

## Online Annex (Not for Publication)

This technical appendix documents additional supporting results for the paper, “Global Transmission Channels for International Bank Lending in the 2007–09 Financial Crisis.” Table A.1 reports summary statistics for the main variables of interest, within and without the crisis period. Table A.2 provides the full definition of all the variables, including sources. Table 6 reports Akaike and Bayesian information criteria statistics for the ARDL model for up to four lags for each of the channels. Tables A.4, A.5 and A.6 report the full results for Tables 2, 3, and 4, respectively. Table A.7 reports augmented Dickey-Fuller test statistics for unit root in the VAR specification in Section 5.4.

The subsequent tables report additional robustness regressions for the autoregressive distributed lag (Table A.8) and interaction (Table A.9) specifications analogous to the robustness checks reported in the main text (Table 2). Note that the ADL(3,0,0) specification reported in these additional robustness checks were chosen for comparability with the benchmark, and may not reflect the best model selected according to information criteria. These results are, in the main, qualitatively unaffected by the alternative specifications, although in some cases (notably for the CDS variable), additional coefficients were rendered significant. The total effect in these cases yielded results that were consistent with those reported in the text.

Table A.1: Summary statistics for main variables in benchmark specification, by crisis period<sup>†</sup>

	N	Mean	Std. Dev.	Min	Max
	<i>Non-crisis</i>				
Foreign claims	2,445	17,629	52,040	3	593,879
Libor-OIS	2,445	11.2	4.6	6.8	22.6
Global banking CDS	2,445	66.0	83.4	8.9	279.4
Asset volatility	2,445	-0.1	0.2	-0.4	0.4
Loan demand	2,445	0.1	0.2	-0.3	0.4
Inflation*	2,438	7.8	22.8	-35.9	941.1
Growth	2,445	5.7	5.4	-37.5	63.8
GDP	2,445	51,824	126,587	106.8	1,148,256
	<i>Crisis</i>				
Foreign claims	990	22,263	58,476	4	377,268
Libor-OIS	990	88.7	49.7	42.7	211.5
Global banking CDS	990	128.9	64.9	33.7	229.7
Asset volatility	990	1.4	1.1	0.3	4.0
Loan demand	990	-0.3	0.2	-0.6	-0.1
Inflation*	986	9.9	13.3	-29.4	122.9
Growth	990	3.1	6.3	-40.5	67.5
GDP	990	58,897	137,326	157.2	1,197,708

<sup>†</sup> Summary statistics are provided for the sample between 2001Q4 and 2011Q1. The crisis period was defined as the period between 2007Q3 and 2009Q2.

\* The inflation statistics reported here suppress the outlier cases where QtQ inflation exceeds 1,000 percent.

Table A.2: Definitions and sources of variables

Variable	Definition and construction	Data source(s)
Foreign claims	Total consolidated foreign claims of BIS reporting banks on up to 138 developing countries	BIS
LIBOR-OIS spread	Quarterly average of daily 3-month LIBOR and overnight index swap rate differential	Bloomberg
EURIBOR-EONIA spread	Quarterly average of daily 3-month EURIBOR and Euro overnight index swap rate differential	Bloomberg
LIBOR-CD spread	Quarterly average of daily 3-month LIBOR and certificate of deposit rate differential	Thomson Datastream
Global bank CDS	Synthetic claims-weighted index of U.S. and European bank credit default swap indices	Thomson Datastream
Loss allowances	Allowances for losses as fraction of outstanding loans, banks with foreign offices	FDIC Qtr Bank Profile
Asset volatility	PCA index of 1-month GARCH(1,1) conditional volatility of 8 assets <sup>††</sup>	Datastream and GEM
Asset volatility (uncond)	ICA index of 1-month rolling coefficient of variation of 8 assets <sup>†</sup>	Datastream and GEM
Risk aversion	Net tightening of lending due to change in risk aversion (range: -1 to 1)	Fed SLOS/ECB BLS
Loan demand	Strength of demand change for C&I loans by borrowers from U.S./EU banks (range: -1 to 1)	Fed SLOS/ECB BLS
GDP*	Gross domestic product, in current U.S. dollars	World Bank GEM & WDI
GDP growth*	Annualized quarter-to-quarter percentage change of real gross domestic product	World Bank GEM & WDI
Inflation	Annualized quarter-to-quarter percentage change of CPI	IMF IFS
Depreciation	Quarterly average of change in market rate of local currency to U.S. dollars	IMF IFS
Lending rate	Quarterly average of national lending rate	IMF IFS

