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

	Mini			Nymex Crude	Gold Futures	Eurex			Correlations		
	S&Ps	Dow (5\$)	Nasdaq			Bund	Bobl	Schatz			
EDAU09	54	54	52	-9	-72	35	20	-32			Whites
EDAZ09	-48	-46	-50	-10	21	38	38	41			
EDAH10	-74	-71	-73	-4	61	11	20	53			
EDAM10	-77	-74	-76	-5	66	6	17	55			Reds
EDAU10	-77	-75	-76	-5	68	6	17	55			
EDAZ10	-76	-73	-74	-4	67	3	14	53			
EDAH11	-74	-70	-72	-72	63	6	16	52			
EDAM11	-72	-68	-70	-8	56	15	24	55			Greens
EDAU11	-70	-66	-68	-14	46	26	34	59			
EDAZ11	-70	-64	-67	-21	37	40	47	66			
EDAH12	-69	-63	-67	-27	28	52	58	71			
EDAM12	-66	-61	-65	-32	20	62	67	75	Blues		
EDAU12	-65	-60	-64	-38	11	72	76	79			
EDAZ12	-64	-59	-63	-43	4	78	81	81			
EDAH13	-62	-57	-62	-46	-1	81	84	81			
EDAM13	-60	-55	-59	-48	-6	85	87	81			

	Mini			Nymex Crude	Gold	Eurex			R - Squared		
	S&Ps	Dow (5\$)	Nasdaq			Bund	Bobl	Schatz			
EDAU09	29	29	27	1	52	13	4	10			Whites
EDAZ09	23	21	25	1	5	14	15	17			
EDAH10	54	50	53	0	37	1	4	28			
EDAM10	59	55	58	0	44	0	3	30			Reds
EDAU10	60	56	58	0	46	0	3	30			
EDAZ10	57	53	55	0	45	0	2	28			
EDAH11	54	49	52	52	40	0	3	27			
EDAM11	52	46	49	1	32	2	6	30			Greens
EDAU11	49	43	46	2	21	7	11	35			
EDAZ11	48	41	45	4	14	16	22	43			
EDAH12	47	40	44	7	8	27	33	51			
EDAM12	44	37	42	10	4	39	45	57	Blues		
EDAU12	42	36	41	15	1	51	57	62			
EDAZ12	41	35	40	18	0	60	65	65			
EDAH13	39	33	38	21	0	66	71	66			
EDAM13	36	30	35	23	0	72	76	66			

	EURUSD	EURJPY	USDJPY	ZT	ZF	ZN	ZB	2Y Yld	5Y Yld	10Y Yld	30Y Yld	Spread Ratio
ZF - ED7	32.0	-42.2	-52.9	48.3	74.7	83.7	83.3	-41.6	-67.6	83.6	61.3	10:12
5yr - ED7	31.3	-53.4	-61.2	57.1	75.1	67.3	77.9	-57.2	-77.6	82.0	54.2	1:12
5yr - RedPk	4.8	-44.2	-37.4	20.5	30.5	21.5	25.9	-90.3	-29.5	29.4	4.5	1:3 or 4

Correlations

	EURUSD	EURJPY	USDJPY	ZT	ZF	ZN	ZB	2Y Yld	5Y Yld	10Y Yld	30Y Yld
ZF - ED7	10.2	17.8	28.0	23.3	55.9	70.1	69.3	17.3	45.7	69.9	37.6
5yr - ED7	9.8	28.5	37.5	32.6	56.4	45.3	60.7	32.7	60.3	67.3	29.4
5yr - RedPk	0.2	19.5	14.0	4.2	9.3	4.6	6.7	81.6	8.7	8.6	0.2

R - Squared

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.

	Cash Markets						US \$ Index	Futures					Correlations
	EURUSD	EURJPY	EURGBP	EURCHF	USDJPY	GBPUSD		US Dollar	Euro	Yen	Swiss	Canadian	
EDAU09	-46	33	-54	75	55	16	36	49	-58	-50	-70	34	
EDAZ09	66	-25	56	-50	-61	10	-48	-30	39	67	49	-53	
EDAH10	84	-41	80	-88	-86	0	-64	-57	68	88	84	-65	
EDAM10	85	-43	81	-92	-88	-1	-64	-59	71	88	88	-67	
EDAU10	84	-44	82	-93	-88	-2	-64	-59	72	89	88	-66	
EDAZ10	84	-44	84	-93	-88	-5	-64	-59	71	89	88	-65	
EDAH11	83	-45	83	-91	-88	-6	-63	-57	69	89	86	-64	
EDAM11	80	-46	78	-87	-87	-4	-61	-53	64	89	81	-64	
EDAU11	73	-49	69	-80	-84	0	-54	-44	54	88	72	-66	
EDAZ11	65	-52	58	-73	-82	6	-45	-36	45	85	63	-68	
EDAH12	57	-54	46	-67	-78	11	-37	-27	36	82	54	-70	
EDAM12	49	-55	35	-59	-73	17	-29	-18	27	77	44	-70	
EDAU12	41	-55	24	-51	-68	22	-20	-9	18	72	35	-72	
EDAZ12	35	-56	16	-45	-64	25	-13	-2	12	69	28	-73	
EDAH13	30	-56	11	-41	-62	26	-8	3	7	66	22	-73	
EDAM13	24	-56	4	-36	-58	29	-3	8	2	62	17	-71	

