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	108.0375	108.0120	1.117	1.877
ZF	114.5063	114.1620	2.373	4.195
ZN	116.0156	116.0050	3.175	5.823
2y	99.9906	99.3170	1.125	1.964
5y	100.0625	100.0200	2.612	4.602
10y	96.3281	96.1050	3.569	8.362

Eurodollars (ED)

	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU09	99.3400	0.660	80	0.2185	SEP	White Pack
EDAZ09	99.1400	0.860	171	0.4678	DEC	
EDAH10	98.8950	1.105	262	0.7172	MAR	
EDAM10	98.5200	1.480	353	0.9665	JUN	
EDAU10	98.1300	1.870	444	1.2158	SEP	Red Pack
EDAZ10	97.7150	2.285	535	1.4651	DEC	
EDAH11	97.3500	2.650	626	1.7144	MAR	
EDAM11	96.9900	3.010	717	1.9637	JUN	
EDAU11	96.6750	3.325	815	2.2322	SEP	Green Pack
EDAZ11	96.3800	3.620	906	2.4815	DEC	
EDAH12	96.1750	3.825	997	2.7309	MAR	
EDAM12	95.9850	4.015	1,088	2.9802	JUN	
EDAU12	95.8200	4.180	1,179	3.2295	SEP	Blue Pack
EDAZ12	95.6850	4.315	1,270	3.4788	DEC	
EDAH13	95.5850	4.415	1,361	3.7281	MAR	
EDAM13	95.5100	4.490	1,452	3.9774	JUN	
EDAU13	95.3800	4.620	1,543	4.2267	SEP	Gold Pack
EDAZ13	95.2800	4.720	1,634	4.4761	DEC	
EDAH14	95.2500	4.750	1,725	4.7254	MAR	
EDAM14	95.1950	4.805	1,816	4.9747	JUN	

Pack Prices

	Last Yield	Net Yield	Last Price
White Pack	1.043	-0.500	9897.38
Red Pack	2.504	-0.750	9754.63
Green Pack	3.783	-1.375	9630.38
Blue Pack	4.459	-2.625	9565.00
Gold Pack	4.847	-4.625	9527.63

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

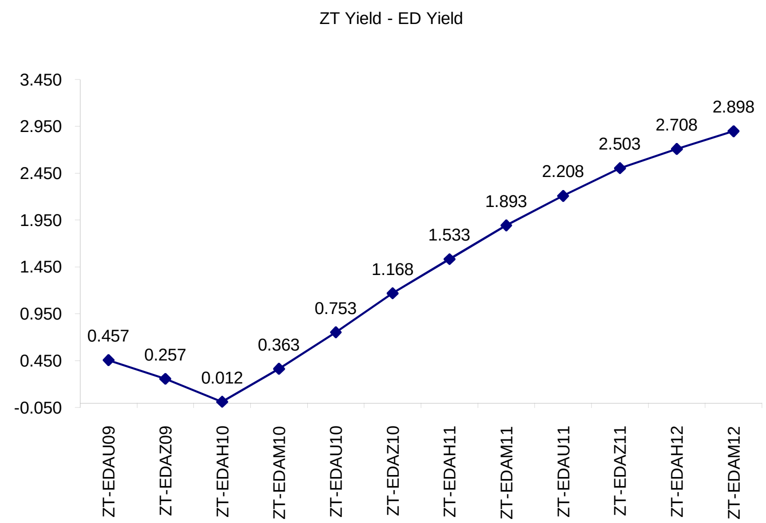
Correlations (Important)

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.

Dirty TED: ZT vs Eurodollar Contracts

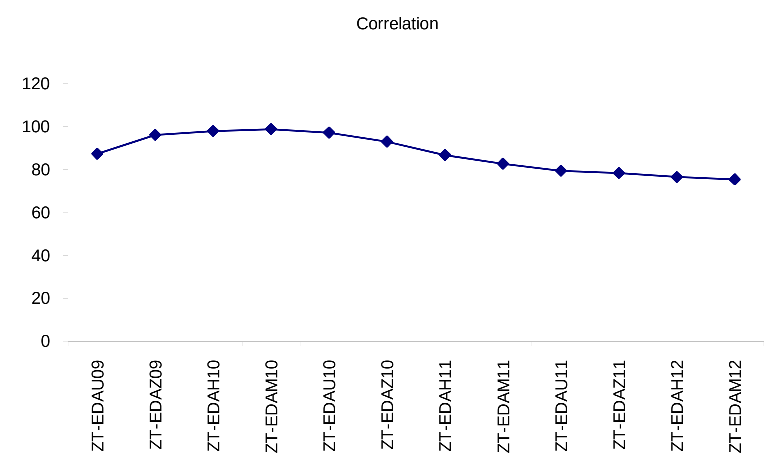
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	8.70	0.457	ZT-EDAU09	87
EDAZ09	8.90	0.257	ZT-EDAZ09	96
EDAH10	9.14	0.012	ZT-EDAH10	98
EDAM10	9.52	0.363	ZT-EDAM10	99
EDAU10	9.91	0.753	ZT-EDAU10	97
EDAZ10	10.32	1.168	ZT-EDAZ10	93
EDAH11	10.69	1.533	ZT-EDAH11	87
EDAM11	11.05	1.893	ZT-EDAM11	83
EDAU11	11.36	2.208	ZT-EDAU11	79
EDAZ11	11.66	2.503	ZT-EDAZ11	78
EDAH12	11.86	2.708	ZT-EDAH12	76
EDAM12	12.05	2.898	ZT-EDAM12	75