<sup>†</sup> These comprised the VIX and the computed volatility for 7 additional constituent assets: exchange rates for the USD/EUR, USD/JPY, USD/GBP, price indexes for agriculture, energy, and industrial metals, and the TED spread. The PCA index was constructed by performing principal components factoring on these 8 variables, obtaining the first two principal components (since only those two have eigenvalues greater than 1), and then constructing the index by weighting each component by its proportion in the cumulative variance.

<sup>††</sup> Conditional variances are obtained by estimating, for each asset, a GARCH (1,1) specification for changes in the asset price given by  $\sigma_t^2 = \alpha + \beta\mu_{t-1} + \gamma\sigma_{t-1}^2$ , where  $\sigma_t^2$  is the variance in the series at time  $t$ ,  $\mu_t$  is its mean at time  $t$ , and  $\alpha$ ,  $\beta$ , and  $\gamma$  are parameters to be estimated, with  $\alpha + \beta + \gamma = 1$ .

\* Where available at the quarterly frequency, reported GDP was used; where unavailable, linear interpolations of annual GDP was used instead.

Table A.3: Information criterion statistics for autoregressive distributed lag model<sup>†</sup>

AIC						BIC						
			$L_t$						$L_t$			
	$U_t$	$U_{t-1}$	$U_{t-2}$	$U_{t-3}$	$U_{t-4}$	$U_t$	$U_{t-1}$	$U_{t-2}$	$U_{t-3}$	$U_{t-4}$	$S_t$	
$S_t$	146.73	146.73	133.07	38.86**	43.51	220.01	220.01	212.45	124.34**	135.08	$S_t$	
$S_{t-1}$	146.73	146.73	133.07	38.86**	43.51	220.01	220.01	212.45	124.34**	135.08	$S_{t-1}$	
$S_{t-2}$	175.63	175.63	177.48	88.72	93.44	254.55	254.55	262.47	179.76	190.54	$S_{t-2}$	
$S_{t-3}$	100.71	100.71	102.53	102.35	107.15	185.15	185.15	193.01	198.86	209.68	$S_{t-3}$	
$S_{t-4}$	82.19	82.19	82.86	82.56	84.55	172.05	172.05	178.72	184.41	192.39	$S_{t-4}$	
			$L_{t-1}$						$L_{t-1}$			
	$U_t$	$U_{t-1}$	$U_{t-2}$	$U_{t-3}$	$U_{t-4}$	$U_t$	$U_{t-1}$	$U_{t-2}$	$U_{t-3}$	$U_{t-4}$	$S_t$	
$S_t$	146.73	146.73	133.07	38.86**	43.51	220.01	220.01	212.45	124.34**	135.08	$S_t$	
$S_{t-1}$	146.73	146.73	133.07	38.86**	43.51	220.01	220.01	212.45	124.34**	135.08	$S_{t-1}$	
$S_{t-2}$	175.63	175.63	177.48	88.72	93.44	254.55	254.55	262.47	179.76	190.54	$S_{t-2}$	
