAH12	3.03	1.357	5y-EDAH12	-99

Price = Outright Decimal Price - Euro Contract Price

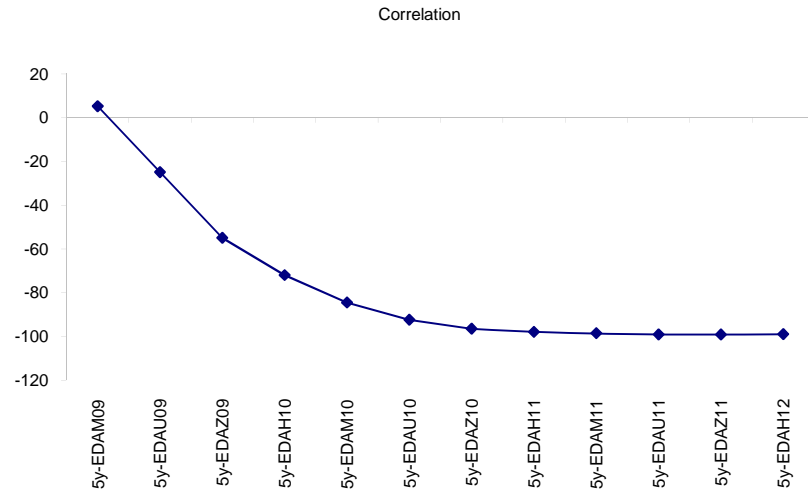
Yield = ABS (Proxy Yield - Implied Euro Contract yield)

*Correlation = ED Correlation to Treasury Future over 10 days



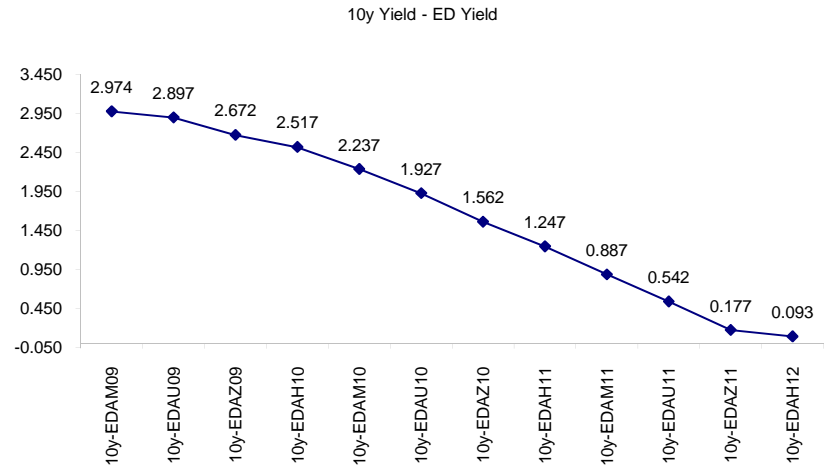
	ED Duration as Fraction of year		5Y Duration	Spread Duration	
EDAM09	0.0486	4.6533	4.6046	5y-EDAM09	
EDAU09	0.2980	4.6533	4.3553	5y-EDAU09	
EDAZ09	0.5473	4.6533	4.1060	5y-EDAZ09	
EDAH10	0.7966	4.6533	3.8567	5y-EDAH10	
EDAM10	1.0459	4.6533	3.6074	5y-EDAM10	
EDAU10	1.2952	4.6533	3.3581	5y-EDAU10	
EDAZ10	1.5445	4.6533	3.1087	5y-EDAZ10	
EDAH11	1.7939	4.6533	2.8594	5y-EDAH11	
EDAM11	2.0432	4.6533	2.6101	5y-EDAM11	
EDAU11	2.3117	4.6533	2.3416	5y-EDAU11	
EDAZ11	2.5610	4.6533	2.0923	5y-EDAZ11	
EDAH12	2.8103	4.6533	1.8430	5y-EDAH12	

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



10y				
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAM09	-0.04	2.974	10y-EDAM09	8
EDAU09	0.04	2.897	10y-EDAU09	-23
EDAZ09	0.26	2.672	10y-EDAZ09	-53
EDAH10	0.42	2.517	10y-EDAH10	-69
EDAM10	0.70	2.237	10y-EDAM10	-82
EDAU10	1.01	1.927	10y-EDAU10	-90
EDAZ10	1.37	1.562	10y-EDAZ10	-94
EDAH11	1.69	1.247	10y-EDAH11	-96
EDAM11	2.05	0.887	10y-EDAM11	-97
EDAU11	2.39	0.542	10y-EDAU11	-98
EDAZ11	2.76	0.177	10y-EDAZ11	-99
EDAH12	3.03	0.093	10y-EDAH12	-99

