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	107.8594	107.2750	1.214	1.890
ZF	113.8344	113.2670	2.506	4.205
ZN	115.0781	115.0250	3.296	5.829
2y	99.4688	99.1500	1.154	1.910
5y	97.8594	97.2750	2.717	4.626
10y	95.3594	95.1150	3.689	8.362

Eurodollars (ED)

	Last Price	Last Imp Yield	Days til Expr.	Fraction of year	Month	
EDAU09	99.2550	0.745	83	0.2268	SEP	
EDAZ09	98.9900	1.010	174	0.4761	DEC	White
EDAH10	98.7150	1.285	265	0.7254	MAR	Pack
EDAM10	98.3450	1.655	356	0.9747	JUN	
EDAU10	97.9600	2.040	447	1.2240	SEP	
EDAZ10	97.5450	2.455	538	1.4733	DEC	Red
EDAH11	97.1800	2.820	629	1.7226	MAR	Pack
EDAM11	96.8150	3.185	720	1.9720	JUN	
EDAU11	96.4900	3.510	818	2.2405	SEP	
EDAZ11	96.1900	3.810	909	2.4898	DEC	Green
EDAH12	95.9750	4.025	1,000	2.7391	MAR	Pack
EDAM12	95.7800	4.220	1,091	2.9884	JUN	
EDAU12	95.6250	4.375	1,182	3.2377	SEP	
EDAZ12	95.4800	4.520	1,273	3.4870	DEC	Blue Pack
EDAH13	95.3900	4.610	1,364	3.7363	MAR	
EDAM13	95.2800	4.720	1,455	3.9857	JUN	
EDAU13	95.1600	4.840	1,546	4.2350	SEP	
EDAZ13	95.0650	4.935	1,637	4.4843	DEC	Gold Pack
EDAH14	95.0150	4.985	1,728	4.7336	MAR	
EDAM14	94.9650	5.035	1,819	4.9829	JUN	

	Last Yield	Net Yield	Last Price	
White Pack	1.194	-1.625	9882.63	
Red Pack	2.680	-2.375	9737.50	
Green Pack	3.984	-2.250	9610.88	Pack Prices
Blue Pack	4.673	-0.875	9544.38	
Gold Pack		0.375	9505.63	

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

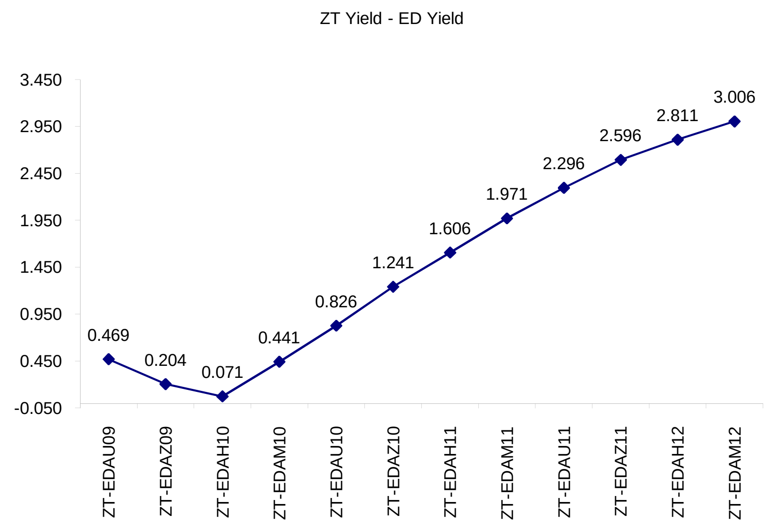
Correlations (Important)

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

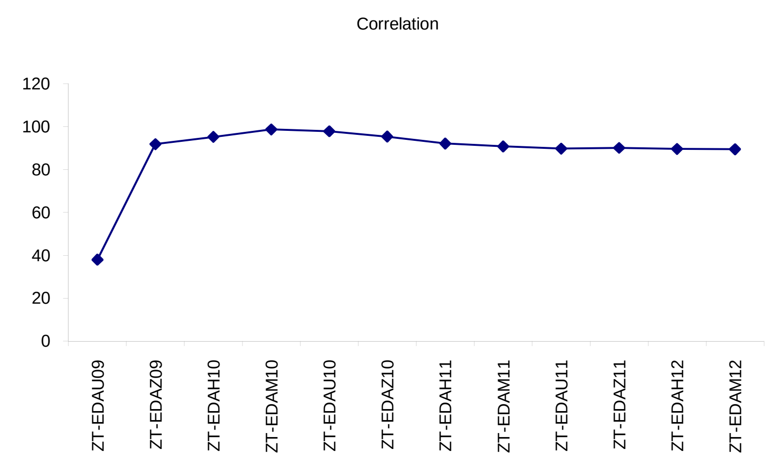
	ZT			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	8.60	0.469	ZT-EDAU09	38
EDAZ09	8.87	0.204	ZT-EDAZ09	92
EDAH10	9.14	0.071	ZT-EDAH10	95
EDAM10	9.51	0.441	ZT-EDAM10	99
EDAU10	9.90	0.826	ZT-EDAU10	98
EDAZ10	10.31	1.241	ZT-EDAZ10	95
EDAH11	10.68	1.606	ZT-EDAH11	92
EDAM11	11.04	1.971	ZT-EDAM11	91
EDAU11	11.37	2.296	ZT-EDAU11	90
EDAZ11	11.67	2.596	ZT-EDAZ11	90
EDAH12	11.88	2.811	ZT-EDAH12	90
EDAM12	12.08	3.006	ZT-EDAM12	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	ZT Duration	Spread Duration	
EDAU09	0.2268	1.8896	1.6629	ZT-EDAU09
EDAZ09	0.4761	1.8896	1.4135	ZT-EDAZ09
EDAH10	0.7254	1.8896	1.1642	ZT-EDAH10
EDAM10	0.9747	1.8896	0.9149	ZT-EDAM10
EDAU10	1.2240	1.8896	0.6656	ZT-EDAU10
EDAZ10	1.4733	1.8896	0.4163	ZT-EDAZ10
EDAH11	1.7226	1.8896	0.1670	ZT-EDAH11
EDAM11	1.9720	1.8896	-0.0823	ZT-EDAM11
EDAU11	2.2405	1.8896	-0.3508	ZT-EDAU11
EDAZ11	2.4898	1.8896	-0.6002	ZT-EDAZ11
EDAH12	2.7391	1.8896	-0.8495	ZT-EDAH12
EDAM12	2.9884	1.8896	-1.0988	ZT-EDAM12