	Cash Markets						US \$ Index	Futures					R - Squared
	EURUSD	EURJPY	EURGBP	EURCHF	USDJPY	GBPUSD		US Dollar	Euro	Yen	Swiss	Canadian	
EDAU09	21	11	29	56	30	2	13	24	34	25	49	12	
EDAZ09	43	6	31	25	37	1	23	9	15	45	24	29	
EDAH10	71	17	63	77	74	0	41	32	46	77	70	43	
EDAM10	71	18	66	85	77	0	40	34	51	78	77	45	
EDAU10	71	19	66	87	78	0	41	35	52	79	78	44	
EDAZ10	71	19	70	86	78	0	41	35	51	79	78	42	
EDAH11	68	20	69	82	77	0	40	32	47	79	74	41	
EDAM11	64	21	62	75	75	0	37	28	41	79	65	41	
EDAU11	53	24	48	64	71	0	29	20	29	77	51	43	
EDAZ11	42	27	34	54	67	0	21	13	20	73	39	47	
EDAH12	32	30	21	44	61	1	14	7	13	67	29	49	
EDAM12	24	30	12	35	53	3	8	3	7	60	20	49	
EDAU12	17	31	6	26	46	5	4	1	3	53	12	51	
EDAZ12	12	31	3	21	42	6	2	0	1	47	8	53	
EDAH13	9	32	1	17	38	7	1	0	0	44	5	53	
EDAM13	6	31	0	13	33	8	0	1	0	38	3	50	

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
EDAU09	-35	-52	-22	1	-48	-39	-29	-21	-29
EDAZ09	88	76	84	71	79	83	84	82	82
EDAH10	100	99	90	64	100	99	93	100	90
EDAM10	98	100	87	59	100	97	91	84	88
EDAU10	97	100	86	58	99	97	90	83	88
EDAZ10	97	100	86	57	100	97	90	82	87
EDAH11	98	100	88	60	100	98	92	85	89
EDAM11	99	99	93	68	99	99	95	89	93
EDAU11	97	96	98	78	97	100	98	95	96
EDAZ11	93	91	100	87	92	97	100	98	98
EDAH12	88	85	100	93	86	93	99	99	97
EDAM12	81	77	98	97	79	88	96	99	95
EDAU12	74	69	94	99	71	82	92	97	91
EDAZ12	68	63	91	100	64	76	88	94	89
EDAH13	64	58	88	100	60	72	85	92	87
EDAM13	58	52	85	99	54	67	81	89	83

Correlations

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
EDAU09	12	27	5	0	23	15	8	4	8
EDAZ09	77	58	71	50	63	69	71	68	67
EDAH10	99	99	81	41	99	97	87	99	81
EDAM10	96	99	75	35	99	94	82	70	77
EDAU10	94	99	74	34	99	94	82	69	77
EDAZ10	94	100	73	32	99	93	81	68	76
EDAH11	96	100	78	36	100	96	84	71	79
EDAM11	97	98	86	46	99	99	91	80	86
EDAU11	94	92	95	61	93	99	97	90	93
EDAZ11	87	83	100	75	84	95	99	96	96
EDAH12	77	72	99	86	73	87	97	99	94
EDAM12	66	60	96	94	62	78	92	97	90
EDAU12	55	48	89	99	50	67	84	94	82
EDAZ12	47	39	82	100	41	58	78	89	80
EDAH13	41	34	78	100	36	53	73	85	75
EDAM13	34	27	71	99	29	45	66	80	69

R - Squared

	WR1	WR2	WR3	WR4	WG1	WG2	WG3	WG4	RG1	RG2	RG3	RG4	Correlations
EDAU09	64	-52	-22	1	46	33	25	-55	-82	-77	-66	-57	
EDAZ09	-66	76	84	71	-78	-78	-74	-15	5	18	19	16	
EDAH10	-97	99	90	64	-98	-91	-83	17	50	59	54	47	
EDAM10	-99	100	87	59	-97	-89	-80	24	59	66	60	52	
EDAU10	-99	100	86	58	-97	-89	-80	25	59	67	61	53	
EDAZ10	-99	100	86	57	-97	-88	-80	26	59	68	62	55	
EDAH11	-98	100	88	60	-98	-90	-82	21	54	63	59	52	
EDAM11	-96	99	93	68	-99	-94	-87	10	43	54	50	43	
EDAU11	-91	96	98	78	-99	-98	-93	-6	29	40	35	28	
EDAZ11	-85	91	100	87	-97	-99	-97	-21	17	26	20	13	
EDAH12	-79	85	100	93	-93	-99	-99	-34	6	13	6	-2	
EDAM12	-71	77	98	97	-87	-96	-99	-46	-4	2	-6	-15	
EDAU12	-62	69	94	99	-80	-92	-97	-55	-13	-9	-18	-26	
EDAZ12	-56	63	91	100	-75	-88	-94	-61	-18	-16	-26	-34	
EDAH13	-51	58	88	100	-71	-85	-92	-65	-22	-21	-31	-40	
EDAM13	-45	52	85	99	-66	-81	-89	-70	-27	-27	-37	-46	

