The Morning Email: TERM TEDS & Dirty TEDS

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

Quotes

Treasury Futures and Cash

	Last Decimal	Last 32	Last Yield*	MDuration
ZT	108.1563	108.0500	1.092	1.919
ZF	114.9063	114.2900	2.290	4.195
ZN	116.5000	116.1600	3.091	5.826
2y	100.0625	100.0200	1.093	1.973
5y	100.4844	100.1550	2.520	4.662
10y	96.9219	96.2950	3.494	8.368

Eurodollars (ED)

	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU09	99.3400	0.660	77	0.2103	SEP	
EDAZ09	99.1000	0.900	168	0.4596	DEC	White Pack
EDAH10	98.8750	1.125	259	0.7089	MAR	
EDAM10	98.5450	1.455	350	0.9582	JUN	
EDAU10	98.1950	1.805	441	1.2076	SEP	
EDAZ10	97.8000	2.200	532	1.4569	DEC	Red Pack
EDAH11	97.4600	2.540	623	1.7062	MAR	
EDAM11	97.1150	2.885	714	1.9555	JUN	
EDAU11	96.8150	3.185	812	2.2240	SEP	
EDAZ11	96.5250	3.475	903	2.4733	DEC	Green Pack
EDAH12	96.3150	3.685	994	2.7226	MAR	
EDAM12	96.1300	3.870	1,085	2.9719	JUN	
EDAU12	95.9800	4.020	1,176	3.2213	SEP	
EDAZ12	95.8350	4.165	1,267	3.4706	DEC	Blue Pack
EDAH13	95.7500	4.250	1,358	3.7199	MAR	
EDAM13	95.6500	4.350	1,449	3.9692	JUN	
EDAU13	95.5050	4.495	1,540	4.2185	SEP	
EDAZ13	95.4050	4.595	1,631	4.4678	DEC	Gold Pack
EDAH14	95.3550	4.645	1,722	4.7172	MAR	
EDAM14	95.2950	4.705	1,813	4.9665	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	1.052	-0.125	9896.50	
Red Pack	2.405	-0.125	9764.25	Pack Prices
Green Pack	3.636	1.375	9644.63	
Blue Pack	4.300	3.000	9580.38	
Gold Pack		0.000	9540.50	

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:

Jan-00 Regression
Jan-00 Engineered
Jan-00 Strip with and without Stubs
Jan-00 Convexity Bias
Jan-00 Weighted
Jan-00 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

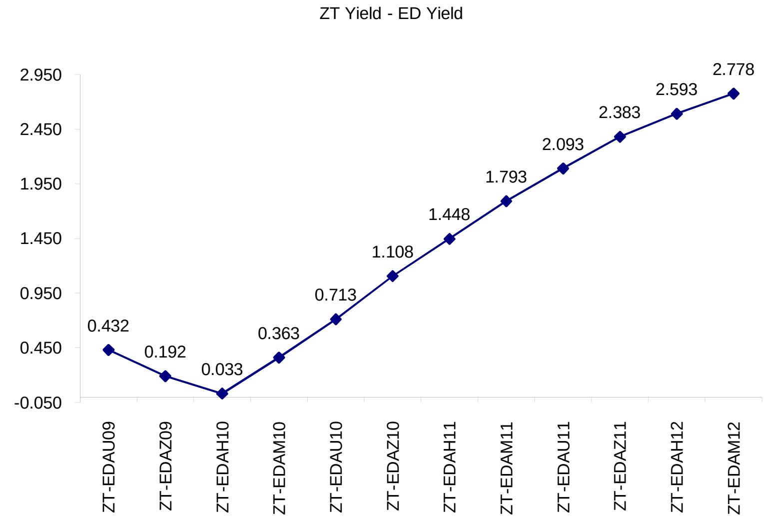
Correlations (Important)

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.

Dirty TED: ZT vs Eurodollar Contracts

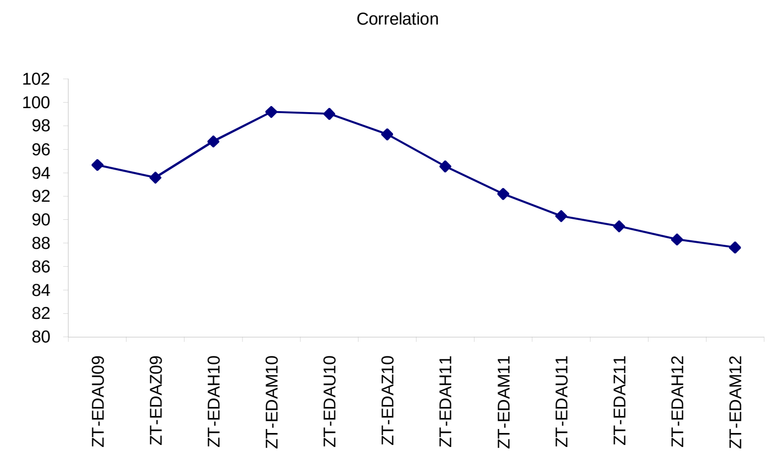
	ZT Spread Price	ZT Spread Yield	Spread Name	Correlation* (percent)
EDAU09	8.82	0.432	ZT-EDAU09	95
EDAZ09	9.06	0.192	ZT-EDAZ09	94
EDAH10	9.28	0.033	ZT-EDAH10	97
EDAM10	9.61	0.363	ZT-EDAM10	99
EDAU10	9.96	0.713	ZT-EDAU10	99
EDAZ10	10.36	1.108	ZT-EDAZ10	97
EDAH11	10.70	1.448	ZT-EDAH11	95
EDAM11	11.04	1.793	ZT-EDAM11	92
EDAU11	11.34	2.093	ZT-EDAU11	90
EDAZ11	11.63	2.383	ZT-EDAZ11	89
EDAH12	11.84	2.593	ZT-EDAH12	88
EDAM12	12.03	2.778	ZT-EDAM12	88