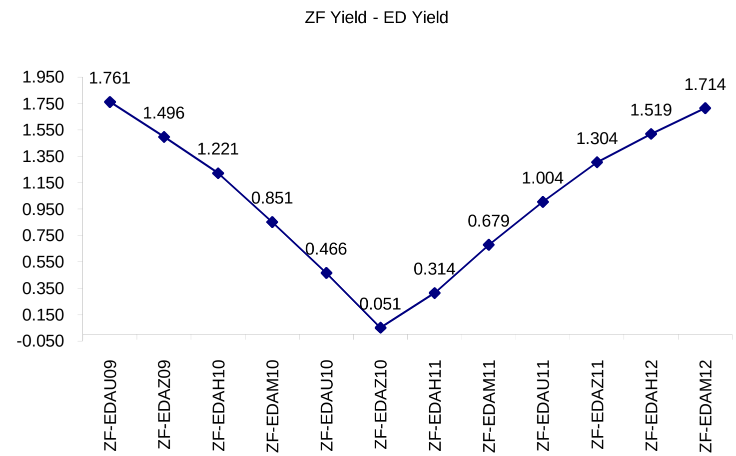
The farther away from 0 the spread duration is the riskier the trade.



Dirty TED: ZF vs Eurodollar Contracts

	ZF			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	14.58	1.761	ZF-EDAU09	64
EDAZ09	14.84	1.496	ZF-EDAZ09	91
EDAH10	15.12	1.221	ZF-EDAH10	81
EDAM10	15.49	0.851	ZF-EDAM10	95
EDAU10	15.87	0.466	ZF-EDAU10	97
EDAZ10	16.29	0.051	ZF-EDAZ10	98
EDAH11	16.65	0.314	ZF-EDAH11	97
EDAM11	17.02	0.679	ZF-EDAM11	97
EDAU11	17.34	1.004	ZF-EDAU11	97
EDAZ11	17.64	1.304	ZF-EDAZ11	96
EDAH12	17.86	1.519	ZF-EDAH12	96
EDAM12	18.05	1.714	ZF-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	ZF Duration	Spread Duration	
EDAU09	0.2268	4.2052	3.9785	ZF-EDAU09
EDAZ09	0.4761	4.2052	3.7292	ZF-EDAZ09
EDAH10	0.7254	4.2052	3.4798	ZF-EDAH10
EDAM10	0.9747	4.2052	3.2305	ZF-EDAM10
EDAU10	1.2240	4.2052	2.9812	ZF-EDAU10
EDAZ10	1.4733	4.2052	2.7319	ZF-EDAZ10
EDAH11	1.7226	4.2052	2.4826	ZF-EDAH11
EDAM11	1.9720	4.2052	2.2333	ZF-EDAM11
EDAU11	2.2405	4.2052	1.9648	ZF-EDAU11
EDAZ11	2.4898	4.2052	1.7155	ZF-EDAZ11
EDAH12	2.7391	4.2052	1.4661	ZF-EDAH12
EDAM12	2.9884	4.2052	1.2168	ZF-EDAM12

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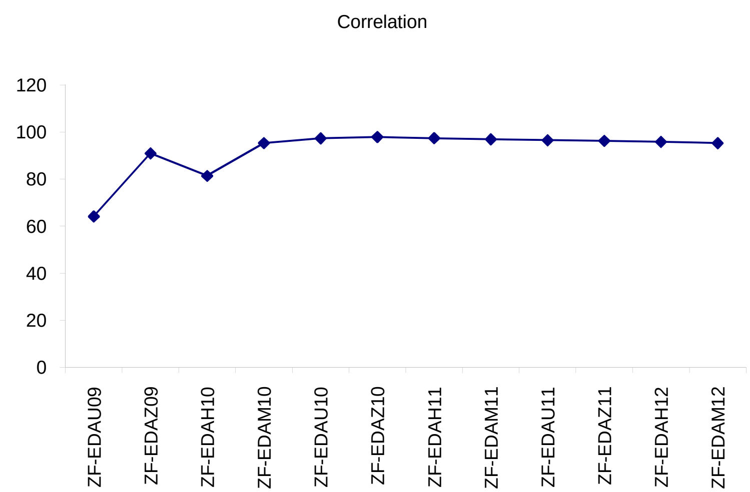
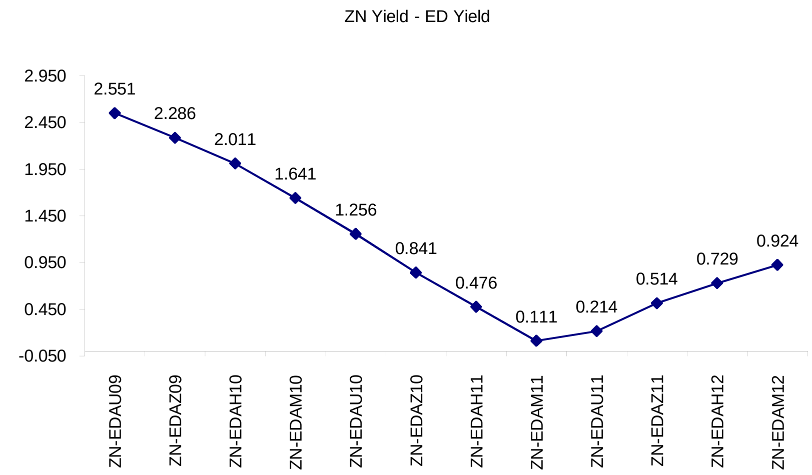