$S_{t-3}$	100.71	100.71	102.53	102.35	107.15	185.15	185.15	193.01	198.86	209.68	$S_{t-3}$	
$S_{t-4}$	82.19	82.19	82.86	82.56	84.55	172.05	172.05	178.72	184.41	192.39	$S_{t-4}$	
			$L_{t-2}$						$L_{t-2}$			
	$U_t$	$U_{t-1}$	$U_{t-2}$	$U_{t-3}$	$U_{t-4}$	$U_t$	$U_{t-1}$	$U_{t-2}$	$U_{t-3}$	$U_{t-4}$	$S_t$	
$S_t$	126.56	126.56	126.43	35.36	40.03	205.95	205.95	211.92	126.94	137.70	$S_t$	
$S_{t-1}$	126.56	126.56	126.43	35.36	40.03	205.95	205.95	211.92	126.94	137.70	$S_{t-1}$	
$S_{t-2}$	172.37	172.37	173.16	86.22	90.97	257.36	257.36	264.22	183.33	194.14	$S_{t-2}$	
$S_{t-3}$	96.75	96.75	97.30	99.20	102.99	187.23	187.23	193.81	201.74	211.55	$S_{t-3}$	
$S_{t-4}$	77.62	77.62	74.83	76.43	75.86	173.48	173.48	176.68	184.28	189.69	$S_{t-4}$	
			$L_{t-3}$						$L_{t-3}$			
	$U_t$	$U_{t-1}$	$U_{t-2}$	$U_{t-3}$	$U_{t-4}$	$U_t$	$U_{t-1}$	$U_{t-2}$	$U_{t-3}$	$U_{t-4}$	$S_t$	
$S_t$	33.41***	33.41***	33.64*	34.63	36.00	118.89***	118.89***	125.23*	132.32	139.78	$S_t$	
$S_{t-1}$	33.41***	33.41***	33.64*	34.63	36.00	118.89***	118.89***	125.23*	132.32	139.78	$S_{t-1}$	
$S_{t-2}$	80.55	80.55	82.48	82.71	84.68	171.59	171.59	179.59	185.88	193.91	$S_{t-2}$	
$S_{t-3}$	96.68	96.68	98.26	99.15	99.57	193.19	193.19	200.80	207.72	214.16	$S_{t-3}$	
$S_{t-4}$	78.81	78.81	76.81	78.38	76.22	180.67	180.67	184.65	192.21	196.05	$S_{t-4}$	
			$L_{t-4}$						$L_{t-4}$			
	$U_t$	$U_{t-1}$	$U_{t-2}$	$U_{t-3}$	$U_{t-4}$	$U_t$	$U_{t-1}$	$U_{t-2}$	$U_{t-3}$	$U_{t-4}$	$S_t$	
$S_t$	35.54	35.54	34.13	36.05	25.53	127.11	127.11	131.81	139.83	135.41	$S_t$	
$S_{t-1}$	35.54	35.54	34.13	36.05	25.53	127.11	127.11	131.81	139.83	135.41	$S_{t-1}$	
$S_{t-2}$	77.10	77.10	78.89	80.78	69.22	174.19	174.19	182.05	190.01	184.52	$S_{t-2}$	
$S_{t-3}$	96.93	96.93	98.55	100.47	89.14	199.45	199.45	207.10	215.06	209.75	$S_{t-3}$	
$S_{t-4}$	79.18	79.18	78.15	80.10	72.43	187.02	187.02	191.98	199.93	198.24	$S_{t-4}$	

<sup>†</sup> Notes: Akaike (AIC) and Bayesian (BIC) information criteria reported for models with up to four lags for the liquidity ( $L$ ), solvency ( $S$ ), and uncertainty ( $U$ ) channels for the benchmark model. \* indicates third-lowest statistic, \*\* indicates second-lowest statistic, and \*\*\* indicates lowest statistic, for the corresponding criterion. Multiple asterisks indicate ties.

