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The Morning Email: Eurodollar Correlations & R-Squared

Table of Contents

- Pg 1 EDs vs. Treasuries
- Pg 2 EDs vs. Index Futures, Energy, Metals, & German Bond Futures
- Pg 3 EDs vs. Specialty Spreads
- Pg 4 EDs vs. Currencies

- Pg 5 EDs vs. ED Pack & Bundles
- Pg 6 EDs vs. ED Calendar Spreads
- Pg 7 ED Calendar Spreads vs. ED Packs & Bundles
- Pg 8 ED Calendar Flvs vs. ED Packs & Bundles
- Pg 9

- Pg 10

One contract may be correlating with another but does that mean there's causation. You must ask, "is one causing the other?"

That's what the R-Squared is for. Read R-Squared as follows: let's say, CLA and DJIA have an R-Squared of 0.44. That means there's a 44% chance that one is causing the market movement of the other.

You will always see a positive number for the R-Squared. If a correlation is a (negative) number, for example, (87.9) that means the two commodities are mirroring each other, not correlating. For example, today (which is 06/06/2007) the RBA and DJIA have a (87.9)% correlation. The R-Squared is 0.77. Therefore the two instruments are mirroring each other 88% of the time, and there's a 77% chance that one is causing the other.

Conditionally formatted cells:

If there's an R-Squared equal to or greater than 80%, then, the cell will turn BLUE. That tells us that there's an 80% chance that one of the instruments is causing the other to move. --Thanks, Jim

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.

	TU	Z3N	FV	TY	ZB	2Y Yld	3Y Yld	5Y Yld	7Y Yld	10Y Yld	30Y Yld		
EDAU09	-59	-61	-33	5	67	79	66	60	28	-25	-60	Correlations	Whites
EDAZ09	25	24	48	65	66	2	-17	-18	-36	-52	-49		
EDAH10	95	95	91	67	-1	-85	-91	-88	-70	-30	14		
EDAM10	98	98	89	59	-14	-93	-95	-91	-69	-22	25		
EDAU10	98	99	88	56	-19	-94	-96	-92	-68	-19	29		Reds
EDAZ10	97	98	84	52	-24	-95	-95	-90	-65	-14	34		
EDAH11	96	97	85	54	-21	-92	-93	-89	-66	-17	31		
EDAM11	93	96	89	64	-9	-87	-92	-90	-72	-28	19		
EDAU11	88	91	93	76	10	-78	-88	-89	-80	-45	0		Greens
EDAZ11	79	83	95	88	31	-65	-81	-86	-86	-62	-21		
EDAH12	69	74	93	95	49	-52	-73	-81	-90	-76	-40		
EDAM12	55	61	87	98	64	-37	-61	-72	-89	-86	-56		
EDAU12	42	48	79	97	76	-21	-48	-61	-86	-92	-69		Blues
EDAZ12	33	40	74	96	81	-13	-41	-55	-83	-94	-75		
EDAH13	23	29	66	93	87	-2	-31	-46	-78	-96	-82		
EDAM13	18	24	63	91	89	3	-26	-42	-76	-96	-85		
EDAU13	15	21	60	90	89	6	-24	-40	-75	-97	-86	Golds	
EDAZ13	12	19	57	88	90	8	-21	-37	-73	-96	-87		
EDAH14	5	11	52	85	94	16	-13	-30	-67	-95	-91		
EDAM14	6	14	53	85	91	13	-16	-33	-71	-96	-89		
EDAU09	35	37	11	0	45	62	43	36	8	6	36	R - Squared	Whites
EDAZ09	6	6	23	42	44	0	3	3	13	27	24		
EDAH10	90	91	83	45	0	73	83	77	50	9	2		
EDAM10	95	97	79	35	2	86	91	84	47	5	6		
EDAU10	96	98	77	32	4	89	92	84	46	4	8		Reds
EDAZ10	94	96	71	27	6	89	89	81	42	2	11		
EDAH11	91	94	72	30	4	85	87	80	43	3	10		
EDAM11	87	92	79	41	1	76	85	81	51	8	4		
EDAU11	77	83	87	58	1	61	78	80	64	20	0		Greens
EDAZ11	62	70	90	77	10	43	66	74	75	39	4		
EDAH12	47	55	86	89	24	27	53	65	81	57	16		
EDAM12	31	37	76	95	41	14	37	52	80	74	32		
EDAU12	17	23	63	95	58	5	23	38	73	85	48		Blues
EDAZ12	11	16	54	91	65	2	17	30	69	89	56		
EDAH13	5	9	44	86	76	0	10	21	60	91	67		
EDAM13	3	6	39	83	79	0	7	18	57	93	72		
EDAU13	2	5	36	80	80	0	6	16	56	93	74	Golds	
EDAZ13	1	3	33	78	81	1	4	14	54	93	76		
EDAH14	0	1	27	72	88	3	2	9	45	91	83		
EDAM14	0	2	28	73	82	2	3	11	50	92	78		

