

8/5/09 5:28 AM

The Morning Email: Eurodollar Correlations & R-Squared

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

	Mini			Nymex	Gold
	S&Ps	Dow (5\$)	Nasdaq	Crude	Futures
EDAU09	87	88	89	60	32
EDAZ09	29	30	27	37	20
EDAH10	-62	-62	-67	-28	-17
EDAM10	-71	-72	-77	-34	-19
EDAU10	-75	-76	-81	-39	-21
EDAZ10	-80	-80	-84	-45	-29
EDAH11	-80	-80	-83	-83	-34
EDAM11	-77	-77	-80	-46	-36
EDAU11	-71	-71	-74	-42	-38
EDAZ11	-60	-60	-64	-33	-34
EDAH12	-47	-45	-52	-22	-27
EDAM12	-28	-26	-34	-9	-19
EDAU12	-12	-10	-18	1	-14
EDAZ12	-6	-3	-10	4	-14
EDAH13	6	9	2	11	-9
EDAM13	12	15	8	14	-7

Eurex		
Bund	Bobl	Schatz
74	35	-35
50	52	31
-27	14	65
-39	3	64
-44	-1	62
-48	-4	62
-44	1	65
-34	12	71
-19	27	79
1	45	85
22	61	88
45	76	87
61	85	82
68	90	80
77	92	72
82	94	68

Correlations	Whites
	Reds
	Greens
	Blues

	Mini			Nymex	Gold
	S&Ps	Dow (5\$)	Nasdaq	Crude	
EDAU09	76	77	79	36	10
EDAZ09	9	9	7	14	4
EDAH10	38	39	44	8	3
EDAM10	51	51	59	12	3
EDAU10	57	57	65	15	5
EDAZ10	63	64	70	20	8
EDAH11	64	65	69	69	11
EDAM11	60	60	64	21	13
EDAU11	51	50	55	18	14
EDAZ11	36	35	41	11	11
EDAH12	22	21	27	5	7
EDAM12	8	7	11	1	4
EDAU12	1	1	3	0	2
EDAZ12	0	0	1	0	2
EDAH13	0	1	0	1	1
EDAM13	2	2	1	2	1

Eurex		
Bund	Bobl	Schatz
55	12	12
25	27	9
7	2	43
15	0	40
19	0	39
23	0	38
20	0	42
12	1	50
3	8	62
0	20	72
5	37	78
20	58	75
37	73	67
47	82	64
60	85	52
67	88	46

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	66.8	69.4	29.8	-61.6	-21.3	74.7	22.6	69.2	44.2	37.8	70.9	10:12
5yr - ED7	16.1	20.9	18.5	-33.0	-0.6	48.1	26.1	24.8	-2.6	48.4	60.0	1:12

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.

Correlations

	EURUSD	EURJPY	USDJPY	ZT	ZF	ZN	ZB	2Y Yld	5Y Yld	10Y Yld	30Y Yld
ZF - ED7	44.6	48.1	8.9	37.9	4.5	55.8	5.1	47.9	19.5	14.3	50.2
5yr - ED7	2.6	4.4	3.4	10.9	0.0	23.2	6.8	6.1	0.1	23.4	36.1

R - Squared

	Cash Markets						US \$ Index	Futures					Correlations
	EURUSD	EURJPY	EURGBP	EURCHF	USDJPY	GBPUSD		US Dollar	Euro	Yen	Swiss	Canadian	
EDAU09	65	71	-77	69	41	80	-66	-62	53	-38	36	65	
EDAZ09	37	27	-5	-9	-19	26	-37	-33	29	19	32	41	
EDAH10	-33	-49	76	-77	-61	-58	33	34	-29	58	-9	-28	
EDAM10	-40	-55	82	-84	-63	-65	40	39	-33	59	-12	-37	
EDAU10	-44	-59	85	-84	-65	-69	44	43	-37	61	-15	-41	
EDAZ10	-50	-65	88	-82	-64	-75	50	50	-43	62	-22	-47	
EDAH11	-52	-67	87	-79	-65	-76	52	52	-46	62	-26	-47	
EDAM11	-52	-67	81	-75	-66	-73	51	51	-47	63	-27	-45	
EDAU11	-49	-64	72	-70	-66	-66	47	48	-46	62	-28	-40	
EDAZ11	-41	-57	57	-63	-65	-54	38	39	-39	59	-23	-31	
EDAH12	-31	-47	38	-54	-63	-38	27	28	-30	55	-17	-20	
EDAM12	-17	-32	15	-39	-54	-19	13	14	-19	45	-10	-7	
EDAU12	-7	-20	-4	-24	-45	-3	2	4	-11	36	-5	3	
EDAZ12	-4	-15	-13	-16	-39	3	-1	1	-9	29	-5	7	
EDAH13	3	-6	-26	-5	-33	15	-9	-7	-3	23	-1	14	
EDAM13	7	-2	-34	2	-28	21	-12	-11	1	18	0	17	