Dirty TED: ZN vs Eurodollar Contracts

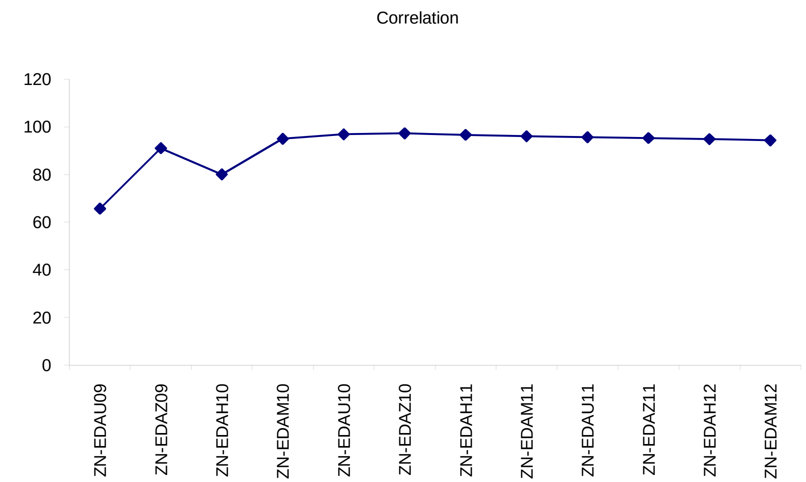
	ZN			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	15.82	2.551	ZN-EDAU09	66
EDAZ09	16.09	2.286	ZN-EDAZ09	91
EDAH10	16.36	2.011	ZN-EDAH10	80
EDAM10	16.73	1.641	ZN-EDAM10	95
EDAU10	17.12	1.256	ZN-EDAU10	97
EDAZ10	17.53	0.841	ZN-EDAZ10	97
EDAH11	17.90	0.476	ZN-EDAH11	97
EDAM11	18.26	0.111	ZN-EDAM11	96
EDAU11	18.59	0.214	ZN-EDAU11	96
EDAZ11	18.89	0.514	ZN-EDAZ11	95
EDAH12	19.10	0.729	ZN-EDAH12	95
EDAM12	19.30	0.924	ZN-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	ZN Duration	Spread Duration	
EDAU09	0.2268	5.8291	5.6023	ZN-EDAU09
EDAZ09	0.4761	5.8291	5.3530	ZN-EDAZ09
EDAH10	0.7254	5.8291	5.1037	ZN-EDAH10
EDAM10	0.9747	5.8291	4.8544	ZN-EDAM10
EDAU10	1.2240	5.8291	4.6051	ZN-EDAU10
EDAZ10	1.4733	5.8291	4.3557	ZN-EDAZ10
EDAH11	1.7226	5.8291	4.1064	ZN-EDAH11
EDAM11	1.9720	5.8291	3.8571	ZN-EDAM11
EDAU11	2.2405	5.8291	3.5886	ZN-EDAU11
EDAZ11	2.4898	5.8291	3.3393	ZN-EDAZ11
EDAH12	2.7391	5.8291	3.0900	ZN-EDAH12
EDAM12	2.9884	5.8291	2.8407	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	0.21	0.409	2y-EDAU09	-38
EDAZ09	0.48	0.144	2y-EDAZ09	-93
EDAH10	0.75	0.131	2y-EDAH10	-94
EDAM10	1.12	0.501	2y-EDAM10	-98
EDAU10	1.51	0.886	2y-EDAU10	-97
EDAZ10	1.92	1.301	2y-EDAZ10	-94
EDAH11	2.29	1.666	2y-EDAH11	-91
EDAM11	2.65	2.031	2y-EDAM11	-90
EDAU11	2.98	2.356	2y-EDAU11	-89
EDAZ11	3.28	2.656	2y-EDAZ11	-89
EDAH12	3.49	2.871	2y-EDAH12	-89
EDAM12	3.69	3.066	2y-EDAM12	-89