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	
EDAM09	0.0486	8.4340	8.3854	10y-EDAM09		
EDAU09	0.2980	8.4340	8.1361	10y-EDAU09		
EDAZ09	0.5473	8.4340	7.8867	10y-EDAZ09		
EDAH10	0.7966	8.4340	7.6374	10y-EDAH10		
EDAM10	1.0459	8.4340	7.3881	10y-EDAM10		
EDAU10	1.2952	8.4340	7.1388	10y-EDAU10		
EDAZ10	1.5445	8.4340	6.8895	10y-EDAZ10		
EDAH11	1.7939	8.4340	6.6402	10y-EDAH11		
EDAM11	2.0432	8.4340	6.3908	10y-EDAM11		
EDAU11	2.3117	8.4340	6.1224	10y-EDAU11		
EDAZ11	2.5610	8.4340	5.8730	10y-EDAZ11		
EDAH12	2.8103	8.4340	5.6237	10y-EDAH12		

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

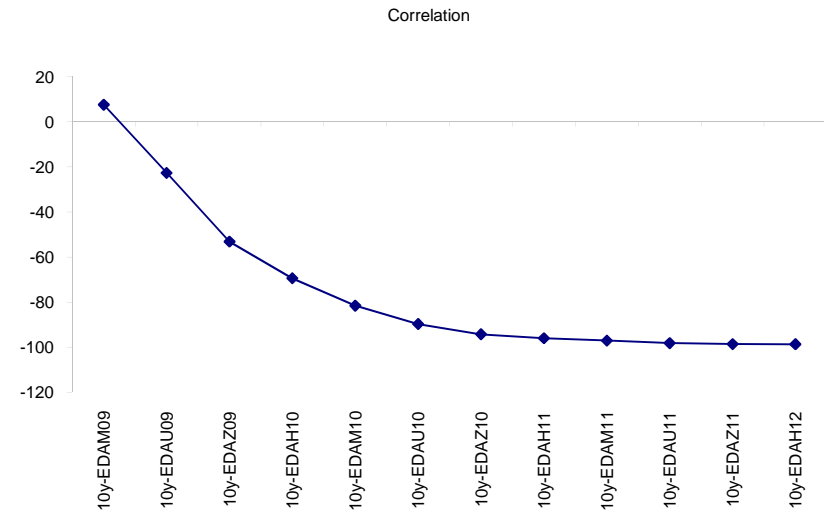


Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.

