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Appendix A. Variables and Data Sources

- ΔCredit:** Total credit to the private non-financial sector (log difference). Source: BIS.
- ΔTBC:** Total bank credit to the private non-financial sector (log difference). Source: BIS.
- Inflow:** Gross capital inflow (ratio of external liability). Source: IFS.
- Bank:** Exchange-rate-adjusted change in cross-border claims of all BIS reporting countries on banking sector in a given country (ratio of external liability). Source: BIS.
- Non_bank:** Gross capital inflow less exchange-rate-adjusted change in cross-border claims of all BIS reporting countries on banking sector in a given country (ratio of external liability). Source: IFS and BIS.
- Global_Lev:** US broker-dealer leverage defined as asset over equity (logged). Source: FRB.
- ΔGlobal_Lev:** US broker-dealer leverage defined as asset over equity (log difference). Source: FRB.
- Global_Flow:** Sample sum of capital inflows, excluding the inflows to the country under consideration (divided by sample sum of external liability excluding liability of the country under consideration). Source: IFS.
- Global_Bank:** Sample sum of exchange-rate-adjusted changes in cross-border claims of all BIS reporting countries on banking sector in a given country, excluding the change in the country under consideration (divided by sample sum of external liability excluding liability of the country under consideration). Source: IFS and BIS.
- Global_Nonbank:** Sample sum of gross capital inflow less exchange-rate-adjusted changes in cross-border claims of all BIS reporting countries on banking sector in a given country, excluding the data in the country under consideration (divided by sample sum of external liability excluding liability of the country under consideration). Source: IFS and BIS.
- VIX:** CBOE VIX index of implied volatility of S&P index options (logged). Source: FRED.
- ΔVIX:** CBOE VIX index of implied volatility of S&P index options (log difference). Source: FRED.
- Stock_Vol:** 12-month standard deviation of return of local stock price index (logged). Source: FRED.
- ΔShort_Rate:** Change in interest rate of 3-month government bond. Source: OECD.
- ΔGDP:** GDP growth rate. Source: OECD.
- Inflation:** CPI change. Source: IFS.
- ΔREER:** Real effective exchange rate (log difference). Source: BIS.

Appendix B. Sampled Countries

Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Korea, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States.

Appendix C.

Table C.I. Panel Regression Results (yearly change data)

