

# **Supplemental Appendix for the paper Leaning Against the Global Financial Cycle**

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Table A1: Description of the variables and data sources.

VARIABLES	SOURCE	NOTES
<b>Economic outcomes (Y_it)</b>		
Stock returns (%)	LSEG/DataStream	Equity price (index), own calculations
Sovereign EMBI spreads (%)	LSEG/DataStream	Korea, India, Israel and Thailand and Vietnam: CDS spread, 5-year. Czech Republic and Vietnam: spread of local currency government bond 10-year yield over German bund (CZ) or US Treasury (VN)
Exchange rates	Haver	National currency per USD (eop) from U.S. Federal Reserve Board and IMF
GDP growth (%)	IMF World Economic Outlook (Haver)	GDP at real prices (national currency), own calculations
<b>Quality of institutions (Z_it-1)</b>		
Rule of law (index)	World Development Indicators (World Bank)	
Government effectiveness (index)	World Development Indicators (World Bank)	
Control of corruption (index)	World Development Indicators (World Bank)	
Regulatory quality (index)	World Development Indicators (World Bank)	
Political stability and absence of violence (index)	World Development Indicators (World Bank)	
Per capita income	World Development Indicators (World Bank)	
Central bank transparency (index)	Dincer and Eichengreen (2014)	
Central bank independence (index)	Garriga (2016)	
<b>Controls (X_it-1)</b>		
Current account balance (% of GDP)	IMF World Economic Outlook (Haver)	
Net foreign assets (% of GDP)	IMF International Balance of Payments Statistics (Haver)	Ratio of total assets minus liabilities to nominal GDP (USD) from IMF WEO
Capital account openness (index)	Chinn and Ito (2006), updated (Haver)	
Exchange rate regime (dummy)	Own update of (Obstfeld, Shambaugh and Taylor, 2010)	
Foreign currency debt (% of total foreign debt)	Benetrix et al. (2019); revised in Allen et al. (2023)	
<b>Policies (P_it)</b>		
Central bank policy rates (%)	IMF International Financial Statistics (Haver)	Hungary and Poland: national source (Haver). Mexico, Indonesia, Malaysia, Philippines and Russia: BIS (Haver)
Foreign exchange reserves (% of GDP)	IMF International Financial Statistics (Haver)	Ratio of FX reserves to nominal GDP (USD) from IMF WEO
Macro-prudential stance	iMaPP database (Alam et al. 2024)	
Capital controls on outflows	Fernandez et al. (2016), updated	
<b>Global financial shock (S_t)</b>		
VIX	Chicago Board Options Exchange (Haver)	Monthly average of daily close
Excess Bond Premium	Gilchrist and Zakrajšek (2012), Federal Reserve Board	
<b>Other global and domestic controls (M_(i)t)</b>		
Global Economic Conditions Indicator	Baumeister, Korobilis and Lee (2022)	
US Industrial Production Total Index	FRED (Federal Reserve Bank of St. Louis)	Seasonally adjusted
Crude Oil Prices: Brent (US dollars per barrel)	FRED (Federal Reserve Bank of St. Louis)	Not seasonally adjusted
Consumer Price Index	IMF International Financial Statistics (Haver)	BIS (Haver) for Argentina

Table A2: Descriptive statistics.

	Mean	SD	Min	Max	p5	p95	Skewness	N
Equity returns	0.86	7.16	-23.33	21.20	-11.08	12.62	-0.27	6739
EMBI spread (level, p.p.)	3.10	3.87	0.17	29.29	0.50	8.89	4.20	5902
EMBI spread (change, p.p.)	-0.01	0.54	-1.96	2.55	-0.75	0.73	0.90	5880
VIX (level)	19.93	7.65	10.44	52.41	11.53	34.05	1.59	7128
VIX (change)	-0.08	3.56	-10.23	14.51	-5.19	5.67	0.98	7106
Exchange rates return (p.p.)	-0.32	3.02	-11.44	7.89	-5.84	4.48	-0.66	5811
EBP (level)	0.03	0.65	-0.79	3.01	-0.59	1.22	2.17	7128
EBP (change)	0.00	0.22	-0.70	0.61	-0.43	0.39	-0.24	7106
CPI inflation (percentage change)	7.41	12.23	-1.53	82.93	-0.09	23.08	4.39	7087
GDP growth (percentage change)	0.30	0.50	-2.26	2.00	-0.48	0.80	-1.70	7128
Policy interest rate (level, p.p.)	8.84	11.58	0.00	73.93	0.25	27.80	3.61	6586
Policy interest rate (change, p.p.)	-0.09	0.93	-6.00	3.96	-1.00	0.50	-2.41	6561
3-month gov.t bond yields	7.19	7.42	-1.30	84.57	0.34	21.10	3.13	4295
Interbank rates	8.81	18.43	-0.68	822.70	0.45	26.09	21.33	4905
Reserves	18.50	10.68	2.75	52.52	5.03	41.19	0.99	7100
Rule of law (index)	0.06	0.63	-0.94	1.37	-0.79	1.14	0.43	7083
Capital control on outflows (index)	0.60	0.34	0	1	0	1	-0.56	7128
Macro-prudential stance (index)	6.28	11.62	-8	58	-5	27	2.06	7128
Current account (% of GDP)	-0.23	4.24	-9.00	14.14	-6.42	7.60	0.75	7128
Net foreign assets (% of GDP)	-0.23	0.26	-1.03	0.36	-0.70	0.19	-0.43	7128
General gov.t deficit (% of GDP)	-2.31	3.02	-10.85	5.63	-7.83	2.50	-0.26	6853
Capital account liberalization (index)	0.16	1.30	-1.93	2.34	-1.29	2.32	0.43	7128
Soft peg (dummy)	0.35	0.48	0	1	0	1	0.63	6948
Flexible exchange rates (dummy)	0.63	0.48	0	1	0	1	-0.55	7128
Share of debt in foreign currency	0.81	0.13	0.45	1.00	0.56	0.99	-0.44	6480