	Mini			Nymex	Gold
	S&Ps	Dow (5\$)	Nasdaq	Crude	Futures
EDAU09	76	77	73	56	-6
EDAZ09	21	22	10	44	35
EDAH10	-66	-66	-75	-19	41
EDAM10	-75	-75	-82	-28	40
EDAU10	-78	-78	-84	-32	37
EDAZ10	-80	-80	-85	-37	31
EDAH11	-79	-79	-83	-83	28
EDAM11	-75	-75	-80	-35	27
EDAU11	-69	-68	-75	-29	25
EDAZ11	-59	-58	-67	-21	26
EDAH12	-49	-47	-59	-12	26
EDAM12	-37	-35	-47	-3	25
EDAU12	-25	-22	-35	4	22
EDAZ12	-19	-17	-29	5	18
EDAH13	-10	-7	-20	11	16
EDAM13	-7	-4	-17	11	13

Eurex		
Bund	Bobl	Schatz
74	58	-6
61	56	35
-16	-3	43
-29	-14	40
-33	-18	38
-39	-24	35
-36	-20	37
-24	-8	46
-6	11	59
16	32	71
34	49	80
51	65	84
65	76	86
71	81	86
79	87	84
81	89	84

Correlations	Whites
	Reds
	Greens
	Blues

	Mini			Nymex	Gold
	S&Ps	Dow (5\$)	Nasdaq	Crude	Futures
EDAU09	58	60	54	31	0
EDAZ09	4	5	1	19	12
EDAH10	44	44	56	4	17
EDAM10	56	56	67	8	16
EDAU10	61	61	71	10	14
EDAZ10	64	64	72	14	10
EDAH11	62	62	70	70	8
EDAM11	57	56	65	12	7
EDAU11	47	46	57	9	6
EDAZ11	35	34	45	4	7
EDAH12	24	22	34	2	7
EDAM12	14	12	22	0	6
EDAU12	6	5	13	0	5
EDAZ12	4	3	9	0	3
EDAH13	1	1	4	1	3
EDAM13	1	0	3	1	2

Eurex		
Bund	Bobl	Schatz
55	34	0
37	32	12
3	0	19
8	2	16
11	3	15
15	6	12
13	4	14
6	1	21
0	1	35
3	10	50
12	24	63
26	42	71
42	58	73
50	66	74
62	76	71
65	80	70

R - Squared	Whites
	Reds
	Greens
	Blues

	EURUSD	EURJPY	USDJPY	ZT	ZF	ZN	ZB	2Y Yld	5Y Yld	10Y Yld	30Y Yld	Spread Ratio
ZF - ED7	54.2	35.2	-23.7	-11.9	31.3	91.0	64.9	27.3	-13.4	83.2	90.6	10:12
5yr - ED7	7.3	-12.0	-33.2	15.8	45.9	49.3	58.6	-16.7	-49.9	71.4	58.9	1:12
5yr - RedPk	16.0	15.1	0.2	-26.0	-3.7	28.1	6.7	91.9	13.4	19.9	21.3	1:4 or 5

Correlations

Do not use this page unless you know the spread equation I used. This is a specialty page. These spreads are designed specifically for individual traders.

Always feel free to send me a spread you'd like to follow and I'll enter it on this page.

