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SUPPLEMENTARY MATERIALS

Table S1. Correlation matrix

	Return	ER ^{USD/CNY}	MP ^{US}	MP ^{CN}	Gold Price	Oil Price	S&P500	Shanghai Index	EL ^{US}	EPU ^{US}	EL ^{CN}	EPU ^{CN}
Return	1.000	-0.076	-0.058	0.076	0.061	-0.109	0.060	0.169	0.003	-0.075	0.107	-0.020
ER ^{USD/CNY}	-0.076	1.000	0.760	-0.507	0.313	-0.064	0.159	-0.642	-0.376	0.125	0.112	0.119
MP ^{US}	-0.058	0.760	1.000	-0.438	0.477	0.355	0.496	-0.375	-0.401	0.057	0.151	0.076
MP ^{CN}	0.076	-0.507	-0.438	1.000	-0.648	-0.298	-0.555	0.144	0.316	0.006	-0.032	-0.135
Gold Price	0.061	0.313	0.477	-0.648	1.000	0.311	0.890	0.252	-0.185	-0.106	0.123	0.120
Oil Price	-0.109	-0.064	0.355	-0.298	0.311	1.000	0.556	0.202	-0.087	0.046	-0.109	-0.054
S&P500	0.060	0.159	0.496	-0.555	0.890	0.556	1.000	0.350	-0.053	-0.098	0.101	0.082
Shanghai Index	0.169	-0.642	-0.375	0.144	0.252	0.202	0.350	1.000	0.386	-0.209	-0.074	-0.074
EL ^{US}	0.003	-0.376	-0.401	0.316	-0.185	-0.087	-0.053	0.386	1.000	0.128	-0.271	-0.016
EPU ^{US}	-0.075	0.125	0.057	0.006	-0.106	0.046	-0.098	-0.209	0.128	1.000	-0.036	0.306
EL ^{CN}	0.107	0.112	0.151	-0.032	0.123	-0.109	0.101	-0.074	-0.271	-0.036	1.000	0.023
EPU ^{CN}	-0.020	0.119	0.076	-0.135	0.120	-0.054	0.082	-0.074	-0.016	0.306	0.023	1.000

This table reports the correlation matrix for the dependent, independent, and control variables used in the regression models from January 2019 to December 2024. The matrix displays pairwise Pearson correlation coefficients, capturing the linear association between cryptocurrency returns, U.S. and Chinese excess liquidity measures, U.S. and Chinese EPU indices, exchange rates (USD/CNY), U.S. and Chinese monetary policy rates, commodity prices (gold and oil), and equity market indices (S&P500 and Shanghai Index). These correlations provide insights into the relationships among variables and potential multicollinearity issues in the panel regression analysis.

Table S2. Taylor rules regression results

Taylor Rule Regression	$\frac{M2_{it}}{NGDP_{it}} = \delta_0 + \delta_1 RIR_{it} + \delta_2 Inf_{it} + \delta_3 GDP_{it} + \phi_{it}$
δ_0	0.00324*** (21.33)
δ_1	-0.00003* (-1.78)
δ_2	-0.00002 (-0.83)
δ_3	-0.00005*** (-3.76)
Country effect	Yes
Time effect	Yes
Observations	144
R-squared	0.976
F-statistics	436.2
P-value	0.000

This table presents the regression results from estimating the Taylor rule sub-equation used to compute excess liquidity measures for the United States and China from January 2019 to December 2024. The dependent variable is the ratio of broad money (M2) to nominal GDP (NGDP), regressed on real interest rates (RIR), inflation rates (INF), and real GDP per capita growth (GDP). The coefficients indicate how these macroeconomic fundamentals align with monetary equilibrium. Country and time fixed effects are included to control for unobservable heterogeneity. The model achieves a high R-squared value of 0.976, confirming strong explanatory power. Excess liquidity is subsequently identified as the positive residuals from this equation. *t*-statistics are in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table S3. Robustness results for traditional coin returns