Table A.4: Full regression results for robustness of transmission channels associated with foreign claims by international banks in developing countries, 2004Q1–2011Q1 (Table 2 in text)<sup>†</sup>

	<i>R1</i>	<i>R2</i>	<i>R3</i>	<i>R4</i>	<i>R5</i>	<i>R6</i>	<i>R7</i>	<i>R8</i>
Lagged foreign claims	0.772 (0.03)***	0.771 (0.03)***	0.772 (0.03)***	0.772 (0.03)***	0.770 (0.03)***	0.771 (0.03)***	0.769 (0.03)***	0.772 (0.03)***
LIBOR-OIS		-0.027 (0.01)*	-0.019 (0.02)	-0.026 (0.01)**	-0.047 (0.01)***	-0.028 (0.01)*	-0.023 (0.01)*	-0.028 (0.01)**
LIBOR-CD		-0.003 (0.01)						
Global bank CDS		-0.007 (0.01)		0.002 (0.01)	0.002 (0.01)	-0.004 (0.01)	-0.001 (0.01)	-0.000 (0.01)
Loss allowances			-0.012 (0.01)					
Asset volatility		-0.082 (0.03)**	-0.062 (0.02)***			-0.083 (0.03)***	-0.057 (0.02)**	-0.061 (0.02)**
Asset volatility (unconditional)				-0.085 (0.03)**				
Risk aversion					0.025 (0.07)	0.154 (0.09)*	0.004 (0.03)	-0.001 (0.03)
Loan demand		0.003 (0.04)	-0.015 (0.03)	0.004 (0.03)	0.015 (0.04)	0.025 (0.04)	0.004 (0.03)	-0.001 (0.03)
Inflation		-0.021 (0.01)***	-0.022 (0.01)***	-0.022 (0.01)***	-0.022 (0.01)***	-0.023 (0.01)***	-0.056 (0.01)***	-0.056 (0.01)***
Inflation, YoY							-0.033 (0.01)***	
Growth		-0.154 (0.15)	-0.176 (0.15)	-0.158 (0.15)	-0.137 (0.15)	-0.177 (0.16)		-0.184 (0.16)
Growth, YoY							-0.224 (0.37)	
GDP		0.298 (0.03)***	0.295 (0.03)***	0.284 (0.04)***	0.282 (0.04)***	0.279 (0.04)***	0.289 (0.04)***	0.290 (0.04)***
Depreciation								0.020 (0.00)***
Crisis		0.077 (0.02)***	0.095 (0.03)***	0.113 (0.02)***	0.108 (0.02)***	0.097 (0.02)***	0.105 (0.02)***	0.113 (0.02)***
Adj. <i>R</i> <sup>2</sup>	0.771	0.771	0.771	0.771	0.771	0.771	0.770	0.772
<i>R</i> <sup>2</sup> (within)	0.772	0.772	0.772	0.772	0.771	0.772	0.771	0.773
Estimator	FE	FE	FE	FE	FE	FE	FE	FE
N	3,435	3,435	3,435	3,435	3,435	3,435	3,401	3,399

<sup>†</sup> All variables are in log form. Heteroskedasticity and autocorrelation-robust standard errors are reported in parentheses. A constant term was included in the regressions, but not reported. \* indicates significance at 10 percent level, \*\* indicates significance at 5 percent level, and \*\*\* indicates significance at 1 percent level.

Table A.5: Full regression results for transmission channels associated with foreign claims by EU and US banks in developing countries, 2004Q1–2011Q1 (Table 3 in text)<sup>†</sup>