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	0.2185	1.8769	1.6584	ZT-EDAU09
EDAZ09	0.4678	1.8769	1.4091	ZT-EDAZ09
EDAH10	0.7172	1.8769	1.1598	ZT-EDAH10
EDAM10	0.9665	1.8769	0.9105	ZT-EDAM10
EDAU10	1.2158	1.8769	0.6612	ZT-EDAU10
EDAZ10	1.4651	1.8769	0.4118	ZT-EDAZ10
EDAH11	1.7144	1.8769	0.1625	ZT-EDAH11
EDAM11	1.9637	1.8769	-0.0868	ZT-EDAM11
EDAU11	2.2322	1.8769	-0.3553	ZT-EDAU11
EDAZ11	2.4815	1.8769	-0.6046	ZT-EDAZ11
EDAH12	2.7309	1.8769	-0.8539	ZT-EDAH12
EDAM12	2.9802	1.8769	-1.1032	ZT-EDAM12

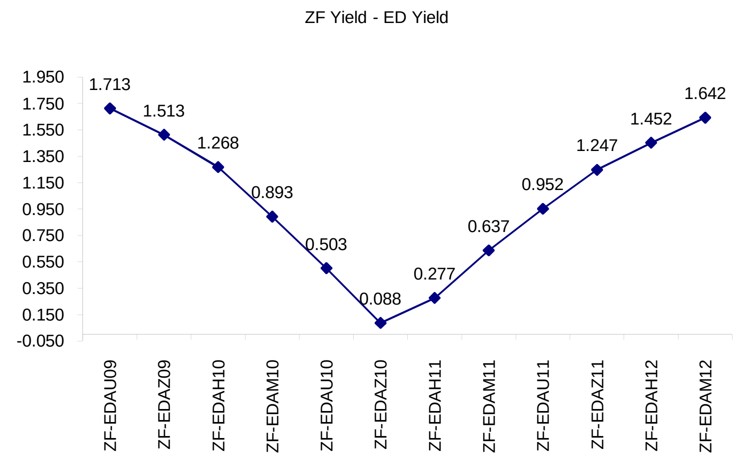
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	15.17	1.713	ZF-EDAU09	96
EDAZ09	15.37	1.513	ZF-EDAZ09	92
EDAH10	15.61	1.268	ZF-EDAH10	93
EDAM10	15.99	0.893	ZF-EDAM10	96
EDAU10	16.38	0.503	ZF-EDAU10	98
EDAZ10	16.79	0.088	ZF-EDAZ10	98
EDAH11	17.16	0.277	ZF-EDAH11	97
EDAM11	17.52	0.637	ZF-EDAM11	96
EDAU11	17.83	0.952	ZF-EDAU11	94
EDAZ11	18.13	1.247	ZF-EDAZ11	94
EDAH12	18.33	1.452	ZF-EDAH12	93
EDAM12	18.52	1.642	ZF-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	ZF Duration	Spread Duration	
EDAU09	0.2185	4.1951	3.9766	ZF-EDAU09
EDAZ09	0.4678	4.1951	3.7273	ZF-EDAZ09
EDAH10	0.7172	4.1951	3.4779	ZF-EDAH10
EDAM10	0.9665	4.1951	3.2286	ZF-EDAM10
EDAU10	1.2158	4.1951	2.9793	ZF-EDAU10
EDAZ10	1.4651	4.1951	2.7300	ZF-EDAZ10
EDAH11	1.7144	4.1951	2.4807	ZF-EDAH11
EDAM11	1.9637	4.1951	2.2314	ZF-EDAM11
EDAU11	2.2322	4.1951	1.9629	ZF-EDAU11
EDAZ11	2.4815	4.1951	1.7136	ZF-EDAZ11
EDAH12	2.7309	4.1951	1.4642	ZF-EDAH12
EDAM12	2.9802	4.1951	1.2149	ZF-EDAM12

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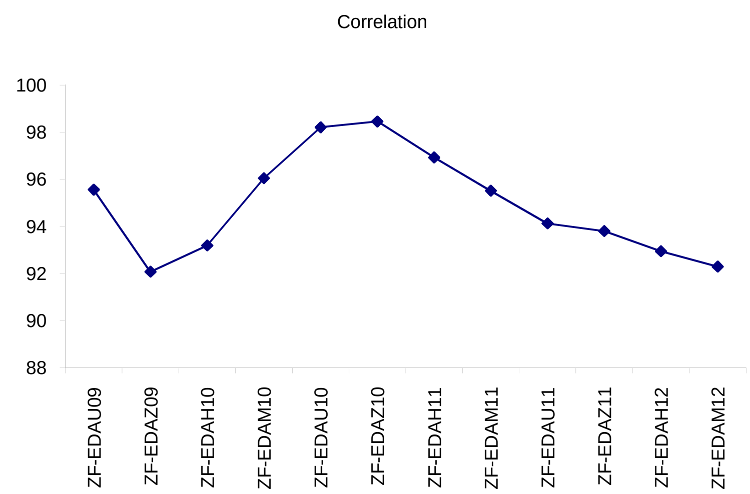
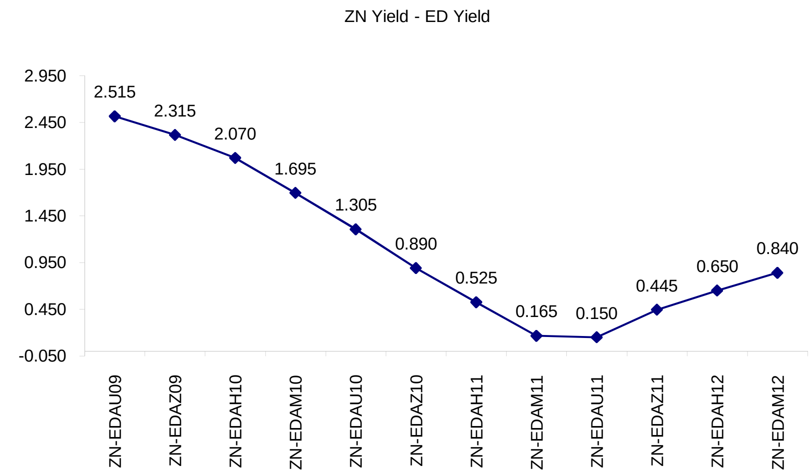