	Model 11		Model 12		Model 13		Model 14		Model 15	Model 16
	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage	2nd stage	2nd stage
	Inflow _t	ΔCredit _t	Inflow _t	ΔCredit _t	Inflow _t	ΔCredit _t	Inflow _t	ΔCredit _t	ΔCredit _t	ΔCredit _t
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<u>Endogenous var.</u>										
Inflow _t		0.625*** (0.099)		0.260*** (0.043)		0.269*** (0.054)		0.089*** (0.022)	0.329*** (0.039)	0.190*** (0.036)
<u>Instrumental var.</u>										
Global_Lev _{t-1}	0.285*** (0.059)				0.271*** (0.068)					
ΔGlobal_Lev _t	0.052 (0.039)				0.060 (0.039)					
Global_Flow _t			0.655*** (0.146)				0.626*** (0.148)			
<u>Control var.</u>										
VIX _{t-1}	0.018 (0.028)	0.011 (0.019)	0.023 (0.029)	0.005 (0.011)	0.018 (0.027)	0.006 (0.009)	0.022 (0.030)	0.003 (0.004)	0.007 (0.012)	0.004 (0.010)
ΔVIX _t	-0.011 (0.009)	-0.054*** (0.009)	0.006 (0.011)	-0.044*** (0.006)	-0.008 (0.011)	-0.043*** (0.007)	0.008 (0.011)	-0.038*** (0.006)	-0.046*** (0.006)	-0.042*** (0.006)
Stock_Vol _{t-1}	0.006 (0.015)	0.000 (0.013)	0.018 (0.016)	0.005 (0.010)	0.006 (0.015)	0.001 (0.005)	0.016 (0.016)	0.003 (0.003)	0.004 (0.010)	0.006 (0.010)
ΔShort_Rate _{t-1}	1.043** (0.501)	-0.377 (0.343)	0.661 (0.463)	-0.006 (0.219)	0.962* (0.531)	-0.661*** (0.172)	0.497 (0.460)	-0.535*** (0.127)	-0.076 (0.253)	0.064 (0.199)
ΔGDP _{t-1}	2.165*** (0.615)	-0.909 (0.556)	1.504** (0.688)	0.295 (0.317)	2.135*** (0.602)	-0.316 (0.295)	1.421** (0.661)	0.226 (0.182)	0.067 (0.354)	0.523 (0.326)
Inflation _{t-1}	2.390*** (0.681)	-0.863 (0.590)	2.130** (0.774)	0.335 (0.356)	2.310*** (0.662)	-0.548** (0.274)	1.944** (0.746)	-0.032 (0.151)	0.108 (0.361)	0.562 (0.398)
ΔREER _{t-1}	-0.098 (0.161)	0.940*** (0.156)	-0.015 (0.146)	0.909*** (0.113)	-0.200 (0.184)	0.087 (0.060)	-0.246 (0.177)	-0.002 (0.034)	0.915*** (0.121)	0.903*** (0.106)
ΔCredit _{t-1}					0.088 (0.103)	0.710*** (0.027)	0.196** (0.089)	0.774*** (0.014)		
Constant	-0.858*** (0.227)	-0.113** (0.051)	-0.068 (0.096)	-0.050* (0.027)	-0.813*** (0.259)	-0.063*** (0.024)	-0.061 (0.097)	-0.034*** (0.011)	-0.062** (0.028)	-0.039* (0.022)
Fixed effect	Yes		Yes		Yes		Yes		Yes	Yes
F-stat	18.06	-	21.40	-	18.55	-	19.40	-	-	-
Wald χ^2	-	288.77	-	236.69	-	4664.47	-	8367.69	277.53	336.71
Sargan-Hansen (p-value)	8.481 (0.003)				1.046 (0.306)				179.036 (0.000)	79.347 (0.000)
R ²	0.334	0.131	0.366	0.269	0.336	0.514	0.373	0.635	0.235	0.302
Observation	1777		1777		1777		1777		1777	1777
# Country	22		22		22		22		22	22

Note: Standard errors clustering at the country level are reported in parentheses. ***, **, and * denote significance at 1, 5, and 10 percent levels, respectively. $\Delta Credit$, $\Delta Global_Lev$, ΔVIX , $\Delta Short_Rate$, ΔGDP , $Inflation$, and $\Delta REER$ use yearly change (compared to previous year) series. $Inflow$ and $Global_Flow$ use 4-quarter-moving-cumulative flows (annualized flows). Model 15 uses interaction terms of global leverage with country-specific dummies as instruments. Model 16 uses interaction terms of global flow with country-specific dummies as instruments.

Table C.II. Panel Regression Results (yearly change data)