Traditional coins Return	Taylor rules						HP Filter					
	The (3) largest MC		The (4) largest MC		The (5) largest MC		The (3) largest MC		The (4) largest MC		The (5) largest MC	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
ER ^{USD/CNY}	6.403 (0.39)	5.989 (0.37)	0.350 (0.02)	-2.262 (-0.14)	5.415 (0.33)	3.313 (0.20)	21.400 (1.32)	14.110 (0.86)	17.070 (1.07)	9.464 (0.59)	27.670* (1.71)	19.320 (1.18)
MP ^{US}	1.240 (0.57)	1.752 (0.80)	1.008 (0.47)	1.890 (0.86)	0.564 (0.26)	1.384 (0.62)	-0.261 (-0.13)	0.585 (0.30)	-0.082 (-0.04)	0.721 (0.37)	-1.159 (-0.59)	-0.295 (-0.15)
MP ^{CN}	1.889 (0.29)	-0.764 (-0.12)	4.908 (0.75)	1.491 (0.23)	8.051 (1.22)	4.673 (0.71)	8.106 (0.95)	5.213 (0.61)	11.530 (1.36)	8.778 (1.04)	14.840* (1.73)	11.870 (1.38)
Gold Price	-0.011 (-0.73)	-0.013 (-0.88)	-0.017 (-1.09)	-0.018 (-1.16)	-0.012 (-0.79)	-0.014 (-0.88)	-0.014 (-0.88)	-0.008 (-0.55)	-0.017 (-1.12)	-0.012 (-0.76)	-0.014 (-0.91)	-0.008 (-0.53)
Oil Price	-0.532*** (-3.71)	-0.555*** (-4.00)	-0.511*** (-3.60)	-0.541*** (-3.92)	-0.519*** (-3.60)	-0.548*** (-3.89)	-0.439*** (-2.80)	-0.450*** (-2.89)	-0.439*** (-2.85)	-0.457*** (-2.96)	-0.439*** (-2.80)	-0.459*** (-2.93)
S&P500	0.011* (1.74)	0.010* (1.70)	0.011* (1.87)	0.010* (1.71)	0.011* (1.84)	0.010* (1.70)	0.013** (2.06)	0.010 (1.65)	0.014** (2.29)	0.011* (1.88)	0.014** (2.36)	0.012* (1.92)
Shanghai Index	0.032*** (2.63)	0.038*** (3.18)	0.027** (2.81)	0.033*** (2.81)	0.037*** (3.02)	0.043*** (3.57)	0.037*** (3.00)	0.035*** (2.85)	0.034*** (2.81)	0.032*** (2.64)	0.046*** (3.70)	0.044*** (3.52)
EL ^{US}	5.320 (1.06)	11.350** (2.24)	1.076 (0.22)	7.437 (1.47)	2.584 (0.51)	9.196* (1.78)	9.850 (0.71)	14.680 (1.06)	13.200 (0.97)	17.930 (1.31)	11.960 (0.86)	17.080 (1.23)
EL ^{US} × EPU ^{US}		-13.650*** (-2.93)		-13.040*** (-2.81)		-13.940*** (-2.94)		-0.383 (-0.08)		-1.822 (-0.37)		-2.311 (-0.46)
EL ^{CN}	6.070 (1.18)	18.440*** (2.72)	9.946* (1.95)	25.010*** (3.71)	12.050** (2.33)	27.140*** (3.95)	4.314 (0.97)	8.520* (1.80)	10.370** (2.35)	14.380*** (3.06)	12.680*** (2.83)	16.990*** (3.57)
EL ^{CN} × EPU ^{CN}		-22.300*** (-2.81)		-26.890*** (-3.41)		-27.000*** (-3.35)		-11.890** (-2.51)		-11.450** (-2.45)		-12.360*** (-2.60)
Constant	-136.700 (-0.99)	-139.700 (-1.01)	-79.350 (-0.58)	-65.180 (-0.48)	-159.100 (-1.14)	-149.300 (-1.07)	-276.800* (-1.90)	-211.500 (-1.44)	-246.300* (-1.71)	-178.900 (-1.23)	-369.200** (-2.53)	-295.400** (-2.00)
Observation	216	216	288	288	360	360	216	216	288	288	360	360
R ² within	0.168	0.234	0.136	0.197	0.148	0.197	0.166	0.192	0.141	0.161	0.154	0.172
R ² between	0.076	0.076	0.003	0.575	0.178	0.087	0.173	0.461	0.258	0.187	0.013	0.013
R ² overall	0.167	0.234	0.135	0.195	0.147	0.196	0.166	0.192	0.140	0.160	0.153	0.171
R ² adjusted	0.123	0.185	0.098	0.156	0.116	0.162	0.121	0.140	0.103	0.118	0.122	0.136
<i>Model fit test</i>												
F-statistics	4.570	5.613	4.805	6.082	6.679	7.686	4.518	4.377	5.004	4.763	6.993	6.504
P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<i>Homogeneous among coins test</i>												
F-statistics	0.216	0.233	0.824	0.880	0.907	0.957	0.216	0.221	0.829	0.842	0.913	0.928
P-value	0.806	0.793	0.482	0.452	0.460	0.431	0.806	0.802	0.479	0.472	0.456	0.448