Dirty TED: ZN vs Eurodollar Contracts

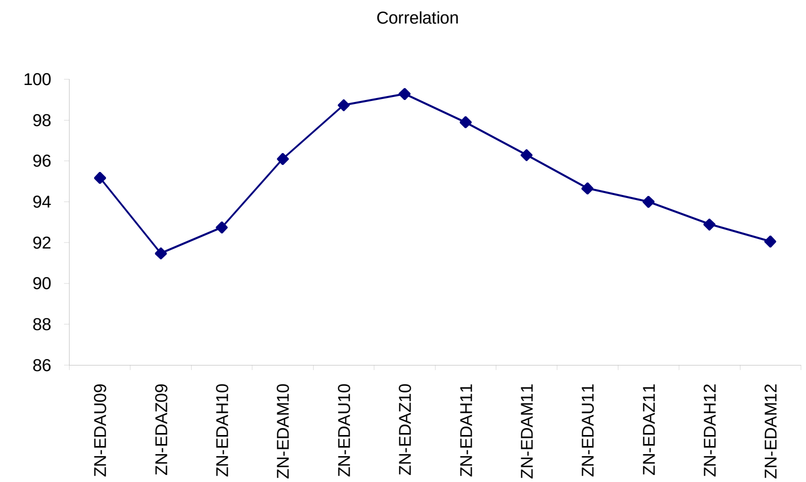
	ZN			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	16.68	2.515	ZN-EDAU09	95
EDAZ09	16.88	2.315	ZN-EDAZ09	91
EDAH10	17.12	2.070	ZN-EDAH10	93
EDAM10	17.50	1.695	ZN-EDAM10	96
EDAU10	17.89	1.305	ZN-EDAU10	99
EDAZ10	18.30	0.890	ZN-EDAZ10	99
EDAH11	18.67	0.525	ZN-EDAH11	98
EDAM11	19.03	0.165	ZN-EDAM11	96
EDAU11	19.34	0.150	ZN-EDAU11	95
EDAZ11	19.64	0.445	ZN-EDAZ11	94
EDAH12	19.84	0.650	ZN-EDAH12	93
EDAM12	20.03	0.840	ZN-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	ZN Duration	Spread Duration	
EDAU09	0.2185	5.8232	5.6047	ZN-EDAU09
EDAZ09	0.4678	5.8232	5.3554	ZN-EDAZ09
EDAH10	0.7172	5.8232	5.1060	ZN-EDAH10
EDAM10	0.9665	5.8232	4.8567	ZN-EDAM10
EDAU10	1.2158	5.8232	4.6074	ZN-EDAU10
EDAZ10	1.4651	5.8232	4.3581	ZN-EDAZ10
EDAH11	1.7144	5.8232	4.1088	ZN-EDAH11
EDAM11	1.9637	5.8232	3.8595	ZN-EDAM11
EDAU11	2.2322	5.8232	3.5910	ZN-EDAU11
EDAZ11	2.4815	5.8232	3.3417	ZN-EDAZ11
EDAH12	2.7309	5.8232	3.0924	ZN-EDAH12
EDAM12	2.9802	5.8232	2.8430	ZN-EDAM12

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**	**Correlation* (percent)**
EDAU09	0.65	0.465	2y-EDAU09	-66
EDAZ09	0.85	0.265	2y-EDAZ09	-76
EDAH10	1.10	0.020	2y-EDAH10	-80
EDAM10	1.47	0.355	2y-EDAM10	-83
EDAU10	1.86	0.745	2y-EDAU10	-83
EDAZ10	2.28	1.160	2y-EDAZ10	-80
EDAH11	2.64	1.525	2y-EDAH11	-75
EDAM11	3.00	1.885	2y-EDAM11	-72
EDAU11	3.32	2.200	2y-EDAU11	-68
EDAZ11	3.61	2.495	2y-EDAZ11	-66
EDAH12	3.82	2.700	2y-EDAH12	-64
EDAM12	4.01	2.890	2y-EDAM12	-62

