

Execution Report

Title: The Cost of Banking Crises: Does the Policy Framework Matter? Authors: Grégory Levieuge, Yannick Lucotte & Florian Pradines-Jobet

Full reference: Levieuge, Grégory, Lucotte, Yannick and Pradines-Jobet, Florian, The Cost of Banking Crises: Does the Policy Framework Matter? (March, 2019).

The structure and contents of this execution report provided by **cascad** for the certification are similar to those recommended by the <u>AEA Data Editor</u>.

1. DATA DESCRIPTION

This paper tests several factors suggested by the literature that seem to explain the severity of banking crises. These factors are referred to as control variables. The authors consider ten control variables, which they divide into five groups: macroeconomic and financial characteristics, real and financial vulnerabilities, trade and financial openness, twin crises, and policy responses. Those tests are carried out on a database provided by Schaechter et al. (2012) to test the global impact of fiscal rules on the cost of banking crises. More details on the definition and the source for all the data and variables used in the paper are provided in the Appendix of the paper.

2. CODE DESCRIPTION

For the purpose of this certification, we checked the results displayed in Tables 1-8 and A2 to A4, and in Figures 2, A1 and A2. The replication materials include two Stata 15 files: Codes_WP_BdF.do, which generates all the results, and data WP BdF.do, in which the control variables are stored.

3. REPLICATION STEPS

The resources were transferred to us through WeTransfer and run using Stata 16, with a DELL Optiplex 7060, 16GB RAM, intel[®] Core[™] i7-7500U CPU @2.70-2.90GHz, and Windows 10 OS. It took us around half an hour to generate all the results. We encountered one issue when running the code for the first time: "command outreg2 is unrecognized". We resolved it by running the command "ssc install outreg2" before rerunning the code.

4. FINDINGS

We reproduced the results in all tables and in Figures 2 and A2 with perfect accuracy. We reproduced the results in figure A1 with minor discrepancies.

4.1. FIGURE 2: REAL OUTPUT COSTS ASSOCIATED WITH BANKING CRISES

Original:





4.2. TABLE 1: DETERMINANTS OF THE REAL COST OF BANKING CRISES: PRELIMINARY RESULTS WITH CONTROL VARIABLES

Standard errors are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5% and 1% levels, respectively.

Original:

	loss_5years	loss_all	$\operatorname{trend}_{\operatorname{loss}}$	cycle_loss
GDP per capita	1.837^{***}	0.875^{***}	2.757^{***}	-0.169
	(0.206)	(0.143)	(0.238)	(0.144)
Inflation	1.629^{***}	1.196^{***}	2.173^{***}	1.011^{***}
	(0.226)	(0.186)	(0.269)	(0.295)
Bank credit / GDP	0.033^{***}	0.031^{***}	0.030^{***}	0.031^{***}
	(0.001)	(0.001)	(0.001)	(0.002)
Credit-to-GDP gap	0.913***	0.823***	0.800***	0.792***
	(0.134)	(0.118)	(0.130)	(0.261)
Public debt / GDP	0.023^{***}	0.017^{***}	0.024^{***}	0.015^{***}
	(0.001)	(0.001)	(0.001)	(0.001)
Financial openness	-0.814***	-0.840***	-0.793***	-0.186
	(0.153)	(0.136)	(0.165)	(0.226)
Trade openness	-0.011***	-0.008***	-0.010***	-0.016^{***}
	(0.002)	(0.002)	(0.002)	(0.003)
Currency crisis	0.396***	0.326***	0.292***	0.871***
	(0.060)	(0.056)	(0.064)	(0.102)
Discret. gov. consumption	-1.240***	-1.396^{***}	-0.581***	-2.239***
	(0.173)	(0.163)	(0.186)	(0.306)
CB assets	-0.030***	-0.009***	-0.037^{***}	0.000
	(0.004)	(0.003)	(0.005)	(0.004)
Constant	-6.380***	-4.112***	-8.215***	-1.748***
	(0.537)	(0.453)	(0.588)	(0.651)
Observations	4,043	4,043	4,043	4,043
Number of countries	146	146	146	146
Crisis obs.	330	330	330	330
Year FE	YES	YES	YES	YES