	Model 17		Model 18		Model 19			Model 20		
	1st stage	2nd stage	1st stage	2nd stage	1st stage	1st stage	2nd stage	1st stage	1st stage	2nd stage
	Bank _t	Δ Credit _t	Bank _t	Δ Credit _t	Bank _t	Non_bank _t	Δ Credit _t	Bank _t	Non_bank _t	Δ Credit _t
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<u>Endogenous var.</u>										
Bank _t		0.886*** (0.208)		0.431*** (0.134)			1.434*** (0.442)			0.929** (0.415)
Non_bank _t							-0.376 (0.251)			-0.283 (0.183)
<u>Instruments</u>										
Global_Bank _t	0.559*** (0.184)		0.465** (0.177)		0.401*** (0.138)	0.078 (0.188)		0.307** (0.127)	0.095 (0.184)	
Global_Nonbank _t					0.136 (0.096)	0.614*** (0.168)		0.130 (0.092)	0.615*** (0.169)	
<u>Control var.</u>										
VIX _{t-1}	0.006 (0.015)	0.007 (0.015)	0.004 (0.015)	0.005 (0.007)	0.006 (0.016)	0.017 (0.021)	0.007 (0.024)	0.005 (0.016)	0.017 (0.021)	0.005 (0.015)
Δ VIX _t	0.000 (0.007)	-0.048*** (0.009)	0.002 (0.007)	-0.040*** (0.007)	0.000 (0.007)	0.008 (0.010)	-0.045*** (0.015)	0.003 (0.007)	0.008 (0.010)	-0.041*** (0.011)
Stock_Vol _{t-1}	-0.014 (0.009)	0.024** (0.009)	-0.017* (0.008)	0.011 (0.004)	-0.013 (0.010)	0.030* (0.015)	0.043** (0.020)	-0.015 (0.010)	0.031* (0.015)	0.029** (0.014)
Δ Short_Rate _{t-1}	-0.107 (0.249)	0.069 (0.242)	-0.276 (0.257)	-0.437*** (0.151)	0.015 (0.249)	0.775* (0.437)	0.155 (0.372)	-0.153 (0.255)	0.807* (0.433)	-0.261 (0.279)
Δ GDP _{t-1}	1.087*** (0.353)	-0.339 (0.518)	0.986*** (0.344)	-0.116 (0.303)	1.077*** (0.357)	0.452 (0.400)	-0.741 (0.779)	0.977*** (0.338)	0.470 (0.393)	-0.445 (0.595)
Inflation _{t-1}	0.357 (0.339)	0.745** (0.344)	0.084 (0.309)	0.168 (0.155)	0.234 (0.378)	1.767*** (0.517)	1.495** (0.666)	-0.049 (0.338)	1.820*** (0.520)	0.859** (0.434)
Δ REER _{t-1}	0.218* (0.120)	0.714*** (0.186)	-0.076 (0.095)	0.015 (0.050)	0.228* (0.112)	-0.239** (0.102)	0.478* (0.277)	-0.069 (0.093)	-0.184 (0.135)	-0.004 (0.087)
Δ Credit _{t-1}			0.248*** (0.063)	0.671*** (0.045)				0.255*** (0.056)	-0.047 (0.071)	0.531*** (0.125)
Constant	-0.008 (0.049)	-0.043 (0.044)	-0.004 (0.049)	-0.036* (0.019)	-0.032 (0.056)	-0.048 (0.063)	-0.014 (0.069)	-0.026 (0.055)	-0.049 (0.064)	-0.014 (0.043)
Fixed effect	Yes		Yes		Yes			Yes		
F-stat	12.22	-	18.45	-	22.14	11.63	-	26.10	10.52	-
Wald χ^2	-	258.11	-	2114.15	-	-	119.23	-	-	502.41
Sargan-Hansen (p-value)	-		-		-			-		
R ²	0.231	0.218	0.257	0.558	0.249	0.274	0.149	0.279	0.274	0.351
Observation	1871		1871		1777			1777		
# Country	22		22		22			22		

Note: Standard errors clustering at the country level are reported in parentheses. ***, **, and * denote significance at 1, 5, and 10 percent levels, respectively. Δ Credit, Δ VIX, Δ Short_Rate, Δ GDP, Inflation, and Δ REER use yearly change (compared to previous year) series. Bank, Non_bank, Global_Bank, and Global_Nonbank use 4-quarter-moving-cumulative flows (annualized flows).

Table C.III. Panel Regression Results (models with a linear trend)