NOTE: The table reports mean, standard deviation (SD), minimum (Min), maximum (Max), 5<sup>th</sup> percentile (p5), 95<sup>th</sup> percentile (p95), skewness and number of observations (N) of the variables in our dataset.

Table A3: Correlation of EBP with proxies of global and EMEs financial conditions.

	EBP	VIX	Global Factor	USD NEER	Leverage
<b>GLOBAL</b>					
EBP	1.00				
VIX	0.74	1.00			
Global Factor	0.46	0.37	1.00		
USD NEER	0.27	0.24	0.25	1.00	
Leverage	-0.50	-0.50	-0.27	-0.25	1.00
<b>EMERGING MARKETS</b>					
MSCI EM index	-0.28	-0.21	-0.08	-0.46	0.09
EMBI spread	0.34	0.31	0.38	0.23	-0.09
Portfolio flows to EMEs	-0.40	-0.32	-0.08	-0.44	0.19
Bank flows to EMEs	-0.44	-0.48	-0.50	-0.52	0.39

NOTE: The table reports the correlation of measures of the global financial cycle, rescaled with zero mean and unit variance. The data are quarterly for the period 1995-2021. ‘EBP’ is the Excess Bond Premium of Gilchrist and Zakrajšek (2012). ‘VIX’ is the Chicago Board Options Exchange market volatility index. The Global Factor is the inverted value of the common factor estimated from a world-wide cross section of risky asset prices by Miranda-Agrippino and Rey (2020) and available until 2019 Q2. ‘USD NEER’ is the return of the JP Morgan broad nominal effective exchange rate of the US dollar. ‘Leverage’ is the change in the assets to equity ratio of US security brokers and dealers from the Fed Flows of Funds. ‘MSCI Emerging Markets Index’ captures large and mid-cap stocks across 24 emerging markets. ‘EMBI spread’ refers to the JP Morgan EMBI Global sovereign bond index. ‘Portfolio flows to EMEs’ are from the “Emerging Markets Portfolio Flows Tracker” of the Institute of International Finance. ‘Bank flows to EMEs’ are BIS cross border claims to emerging markets. The source for all series is Haver Analytics.

Table A4: Global financial conditions, institutions and economic outcomes (all controls).