VARIABLES	output_loss_5years_cens	output_loss_all_cens	trend_loss_cens	cycle_loss_cens
l_gdpc	1.837***	0.875***	2.757***	-0.169
	(0.206)	(0.143)	(0.238)	(0.144)
l_inf	1.629***	1.196***	2.173***	1.011***
	(0.226)	(0.186)	(0.269)	(0.295)
I_bankcred	0.033***	0.031***	0.030***	0.031***
	(0.001)	(0.001)	(0.001)	(0.002)
I_credgap	0.913***	0.823***	0.800***	0.792***
	(0.134)	(0.118)	(0.130)	(0.261)
l_debt	0.023***	0.017***	0.024***	0.015***
	(0.001)	(0.001)	(0.001)	(0.001)
I_open	-0.814***	-0.840***	-0.793***	-0.186
	(0.153)	(0.136)	(0.165)	(0.226)
I_trade	-0.011***	-0.008***	-0.010***	-0.016***
	(0.002)	(0.002)	(0.002)	(0.003)
currency_crisis	0.396***	0.326***	0.292***	0.871***
	(0.060)	(0.056)	(0.064)	(0.102)
l_discret_gov	-1.240***	-1.396***	-0.581***	-2.239***
	(0.173)	(0.163)	(0.186)	(0.306)
I_cbasset	-0.030***	-0.009***	-0.037***	0.000
	(0.004)	(0.003)	(0.005)	(0.004)

Constant output_loss_5years_cens	-6.380***			
	(0.537)			
Constant output_loss_all_cens		-4.112***		
		(0.453)		
Constant trend_loss_cens			-8.215***	
			(0.588)	
Constant cycle_loss_cens				-1.748***
				(0.651)
Observations	4,043	4,043	4,043	4,043
Number of id	146	146	146	146
Year FE	YES	YES	YES	YES
Convergence	1	1	1	1
Crisis obs.	330	330	330	330
Uncensored Obs.	229	245	238	199
Standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				

4.3. TABLE 2: THE IMPACT OF A BUDGET BALANCE RULE ON THE REAL COST OF BANKING CRISES

Original:

		Budget ba	lance rule		Budget b	palance rule w	ith a flexibility	y clause
	loss_5years	loss_all	trend_loss	cycle_loss	loss_5years	loss_all	trend_loss	cycle_loss
Budget balance rule	-0.458^{***} (0.132)	-0.530*** (0.122)	-0.808*** (0.154)	-0.287 (0.219)				
No budg, bal, rule	(01202)	(01111)	(01202)	(0.220)	1.573***	1.602***	1.927***	1.702***
Budg. bal. rule without clause					(0.233) 1.294^{***} (0.209)	(0.216) 1.229^{***} (0.193)	(0.259) 1.263^{***} (0.223)	(0.517) 1.614^{***} (0.506)
GDP per capita	3.067***	2.479^{***}	4.136***	-0.154	3.110***	2.582***	4.185***	-0.153
	(0.346)	(0.296)	(0.408)	(0.200)	(0.342)	(0.293)	(0.406)	(0.191)
Inflation	0.133	-0.013	1.257***	0.164	0.331	0.160	1.365***	0.367
Bank credit / GDP	(0.292) 0.037***	(0.255) 0.036***	(0.369) 0.035***	(0.386) 0.036***	(0.292) 0.039***	(0.255) 0.037***	(0.368) 0.037***	(0.388) 0.037***
Credit-to-GDP gap	(0.002) 0.942***	(0.001) 0.867***	(0.002) 0.772***	(0.003) 0.833***	(0.002) 0.912***	(0.001) 0.836***	(0.002) 0.764***	(0.003) 0.784***
Public debt / GDP	(0.135) 0.022*** (0.002)	(0.120) 0.023*** (0.002)	(0.131) 0.023*** (0.002)	(0.266) 0.020*** (0.002)	(0.135) 0.021*** (0.002)	(0.120) 0.022*** (0.002)	(0.131) 0.022*** (0.002)	(0.266) 0.019*** (0.002)
Financial openness	-0.340 (0.229)	-0.976*** (0.213)	-0.127 (0.250)	-0.208 (0.355)	-0.312 (0.229)	-0.985*** (0.214)	-0.173 (0.252)	-0.175 (0.355)
Trade openness	0.008*** (0.003)	0.007***	0.013*** (0.003)	-0.006	0.008*** (0.003)	0.007*** (0.002)	0.013*** (0.003)	-0.007*
Currency crisis	0.510*** (0.094)	0.347***	0.197*	1.191*** (0.152)	0.489*** (0.094)	0.327***	0.209**	1.164*** (0.151)
Discret. gov. consumption	-1.050*** (0.236)	-1.388*** (0.230)	-0.522* (0.275)	-2.215*** (0.395)	-1.057*** (0.236)	-1.409*** (0.231)	-0.562** (0.276)	-2.170*** (0.394)
CB assets	0.019**	0.004	0.005	0.036***	0.025***	0.009	0.011	0.038***
Constant	(0.008) -9.653***	(0.008) -8.310***	(0.009) -12.242***	(0.013) -2.489**	(0.008) -11.285***	(0.008) -10.090***	(0.009) -14.304***	(0.013) -4.163***
	(0.909)	(0.797)	(1.060)	(0.973)	(0.931)	(0.818)	(1.101)	(1.056)
Observations	1,713	1,713	1,713	1,713	1,713	1,713	1,713	1,713
Number of countries	77	77	77	77	77	77	77	77
Crisis obs.	208	208	208	208	208	208	208	208
Year PE	TES	TES	TES	165	TES	TES	TES	TES