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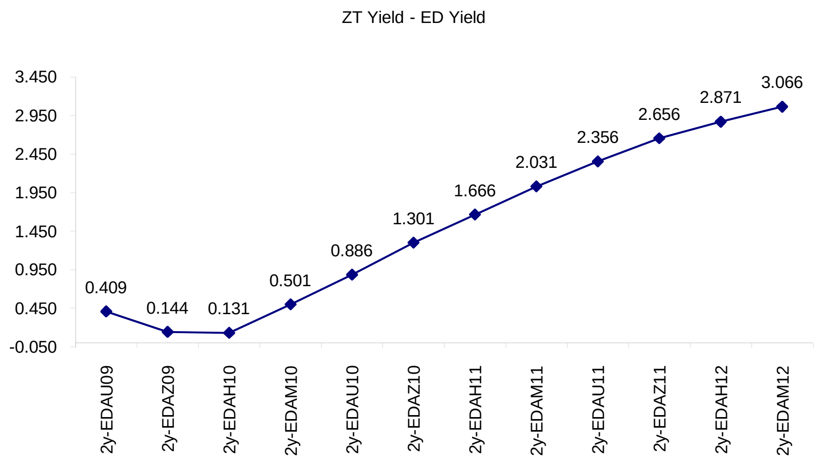
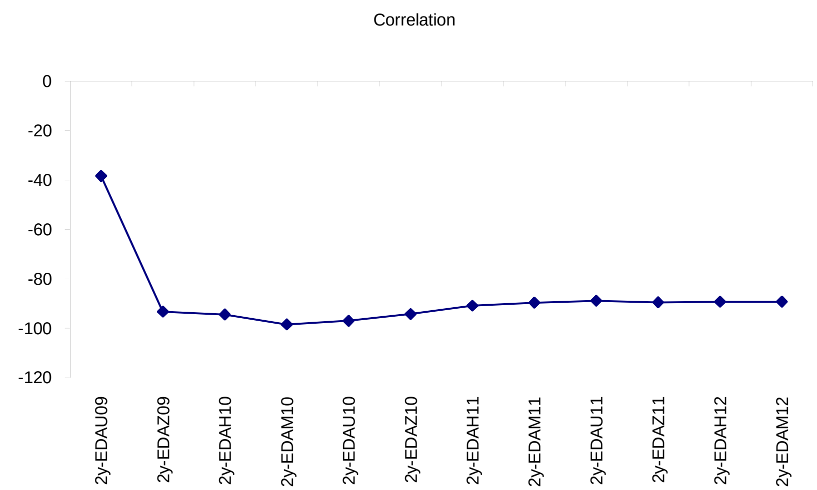


	ED Duration as Fraction of year	2Y Duration	Spread Duration	
EDAU09	0.2268	1.9098	1.6830	2y-EDAU09
EDAZ09	0.4761	1.9098	1.4337	2y-EDAZ09
EDAH10	0.7254	1.9098	1.1844	2y-EDAH10
EDAM10	0.9747	1.9098	0.9351	2y-EDAM10
EDAU10	1.2240	1.9098	0.6857	2y-EDAU10
EDAZ10	1.4733	1.9098	0.4364	2y-EDAZ10
EDAH11	1.7226	1.9098	0.1871	2y-EDAH11
EDAM11	1.9720	1.9098	-0.0622	2y-EDAM11
EDAU11	2.2405	1.9098	-0.3307	2y-EDAU11
EDAZ11	2.4898	1.9098	-0.5800	2y-EDAZ11
EDAH12	2.7391	1.9098	-0.8293	2y-EDAH12
EDAM12	2.9884	1.9098	-1.0786	2y-EDAM12

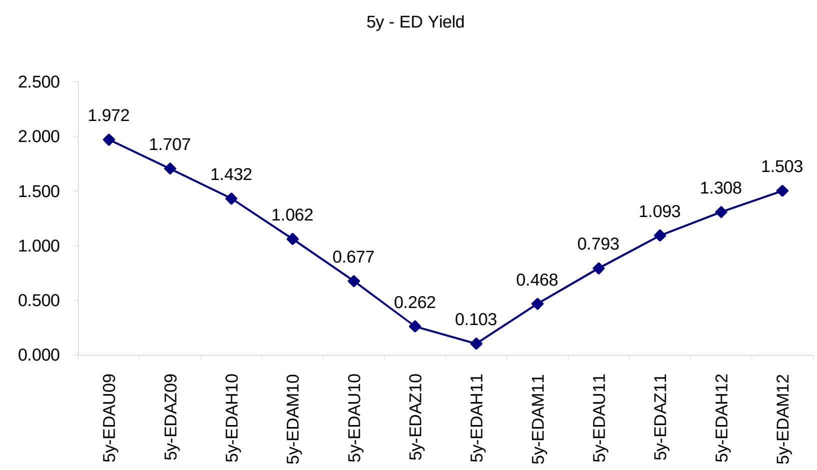
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 5y vs Eurodollar Contracts