VARIABLES	(1) Equity	(2) Spreads	(3) FX	(4) GDP	(5) Equity	(6) Spreads	(7) FX	(8) GDP	(9) Equity	(10) Spreads	(11) FX	(12) GDP	(13) Equity	(14) Spreads	(15) FX	(16) GDP
EBP	-7.14*** (1.19)	0.43*** (0.079)	-2.31*** (0.76)	-0.84*** (0.30)	-6.88*** (1.14)	0.41*** (0.080)	-2.10*** (0.70)	-1.04*** (0.31)	-7.31*** (1.23)	0.46*** (0.091)	-2.81*** (0.86)	-1.00*** (0.36)	-7.41*** (1.18)	0.47*** (0.072)	-2.47*** (0.73)	-0.95*** (0.32)
EBP*Rule of law	2.07*** (0.65)	-0.18*** (0.044)	-0.32 (0.43)	0.23** (0.12)												
Rule of law	-1.45** (0.60)	0.047 (0.061)	-0.87* (0.46)	-1.63** (0.80)												
EBP*Gov.t effectiveness					2.99*** (0.82)	-0.27*** (0.067)	-0.038 (0.43)	0.019 (0.13)								
Gov.t effectiveness					-0.11 (0.58)	0.016 (0.049)	0.30 (0.36)	0.96 (1.28)								
EBP*Corruption control									1.68** (0.73)	-0.14*** (0.049)	-0.85 (0.53)	0.064 (0.19)				
Corruption control									0.36 (0.60)	-0.014 (0.048)	-0.11 (0.36)	1.07 (0.84)				
EBP*Regulation quality													2.23*** (0.71)	-0.19*** (0.038)	-0.66 (0.46)	0.083 (0.12)
Regulation quality													-1.87*** (0.65)	0.048 (0.067)	-0.17 (0.44)	-1.32 (0.82)
EBP*NFA/GDP	2.23** (1.02)	-0.15** (0.064)	0.020 (0.59)	1.20 (0.86)	2.20** (1.02)	-0.14** (0.058)	0.100 (0.58)	1.16 (0.86)	2.25** (1.02)	-0.15** (0.060)	0.029 (0.57)	1.10 (0.90)	2.30** (1.06)	-0.18*** (0.067)	0.0089 (0.57)	1.07 (0.86)
NFA/GDP	1.72*** (0.63)	-0.038 (0.047)	0.22 (0.32)	2.69** (1.07)	1.75*** (0.63)	-0.041 (0.046)	0.15 (0.32)	2.69** (1.09)	1.79*** (0.64)	-0.046 (0.048)	0.15 (0.32)	2.79** (1.14)	1.39** (0.66)	-0.030 (0.048)	0.12 (0.33)	2.41** (1.16)
EBP*Chinn index	0.13 (0.22)	-0.014 (0.019)	0.015 (0.12)	-0.26** (0.13)	0.081 (0.22)	-0.015 (0.018)	-0.017 (0.12)	-0.30* (0.16)	0.090 (0.22)	-0.016 (0.019)	0.017 (0.11)	-0.32** (0.16)	0.11 (0.23)	-0.0077 (0.018)	0.018 (0.11)	-0.24* (0.14)
Chinn index	0.028 (0.13)	0.0024 (0.016)	0.12* (0.072)	-0.11 (0.20)	-0.029 (0.13)	0.0042 (0.016)	0.076 (0.070)	-0.21 (0.21)	-0.027 (0.13)	0.0042 (0.016)	0.080 (0.072)	-0.17 (0.18)	0.092 (0.13)	-0.0018 (0.014)	0.088 (0.076)	-0.099 (0.21)
EBP*FX regime	0.36 (0.42)	0.056** (0.028)	-0.49** (0.23)	0.039 (0.21)	0.42 (0.43)	0.053* (0.028)	-0.46** (0.23)	0.17 (0.20)	0.41 (0.42)	0.052* (0.028)	-0.45* (0.23)	0.14 (0.21)	0.43 (0.44)	0.060** (0.029)	-0.45** (0.23)	0.19 (0.20)
FX regime	-0.48** (0.19)	0.015 (0.014)	-0.21* (0.12)	-0.75*** (0.26)	-0.47** (0.19)	0.015 (0.014)	-0.18 (0.12)	-0.72*** (0.24)	-0.46** (0.19)	0.015 (0.014)	-0.20* (0.12)	-0.71*** (0.26)	-0.50*** (0.19)	0.019 (0.015)	-0.20 (0.12)	-0.74*** (0.25)
EBP*ΔRates	-0.13 (0.26)	0.0041 (0.029)	-0.11 (0.079)	-0.028 (0.077)	-0.14 (0.26)	0.0040 (0.029)	-0.11 (0.080)	-0.039 (0.079)	-0.14 (0.26)	0.0041 (0.029)	-0.11 (0.080)	-0.036 (0.080)	-0.16 (0.26)	0.0054 (0.029)	-0.11 (0.079)	-0.038 (0.084)
ΔRates	-0.052 (0.041)	0.0027 (0.0056)	-0.012 (0.026)	-0.19*** (0.042)	-0.057 (0.041)	0.0029 (0.0057)	-0.013 (0.026)	-0.20*** (0.044)	-0.061 (0.041)	0.0033 (0.0057)	-0.011 (0.026)	-0.20*** (0.044)	-0.051 (0.041)	0.0027 (0.0055)	-0.012 (0.026)	-0.20*** (0.042)
EBP*ΔReserves	0.57*** (0.21)	-0.030 (0.027)	0.31*** (0.12)	0.056 (0.049)	0.58*** (0.21)	-0.031 (0.027)	0.32*** (0.12)	0.071 (0.048)	0.55*** (0.21)	-0.029 (0.027)	0.32*** (0.11)	0.068 (0.052)	0.59*** (0.22)	-0.028 (0.028)	0.32*** (0.12)	0.079* (0.047)
ΔReserves	0.0061 (0.014)	0.0015* (0.00082)	0.021*** (0.0069)	0.037** (0.017)	0.0069 (0.014)	0.0016** (0.00079)	0.019*** (0.0071)	0.035** (0.015)	0.0063 (0.014)	0.0017** (0.00081)	0.020*** (0.0066)	0.043** (0.020)	0.011 (0.014)	0.0014* (0.00082)	0.020*** (0.0069)	0.041** (0.017)
EBP*ΔCapital controls	-3.35* (1.98)	0.53*** (0.16)	2.76*** (0.70)	1.10 (1.01)	-3.40* (1.95)	0.54*** (0.16)	2.91*** (0.69)	1.23 (0.98)	-3.50* (1.92)	0.53*** (0.16)	2.82*** (0.71)	1.22 (0.95)	-3.48* (2.00)	0.54*** (0.18)	2.93*** (0.68)	1.12 (1.05)
ΔCapital controls	0.23 (0.63)	-0.054 (0.074)	-0.64 (0.41)	1.02 (0.77)	0.24 (0.63)	-0.060 (0.076)	-0.66 (0.42)	0.99 (0.77)	0.23 (0.63)	-0.061 (0.075)	-0.66 (0.41)	1.02 (0.76)	0.027 (0.63)	-0.052 (0.076)	-0.65 (0.41)	0.76 (0.70)
EBP*ΔMacroPru	-0.085 (0.31)	0.053** (0.026)	-0.092 (0.24)	-0.32*** (0.072)	-0.098 (0.30)	0.052* (0.027)	-0.095 (0.25)	-0.32*** (0.071)	-0.096 (0.31)	0.052* (0.027)	-0.082 (0.24)	-0.31*** (0.077)	-0.098 (0.31)	0.055** (0.027)	-0.074 (0.24)	-0.31*** (0.071)
ΔMacroPru	-0.081*** (0.019)	0.00092 (0.00082)	-0.015** (0.0070)	-0.070*** (0.017)	-0.082*** (0.020)	0.00089 (0.00090)	-0.018** (0.0079)	-0.080*** (0.020)	-0.084*** (0.020)	0.0011 (0.00080)	-0.017** (0.0068)	-0.077*** (0.018)	-0.081*** (0.019)	0.0011 (0.00081)	-0.016** (0.0068)	-0.070*** (0.018)
Observations	6,011	5,301	5,115	5,479	6,011	5,301	5,115	5,479	6,011	5,301	5,115	5,479	6,011	5,301	5,115	5,479
Number of groups	22	22	18	22	22	22	18	22	22	22	18	22	22	22	18	22
Lags of $Y_{i,t}$	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
R <sup>2</sup> Within	0.20	0.15	0.080	0.24	0.20	0.16	0.079	0.24	0.20	0.15	0.080	0.24	0.20	0.15	0.079	0.24