This table presents the robustness regression results examining the relationship among returns of traditional coins, excess liquidity measured through the Taylor rules and HP filter, and EPU. The analysis employs fixed effects estimation on a balanced panel dataset of monthly data from January 2019 to December 2024. Model 1, 2, 7, and 8 report results for the top 3 traditional coins by market capitalization (Bitcoin, Ethereum, and XRP), Model 3, 4, 9, and 10 for the top 4 (including Binance Coin), and Model 5, 6, 11, and 12 for the top 5 (including Solana). The models incorporate interaction terms between excess liquidity and EPU to assess moderation effects. All regressions control for macro-financial variables, including exchange rates, monetary policy rates, commodity prices, and equity indices. The statistics reported include R² within, between, overall, and adjusted R², alongside F-statistics for model fit and homogeneity tests across coin types. All models include cryptocurrency and year fixed effects. *t*-statistics, based on two-way cluster-robust standard errors clustered by cryptocurrency and calendar month, are reported in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table S4. Robustness results for stablecoin returns

Stablecoins Return	Taylor rules						HP Filter					
	The (3) largest MC		The (4) largest MC		The (5) largest MC		The (3) largest MC		The (4) largest MC		The (5) largest MC	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
ER ^{USD/CNY}	0.355** (2.21)	0.369** (2.29)	0.310* (1.96)	0.328** (2.06)	0.019 (0.05)	0.038 (0.10)	0.433*** (2.81)	0.374** (2.44)	0.392** (2.54)	0.344** (2.22)	0.011 (0.03)	-0.091 (-0.24)
MP ^{US}	-0.033 (-1.56)	-0.034 (-1.60)	-0.030 (-1.47)	-0.032 (-1.54)	0.074 (1.45)	0.083* (1.67)	-0.0353* (-1.81)	-0.0402** (-2.08)	-0.033* (-1.69)	-0.037* (-1.89)	0.090* (1.86)	0.082* (1.69)
MP ^{CN}	0.046 (0.69)	0.039 (0.58)	0.006 (0.09)	-0.001 (-0.01)	0.048 (0.29)	-0.006 (-0.04)	0.0816 (1.27)	0.0693 (1.01)	0.056 (0.86)	0.046 (0.66)	0.140 (0.88)	0.139 (0.82)
Gold Price	-0.000 (-0.07)	-0.000 (-0.16)	0.000 (0.23)	0.000 (0.11)	0.000 (0.87)	0.000 (1.23)	-0.000115 (-0.73)	0.0000152 (0.09)	-0.000 (-0.61)	0.000 (0.06)	0.000 (0.14)	0.000 (0.67)
Oil Price	0.002 (1.23)	0.002 (1.27)	0.002 (1.13)	0.002 (1.20)	-0.005 (-1.55)	-0.005 (-1.31)	0.00255* (1.82)	0.00205 (1.45)	0.002 (1.64)	0.002 (1.33)	-0.004 (-1.04)	-0.004 (-1.21)
S&P500	0.000 (0.41)	0.000 (0.43)	-0.000 (-0.10)	-0.000 (-0.05)	-0.000 (-1.35)	-0.000* (-1.92)	0.0000720 (1.14)	0.0000351 (0.53)	0.000 (1.10)	0.000 (0.59)	-0.000 (-0.46)	-0.000 (-0.75)
Shanghai Index	0.000 (1.25)	0.000 (1.32)	0.000 (1.60)	0.000* (1.65)	0.001* (1.72)	0.001** (1.98)	0.000212* (1.76)	0.000143 (1.64)	0.000 (1.64)	0.000 (1.16)	0.001* (1.83)	0.000 (1.41)