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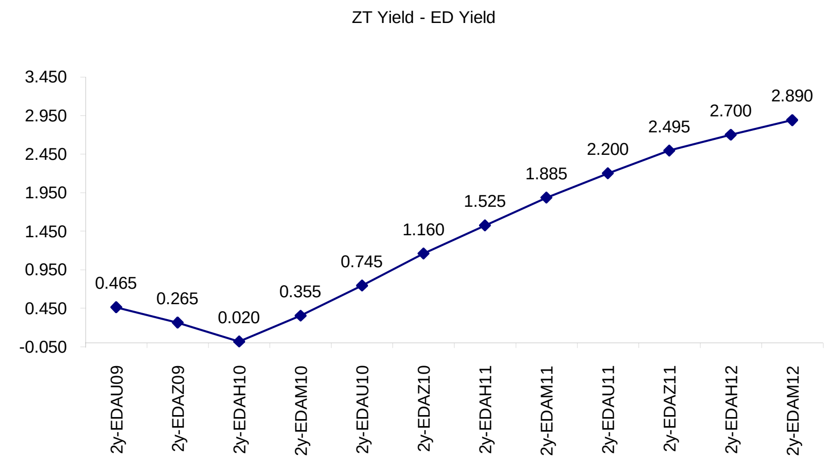

	ED Duration as Fraction of year	**2Y Duration**	**Spread Duration**	
EDAU09	0.2185	1.9639	1.7454	2y-EDAU09
EDAZ09	0.4678	1.9639	1.4961	2y-EDAZ09
EDAH10	0.7172	1.9639	1.2467	2y-EDAH10
EDAM10	0.9665	1.9639	0.9974	2y-EDAM10
EDAU10	1.2158	1.9639	0.7481	2y-EDAU10
EDAZ10	1.4651	1.9639	0.4988	2y-EDAZ10
EDAH11	1.7144	1.9639	0.2495	2y-EDAH11
EDAM11	1.9637	1.9639	0.0002	2y-EDAM11
EDAU11	2.2322	1.9639	-0.2683	2y-EDAU11
EDAZ11	2.4815	1.9639	-0.5176	2y-EDAZ11
EDAH12	2.7309	1.9639	-0.7670	2y-EDAH12
EDAM12	2.9802	1.9639	-1.0163	2y-EDAM12

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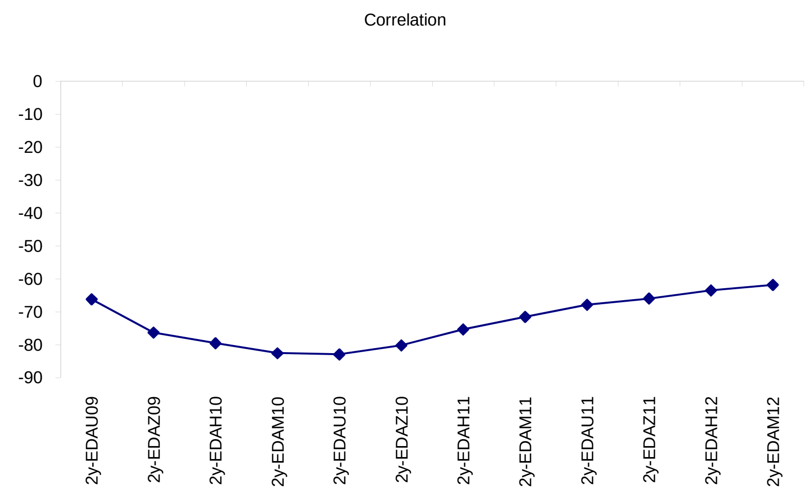
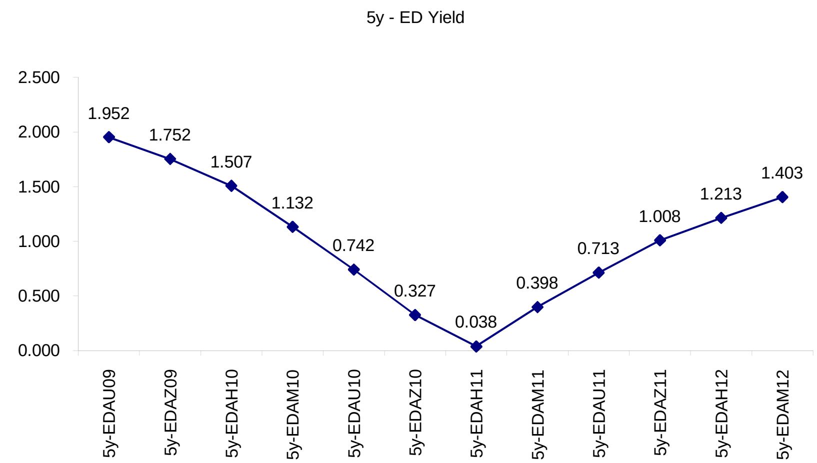