NOTES: The table shows the coefficients  $\beta_h$  and  $\delta_{x,h}$  from model eq:baseline estimated on monthly observations from 1995 to 2021 for 22 emerging economies for different specifications of the variable  $Z_{i,t-1}$  (rule of law, government effectiveness, corruption control and regulation quality). For equity, spreads and exchange rates we show results for horizon  $h = 0$ , for GDP  $h = 18$ . The model includes country-specific fixed effects. Robust standard errors (Driscoll-Kraay) are reported in parentheses. The asterisks \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% level, respectively.

Table A5: Global financial conditions, institutions and economic outcomes (longer horizons).

HORIZONS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b>Equity</b>																			
EBP	-7.14***	-9.13***	-8.82***	-10.4***	-12.0***	-12.3***	-12.3***	-13.7***	-14.5***	-14.3***	-14.7***	-16.2***	-16.5***	-16.6***	-17.8***	-17.6***	-16.6***	-15.2***	-14.5***
	(1.19)	(1.72)	(2.13)	(2.08)	(2.46)	(2.81)	(3.13)	(3.60)	(3.82)	(4.04)	(4.13)	(4.39)	(4.20)	(4.33)	(4.70)	(5.13)	(5.16)	(5.03)	(5.08)
EBP*Rule of law	2.07***	2.80***	3.37***	2.67**	3.34***	2.42*	1.91*	0.82	1.12	1.16	1.95	2.17	2.02	2.00	2.18	2.77	2.76	2.82*	2.75*
	(0.65)	(0.90)	(1.00)	(1.26)	(1.23)	(1.26)	(1.14)	(1.23)	(1.44)	(1.59)	(1.68)	(1.99)	(1.88)	(1.89)	(1.94)	(1.98)	(1.77)	(1.59)	(1.66)
<b>Spreads</b>																			
EBP	0.43***	0.44***	0.42***	0.41***	0.53***	0.46***	0.44***	0.31*	0.33**	0.32*	0.31*	0.31*	0.27	0.24	0.34*	0.32	0.29	0.20	0.17
	(0.079)	(0.11)	(0.11)	(0.11)	(0.12)	(0.14)	(0.17)	(0.16)	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)	(0.18)	(0.18)	(0.20)	(0.20)	(0.19)	(0.19)
EBP*Rule of law	-0.18***	-0.32***	-0.31***	-0.27***	-0.24***	-0.24***	-0.22***	-0.24***	-0.21***	-0.23***	-0.23***	-0.26***	-0.26**	-0.20**	-0.20**	-0.25**	-0.23**	-0.23**	-0.22**
	(0.044)	(0.056)	(0.091)	(0.091)	(0.083)	(0.075)	(0.064)	(0.070)	(0.067)	(0.079)	(0.082)	(0.094)	(0.10)	(0.095)	(0.092)	(0.098)	(0.095)	(0.094)	(0.097)
<b>Exchange rates</b>																			
EBP	-2.31***	-2.88**	-2.69**	-3.16**	-4.00**	-3.86***	-3.87***	-3.16**	-3.48**	-2.86**	-2.84*	-3.42**	-4.13***	-4.15***	-5.55***	-5.51***	-5.06**	-4.70**	-4.95**
	(0.76)	(1.31)	(1.32)	(1.42)	(1.58)	(1.47)	(1.45)	(1.36)	(1.44)	(1.42)	(1.56)	(1.69)	(1.58)	(1.55)	(1.79)	(2.06)	(2.18)	(2.11)	(2.14)
EBP*Rule of law	-0.32	-0.27	-0.16	-0.050	0.19	0.27	0.22	0.15	0.051	0.44	0.71	0.68	0.38	0.77	0.40	0.35	0.38	0.41	0.035
	(0.43)	(0.66)	(0.49)	(0.51)	(0.59)	(0.49)	(0.56)	(0.59)	(0.57)	(0.54)	(0.55)	(0.60)	(0.51)	(0.58)	(0.54)	(0.52)	(0.61)	(0.58)	(0.55)
<b>GDP</b>																			
EBP	-0.024*	-0.052*	-0.075*	-0.088*	-0.12*	-0.17*	-0.24**	-0.31**	-0.38***	-0.46***	-0.54***	-0.58***	-0.58***	-0.62***	-0.70***	-0.76***	-0.82***	-0.84***	
	(0.013)	(0.029)	(0.041)	(0.052)	(0.071)	(0.091)	(0.11)	(0.12)	(0.13)	(0.15)	(0.16)	(0.18)	(0.20)	(0.23)	(0.24)	(0.26)	(0.28)	(0.30)	
EBP*Rule of law	-0.0012	0.0028	0.017	0.046*	0.076**	0.10**	0.13**	0.15*	0.17*	0.19*	0.21*	0.24*	0.28**	0.30**	0.30**	0.29**	0.25**	0.23**	
	(0.0054)	(0.013)	(0.019)	(0.024)	(0.034)	(0.047)	(0.062)	(0.076)	(0.091)	(0.10)	(0.12)	(0.12)	(0.13)	(0.14)	(0.14)	(0.13)	(0.13)	(0.12)	