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	0.2103	1.9190	1.7086	ZT-EDAU09
EDAZ09	0.4596	1.9190	1.4593	ZT-EDAZ09
EDAH10	0.7089	1.9190	1.2100	ZT-EDAH10
EDAM10	0.9582	1.9190	0.9607	ZT-EDAM10
EDAU10	1.2076	1.9190	0.7114	ZT-EDAU10
EDAZ10	1.4569	1.9190	0.4621	ZT-EDAZ10
EDAH11	1.7062	1.9190	0.2128	ZT-EDAH11
EDAM11	1.9555	1.9190	-0.0366	ZT-EDAM11
EDAU11	2.2240	1.9190	-0.3051	ZT-EDAU11
EDAZ11	2.4733	1.9190	-0.5544	ZT-EDAZ11
EDAH12	2.7226	1.9190	-0.8037	ZT-EDAH12
EDAM12	2.9719	1.9190	-1.0530	ZT-EDAM12

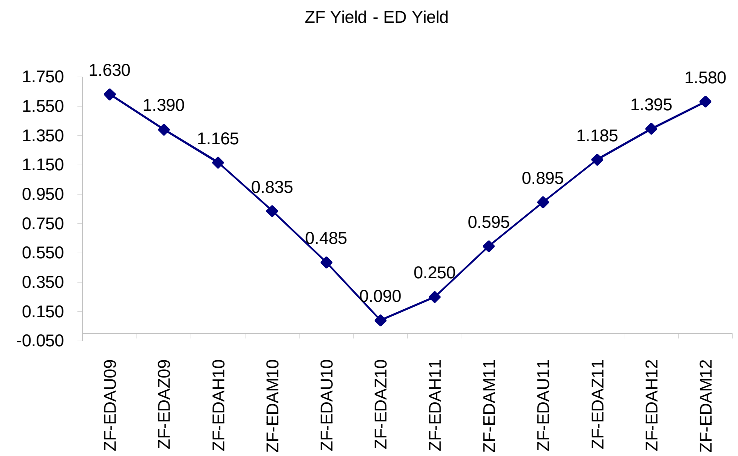
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	15.57	1.630	ZF-EDAU09	96
EDAZ09	15.81	1.390	ZF-EDAZ09	88
EDAH10	16.03	1.165	ZF-EDAH10	92
EDAM10	16.36	0.835	ZF-EDAM10	96
EDAU10	16.71	0.485	ZF-EDAU10	99
EDAZ10	17.11	0.090	ZF-EDAZ10	99
EDAH11	17.45	0.250	ZF-EDAH11	99
EDAM11	17.79	0.595	ZF-EDAM11	98
EDAU11	18.09	0.895	ZF-EDAU11	97
EDAZ11	18.38	1.185	ZF-EDAZ11	97
EDAH12	18.59	1.395	ZF-EDAH12	97
EDAM12	18.78	1.580	ZF-EDAM12	96

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	0.2103	4.1945	3.9842	ZF-EDAU09
EDAZ09	0.4596	4.1945	3.7349	ZF-EDAZ09
EDAH10	0.7089	4.1945	3.4856	ZF-EDAH10
EDAM10	0.9582	4.1945	3.2363	ZF-EDAM10
EDAU10	1.2076	4.1945	2.9869	ZF-EDAU10
EDAZ10	1.4569	4.1945	2.7376	ZF-EDAZ10
EDAH11	1.7062	4.1945	2.4883	ZF-EDAH11
EDAM11	1.9555	4.1945	2.2390	ZF-EDAM11
EDAU11	2.2240	4.1945	1.9705	ZF-EDAU11
EDAZ11	2.4733	4.1945	1.7212	ZF-EDAZ11
EDAH12	2.7226	4.1945	1.4719	ZF-EDAH12
EDAM12	2.9719	4.1945	1.2226	ZF-EDAM12