EL ^{US}	0.021 (0.47)	0.064 (1.18)	0.018 (0.41)	0.067 (1.24)	0.040 (0.37)	0.236 (1.75)	0.148* (1.87)	0.138 (1.58)	0.160** (2.01)	0.152* (1.73)	0.421** (2.15)	0.437** (2.01)
EL ^{US} × EPU ^{US}		-0.0845 (-1.53)		-0.092* (-1.69)		-0.236* (-1.83)		-0.150** (-2.59)		-0.122** (-2.09)		-0.291** (-2.02)
EL ^{CN}	0.028 (0.26)	0.051 (0.40)	0.276** (2.59)	0.291** (2.31)	0.308 (1.16)	0.611** (1.97)	0.0515 (1.19)	0.0508 (1.17)	0.064 (1.48)	0.064 (1.45)	0.010 (0.09)	0.001 (0.01)
EL ^{CN} × EPU ^{CN}		-0.024 (-0.35)		-0.015 (-0.22)		-0.303* (-1.79)		-0.223 (-1.27)		-0.181 (-1.02)		-0.265 (-0.60)
Constant	-3.216** (-2.31)	-3.309** (-2.37)	-2.892** (-2.10)	-3.009** (-2.18)	-1.620 (-0.47)	-1.738 (-0.53)	-4.073*** (-3.05)	-3.443** (-2.56)	-3.692*** (-2.76)	-3.180** (-2.34)	-2.013 (-0.61)	-1.026 (-0.31)
Observation	216	216	288	288	360	360	216	216	288	288	360	360
R ² within	0.046	0.058	0.055	0.065	0.040	0.061	0.0644	0.0999	0.050	0.068	0.049	0.061
R ² between	0.046	0.058	0.055	0.065	0.040	0.061	0.0641	0.0994	0.050	0.068	0.049	0.060
R ² overall	0.046	0.058	0.055	0.065	0.040	0.061	0.0644	0.0999	0.050	0.068	0.049	0.061
R ² adjusted	-0.005	-0.003	0.014	0.017	0.004	0.020	0.0140	0.0419	0.009	0.020	0.013	0.020
<i>Model fit test</i>												
F-statistics	1.098	1.126	1.775	1.723	1.598	2.025	1.561	2.037	1.608	1.802	1.969	2.013
P-value	0.364	0.339	0.052	0.051	0.084	0.013	0.113	0.019	0.089	0.038	0.023	0.014
<i>Homogeneous among coins test</i>												
F-statistics	0.536	0.537	0.303	0.304	0.085	0.087	0.546	0.562	0.301	0.305	0.086	0.086
P-value	0.586	0.585	0.823	0.823	0.987	0.987	0.580	0.571	0.824	0.822	0.987	0.987

This table presents the robustness regression results examining the relationship among returns of stablecoins, excess liquidity measured through the Taylor rules and HP filter, and EPU. The analysis employs fixed effects estimation on a balanced panel dataset of monthly data from January 2019 to December 2024. Model 1, 2, 7, and 8 report results for the top 3 traditional coins by market capitalization (Bitcoin, Ethereum, and XRP), Model 3, 4, 9, and 10 for the top 4 (including Binance Coin), and Model 5, 6, 11, and 12 for the top 5 (including Solana). The models incorporate interaction terms between excess liquidity and EPU to assess moderation effects. All regressions control for macro-financial variables, including exchange rates, monetary policy rates, commodity prices, and equity indices. The statistics reported include R² within, between, overall, and adjusted R², alongside F-statistics for model fit and homogeneity tests across coin types. All models include cryptocurrency and year fixed effects. *t*-statistics, based on two-way cluster-robust standard errors clustered by cryptocurrency and calendar month, are reported in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table S5. Robustness regressions using continuous EPU measures