NOTE: The table shows the coefficients  $\beta_h$  and  $\delta_{x,h}$  from model eq:baseline estimated on monthly observations from 1995 to 2021 for 22 emerging economies for horizons  $h = 0, 1, \dots, 18$  with the variable  $Z_{i,t-1}$  set to Rule of law. The model includes country-specific fixed effects. Robust standard errors (Driscoll-Kraay) are reported in parentheses. The asterisks \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% level, respectively. For reasons of space, the table does not show the coefficients of the other variables included in the model.

Table A6: Global financial conditions, institutions and economic outcomes (using the VIX)

HORIZONS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b>Equity</b>																			
VIX	-0.59*** (0.077)	-0.48*** (0.11)	-0.35*** (0.13)	-0.34** (0.15)	-0.36* (0.19)	-0.33 (0.22)	-0.26 (0.25)	-0.37 (0.28)	-0.43 (0.30)	-0.42 (0.33)	-0.47 (0.35)	-0.53 (0.35)	-0.56 (0.35)	-0.63 (0.39)	-0.71 (0.44)	-0.89* (0.49)	-0.87* (0.51)	-0.79 (0.50)	-0.81 (0.51)
VIX*Rule of law	0.067 (0.048)	0.15** (0.060)	0.12** (0.059)	0.11 (0.069)	0.12 (0.074)	0.053 (0.075)	0.017 (0.070)	-0.030 (0.081)	0.016 (0.098)	0.037 (0.11)	0.10 (0.12)	0.13 (0.14)	0.16 (0.15)	0.18 (0.14)	0.19 (0.16)	0.21 (0.17)	0.23 (0.17)	0.24 (0.17)	0.21 (0.17)
<b>Spreads</b>																			
VIX	0.032*** (0.0065)	0.029*** (0.0066)	0.012* (0.0063)	0.013* (0.0076)	0.016 (0.0097)	0.010 (0.012)	0.0050 (0.013)	0.000079 (0.013)	0.0064 (0.014)	0.016 (0.014)	0.014 (0.015)	0.015 (0.014)	0.014 (0.013)	0.015 (0.015)	0.022 (0.017)	0.031* (0.018)	0.029 (0.018)	0.024 (0.018)	0.024 (0.018)
VIX*Rule of law	-0.014*** (0.0035)	-0.020*** (0.0030)	-0.018*** (0.0039)	-0.014*** (0.0030)	-0.012*** (0.0033)	-0.012*** (0.0033)	-0.0074** (0.0036)	-0.0066 (0.0044)	-0.0049 (0.0047)	-0.0057 (0.0051)	-0.0084 (0.0056)	-0.0071 (0.0062)	-0.0088 (0.0070)	-0.0061 (0.0065)	-0.0056 (0.0071)	-0.0078 (0.0079)	-0.0093 (0.0081)	-0.0070 (0.0083)	-0.0090 (0.0087)
<b>Exchange Rates</b>																			
VIX	-0.17*** (0.045)	-0.21** (0.086)	-0.14 (0.088)	-0.19* (0.097)	-0.18* (0.11)	-0.15 (0.11)	-0.13 (0.11)	-0.14 (0.12)	-0.14 (0.13)	-0.19 (0.15)	-0.23 (0.14)	-0.24* (0.14)	-0.32** (0.13)	-0.35*** (0.13)	-0.40*** (0.14)	-0.51*** (0.15)	-0.51*** (0.16)	-0.52*** (0.17)	-0.56*** (0.17)
VIX*Rule of law	-0.0084 (0.032)	-0.019 (0.047)	0.0049 (0.034)	0.0030 (0.033)	0.027 (0.041)	0.032 (0.033)	0.025 (0.032)	0.0099 (0.038)	0.024 (0.037)	0.0086 (0.044)	0.036 (0.039)	0.035 (0.042)	0.031 (0.041)	0.047 (0.043)	0.048 (0.046)	0.014 (0.048)	0.036 (0.053)	0.023 (0.056)	0.0045 (0.056)
<b>GDP</b>																			
VIX		-0.0014 (0.00099)	-0.0019 (0.0021)	-0.0028 (0.0036)	-0.0027 (0.0050)	-0.00094 (0.0071)	0.00100 (0.0096)	0.0019 (0.012)	0.0021 (0.013)	-0.0014 (0.015)	-0.0064 (0.017)	-0.013 (0.020)	-0.014 (0.022)	-0.014 (0.022)	-0.013 (0.022)	-0.013 (0.023)	-0.017 (0.025)	-0.022 (0.026)	-0.026 (0.028)
VIX*Rule of law		-0.00062 (0.00061)	-0.00020 (0.0013)	0.00073 (0.0022)	0.0025 (0.0027)	0.0055* (0.0033)	0.0090** (0.0043)	0.012** (0.0054)	0.016** (0.0066)	0.018** (0.0075)	0.019** (0.0083)	0.020** (0.0092)	0.024** (0.0098)	0.027*** (0.0098)	0.031*** (0.0098)	0.033*** (0.010)	0.032*** (0.0098)	0.030*** (0.0092)	0.028*** (0.0088)

NOTES: The table shows the coefficients  $\beta_h$  and  $\delta_{x,h}$  from model eq:baseline replacing the EBP with the VIX estimated on monthly observations from 1995 to 2021 for 22 emerging economies for horizons  $h = 0, 1, \dots, 18$ . The model includes country-specific fixed effects. Robust standard errors (Driscoll-Kraay) are reported in parentheses. The asterisks \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% level, respectively. For reasons of space, the table does not show the coefficients of the other variables included in the model.