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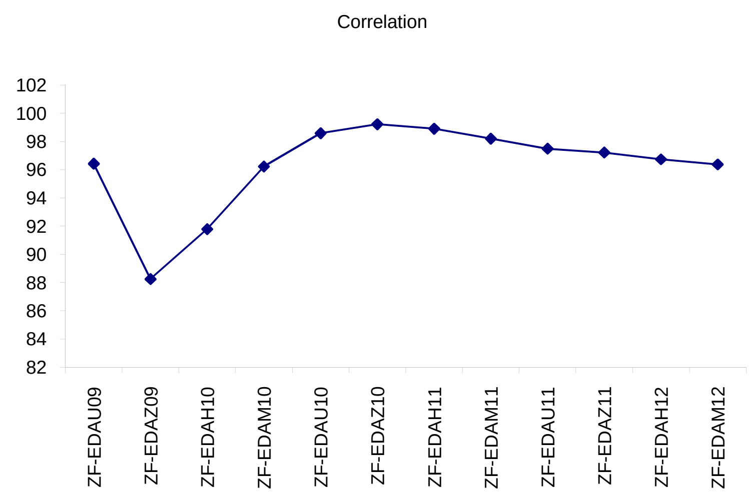
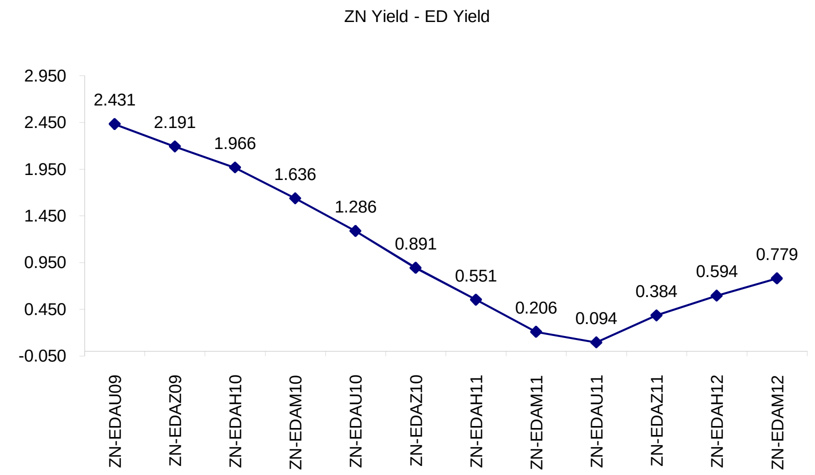


Dirty TED: ZN vs Eurodollar Contracts

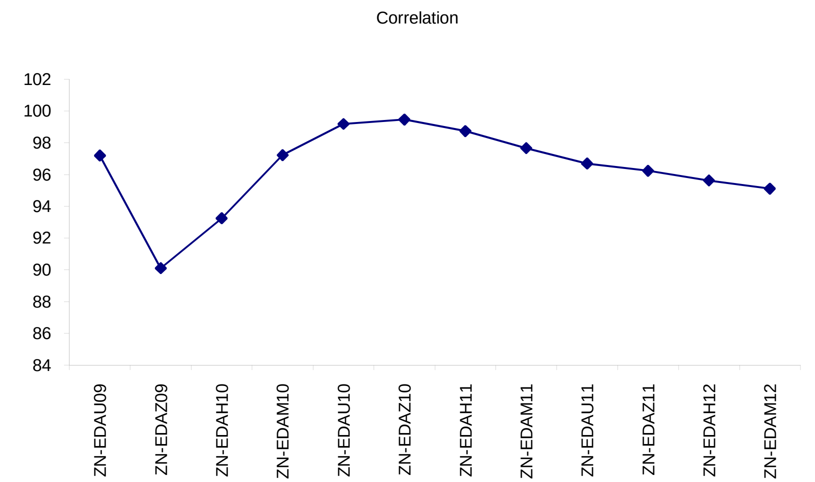
	ZN			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	17.16	2.431	ZN-EDAU09	97
EDAZ09	17.40	2.191	ZN-EDAZ09	90
EDAH10	17.63	1.966	ZN-EDAH10	93
EDAM10	17.96	1.636	ZN-EDAM10	97
EDAU10	18.31	1.286	ZN-EDAU10	99
EDAZ10	18.70	0.891	ZN-EDAZ10	99
EDAH11	19.04	0.551	ZN-EDAH11	99
EDAM11	19.39	0.206	ZN-EDAM11	98
EDAU11	19.69	0.094	ZN-EDAU11	97
EDAZ11	19.98	0.384	ZN-EDAZ11	96
EDAH12	20.19	0.594	ZN-EDAH12	96
EDAM12	20.37	0.779	ZN-EDAM12	95

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	ZN Duration	Spread Duration	
EDAU09	0.2103	5.8258	5.6155	ZN-EDAU09
EDAZ09	0.4596	5.8258	5.3661	ZN-EDAZ09
EDAH10	0.7089	5.8258	5.1168	ZN-EDAH10
EDAM10	0.9582	5.8258	4.8675	ZN-EDAM10
EDAU10	1.2076	5.8258	4.6182	ZN-EDAU10
EDAZ10	1.4569	5.8258	4.3689	ZN-EDAZ10
EDAH11	1.7062	5.8258	4.1196	ZN-EDAH11
EDAM11	1.9555	5.8258	3.8703	ZN-EDAM11
EDAU11	2.2240	5.8258	3.6018	ZN-EDAU11
EDAZ11	2.4733	5.8258	3.3524	ZN-EDAZ11
EDAH12	2.7226	5.8258	3.1031	ZN-EDAH12
EDAM12	2.9719	5.8258	2.8538	ZN-EDAM12

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



	2y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.72	0.433	2y-EDAU09	-78
EDAZ09	0.96	0.193	2y-EDAZ09	-80
EDAH10	1.19	0.032	2y-EDAH10	-83
EDAM10	1.52	0.362	2y-EDAM10	-86
EDAU10	1.87	0.712	2y-EDAU10	-86
EDAZ10	2.26	1.107	2y-EDAZ10	-84
EDAH11	2.60	1.447	2y-EDAH11	-81
EDAM11	2.95	1.792	2y-EDAM11	-78
EDAU11	3.25	2.092	2y-EDAU11	-76
EDAZ11	3.54	2.382	2y-EDAZ11	-74
EDAH12	3.75	2.592	2y-EDAH12	-73
EDAM12	3.93	2.777	2y-EDAM12	-72

