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1 Attention hypothesis

Period 1

VARIABLES	ARCH	ARCH	ARCH	ARCH
Return(-1)	-0.032564 (0.084902)	-0.071612 (0.081813)	-0.027567 (0.076224)	-0.077442 (0.077263)
Wikipedia	-1.08E-07 (5.85E-07)	-2.93E-07 (5.48E-07)		-2.78E-07 (3.21E-07)
Wikipedia(-1)	5.06E-07 (7.29E-07)	1.03E-06 (7.14E-07)		
Wikipedia(-2)	-6.29E-07 (7.11E-07)	-3.98E-07 (7.30E-07)		
Wikipedia(-3)	-2.92E-07 (7.11E-07)	-5.60E-07 (5.59E-07)		
Reddit	-1.43E-05 (3.21E-05)		-1.70E-05 (3.14E-05)	1.48E-05 (1.68E-05)
Reddit(-1)	2.57E-06 (3.49E-05)		7.64E-06 (3.44E-05)	
Reddit(-2)	0.000110*** (3.41E-05)		0.000111*** (2.88E-05)	
Reddit(-3)	-8.06E-05** (3.16E-05)		-0.000101*** (2.76E-05)	
Constant	0.009645 (0.007796)	0.008479 (0.007278)	0.005466 (0.003150)	0.007444* (0.004210)
R^2	0.091699	0.019636	0.075127	-0.007483
Adjusted R^2	0.058196	-0.000130	0.056481	-0.019477

Figure 1: Attention hypothesis on Bitcoin in period 1

Period 2

VARIABLES	LR (HS)	ARCH	ARCH	ARCH	ARCH	ARCH	ARCH
Return(-1)		-0.037109 (0.257704)	-0.038416 (0.202673)	-0.022965 (0.179460)	0.007114 (0.213220)	0.007405 (0.199581)	-0.037872 (0.217473)
Wikipedia	2.87E-06*** (7.68E-07)		1.95E-06 (1.20E-06)	2.46E-06*** (7.07E-07)		3.10E-07 (6.41E-07)	
Wikipedia(-1)	-3.89E-06** (1.95E-06)		-2.67E-06* (1.41E-06)	-2.78E-06*** (7.69E-07)			
Wikipedia(-2)	1.97E-06 (2.31E-06)						
Wikipedia(-3)	-1.60E-06 (1.12E-06)						
Reddit		3.39E-05** (1.39E-05)	1.26E-05 (2.11E-05)		2.93E-05 (1.30E-05)		2.06E-05* (1.24E-05)
Reddit(-1)		-5.04E-07 (1.91E-05)	3.20E-06 (2.38E-05)		-1.70E-05 (1.33E-05)		
Reddit(-2)		-2.41E-05 (2.29E-05)					
Reddit(-3)		-1.53E-06 (1.65E-05)					
Constant	0.032425 (0.032100)	0.002662 (0.028271)	0.058669 (-0.011579)	0.021411 (0.026742)	-0.003851 (0.023835)	-0.001037 (0.021049)	0.013812
R^2	0.076503	-0.002315	0.101291	0.052323	0.016602	-0.006832	-0.001121
Adjusted	0.020534	-0.079416	-0.031305	0.011120	-0.011495	-0.035599	-0.029724

Figure 2: Attention hypothesis on Bitcoin in period 2

VARIABLES	LR (HS)	LR	LR (HS)	ARCH	LR (HS)	LR	ARCH
Return(-1)			0.062494 (0.133122)	0.049764 (0.197059)		0.007405 (0.199581)	
Wikipedia	-5.02E-05 (0.000112)	3.14E-07 (0.000104)		1.24E-05 (0.000113)		-1.34E-05 (4.55E-05)	
Wikipedia(-1)	6.39E-05 (0.000147)	4.87E-05 (0.000140)		-2.38E-05 (0.000105)			
Wikipedia(-2)	-0.000182 (0.000144)	-0.000180 (0.000140)					
Wikipedia(-3)	0.000129 (0.000105)	0.000110 (0.000104)					
Reddit	0.000398* (0.000218)		0.000417* (0.000230)		0.000462 (0.000222)**		6.75E-05 (0.000135)
Reddit(-1)	-0.000200 (0.000297)		-0.000274 (0.000279)		-0.000259 (0.000207)		
Reddit(-2)	1.27E-05 (0.000308)		5.93E-05 (0.000286)				
Reddit(-3)	0.000105 (0.000235)		3.12E-05 (0.000215)				
Constant	-0.039083 (0.045969)	0.018268 (0.039837)	0.000215 (0.034111)	0.001478 (0.053883)	-0.045413 (0.031952)	0.010459 (0.036697)	-0.021254 (0.036239)
R^2	0.126575	0.030750	0.094603	0.015541	0.094677	0.001203	0.027304
Adjusted	0.013875	-0.027992	0.024957	-0.027262	0.055315	-0.012669	0.013794

Figure 3: Attention hypothesis on Bitcoin cash in period 2

Period 3A

VARIABLES	LR	LR	LR	LR	LR	LR (HS)	LR
Wikipedia	7.79E-07 (4.82E-07)	5.28E-07** (2.36E-07)	5.19E-07** (2.26E-07)	5.02E-07** (2.26E-07)			5.79E-07** (2.34E-07)
Wikipedia(-1)	-3.94E-07 (5.73E-07)	-6.67E-07* (3.43E-07)	-5.33E-07** (2.24E-07)	-5.27E-07** (2.24E-07)			-8.06E-07** (3.32E-07)
Wikipedia(-2)	3.26E-07 (5.26E-07)	8.58E-08 (3.43E-07)					2.61E-07 (2.32E-07)
Wikipedia(-3)	9.30E-08 (3.04E-07)	1.68E-07 (2.33E-07)					
Reddit	-4.12E-05 (9.89E-06)				9.39E-06 (5.74E-06)	1.73E-06 (4.58E-06)	
Reddit(-1)	-1.27E-05 (1.06E-05)				-5.45E-06 (6.98E-06)		
Reddit(-2)	-9.33E-06 (1.13E-05)				-8.57E-06 (7.04E-06)		
Reddit(-3)	-6.67E-06 (1.04E-05)				4.81E-06 (5.65E-06)		
VIX		-0.382366* (0.193481)			-0.367593 (0.199566)		
SP500				2.428821 (2.404765)			
Constant	0.053349 (0.031186)	-0.004027 (0.018858)	0.015217 (0.017371)	0.013952 (0.017413)	0.009621 (0.026420)	0.008412 (0.020837)	0.009383 (0.018564)
R^2	0.232457	0.202450	0.099047	0.116061	0.176343	0.002532	0.120340
Adjusted	0.098971	0.121068	0.065679	0.066027	0.092297	-0.015280	0.069590

Figure 4: Attention hypothesis on Bitcoin in period 3A

VARIABLES	LR	LR	LR	LR	LR	LR
Wikipedia	6.48E-06*** (2.18E-06)	5.51E-06*** (1.60E-06)	5.50E-06*** (1.61E-06)			5.39E-06*** (1.62E-06)
Wikipedia(-1)	-4.71E-06** (2.31E-06)	-3.44E-06** (1.68E-06)	-3.26E-06** (1.69E-06)			-4.09E-06** (1.62E-06)
Wikipedia(-2)	-3.64E-06 (2.28E-06)	-3.25E-06* (1.68E-06)	-2.43E-06 (1.60E-06)			
Wikipedia(-3)	4.54E-06* (2.26E-06)	2.54E-06 (1.60E-06)				
Reddit	-4.12E-05 (5.67E-05)			5.74E-05 (5.20E-05)	3.25E-05 (3.08E-05)	
Reddit(-1)	1.24E-05 (7.88E-05)			1.95E-05 (6.83E-05)		
Reddit(-2)	7.46E-05 (8.22E-05)			-8.92E-05 (6.80E-05)		
Reddit(-3)	-7.87E-05 (6.52E-05)			1.39E-05 (5.12E-05)		
Constant	0.034833 (0.048946)	0.003552 (0.019637)	0.012542 (0.018610)	0.008372 (0.047795)	-0.030350 (0.039709)	0.001875 (0.017597)
R^2	0.296529	0.266109	0.229832	0.074835	0.019423	0.196990
Adjusted	0.174186	0.207398	0.185399	0.000822	0.001912	0.167249

Figure 5: Attention hypothesis on Bitcoin cash in period 3A

VARIABLES	LR	LR	ARCH	LR	LR	LR	LR
Return(-1)			0.002025 (0.091267)				
Wikipedia	9.96E-05 (9.61E-05)	0.000147** (6.32E-05)	0.000111* (6.23E-05)			-5.29E-05 (9.85E-05)	3.13E-05 (6.78E-05)
Wikipedia(-1)	-0.000208** (9.95E-05)	-0.000134* (6.87E-05)	-0.000112 (7.92E-05)				
Wikipedia(-2)	-0.000147 (0.000101)	-0.000120 (6.87E-05)	-7.86E-05 (5.08E-05)				
Wikipedia(-3)	0.000125 (9.38E-05)	4.21E-05 (6.20E-05)					
Reddit	0.003044 (0.004117)			0.006608** (0.002789)	0.008151*** (0.003025)	0.009721** (0.004219)	
Reddit(-1)	0.003652 (0.004132)			-0.002814 (0.002899)	-0.006346** (0.002942)	-0.005787* (0.003139)	
Reddit(-2)	0.003442 (0.004082)			-0.002664 (0.002886)			
Reddit(-3)	-0.004258 (0.004056)			-0.001491 (0.002736)			
Constant	0.047279 (0.063922)	0.050015 (0.060812)	0.056301 (0.042225)	0.011447 (0.038965)	-0.013391 (0.034327)	0.005444 (0.049210)	-0.025060 (0.050085)
R^2	0.254673	0.036815	0.174322	0.134707	0.151583	0.156184	0.003777
Adjusted	0.125050	-0.061470	0.109563	0.065483	0.120160	0.108421	-0.014013

Figure 6: Attention hypothesis on Bitcoin gold in period 3A

Period 3B

VARIABLES	LR (HS)	LR (HS)	LR (HS)	LR	LR
Wikipedia	3.30E-07 (7.25E-07)	2.79E-07 (7.00E-07)	-4.41E-07 (4.79E-07)		
Wikipedia(-1)	-1.98E-07 (8.65E-07)	-1.22E-07 (8.42E-07)			
Wikipedia(-2)	-7.64E-07 (8.79E-07)	8.41E-07 (3.43E-07)			
Wikipedia(-3)	-1.86E-07 (7.43E-07)	-3.71E-07 (7.00E-07)			
Reddit	-4.01E-06 (1.15E-05)			-4.14E-08 (1.08E-05)	-3.78E-06 (9.52E-06)
Reddit(-1)	6.80E-06 (1.16E-05)			6.02E-06 (1.11E-05)	6.41E-07 (9.51E-06)
Reddit(-2)	1.85E-06 (1.15E-05)			-2.13E-06 (1.11E-05)	
Reddit(-3)	-8.38E-06 (1.15E-05)			-9.96E-06 (1.09E-05)	
Constant	0.013815 (0.010698)	0.011271 (0.008346)	0.004743 (0.007233)	0.004069 (0.008158)	0.001589 (0.007656)
R^2	0.019981	0.016153	0.003670	0.005550	0.000901
Adjusted	-0.015656	-0.001416	-0.000662	-0.012208	-0.007863

Figure 7: Attention hypothesis on Bitcoin in period 3B

VARIABLES	LR	LR	LR	LR	LR	LR	LR
Wikipedia	1.93E-05** (9.13E-06)	1.86E-05** (9.11E-06)	2.34E-05*** (8.75E-06)	2.34E-05*** (7.65E-06)			2.22E-05*** (7.59E-06)
Wikipedia(-1)	-8.47E-06 (9.55E-06)	-8.78E-06 (9.55E-06)	-1.46E-06 (8.76E-06)				
Wikipedia(-2)	1.15E-05 (9.57E-06)	1.14E-05 (9.58E-06)					
Wikipedia(-3)	9.01E-06 (9.14E-06)	1.02E-05 (9.15E-06)					
Reddit	-4.15E-05 (2.91E-05)				-4.19E-05 (2.97E-05)	-4.53E-05* (2.47E-05)	-4.41E-05* (2.43E-05)
Reddit(-1)	-2.25E-06 (3.36E-05)				-6.89E-06 (3.42E-05)		
Reddit(-2)	-2.84E-05 (3.35E-05)				-3.05E-05 (3.41E-05)		
Reddit(-3)	4.52E-05 (2.88E-05)				3.93E-05 (2.92E-05)		
Return(-1)				-0.039569 (0.065368)			
Constant	-0.024014** (0.010661)	-0.028177*** (0.008542)	-0.020580*** (0.007729)	-0.021910*** (0.007052)	0.002389 (0.007056)	0.003113 (0.005375)	-0.014101* (0.007910)
R^2	0.080932	0.056154	0.038188	0.039615	0.001539	0.014387	0.049922
Adjusted	0.047511	0.039299	0.029751	0.031191	-0.002802	0.010102	0.041624

Figure 8: Attention hypothesis on Bitcoin cash in period 3B

VARIABLES	LR	LR (HS)	LR	LR	LR
Wikipedia	0.000169* (8.68E-05)	0.000188** (8.53E-05)	0.000174** (8.16E-05)		
Wikipedia(-1)	-0.000240** (0.000106)	-0.000260** (0.000104)	-0.000222*** (8.12E-05)		
Wikipedia(-2)	3.94E-05 (0.000105)	6.56E-05 (0.000103)			
Wikipedia(-3)	2.35E-05 (8.74E-05)	-3.25E-05 (8.46E-05)			
Reddit	0.000794 (0.001372)			0.000981 (0.001329)	-0.000165 (0.001245)
Reddit(-1)	0.000140 (0.001370)			-0.000556 (0.001335)	
Reddit(-2)	0.000512 (0.001377)			0.000724 (0.001335)	
Reddit(-3)	-0.003440** (0.001370)			-0.003454*** (0.001326)	
Constant	0.002955 (0.013581)	0.003089 (0.013602)	0.004696 (0.011932)	0.002303 (0.006039)	-0.004252 (0.005004)
R^2	0.060957	0.033624	0.032336	0.032313	0.000076
Adjusted	0.026810	0.016368	0.023848	0.015032	-0.004271