Table A7: Global financial conditions, institutions and economic outcomes (using dummy variable for events).

HORIZONS	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b>Equity</b>																			
Events	-2.68**	-2.58	-3.10	-2.47	-1.50	-2.77	-1.95	-2.84	-3.52	-2.34	-0.35	-1.05	-0.072	-0.67	-2.12	-1.27	-1.52	-1.62	-2.72
	(1.16)	(1.75)	(2.03)	(2.63)	(2.98)	(3.33)	(3.73)	(4.91)	(5.34)	(6.19)	(6.76)	(7.13)	(6.54)	(6.04)	(5.53)	(5.46)	(5.62)	(5.37)	(5.75)
Events*Rule of law	3.08***	4.75**	4.47**	3.70	3.94	2.33	1.81	0.20	-0.25	-0.059	0.59	0.0014	-0.32	-0.61	-0.19	0.83	0.45	0.66	-0.24
	(0.96)	(2.20)	(2.24)	(2.48)	(2.63)	(2.64)	(2.10)	(1.94)	(1.71)	(1.86)	(1.95)	(2.11)	(1.92)	(2.06)	(1.86)	(1.86)	(1.79)	(1.83)	(1.90)
<b>Spreads</b>																			
Events	0.28***	0.23*	0.20*	0.10	0.13	0.16	0.13	0.0036	0.029	-0.052	-0.13	-0.12	-0.13	-0.12	-0.022	-0.054	-0.065	-0.047	-0.049
	(0.095)	(0.14)	(0.12)	(0.13)	(0.15)	(0.15)	(0.16)	(0.17)	(0.17)	(0.20)	(0.21)	(0.21)	(0.22)	(0.21)	(0.19)	(0.18)	(0.19)	(0.18)	(0.18)
Events*Rule of law	-0.17***	-0.34***	-0.34**	-0.23*	-0.18**	-0.20**	-0.14*	-0.14**	-0.095	-0.068	-0.067	-0.045	-0.0080	-0.011	-0.015	-0.037	-0.069	-0.082	-0.055
	(0.047)	(0.091)	(0.14)	(0.12)	(0.077)	(0.085)	(0.082)	(0.060)	(0.062)	(0.065)	(0.091)	(0.086)	(0.082)	(0.082)	(0.092)	(0.079)	(0.077)	(0.078)	(0.091)
<b>Exchange Rates</b>																			
Events	-2.21**	-2.33*	-2.73**	-2.30*	-1.98	-1.57	-1.91	-1.58	-2.25	-2.33	-1.84	-1.98	-2.19	-2.21	-2.58	-2.52	-2.81*	-3.34**	-4.08**
	(0.87)	(1.37)	(1.33)	(1.28)	(1.41)	(1.28)	(1.29)	(1.45)	(1.51)	(1.56)	(1.78)	(1.93)	(2.00)	(1.91)	(1.75)	(1.62)	(1.63)	(1.62)	(1.75)
Events*Rule of law	-0.14	-0.041	-0.38	-0.11	0.32	0.46	0.11	-0.28	-0.68	-0.56	-0.40	-0.38	-0.48	-0.21	-0.088	0.029	0.088	-0.22	-0.91
	(0.45)	(0.55)	(0.45)	(0.55)	(0.59)	(0.62)	(0.73)	(0.73)	(0.75)	(0.85)	(0.88)	(0.78)	(0.68)	(0.81)	(0.88)	(0.77)	(0.68)	(0.69)	(0.86)
<b>GDP</b>																			
Events		0.0060	0.0070	-0.0086	-0.035	-0.069	-0.11	-0.15*	-0.20*	-0.24**	-0.28**	-0.30**	-0.34**	-0.38*	-0.40*	-0.40	-0.38	-0.36	-0.30
		(0.0085)	(0.021)	(0.033)	(0.048)	(0.063)	(0.078)	(0.092)	(0.10)	(0.11)	(0.12)	(0.14)	(0.16)	(0.20)	(0.23)	(0.27)	(0.31)	(0.35)	(0.38)
Events*Rule of law		-0.00047	0.00070	0.0069	0.019	0.036	0.055	0.074	0.095	0.12	0.14	0.16	0.18	0.19*	0.19*	0.18*	0.17*	0.14	0.12
		(0.0044)	(0.011)	(0.019)	(0.031)	(0.045)	(0.060)	(0.075)	(0.087)	(0.097)	(0.10)	(0.11)	(0.11)	(0.11)	(0.10)	(0.097)	(0.092)	(0.087)	(0.086)

NOTES: The table shows the coefficients  $\beta_h$  and  $\delta_{x,h}$  from model eq:baseline replacing the EBP with event dummies estimated on monthly observations from 1995 to 2021 for 22 emerging economies for horizons  $h = 0, 1, \dots, 18$ . The model includes country-specific fixed effects. Robust standard errors (Driscoll-Kraay) are reported in parentheses. The asterisks \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% level, respectively. For reasons of space, the table does not show the coefficients of the other variables included in the model.