TERM TED: 5y vs Eurodollar Contracts

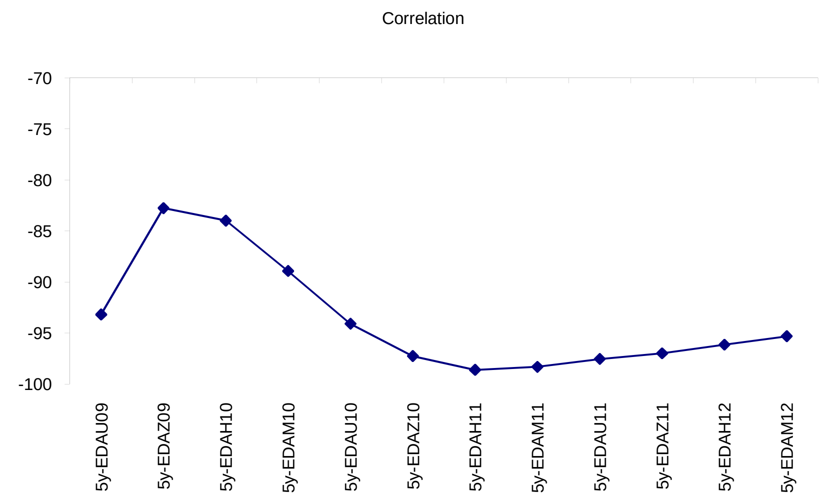
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	0.72	1.952	5y-EDAU09	-93
EDAZ09	0.92	1.752	5y-EDAZ09	-83
EDAH10	1.17	1.507	5y-EDAH10	-84
EDAM10	1.54	1.132	5y-EDAM10	-89
EDAU10	1.93	0.742	5y-EDAU10	-94
EDAZ10	2.35	0.327	5y-EDAZ10	-97
EDAH11	2.71	0.038	5y-EDAH11	-99
EDAM11	3.07	0.398	5y-EDAM11	-98
EDAU11	3.39	0.713	5y-EDAU11	-98
EDAZ11	3.68	1.008	5y-EDAZ11	-97
EDAH12	3.89	1.213	5y-EDAH12	-96
EDAM12	4.08	1.403	5y-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	5Y Duration	Spread Duration	
EDAU09	0.2185	4.6018	4.3832	5y-EDAU09
EDAZ09	0.4678	4.6018	4.1339	5y-EDAZ09
EDAH10	0.7172	4.6018	3.8846	5y-EDAH10
EDAM10	0.9665	4.6018	3.6353	5y-EDAM10
EDAU10	1.2158	4.6018	3.3860	5y-EDAU10
EDAZ10	1.4651	4.6018	3.1367	5y-EDAZ10
EDAH11	1.7144	4.6018	2.8873	5y-EDAH11
EDAM11	1.9637	4.6018	2.6380	5y-EDAM11
EDAU11	2.2322	4.6018	2.3695	5y-EDAU11
EDAZ11	2.4815	4.6018	2.1202	5y-EDAZ11
EDAH12	2.7309	4.6018	1.8709	5y-EDAH12
EDAM12	2.9802	4.6018	1.6216	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	2.909	10y-EDAU09	-96
EDAZ09	0.92	2.709	10y-EDAZ09	-89
EDAH10	1.17	2.464	10y-EDAH10	-90
EDAM10	1.54	2.089	10y-EDAM10	-92
EDAU10	1.93	1.699	10y-EDAU10	-95
EDAZ10	2.35	1.284	10y-EDAZ10	-95
EDAH11	2.71	0.919	10y-EDAH11	-95
EDAM11	3.07	0.559	10y-EDAM11	-93
EDAU11	3.39	0.244	10y-EDAU11	-91
EDAZ11	3.68	0.051	10y-EDAZ11	-90
EDAH12	3.89	0.256	10y-EDAH12	-89
EDAM12	4.08	0.446	10y-EDAM12	-88

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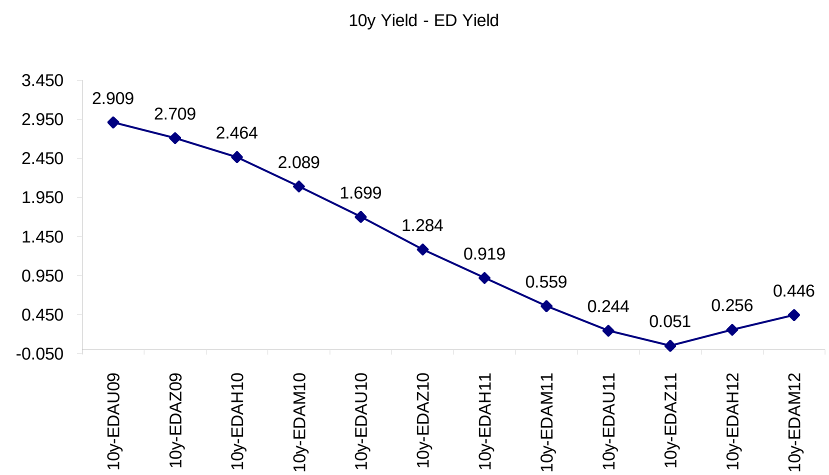


	ED Duration as Fraction of year	10Y Duration	Spread Duration	
EDAU09	0.2185	8.3621	8.1436	10y-EDAU09
EDAZ09	0.4678	8.3621	7.8942	10y-EDAZ09
EDAH10	0.7172	8.3621	7.6449	10y-EDAH10
EDAM10	0.9665	8.3621	7.3956	10y-EDAM10
EDAU10	1.2158	8.3621	7.1463	10y-EDAU10
EDAZ10	1.4651	8.3621	6.8970	10y-EDAZ10
EDAH11	1.7144	8.3621	6.6477	10y-EDAH11
EDAM11	1.9637	8.3621	6.3984	10y-EDAM11
EDAU11	2.2322	8.3621	6.1299	10y-EDAU11
EDAZ11	2.4815	8.3621	5.8805	10y-EDAZ11
EDAH12	2.7309	8.3621	5.6312	10y-EDAH12
EDAM12	2.9802	8.3621	5.3819	10y-EDAM12