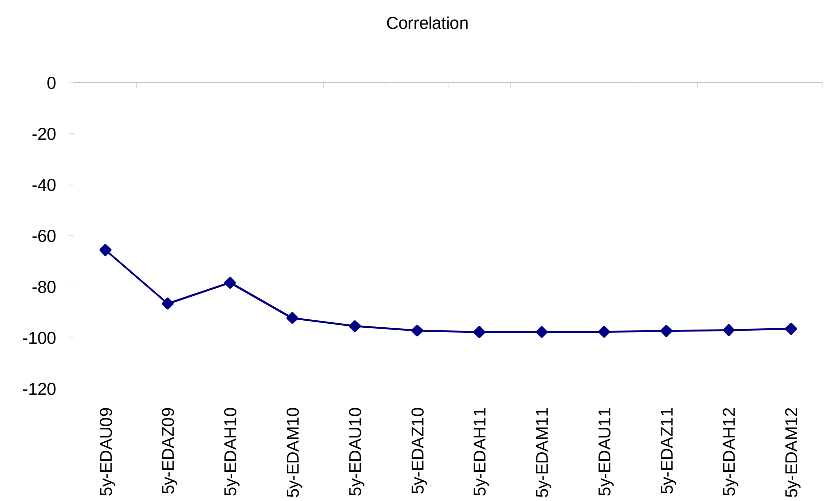
	5y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	-1.40	1.972	5y-EDAU09	-66
EDAZ09	-1.13	1.707	5y-EDAZ09	-87
EDAH10	-0.86	1.432	5y-EDAH10	-78
EDAM10	-0.49	1.062	5y-EDAM10	-92
EDAU10	-0.10	0.677	5y-EDAU10	-95
EDAZ10	0.31	0.262	5y-EDAZ10	-97
EDAH11	0.68	0.103	5y-EDAH11	-98
EDAM11	1.04	0.468	5y-EDAM11	-98
EDAU11	1.37	0.793	5y-EDAU11	-98
EDAZ11	1.67	1.093	5y-EDAZ11	-97
EDAH12	1.88	1.308	5y-EDAH12	-97
EDAM12	2.08	1.503	5y-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	5Y Duration	Spread Duration	
EDAU09	0.2268	4.6257	4.3990	5y-EDAU09
EDAZ09	0.4761	4.6257	4.1497	5y-EDAZ09
EDAH10	0.7254	4.6257	3.9004	5y-EDAH10
EDAM10	0.9747	4.6257	3.6510	5y-EDAM10
EDAU10	1.2240	4.6257	3.4017	5y-EDAU10
EDAZ10	1.4733	4.6257	3.1524	5y-EDAZ10
EDAH11	1.7226	4.6257	2.9031	5y-EDAH11
EDAM11	1.9720	4.6257	2.6538	5y-EDAM11
EDAU11	2.2405	4.6257	2.3853	5y-EDAU11
EDAZ11	2.4898	4.6257	2.1360	5y-EDAZ11
EDAH12	2.7391	4.6257	1.8867	5y-EDAH12
EDAM12	2.9884	4.6257	1.6373	5y-EDAM12

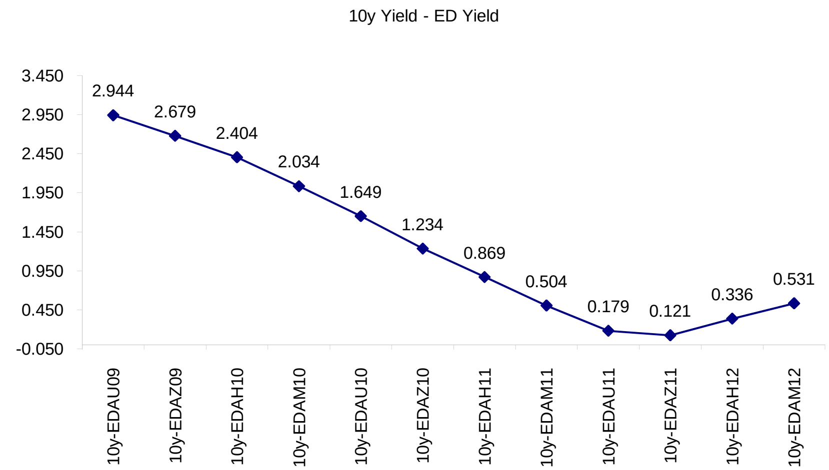
The farther away from 0 the spread duration is the riskier the trade.



TERM TED: 10y vs Eurodollar Contracts

	10y			
	Spread Price	Spread Yield	Spread Name	Correlation* (percent)
EDAU09	-1.40	2.944	10y-EDAU09	-61
EDAZ09	-1.13	2.679	10y-EDAZ09	-89
EDAH10	-0.86	2.404	10y-EDAH10	-83
EDAM10	-0.49	2.034	10y-EDAM10	-93
EDAU10	-0.10	1.649	10y-EDAU10	-95
EDAZ10	0.31	1.234	10y-EDAZ10	-96
EDAH11	0.68	0.869	10y-EDAH11	-96
EDAM11	1.04	0.504	10y-EDAM11	-96
EDAU11	1.37	0.179	10y-EDAU11	-96
EDAZ11	1.67	0.121	10y-EDAZ11	-96
EDAH12	1.88	0.336	10y-EDAH12	-95
EDAM12	2.08	0.531	10y-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	10Y Duration	Spread Duration	
EDAU09	0.2268	8.3621	8.1353	10y-EDAU09
EDAZ09	0.4761	8.3621	7.8860	10y-EDAZ09
EDAH10	0.7254	8.3621	7.6367	10y-EDAH10
EDAM10	0.9747	8.3621	7.3874	10y-EDAM10
EDAU10	1.2240	8.3621	7.1381	10y-EDAU10
EDAZ10	1.4733	8.3621	6.8887	10y-EDAZ10
EDAH11	1.7226	8.3621	6.6394	10y-EDAH11
EDAM11	1.9720	8.3621	6.3901	10y-EDAM11
EDAU11	2.2405	8.3621	6.1216	10y-EDAU11
EDAZ11	2.4898	8.3621	5.8723	10y-EDAZ11
EDAH12	2.7391	8.3621	5.6230	10y-EDAH12
EDAM12	2.9884	8.3621	5.3737	10y-EDAM12