Table A8: Global financial conditions, institutions and foreign currency (FC) debt.

HORIZONS	0	1	2	3	4	5	6	7	8	9
<b>Equity</b>										
EBP	-7.35*** (1.19)	-9.47*** (1.72)	-9.40*** (2.16)	-11.3*** (2.13)	-13.0*** (2.43)	-13.4*** (2.71)	-13.7*** (2.98)	-15.1*** (3.51)	-15.8*** (3.79)	-15.7*** (4.19)
EBP*Rule of law	2.05*** (0.66)	2.59*** (0.90)	3.03*** (1.01)	2.23* (1.25)	2.58** (1.18)	1.82 (1.18)	1.44 (1.11)	0.48 (1.17)	0.52 (1.35)	0.38 (1.52)
Rule of law	-1.90*** (0.64)	-3.95*** (1.03)	-5.92*** (1.44)	-7.91*** (1.86)	-9.71*** (2.21)	-11.3*** (2.57)	-12.1*** (2.99)	-12.9*** (3.44)	-13.2*** (3.89)	-13.7*** (4.40)
EBP*FC Debt	1.17 (1.01)	2.10 (1.69)	3.15 (2.38)	4.56 (3.38)	5.62 (4.43)	5.78 (5.36)	6.72 (6.28)	7.65 (7.28)	8.04 (7.85)	7.78 (8.12)
FC Debt	1.44 (1.37)	2.33 (2.38)	2.83 (3.35)	3.13 (4.40)	2.96 (5.48)	2.53 (6.50)	2.63 (7.44)	3.39 (8.32)	5.06 (9.12)	6.39 (9.81)
<b>Spreads</b>										
EBP	0.39*** (0.081)	0.39*** (0.11)	0.35*** (0.10)	0.33*** (0.10)	0.43*** (0.11)	0.36** (0.14)	0.33* (0.17)	0.19 (0.16)	0.21 (0.17)	0.18 (0.17)
EBP*Rule of law	-0.19*** (0.041)	-0.32*** (0.059)	-0.30*** (0.092)	-0.26*** (0.094)	-0.23*** (0.087)	-0.24*** (0.085)	-0.22*** (0.073)	-0.25*** (0.071)	-0.22*** (0.068)	-0.24*** (0.079)
Rule of law	0.074 (0.067)	0.18* (0.10)	0.25** (0.12)	0.31** (0.16)	0.36* (0.20)	0.44* (0.25)	0.50 (0.31)	0.56 (0.37)	0.62 (0.43)	0.69 (0.49)
EBP*FC Debt	0.35*** (0.11)	0.53*** (0.18)	0.61** (0.24)	0.67** (0.29)	0.77** (0.37)	0.89** (0.44)	0.92* (0.51)	0.90 (0.59)	0.91 (0.67)	1.03 (0.79)
FC Debt	0.013 (0.14)	-0.041 (0.21)	-0.083 (0.29)	-0.14 (0.35)	-0.18 (0.43)	-0.23 (0.51)	-0.29 (0.59)	-0.36 (0.68)	-0.48 (0.77)	-0.54 (0.86)
<b>Exchange Rates</b>										
EBP	-2.11*** (0.77)	-2.54* (1.34)	-2.28* (1.38)	-2.63* (1.54)	-3.32* (1.74)	-2.97* (1.66)	-2.81* (1.61)	-1.92 (1.48)	-2.12 (1.53)	-1.34 (1.56)
EBP*Rule of law	-0.23 (0.42)	-0.21 (0.65)	-0.14 (0.48)	-0.032 (0.49)	0.22 (0.55)	0.22 (0.46)	0.15 (0.53)	-0.031 (0.57)	-0.16 (0.54)	0.16 (0.53)
Rule of law	-1.06** (0.49)	-2.20*** (0.85)	-3.33*** (1.20)	-4.49*** (1.53)	-5.68*** (1.87)	-6.82*** (2.29)	-7.93*** (2.75)	-9.10*** (3.22)	-10.2*** (3.67)	-11.3*** (4.15)
EBP*FC Debt	-1.59** (0.74)	-2.65* (1.40)	-3.28 (2.12)	-4.27* (2.54)	-5.51** (2.72)	-7.19** (3.02)	-8.50** (3.32)	-9.94*** (3.60)	-11.1*** (3.94)	-12.4*** (4.42)
FC Debt	1.45* (0.79)	2.57* (1.47)	3.38 (2.07)	4.36* (2.53)	5.63* (2.94)	7.24** (3.35)	9.02** (3.69)	10.8*** (4.02)	12.8*** (4.43)	14.6*** (4.95)
HORIZONS	1	2	3	4	5	6	7	8	9	10
<b>GDP</b>										
EBP	-0.0027 (0.0050)	-0.0097 (0.014)	-0.023 (0.028)	-0.045 (0.045)	-0.072 (0.065)	-0.11 (0.085)	-0.16 (0.11)	-0.21 (0.13)	-0.27* (0.15)	-0.34* (0.17)
EBP*Rule of law	0.0040 (0.0030)	0.012 (0.0083)	0.024 (0.016)	0.041 (0.026)	0.061 (0.039)	0.085 (0.054)	0.11 (0.071)	0.14 (0.087)	0.17 (0.10)	0.20* (0.12)
Rule of law	0.010 (0.0073)	0.025 (0.026)	0.038 (0.056)	0.042 (0.097)	0.026 (0.15)	-0.014 (0.20)	-0.078 (0.27)	-0.17 (0.34)	-0.28 (0.41)	-0.41 (0.48)
EBP*FC Debt	-0.042*** (0.0079)	-0.12*** (0.027)	-0.24*** (0.059)	-0.38*** (0.10)	-0.54*** (0.15)	-0.70*** (0.21)	-0.85*** (0.27)	-0.98*** (0.32)	-1.08*** (0.38)	-1.14*** (0.43)
FC Debt	0.024 (0.044)	0.086 (0.16)	0.19 (0.34)	0.34 (0.59)	0.47 (0.87)	0.58 (1.15)	0.66 (1.42)	0.72 (1.67)	0.78 (1.89)	0.80 (2.07)