Table 2: The impact of a budget balance rule on the real cost of banking crises

Note: Standard errors are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5% and 1% levels, respectively.

-0.458***	-0.530***	-0.808***	-0.287				
(0.132)	(0.122)	(0.154)	(0.219)				
				1.573***	1.602***	1.927***	1.702***
				(0.233)	(0.216)	(0.259)	(0.517)
				1.294***	1.229***	1.263***	1.614***
				(0.209)	(0.193)	(0.223)	(0.506)
3.067***	2.479***	4.136***	-0.154	3.110***	2.582***	4.185***	-0.153
(0.346)	(0.296)	(0.408)	(0.200)	(0.342)	(0.293)	(0.406)	(0.191)
0.133	-0.013	1.257***	0.164	0.331	0.160	1.365***	0.367
(0.292)	(0.255)	(0.369)	(0.386)	(0.292)	(0.255)	(0.368)	(0.388)
0.037***	0.036***	0.035***	0.036***	0.039***	0.037***	0.037***	0.037***
(0.002)	(0.001)	(0.002)	(0.003)	(0.002)	(0.001)	(0.002)	(0.003)
0.942***	0.867***	0.772***	0.833***	0.912***	0.836***	0.764***	0.784***
(0.135)	(0.120)	(0.131)	(0.266)	(0.135)	(0.120)	(0.131)	(0.266)
0.022***	0.023***	0.023***	0.020***	0.021***	0.022***	0.022***	0.019***
(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
-0.340	-0.976***	-0.127	-0.208	-0.312	-0.985***	-0.173	-0.175
(0.229)	(0.213)	(0.250)	(0.355)	(0.229)	(0.214)	(0.252)	(0.355)
0.008***	0.007***	0.013***	-0.006	0.008***	0.007***	0.013***	-0.007*
(0.003)	(0.002)	(0.003)	(0.004)	(0.003)	(0.002)	(0.003)	(0.004)
0.510***	0.347***	0.197*	1.191***	0.489***	0.327***	0.209**	1.164***
(0.094)	(0.089)	(0.103)	(0.152)	(0.094)	(0.089)	(0.103)	(0.151)
-1.050***	-1.388***	-0.522*	-2.215***	-1.057***	-1.409***	-0.562**	-2.170***
(0.236)	(0.230)	(0.275)	(0.395)	(0.236)	(0.231)	(0.276)	(0.394)
0.019**	0.004	0.005	0.036***	0.025***	0.009	0.011	0.038***
(0.008)	(0.008)	(0.009)	(0.013)	(0.008)	(0.008)	(0.009)	(0.013)

-9.653***				-11.285***			
(0.909)				(0.931)			
	-8.310***				-10.090***		
	(0.797)				(0.818)		
		-12.242***				-14.304***	
		(1.060)				(1.101)	
			-2.489**				-4.163***
			(0.973)				(1.056)
1,713	1,713	1,713	1,713	1,713	1,713	1,713	1,713
77	77	77	77	77	77	77	77
YES	YES	YES	YES	YES	YES	YES	YES
1	1	1	1	1	1	1	1
208	208	208	208	208	208	208	208
146	157	152	127	146	157	152	127

4.4. TABLE 3: THE IMPACT OF THE EXCHANGE RATE REGIME ON THE REAL COST OF BANKING CRISES

Original:

	Corne	er exchange ra	ate regime dur	nmy	Ex	change rate r	egime (squared	1)
	loss_5years	loss_all	trend_loss	cycle_loss	loss_5years	loss_all	trend_loss	cycle_loss
Corner ERR dummy	0.745^{***} (0.073)	0.952^{***} (0.068)	0.896^{***} (0.085)	0.377^{***} (0.108)				
ER regime	()	()	()	()	-0.947***	-1.089***	-1.052 ***	-0.531***
0					(0.058)	(0.052)	(0.065)	(0.086)
ER regime (squared)					0.054***	0.061* [*] **	0.059***	0.031* [*] **
					(0.003)	(0.003)	(0.004)	(0.005)
GDP per capita	2.239^{***}	1.268^{***}	3.243^{***}	-0.086	2.182***	1.105***	3.174***	-0.018
	(0.223)	(0.163)	(0.256)	(0.148)	(0.227)	(0.147)	(0.273)	(0.153)
Inflation	1.288***	0.995***	2.022***	0.542^{*}	1.086***	0.741***	1.875***	0.522*
	(0.217)	(0.178)	(0.262)	(0.292)	(0.221)	(0.182)	(0.268)	(0.293)
Bank credit / GDP	0.032***	0.030***	0.029***	0.031***	0.029***	0.028***	0.026***	0.029***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.002)
Credit-to-GDP gap	0.923***	0.826***	0.796^{***}	0.800***	0.881***	0.749^{***}	0.747^{***}	0.792^{***}
	(0.134)	(0.118)	(0.130)	(0.261)	(0.134)	(0.119)	(0.130)	(0.261)
Public debt / GDP	0.023***	0.017***	0.024^{***}	0.014^{***}	0.022***	0.017***	0.024^{***}	0.013***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Financial openness	-0.933***	-1.072^{***}	-0.784***	-0.451*	-1.156***	-1.399***	-0.965***	-0.694***
-	(0.163)	(0.147)	(0.176)	(0.234)	(0.167)	(0.153)	(0.180)	(0.240)
Trade openness	-0.014***	-0.011***	-0.014***	-0.016***	-0.017***	-0.014***	-0.017***	-0.018***
	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.003)
Currency crisis	0.367***	0.289***	0.233***	0.867***	0.423***	0.357***	0.300***	0.882***
	(0.061)	(0.056)	(0.065)	(0.102)	(0.062)	(0.058)	(0.066)	(0.103)
Discret. gov. consumption	-1.313***	-1.410^{***}	-0.710***	-2.134^{***}	-1.152^{***}	-1.292^{***}	-0.587***	-1.984^{***}
	(0.176)	(0.165)	(0.189)	(0.303)	(0.175)	(0.164)	(0.187)	(0.304)
CB assets	-0.034***	-0.013***	-0.040***	-0.003	-0.040***	-0.017***	-0.046***	-0.003
	(0.004)	(0.003)	(0.005)	(0.004)	(0.004)	(0.003)	(0.005)	(0.004)
Constant	-7.344***	-5.318^{***}	-9.168^{***}	-2.160^{***}	-3.870***	-0.826	-5.318***	-0.106
	(0.551)	(0.463)	(0.609)	(0.669)	(0.601)	(0.510)	(0.662)	(0.736)
Observations	3,472	3,472	3,472	3,472	3,472	3,472	3,472	3,472
Number of countries	146	146	146	146	146	146	146	146
Crisis obs.	322	322	322	322	322	322	322	322
Year FE	YES	YES	YES	YES	YES	YES	YES	YES

Note: Standard errors are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5% and 1% levels, respectively.

0.745***	0.952***	0.896***	0.377***					
(0.073)	(0.068)	(0.085)	(0.108)					
				-(0.947***	-1.089***	-1.052***	-0.531***
					(0.058)	(0.052)	(0.065)	(0.086)
				0	.054***	0.061***	0.059***	0.031***
					(0.003)	(0.003)	(0.004)	(0.005)
2.239***	1.268***	3.243***	-0.086	2	.182***	1.105***	3.174***	-0.018
(0.223)	(0.163)	(0.256)	(0.148)		(0.227)	(0.147)	(0.273)	(0.153)
1.288***	0.995***	2.022***	0.542*	1	086***	0.741***	1.875***	0.522*
(0.217)	(0.178)	(0.262)	(0.292)		(0.221)	(0.182)	(0.268)	(0.293)
0.032***	0.030***	0.029***	0.031***	0	.029***	0.028***	0.026***	0.029***
(0.001)	(0.001)	(0.001)	(0.002)		(0.001)	(0.001)	(0.001)	(0.002)
0.923***	0.826***	0.796***	0.800***	0	.881***	0.749***	0.747***	0.792***
(0.134)	(0.118)	(0.130)	(0.261)		(0.134)	(0.119)	(0.130)	(0.261)
0.023***	0.017***	0.024***	0.014***	0	.022***	0.017***	0.024***	0.013***
(0.001)	(0.001)	(0.001)	(0.001)		(0.001)	(0.001)	(0.001)	(0.001)
-0.933***	-1.072***	-0.784***	-0.451*	-1	L.156***	-1.399***	-0.965***	-0.694***
(0.163)	(0.147)	(0.176)	(0.234)		(0.167)	(0.153)	(0.180)	(0.240)
-0.014***	-0.011***	-0.014***	-0.016***	-(0.017***	-0.014***	-0.017***	-0.018***
(0.002)	(0.002)	(0.002)	(0.003)		(0.002)	(0.002)	(0.002)	(0.003)
0.367***	0.289***	0.233***	0.867***	0	.423***	0.357***	0.300***	0.882***
(0.061)	(0.056)	(0.065)	(0.102)		(0.062)	(0.058)	(0.066)	(0.103)
-1.313***	-1.410***	-0.710***	-2.134***	-1	1.152***	-1.292***	-0.587***	-1.984***
(0.176)	(0.165)	(0.189)	(0.303)		(0.175)	(0.164)	(0.187)	(0.304)
-0.034***	-0.013***	-0.040***	-0.003	-(0.040***	-0.017***	-0.046***	-0.003
(0.004)	(0.003)	(0.005)	(0.004)		(0.004)	(0.003)	(0.005)	(0.004)