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

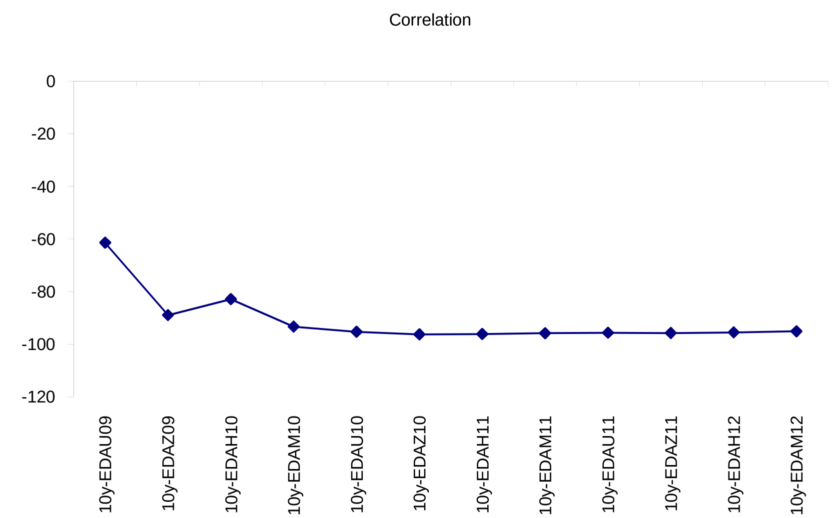
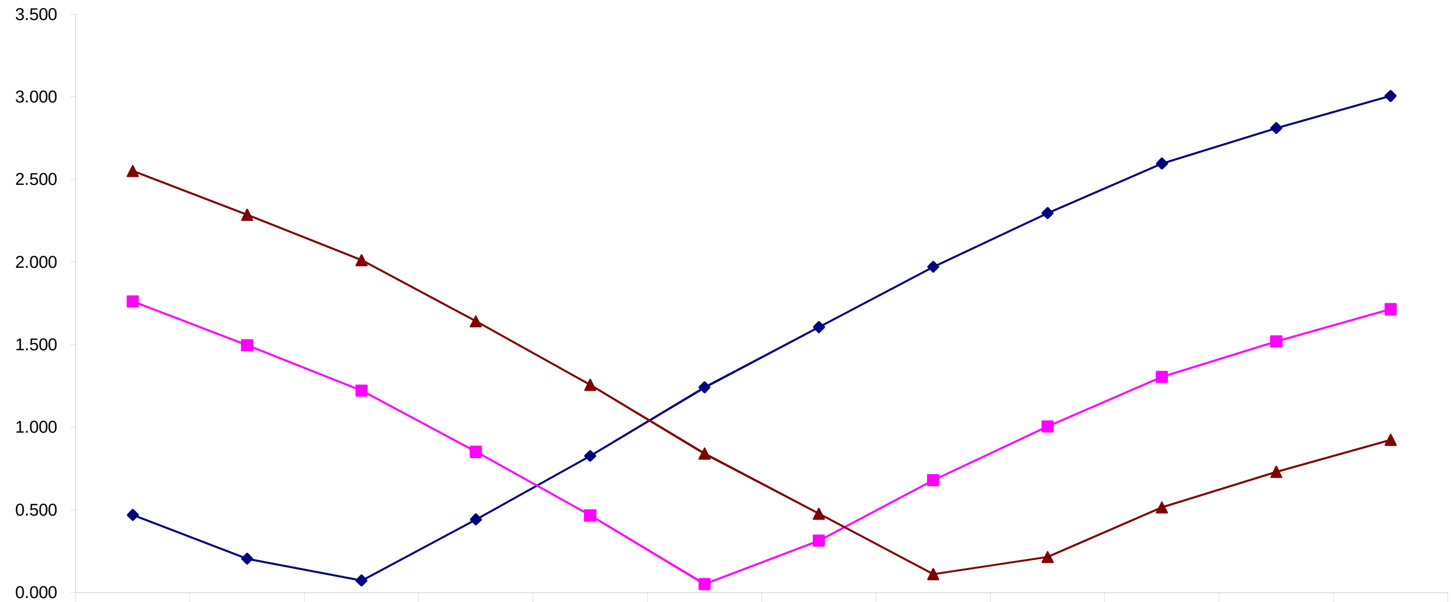


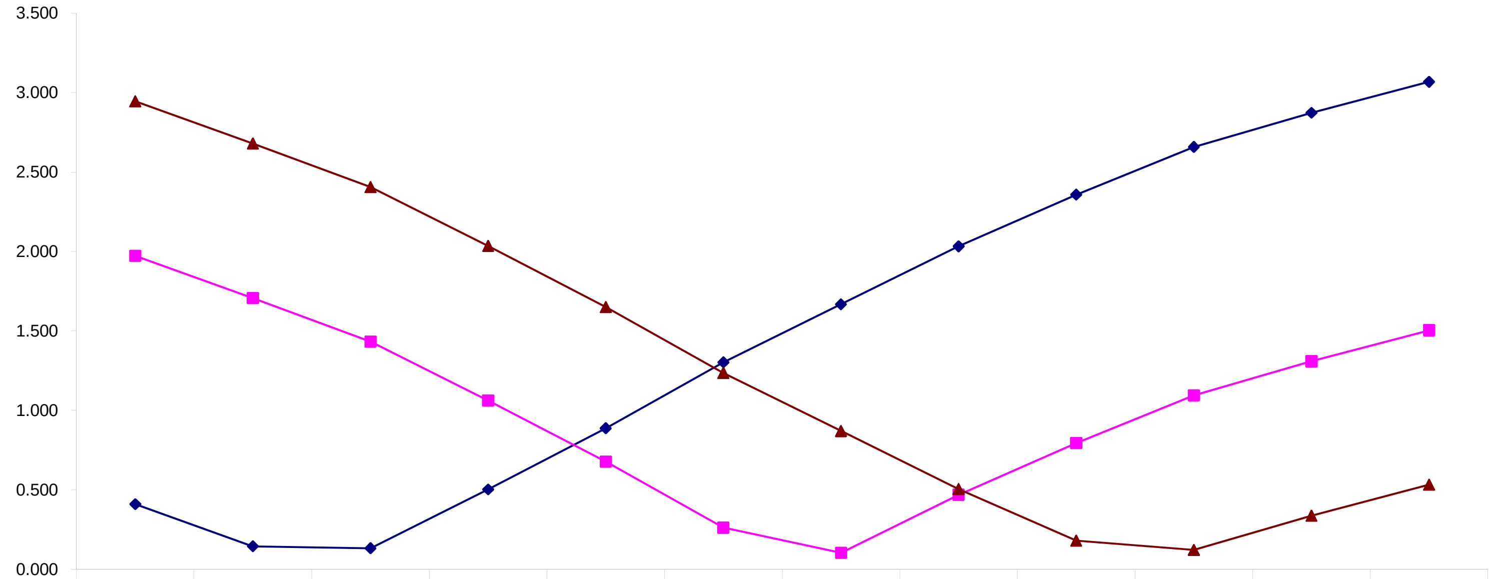
Chart values show the differences between ED contract and Treasury Futures contract. Those values can be seen in the table at the bottom of the chart.
Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