Figure 9: Attention hypothesis on Bitcoin gold in period 3B

Period 4

VARIABLES	LR	LR (HS)	LR	LR	LR	LR (HS)
Return(-1)				-0.164713** (0.079649)	-0.103358 (0.079992)	
Wikipedia	-1.42E-06 (1.93E-06)	-5.48E-07 (1.91E-06)				-1.06E-06 (1.35E-06)
Wikipedia(-1)	7.64E-07 (2.32E-06)	1.29E-06 (2.34E-06)				
Wikipedia(-2)	-4.62E-06 (2.33E-06)	-5.16E-06** (2.34E-06)	-4.42E-06** (1.86E-06)			
Wikipedia(-3)	4.89E-06 (1.94E-06)	3.32E-06* (1.90E-06)	3.19E-06* (1.87E-06)			
Reddit	5.07E-05 (3.37E-05)			5.34E-05 (3.23E-05)	-1.42E-05 (1.75E-05)	
Reddit(-1)	1.84E-05 (2.98E-05)			4.03E-06 (2.95E-05)		
Reddit(-2)	4.71E-06 (2.97E-05)			1.08E-06 (2.95E-05)		
Reddit(-3)	-5.71E-05** (2.38E-05)			-5.40E-05** (2.33E-05)		
Constant	0.002799 (0.014852)	0.011969 (0.014400)	0.013083 (0.012763)	0.002811 (0.006891)	0.005641 (0.004831)	0.011440 (0.011899)
R^2	0.099654	0.038131	0.036155	0.079798	0.016086	0.003979
Adjusted	0.049980	0.012309	0.023389	0.048710	0.003224	-0.002447

Figure 10: Attention hypothesis on Bitcoin in period 4

VARIABLES	ARCH	ARCH	ARCH	ARCH	ARCH
Return(-1)		0.027716 (0.134323)	0.016420 (0.134673)	0.025358 (0.144135)	0.033793 (0.138085)
Wikipedia	4.86E-05 (3.91E-05)	-4.23E-06 (4.91E-05)	-4.32E-05 (3.24E-05)		
Wikipedia(-1)	-5.46E-05 (4.50E-05)	-4.01E-05 (7.50E-05)			
Wikipedia(-2)	2.94E-05 (4.60E-05)	4.11E-05 (4.67E-05)			
Wikipedia(-3)	-6.20E-05 (3.97E-05)	-4.96E-05 (4.91E-05)			
Reddit	6.61E-05 (0.000174)			-1.49E-05 (0.000198)	-7.07E-05 (0.000128)
Reddit(-1)	0.000107 (0.000191)			-5.19E-05 (0.000183)	
Reddit(-2)	9.64E-05 (0.000188)			2.32E-05 (0.000171)	
Reddit(-3)	-7.83E-05 (0.000168)			-0.000105 (0.000158)	
Constant	0.001255 (0.022869)	0.026264 (0.020960)	0.020131 (0.018865)	0.016957 (0.021840)	0.006211 (0.018604)
R^2	0.045405	0.016409	-0.021936	-0.003561	0.000785
Adjusted	-0.007263	-0.016821	-0.035295	-0.037466	-0.012277

Figure 11: Attention hypothesis on Bitcoin cash in period 4

VARIABLES	LR	LR (HS)	LR (HS)	LR	LR
Wikipedia	-7.61E-05 (0.000177)	-8.30E-05 (0.000177)	-0.000163 (0.000133)		
Wikipedia(-1)	-0.000236 (0.000194)	-0.000222 (0.000193)			
Wikipedia(-2)	0.000100 (0.000195)	0.000101 (0.000193)			
Wikipedia(-3)	4.40E-05 (0.000176)	3.56E-05 (0.000175)			
Reddit	0.003338 (0.002864)			0.003254 (0.002840)	0.003193 (0.002810)
Reddit(-1)	-0.003175 (0.002867)			-0.002925 (0.002844)	
Reddit(-2)	0.002279 (0.002860)			0.002378 (0.002841)	
Reddit(-3)	-0.001838 (0.002878)			-0.001897 (0.002865)	
Constant	0.016230 (0.016817)	0.016625 (0.016408)	0.015631 (0.013252)	-2.86E-05 (0.005325)	-0.002179 (0.004135)
R^2	0.038503	0.017385	0.009600	0.020126	0.008260
Adjusted	-0.014545	-0.008994	0.003210	-0.006179	0.001862

Figure 12: Attention hypothesis on Bitcoin gold in period 4

VARIABLES	LR	LR	LR (HS)	LR	LR
Return(-1)					-0.016617 0.080618
Wikipedia	9.71E-05** (4.69E-05)	5.76E-05 (4.00E-05)	3.01E-05 (3.29E-05)		
Wikipedia(-1)	-7.22E-05 (5.02E-05)	-5.88E-05 (4.45E-05)			
Wikipedia(-2)	3.30E-05 (4.98E-05)	2.48E-05 (4.43E-05)			
Wikipedia(-3)	-3.13E-05 (4.44E-05)	-1.90E-05 (3.96E-05)			
Reddit	-0.002097* (0.001116)			-0.000987 (0.000989)	-0.000771 (0.000845)
Reddit(-1)	0.000349 (0.001142)			0.000110 (0.001010)	
Reddit(-2)	-7.37E-05 (0.001140)			-0.000237 (0.001010)	
Reddit(-3)	0.000633 (0.001115)			0.000641 (0.000956)	
Constant	0.001223 (0.008729)	-0.003896 (0.004948)	-0.005359 (0.004634)	-0.001332 (0.008061)	0.000558 (0.006383)
R^2	0.042142	0.017841	0.005385	0.008547	0.005704
Adjusted	-0.010706	-0.008526	-0.001031	-0.018069	-0.007293

Figure 13: Attention hypothesis on Bitcoin SV in period 4

Attention hypothesis check

Period 1

VARIABLES	ARCH	ARCH	ARCH	ARCH	ARCH	ARCH
Return(-1)	-0.108684 (0.072699)	-0.106723 (0.072849)	-0.100659 (0.076939)	-0.107822 (0.071415)	-0.093993 (0.075264)	-0.102721 (0.077439)
New topics	1.87E-05 (1.39E-05)			3.52E-05 (3.07E-05)		
New topics (-1)				-1.98E-05 (2.72E-05)		
New posts		1.80E-06** (8.93E-07)			3.80E-06* (2.01E-06)	
New posts (-1)					-2.40E-06 (2.01E-06)	
New members			1.53E-05 (1.36E-05)			8.65E-06 (3.13E-05)
New members (-1)						8.05E-06 (2.97E-05)
Constant	-0.002655 (0.007500)	-0.014442 (0.011110)	-0.000457 (0.006935)	-0.001090 (0.007554)	-0.009979 (0.011263)	-0.000981 (0.006873)
R-squared	-0.012385	-0.005244	-0.006603	-0.013706	0.005968	-0.008852
Adj. R-squared	-0.020388	-0.013191	-0.014560	-0.025774	-0.005866	-0.020862

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 14: Bitcointalk analysis on Bitcoin in period 1

VARIABLES	ARCH	ARCH
RETURN(-1)	-0.051133 (0.084663)	-0.070063 (0.079199)
WIKIM	5.70E-08 (2.08E-07)	-6.68E-08 (8.97E-08)
WIKIM(-1)	6.34E-08 (3.41E-07)	
WIKIM(-2)	-4.16E-09 (3.00E-07)	
WIKIM(-3)	-3.74E-07 (2.12E-07)	
Constant	0.013162** (0.006075)	0.007785** (0.003866)
R-squared	0.034756	-0.000232
Adj. R-squared	0.015296	-0.008139

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 15: Multilingual wikipedia analysis on Bitcoin in period 1

Period 2

VARIABLES	ARCH	ARCH
RETURN(-1)	-0.046560 (0.243928)	0.009367 (0.198978)
WIKIM	6.16E-07 (3.05E-07)	1.08E-07 (2.45E-07)
WIKIM(-1)	-4.31E-07 (6.77E-07)	
WIKIM(-2)	-3.40E-08 (7.53E-07)	
WIKIM(-3)	-4.37E-07 (3.28E-07)	
Constant	0.002333 (0.003582)	2.65E-05 (0.023524)
R-squared	0.003403	-0.003386
Adj. R-squared	-0.073258	-0.032054

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 16: Multilingual wikipedia analysis on Bitcoin in period 2

VARIABLES	LS (HS)	ARCH
RETURN(-1)	-0.046560 (0.243928)	
WIKIM	3.77E-05 (4.77E-05)	1.39E-05 (3.72E-05)
WIKIM(-1)	1.37E-05 (6.32E-05)	
WIKIM(-2)	-0.000113 (6.30E-05)	
WIKIM(-3)	9.92E-05 (4.73E-05)	
Constant	-0.059418 (0.050890)	-0.028883 (0.067834)
R-squared	0.112361	0.013880
Adj. R-squared	0.058564	0.000183

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 17: Multilingual wikipedia analysis on Bitcoin cash in period 2

Period 3A

VARIABLES	LR	LR
WIKIM	3.07E-07** (1.29E-07)	3.17E-07*** (1.16E-07)
WIKIM(-1)	-3.20E-07* (1.88E-07)	-3.14E-07*** (1.15E-07)
WIKIM(-2)	-5.22E-08 (1.88E-07)	
WIKIM(-3)	1.07E-07 (1.28E-07)	
Constant	0.000634 (0.020457)	0.012732 (0.018434)
R-squared	0.155279	0.129605
Adj. R-squared	0.087701	0.097368

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 18: Multilingual wikipedia analysis on Bitcoin in period 3A

VARIABLES	LR	LR	LR
WIKIM	4.20E-06*** (1.16E-06)	4.19E-06*** (1.17E-06)	4.15E-06*** (1.17E-06)
WIKIM(-1)	-2.44E-06* (1.25E-06)	-2.34E-06** (1.25E-06)	-3.07E-06** (1.17E-06)
WIKIM(-2)	-2.49E-06* (1.24E-06)	-1.81E-06 (1.17E-06)	
WIKIM(-3)	1.81E-06 (1.16E-06)		
Constant	0.001402 (0.020500)	0.010922 (0.019366)	-0.000530 (0.018268)
R-squared	0.274769	0.240983	0.207861
Adj. R-squared	0.216751	0.197193	0.178523

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 19: Multilingual wikipedia analysis on Bitcoin cash in period 3A

VARIABLES	ARCH	LR	LR
RETURN(-1)	0.013208 (0.095710)		
WIKIM	0.000101* (5.45E-05)	0.000136** (6.52E-05)	3.38E-05 (6.27E-05)
WIKIM(-1)	-9.98E-05 (7.32E-05)	-0.000205*** (6.41E-05)	
WIKIM(-2)	-8.72E-05 (7.27E-05)		
WIKIM(-3)	2.90E-05 (5.15E-05)		
Constant	0.044697 (0.049125)	0.049484 (0.053657)	-0.028692 (0.050118)
R-squared	0.192962	0.167762	0.005179
Adj. R-squared	0.216751	0.136938	-0.012586

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 20: Multilingual wikipedia analysis on Bitcoin gold in period 3A

Period 3B

VARIABLES	LR (HS)	LR (HS)
WIKIM	1.09E-07 (4.96E-07)	-2.52E-07 2.52E-07
WIKIM(-1)	7.93E-08 (6.44E-07)	-2.34E-06** (1.25E-06)
WIKIM(-2)	-4.55E-07 (6.45E-07)	-1.81E-06 (1.17E-06)
WIKIM(-3)	1.26E-09 (4.91E-07)	
Constant	0.007162 (0.009091)	0.006375 (0.008259)
R-squared	0.007471	0.004344
Adj. R-squared	-0.010253	0.000015

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 21: Multilingual wikipedia analysis on Bitcoin in period 3B

VARIABLES	LR	LR (HS)
WIKIM	1.67E-05** (7.93E-06)	1.72E-05*** (6.23E-06)
WIKIM(-1)	-8.20E-06 (8.26E-06)	
WIKIM(-2)	5.30E-06 (8.28E-06)	
WIKIM(-3)	7.64E-06 (7.93E-06)	
Constant	-0.029214*** (0.010081)	-0.024459*** (0.008305)
R-squared	0.046530	0.032080
Adj. R-squared	0.029504	0.027872

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 22: Multilingual wikipedia analysis on Bitcoin cash in period 3B

VARIABLES	LR (HS)	LR (HS)	LR (HS)
WIKIM	0.000203** (7.86E-05)	0.000183** (7.49E-05)	0.000192** (7.59E-05)
WIKIM(-1)	-0.000277*** (9.65E-05)	-0.000229*** (7.44E-05)	-0.000262*** (9.29E-05)
WIKIM(-2)	7.84E-05 (9.55E-05)		4.70E-05 (7.50E-05)
WIKIM(-3)	-4.21E-05 (7.75E-05)		
Constant	0.003536 (0.014634)	0.005186 (0.012580)	0.000849 (0.013848)
R-squared	0.043710	0.040908	0.042591
Adj. R-squared	0.026634	0.032494	0.029882

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 23: Multilingual wikipedia analysis on Bitcoin gold in period 3B

Period 4

VARIABLES	LR (HS)	LR (HS)	LR (HS)
WIKIM	-9.53E-07 (8.41E-07)	-9.21E-07 (8.56E-07)	-4.32E-07 (6.74E-07)
WIKIM(-1)	2.14E-06** (1.01E-06)	6.97E-07 (8.56E-07)	
WIKIM(-2)	-2.75E-06 (1.01E-06)		
WIKIM(-3)	1.08E-06 (8.40E-07)		
Constant	0.012632 (0.018798)	0.006695 (0.015966)	0.011354 (0.014389)
R-squared	0.053797	0.007737	0.002635
Adj. R-squared	0.028395	-0.005234	-0.003800

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 24: Multilingual wikipedia analysis on Bitcoin in period 4

VARIABLES	ARCH	ARCH	ARCH
RETURN(-1)	0.009271 (0.136652)	0.031895 (0.135173)	0.034766 (0.134935)
WIKIM	1.21E-05 (2.61E-05)	6.86E-06 (2.38E-05)	-6.60E-06 (1.04E-05)
WIKIM(-1)	-2.62E-07 (3.54E-05)	-1.62E-05 (2.38E-05)	
WIKIM(-2)	-1.60E-05 (3.94E-05)		
WIKIM(-3)	-9.39E-06 (3.39E-05)		
Constant	0.013581 (0.012996)	0.007957 (0.013051)	0.004539 (0.013155)
R-squared	0.030343	0.020590	0.006878
Adj. R-squared	-0.002416	0.001260	-0.006104