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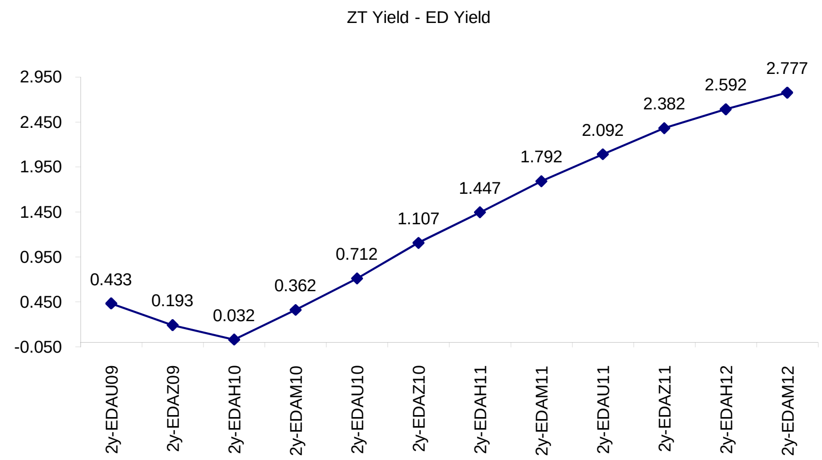
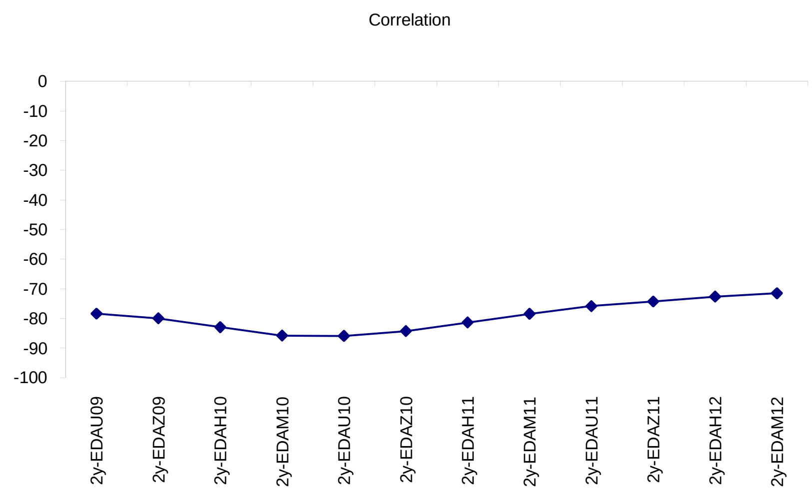


	ED Duration as Fraction of year	2Y Duration	Spread Duration	
EDAU09	0.2103	1.9725	1.7622	2y-EDAU09
EDAZ09	0.4596	1.9725	1.5129	2y-EDAZ09
EDAH10	0.7089	1.9725	1.2636	2y-EDAH10
EDAM10	0.9582	1.9725	1.0143	2y-EDAM10
EDAU10	1.2076	1.9725	0.7649	2y-EDAU10
EDAZ10	1.4569	1.9725	0.5156	2y-EDAZ10
EDAH11	1.7062	1.9725	0.2663	2y-EDAH11
EDAM11	1.9555	1.9725	0.0170	2y-EDAM11
EDAU11	2.2240	1.9725	-0.2515	2y-EDAU11
EDAZ11	2.4733	1.9725	-0.5008	2y-EDAZ11
EDAH12	2.7226	1.9725	-0.7501	2y-EDAH12
EDAM12	2.9719	1.9725	-0.9994	2y-EDAM12

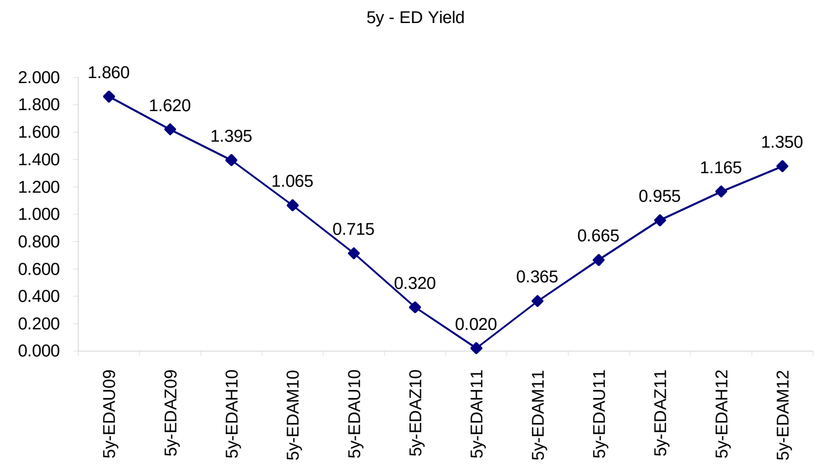
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 5y vs Eurodollar Contracts