	EURUSD	EURJPY	USDJPY	ZT	ZF	ZN	ZB	2Y Yld	5Y Yld	10Y Yld	30Y Yld
ZF - ED7	29.4	12.4	5.6	1.4	9.8	82.8	42.1	7.4	1.8	69.3	82.1
5yr - ED7	0.5	1.4	11.0	2.5	21.1	24.3	34.3	2.8	24.9	51.0	34.7
5yr - RedPk	2.6	2.3	0.0	6.7	0.1	7.9	0.4	84.4	1.8	3.9	4.5

R - Squared

	Cash Markets						US \$ Index	Futures					Correlations
	EURUSD	EURJPY	EURGBP	EURCHF	USDJPY	GBPUSD		US Dollar	Euro	Yen	Swiss	Canadian	
EDAU09	55	66	-76	68	29	76	-59	-55	42	-28	17	72	
EDAZ09	60	32	-22	-7	-37	51	-61	-56	51	37	51	30	
EDAH10	2	-42	62	-84	-75	-30	1	4	6	75	34	-52	
EDAM10	-7	-49	70	-90	-74	-41	12	13	-1	73	29	-61	
EDAU10	-12	-53	74	-92	-73	-45	16	18	-6	73	26	-64	
EDAZ10	-18	-57	78	-90	-71	-52	23	24	-12	71	20	-68	
EDAH11	-19	-59	77	-89	-72	-52	23	25	-14	72	18	-68	
EDAM11	-16	-57	70	-86	-74	-46	19	22	-12	74	18	-65	
EDAU11	-10	-53	56	-80	-76	-35	13	16	-9	75	19	-60	
EDAZ11	-2	-46	38	-73	-76	-20	3	6	-3	74	22	-52	
EDAH12	6	-37	19	-65	-74	-6	-6	-3	4	71	26	-42	
EDAM12	13	-27	1	-53	-68	8	-14	-11	10	64	27	-31	
EDAU12	19	-18	-16	-41	-62	21	-21	-18	14	58	27	-20	
EDAZ12	19	-15	-24	-33	-56	25	-21	-19	13	52	23	-17	
EDAH13	25	-7	-35	-23	-52	34	-28	-25	18	48	24	-7	
EDAM13	24	-6	-39	-20	-48	36	-27	-24	17	44	22	-6	

	Cash Markets						US \$ Index	Futures					R - Squared
	EURUSD	EURJPY	EURGBP	EURCHF	USDJPY	GBPUSD		US Dollar	Euro	Yen	Swiss	Canadian	
EDAU09	31	44	58	46	8	58	35	31	18	8	3	52	
EDAZ09	36	11	5	1	14	26	37	31	26	14	26	9	
EDAH10	0	17	39	70	57	9	0	0	0	56	12	27	
EDAM10	1	24	50	82	54	16	1	2	0	53	8	37	
EDAU10	1	28	55	84	54	21	3	3	0	53	7	42	
EDAZ10	3	33	62	81	51	27	5	6	1	51	4	46	
EDAH11	4	34	60	79	52	27	5	6	2	52	3	47	
EDAM11	3	33	49	74	55	21	4	5	1	54	3	43	
EDAU11	1	28	32	65	58	13	2	2	1	56	4	36	
EDAZ11	0	21	14	53	58	4	0	0	0	55	5	27	
EDAH12	0	14	4	42	55	0	0	0	0	50	7	18	
EDAM12	2	7	0	28	46	1	2	1	1	41	7	10	
EDAU12	4	3	2	16	38	4	4	3	2	33	7	4	
EDAZ12	4	2	6	11	32	6	5	3	2	27	5	3	
EDAH13	6	1	12	5	27	12	8	6	3	23	6	1	
EDAM13	6	0	15	4	23	13	7	6	3	19	5	0	

Read the last page

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
EDAU09	-21	-60	16	-29	-52	-40	-21	-4	-10
EDAZ09	63	25	-60	-70	34	45	58	65	60
EDAH10	98	97	-88	-46	99	98	91	99	80
EDAM10	93	99	-82	-36	100	96	86	73	74
EDAU10	90	100	-80	-32	99	95	84	70	72
EDAZ10	88	100	-78	-28	99	94	82	67	69
EDAH11	89	100	-81	-32	99	96	84	70	72
EDAM11	93	99	-88	-44	99	99	90	78	81
EDAU11	94	95	-95	-60	96	100	97	89	90
EDAZ11	92	86	-100	-76	89	97	100	97	97
EDAH12	86	75	-99	-87	79	90	98	100	100
EDAM12	77	61	-95	-95	66	80	93	99	98
EDAU12	67	47	-89	-99	52	69	86	95	94
EDAZ12	59	39	-84	-100	44	62	81	92	91
EDAH13	52	28	-78	-100	34	52	74	87	85
EDAM13	46	23	-74	-99	28	48	70	84	82