	Model 21		Model 22		Model 23		Model 24		Model 25	Model 26
	1st stage Inflow _t (1)	2nd stage Δ Credit _t (2)	1st stage Inflow _t (3)	2nd stage Δ Credit _t (4)	1st stage Inflow _t (5)	2nd stage Δ Credit _t (6)	1st stage Inflow _t (7)	2nd stage Δ Credit _t (8)	2nd stage Δ Credit _t (9)	2nd stage Δ Credit _t (10)
<u>Endogenous var.</u>										
Inflow _t		0.889*** (0.171)		0.222*** (0.051)		0.947*** (0.202)		0.196*** (0.049)	0.382*** (0.071)	0.190*** (0.037)
<u>Instruments</u>										
Global_Lev _{t-1}	0.063*** (0.015)				0.056*** (0.015)					
Δ Global_Lev _t	0.179*** (0.030)				0.166*** (0.030)					
Global_Flow _t			0.659*** (0.097)				0.631*** (0.102)			
<u>Control var.</u>										
VIX _{t-1}	0.003 (0.008)	0.005 (0.007)	0.006 (0.009)	0.000 (0.004)	0.003 (0.008)	0.005 (0.007)	0.005 (0.009)	0.000 (0.004)	0.001 (0.004)	0.000 (0.004)
Δ VIX _t	0.003 (0.006)	-0.014* (0.007)	0.006 (0.007)	-0.014** (0.006)	0.002 (0.006)	-0.014* (0.007)	0.005 (0.008)	-0.014** (0.006)	-0.014** (0.006)	-0.014** (0.006)
Stock_Vol _{t-1}	-0.006 (0.005)	0.008* (0.004)	-0.004 (0.005)	0.000 (0.003)	-0.007 (0.004)	0.009** (0.004)	-0.005 (0.004)	0.000 (0.003)	0.002 (0.003)	0.000 (0.003)
Δ Short_Rate _{t-1}	0.836*** (0.286)	-1.677*** (0.323)	0.425 (0.309)	-0.995*** (0.200)	0.703** (0.294)	-1.640*** (0.332)	0.327 (0.304)	-1.044*** (0.210)	-1.158*** (0.223)	-0.963*** (0.200)
Δ GDP _{t-1}	0.787*** (0.249)	-0.267 (0.274)	0.500* (0.256)	0.420** (0.204)	0.767*** (0.247)	-0.297 (0.292)	0.485* (0.252)	0.423** (0.198)	0.255 (0.218)	0.452** (0.201)
Inflation _{t-1}	0.377 (0.334)	0.000 (0.293)	0.451 (0.398)	0.272 (0.173)	0.328 (0.347)	0.007 (0.320)	0.410 (0.404)	0.258 (0.170)	0.207 (0.183)	0.285* (0.170)
Δ REER _{t-1}	0.046 (0.075)	-0.031 (0.080)	0.050 (0.068)	0.016 (0.043)	-0.115 (0.083)	0.064 (0.009)	-0.077 (0.085)	-0.060 (0.050)	0.004 (0.052)	0.018 (0.042)
Δ Credit _{t-1}					0.150*** (0.041)	-0.092* (0.054)	0.118** (0.047)	0.072*** (0.023)		
Constant	-0.133** (0.063)	-0.108*** (0.030)	0.022 (0.032)	-0.011 (0.010)	-0.105 (0.066)	-0.114*** (0.034)	0.024 (0.032)	-0.009 (0.010)	-0.034** (0.015)	-0.007 (0.012)
Fixed effect	Yes		Yes		Yes		Yes		Yes	Yes
Linear trend	Yes		Yes		Yes		Yes		Yes	Yes
F-stat	12.68	-	12.82	-	17.19	-	22.81	-	-	-
Wald χ^2	-	102.04	-	189.87	-	94.83	-	218.44	129.42	215.34
Sargan-Hansen (p-value)	0.613 (0.433)				0.702 (0.402)				100.437 (0.000)	18.718 (0.603)
R ²	0.136	0.003	0.186	0.012	0.143	0.002	0.190	0.017	0.007	0.014
Observation	1846		1846		1846		1846		1846	1846
# Country	22		22		22		22		22	22

Note: Standard errors clustering at the country level are reported in parentheses. ***, **, and * denote significance at 1, 5, and 10 percent levels, respectively. Model 25 uses interaction terms of global leverage with country-specific dummies as instruments. Model 26 uses interaction terms of global flow with country-specific dummies as instruments.