	<i>S1</i>	<i>S2</i>	<i>S3</i>	<i>S4</i>	<i>S5</i>	<i>S6</i>	<i>S7</i>	<i>S8</i>
	<i>US Banks</i>				<i>EU Banks</i>			
Lagged foreign claims	0.600 (0.04)***	0.600 (0.04)***	0.600 (0.04)***	0.599 (0.04)***	0.752 (0.03)***	0.751 (0.03)***	0.751 (0.03)***	0.751 (0.03)***
LIBOR-OIS/ EURIBOR-EONIA	-0.110 (0.04)***	-0.080 (0.05)*	-0.058 (0.05)	-0.073 (0.05)	0.042 (0.02)**	0.072 (0.03)***	0.072 (0.03)**	0.072 (0.03)**
LIBOR-OIS × pre-Lehman		-0.180 (0.20)	-0.196 (0.19)	-0.187 (0.19)				
LIBOR-OIS × post-Lehman		-0.153 (0.12)						
EURIBOR-EONIA × pre-Vienna						-0.014 (0.05)	-0.014 (0.05)	-0.014 (0.05)
EURIBOR-EONIA × post-Vienna						-0.142 (0.05)***		
US/EU bank CDS	0.066 (0.03)**	0.056 (0.03)**	0.046 (0.03)*	0.053 (0.03)**	-0.017 (0.01)*	-0.031 (0.01)***	-0.031 (0.01)**	-0.031 (0.01)**
US bank CDS × pre-Lehman		-0.340 (0.12)	-0.420 (0.12)	-0.364 (0.12)				
US bank CDS × post-Lehman			1.101 (0.56)*					
EU bank CDS × pre-Vienna						0.098 (0.04)**	0.098 (0.04)***	0.098 (0.04)**
EU bank CDS × post-Vienna							-0.706 (0.26)***	
Asset volatility	-0.003 (0.06)	0.114 (0.12)	0.191 (0.10)*	0.137 (0.11)	-0.113 (0.03)***	-0.134 (0.06)**	-0.134 (0.06)**	-0.134 (0.05)**
Asset volatility × pre-Lehman		-0.340 (0.20)*	-0.420 (0.18)**	-0.364 (0.20)*				
Asset volatility × post-Lehman				-0.219 (0.14)				
Asset volatility × pre-Vienna						-0.067 (0.11)	-0.067 (0.10)	-0.067 (0.11)
Asset volatility × post-Vienna								-0.214 (0.07)***
Loan demand, US/EU banks	-0.174 (0.12)	-0.140 (0.12)	-0.094 (0.12)	-0.131 (0.14)	0.159 (0.06)***	0.219 (0.08)***	0.219 (0.08)***	0.219 (0.09)**
Inflation	0.109 (0.01)***	0.109 (0.20)	0.109 (0.25)	0.109 (0.22)	-0.025 (0.00)***	-0.028 (0.10)	-0.028 (0.10)	-0.028 (0.12)
Growth	-0.237 (0.40)	-0.308 (0.51)	-0.267 (0.44)	-0.306 (0.51)	-0.404 (0.20)*	-0.443 (0.26)*	-0.443 (0.26)*	-0.443 (0.27)
GDP	0.275 (0.09)***	0.269 (0.09)***	0.275 (0.10)***	0.269 (0.10)***	0.214 (0.04)***	0.187 (0.05)***	0.187 (0.05)***	0.187 (0.05)***
pre-Lehman	0.121 (0.06)*	0.474 (0.45)	0.511 (0.43)	0.488 (0.43)				
post-Lehman	0.153 (0.10)	0.744 (0.48)	-5.969 (3.12)*	0.255 (0.14)*				
pre-Vienna					0.085 (0.03)***	-0.226 (0.18)	-0.226 (0.17)	-0.226 (0.17)
post-Vienna					0.044 (0.03)*	0.651 (0.20)***	3.842 (1.38)***	0.229 (0.06)***
Adj. $R^2$	0.437	0.416	0.416	0.416	0.702	0.691	0.691	0.691
$R^2$ (within)	0.439	0.439	0.440	0.440	0.703	0.704	0.704	0.704
Estimator	FE	FE	FE	FE	FE	FE	FE	FE
N	3,435	3,435	3,435	3,435	3,435	3,435	3,435	3,435

<sup>†</sup> All variables are in log form. Heteroskedasticity and autocorrelation-robust standard errors are reported in parentheses. A constant term was included in the regressions, but not reported. Indicator variables for Lehman and Vienna separate the crisis variable at 2008Q4 and 2009Q1, respectively. \* indicates significance at 10 percent level, \*\* indicates significance at 5 percent level, and \*\*\* indicates significance at 1 percent level.