	Cash Markets						US \$ Index	Futures					R - Squared
	EURUSD	EURJPY	EURGBP	EURCHF	USDJPY	GBPUSD		US Dollar	Euro	Yen	Swiss	Canadian	
EDAU09	43	51	60	47	17	63	43	38	28	14	13	42	
EDAZ09	14	7	0	1	4	7	14	11	8	4	10	17	
EDAH10	11	24	58	59	37	34	11	11	8	34	1	8	
EDAM10	16	31	67	70	40	43	16	16	11	35	1	14	
EDAU10	19	35	72	71	42	48	19	19	13	37	2	17	
EDAZ10	25	42	77	68	41	56	25	25	19	38	5	22	
EDAH11	27	45	75	63	42	57	27	27	21	39	7	22	
EDAM11	27	45	66	57	43	53	26	26	22	40	8	20	
EDAU11	24	41	52	48	43	44	22	23	21	38	8	16	
EDAZ11	17	32	32	39	43	29	14	15	15	35	5	10	
EDAH12	9	22	15	29	39	15	7	8	9	30	3	4	
EDAM12	3	10	2	15	30	4	2	2	4	21	1	0	
EDAU12	1	4	0	6	20	0	0	0	1	13	0	0	
EDAZ12	0	2	2	3	15	0	0	0	1	9	0	1	
EDAH13	0	0	7	0	11	2	1	0	0	5	0	2	
EDAM13	1	0	12	0	8	4	2	1	0	3	0	3	

Read the last page

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
EDAU09	-30	-67	-30	28	-61	-51	-33	-14	-5
EDAZ09	65	24	53	64	33	42	54	61	58
EDAH10	98	96	87	38	98	97	91	98	68
EDAM10	93	99	83	28	99	96	87	72	62
EDAU10	90	99	82	24	99	96	85	69	60
EDAZ10	87	100	81	21	99	95	84	67	58
EDAH11	88	100	84	26	99	97	86	71	62
EDAM11	90	99	89	37	99	99	91	78	70
EDAU11	91	96	96	51	97	99	97	88	80
EDAZ11	90	89	100	68	91	97	100	96	90
EDAH12	84	77	99	82	80	90	98	100	96
EDAM12	73	60	93	93	64	77	91	99	98
EDAU12	60	43	84	99	47	63	81	93	95
EDAZ12	53	34	79	100	39	55	76	90	90
EDAH13	42	20	70	100	25	43	66	83	86
EDAM13	34	12	63	99	17	35	59	77	81

Correlations

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
EDAU09	9	45	9	8	37	26	11	2	0
EDAZ09	42	6	28	41	11	18	29	38	34
EDAH10	96	92	76	14	96	94	82	96	46
EDAM10	87	98	69	8	99	93	76	52	39
EDAU10	81	99	67	6	99	92	72	48	36
EDAZ10	77	100	65	4	98	91	70	45	34
EDAH11	78	100	70	7	99	93	75	51	38
EDAM11	81	98	80	13	98	97	84	62	49
EDAU11	83	92	91	26	93	99	93	77	64
EDAZ11	81	79	99	46	82	94	99	91	80
EDAH12	71	60	98	67	64	81	97	99	92
EDAM12	53	36	87	87	41	60	84	97	96
EDAU12	36	18	71	97	22	40	66	87	90
EDAZ12	28	11	62	99	15	31	57	80	82
EDAH13	17	4	48	100	6	19	43	68	74
EDAM13	11	1	40	98	3	12	35	60	66

R - Squared

	WR1	WR2	WR3	WR4	WG1	WG2	WG3	WG4	RG1	RG2	RG3	RG4	Correlations	
EDAU09	77	-67	-30	28	64	52	38	-67	-48	-82	-83	-82		
EDAZ09	-12	24	53	64	-25	-30	-37	-36	-39	-30	-23	-20		
EDAH10	-92	96	87	38	-93	-87	-79	31	5	53	63	66		
EDAM10	-98	99	83	28	-95	-88	-78	41	16	65	73	75		
EDAU10	-99	99	82	24	-96	-88	-78	44	18	68	76	79		
EDAZ10	-99	100	81	21	-97	-89	-77	46	17	70	79	82		
EDAH11	-98	100	84	26	-98	-91	-80	41	9	65	76	79		
EDAM11	-96	99	89	37	-99	-95	-86	30	-2	56	68	72		
EDAU11	-90	96	96	51	-99	-98	-92	13	-17	41	54	60		
EDAZ11	-81	89	100	68	-94	-98	-97	-6	-33	22	36	42		
EDAH12	-68	77	99	82	-85	-93	-97	-26	-46	2	16	22		
EDAM12	-50	60	93	93	-70	-83	-92	-48	-61	-21	-8	-2		
EDAU12	-31	43	84	99	-55	-71	-84	-64	-71	-40	-28	-22		
EDAZ12	-22	34	79	100	-47	-64	-79	-71	-75	-48	-37	-31		
EDAH13	-9	20	70	100	-34	-53	-70	-80	-80	-60	-49	-44		
EDAM13	0	12	63	99	-26	-46	-65	-85	-82	-66	-57	-52		