Return	Taylor rule		HP filter	
	Model 1	Model 2	Model 3	Model 4
All				
ER ^{USD/CNY}	8.602 (0.95)	5.640 (0.60)	4.686 (0.48)	0.804 (0.08)
MP ^{US}	-0.014 (-0.01)	0.398 (0.33)	0.256 (0.21)	0.876 (0.70)
MP ^{CN}	4.066 (0.99)	3.109 (0.76)	2.902 (0.71)	3.371 (0.82)
EPUC ^{US}	-0.010 (-0.39)	-0.002 (-0.06)	-0.012 (-0.46)	0.007 (0.22)
EPUC ^{US} × traditional coins		-0.020 (-0.82)		-0.037 (-1.00)
EPUC ^{CN}	0.005 (0.41)	-0.005 (-0.33)	0.018 (1.52)	0.014 (0.94)
EPUC ^{CN} × traditional coins		0.030 (1.42)		0.005 (0.28)
Gold Price	-0.008 (-0.81)	-0.006 (-0.66)	-0.009 (-0.97)	-0.007 (-0.72)
Oil Price	-0.377*** (-4.57)	-0.365*** (-4.43)	-0.297*** (-3.76)	-0.265*** (-3.34)
S&P500	0.009** (2.05)	0.007 (1.63)	0.008* (1.84)	0.006 (1.38)
Shanghai Index	0.026*** (3.86)	0.028*** (4.17)	0.023*** (3.53)	0.019*** (2.90)
EL ^{US}	9.350** (2.30)	8.059* (1.73)	11.260** (2.16)	9.538* (1.79)
EL ^{US} × traditional coins		2.263 (0.49)		4.006 (0.98)
EL ^{US} × EPUC ^{US}	-0.048*** (-2.94)	-0.051*** (-2.62)	-0.022* (-1.74)	-0.030* (-1.73)
EL ^{US} × EPUC ^{US} × traditional coins		0.001 (0.06)		0.029 (1.16)
EL ^{CN}	11.030 (1.32)	6.403 (0.96)	8.911** (2.28)	32.500*** (3.34)
EL ^{CN} × traditional coins		22.800** (2.28)		13.530*** (3.23)
EL ^{CN} × EPUC ^{CN}	-0.033 (-1.13)	-0.023* (-1.70)	-0.015 (-0.64)	-0.070** (-2.39)
EL ^{CN} × EPUC ^{CN} × traditional coins		-0.024 (-0.67)		-0.085** (-2.34)
Constant	-141.100* (-1.79)	-120.900 (-1.50)	-105.800 (-1.26)	-80.620 (-0.97)
Traditional coins	No	Yes	No	Yes
Observations	720	720	720	720
R ² within	0.102	0.119	0.093	0.122
R ² between	0.098	0.767	0.090	0.767
R ² overall	0.135	0.151	0.127	0.155
R ² adjusted	0.104	0.113	0.095	0.117
<i>Model fit test</i>				
F-statistics	4.930	4.220	4.470	4.350
P-value	0.000	0.000	0.000	0.000
<i>Homogenous among coins test</i>				
F-statistics	3.300	0.780	3.260	0.910
P-value	0.001	0.634	0.001	0.513

This table reports fixed effects regressions using continuous measures instead of the baseline binary rising-EPU indicators. EPUC^{US} and EPUC^{CN} denote the continuous monthly EPU indices for the U.S. and China respectively. The excess liquidity variables remain binary indicators. The continuous EPU results are consistent with the baseline binary-EPU regressions. U.S. and Chinese excess liquidity remain positive and statistically significant across almost all models. Their interactions with the

continuous EPU are also statistically negative in both the U.S. and China. However, the direct continuous EPU coefficients are generally insignificant, indicating that EPU matters mainly through its interaction with excess liquidity (with the presence of excess liquidity) rather than as a stand-alone linear return predictor. This pattern supports the state-dependent liquidity-transmission mechanism. All models include cryptocurrency and year fixed effects. *t*-statistics, based on two-way cluster-robust standard errors clustered by cryptocurrency and calendar month, are reported in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table S6. Robustness regressions using South Korean macro-financial variables