Table A.6: Full regression results for transmission channels associated with foreign claims by international banks in developing countries, 2004Q1–2011Q1, with endogenous interest rates (Table 4 in text)<sup>†</sup>

	<i>I1</i>	<i>I2</i>	<i>I3</i>	<i>I4</i>
Lagged foreign c 0.787	0.733 (0.03) <sup>***</sup>	0.819 (0.10) <sup>***</sup>	0.750 (0.07) <sup>***</sup>	(0.10) <sup>***</sup>
LIBOR-OIS	-0.040 (0.01) <sup>***</sup>	-0.054 (0.03) <sup>*</sup>	-0.010 (0.05)	-0.037 (0.05)
1st lag			0.013 (0.01)	
2nd lag			0.018 (0.03)	
LIBOR-OIS × crisis				-0.020 (0.10)
Global bank CDS	0.007 (0.01)	-0.009 (0.02)	-0.026 (0.02)	-0.007 (0.03)
Global bank CDS × crisis				-0.022 (0.05)
Asset volatility -0.025	-0.119 (0.02)	-0.071 (0.04) <sup>***</sup>	-0.050 (0.04) <sup>*</sup>	(0.10)
1st lag			0.001 (0.04)	
2nd lag			0.003 (0.05)	
3rd lag			-0.099 (0.08)	
4th lag			0.078 (0.06)	
Asset volatility × crisis				-0.048 (0.07)
Lending rate	0.108 (0.11)	6.687 (5.66)	-2.917 (2.97)	4.475 (9.44)
Loan demand	-0.007 (0.04)	-0.044 (0.08)		
Inflation	-0.006 (0.02)	-0.386 (0.40)	0.226 (0.20)	-0.294 (0.72)
Growth	-0.073 (0.15)	0.435 (0.63)	-0.341 (0.33)	0.190 (0.71)
GDP	0.259 (0.04) <sup>***</sup>	0.640 (0.28) <sup>**</sup>	0.237 (0.12) <sup>**</sup>	0.541 (0.43)
Crisis	0.107 (0.02) <sup>***</sup>	0.127 (0.05) <sup>**</sup>	0.029 (0.08)	0.291 (0.41)
Adj. $R^2$	0.801	0.803	0.870	0.841
Kleibergen-Papp $rk$		4.845 <sup>*</sup>	6.773 <sup>*</sup>	2.940
Hansen $J$		2.301	2.108	1.936
Cragg-Donald $F$		1.983	2.494	1.827
Estimator	FE	IV	IV	IV
Instruments		11	16	14
N	2,849	801	801	798

<sup>†</sup> All variables are in log form. Heteroskedasticity and autocorrelation-robust standard errors are reported in parentheses, with the exception of specification (*I4*), where errors are bootstrapped. A constant term was included in the regressions, but not reported. The excluded instruments are the aged dependency ratio and its lags for four quarters. \* indicates significance at 10 percent level, \*\* indicates significance at 5 percent level, and \*\*\* indicates significance at 1 percent level.

Table A.7: Panel unit root using augmented Dickey-Fuller tests<sup>†</sup>

<b>Series</b>	<b>Test statistic</b>	<b>Lag length</b>	<b>Deterministic</b>
Foreign claims	-1.078	1	Constant
LIBOR-OIS	-0.365	0	None
Asset volatility	-1.759	0	Constant
Global bank CDS	1.112	3	None
$\Delta$ Foreign claims	-3.105**	0	Constant
$\Delta$ LIBOR-OIS	-3.945***	0	None
$\Delta$ Asset volatility	-4.746***	0	None
$\Delta$ Global bank CDS	-2.697***	2	None

<sup>†</sup> The null hypothesis is the existence of a unit root. \* indicates significance at 10 percent level, \*\* indicates significance at 5 percent level, and \*\*\* indicates significance at 1 percent level. Critical values for the level series without (with) a constant are -1.60, -1.96 and -2.66 (-2.63, -2.98 and -3.72) for 10, 5, and 1 percent levels, respectively. Optimal lag length and deterministic components were determined by Akaike Information Criteria.