	WR1	WR2	WR3	WR4	WG1	WG2	WG3	WG4	RG1	RG2	RG3	RG4	R - Squared	
EDAU09	60	45	9	8	41	27	14	44	23	68	69	67		
EDAZ09	1	6	28	41	6	9	14	13	15	9	5	4		
EDAH10	85	92	76	14	87	76	63	10	0	29	40	44		
EDAM10	95	98	69	8	91	77	60	17	3	42	53	57		
EDAU10	98	99	67	6	93	78	60	20	3	46	58	62		
EDAZ10	99	100	65	4	94	79	60	21	3	49	62	67		
EDAH11	97	100	70	7	97	84	65	17	1	43	57	63		
EDAM11	92	98	80	13	99	91	75	9	0	31	46	52		
EDAU11	82	92	91	26	97	96	85	2	3	17	30	36		
EDAZ11	66	79	99	46	88	96	94	0	11	5	13	18		
EDAH12	47	60	98	67	72	87	95	7	22	0	3	5		
EDAM12	25	36	87	87	49	69	85	23	37	4	1	0		
EDAU12	10	18	71	97	30	50	71	41	51	16	8	5		
EDAZ12	5	11	62	99	22	41	62	50	57	23	13	10		
EDAH13	1	4	48	100	12	28	50	64	64	36	24	19		
EDAM13	0	1	40	98	7	21	42	72	67	44	32	27		

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
WR1	-83	-98	-76	-15	-97	-92	-80	-62	-53
WR2	-79	-98	-73	-11	-95	-90	-77	-59	-50
WR3	-79	-98	-79	-18	-96	-92	-81	-64	-56
WR4	-72	-86	-88	-47	-85	-89	-86	-79	-74
WG1	-72	-98	-91	-40	-98	-98	-92	-80	-72
WG2	-83	-91	-96	-59	-91	-96	-96	-90	-84
WG3	-77	-81	-98	-75	-81	-90	-96	-96	-93
WG4	19	40	-15	-76	37	18	-9	18	-43
RG1	-3	10	-39	-78	8	-10	-32	-10	-55
RG2	40	65	14	-54	61	45	20	-5	-15
RG3	50	75	28	-44	71	57	33	8	-3
RG4	53	78	34	-38	75	61	38	14	3

Correlations

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
WR1	69	97	58	2	94	85	63	39	28
WR2	62	96	54	1	91	81	59	34	25
WR3	63	96	62	3	92	85	65	42	31
WR4	51	74	77	22	72	78	75	62	55
WG1	51	96	82	16	95	96	85	65	51
WG2	69	84	93	34	83	93	93	81	71
WG3	60	65	95	56	66	82	93	92	86
WG4	4	16	2	57	13	3	1	3	19
RG1	0	1	15	61	1	1	10	1	30
RG2	16	42	2	30	37	20	4	0	2
RG3	25	56	8	19	50	32	11	1	0
RG4	29	61	11	14	56	37	15	2	0

R - Squared

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
FCAL1	-90	-100	-86	-30	-100	-97	-88	-74	-65
FCAL2	-88	-100	-86	-31	-99	-98	-98	-75	-66
FCAL3	-90	-96	-95	-50	-97	-99	-96	-87	-80
FCAL4	-77	-69	-97	-62	-92	-98	-98	-93	-87
FCAL21	-77	-69	-97	-86	-72	-84	-95	-99	-96
FCAL22	-55	-36	-81	-99	-41	-58	-77	-91	-92
FCAL23	-34	-11	-62	-99	-62	-34	-58	-62	-81
FCAL24	-73	-60	-93	-93	-64	-77	-91	-64	-98

Correlations

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
FCAL1		100	73	9	99	95	78	55	42
FCAL2	78	100	75	10	98	95	95	56	44
FCAL3	80	93	90	25	94	99	93	76	64
FCAL4	59	48	94	39	85	95	97	86	76
FCAL21	59	48	94	74	52	71	90	98	92
FCAL22	30	13	65	98	17	33	60	82	84
FCAL23	11	1	39	97	39	12	34	39	66
FCAL24	53	36	87	87	41	60	84	41	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.