NOTES: The table shows the coefficients  $\beta_h$  and  $\delta_{x,h}$  from model eq:baseline extended to include foreign currency (FC) debt estimated on monthly observations from 1995 to 2021 for 22 emerging economies for horizons  $h = 0, 1, \dots, 9$  for financial variables and  $h = 1, 2, \dots, 10$  for GDP growth. The model includes country-specific fixed effects. Robust standard errors (Driscoll-Kraay) are reported in parentheses. The asterisks \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% level, respectively. For reasons of space, the table does not show the coefficients of the other variables included in the model.

Table A9: Global financial conditions, institutions and policies.

HORIZONS	0	1	2	3	4	5	6	7	8	9	10	11	12
<b>Policy Rates</b>													
EBP	-0.034 (0.041)	-0.016 (0.058)	-0.045 (0.082)	-0.11 (0.11)	-0.17 (0.14)	-0.28 (0.17)	-0.30 (0.19)	-0.33* (0.19)	-0.35* (0.19)	-0.34* (0.18)	-0.35* (0.19)	-0.34* (0.19)	-0.34* (0.19)
EBP*Rule of law	-0.021 (0.038)	-0.0013 (0.057)	0.020 (0.071)	-0.052 (0.080)	-0.16* (0.096)	-0.23** (0.10)	-0.27** (0.11)	-0.27** (0.12)	-0.30*** (0.11)	-0.25** (0.10)	-0.16 (0.10)	-0.11 (0.099)	-0.077 (0.10)
<b>Reserves</b>													
EBP	-0.19* (0.11)	-0.14 (0.14)	-0.087 (0.15)	-0.033 (0.19)	0.033 (0.23)	0.14 (0.23)	0.14 (0.24)	0.20 (0.22)	0.27 (0.24)	0.38 (0.28)	0.35 (0.31)	0.56* (0.33)	0.59* (0.35)
EBP*Rule of law	0.017 (0.042)	0.094 (0.077)	0.12 (0.13)	0.22 (0.16)	0.30 (0.19)	0.35 (0.22)	0.38* (0.22)	0.37 (0.23)	0.42* (0.24)	0.45 (0.27)	0.43 (0.32)	0.59* (0.35)	0.59 (0.38)
<b>Capital Controls</b>													
EBP	-0.00044 (0.0020)	-0.0023 (0.0030)	-0.0017 (0.0038)	-0.0026 (0.0061)	-0.0054 (0.0069)	-0.0058 (0.0079)	-0.0084 (0.0084)	-0.0097 (0.0089)	-0.010 (0.0095)	-0.013 (0.0099)	-0.017 (0.011)	-0.016 (0.012)	-0.018 (0.012)
EBP*Rule of law	-0.00069 (0.0018)	-0.00044 (0.0035)	-0.00044 (0.0043)	0.00045 (0.0060)	-0.0022 (0.0066)	-0.0018 (0.0075)	-0.0025 (0.0081)	-0.0035 (0.0088)	-0.0028 (0.0095)	-0.0051 (0.0099)	-0.0082 (0.011)	-0.0071 (0.011)	-0.0073 (0.012)
<b>macro-prudential Policies</b>													
EBP	-0.042 (0.089)	-0.076 (0.17)	-0.11 (0.17)	-0.15 (0.22)	-0.18 (0.24)	-0.16 (0.25)	-0.17 (0.25)	-0.15 (0.25)	-0.19 (0.27)	-0.21 (0.26)	-0.23 (0.25)	-0.28 (0.25)	-0.30 (0.26)
EBP*rule of law	0.050* (0.027)	0.099* (0.053)	0.093* (0.055)	0.095 (0.082)	0.11 (0.095)	0.12 (0.100)	0.12 (0.10)	0.096 (0.10)	0.054 (0.11)	0.059 (0.11)	0.045 (0.100)	0.031 (0.10)	0.034 (0.098)

NOTES: The table shows the coefficients  $\beta_h$  and  $\delta_{x,h}$  from model eq:baseline estimated on monthly observations from 1995 to 2021 for 22 emerging economies in which the dependent variable is a policy indicator (policy rates, reserves, an index of capital controls on inflows and an index of macro-prudential policy tightness). The model includes country-specific fixed effects. Robust standard errors (Driscoll-Kraay) are reported in parentheses. The asterisks \*\*\*, \*\* and \* indicate statistical significance at the 1%, 5% and 10% level, respectively. For reasons of space, the table does not show the coefficients of the other variables included in the model.

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