ZT	0.469	0.204	0.071	0.441	0.826	1.241	1.606	1.971	2.296	2.596	2.811	3.006
ZF	1.761	1.496	1.221	0.851	0.466	0.051	0.314	0.679	1.004	1.304	1.519	1.714
ZN	2.551	2.286	2.011	1.641	1.256	0.841	0.476	0.111	0.214	0.514	0.729	0.924

ZT ZF ZN

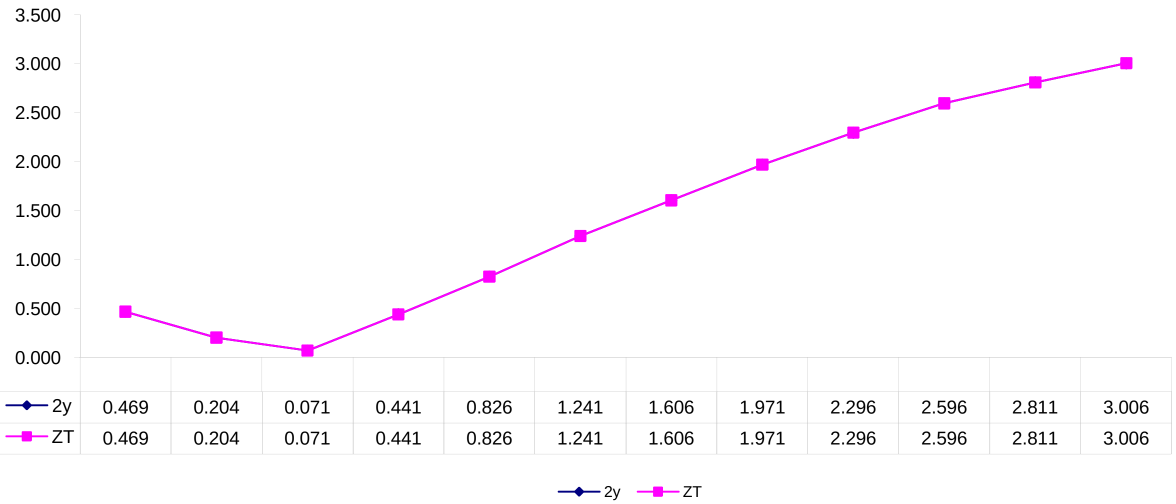
Chart values show the differences between ED contract and Treasury Cash contract. Those values can be seen in the table at the bottom of the chart.
Each cash treasury is then plotted on the chart to compare differences in the durations and basis point values.



2y	0.409	0.144	0.131	0.501	0.886	1.301	1.666	2.031	2.356	2.656	2.871	3.066
5y	1.972	1.707	1.432	1.062	0.677	0.262	0.103	0.468	0.793	1.093	1.308	1.503
10y	2.944	2.679	2.404	2.034	1.649	1.234	0.869	0.504	0.179	0.121	0.336	0.531