Correlations

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
EDAU09	4	36	3	9	27	16	4	0	1
EDAZ09	40	6	36	49	11	21	34	42	36
EDAH10	96	94	77	22	98	96	83	98	64
EDAM10	86	99	67	13	99	93	74	53	55
EDAU10	81	99	64	10	98	91	71	49	52
EDAZ10	77	100	60	8	98	89	67	44	48
EDAH11	80	100	65	10	99	91	71	49	52
EDAM11	86	98	77	19	99	97	82	62	65
EDAU11	89	90	91	37	93	99	94	79	82
EDAZ11	85	74	99	58	79	93	99	93	94
EDAH12	74	56	99	76	62	81	97	99	99
EDAM12	59	37	91	90	43	64	87	98	96
EDAU12	45	22	79	98	27	47	74	91	88
EDAZ12	35	15	71	100	19	38	65	85	82
EDAH13	27	8	61	100	11	28	55	76	72
EDAM13	22	5	55	99	8	23	49	71	67

R - Squared

	WR1	WR2	WR3	WR4	WG1	WG2	WG3	WG4	RG1	RG2	RG3	RG4	Correlations
EDAU09	72	-60	16	-29	56	41	27	-67	-77	-84	-80	-76	
EDAZ09	-9	25	-60	-70	-27	-38	-45	-50	-44	-38	-35	-33	
EDAH10	-92	97	-88	-46	-95	-90	-82	19	35	51	52	50	
EDAM10	-98	99	-82	-36	-97	-89	-79	31	48	63	63	60	
EDAU10	-99	100	-80	-32	-97	-89	-78	35	51	67	66	64	
EDAZ10	-99	100	-78	-28	-97	-88	-76	38	53	70	70	68	
EDAH11	-98	100	-81	-32	-98	-90	-78	34	47	66	67	65	
EDAM11	-95	99	-88	-44	-99	-94	-85	21	35	55	56	55	
EDAU11	-89	95	-95	-60	-98	-98	-93	1	17	37	39	38	
EDAZ11	-78	86	-100	-76	-92	-98	-97	-20	-1	17	18	17	
EDAH12	-66	75	-99	-87	-84	-94	-98	-38	-16	-1	-1	-3	
EDAM12	-51	61	-95	-95	-72	-87	-94	-54	-32	-20	-20	-22	
EDAU12	-36	47	-89	-99	-59	-77	-88	-67	-45	-35	-36	-38	
EDAZ12	-28	39	-84	-100	-52	-72	-85	-74	-52	-44	-45	-46	
EDAH13	-17	28	-78	-100	-42	-63	-78	-81	-59	-53	-55	-56	
EDAM13	-12	23	-74	-99	-37	-59	-75	-84	-62	-57	-59	-60	

	WR1	WR2	WR3	WR4	WG1	WG2	WG3	WG4	RG1	RG2	RG3	RG4	R - Squared
EDAU09	52	36	3	9	31	17	7	45	59	70	64	58	
EDAZ09	1	6	36	49	8	15	21	25	20	15	12	11	
EDAH10	85	94	77	22	91	82	67	4	12	26	27	25	
EDAM10	95	99	67	13	93	80	62	10	23	40	39	37	
EDAU10	98	99	64	10	94	79	61	12	27	44	43	41	
EDAZ10	98	100	60	8	94	77	57	15	28	49	49	46	
EDAH11	97	100	65	10	96	81	61	11	22	43	44	42	
EDAM11	91	98	77	19	98	89	72	4	12	30	31	30	
EDAU11	78	90	91	37	96	96	86	0	3	14	15	14	
EDAZ11	61	74	99	58	85	96	94	4	0	3	3	3	
EDAH12	44	56	99	76	70	88	96	14	3	0	0	0	
EDAM12	26	37	91	90	52	75	89	30	10	4	4	5	
EDAU12	13	22	79	98	35	59	78	45	20	12	13	14	
EDAZ12	8	15	71	100	27	51	72	55	27	19	20	21	
EDAH13	3	8	61	100	17	39	60	65	35	28	30	31	
EDAM13	1	5	55	99	14	35	56	70	39	33	35	36	