Table A.8: Additional robustness regressions for transmission channels associated with foreign claims by international banks in developing countries, 2004Q1–2011Q1 †

	AR1	AR2	AR3	AR4	AR5	AR6	AR7	AR8
Lagged foreign claims	0.780 (0.03)***	0.781 (0.03)***	0.782 (0.03)***	0.782 (0.03)***	0.779 (0.03)***	0.780 (0.03)***	0.780 (0.03)***	0.782 (0.03)***
Libor-OIS		-0.017 (0.02)	-0.018 (0.02)	-0.022 (0.02)	-0.052*** (0.02)	-0.012 (0.02)	-0.018 (0.02)	-0.022 (0.02)
1st lag		0.006 (0.01)	0.013 (0.01)	0.016 (0.01)	0.018 (0.01)	-0.004 (0.01)	0.013 (0.01)	0.011 (0.01)
2nd lag		0.032 (0.01)**	0.014 (0.01)	0.013 (0.01)	0.002 (0.01)	0.028 (0.01)*	0.012 (0.01)	0.017 (0.01)
3rd lag		-0.034 (0.01)**	-0.017 (0.01)	-0.022 (0.01)**	-0.018 (0.01)	-0.039 (0.01)**	-0.017 (0.01)	-0.023 (0.01)**
Libor-CD	-0.051 (0.02)**	-0.009 (0.02)						
1st lag		0.01 (0.01)						
2nd lag		0.013 (0.01)						
3rd lag		-0.003 (0.01)						
Global bank CDS	-0.007 (0.01)	-0.001 (0.01)		-0.001 (0.01)	0.004 (0.01)	-0.002 (0.01)	-0.001 (0.01)	-0.003 (0.01)
Loss allowances			-0.002 (0.02)					
Asset volatility	-0.053 (0.04)	-0.116 (0.04)***	-0.061 (0.02)**	-0.096 (0.04)***		-0.118 (0.03)***	-0.055 (0.03)**	-0.068 (0.02)***
Asset volatility (unconditional)					0.072 (0.09)	0.304 (0.11)***		
Risk aversion					0.013 (0.04)	0.001 (0.04)	0.021 (0.05)	-0.004 (0.04)
Loan demand	-0.016 (0.04)	-0.062 (0.06)	0.015 (0.04)	0.005 (0.04)	0.013 (0.04)	-0.025 (0.01)***		-0.059 (0.01)***
Inflation	-0.023 (0.01)***	-0.022 (0.01)***	-0.023 (0.01)***	-0.022 (0.01)***	-0.024 (0.01)***		-0.034 (0.01)***	
Inflation, YoY								
Growth	-0.180 (0.15)	-0.162 (0.15)	-0.235 (0.16)	-0.148 (0.15)	-0.128 (0.15)	-0.191 (0.16)		-0.176 (0.16)
Growth, YoY							-0.403 (0.40)	
GDP	0.278 (0.04)***	0.276 (0.04)***	0.321 (0.04)***	0.285 (0.04)***	0.269 (0.04)***	0.248 (0.04)***	0.324 (0.05)	0.289 (0.04)***
Depreciation								0.022 (0.00)***
Crisis	0.075 (0.02)***	0.080 (0.03)***	0.074 (0.03)**	0.083 (0.03)***	0.083 (0.03)***	0.041 (0.03)	0.075 (0.03)	0.082 (0.03)***
Adj. $R^2$	0.776	0.776	0.715	0.776	0.775	0.776	0.714	0.777
$R^2$ (within)	0.776	0.777	0.716	0.777	0.776	0.777	0.716	0.778
Estimator	FE	FE	FE	FE	FE	FE	FE	FE
N	3,429	3,429	3,054	3,429	3,429	3,429	3,054	3,393

† All variables are in log form. Heteroskedasticity and autocorrelation-robust standard errors are reported in parentheses. A constant term was included in the regressions, but not reported. \* indicates significance at 10 percent level, \*\* indicates significance at 5 percent level, and \*\*\* indicates significance at 1 percent level.