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

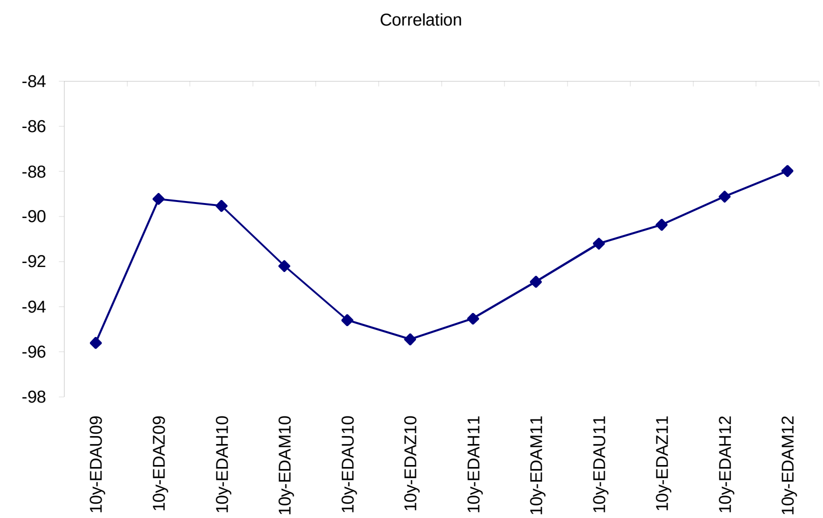
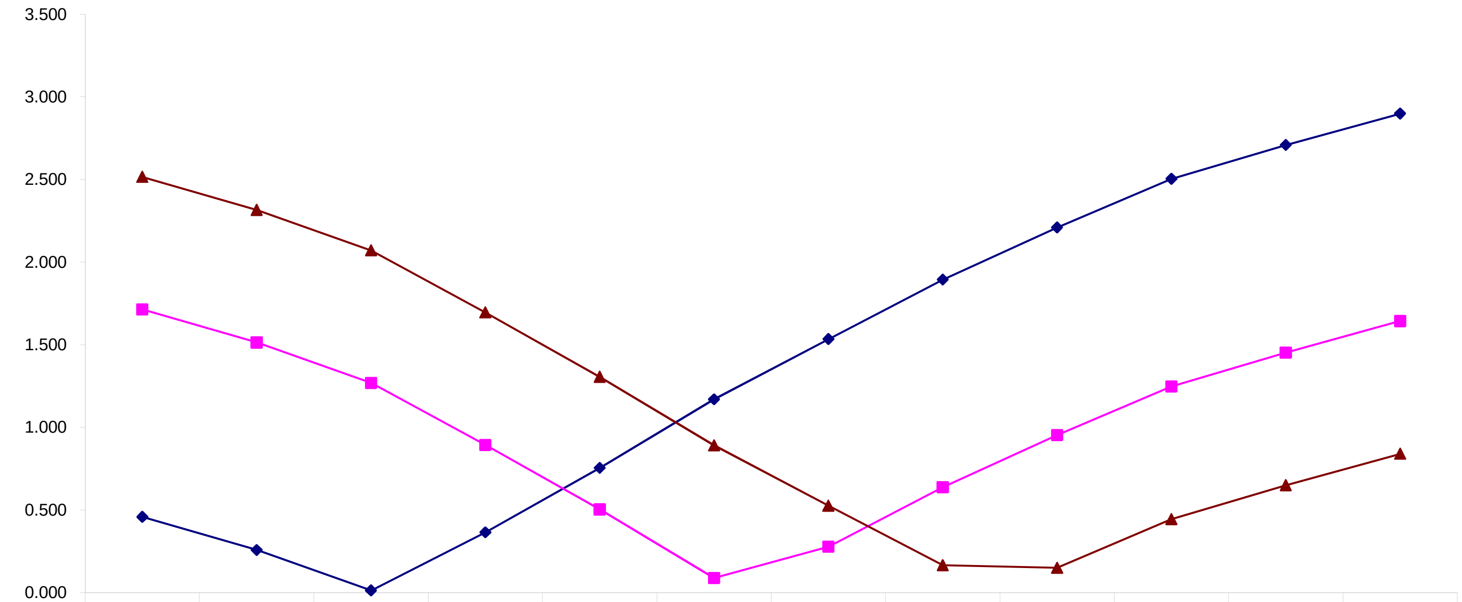