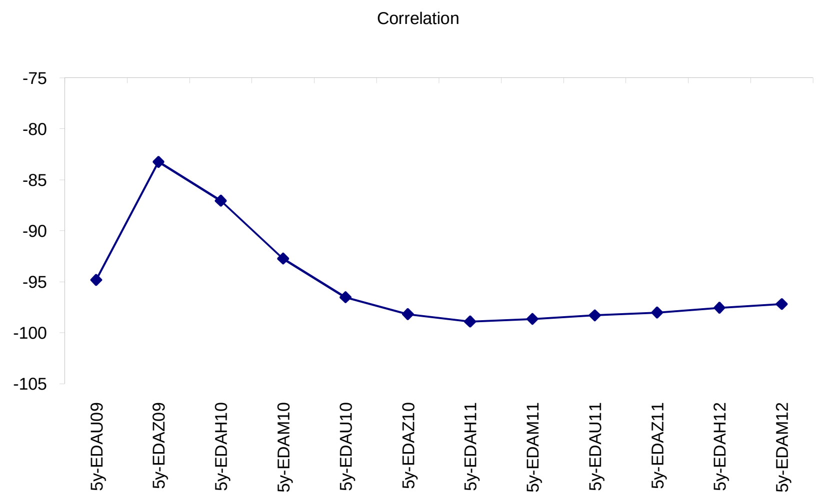
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	1.14	1.860	5y-EDAU09	-95
EDAZ09	1.38	1.620	5y-EDAZ09	-83
EDAH10	1.61	1.395	5y-EDAH10	-87
EDAM10	1.94	1.065	5y-EDAM10	-93
EDAU10	2.29	0.715	5y-EDAU10	-97
EDAZ10	2.68	0.320	5y-EDAZ10	-98
EDAH11	3.02	0.020	5y-EDAH11	-99
EDAM11	3.37	0.365	5y-EDAM11	-99
EDAU11	3.67	0.665	5y-EDAU11	-98
EDAZ11	3.96	0.955	5y-EDAZ11	-98
EDAH12	4.17	1.165	5y-EDAH12	-98
EDAM12	4.35	1.350	5y-EDAM12	-97

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	0.2103	4.6620	4.4517	5y-EDAU09
EDAZ09	0.4596	4.6620	4.2024	5y-EDAZ09
EDAH10	0.7089	4.6620	3.9530	5y-EDAH10
EDAM10	0.9582	4.6620	3.7037	5y-EDAM10
EDAU10	1.2076	4.6620	3.4544	5y-EDAU10
EDAZ10	1.4569	4.6620	3.2051	5y-EDAZ10
EDAH11	1.7062	4.6620	2.9558	5y-EDAH11
EDAM11	1.9555	4.6620	2.7065	5y-EDAM11
EDAU11	2.2240	4.6620	2.4380	5y-EDAU11
EDAZ11	2.4733	4.6620	2.1887	5y-EDAZ11
EDAH12	2.7226	4.6620	1.9393	5y-EDAH12
EDAM12	2.9719	4.6620	1.6900	5y-EDAM12

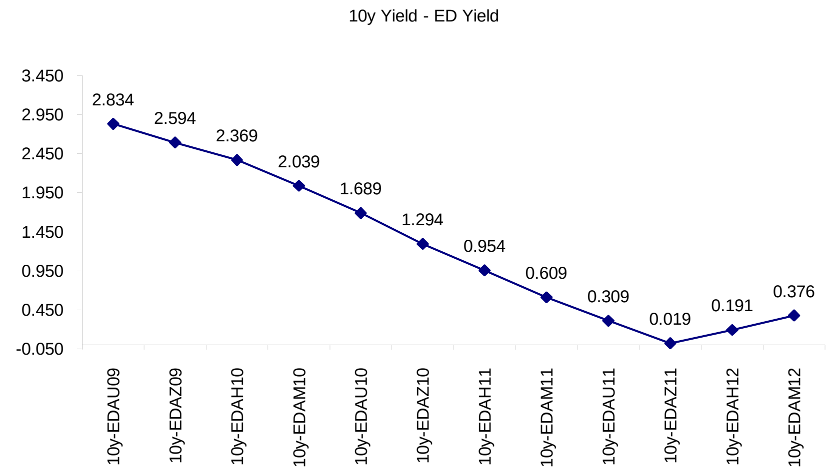
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 10y vs Eurodollar Contracts

	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	1.14	2.834	10y-EDAU09	-97
EDAZ09	1.38	2.594	10y-EDAZ09	-89
EDAH10	1.61	2.369	10y-EDAH10	-91
EDAM10	1.94	2.039	10y-EDAM10	-94
EDAU10	2.29	1.689	10y-EDAU10	-96
EDAZ10	2.68	1.294	10y-EDAZ10	-96
EDAH11	3.02	0.954	10y-EDAH11	-96
EDAM11	3.37	0.609	10y-EDAM11	-95
EDAU11	3.67	0.309	10y-EDAU11	-94
EDAZ11	3.96	0.019	10y-EDAZ11	-93
EDAH12	4.17	0.191	10y-EDAH12	-93
EDAM12	4.35	0.376	10y-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	10Y Duration	Spread Duration	
EDAU09	0.2103	8.3678	8.1574	10y-EDAU09
EDAZ09	0.4596	8.3678	7.9081	10y-EDAZ09
EDAH10	0.7089	8.3678	7.6588	10y-EDAH10
EDAM10	0.9582	8.3678	7.4095	10y-EDAM10
EDAU10	1.2076	8.3678	7.1602	10y-EDAU10
EDAZ10	1.4569	8.3678	6.9109	10y-EDAZ10
EDAH11	1.7062	8.3678	6.6616	10y-EDAH11
EDAM11	1.9555	8.3678	6.4122	10y-EDAM11
EDAU11	2.2240	8.3678	6.1437	10y-EDAU11
EDAZ11	2.4733	8.3678	5.8944	10y-EDAZ11
EDAH12	2.7226	8.3678	5.6451	10y-EDAH12
EDAM12	2.9719	8.3678	5.3958	10y-EDAM12