Table A.9: Additional robustness regressions for transmission channels associated with foreign claims by international banks in developing countries, 2004Q1–2011Q1 †

	BR1	BR2	BR3	BR4	BR5	BR6	BR7	BR8
Lagged foreign claims	0.772 (0.03)***	0.771 (0.03)***	0.772 (0.03)***	0.771 (0.03)***	0.769 (0.03)***	0.770 (0.03)***	0.769 (0.03)***	0.772 (0.03)***
LIBOR-OIS	-0.036 (0.02)	-0.036 (0.02)	-0.022 (0.02)	-0.028 (0.02)	-0.024 (0.02)	-0.043 (0.02)**	-0.027 (0.02)	-0.030 (0.02)*
LIBOR-OIS × crisis	0.011 (0.05)	0.011 (0.05)	0.005 (0.04)	-0.003 (0.04)	-0.075 (0.04)**	0.036 (0.04)	-0.001 (0.04)	-0.004 (0.04)
LIBOR-CD	0.015 (0.06)	0.042 (0.08)						
LIBOR-CD × crisis	-0.020 (0.06)	-0.048 (0.07)						
Global bank CDS	-0.007 (0.01)	0.003 (0.01)		0.004 (0.01)	0.005 (0.01)	0.001 (0.01)	0.002 (0.01)	0.002 (0.01)
Global bank CDS × crisis	-0.002 (0.02)	-0.010 (0.01)		-0.010 (0.01)	-0.035 (0.02)	-0.016 (0.01)	-0.013 (0.01)	-0.010 (0.01)
Loss allowances			-0.006 (0.01)					
Loss allowances × crisis			-0.024 (0.03)					
Asset volatility	-0.058 (0.04)	-0.067 (0.05)	-0.069 (0.04)*			-0.104 (0.05)**	-0.062 (0.04)	-0.063 (0.05)
Asset volatility × crisis	-0.035 (0.04)	-0.002 (0.07)	0.014 (0.06)			0.004 (0.06)	0.016 (0.07)	0.013 (0.06)
Asset volatility (unconditional)				-0.089 (0.07)				
Asset vol (uncond) × crisis				0.017 (0.10)				
Risk aversion					-0.092 (0.11)	0.187 (0.10)*		
Risk aversion × crisis					0.380 (0.32)			
Loan demand	0.001 (0.05)	-0.013 (0.06)	-0.021 (0.04)	-0.009 (0.04)	-0.091 (0.08)	0.027 (0.05)	-0.012 (0.04)	-0.015 (0.04)
Inflation	-0.021 (0.16)	-0.022 (0.15)	-0.022 (0.16)	-0.022 (0.16)	-0.024 (0.16)	-0.023 (0.18)		-0.057 (0.15)
Inflation, YoY							-0.034 (0.30)	
Growth	-0.166 (0.18)	-0.176 (0.19)	-0.179 (0.16)	-0.165 (0.18)	-0.159 (0.20)	-0.179 (0.15)		-0.190 (0.18)
Growth, YoY							-0.241 (0.38)	
GDP	0.294 (0.04)***	0.287 (0.05)***	0.288 (0.04)***	0.277 (0.05)***	0.260 (0.04)***	0.274 (0.04)***	0.281 (0.05)***	0.283 (0.04)***
Depreciation								0.020 (0.09)
Crisis	0.167 (0.16)	0.267 (0.19)	0.081 (0.12)	0.155 (0.10)	0.300 (0.12)***	0.042 (0.15)	0.159 (0.14)	0.168 (0.14)
Adj. $R^2$	0.762	0.762	0.762	0.762	0.762	0.763	0.761	0.763
$R^2$ (within)	0.772	0.772	0.772	0.772	0.772	0.772	0.771	0.773
Estimator	FE	FE	FE	FE	FE	FE	FE	FE
N	3,435	3,435	3,435	3,435	3,435	3,435	3,401	3,399

† All variables are in log form. Bootstrapped standard errors are reported in parentheses. A constant term was included in the regressions, but not reported. \* indicates significance at 10 percent level, \*\* indicates significance at 5 percent level, and \*\*\* indicates significance at 1 percent level.