Return	Taylor rule		HP filter	
All	Model 1	Model 2	Model 3	Model 4
ER ^{USD/KRW}	-0.031 (-1.20)	-0.034 (-1.29)	-0.032 (-1.23)	-0.032 (-1.24)
MP ^{KR}	1.625 (1.05)	1.591 (1.02)	1.840 (1.13)	1.866 (1.14)
Gold Price	0.007 (1.22)	0.008 (1.39)	0.007 (1.32)	0.007 (1.32)
Oil Price	-0.233*** (-3.05)	-0.226*** (-2.95)	-0.257*** (-3.27)	-0.259*** (-3.28)
KOSPI Index	0.011*** (2.62)	0.010** (2.38)	0.012*** (2.64)	0.012*** (2.64)
EL ^{KR}	1.418 (0.52)	2.855 (0.86)	1.403 (0.67)	1.108 (0.46)
EL ^{KR} × EPU ^{KR}		-2.974 (-0.75)		0.620 (0.24)
Constant	13.278 (0.49)	15.575 (0.57)	11.880 (0.44)	12.211 (0.45)
Observation	720	720	720	720
R ² overall	0.092	0.093	0.092	0.092
R ² adjusted	0.069	0.068	0.069	0.068
<i>Model fit test</i>				
F-statistics	3.939	3.759	3.950	3.740
P-value	0.000	0.000	0.000	0.000
<i>Homogenous among coins test</i>				
F-statistics	3.170	3.168	3.170	3.166
P-value	0.000	0.000	0.000	0.000

This table reports fixed effects regressions using South Korean macro-financial variables as a regional comparator to China's specifications. Our purpose is to test whether the China effect reflects a country-specific transmission mechanism rather than a generic Asian liquidity proxy. South Korean excess liquidity is constructed in parallel with the baseline U.S. and Chinese measures using both the Taylor-rule residual and HP filter method. The Korean variables replace the corresponding China-side variables in the baseline model. Korean EPU is obtained from the same website for EPU indices calculated using the methodologies of Baker et al. (2016). The Bank of Korea ECOS system reports almost all Korean macroeconomic variables, while FRED provides the USD/KRW and Korean interbank rate series. All models include cryptocurrency and year fixed effects. *t*-statistics, based on two-way cluster-robust standard errors clustered by cryptocurrency and calendar month, are reported in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table S7. External validation for excess liquidity measures using the global index

Return All	Global excess liquidity index	
	Model 1	Model 2
ER ^{USD/CNY}	9.112 (1.04)	9.112 (1.08)
MP ^{US}	1.825 (1.30)	1.825 (1.35)
MP ^{CN}	-0.233 (-0.06)	-0.233 (-0.06)
Gold Price	-0.019** (-2.06)	-0.019** (-2.14)
Oil Price	-0.157* (-1.75)	-0.157* (-1.82)
S&P500	0.007** (2.28)	0.007** (2.37)
Shanghai Index	0.016** (2.40)	0.016** (2.50)
EL ^{Global}	1.420*** (3.90)	0.179 (0.46)
EL ^{global} × traditional coins		2.482*** (7.61)
EL ^{Global} × EPU ^{US}	-0.685*** (-2.92)	0.102 (0.33)
EL ^{global} × EPU ^{US} × traditional coins		-1.574*** (-3.70)
EL ^{Global} × EPU ^{CN}	-0.528** (-2.34)	0.117 (0.39)
EL ^{global} × EPU ^{CN} × traditional coins		-1.290*** (-3.11)
Constant	-100.908 (-1.32)	-99.000 (-1.35)
Traditional coins	No	Yes
Observation	720	720
R ² overall	0.146	0.213
R ² adjusted	0.119	0.185
<i>Model fit test</i>		
F-statistics	5.390	7.510
P-value	0.000	0.000