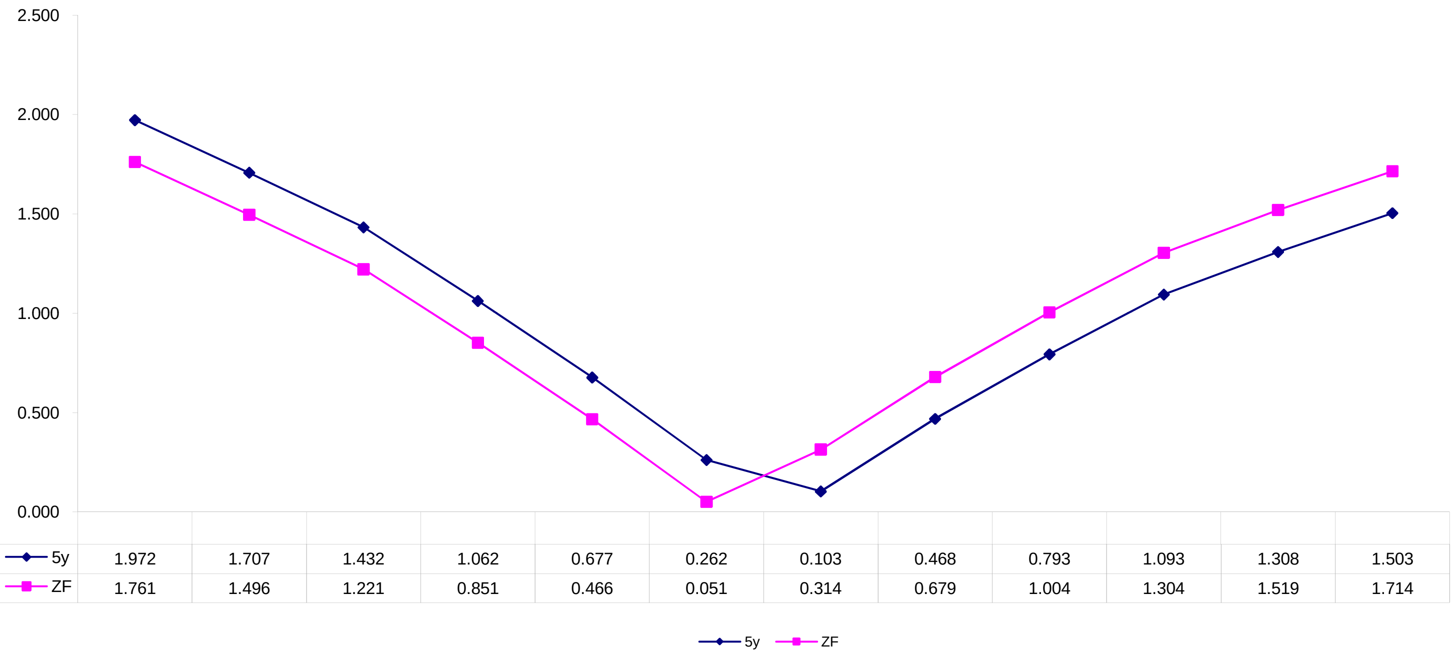
2y 5y 10y

2y Basis TED Curve

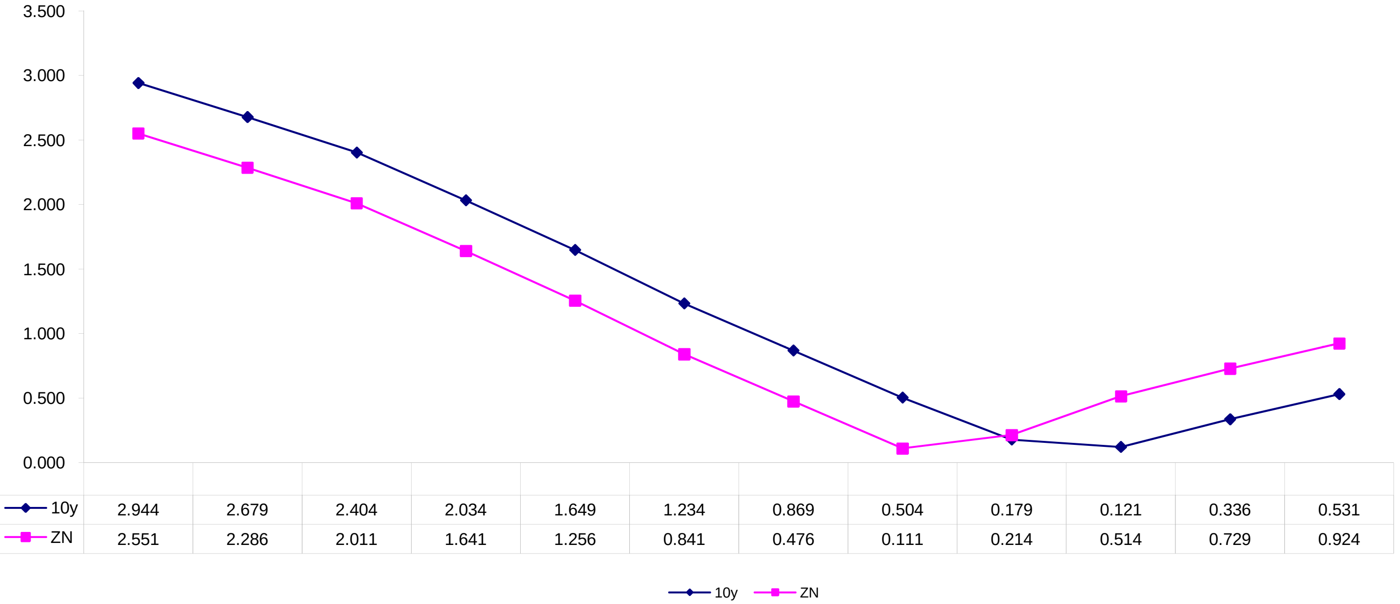


2y	0.469	0.204	0.071	0.441	0.826	1.241	1.606	1.971	2.296	2.596	2.811	3.006
ZT	0.469	0.204	0.071	0.441	0.826	1.241	1.606	1.971	2.296	2.596	2.811	3.006

5y Basis TED Curve



5y	1.972	1.707	1.432	1.062	0.677	0.262	0.103	0.468	0.793	1.093	1.308	1.503
ZF	1.761	1.496	1.221	0.851	0.466	0.051	0.314	0.679	1.004	1.304	1.519	1.714



10y	2.944	2.679	2.404	2.034	1.649	1.234	0.869	0.504	0.179	0.121	0.336	0.531
ZN	2.551	2.286	2.011	1.641	1.256	0.841	0.476	0.111	0.214	0.514	0.729	0.924

	Last Yield	Net Last Yield	Last Price
White Pack	1.194	-1.625	9882.6250
Red Pack	2.680	-2.375	9737.5000
Green Pack	3.984	-2.250	9610.8750
Blue Pack	4.673	-0.875	9544.3750
Gold Pack		0.375	9505.6250