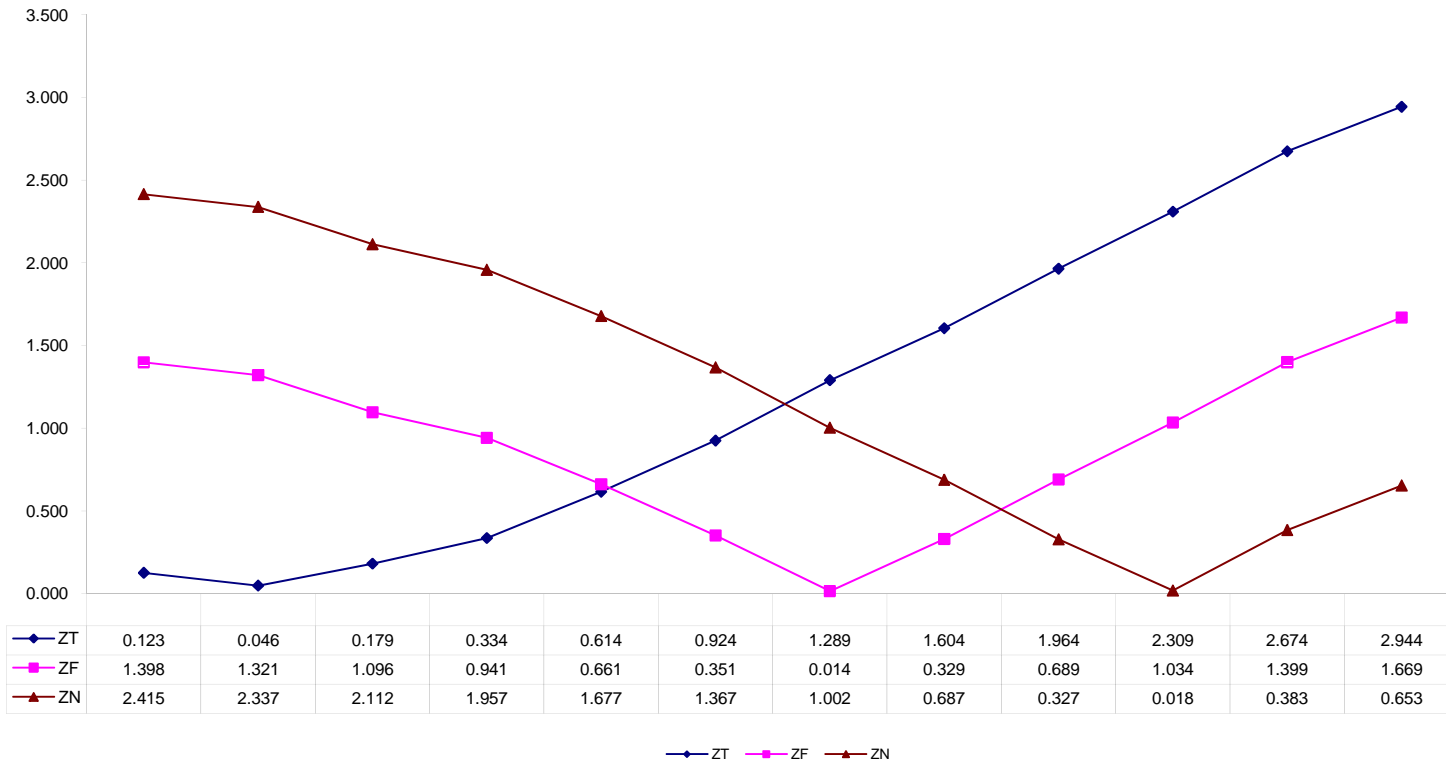
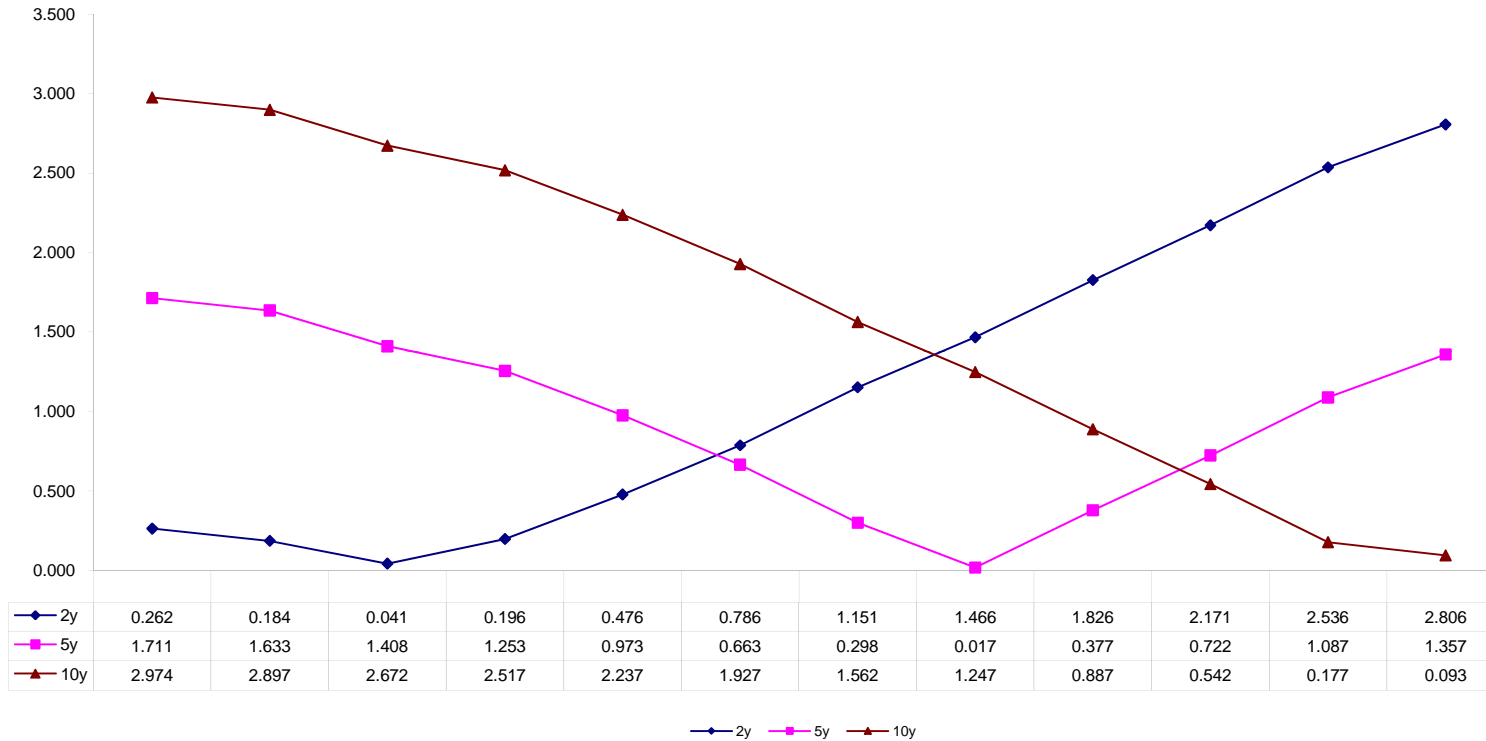