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 25: Multilingual wikipedia analysis on Bitcoin cash in period 4

VARIABLES	LR (HS)	LR (HS)	LR (HS)
WIKIM	-1.91E-05 (0.000168)	-4.80E-05 (0.000160)	-0.000120 (0.000130)
WIKIM(-1)	-0.000199 (0.000180)	-0.000123 (0.000160)	
WIKIM(-2)	0.000117 (0.000181)		
WIKIM(-3)	-5.38E-05 (0.000164)		
Constant	0.018195 (0.019345)	0.019356 (0.017135)	0.013606 (0.015169)
R-squared	0.013553	0.009165	0.005468
Adj. R-squared	-0.012929	-0.003787	-0.000949

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 26: Multilingual wikipedia analysis on Bitcoin gold in period 4

VARIABLES	LR (HS)	LR (HS)
WIKIM	4.22E-05 (3.35E-05)	2.27E-05 (2.81E-05)
WIKIM(-1)	-4.16E-05 (3.71E-05)	
WIKIM(-2)	1.48E-05 (3.69E-05)	
WIKIM(-3)	-1.48E-05 (3.32E-05)	
Constant	-0.003703 (0.005214)	-0.005428 (0.004771)
R-squared	0.013781	0.004178
Adj. R-squared	-0.012694	-0.002247

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 27: Multilingual wikipedia analysis on Bitcoin SV in period 4

2 Financial markets hypothesis

Period 1

VARIABLES	LR	LR	LR	LR	LR	LR	LR
SP500	-0.477649						-0.187857
	(0.429085)						(0.476481)
NIKKEI225		0.067899					
		(0.221074)					
FTSE			-0.606451*				-0.539329
			(0.348688)				(0.388550)
Euro Stoxx 50				-0.407288			
				(0.298495)			
USD-EUR exchange rate					-0.216762		
					(0.472533)		
USD-GBP exchange rate						-0.402617	
						(0.351560)	
Constant	0.004508**	0.004277**	0.004543**	0.004615**	0.004334**	0.004350**	0.004593**
	(0.001908)	(0.001910)	(0.001899)	(0.001911)	(0.001905)	(0.001901)	(0.001906)
R-squared	0.004836	0.000370	0.011723	0.007248	0.000825	0.005117	0.012328
Adj. R-squared	0.000933	-0.003550	0.007848	0.003355	-0.003094	0.001216	0.004551

Standard errors in parentheses

*** p<0.01, **p<0.05, * p<0.1

Figure 28: Financial markets hypothesis on Bitcoin in period 1 (indexes and exchange rates)

VARIABLES	LR	LR	LR	GARCH
VIX	0.018113 (0.033186)			
JNIV		0.062588 (0.041254)		
VFTSE			0.012617 (0.027897)	
VSTOXX 50				0.034112* (0.018087)
Return(-1)				-0.006845 (0.081562)
Constant	0.004338** (0.001905)	0.004429** (0.001898)	0.004332** (0.001905)	0.004103*** (0.001911)
R-squared	0.001167	0.008946	0.000801	0.008148
Adj. R-squared	-0.002750	0.005059	-0.003117	0.000308

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 29: Financial markets hypothesis on Bitcoin in period 1 (volatility)

Period 2

VARIABLES	LR	LR	ARCH	LR	LR	ARCH
SP500	1.414836					
	(1.367728)					
NIKKEI225		0.647773				
		(1.088717)				
FTSE			1.729275			
			(1.178880)			
Euro Stoxx 50				0.337649		
				(1.155378)		
USD-EUR exchange rate					1.463259	
					(1.430497)	
USD-GBP exchange rate						1.898915**
						(0.962173)
Return(-1)			-0.010650			0.001074
			(0.168813)			(0.156257)
Constant	0.006994	0.007116	0.008344	0.007580	0.007691	0.008115
	(0.005265)	(0.005339)	(0.005461)	(0.005274)	(0.005221)	(0.005069)
R-squared	0.014644	0.004893	0.020586	0.001185	0.014324	0.012701
Adj. R-squared	0.000959	-0.008928	-0.007397	-0.012688	0.000634	-0.015507

Standard errors in parentheses

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*** p<0.01, ** p<0.05, * p<0.1

Figure 30: Financial markets hypothesis on Bitcoin in period 2 (indexes and exchange rates)

VARIABLES	LR	LR	ARCH	ARCH	ARCH	ARCH
VIX	-0.015811 (0.070271)					0.058162 (0.091517)
JNIV		-0.013786 (0.090018)				
VFTSE			-0.124824* (0.070458)		-0.117763 (0.073053)	-0.162723* (0.089047)
VSTOXX 50				-0.098282 (0.092110)		
USD-GBP exchange rate					1.674817* (0.915184)	
Return(-1)			-0.027721 (0.184680)	-0.023799 (0.213060)	-0.047938 (0.160446)	-0.025036 (0.175888)
Constant	0.007708 (0.005257)	0.007753 (0.005267)	0.009885* (0.005399)	0.010267* (0.005528)	0.008897* (0.005160)	0.009800 (0.005363)
R-squared	0.000703	0.000326	0.052855	0.001050	0.067152	0.064978
Adj. R-squared	-0.013177	-0.013559	0.025794	-0.027491	0.026593	0.024325

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 31: Financial markets hypothesis on Bitcoin in period 2 (volatility)

VARIABLES	ARCH	ARCH	ARCH	ARCH	LR	LR
SP500	-1.200333 (2.007368)					
NIKKEI225		4.317630* (2.544322)				
FTSE			0.815815 (2.161457)			
Euro Stoxx 50				1.474122 (2.559227)		
USD-EUR exchange rate					2.600085 (3.302682)	
USD-GBP exchange rate						4.340310 (2.747181)
Return(-1)	0.043517 (0.187718)	0.027424 (0.183930)	0.035874 (0.015390)	0.039490 (0.194162)		
Constant	-0.006062 (0.013035)	-0.013279 (0.014362)	-0.007118 (0.015390)	-0.007083 (0.013944)	0.000228 (0.012054)	0.000941 (0.011909)
R-squared	0.014111	-0.032256	0.000248	0.006779	0.008535	0.033507
Adj. R-squared	-0.014057	-0.061749	-0.025956	-0.021599	-0.005236	0.020083

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 32: Financial markets hypothesis on Bitcoin cash in period 2 (indexes and exchange rates)

VARIABLES	LR	ARCH	ARCH	ARCH
VIX	0.030854 (0.161782)			
JNIV		-0.208073 (0.267451)		
VFTSE			0.815815 (2.161457)	
VSTOXX 50				-0.112962 (0.236386)
Return(-1)		0.053623 (0.194810)	0.037210 (-0.112962)	0.037210 (0.203064)
Constant	0.000255 (0.012102)	-0.006536 (0.013024)	-0.007118 (0.015390)	-0.007146 (0.013491)
R-squared	0.000505	-0.002606	0.002543	-0.001097
Adj. R-squared	-0.013377	-0.031252	-0.025956	-0.029699

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 33: Financial markets hypothesis on Bitcoin cash in period 2 (volatility)

Period 3A

VARIABLES	LR	LR	LR	LR	LR	LR
SP500	2.656265					
	(2.499356)					
NIKKEI225		-0.977174				
		(1.161681)				
FTSE			-1.014528			
			(2.083512)			
Euro Stoxx 50				0.705616		
				(1.604289)		
USD-EUR exchange rate					4.257287	
					(2.625195)	
USD-GBP exchange rate						0.994638
						(2.642005)
Constant	0.012664	0.016413*	0.016255*	0.015469*	0.017256**	0.016014*
	(0.008954)	(0.008618)	(0.008710)	(0.008601)	(0.008482)	(0.008684)
R-squared	0.019771	0.012478	0.004216	0.003443	0.044856	0.002525
Adj. R-squared	0.002267	-0.005157	-0.013566	-0.014353	0.027800	-0.015288

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 34: Financial markets hypothesis on Bitcoin in period 3A (indexes and exchange rates)

VARIABLES	LR	LR	LR	LR
VIX	-0.257727 (0.188419)			
JNIV		0.001309 (0.296239)		
VFTSE			0.015042 (0.015608)	
VSTOXX 50				-0.077685 (0.175093)
Constant	0.015063* (0.008481)	0.015571* (0.008658)	0.015608* (0.008622)	0.015233* (0.008631)
R-squared	0.032330	0.000000	0.000183	0.003503
Adj. R-squared	0.015050	-0.017857	-0.017671	-0.014292

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 35: Financial markets hypothesis on Bitcoin in period 3A (volatility)

VARIABLES	LR	LR	LR	LR	LR	LR	LR
SP500	-8.007921*						-7.973371*
	(4.169296)						(4.230743)
NIKKEI225		-0.457287					
		(1.992328)					
FTSE			0.488254*				-8.33E-06
			(0.244949)				(0.000108)
Euro Stoxx 50				-4.074843			
				(2.685558)			
USD-EUR exchange rate					-6.011647		
					(4.509139)		
USD-GBP exchange rate						0.288483	
						(4.510433)	
Constant	0.017317	0.008961	0.009903	0.015469	0.006180	0.008694	0.079710
	(0.014937)	(0.014781)	(0.014207)	(0.014398)	(0.014569)	(0.014825)	(0.811802)
R-squared	0.061804	0.000940	0.066249	0.039488	0.030764	0.000073	0.061905
Adj. R-squared	0.045051	-0.016901	0.049575	0.022336	0.013456	-0.017783	0.027793

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 36: Financial markets hypothesis on Bitcoin cash in period 3A (indexes and exchange rates)

VARIABLES	LR	LR	LR	LR	LR
VIX	0.290793 (0.324277)				
JNIV		0.466695 (0.501254)			
VFTSE			0.488254* (0.244949)		0.415128* (0.245826)
VSTOXX 50				0.116709 (0.298669)	
SP500					-6.701855 (4.174302)
Constant	0.009133 (0.014596)	0.009951 (0.014650)	0.009067 (0.014723)	0.015233* (0.008631)	0.017028 (0.014697)
R-squared	0.014156	0.015244	0.002719	0.003503	0.108052
Adj. R-squared	-0.003448	-0.002341	-0.015089	-0.014292	0.075617

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 37: Financial markets hypothesis on Bitcoin cash in period 3B
(volatility)

VARIABLES	LR	LR	LR	LR	LR (HS)	LR
SP500	1.493421 (6.083181)					
NIKKEI225		0.708369 (2.816880)				
FTSE			1.631112 (5.029281)			
Euro Stoxx 50				1.671224 (3.868200)		
USD-EUR exchange rate					5.727623 (6.430916)	
USD-GBP exchange rate						3.546717 (6.360336)
Constant	-0.005683 (0.021794)	-0.004665 (0.020898)	-0.005157 (0.021025)	-0.004283 (0.020739)	-0.001779 (0.020778)	-0.002457 (0.020905)
R-squared	0.001075	0.001128	0.001875	0.003322	0.013967	0.005522
Adj. R-squared	-0.016763	-0.016709	-0.015949	-0.014476	-0.003641	-0.012236

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 38: Financial markets hypothesis on Bitcoin gold in period 3A (indexes and exchange rates)

VARIABLES	LR	LR (HS)	LR	LR
VIX	-0.036210 (0.023336)			
JNIV		0.495286 (0.711163)		
VFTSE			0.245960 (0.356924)	
VSTOXX 50				-0.412675 (0.419281)
Constant	0.369086 (0.241323)	-0.002580 (0.020785)	-0.003377 (0.020702)	-0.005826 (0.020668)
R-squared	0.041225	0.008587	0.008409	0.017005
Adj. R-squared	0.024104	-0.009117	-0.009298	-0.000549

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 39: Financial markets hypothesis on Bitcoin gold in period 3A
(volatility)

Period 3B

VARIABLES	LR	LR	LR	LR	LR	LR	LR
SP500	-0.142442						-0.002209
	(0.295723)						(0.032970)
NIKKEI225		-0.045722					
		(0.255536)					
FTSE			0.083113				0.048170
			(0.347723)				(0.029496)
Euro Stoxx 50				0.425366			
				(0.330408)			
USD-EUR exchange rate					0.595438		
					(0.591970)		
USD-GBP exchange rate						0.173995	
						(0.563222)	
Constant	-0.001621	-0.001610	-0.001609	-0.001498	-0.001843	-0.001676	-0.001655
	(0.002168)	(0.002169)	(0.002169)	(0.002163)	(0.002177)	(0.002180)	(0.002161)
R-squared	0.001008	0.000139	0.000248	0.007154	0.004380	0.000415	0.012483
Adj. R-squared	-0.003336	-0.004208	-0.004098	0.002838	0.000051	-0.003931	0.003859

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 40: Financial markets hypothesis on Bitcoin in period 3B (indexes
and exchange rates)

VARIABLES	LR	LR	LR	LR
VIX	0.014919 (0.031371)			
JNIV		-0.015459 (0.036785)		
VFTSE			0.047541* (0.027903)	
VSTOXX 50				-0.016718 (0.034098)
Constant	-0.001626 (0.002169)	-0.001595 (0.002169)	-0.001657 (0.002156)	-0.001595 (0.002168)
R-squared	0.000982	0.000767	0.012464	0.001044
Adj. R-squared	-0.003361	-0.003577	0.008170	-0.003299

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 41: Financial markets hypothesis on Bitcoin in period 3B (volatility)

VARIABLES	LR	LR	LR	LR	LR	LR	LR
SP500	0.035268 (0.514770)						
NIKKEI225		0.275299 (0.444255)					-0.025428 (0.468860)
FTSE			0.506758 (0.604139)				
Euro Stoxx 50				1.152523** (0.571902)			1.163587** (0.608375)
USD-EUR exchange rate					1.309003 (1.028590)		
USD-GBP exchange rate						1.014798 (0.977841)	
Constant	-0.003946 (0.003774)	-0.003946 (0.003771)	-0.003945 (0.003769)	-0.003647 (0.003744)	-0.004463 (0.003783)	-0.004340 (0.003784)	-0.003645 (0.003753)
R-squared	0.000020	0.001667	0.003050	0.017351	0.006992	0.004661	0.017364
Adj. R-squared	-0.004327	-0.001285	0.049575	0.013079	0.002675	0.000333	0.008782