Table C.IV. Panel Regression Results (models with a linear trend)

	Model 27		Model 28		Model 29			Model 30		
	1st stage	2nd stage	1st stage	2nd stage	1st stage	1st stage	2nd stage	1st stage	1st stage	2nd stage
	Bank _t	ΔCredit _t	Bank _t	ΔCredit _t	Bank _t	Non_bank _t	ΔCredit _t	Bank _t	Non_bank _t	ΔCredit _t
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<u>Endogenous var.</u>										
Bank _t		0.581*** (0.095)		0.558*** (0.102)			0.737*** (0.212)			0.716*** (0.221)
Non_bank _t							-0.370 (0.273)			-0.378 (0.266)
<u>Instruments</u>										
Global_Bank _t	0.557*** (0.088)		0.525*** (0.095)		0.487*** (0.078)	0.181* (0.089)		0.463*** (0.084)	0.172* (0.090)	
Global_Nonbank _t					0.236*** (0.062)	0.414*** (0.089)		0.219*** (0.062)	0.408*** (0.091)	
<u>Control var.</u>										
VIX _{t-1}	0.001 (0.006)	0.000 (0.004)	0.001 (0.006)	0.000 (0.004)	0.004 (0.006)	0.001 (0.007)	-0.002 (0.006)	0.004 (0.006)	0.001 (0.007)	-0.002 (0.006)
ΔVIX _t	0.002 (0.004)	-0.015** (0.006)	0.002 (0.004)	-0.015** (0.006)	0.006 (0.004)	0.000 (0.005)	-0.021*** (0.006)	0.005 (0.004)	0.000 (0.005)	-0.021*** (0.006)
Stock_Vol _{t-1}	-0.006** (0.002)	0.005 (0.004)	-0.007** (0.002)	0.004 (0.004)	-0.006** (0.002)	0.001 (0.005)	0.005 (0.006)	-0.006** (0.002)	0.001 (0.005)	0.005 (0.006)
ΔShort_Rate _{t-1}	-0.019 (0.150)	-0.884*** (0.175)	-0.083 (0.161)	-0.910*** (0.172)	-0.161 (0.134)	0.585* (0.289)	-0.587*** (0.222)	-0.233* (0.135)	0.560* (0.288)	-0.621*** (0.225)
ΔGDP _{t-1}	0.497*** (0.133)	0.262 (0.193)	0.481*** (0.133)	0.266 (0.191)	0.444*** (0.127)	0.056 (0.224)	0.235 (0.225)	0.433*** (0.126)	0.052 (0.222)	0.239 (0.223)
Inflation _{t-1}	0.094 (0.217)	0.357* (0.194)	0.058 (0.220)	0.344* (0.195)	0.054 (0.224)	0.400 (0.257)	0.527* (0.280)	0.022 (0.229)	0.389 (0.256)	0.516* (0.280)
ΔREER _{t-1}	0.132* (0.064)	-0.066 (0.063)	0.036 (0.060)	-0.102 (0.067)	0.128* (0.064)	-0.078 (0.072)	-0.099 (0.103)	0.033 (0.061)	-0.111 (0.084)	-0.142 (0.097)
ΔCredit _{t-1}			0.086** (0.033)	0.035 (0.029)				0.087** (0.032)	0.030 (0.033)	0.041 (0.039)
Constant	0.009 (0.018)	-0.003 (0.009)	0.009 (0.018)	-0.003 (0.008)	-0.016 (0.022)	0.039** (0.018)	0.030 (0.025)	-0.015 (0.022)	0.040** (0.018)	0.031 (0.025)
Fixed effect	Yes		Yes		Yes			Yes		
Linear trend	Yes		Yes		Yes			Yes		
F-stat	13.23	-	32.53	-	12.08	7.73	-	27.47	9.85	-
Wald χ^2	-	146.75	-	206.13	-	-	169.75	-	-	220.98
Sargan-Hansen (p-value)	-		-		-			-		
R ²	0.101	0.024	0.106	0.026	0.118	0.099	0.020	0.123	0.100	0.021
Observation	1940		1940		1846			1846		
# Country	22		22		22			22		

Note: Standard errors clustering at the country level are reported in parentheses. ***, **, and * denote significance at 1, 5, and 10 percent levels, respectively.