This table reports a compact external validation check using an alternative continuous liquidity measure – global excess liquidity index calculated by Dark Knight Noma via the website <https://en.macromicro.me>. The purpose is to test whether an independently constructed global liquidity proxy yields a similar economic pattern. Model 1 estimates the average effect of global excess liquidity on cryptocurrency returns for the full sample. Model 2 adds the traditional-coin dummy and its interactions to examine whether the liquidity effect is stronger for speculative cryptocurrencies than for stablecoins. The results also support the baseline mechanism that liquidity affects cryptocurrency returns through speculative risk-taking, while EPU restricts this transmission. Because this test uses a global aggregate index, it is reported as an auxiliary validation check rather than as a full alternative baseline specification. All models include cryptocurrency and year fixed effects. *t*-statistics, based on two-way cluster-robust standard errors clustered by cryptocurrency and calendar month, are reported in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table S8. Robustness regressions for traditional cryptocurrencies and stablecoins with the exclusion of the COVID-19 pandemic period

Return	Taylor rule		HP filter	
	Model 1	Model 2	Model 3	Model 4
All				
ER ^{USD/CNY}	-13.255 (-1.62)	-14.118* (-1.75)	-18.570** (-2.29)	-18.958** (-2.37)
MP ^{US}	3.259*** (3.18)	3.097*** (3.08)	3.638*** (3.63)	3.729*** (3.68)
MP ^{CN}	-7.564 (-1.58)	-8.971* (-1.88)	-5.636 (-1.13)	-5.479 (-1.10)
Gold Price	-0.009 (-0.97)	-0.009 (-0.99)	-0.022** (-2.42)	-0.022** (-2.45)
Oil Price	-0.345*** (-3.84)	-0.333*** (-3.84)	-0.223** (-2.57)	-0.217** (-2.55)
S&P500	0.004 (1.24)	0.004 (1.06)	0.008** (2.04)	0.008** (2.06)
Shanghai Index	0.012** (1.99)	0.009 (1.48)	-0.001 (-0.19)	-0.002 (-0.39)
EL ^{US}	8.264** (2.25)	9.058** (2.33)	6.323** (2.06)	0.610 (0.23)
EL ^{US} × traditional coins		-2.071 (-0.66)		13.231*** (3.06)
EL ^{US} × EPU ^{US}	-4.258 (-1.16)	-1.445 (-0.37)	-10.396 (-1.51)	-0.230 (-0.10)
EL ^{US} × EPU ^{US} × traditional coins		-8.028** (-2.11)		-22.943** (-2.46)
EL ^{CN}	14.930*** (2.71)	6.042 (0.90)	6.791** (1.97)	6.650* (1.94)
EL ^{CN} × traditional coins		28.758*** (3.57)		2.456 (0.64)
EL ^{CN} × EPU ^{CN}	-7.461** (-2.19)	-15.191** (-2.19)	-0.546 (-0.25)	-0.305 (-0.10)
EL ^{CN} × EPU ^{CN} × traditional coins		-9.752** (-2.20)		-0.194 (-0.05)
Constant	87.939 (1.24)	108.844 (1.55)	157.486** (2.14)	162.394** (2.23)
Traditional coins	No	Yes	No	Yes
Observation	480	480	480	480
R ² within	0.125	0.164	0.110	0.130
R ² between	0.124	0.385	0.109	0.385
R ² overall	0.135	0.173	0.119	0.140
R ² adjusted	0.091	0.124	0.075	0.088
<i>Model fit test</i>				
F-statistics	3.088	3.504	2.683	2.717
P-value	0.000	0.000	0.000	0.000
<i>Homogenous among coins test</i>				
F-statistics	4.670	4.930	4.010	3.760
P-value	0.000	0.000	0.000	0.000

This table reports fixed effects regressions after excluding the COVID-19 pandemic period defined as January 2020 to December 2021¹. This 24-month window is removed because the pandemic timeframe combined usually large policy liquidity interventions, exceptionally economic uncertainty, and abnormal cryptocurrency price dynamics². This exclusion test examines whether the pandemic amplified rather than mechanically generated the estimated relation between excess liquidity and cryptocurrency returns. We retain all control variables as well as both the Taylor rule and HP filter measures. All models

¹ The window from January 2020 to December 2021 is consistent with Msemburi et al. (2023), who measure the global COVID-19 excess-mortality period monthly over the same dates.