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

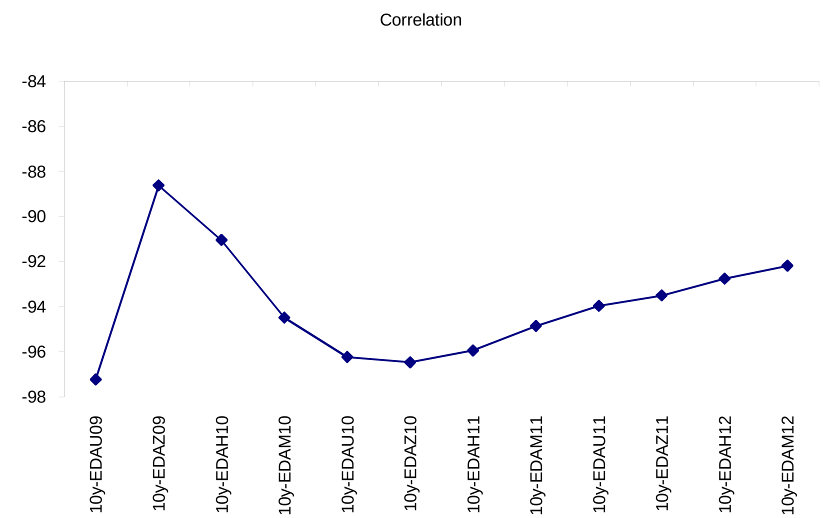
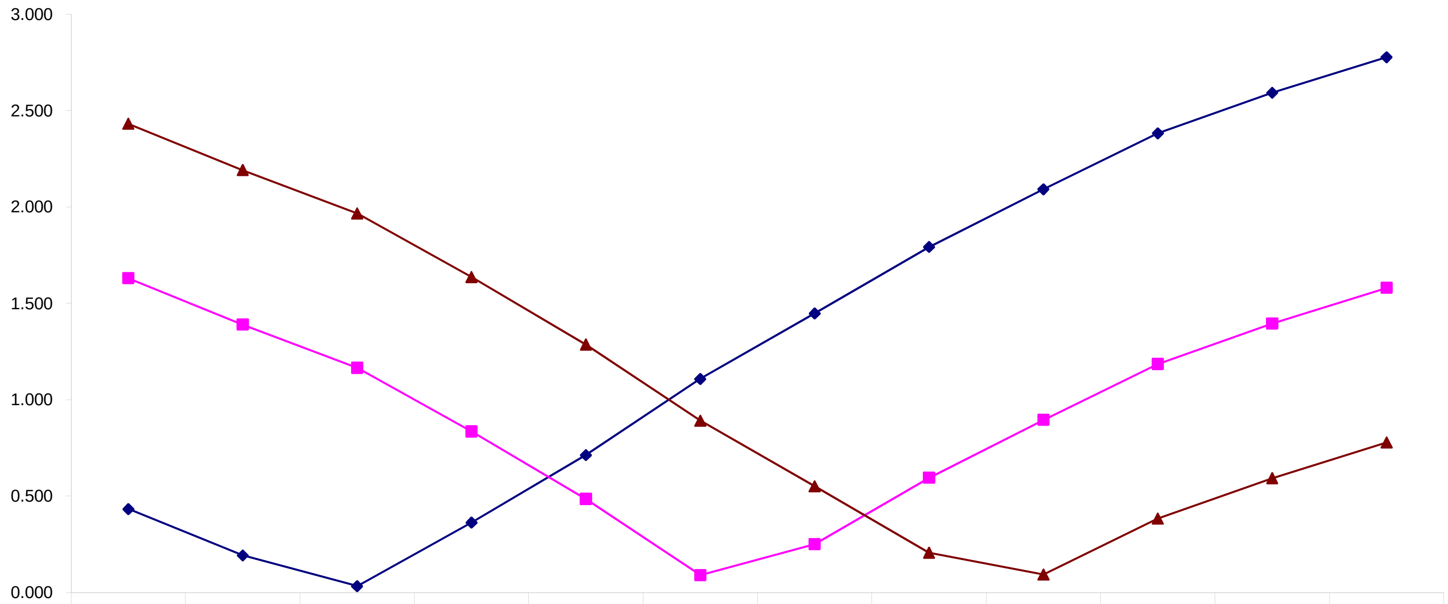