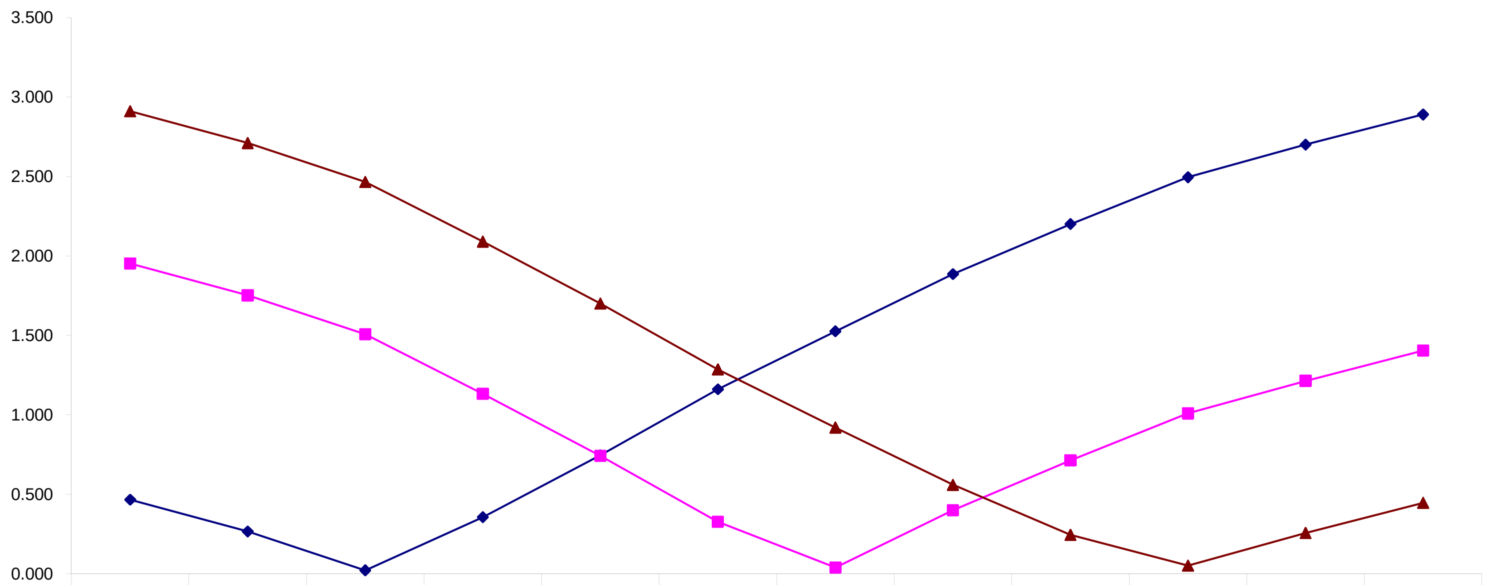
Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart.
Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



ZT	0.457	0.257	0.012	0.363	0.753	1.168	1.533	1.893	2.208	2.503	2.708	2.898
ZF	1.713	1.513	1.268	0.893	0.503	0.088	0.277	0.637	0.952	1.247	1.452	1.642
ZN	2.515	2.315	2.070	1.695	1.305	0.890	0.525	0.165	0.150	0.445	0.650	0.840

ZT ZF ZN

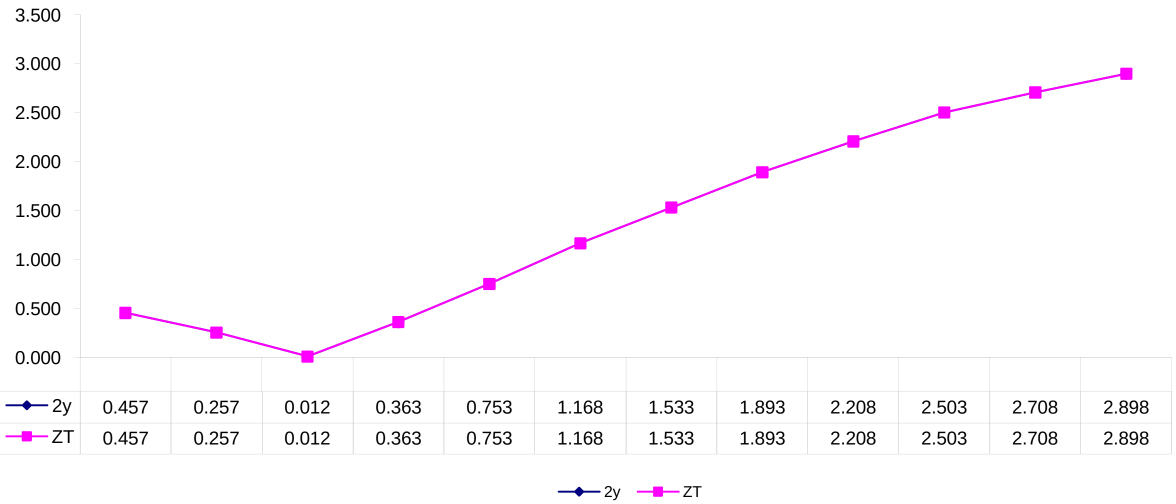
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart.
Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