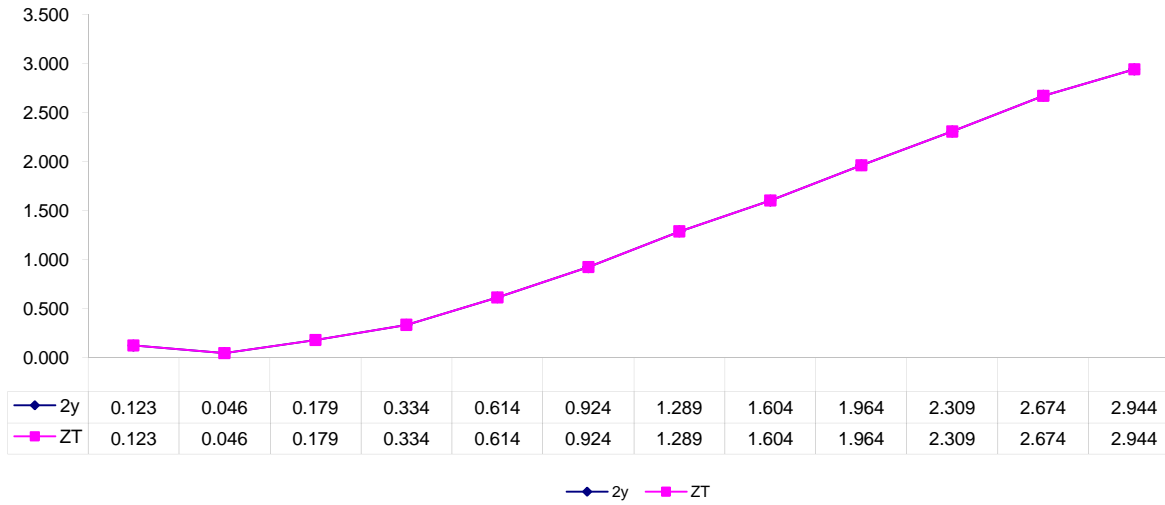
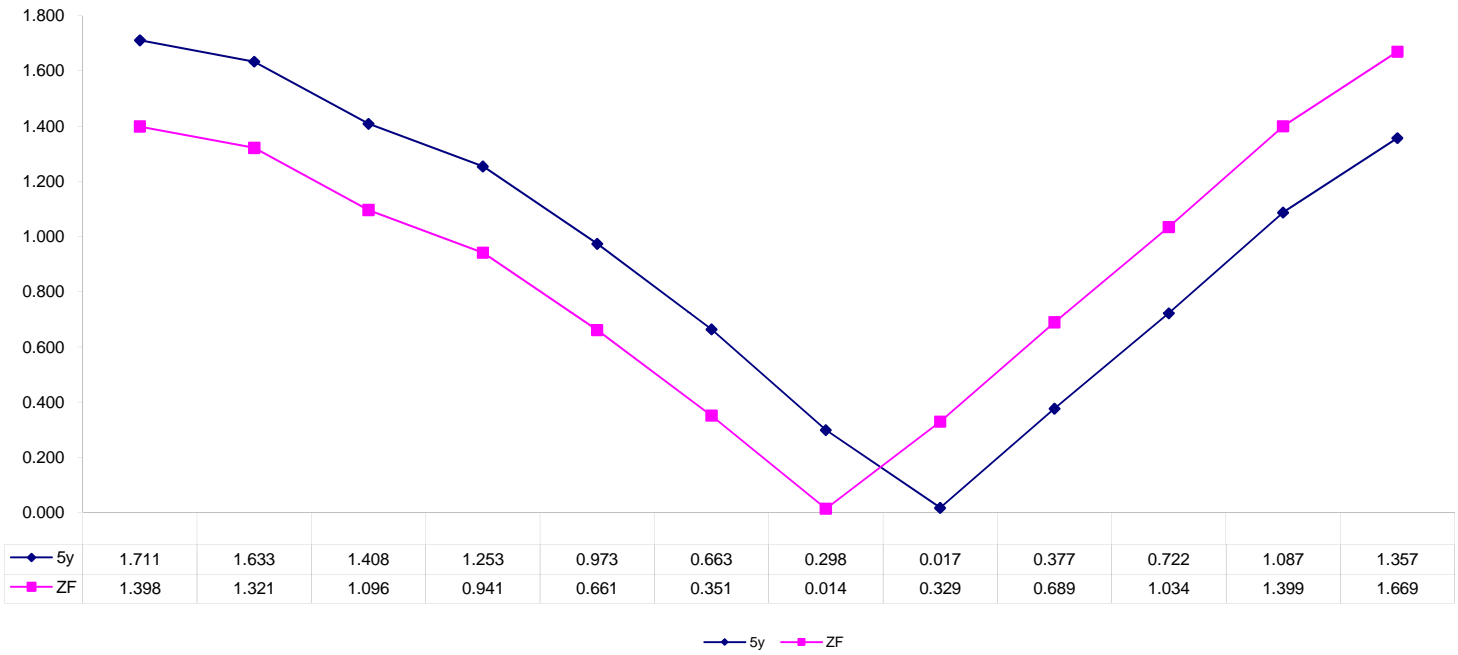