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 42: Financial markets hypothesis on Bitcoin cash in period 3B (indexes and exchange rates)

VARIABLES	LR	LR (HS)	LR	LR
VIX	-0.000237 (0.001046)			
JNIV		-0.075761 (0.063830)		
VFTSE			0.059044 (0.048697)	
VSTOXX 50				-0.067094 (0.059192)
Constant	-0.000342 (0.016379)	-0.003880 (0.003763)	-0.004008 (0.003763)	-0.003891 (0.003764)
R-squared	0.000223	0.006088	0.006351	0.005555
Adj. R-squared	-0.004124	0.001766	0.002031	0.001231

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 43: Financial markets hypothesis on Bitcoin cash in period 3B
(volatility)

VARIABLES	LR	LR	LR	LR	LR	LR
SP500	-0.352120 (0.522623)					
NIKKEI225		-0.066652 (0.451828)				
FTSE			-0.607065 (0.613588)			
Euro Stoxx 50				0.156429 (0.586211)		
USD-EUR exchange rate					0.959196 (1.047066)	
USD-GBP exchange rate						0.139764 (0.996008)
Constant	-0.004707 (0.003832)	-0.004678 (0.003835)	-0.004682 (0.003827)	-0.004637 (0.003838)	-0.005054 (0.003851)	-0.004732 (0.003855)
R-squared	0.001970	0.000095	0.004238	0.000310	0.003635	0.000086
Adj. R-squared	-0.002369	-0.004253	-0.000092	-0.004037	-0.000697	-0.004262

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 44: Financial markets hypothesis on Bitcoin gold in period 3B (indexes and exchange rates)

VARIABLES	LR	LR	LR	LR
VIX	0.052228 (0.055387)			
JNIV		-0.016008 (0.065057)		
VFTSE			0.059044 (0.048697)	
VSTOXX 50				0.024613 (0.060300)
Constant	-0.004736 (0.003829)	-0.004663 (0.003836)	-0.004008 (0.003763)	-0.004699 (0.003835)
R-squared	0.003851	0.000263	0.006351	0.000724
Adj. R-squared	-0.000480	-0.004084	0.002031	-0.003621

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 45: Financial markets hypothesis on Bitcoin gold in period 3B (volatility)

Period 4

VARIABLES	LR (HS)	LR	LR	LR	LR	LR	LR
SP500	-0.129383 (0.289253)						
NIKKEI225		0.019288 (0.250377)					
FTSE			0.589437 (0.367320)				
Euro Stoxx 50				0.311893 (0.352873)			
USD-EUR exchange rate					-1.280639 (0.867544)		
USD-GBP exchange rate						-1.256755** (0.553985)	-1.259075** (0.554611)
Wiki							1.08E-06 (1.33E-06)
Constant	0.002339 (0.002522)	0.000038 (-0.006413)	0.002080 (0.002504)	0.002116 (0.002523)	0.002375 (0.002505)	0.002078 (0.002482)	0.011363 (0.011742)
R-squared	0.001289	0.000139	0.016342	0.005015	0.013864	0.032136	0.036232
Adj. R-squared	-0.005154	-0.004208	0.009996	-0.001404	0.007501	0.025891	0.023716

Standard errors in parentheses

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*** p<0.01, ** p<0.05, * p<0.1

Figure 46: Financial markets hypothesis on Bitcoin in period 4 (indexes and exchange rates)

VARIABLES	LR (HS)	LR	LR	LR (HS)
VIX	0.020497 (0.043413)			
JNIV		0.005618 (0.052022)		
VFTSE			-0.028390 (0.038318)	
VSTOXX 50				-0.037565 (0.045930)
Constant	0.002310 (0.002520)	0.002296 (0.002522)	-0.001657 (0.002521)	0.002251 (0.002517)
R-squared	0.001436	0.000075	0.003529	0.004297
Adj. R-squared	-0.005006	-0.006376	-0.002900	-0.002127

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 47: Financial markets hypothesis on Bitcoin in period 4 (volatility)

VAR.	ARCH	ARCH	LR	ARCH	ARCH	LR	ARCH	ARCH
SP500	-0.054321 (0.547775)							
NIKKEI		0.187539 (0.401509)						
FTSE			1.957841** (0.848833)				3.342498** (1.431137)	2.995049*** (0.565136)
SX5E				1.560062** (0.774488)			-0.394152 (1.275109)	
USD-EUR					-1.552245 (1.868442)			
USD-GBP						-1.448607*** (0.500376)	-4.891237*** (0.938033)	-4.749511*** 0.887616
Return(-1)	0.032428 (0.135422)	0.035453 (0.136897)		0.057221 (0.133091)	0.046763 (0.136644)	-0.049904 (0.134614)	0.101562 (0.113129)	0.102979 (0.111594)
Constant	-0.002249 (0.005729)	-0.002282 (0.005546)	0.002599 (0.005787)	-0.003203 (0.005217)	-0.001993 (0.005584)	1.114338 (0.386661)	-0.003305 (0.004364)	-0.003511 0.004182
R-squared	0.009613	0.007410	0.033184	0.032527	0.026174	-0.044803	0.103194	0.098118
Adj. R-squared	-0.003333	-0.005565	0.026946	0.019881	0.013444	-0.058460	0.079437	0.080318

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 48: Financial markets hypothesis on Bitcoin cash in period 4 (indexes and exchange rates)

VARIABLES	ARCH	ARCH	ARCH	LR
VIX	-0.009835 (0.100205)			
JNIV		0.006236 (0.092850)		
VFTSE			-0.076837 (0.089262)	
VSTOXX 50				-0.126956 (0.085419)
Return(-1)	0.035068 (0.135175)	0.033745 (0.136394)		0.040629 (0.131583)
Constant	-0.002341 (0.005615)	-0.002243 (0.005540)	0.003014 (0.005873)	-0.002279 (0.005468)
R-squared	0.009632	0.009939	0.004758	0.029665
Adj. R-squared	-0.003314	-0.003003	-0.001663	0.016981

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 49: Financial markets hypothesis on Bitcoin cash in period 4 (volatility)

VARIABLES	LR (HS)	LR	LR	LR	LR	LR
SP500	0.207311 (0.420994)					
NIKKEI225		0.263084 (0.363856)				
FTSE			0.789842 (0.535368)			
Euro Stoxx 50				0.576238 (0.512869)		
USD-EUR exchange rate					-1.920751 (1.262294)	
USD-GBP exchange rate						-1.917401** (0.805089)
Constant	-6.31E-05 (0.003671)	2.38E-05 (0.003664)	-0.000264 (0.003650)	-0.000304 (0.003667)	0.000145 (0.003644)	-0.000305 (0.003608)
R-squared	0.001562	0.003362	0.013848	0.008079	0.014718	0.035302
Adj. R-squared	-0.004880	-0.003068	0.007486	0.001679	0.008361	0.029078

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 50: Financial markets hypothesis on Bitcoin gold in period 4 (indexes and exchange rates)

VARIABLES	LR	LR (HS)	LR	LR
VIX	-0.034357 (0.063180)			
JNIV		-0.012971 (0.075721)		
VFTSE			-0.075402 (0.055548)	
VSTOXX 50				-0.091587 (0.066598)
Constant	-1.75E-05 (0.003668)	1.86E-06 (0.003671)	-0.000259 (0.003655)	-7.71E-05 (0.003649)
R-squared	0.001904	0.000189	0.011748	0.012055
Adj. R-squared	-0.004535	-0.006261	0.005372	0.005681

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 51: Financial markets hypothesis on Bitcoin gold in period 4 (volatility)

VARIABLES	LR (HS)	LR (HS)	LR (HS)	LR (HS)	LR (HS)	LR (HS)
SP500	-0.058453 (0.492553)					
NIKKEI225		-0.624094 (0.423148)				
FTSE			-0.483264 (0.629090)			
Euro Stoxx 50				-0.680675 (0.599552)		
USD-EUR exchange rate					-2.423353 (1.473952)	
USD-GBP exchange rate						-2.011551 (0.944590)
Constant	-0.003709 (0.004295)	-0.003748 (0.004261)	-0.003560 (0.004289)	-0.003352 (0.004287)	-0.003570 (0.004255)	-0.004069 (0.004233)
R-squared	0.000091	0.013840	0.003793	0.008247	0.017141	0.028426
Adj. R-squared	-0.006360	0.007478	-0.002634	0.001849	0.010800	0.022158

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 52: Financial markets hypothesis on Bitcoin SV in period 4 (indexes and exchange rates)

VARIABLES	LR (HS)	LR (HS)	LR (HS)	LR (HS)
VIX	0.023603 (0.073911)			
JNIV		0.150619 (0.087705)		
VFTSE			-0.008469 (0.065323)	
VSTOXX 50				0.090534 (0.077996)
Constant	-0.003708 (0.004291)	-0.003557 (0.004252)	-0.003762 (0.004298)	-0.003639 (0.004273)
R-squared	0.000223	0.018672	0.000108	0.008618
Adj. R-squared	-0.004124	0.012341	-0.006342	0.002222

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 53: Financial markets hypothesis on Bitcoin SV in period 4 (volatility)

3 Economic and competitive hypothesis

Period 1

VARIABLES	LR	LR	LR	LR
Supply growth	-0.222149 (0.508790)	-0.302147 (0.503350)		
Address	0.002242 (0.020357)			-0.002363 (0.019866)
Transactions		0.005861 (0.014989)	0.006608 (0.014646)	
Interest rate 1mo	0.006283 (0.027150)		0.005634 (0.027074)	
Interest rate 1yr		0.104507 (0.100003)		0.105616 (0.105616)
Constant	0.014717 (0.022423)	0.018006 (0.022169)	0.004963 (0.001986)	0.004745** (0.001993)
R^2	0.000868	0.005494	0.000911	0.003967
Adjusted R^2	-0.009686	-0.005011	-0.006100	-0.003023

Figure 54: Economic hypothesis on Bitcoin in period 1

Period 2

VARIABLES	ARCH	ARCH	ARCH	ARCH
Return(-1)	0.017663 (0.180177)	0.046991 (0.171975)	-0.022766 (0.179159)	-0.021035 (0.177790)
Supply growth	-1.285605 (0.888648)	-1.381539 (0.892289)		
Address	0.000456 (0.042798)			
Transactions		0.003208 (0.041837)		
Interest rate 1mo	-0.078615 (0.131779)			
Interest rate 1yr		0.286932 (0.607280)		
BCH return			0.137538*** (0.038103)	0.131592*** (0.038334)
SP 500				0.310961 (1.098504)
Constant	0.064288 (0.039321)	0.067071* (0.039375)	0.009849* (0.005529)	0.009643* (0.005537)
R^2	0.053003	0.051667	0.066584	0.074598
Adjusted R^2	-0.002703	-0.004117	0.039915	0.034363

Figure 55: Economic and competitive hypothesis on Bitcoin in period 2

VARIABLES	ARCH	ARCH	ARCH	ARCH	ARCH	ARCH
Return(-1)	-0.036013 (0.194366)	-0.000404 (0.173705)	0.005597 (0.190078)	0.005459 (0.170006)	0.118774 (0.187905)	0.133103 (0.178061)
Supply growth	-0.069089 (0.152809)	-0.057799 (0.151805)				
Address	-0.021744** (0.008467)		-0.018682** (0.009471)			
Transactions		-0.030996*** (0.006745)		-0.030480*** (0.006603)		
IR 1mo	-0.256724 (0.239822)					
IR 1yr		0.283876 (1.440020)				
BTC return					0.866976*** (0.222775)	0.882261*** (0.213106)
SP 500						-2.301497 (1.834673)
Constant	-0.006447 (0.017955)	-0.006201 (0.017644)	-0.010706 (0.013052)	-0.010657 (0.011732)	-0.009778 (0.013157)	-0.007830 (0.012552)
R^2	-0.030154	-0.007607	-0.023962	-0.012914	0.098849	0.112217
Adjusted R^2	-0.090752	-0.066878	-0.053218	-0.041854	0.073101	0.073617

Figure 56: Economic and competitive hypothesis on Bitcoin cash in period

Period 3A

VARIABLES	LR	LR	LR	LR	LR	LR
Return(-1)	0.192830 (0.130025)	0.238393* (0.124602)				
Supply growth	2.949962 (2.411341)	1.195046 (0.977969)				
Address	-0.123259 (0.114609)					
Transactions		-0.135445* (0.074668)	-0.012152 (0.061987)			
Interest rate 1mo	0.496529 (0.349332)					
Interest rate 1yr		2.686520*** (0.904641)	2.062383** (0.946684)			
BCH return				-0.020273 (0.095811)	-0.017329 (0.078313)	
BTG return				-0.011683 (0.067759)		-0.019805 (0.055362)
SP500			1.975553 (2.467344)			
VIX					-0.252687 (0.191399)	
Constant	-0.122386 (0.107826)	-0.120570 (0.097389)	0.002349** (0.000949)	0.015693 (0.008735)	0.015221* (0.008584)	0.015487* (0.008606)
R^2	0.106038	0.195987	0.105979	0.003092	0.033191	0.002280
Adjusted R^2	0.037272	0.134140	0.056311	-0.033160	-0.001966	-0.015536

Figure 57: Economic and competitive hypothesis on Bitcoin in period 3A

VARIABLES	LR	LR	LR	LR	ARCH	LR	ARCH
Return(-1)					-0.018291 (0.074749)		8.04E-05 (0.196270)
Supply growth	8.789198*** (2.262766)	8.452021*** (2.295203)	6.757031*** (2.485487)				
Address	0.061454 (0.035490)	0.055606 (0.036591)					
Transactions			0.111671** (0.047654)	0.175881*** (0.045225)			
Interest rate 1mo	0.337397 (0.531419)		0.338601 (0.524009)				
Interest rate 1yr		0.283064 (1.372777)		-0.949761 (1.394311)			
BTC return					0.242361 (0.169916)		0.369307* (0.220349)
BTG return					0.479532*** (0.056249)	0.406675*** (0.074407)	
SP500		-4.822003 (3.818309)		-7.779100** (3.776609)		-8.587194*** (3.389892)	
VIX			0.167287 (0.284034)				0.370755** (0.186432)
Constant	-0.336049*** (0.089377)	-0.317261*** (0.091664)	-0.254989** (0.098381)	0.021624 (0.013816)	0.000646 (0.010659)	0.019598 (0.012143)	-0.002368 (0.015810)
R^2	0.285568	0.301283	0.317685	0.267636	0.273679	0.391817	-0.038797
Adjusted R^2	0.245878	0.248550	0.266190	0.226949	0.232567	0.369701	-0.097597