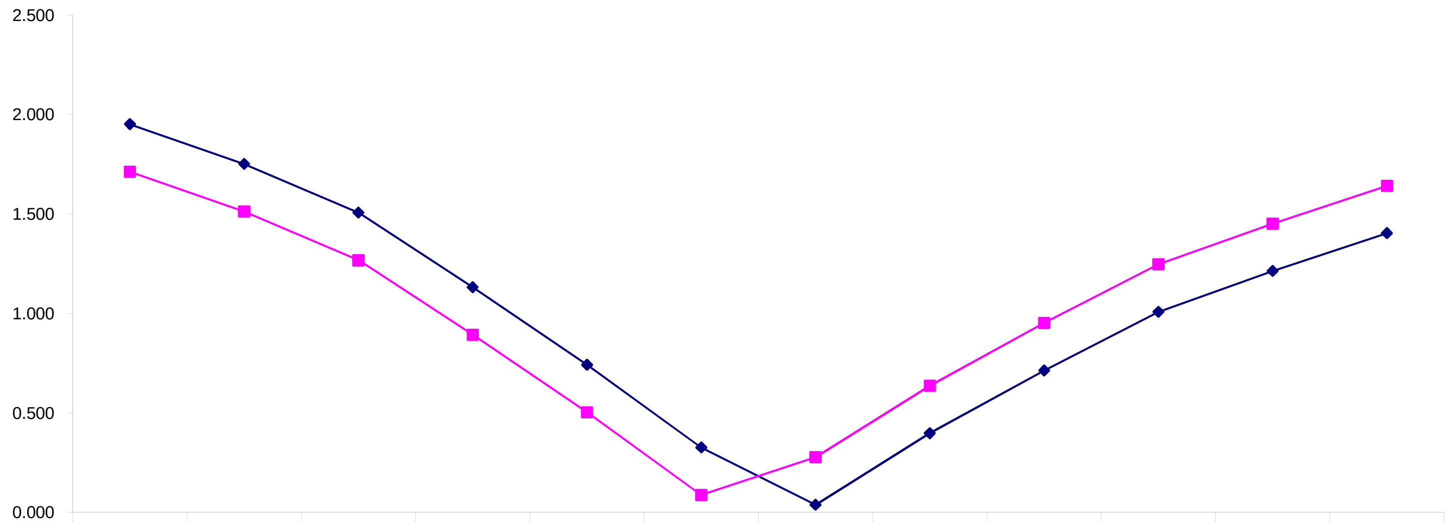
2y	0.465	0.265	0.020	0.355	0.745	1.160	1.525	1.885	2.200	2.495	2.700	2.890
5y	1.952	1.752	1.507	1.132	0.742	0.327	0.038	0.398	0.713	1.008	1.213	1.403
10y	2.909	2.709	2.464	2.089	1.699	1.284	0.919	0.559	0.244	0.051	0.256	0.446

2y 5y 10y

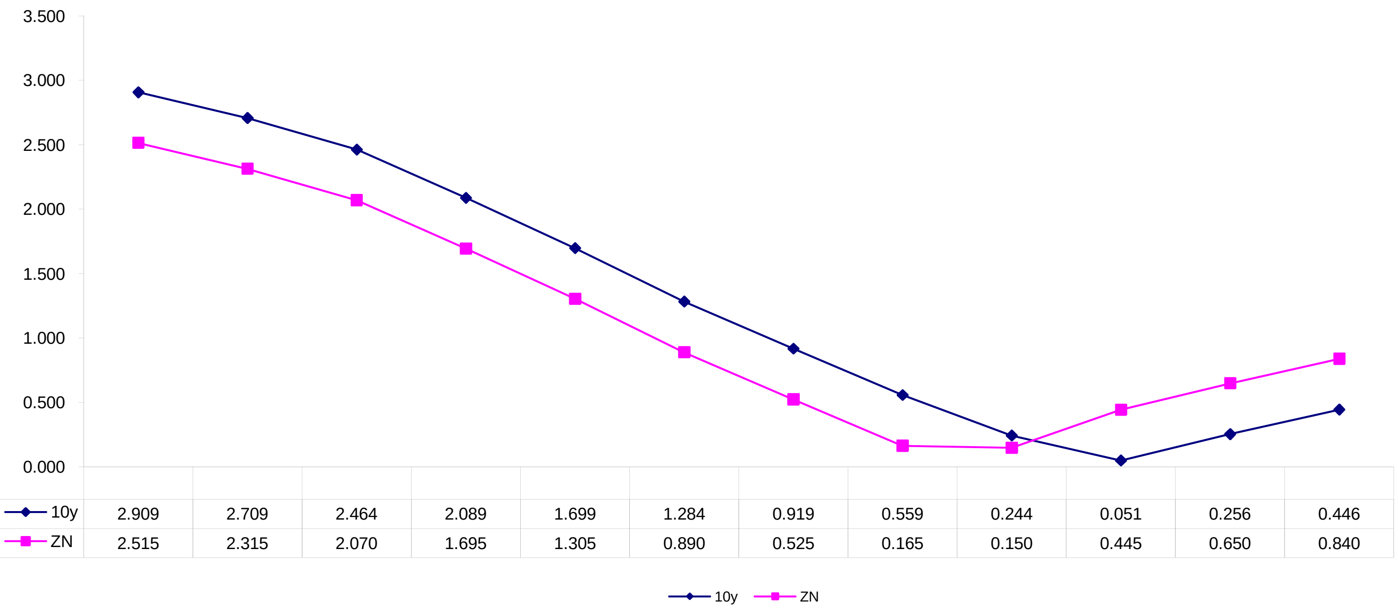
2y Basis TED Curve



2y	0.457	0.257	0.012	0.363	0.753	1.168	1.533	1.893	2.208	2.503	2.708	2.898
ZT	0.457	0.257	0.012	0.363	0.753	1.168	1.533	1.893	2.208	2.503	2.708	2.898



5y	1.952	1.752	1.507	1.132	0.742	0.327	0.038	0.398	0.713	1.008	1.213	1.403
ZF	1.713	1.513	1.268	0.893	0.503	0.088	0.277	0.637	0.952	1.247	1.452	1.642



10y	2.909	2.709	2.464	2.089	1.699	1.284	0.919	0.559	0.244	0.051	0.256	0.446
ZN	2.515	2.315	2.070	1.695	1.305	0.890	0.525	0.165	0.150	0.445	0.650	0.840

	Last Yield	Net Last Yield	Last Price
White Pack	1.043	-0.500	9897.3750
Red Pack	2.504	-0.750	9754.6250
Green Pack	3.783	-1.375	9630.3750
Blue Pack	4.459	-2.625	9565.0000
Gold Pack	4.847	-4.625	9527.6250