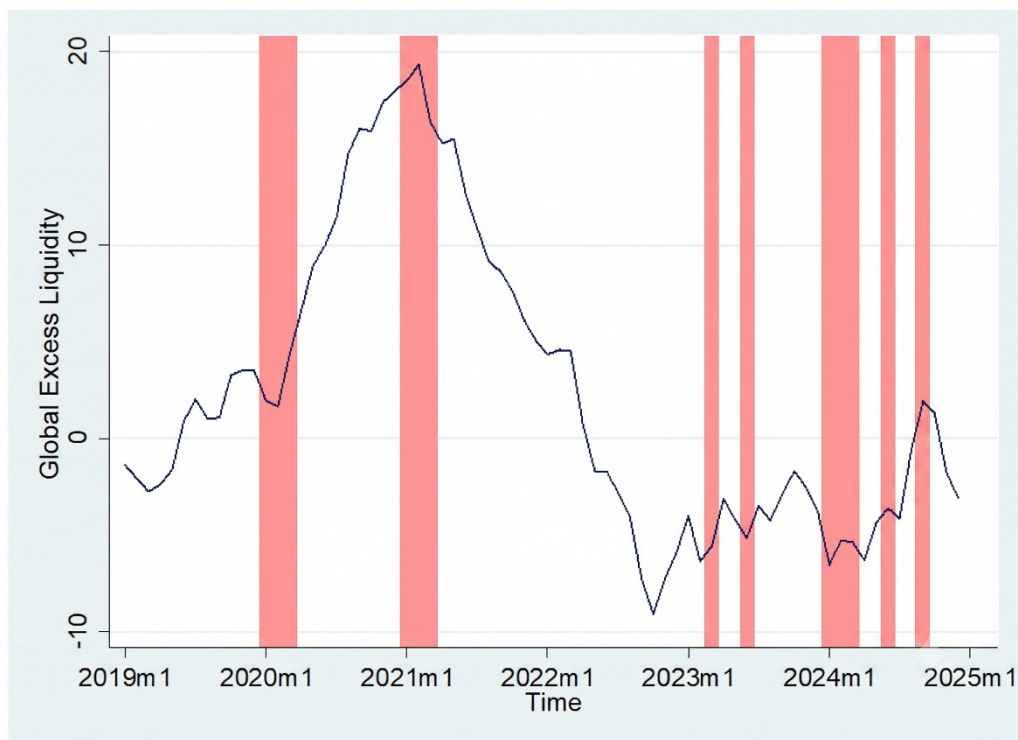
² Baker et al. (2020) show that COVID-19 generated an unprecedented finance-market reaction and sharp uncertainty shocks.

include cryptocurrency and year fixed effects. *t*-statistics, based on two-way cluster-robust standard errors clustered by cryptocurrency and calendar month, are reported in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Figure S1. Global excess liquidity vs. Taylor-rule excess liquidity regimes



Panel A. Global excess liquidity vs. U.S. excess liquidity



Panel B. Global excess liquidity vs. Chinese excess liquidity

This figure compares the global excess liquidity index with the Taylor-rule excess liquidity regimes during 2019 – 2024. The line reports the continuous global excess liquidity index. Green shaded areas indicate months in which the U.S. Taylor rule excess liquidity dummy equals one, while pink shaded areas indicate months in which Chinese Taylor rule excess liquidity dummy equals one. The plots show that the global index rises sharply during 2020 - 2021, peaks around early 2021, and declines after late 2021 as global monetary conditions tighten. The visual evidence supports the validity of our country-level measures which co-move with an independently constructed global liquidity cycle but do not mechanically duplicate it.