Figure 58: Economic and competitive hypothesis on Bitcoin cash in period

VARIABLES	LR	LR (HS)	LR	LR (HS)	LR (HS)	LR	LR	LR
Return(-1)			-0.067655 (0.133977)					
Supply	13.09379	11.51328	16.89889*					
growth	(9.904470)	(9.546736)	(9.771154)					
Address	0.069466 (0.056171)		0.065776 (0.056839)					
Transactions		0.147221** (0.068013)		0.155120** (0.065217)	0.164631** (0.064525)			
Interest rate 1mo	0.930146 (0.914093)		1.047636 (0.824343)					
Interest rate 1yr		1.226255 (2.094345)	1.444751 (2.159892)	-0.949761 (1.394311)				
BTC return						-0.046242 (0.268186)	-0.115124 (0.321818)	
BCH return						0.799579*** (0.157284)		0.800950*** (0.155716)
SP500		-4.109128 (4.745278)						
VIX	-0.351540 (1.570491)							
Constant	0.102505 (0.033467)	-0.474317 (0.394116)	-0.702126* (0.403120)	-0.005373 (0.019862)	-0.002275 (0.019822)	-0.010179 (0.017828)	-0.002259 (0.021339)	-0.010911 (0.017166)
R^2	0.102505	0.150453	0.097443	0.131800	0.105833	0.321226	0.002280	0.320859
Adjusted R^2	0.033467	0.085103	0.028015	0.099645	0.089575	0.296543	-0.015536	0.308731

Figure 59: Economic and competitive hypothesis on Bitcoin gold in period

Period 3B

VARIABLES	LR	LR	LR	LR	LR	ARCH	ARCH	LR(HS)
Return(-1)						0.047496 (0.040505)	0.033463 (0.036906)	
Infla.	0.573140 (0.564040)	0.520032 (0.574067)						
Address	-0.000823 (0.014500)		0.004341 (0.014631)					
Transactions		0.024363 (0.017412)		0.015159 (0.017852)				
IR 1mo	0.428349** (0.188701)			0.367692* (0.194207)	0.417331** (0.185032)			
IR 1yr		0.118944 (0.339375)	0.164414 (0.331794)					
BCH return						0.456496*** (0.013447)	0.303210*** (0.026695)	
BTG return							0.179519*** (0.027426)	0.445685*** (0.022959)
SP500		-0.208831 (0.304195)						
Constant	-0.025509 (0.023099)	-0.023001 (0.023465)	-0.001807 (0.002209)	-0.002098 (0.002160)	-0.002154 (0.002162)	0.000779 (0.001281)	0.000724 (0.001199)	0.000475 (0.001340)
R^2	0.026235	0.015169	0.001751	0.024892	0.022693	0.649665	0.692901	0.620983
Adjusted	0.013423	-0.002184	-0.006967	0.016376	0.014157	0.646592	0.688842	0.619335
R^2								

Figure 60: Economic and competitive hypothesis on Bitcoin in period 3B

VARIABLES	LR (HS)	LR (HS)	LR (HS)	LR	LR	LR	LR	LR (HS)
Return(-1)		-0.003726 (0.065551)						
Supply growth	4.558493*** (1.677737)	4.453826*** (1.697259)			4.5027*** (1.709603)			
Address	0.038325** (0.017967)		0.045418** (0.017816)					0.046221*** (0.017792)
Transac.		0.013059** (0.005622)		0.012136** (0.005656)			0.013161** (0.005686)	
IR 1mo	0.549500* (0.325259)			0.646145* (0.320462)		0.710158** (0.322173)		
IR 1yr		0.186727 (0.568917)	0.121114 (0.562380)					
SP500		0.023237 (0.516816)			0.034073 (0.508377)			0.146086 (0.510377)
VIX						0.015961 (0.054147)	0.011738 (0.054141)	
Constant	-0.181494 (0.065220)	-0.177115 (0.065955)	-0.004026 (0.003791)	-0.004855 (0.003728)	-0.1787*** (0.066452)	-0.004866 (0.003765)	-0.004058 (0.003739)	-0.003865 (0.003728)
R^2	0.069548	0.052578	0.028497	0.040138	0.029420	0.021211	0.023299	0.028647
Adj. R^2	0.057305	0.035883	0.020012	0.031755	0.020943	0.012663	0.014768	0.020164

Figure 61: Economic hypothesis on Bitcoin cash in period 3B

VARIABLES	ARCH	ARCH	ARCH	LR	GARCH
Return(-1)	-0.075310 (0.050680)	-0.077371 (0.051337)	-0.075291 (0.050922)		-0.038279 (0.038262)
BTC return	1.448810*** (0.051538)	1.449415*** (0.053110)	1.448803*** (0.053213)		0.803743*** (0.081128)
BTG return				0.809297*** (0.036909)	0.450260*** (0.046971)
SP500		0.186724 (0.334847)			
VIX			0.000139 (0.041530)		
Constant	-0.004599* (0.002474)	-0.004498* (0.002505)	-0.004599* (0.002480)	-0.000163 (0.002154)	-0.001702 (0.001901)
R^2	0.648121	0.649367	0.648117	0.676416	0.742903
Adjusted R^2	0.645034	0.644733	0.643466	0.675009	0.739505

Figure 62: Competitive hypothesis on Bitcoin cash in period 3B

VARIABLES	LR	LR (HS)	LR	LR	LR	LR	GARCH
Return(-1)							-0.017907 (0.032989)
Supply growth	-1.015279 (0.998061)	-1.057455 (1.001271)					
Address	0.000166 (0.004722)		-9.24E-05 (0.004758)				
Transactions		0.009343 (0.009159)		0.008942 (0.009103)			
Interest rate 1mo	0.539695 (0.329118)			0.543179* (0.328258)			
Interest rate 1yr		0.194391 (0.575960)	0.185178 (0.578377)				
BTC return					1.393323*** (0.071776)		0.651728*** (0.082651)
BCH return						0.835807*** (0.038118)	0.513191*** (0.049945)
Constant	0.036273 (0.041115)	0.038470 (0.041257)	-0.004902 (0.003907)	-0.005346 (0.003836)	-0.002435 (0.002364)	-0.001377 (0.002187)	-0.001050 (0.001845)
R^2	0.016332	0.009649	0.000455	0.016015	0.620983	0.676416	0.712627
Adjusted R^2	0.003389	-0.003382	-0.008274	0.007421	0.619335	0.675009	0.708829

Figure 63: Economic and competitive hypothesis on Bitcoin gold in period

3B

Period 4

VARIABLES	LR	LR	LR	LR
Return(-1)	-0.094383 (0.080356)			
Supply growth	0.888071 (0.685189)	0.991035 (0.719919)		
Address	0.005525 (0.019365)		0.009961 (0.019361)	
Transactions		-0.019523 (0.027243)		-0.004271 (0.025266)
Interest rate 1mo	-0.341498 (0.349116)			-0.308986 (0.350652)
Interest rate 1yr		-0.061390 (0.396699)	-0.037402 (0.394491)	
Constant	-0.031917 (0.026558)	-0.035911 (0.027837)	0.002244 (0.002546)	0.002400 (0.002526)
R^2	0.028742	0.012773	0.001855	0.005341
Adjusted R^2	0.003013	-0.006584	-0.011108	-0.007577

Figure 64: Economic hypothesis on Bitcoin in period 4

VARIABLES	GARCH	LR (HS)	LR (HS)	GARCH	GARCH	LR (HS)	GARCH
Return(-1)				-0.044075 (0.046114)			
BCH return	0.381861*** (0.010097)			0.308211*** (0.011932)	0.252427*** (0.018417)		0.220453*** (0.016574)
BTG return		0.563008*** (0.031619)			0.281264*** (0.031696)	0.468793*** (0.037700)	0.237406*** (0.033493)
BSV return			0.375367*** (0.036312)	0.151984*** (0.017617)		0.133726*** (0.032247)	0.100275*** (0.021406)
Constant	0.001042 (0.001296)	0.002280 (0.001445)	0.003690* (0.001945)	0.002325** (0.001039)	0.000637 (0.001295)	0.002780** (0.001380)	0.002143* (0.001140)
R^2	0.628813	0.671650	0.408076	0.675085	0.732368	0.704633	0.739421
Adj. R^2	0.626418	0.669532	0.404257	0.668672	0.728892	0.700798	0.734311

Figure 65: Competitive hypothesis on Bitcoin in period 4

VARIABLES	ARCH	LR (HS)	LR (HS)	ARCH	LR (HS)
Return(-1)	0.214697*** (0.022650)			0.222817*** (0.023595)	
Supply growth		15.65112*** (2.472756)	15.60413*** (2.427943)		15.52882*** (2.442209)
Address	0.030879* (0.016314)		0.040949** (0.019562)		
Transactions		-0.001767 (0.014191)		0.003936 (0.010733)	
Interest rate 1mo	-2.298854*** (0.505198)			-2.158583*** (0.561090)	
Interest rate 1yr		0.111351 (0.823310)	0.219327 (0.812517)		
SP500					-0.191474 (0.602919)
Constant	-0.003706 (0.003430)	-0.589960*** (0.093811)	-0.587938*** (0.092121)	-0.003663*** (0.003471)	-0.585353*** (0.092752)
R^2	0.059049	0.209914	0.231835	0.047596	0.210249
Adjusted R^2	0.040477	0.194423	0.216772	0.028799	0.199992

Figure 66: Economic hypothesis on Bitcoin cash in period 4

VARIABLES	ARCH	LR (HS)	GARCH	LR (HS)	GARCH	ARCH	GARCH
Return(-1)	0.030580 (0.042193)		0.025845 (0.052700)		0.031743 (0.038293)	0.143176*** (0.042084)	0.073872* (0.042437)
BTC return	1.693411*** (0.046194)			1.512754*** (0.140338)	1.283478*** (0.099671)		1.191092*** (0.115583)
BTG return			1.197050*** (0.045026)		0.378948*** (0.099298)	0.834016*** (0.067718)	0.322231*** (0.106133)
BSV return		0.887906*** (0.083766)		0.320069*** (0.082463)		0.423390*** (0.043571)	0.145687*** (0.043295)
Constant	-0.006863*** (0.002146)	0.006608 (0.004486)	0.002621 (0.002398)	0.001026 (0.003437)	-0.002632 (0.002901)	0.004381 (0.002849)	-0.002022 (0.003138)
R^2	0.643614	0.420252	0.578771	0.669567	0.678659	0.666023	0.710303
Adjusted R^2	0.638956	0.416511	0.573265	0.665275	0.672317	0.659431	0.702629

Figure 67: Competitive hypothesis on Bitcoin cash in period 4

VARIABLES	LR (HS)	LR	LR	LR
Supply growth	1.849837 (2.984200)	1.803118 (2.935790)		
Address	0.036611* (0.019438)		0.038489** (0.004758)	
Transactions		0.041642*** (0.015842)		0.042666*** (0.009103)
Interest rate 1mo	-0.788494 (0.503568)			-0.766090 (0.495502)
Interest rate 1yr		-0.120120 (0.560444)	-0.208047 (0.565841)	
Constant	-0.069550 (0.112836)	-0.068192 (0.110999)	-4.92E-05 (0.003662)	0.000296 (0.003575)
R^2	0.041453	0.047288	0.025442	0.059193
Adjusted R^2	0.022658	0.028607	0.012786	0.046974

Figure 68: Economic hypothesis on Bitcoin gold in period 4

VARIABLES	LR (HS)	LR	ARCH	LR (HS)	LR	LR	LR
Return(-1)			-0.030310 (0.084017)				0.033991 (0.135145)
BTC return	1.192968*** (0.066998)			0.871201*** (0.106767)		1.068715*** (0.085946)	0.834373*** (0.110500)
BCH return		0.471289*** (0.032911)		0.172927*** (0.045805)	0.392103*** (0.042231)		0.154911*** (0.047901)
BSV return			0.581524*** (0.030888)		0.167302*** (0.057843)	0.114293*** (0.050503)	0.064711 (0.051361)
Constant	-0.002714 (0.002109)	-0.001536 (0.002411)	0.004440* (0.002628)	-0.002547 (0.002025)	-0.000651 (0.002375)	-0.002003 (0.002105)	-0.002162 (0.002044)
R^2	0.671650	0.569526	0.351960	0.699465	0.591706	0.682219	0.702551
Adj. R^2	0.669532	0.566749	0.343488	0.695562	0.586404	0.678092	0.696719

Figure 69: Competitive hypothesis on Bitcoin gold in period 4

VARIABLES	LR (HS)	LR	LR	LR (HS)
Supply growth	0.966425 (1.383696)	1.132610 (1.402442)		
Address	0.006107 (0.005905)		0.006470 (0.005968)	
Transactions		-0.002073 (0.003480)		-0.002142 (0.003513)
Interest rate 1mo	-0.827313 (0.592892)			-0.872182 (0.609204)
Interest rate 1yr		0.126930 (0.702578)	0.265106 (0.670052)	
SP500				-0.308408 (0.526306)
Constant	-0.039786 (0.052322)	-0.046287 (0.052960)	-0.003428 (0.004321)	-0.003309 (0.004294)
R^2	0.023279	0.007093	0.008067	0.016770
Adjusted R^2	0.004128	-0.012376	-0.004815	-0.002509

Figure 70: Economic hypothesis on Bitcoin SV in period 4

VARIABLES	LR	LR	LR	LR	LR	LR	LR
BTC return	1.087140*** (0.105168)			0.569119*** (0.167191)		0.751175*** (0.181140)	0.430874** (0.199716)
BCH return			0.473306*** (0.044652)	0.278399*** (0.071727)	0.328163*** (0.066495)		0.250958*** (0.074831)
BTG return		0.704538*** (0.074939)			0.307971*** (0.106477)	0.281621** (0.124439)	0.158684 (0.125948)
Constant	-0.006220 (0.003310)	-0.003743 (0.003425)	-0.005291 (0.003271)	-0.005951* (0.003170)	-0.004818 (0.003200)	-0.005456* (0.003285)	-0.005547* (0.003181)
R^2	0.408076	0.363157	0.420252	0.460821	0.450123	0.427129	0.466357
Adjusted R^2	0.404257	0.359048	0.416511	0.453818	0.442982	0.419689	0.455894