	WR1	WR2	WR3	WR4	WG1	WG2	WG3	WG4	RG1	RG2	RG3	RG4	R - Squared
EDAU09	41	27	5	0	21	11	6	31	67	59	44	33	
EDAZ09	44	58	71	50	61	61	55	2	0	3	3	3	
EDAH10	94	99	81	41	95	82	69	3	25	35	30	22	
EDAM10	98	99	75	35	94	79	65	6	34	44	36	27	
EDAU10	99	99	74	34	94	79	65	6	35	45	37	28	
EDAZ10	99	100	73	32	94	78	63	7	35	46	39	30	
EDAH11	97	100	78	36	96	82	67	4	29	40	34	27	
EDAM11	92	98	86	46	98	89	76	1	19	29	25	18	
EDAU11	83	92	95	61	98	96	87	0	8	16	12	8	
EDAZ11	73	83	100	75	93	99	95	5	3	7	4	2	
EDAH12	62	72	99	86	86	97	98	12	0	2	0	0	
EDAM12	50	60	96	94	76	92	98	21	0	0	0	2	
EDAU12	39	48	89	99	65	84	93	30	2	1	3	7	
EDAZ12	31	39	82	100	56	77	88	37	3	3	7	12	
EDAH13	26	34	78	100	50	72	84	42	5	5	10	16	
EDAM13	21	27	71	99	43	66	80	48	7	7	14	21	

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
WR1	-94	-99	-82	-54	-98	-94	-87	-79	-85
WR2	-94	-99	-82	-52	-98	-94	-86	-78	-84
WR3	-96	-99	-86	-57	-99	-96	-90	-82	-88
WR4	-70	-66	-85	-76	-67	-76	-80	-80	-74
WG1	-70	-98	-95	-73	-98	-99	-97	-92	-95
WG2	-91	-91	-99	-87	-91	-97	-99	-98	-98
WG3	-83	-82	-98	-93	-83	-91	-97	-98	-96
WG4	13	21	-27	-63	19	1	-19	1	-17
RG1	44	54	12	-20	52	38	22	38	22
RG2	54	64	20	-19	62	47	29	16	27
RG3	50	58	14	-28	57	41	22	7	19
RG4	43	51	6	-37	49	34	14	-2	10

Correlations

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
WR1	88	97	68	29	96	89	76	63	72
WR2	88	97	67	27	96	88	74	61	70
WR3	91	99	74	32	98	93	80	67	77
WR4	49	44	72	58	45	58	65	65	55
WG1	49	96	90	53	96	99	94	85	90
WG2	82	82	99	75	83	93	98	96	95
WG3	69	68	97	87	69	83	94	97	92
WG4	2	4	7	40	4	0	3	0	3
RG1	20	30	1	4	27	14	5	14	5
RG2	29	41	4	3	38	22	9	2	7
RG3	25	34	2	8	32	17	5	1	3
RG4	19	26	0	14	24	11	2	0	1

R - Squared

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
FCAL1	-97	-100	-90	-63	-100	-98	-93	-87	-91
FCAL2	-98	-100	-91	-65	-100	-99	-99	-88	-92
FCAL3	-96	-97	-97	-79	-97	-100	-99	-95	-98
FCAL4	-79	-74	-97	-86	-92	-97	-99	-98	-98
FCAL21	-79	-74	-97	-96	-75	-86	-94	-97	-92
FCAL22	-63	-57	-88	-99	-58	-72	-84	-91	-84
FCAL23	-56	-49	-84	-99	-84	-65	-79	-84	-80
FCAL24	-51	-44	-80	-98	-46	-61	-76	-46	-76

Correlations

	Packs				Bundles				
	Wht Pak	Red Pak	Green Pak	Blue Pak	2yr	3yr	4yr	5yr - 1	5yr -2
FCAL1	95	100	80	40	99	97	86	75	82
FCAL2	95	99	83	43	99	98	98	77	85
FCAL3	93	93	95	62	94	99	98	91	95
FCAL4	62	54	93	73	85	95	99	95	95
FCAL21	62	54	93	92	57	73	88	94	84
FCAL22	40	32	78	98	34	52	71	83	71
FCAL23	31	24	70	97	70	42	63	70	64
FCAL24	26	20	64	96	21	37	57	21	58

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.