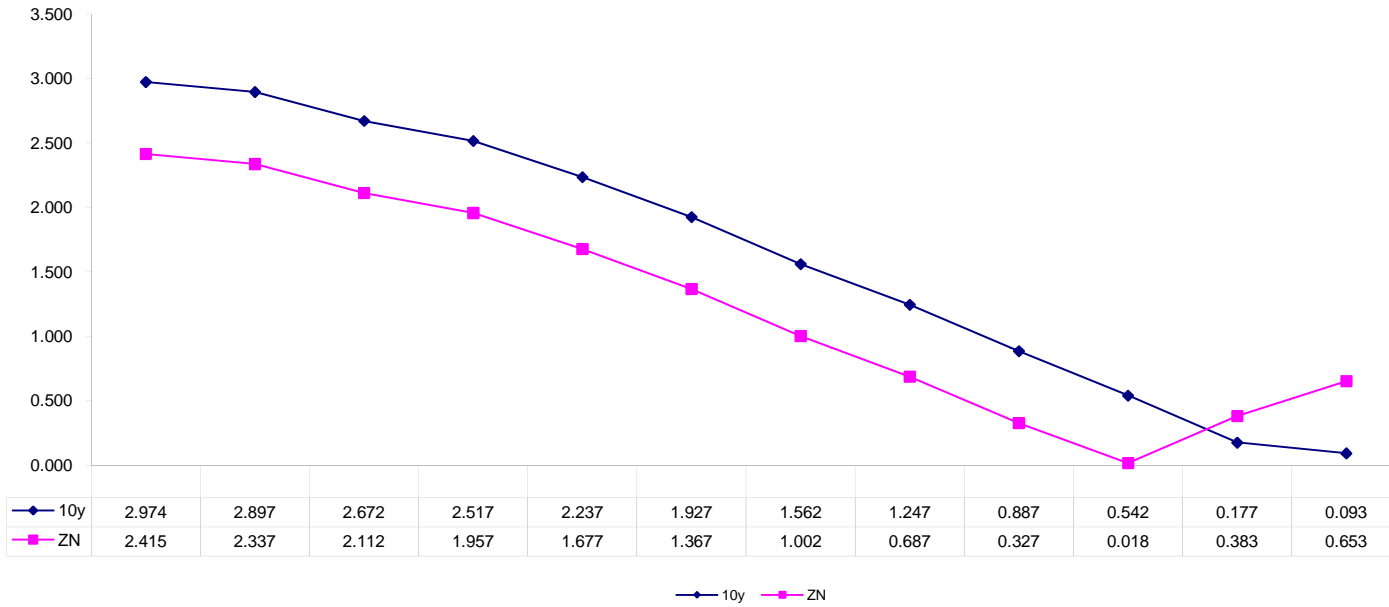
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart. Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y Basis TED Curve







	Last Yield	Net Last Yield	Last Price
White Pack	0.917	1.313	9909.8125
Red Pack	1.960	2.000	9807.6250
Green Pack	3.362	0.625	9671.1250
Blue Pack	4.421	-5.375	9568.6250
Gold Pack	5.049	-10.250	9508.1250