Figure 71: Competitive hypothesis on Bitcoin SV in period 4

4 General models

Period 2

VARIABLES	ARCH	ARCH	ARCH	ARCH	LR	LR	ARCH
Wiki	2.20E-06*** (7.98E-07)	2.64E-06*** (7.29E-07)	2.22E-06*** (6.87E-07)				
Wiki(-1)	-2.53E-06*** (8.28E-07)	-2.93E-06*** (7.80E-07)	-2.75E-06*** (6.95E-07)				
Dwiki					2.02E-06* (1.05E-06)	2.20E-06** (1.08E-06)	2.28E-06*** (7.27E-07)
BCH return			0.148112*** (0.043454)	0.127119*** (0.038238)			
USDGBP ex.r.	0.923215 (0.999885)						0.908201 (0.948209)
Transactions		-0.030419 (0.033323)				-0.028470 (0.035051)	
IR 1mo				-0.083364 (0.154394)			
Return(-1)	-0.026262 (0.162388)	-0.015012 (0.177466)	-0.067232 (0.162238)	-0.044399 (0.184670)			
Constant	0.020968 (0.026758)	0.020800 (0.026478)	0.030306 (0.025321)	0.010098* (0.005523)	0.007567 (0.005129)	0.007641 (0.005142)	0.009217* 0.004861
R-squared	0.064901	0.058509	0.131575	0.078042	0.048942	0.057698	0.055478
Adj. R-squared	0.009895	0.003127	0.080491	0.037957	0.035733	0.031155	0.028871

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 72: General models on Bitcoin in period 2

VARIABLES	ARCH	GARCH	GARCH	ARCH
Bitcoin return	0.841728*** (0.235223)	1.058250*** (0.240991)	1.049514*** (0.209902)	
NIKKEI 225	3.324248 (2.728527)			4.628634 (3.109947)
Wiki		1.01E-05 (0.000119)	3.40E-05 (4.81E-05)	
Wiki(-1)		2.58E-05 (0.000127)		
Reddit				9.73E-05 (0.000164)
Return(-1)	0.107523 (0.181697)	0.253497 (0.166155)	0.255453* (0.147520)	0.022081 (0.190184)
Constant	-0.014704 (0.014400)	-0.033005 (0.039974)	-0.031267 (0.038472)	-0.033745 (0.039081)
R-squared	0.072870	0.097135	0.098257	0.016116
Adj. R-squared	0.032560	0.044026	0.059051	-0.026661

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 73: General models on Bitcoin cash in period 2

Period 3A

VARIABLES	LR	LR	LR (HS)	LR	LR	LR
US interest rate 1yr	1.778377** (0.840364)	1.664436* (0.834133)				1.714531** (0.831878)
US interest rate 1mo				0.567095 (0.362459)		
Wiki	4.74E-07** (2.20E-07)					
Wiki (-1)	-4.69E-07** (2.19E-07)					
Wikim		2.84E-07** (1.14E-07)				
Wikim (-1)		-2.74E-07** (1.14E-07)				
DWikim					3.22E-07*** (1.11E-07)	2.84E-07** (1.10E-07)
Redditd			1.56E-06 (4.64E-06)			
Bitcoin cash return			-0.026825 (0.079338)			
Bitcoin gold return			-0.026825 (0.079338)	-0.036485 (0.055690)		
Constant	0.008652 (0.017121)	0.006760 (0.018193)	0.009325 (0.021176)	0.013652 (0.008578)	0.015010* (0.008037)	0.010794 (0.008077)
R-squared	0.169243	0.190425	0.004601	0.044794	0.129750	0.192144
Adj. R-squared	0.122219	0.144600	-0.031596	0.010059	0.114209	0.162767

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 74: General models on Bitcoin in period 3A

VARIABLES	LR	LR	LR	LR	LR	LR	LR
Supply gr.	8.910506*** (2.273011)			10.67646*** (2.428306)			
SP500	-5.544661 (3.772087)						
VFTSE		-0.950215 (3.215262)					
BTG return			0.329316*** (0.080295)				
Transac.		0.168312*** (0.045455)	0.103556** (0.042762)				0.111354** 0.052503
Wiki				4.43E-06*** (1.41E-06)			
Wiki(-1)				-3.41E-06** (1.40E-06)			
Dwiki						4.76E-06*** (1.31E-06)	2.99E-06* (1.52E-06)
Wikim					4.27E-06*** (1.19E-06)		
Wikim(-1)					-3.32E-06*** (1.24E-06)		
Constant	-0.333793*** (0.090552)	0.011300 (0.013449)	0.011185 (0.011621)	-0.418052*** (0.096701)	-0.000908 (0.018373)	0.009018 (0.013218)	0.010233 (0.012837)
R-squared	0.266696	0.199874	0.386298	0.411711	0.214335	0.190005	0.251243
Adj. R-squared	0.240030	0.170779	0.363981	0.378411	0.169864	0.175541	0.224015

79

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 75: General models on Bitcoin cash in period 3A

VARIABLES	LR	LR	LR (HS)	LR	LR (HS)
Bitcoin cash return	0.728208*** (0.156152)				
Transactions	0.109954* (0.056219)	0.153108** (0.065835)	0.112800* (0.065052)		0.100960 (0.068885)
Wiki		-0.000825 (0.000649)			
Wiki(-1)		0.001148* (0.000652)			
Wikim			0.000105 (6.64E-05)		
Wikim(-1)			-0.000174** (6.55E-05)		
Reddit				0.007625** (0.003139)	0.006345* (0.003237)
Reddit(-1)				-0.005946* (0.003016)	-0.005143* (0.003024)
Address				0.037515 (0.055795)	
Constant	-0.008970 (0.016951)	-0.040425 (0.078920)	0.047977 (0.052694)	-0.012929 (0.034509)	-0.009684 (0.034062)
R-squared	0.362555	0.158323	0.212440	0.158759	0.184629
Adj. R-squared	0.338946	0.110681	0.167861	0.111141	0.138476

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 76: General models on Bitcoin gold in period 3A

VARIABLES	LR	LR (HS)	LR (HS)	LR
Transactions		0.113349* (0.065050)	0.103514 (0.067879)	
DWikim	0.000172*** (5.46E-05)	0.000140*** (5.65E-05)		
Dreddit			0.005684*** (0.002518)	0.007069*** (0.002343)
Constant	-0.003009 (0.019140)	-0.001206 (0.018955)	-0.000447 (0.019139)	-0.002588 (0.019266)
R-squared	0.150785	0.197571	0.182963	0.139843
Adj. R-squared	0.135621	0.167852	0.152702	0.124483

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 77: General models on Bitcoin gold in period 3A (end)

Period 3B

VARIABLES	LR	LR (HS)	LR (HS)	ARCH	ARCH
US interest rate 1mo	0.375069** (0.187166)	0.415910** (0.184798)		0.187225 (0.114603)	
VFTSE	0.037837 (0.028142)		0.047483* (0.027903)		0.023467 (0.017353)
Wiki		-4.25E-07 (4.75E-07)			
Wikim			-2.51E-07 (2.51E-07)		
Bitcoin cash return				0.451890*** (0.013888)	0.451849*** (0.013506)
Return(-1)				0.046088 (0.039874)	0.049184 (0.040676)
Constant	-0.002122 (0.002154)	0.003988 (0.007178)	0.006299 (0.008225)	0.000734 (0.001259)	0.000700 (0.001275)
R-squared	0.029483	0.025231	0.016778	0.653922	0.652112
Adj. R-squared	0.021007	0.016718	0.008191	0.649348	0.647515

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 78: General models on Bitcoin in period 3B

VARIABLES	LR	LR	LR	LR	LR (HS)
Supply growth			4.456362*** (1.694968)	3.987359** (1.694174)	-0.006851 (0.037447)
Address	0.044124** (0.017349)				
Transac.		0.012090** (0.005600)			0.006036* (0.003274)
SX5E	1.000236* (0.560265)		1.132247** (0.564743)		
Wiki	2.03E-05*** (7.55E-06)	2.13E-05*** (7.58E-06)		2.04E-05*** (7.60E-06)	
BTG return					0.806556*** (0.037633)
Constant	-0.019205*** (0.006853)	-0.020340*** (0.006875)	-0.176598*** (0.065885)	-0.174345*** (0.065449)	-0.000335 (0.002158)
R-squared	0.075224	0.055541	0.046144	0.059075	0.677155
Adj. R-squared	0.063055	0.047292	0.037813	0.050857	0.672888

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 79: General models on Bitcoin cash in period 3B

VARIABLES	LR	LR	GARCH	LR
Dwikim	0.000206*** (6.92E-05)		6.23E-05 (5.48E-05)	
Dwiki		0.000198*** (7.58E-05)		0.000127*** (4.32E-05)
BTC return			1.397601*** (0.052522)	
BCH return				0.827533*** (0.037601)
Return(-1)			-0.052922 (0.043546)	
Constant	-0.004483 (0.003764)	-0.004515 (0.003780)	-0.002065 (0.002301)	-0.001306 (0.002152)
R-squared	0.037101	0.028847	0.620137	0.688241
Adj. R-squared	0.032915	0.024624	0.615117	0.685518

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 80: General models on Bitcoin gold in period 3B

Period 4

VARIABLES	LR (HS)	LR (HS)	GARCH	LR
USD-GBP exchange rate	-1.259075** (0.554611)	-1.259216** (0.555001)	-0.017370 (0.430489)	-0.516364 (0.438985)
Wiki	-1.08E-06 (1.33E-06)			
Wikim		-4.42E-07 (6.66E-07)		
Bitcoin cash return			0.381718*** (0.010505)	
Bitcoin SV return				0.368070*** (0.036794)
Constant	0.011363 (0.011742)	0.011354 (0.014200)	0.001046 (0.001302)	0.003576* (0.001945)
R-squared	0.036232	0.034895	0.629107	0.413347
Adj. R-squared	0.023716	0.022361	0.624290	0.405728

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 81: General models on Bitcoin in period D

VARIABLES	LR (HS)	LR (HS)	ARCH	LR (HS)	LR (HS)	ARCH	ARCH
Return(-1)		0.085739 (0.128130)	0.031989 (0.043520)			0.136015 (0.115043)	0.032337 (0.041829)
FTSE	1.604725** (0.761096)	2.225010*** (0.847989)					
Supply growth	15.20836*** (2.409394)			9.725986*** (2.048765)			
Address		0.045324** (0.022137)	0.038667* (0.021352)			0.060075*** (0.017359)	
Transactions					-0.010770 (0.012131)		
USD-GBP ex. rate		-3.093801** (1.285653)				-3.948635*** (0.844019)	-0.472644 (0.628168)
Bitcoin return			1.699133*** (0.053227)				1.673715*** (0.050076)
Bitcoin SV return				0.767682*** (0.082475)	0.898237*** (0.084627)		
Constant	-0.573848*** (0.091471)	0.002148 (0.005668)	-0.006786*** (0.002206)	-0.362568*** (0.077880)	0.006748 (0.004492)	0.000718 (0.004394)	-0.007023*** (0.002161)
R-squared	0.231904	0.086952	0.644284	0.494261	0.423204	0.094408	0.643005
Adj. R-squared	0.221929	0.069049	0.665805	0.487693	0.415713	0.076535	0.635959

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 82: General models on Bitcoin cash in period D

VARIABLES	LR (HS)	LR (HS)	LR (HS)	LR (HS)	LR (HS)	LR
Wikim	-0.000130 (0.000129)			-0.000133 (8.52E-05)	-3.01E-05 (0.000129)	
Wikim(-1)					-8.37E-05 (0.000128)	
wiki		-0.000183 (0.000131)	1.82E-06 (7.76E-05)			
USD-GBP ex. r.						-1.847148** (0.790361)
Address	0.038742** (0.019248)					
Transactions		0.043459*** (0.015700)				0.041079*** (0.015513)
BTC return			1.193160*** (0.067711)			
BCH return				0.471815*** (0.032762)		
BSV return					0.512902*** (0.055250)	
Return(-1)						
Constant	0.014795 (0.015033)	0.017496 (0.012994)	-0.002888 (0.007727)	0.013483 (0.009934)	0.014733 (0.013742)	-0.000263 (0.003540)
R-squared	0.030961	0.056542	0.620137	0.576206	0.367678	0.077315
Adj. R-squared	0.018376	0.044289	0.615117	0.570703	0.355197	0.065332

87

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 83: General models on Bitcoin gold in period 4

VARIABLES	LR	LR	LR	LR	LR	LR
US interest rate 1mo	-0.515157 (0.458761)					
Redditd		0.000307 (0.000653)				0.000600 (0.000683)
USD-GBP ex. rate			-0.893210 (0.736575)			
Address				0.000560 (0.004566)		
Transactions					5.39E-05 (0.002671)	
Bitcoin return	1.078644*** (0.105351)	1.095339*** (0.106860)				
Bitcoin cash return			0.465266*** (0.045075)	0.472653*** (0.045110)		
Bitcoin gold return					0.704675*** (0.075489)	0.719110*** (0.076810)
Constant	-0.006034* (0.003312)	-0.007960 (0.004966)	-0.005414* (0.003267)	-0.005280 (0.003282)	-0.003744 (0.003436)	-0.007100 (0.005135)
R-squared	0.412884	0.408928	0.425735	0.420308	0.363158	0.366327
Adj. R-squared	0.405259	0.401251	0.418277	0.412780	0.354888	0.358097

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 84: General models on Bitcoin SV in period D