Table C.V. Panel Regression Results (total bank credit to the private nonfinancial sector as a dependent variable)

	Model 31		Model 32		Model 33		Model 34		Model 35	Model 36
	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage	2nd stage	2nd stage
	Bank _t	ΔTBC _t	Bank _t	ΔTBC _t	Bank _t	ΔTBC _t	Bank _t	ΔTBC _t	ΔTBC _t	ΔTBC _t
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<u>Endogenous var.</u>										
Bank _t		1.093*** (0.164)		0.607*** (0.118)		1.107*** (0.197)		0.569*** (0.124)	0.778*** (0.123)	0.504*** (0.103)
<u>Instruments</u>										
Global_Lev _{t-1}	0.037*** (0.007)				0.032*** (0.007)					
ΔGlobal_Lev _t	0.143*** (0.024)				0.135*** (0.025)					
Global_Bank _t			0.573*** (0.093)				0.533*** (0.101)			
<u>Control var.</u>										
VIX _{t-1}	0.009 (0.005)	-0.002 (0.006)	0.001 (0.006)	-0.003 (0.004)	0.009 (0.005)	-0.002 (0.006)	0.001 (0.006)	-0.003 (0.004)	-0.003 (0.005)	-0.003 (0.004)
ΔVIX _t	0.013 (0.004)	-0.023*** (0.008)	0.002 (0.004)	-0.018*** (0.006)	0.012** (0.004)	-0.023*** (0.008)	0.002 (0.006)	-0.018*** (0.006)	-0.020*** (0.007)	-0.017*** (0.006)
Stock_Vol _{t-1}	-0.009** (0.003)	0.007 (0.005)	-0.006* (0.003)	0.002 (0.004)	-0.009** (0.003)	0.007 (0.005)	-0.006** (0.003)	0.002 (0.004)	0.004 (0.004)	0.001 (0.004)
ΔShort_Rate _{t-1}	0.160 (0.130)	-1.031*** (0.212)	-0.050 (0.142)	-0.957*** (0.201)	0.070 (0.147)	-1.006*** (0.219)	-0.125 (0.153)	-0.998*** (0.198)	-0.983*** (0.204)	-0.941*** (0.199)
ΔGDP _{t-1}	0.530*** (0.148)	-0.048 (0.203)	0.515*** (0.139)	0.334 (0.214)	0.500*** (0.148)	-0.041 (0.209)	0.477*** (0.138)	0.333 (0.209)	0.199 (0.200)	0.414* (0.213)
Inflation _{t-1}	-0.077 (0.188)	0.194 (0.251)	0.148 (0.198)	0.272 (0.201)	-0.110 (0.194)	0.208 (0.257)	0.096 (0.198)	0.251 (0.194)	0.245 (0.214)	0.289 (0.188)
ΔREER _{t-1}	0.131* (0.068)	-0.114 (0.095)	0.129** (0.062)	-0.048 (0.071)	0.011 (0.069)	-0.082 (0.109)	0.015 (0.060)	-0.103 (0.077)	-0.071 (0.079)	-0.034 (0.067)
ΔTBC _{t-1}					0.104*** (0.027)	-0.030 (0.046)	0.098 (0.033)	0.052* (0.028)		
Constant	-0.136*** (0.030)	-0.002 (0.013)	0.005 (0.016)	0.008 (0.009)	-0.119*** (0.030)	-0.002 (0.014)	0.005 (0.016)	0.008 (0.009)	0.004 (0.010)	0.010 (0.009)
Fixed effect	Yes		Yes		Yes		Yes		Yes	Yes
F-stat	13.91	-	15.39	-	38.16	-	28.93	-	-	-
Wald χ^2	-	83.70	-	90.03	-	122.03	-	112.56	92.97	108.51
Sargan-Hansen (p-value)	2.351 (0.125)		-		2.646 (0.103)		-		71.873 (0.003)	31.848 (0.060)
R ²	0.087	0.026	0.100	0.033	0.094	0.025	0.107	0.036	0.030	0.035
Observation	1940		1940		1940		1940		1940	1940
# Country	22		22		22		22		22	22

Note: Standard errors clustering at the country level are reported in parentheses. ***, **, and * denote significance at 1, 5, and 10 percent levels, respectively. Model 35 uses interaction terms of global leverage with country-specific dummies as instruments. Model 36 uses interaction terms of global flow with country-specific dummies as instruments.