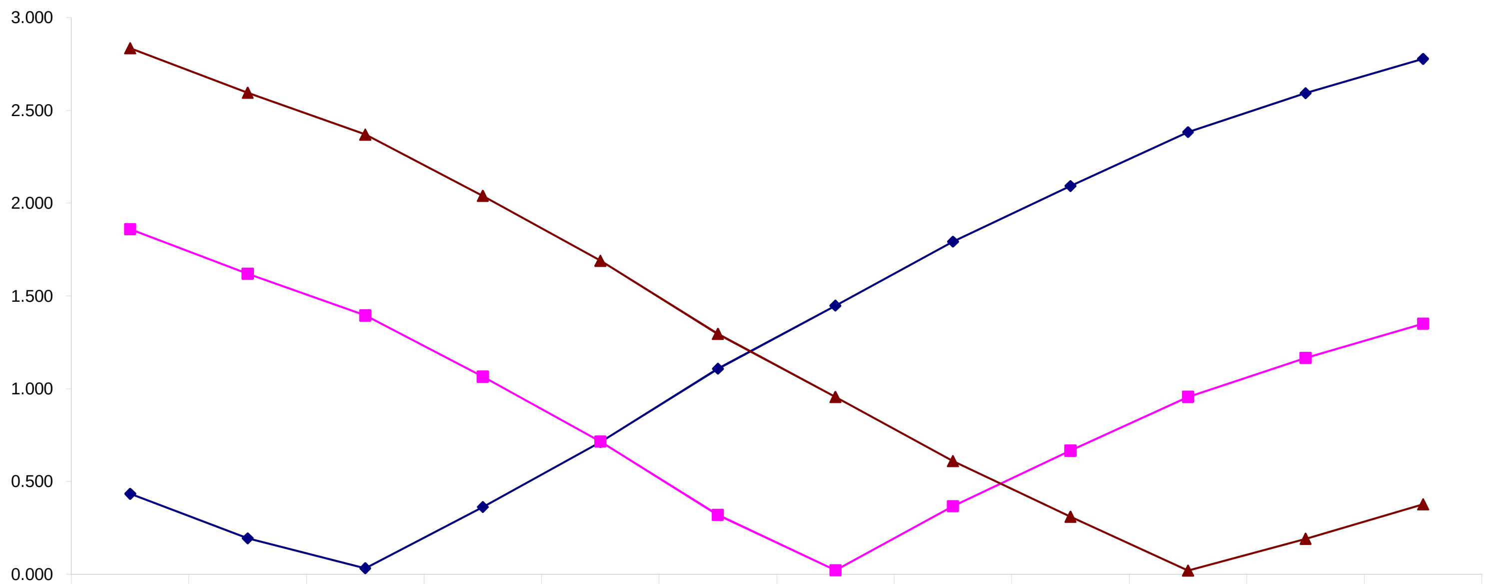
Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart.
Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



ZT	0.432	0.192	0.033	0.363	0.713	1.108	1.448	1.793	2.093	2.383	2.593	2.778
ZF	1.630	1.390	1.165	0.835	0.485	0.090	0.250	0.595	0.895	1.185	1.395	1.580
ZN	2.431	2.191	1.966	1.636	1.286	0.891	0.551	0.206	0.094	0.384	0.594	0.779

ZT ZF ZN

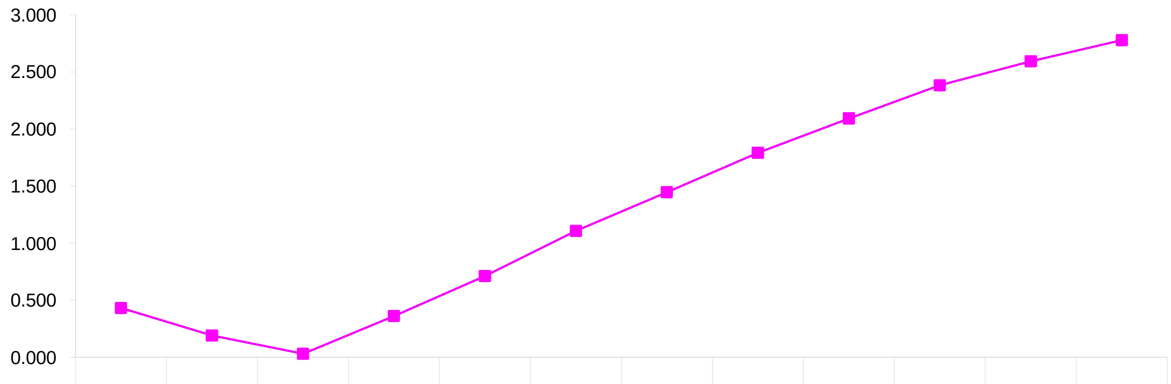
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart.
Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y	0.433	0.193	0.032	0.362	0.712	1.107	1.447	1.792	2.092	2.382	2.592	2.777
5y	1.860	1.620	1.395	1.065	0.715	0.320	0.020	0.365	0.665	0.955	1.165	1.350
10y	2.834	2.594	2.369	2.039	1.689	1.294	0.954	0.609	0.309	0.019	0.191	0.376