5 Ethereum Comparison

Period 1

	GARCH	GARCH	LR	LR
Return(-1)	0.026910 (0.085179)	0.030116 (0.083887)		
Supply growth	-0.421138 (0.329661)	-0.476486 (0.305098)		
Address	0.003321 (0.005718)		0.005042 (0.007291)	
Transactions		0.002497 (0.005666)		0.004787 (0.007306)
Interest rate 1mo	0.040699 (0.027613)			0.047937 (0.048977)
Interest rate 1yr		0.201050 (0.099742)	0.163690 (0.179227)	
Constant	0.060590 (0.046454)	0.069036 (0.043023)	0.007605 (0.003766)	0.007795 (0.003747)
R^2	0.003080	0.006502	0.005417	0.005900
Adjusted R^2	-0.012807	-0.009330	-0.002415	-0.001928

Figure 85: Economic hypothesis on Ethereum in period 1

Model	GARCH	GARCH	GARCH	GARCH	GARCH	GARCH
Return(-1)	-0.139580* (-0.139580)	0.008954 (0.084051)		-0.105257 (0.072864)	-0.106622 (0.073690)	0.004645 (0.082382)
Wikipedia	9.13E-07 (6.68E-06)	1.55E-05** (6.46E-06)	1.68E-05*** (6.42E-06)			1.76E-05*** (4.46E-06)
Wikipedia(-1)	2.07E-05*** (9.27E-06)	2.84E-06 (8.73E-06)	1.77E-06 (8.57E-06)			
Wikipedia(-2)	7.14E-06 (7.14E-06)	-1.16E-05** (5.45E-06)	-1.13E-05** (4.64E-06)			-1.05E-05*** (3.70E-06)
Wikipedia(-3)	2.24E-06 (7.63E-06)	3.41E-07 (4.97E-06)				
Reddit	0.000884*** (0.000113)			0.000828*** (8.63E-05)	0.000758*** (9.09E-05)	
Reddit(-1)	-0.000661*** (0.000142)			-0.000312** (0.000139)	-0.000468*** (0.000131)	
Reddit(-2)	-0.000178 (0.000127)			7.54E-06 (9.01E-05)	-0.000230*** (7.26E-05)	
Reddit(-3)	-0.000441*** (0.000119)			-0.000451*** (8.80E-05)		
Constant	0.000402 (0.001866)	-0.010257 (0.006711)	-0.010823 (0.006210)	-0.002196 (0.003783)	-0.001980 (0.003590)	-0.010515* (0.006337)
R^2	0.132409	0.044937	0.052015	0.138590	0.144195	0.055630
Adjusted	0.100408	0.025682	0.040684	0.121222	0.130502	0.044343

Figure 86: Attention hypothesis on Ethereum in period 1

	LR	LR	GARCH	GARCH	LR
Dwiki	3.51E-05*** (7.06E-06)	3.50E-05*** (7.14E-06)			2.38E-05*** (7.84E-06)
Dreddit			0.000669*** (8.55E-05)	0.000668*** (8.54E-05)	0.000371*** (0.000120)
Transactions		0.000941 (0.007030)			
Address				-6.67E-10 (3.96E-09)	
Constant	0.007476** (0.003578)	0.007474** (0.003585)	0.002018 (0.002788)	0.002169 (0.002872)	0.007345** (0.003519)
R^2	0.088254	0.088318	0.076183	0.077337	0.121559
Adjusted R^2	0.084678	0.081140	0.072560	0.070072	0.114642

Figure 87: General models on Ethereum in period 1

Period 2

	LR	LR	LR	
Return(-1)		-0.135217 (0.121074)		
Supply growth	-0.193475 (0.550253)	-0.195273 (0.553296)		
Address	0.002854 (0.057484)		0.003444 (0.058118)	
Transactions		0.004131 (0.058109)		0.002353 (0.057110)
Interest rate 1mo	-0.072343 (0.130699)			-0.072897 (0.129881)
Interest rate 1yr		0.024024 (0.585758)	0.049691 (0.588157)	
VIX			0.010561 (0.083443)	
Constant	0.015996 (0.041359)	0.016073 (0.041704)	0.001506 (0.006324)	0.001617 (0.006146)
R^2	0.006240	0.001914	0.000367	0.004485
Adjusted R^2	-0.036350	-0.040861	-0.042474	-0.023558

Figure 88: Economic hypothesis on Ethereum in period 2

Model	LR	LR	LR	LR	LR
Wikipedia	1.01E-05 (8.81E-06)		-1.37E-06 (4.86E-06)		-1.30E-07 (8.61E-06)
Wikipedia(-1)	-1.94E-05 (1.32E-05)				
Wikipedia(-2)	1.21E-05 (1.32E-05)				
Wikipedia(-3)	-7.93E-06 (8.79E-06)				
Reddit		-2.38E-05 (8.59E-05)		-1.39E-05 (4.47E-05)	-1.38E-05 (7.86E-05)
Reddit(-1)		7.31E-05 (0.000109)			
Reddit(-2)		-3.69E-05 (0.000109)			
Reddit(-3)		-6.41E-05 (8.46E-05)			
SP500				0.620089 (1.612500)	
Constant	0.027629 (0.032521)	0.024486 (0.024243)	0.008926 (0.026568)	0.007801 (0.021819)	0.008758 (0.026766)
R^2	0.044172	0.031608	0.001106	0.003611	0.001539
Adjusted	-0.013757	-0.027083	-0.012768	-0.024456	-0.026587

Figure 89: Attention hypothesis on Ethereum in period 2

VARIABLES	LR (HS)	LR (HS)	LR (HS)
ETC return	0.582043*** (0.059805)	0.583358*** (0.060032)	0.584722*** (0.060489)
wiki		-2.32E-06 (3.21E-06)	
SP500			-0.446129 (1.064670)
Constant	0.004084 (0.004025)	0.016419 (0.017544)	0.004320 (0.004088)
R-squared	0.568137	0.571288	0.569202
Adj. R-squared	0.562139	0.559212	0.557067

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 90: Competitive hypothesis on Ethereum in period 2

Period 3A

	LR	LR	LR	LR	LR	LR (HS)
Supply growth	8.483037 (12.22391)	5.913737 (12.74849)				
Address	0.018877 (0.090860)		0.031579 (0.093790)			
Transactions		0.039241 (0.095900)		0.007625 (0.088979)		
Interest rate 1mo	0.816038** (0.358872)			0.786939** (0.354730)	0.792947** (0.350094)	0.792156** (0.346355)
Interest rate 1yr		0.481155 (0.949433)	0.434908 (0.937423)			
VIX					-0.007122 (0.185890)	
Constant	-0.664216 (0.989019)	-0.455527 (1.031568)	0.022975** (0.009098)	0.022108** (0.008578)	0.022235** (0.008426)	0.022251 *** (0.008340)
R^2	0.093635	0.011550	0.007611	0.085552	0.085454	0.085429
Adjusted R^2	0.043281	-0.043364	-0.028476	0.052299	0.052198	0.069098

Figure 91: Economic hypothesis on Ethereum in period 3A

Model	LR	LR	LR (HS)	LR	LR (HS)
Wikipedia	-7.82E-06 (6.22E-06)	4.75E-06 (4.58E-06)	2.18E-06 (2.20E-06)		
Wikipedia(-1)	8.60E-06 (7.93E-06)	3.68E-06 (6.97E-06)			
Wikipedia(-2)	-1.15E-05 (7.17E-06)	-1.29E-05* (7.06E-06)			
Wikipedia(-3)	1.06E-05 (5.97E-06)	5.14E-06 (4.59E-06)			
Reddit	0.000129*** (3.65E-05)			0.000101*** (2.83E-05)	0.000100*** (2.53E-05)
Reddit(-1)	-9.40E-05** (4.93E-05)			-8.02E-05* (4.60E-05)	-8.91E-05*** (2.58E-05)
Reddit(-2)	2.77E-05 (5.81E-05)			7.63E-06 (4.62E-05)	
Reddit(-3)	-5.78E-05 (4.55E-05)			-1.99E-05 (2.91E-05)	
Constant	0.007619 (0.029571)	0.015812 (0.031195)	-0.000227 (0.026574)	0.001568 (0.025697)	-0.002588 (0.022408)
R^2	0.319394	0.124197	0.017262	0.243849	0.228467
Adjusted	0.201028	0.054133	-0.000287	0.183357	0.199891

Figure 92: Attention hypothesis on Ethereum in period 3A

VARIABLES	LR (HS)	LR (HS)	LR (HS)	LR (HS)	LR (HS)
ETC return	0.496050*** (0.078055)	0.499829*** (0.077212)	0.493607*** (0.079791)		
wiki		2.53E-06 (1.67E-06)			
SP500			0.373183 (1.974805)		
dredditd				9.61E-05*** (2.48E-05)	8.65E-05*** (2.51E-05)
interest rate 1mo					0.522902 (0.326608)
Constant	0.016501 (0.006717)	-0.012514 (0.020290)	0.016133** (0.007049)	0.019798** (0.007780)	0.018663** (0.007706)
R-squared	0.419012	0.442237	0.419389	0.212113	0.247197
Adj. R-squared	0.408637	0.421955	0.398276	0.198043	0.219822

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 93: Competitive hypothesis and general model on Ethereum in period

3A

Period 3B

	LR	LR	LR	LR
Supply growth	0.970795 (2.471156)	0.936108 (2.485906)		
Address	-0.018134 (0.031766)		-0.013567 (0.031832)	
Transactions		-0.013637 (0.031850)		-0.018315 (0.031704)
Interest rate 1mo	0.459138 (0.284436)			0.458156 (0.283899)
Interest rate 1yr		-0.070073 (0.509016)	0.434908 (0.937423)	
SP500			0.288418 (0.462194)	
Constant	-0.080892 (0.190717)	-0.077639 (0.191868)	-0.005292 (0.003367)	-0.005980* (0.003305)
R^2	0.012729	0.001446	0.002529	0.012061
Adjusted R^2	-0.000261	-0.011692	-0.010596	0.003433

Figure 94: Economic hypothesis on Ethereum in period 3B

Model	LR	LR	LR	LR	LR	LR
Wikipedia	7.73E-07 (1.42E-06)	6.99E-07 (1.46E-06)	3.34E-07 (9.93E-07)			
Wikipedia(-1)	-1.09E-06 (1.75E-06)	-1.16E-06 (1.80E-06)				
Wikipedia(-2)	2.18E-06 (1.76E-06)	2.00E-06 (1.80E-06)				
Wikipedia(-3)	-1.48E-06 (1.43E-06)	-1.37E-06 (1.46E-06)				
Reddit	1.32E-06 (7.87E-06)			7.41E-07 (7.81E-06)	-9.45E-06 (6.25E-06)	1.26E-06 (7.78E-06)
Reddit(-1)	-5.28E-06 (9.49E-06)			-4.56E-06 (9.42E-06)		-5.56E-06 (9.35E-06)
Reddit(-2)	-2.53E- 05*** (9.46E-06)			-2.53E- 05*** (9.42E-06)		-2.00E-05 (7.77E-06)
Reddit(-3)	7.77E-06 (7.85E-06)			7.81E-06 (7.81E-06)		
Constant	- 0.000497*** (0.005142)	-0.005424 (0.004921)	-0.006424 (0.004477)	0.000622 (0.003835)	-0.002951 (0.003661)	0.001423 (0.003741)
R^2	0.074100	0.006947	0.000492	0.065585	0.009847	0.061469
Adjusted	0.040431	-0.010787	-0.003853	0.048899	0.005542	0.049010

Figure 95: Attention hypothesis on Ethereum in period 3B

VARIABLES	LR (HS)	LR (HS)	LR (HS)
ETC return	0.729329*** (0.039052)	0.732795*** (0.039184)	0.730952*** (0.038963)
wiki		-6.58E-07 (6.28E-07)	
SP500			0.422959 (0.282896)
Constant	-0.002920 (0.002083)	-0.000901 (0.002838)	-0.002878 (0.002078)
R-squared	0.602619	0.604513	0.606460
Adj. R-squared	0.600891	0.601059	0.603023

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 96: Competitive hypothesis on Ethereum in period 3B

Period 4

	LR	ARCH
Return(-1)	-0.108460 (0.080456)	-0.125553 (0.096355)
Supply growth	-0.153788 (0.427220)	-0.531291 (0.432171)
Address	0.044848 0.044159()	
Transactions		0.034684 (0.038914)
Interest rate 1mo	-0.891951 (0.542677)	
Interest rate 1yr		-0.550196 (0.588648)
Constant	0.011582 (0.024027)	0.029616 (0.025673)
R^2	0.040435	0.019014
Adjusted R^2	0.015016	-0.006973

Figure 97: Economic hypothesis on Ethereum in period 4

Model	LR	LR	LR (HS)	LR	LR
Wikipedia	6.47E-06 (1.98E-05)	5.11E-06 (1.94E-05)	-1.24E-05 (1.35E-05)		
Wikipedia(-1)	-2.54E-05 (2.53E-05)	-1.69E-05 (2.48E-05)			
Wikipedia(-2)	7.58E-06 (2.53E-05)	4.35E-06 (2.49E-05)			
Wikipedia(-3)	-1.16E-05 (2.01E-05)	-1.79E-05 (1.90E-05)			
Reddit	7.15E-05 (8.83E-05)			3.73E-05 (8.02E-05)	-1.64E-05 (3.22E-05)
Reddit(-1)	8.96E-05 (7.10E-05)			8.33E-05 (6.90E-05)	
Reddit(-2)	-2.42E-05 (7.01E-05)			-2.26E-05 (6.88E-05)	
Reddit(-3)	-8.04E-05 (5.39E-05)			-9.45E-05 (5.13E-05)	
Constant	0.028054 (0.026109)	0.037071 (0.024566)	1.35E-05 (0.018468)	0.003718 (0.008752)	0.004941 (0.005821)
R^2	0.062578	0.018375	0.005389	0.050219	0.001674
Adjusted	0.010858	-0.007977	-0.001028	0.024721	-0.004767

Figure 98: Attention hypothesis on Ethereum in period 4

VARIABLES	ARCH	ARCH	ARCH
ETC return	0.708822*** (0.027283)	0.706784*** (0.027402)	0.714018*** (0.028454)
wiki		-3.65E-06 (8.30E-06)	
SP500			-0.460981 (0.204505)
Constant	0.002754 (0.002473)	0.007608 (0.012015)	0.002748 (0.002413)
R-squared	0.576380	0.575268	0.580327
Adj. R-squared	0.574090	0.570652	0.575765

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 99: Competitive hypothesis on Ethereum in period 4