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
WR1	-83	-98	73	23	-97	-91	-77	-62	-65
WR2	-79	-97	69	17	-95	-88	-73	-57	-60
WR3	-81	-98	73	22	-96	-91	-77	-62	-65
WR4	-77	-82	87	57	-82	-87	-86	-80	-83
WG1	-77	-98	89	48	-98	-98	-91	-80	-83
WG2	-87	-90	97	68	-91	-97	-97	-92	-94
WG3	-82	-79	98	82	-81	-91	-97	-97	-98
WG4	6	32	28	77	27	6	-21	6	-40
RG1	22	47	8	55	42	24	0	24	-18
RG2	37	65	-9	48	60	42	16	-6	-3
RG3	38	65	-9	49	60	42	16	-7	-3
RG4	37	63	-8	51	59	41	14	-8	-5

Correlations

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
WR1	68	97	53	5	93	83	60	38	42
WR2	62	95	48	3	90	78	54	32	36
WR3	66	97	54	5	92	82	59	38	42
WR4	60	67	76	32	67	76	74	64	68
WG1	60	96	79	23	96	96	83	65	69
WG2	76	82	93	46	83	94	94	84	88
WG3	67	63	96	67	66	83	95	94	96
WG4	0	10	8	60	7	0	5	0	16
RG1	5	22	1	30	18	6	0	6	3
RG2	13	42	1	23	35	17	2	0	0
RG3	14	42	1	24	36	18	2	0	0
RG4	14	40	1	26	34	17	2	1	0

R - Squared

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
FCAL1	-90	-100	83	38	-99	-97	-87	-74	-76
FCAL2	-90	-100	84	39	-99	-97	-97	-75	-77
FCAL3	-93	-96	95	59	-97	-100	-96	-88	-90
FCAL4	-78	-62	96	72	-91	-98	-99	-95	-96
FCAL21	-78	-62	96	93	-67	-81	-93	-98	-98
FCAL22	-57	-34	82	99	-40	-58	-78	-90	-88
FCAL23	-45	-19	72	99	72	-45	-68	72	-80
FCAL24	-77	-61	95	95	-66	-80	-93	-66	-98

Correlations

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
FCAL1		100	70	14	99	94	76	55	58
FCAL2	81	99	71	15	98	94	94	56	59
FCAL3	86	92	90	35	93	99	93	78	81
FCAL4	60	39	92	52	83	95	98	89	91
FCAL21	60	39	92	87	45	65	87	97	96
FCAL22	33	12	68	99	16	34	61	81	78
FCAL23	20	4	52	98	52	20	46	52	64
FCAL24	59	37	91	90	43	64	87	43	96

R - Squared

Concerning Packs: Formula for packs = $((EDAA9+EDAA10+EDAA11+EDAA12)/4)$

Where the number in the equation, ie EDAA9, represents the 9th Eurodollar contract not including serials. The 9th contract is always GREEN 1. EDAA12 represent GREEN 4 or the 12th Eurodollar contract, etc.

BUNDLES are priced the same way. HOWEVER, there are two-types of 5y bundles. I've labeled them 5y -1 and 5y-2. The first is priced like all the other bundles. The 2nd is the 5yr bundle futures contract that expires quarterly (symbol = Y5 on CQG). This 2nd contract trades more than the regular 5yr bundles.

CALENDAR SPREADS:

WR1 = White 1 contract and the RED 1 contract.

WG1 = White 1 contract and the Green 1 contract

RG1 = GREEN 1 contract and the RED 1 contract

The formula used to determine the yield is 100-longer duration minus 100-shorter duration

CALENDAR FLYs

FCAL1 = White 1, Red 1, Green 1

FCAL2 = White 2, Red 2, Green 2

FCAL3 = White 3, Red 3, Green 3

FCAL4 = White 4, Red 4, Green 4

FCAL21 = RED 1, Green 1, Blue 1

FCAL22 = RED 2, Green 2, Blue 2

FCAL23 = RED 3, Green 3, Blue 3

FCAL24 = RED 4, Green 4, Blue 4

IMPORTANT!! Example for the formula used to determine the calendar fly is : $(SEP11)+((SEP10)*2)-(SEP09)$

Why is this important? Because if you switch the order, say, SEP09 and SEP11, then the "+" and "-" operators, it changes the correlation equation.

I set all the spreads from highest duration to lowest duration, then, added the bullet to the highest duration, then, subtracted the lowest duration wing.