2y 5y 10y

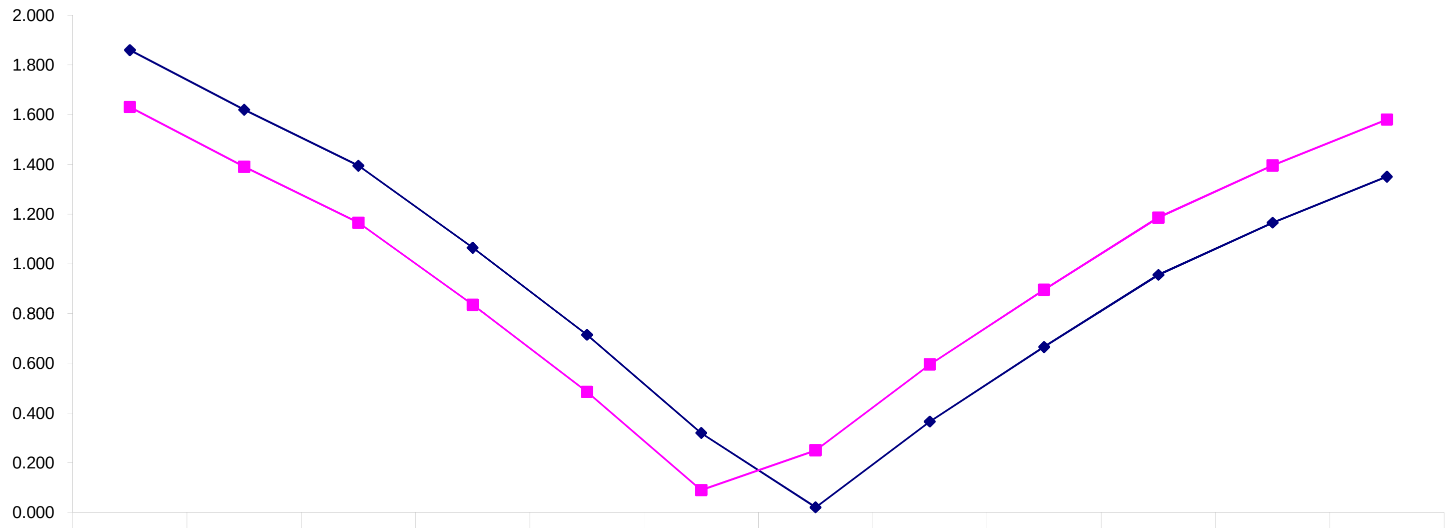
2y Basis TED Curve



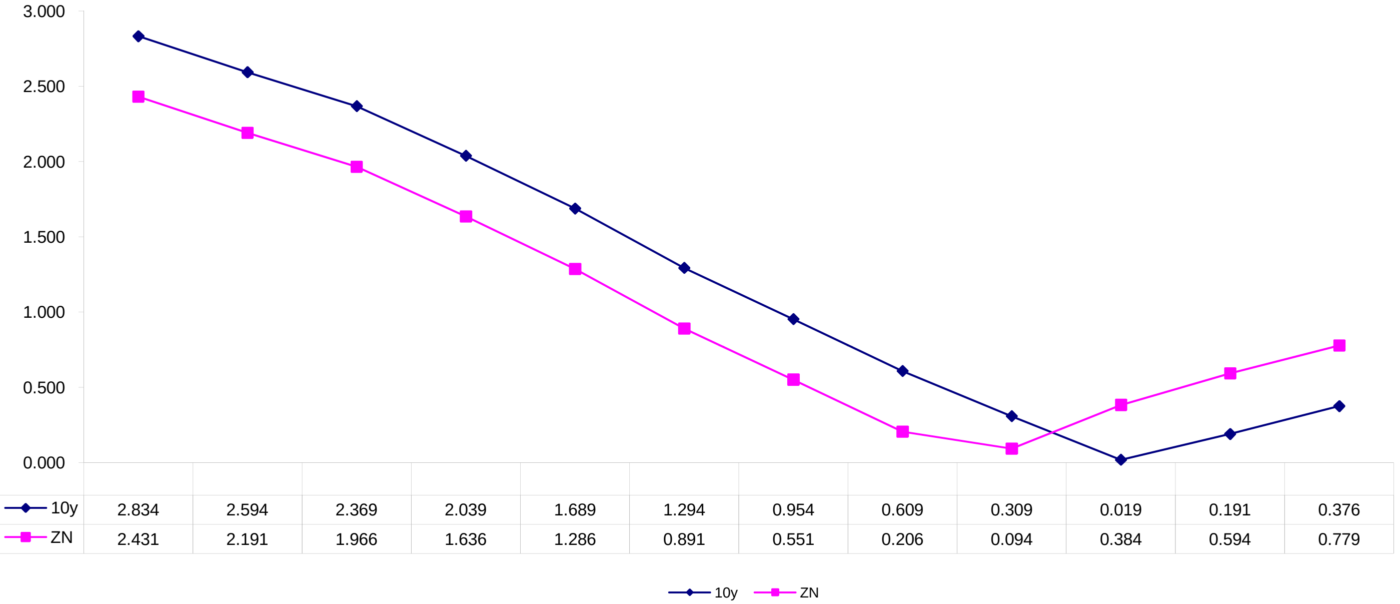
2y	0.432	0.192	0.033	0.363	0.713	1.108	1.448	1.793	2.093	2.383	2.593	2.778
ZT	0.432	0.192	0.033	0.363	0.713	1.108	1.448	1.793	2.093	2.383	2.593	2.778

2y ZT

5y Basis TED Curve



5y	1.860	1.620	1.395	1.065	0.715	0.320	0.020	0.365	0.665	0.955	1.165	1.350
ZF	1.630	1.390	1.165	0.835	0.485	0.090	0.250	0.595	0.895	1.185	1.395	1.580



10y	2.834	2.594	2.369	2.039	1.689	1.294	0.954	0.609	0.309	0.019	0.191	0.376
ZN	2.431	2.191	1.966	1.636	1.286	0.891	0.551	0.206	0.094	0.384	0.594	0.779

	Last Yield	Net Last Yield	Last Price
White Pack	1.052	-0.125	9896.5000
Red Pack	2.405	-0.125	9764.2500
Green Pack	3.636	1.375	9644.6250
Blue Pack	4.300	3.000	9580.3750
Gold Pack		0.000	9540.5000