6 Ethereum Hark Fork Analysis

Ethereum Before FORK

VARIABLES	LR	LR	LR	ARCH	ARCH	ARCH
Wiki	8.42E-06 (1.84E-05)	4.01E-05** (1.57E-05)	9.91E-06 (6.56E-06)			
Wiki(-1)	-1.96E-05 (2.24E-05)	-2.77E-05 (2.11E-05)				
Wiki(-2)	1.51E-05 (2.24E-05)	1.07E-05 (2.11E-05)				
Wiki(-3)	-2.57E-05 (1.75E-05)	-1.84E-05 (1.58E-05)				
Reddit	0.000963*** (0.000289)			0.000992*** (0.000308)	0.000996*** (0.000229)	0.001006*** (0.000273)
Reddit(-1)	0.000115 (0.000291)			-2.37E-05 (0.000264)	-3.97E-05 (0.000244)	
Reddit(-2)	-0.000703** (0.000287)			-0.000733** (0.000322)	-0.000738*** (0.000230)	-0.000705*** (0.000245)
Reddit(-3)	0.000346 (0.000288)			5.03E-05 (0.000329)		
Return(-1)						-0.047346 0.070564
Constant	0.011224 (0.011036)	0.002864 (0.009798)	-0.003289 (0.009304)	-0.002172 (0.008152)	0.001193 (0.007232)	-0.002855 (0.007978)
R-squared	0.089712	0.026184	0.008081	0.078180	0.078443	0.083499
Adj. R-squared	0.062741	0.011968	0.004538	0.064723	0.068426	0.073537

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Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 100: Attention hypothesis on Ethereum in period 0

VARIABLES	GARCH	GARCH	GARCH
Return(-1)	-0.053405 (0.071909)	-0.055251 (0.071796)	
WIKIM	-6.13E-06 (9.60E-06)	-5.95E-06 (9.94E-06)	6.03E-08 (4.89E-06)
WIKIM(-1)	6.87E-06 (1.60E-05)	8.15E-06 (1.03E-05)	
WIKIM(-2)	2.80E-06 (1.27E-05)		
WIKIM(-3)	-1.24E-06 (7.03E-06)		
Constant	0.002752 (0.008906)	0.002841 (0.008329)	0.005632 0.008133
R-squared	0.003967	0.004226	-0.001150
Adj. R-squared	-0.014275	-0.006559	-0.004726

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 101: Attention hypothesis on Ethereum in period A (multi)

VARIABLES	GARCH	GARCH	LR	LR
Supply growth	-0.743624** (0.289249)	-0.692397** (0.324217)		
Address	0.180499*** (0.045107)		0.223331*** (0.058059)	
Transactions		0.180690*** (0.045302)		0.216051*** (0.058700)
Interest rate 1mo	0.065515 (0.220671)			0.153160 (0.267006)
Interest rate 1yr		0.129333 (0.080078)	0.224556** (0.111996)	
Return(-1)	-0.043167 (0.068377)	-0.044748 (0.069447)	0.006283 (0.004937)	
Constant	0.114613*** 0.040597	0.106738** (0.045653)		
R-squared	0.054677	0.065148	0.058757	0.046319
Adj. R-squared	0.040977	0.051599	0.052009	0.039483

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 102: Economic hypothesis on Ethereum in period 0

VARIABLES	LR	LR	GARCH	LR	LR	LR
SP500	-0.146237 (0.604553)					
NIKKEI225		-0.293437 (0.338097)				
FTSE			-0.495828 (0.522744)			
Euro Stoxx 50				-0.171677 (0.409541)		
USD-EUR exchange rate					0.802828 (1.003190)	
USD-GBP exchange rate						1.542220 (1.076290)
Return(-1)			-0.052519 (0.073135)			
Constant	0.008572* (0.005051)	0.008414* (0.005044)	0.005893 (0.004770)	0.008486* (0.005049)	0.008579* (0.005043)	0.008227 (0.005035)
R-squared	0.000209	0.002683	0.010405	0.000627	0.002282	0.007280
Adj. R-squared	-0.003362	-0.000879	0.003285	-0.002942	-0.001281	0.003734

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 103: Markets hypothesis on Ethereum in period 0 (indexes and exchange rates)

VARIABLES	LR	LR	LR	GARCH
VIX	-0.003153 (0.082629)			
JNIV		0.190759 (0.086926)		
VFTSE			0.053206 (0.078527)	
VSTOXX 50				0.092166 (0.099967)
Return(-1)				-0.006845 (0.081562)
Constant	0.008527* (0.005053)	0.008694* (0.005006)	0.008580* (0.005045)	0.008614* (0.005042)
R-squared	0.000005	0.016908	0.001637	0.003027
Adj. R-squared	-0.003566	0.013397	-0.001929	-0.000534

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 104: Markets hypothesis on Ethereum in period 0 (volatility)

Ethereum after FORK

	GARCH	GARCH	LR	LR	GARCH
Return(-1)	0.026910 (0.085179)	0.030116 (0.083887)			0.038190 (0.068465)
Supply growth	-0.421138 0.329661	-0.476486 0.305098			
Address	0.003321 0.005718		0.005042 0.007291		
Transactions		0.002497 0.005666		0.004787 0.007306	
Interest rate 1mo	0.040699 0.027613			0.047937 0.048977	
Interest rate 1yr		0.201050 0.099742	0.163690 0.179227		
SP500					
ETC return					0.230009*** (0.046335)
Constant	0.060590 0.046454	0.069036 0.043023	0.007605 0.003766	0.007795 0.003747	6.87E-05 (0.003286)
R^2	0.003080	0.006502	0.005417	0.005900	0.117316
Adjusted R^2	-0.012807	-0.009330	-0.002415	-0.001928	0.110338

Figure 105: Economic hypothesis on Ethereum in period A

Model	GARCH	GARCH	GARCH	GARCH	GARCH	GARCH
Return(-1)	-0.139580* (-0.139580)	0.008954 (0.084051)		-0.105257 (0.072864)	-0.106622 (0.073690)	0.004645 (0.082382)
Wikipedia	9.13E-07 (6.68E-06)	1.55E-05** (6.46E-06)	1.68E-05*** (6.42E-06)			1.76E-05*** (4.46E-06)
Wikipedia(-1)	2.07E-05*** (9.27E-06)	2.84E-06 (8.73E-06)	1.77E-06 (8.57E-06)			
Wikipedia(-2)	7.14E-06 (7.14E-06)	-1.16E-05** (5.45E-06)	-1.13E-05** (4.64E-06)			-1.05E-05*** (3.70E-06)
Wikipedia(-3)	2.24E-06 (7.63E-06)	3.41E-07 (4.97E-06)				
Reddit	0.000884*** (0.000113)			0.000828*** (8.63E-05)	0.000758*** (9.09E-05)	
Reddit(-1)	-0.000661*** (0.000142)			-0.000312** (0.000139)	-0.000468*** (0.000131)	
Reddit(-2)	-0.000178 (0.000127)			7.54E-06 (9.01E-05)	-0.000230*** (7.26E-05)	
Reddit(-3)	-0.000441*** (0.000119)			-0.000451*** (8.80E-05)		
Constant	0.000402 (0.001866)	-0.010257 (0.006711)	-0.010823 (0.006210)	-0.002196 (0.003783)	-0.001980 (0.003590)	-0.010515* (0.006337)
R^2	0.132409	0.044937	0.052015	0.138590	0.144195	0.055630
Adjusted	0.100408	0.025682	0.040684	0.121222	0.130502	0.044343

Figure 106: Attention hypothesis on Ethereum in period A

VARIABLES	GARCH	GARCH
Return(-1)	0.103846 (0.066767)	0.052533 (0.076409)
WIKIM	-8.65E-07 (3.91E-06)	-1.97E-06 (3.41E-06)
WIKIM(-1)	-1.47E-06 (6.27E-06)	1.90E-06 (3.41E-06)
WIKIM(-2)	3.51E-06 (5.05E-06)	
WIKIM(-3)	-1.37E-06 (3.31E-06)	
Constant	0.001807 (0.006046)	0.001166 (0.005831)
R-squared	-0.027267	-0.023890
Adj. R-squared	-0.045677	-0.034744

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 107: Attention hypothesis on Ethereum classic in period A (check)

VARIABLES	LR	LR	LR	LR	GARCH	GARCH
SP500	0.554714 (0.844806)					
NIKKEI225		0.215204 (0.434447)				
FTSE			0.487015 (0.688812)			
Euro Stoxx 50				0.426291 (0.588299)		
USD-EUR exchange rate					-0.692812 (0.640982)	
USD-GBP exchange rate						-0.873597** (0.385768)
Return(-1)				0.022162 (0.081714)		0.020699 (0.081786)
Constant	0.007788** (0.003757)	0.007870 (0.003754)	0.007827** (0.003750)	0.007697** (0.003766)	0.000440 (0.003009)	0.000628 (0.002967)
R-squared	0.001688	0.000961	0.001957	0.002055	-0.015304	-0.011348
Adj. R-squared	-0.002227	-0.002956	-0.001957	-0.001859	-0.023330	-0.019343

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 108: Markets hypothesis on Ethereum in period A (indexes and exchange rates)

	(1)	(2)	(3)	(4)
VARIABLES	GARCH	GARCH	LR	GARCH
VIX	-0.002010 (0.041045)			
JNIV		-0.030211 (0.081597)		
VFTSE			-0.000598 (0.054861)	
VSTOXX 50				0.017558 (0.037341)
Return(-1)	0.018418 (0.081746)	-0.069585 (0.062663)		0.019135 (0.081582)
Constant	0.000242 (0.002999)	0.008368 (0.003791)	0.008006** (0.003746)	0.000265 (0.002998)
R-squared	-0.018298	0.005358	0.000000	-0.022832
Adj. R-squared	-0.026347	-0.002505	-0.003921	-0.030918

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 109: Markets hypothesis on Ethereum in period A (volatility)

Ethereum Classic after Fork					
	LR (HS)	LR (HS)	LR (HS)	LR (HS)	LR
Supply growth	-0.154833 (0.407179)	-0.228365 (0.406029)			
Address	0.005078 (0.006469)		0.005311 (0.006446)		
Transactions		0.059706* (0.030618)		0.059970** (0.030342)	
Interest rate 1mo	-0.016038 (0.047474)			-0.012097 (0.047039)	
Interest rate 1yr		-0.157302 (0.173068)	-0.193191 (0.173305)		
SP500					
ETH return					0.403200*** (0.055137)
Constant	0.028738 (0.058581)	0.039448 (0.058387)	0.006893* (0.003643)	0.006343* (0.003612)	0.003225 (0.003327)
R^2	0.003351	0.019783	0.005417	0.015490	0.173356
Adjusted R^2	-0.008467	0.008160	-0.002415	0.007738	0.170114

Figure 110: Economic hypothesis on Ethereum classic in period A

Model	LR	LR	LR	LR	LR	LR
Wikipedia	0.000223** (0.000112)	0.000334*** (0.000109)	0.000340*** (9.81E-05)			0.000188* (0.000102)
Wikipedia(-1)	-0.000407*** (0.000145)	-0.000293** (0.000142)	-0.000266*** (0.000100)			-0.000209* (0.000106)
Wikipedia(-2)	0.000298* (0.000154)	2.28E-05 (0.000142)				
Wikipedia(-3)	-0.000149 (0.000120)	1.32E-05 (0.000112)				
Reddit	0.004386*** (0.001018)			0.004007*** (0.000888)	0.004271*** (0.000818)	0.003947*** (0.000961)
Reddit(-1)	-0.002407 (0.001045)			-0.002704*** (0.000928)	-0.002743*** (0.000823)	-0.002170** (0.000952)
Reddit(-2)	-0.000917 (0.001017)			-0.000338 (0.000929)		
Reddit(-3)	0.001114 (0.000998)			0.000756 (0.000892)		
ETH return						0.161128*** (0.038204)
Constant	-0.002023 (0.005063)	0.003405 (0.003802)	0.003100 (0.003751)	-0.002196 (0.003783)	-0.000582 (0.004418)	-0.001154 (0.004599)
R^2	0.128197	0.048238	0.047987	0.138590	0.097357	0.112106
Adjusted	0.099730	0.032949	0.040461	0.121222	0.090221	0.097956

Figure 111: Attention hypothesis on Ethereum classic in period A

VARIABLES	LR (HS)	
WIKIM	0.000339*** (0.000107)	0.000333*** (9.45E-05)
WIKIM(-1)	-0.000318** (0.000138)	-0.000274*** (9.66E-05)
WIKIM(-2)	5.60E-05 (0.000138)	
WIKIM(-3)	-1.57E-05 (0.000109)	
Constant	0.003658 (0.003782)	0.003329 (0.003736)
R-squared	0.049438	0.048848
Adj. R-squared	0.034168	0.041329

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 112: Attention hypothesis on Ethereum classic in period A (check)

VARIABLES	LR	LR	LR	LR	LR (HS)	LR (HS)
SP500	0.511417 (0.818168)					
NIKKEI225		0.046321 (0.420908)				
FTSE			-0.033007 (0.667690)			
Euro Stoxx 50				0.511890 (0.569388)		
USD-EUR exchange rate					-1.780267** (0.892961)	
USD-GBP exchange rate						-1.294775* (0.666036)
Constant	0.006252* (0.003639)	0.006424* (0.003637)	0.006465* (0.003635)	0.006082* (0.003645)	0.006568* (0.003600)	0.006548 (0.003601)
R-squared	0.001530	0.000010	0.001957	0.003160	0.015348	0.014604
Adj. R-squared	-0.002386	-0.003912	-0.001957	-0.000750	0.011486	0.010739

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 113: Markets hypothesis on Ethereum classic in period A (indexes and exchange rates)

VARIABLES	LR	LR	LR	GARCH
VIX	-0.073372 (0.063043)			
JNIV		0.010260 (0.078882)		
VFTSE			-0.062257 (0.052984)	
VSTOXX 50				-0.103145 (0.065146)
Return(-1)	0.018418 (0.081746)	-0.069585 (0.062663)		0.019135 (0.081582)
Constant	0.006381 (0.003618)	0.006471* (0.003630)	0.006394* (0.003618)	0.006327* (0.003610)
R-squared	0.005284	0.000066	0.005385	0.009735
Adj. R-squared	0.001383	-0.003855	0.001485	0.005851

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 114: Markets hypothesis on Ethereum in period A (volatility)