-7.344***				-3.870***			
(0.551)				(0.601)			
	-5.318***				-0.826		
	(0.463)				(0.510)		
		-9.168***				-5.318***	
		(0.609)				(0.662)	
			-2.160***				-0.106
			(0.669)				(0.736)
3,472	3,472	3,472	3,472	3,472	3,472	3,472	3,472
146	146	146	146	146	146	146	146
YES	YES	YES	YES	YES	YES	YES	YES
1	1	1	1	1	1	1	1
322	322	322	322	322	322	322	322
223	239	232	198	223	239	232	198

4.5. TABLE 4: THE IMPACT OF CENTRAL BANK INDEPENDENCE AND CONSERVATISM ON THE REAL COST OF BANKING CRISES

Original:

	Cent	ral bank inde	ependence (CV	VN)	Central	bank conser	vatism (CWN	OBJ)	Centra	l bank conse	rvatism (CON	SW)
	loss 5years	loss all	trend loss	cycle loss	loss 5years	loss all	trend loss	cycle loss	loss 5years	loss all	trend loss	cycle loss
Index of CBI/CBC	1.835*** (0.237)		0.766*** (0.263)	0.946***	1.302^{***}		0.233 (0.194)	2.080*** (0.276)	0.309***	0.067	0.181	0.432**
GDP per capita	1.442^{***} (0.221)	(0.124^{***}) (0.144)	2.832*** (0.265)	-0.178 (0.148)	1.661^{***} (0.228)	(0.163) (0.163)	3.038*** (0.252)	-0.202 (0.136)	0.876*** (0.175)	(0.350^{***}) (0.122)	(0.120) 1.228^{***} (0.227)	-0.281* (0.153)
Inflation	1.166***	0.736***	1.252***	0.897***	1.369***	0.873***	1.224***	1.552***	2.731***	2.048^{***}	3.234***	1.418***
	(0.235)	(0.192)	(0.292)	(0.304)	(0.243)	(0.197)	(0.297)	(0.320)	(0.254)	(0.204)	(0.297)	(0.319)
Bank credit / GDP	0.035***	0.033***	0.031***	0.033****	0.037***	0.035***	0.032***	0.035^{***}	0.028***	0.026^{***}	0.026***	0.027***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.002)
Credit-to-GDP gap	0.941***	0.865***	0.844^{***}	0.789***	0.961***	0.885^{***}	0.849***	0.804^{***}	0.791***	0.750^{***}	0.689***	0.677**
	(0.134)	(0.119)	(0.130)	(0.261)	(0.134)	(0.119)	(0.130)	(0.261)	(0.135)	(0.119)	(0.131)	(0.263)
Public debt / GDP	0.020*** (0.001)	0.016^{***} (0.001)	0.021*** (0.001)	0.015*** (0.001)	0.020*** (0.001)	0.016^{***} (0.001)	0.022*** (0.001)	0.015*** (0.001)	0.022*** (0.001)	0.017^{***} (0.001)	0.021*** (0.001)	0.014*** (0.001)
Financial openness	-0.921***	-1.136***	-0.830***	-0.271	-0.651***	-0.892***	-0.744***	-0.074	-0.717***	-0.754***	-0.653***	-0.347
	(0.162)	(0.145)	(0.181)	(0.232)	(0.161)	(0.143)	(0.179)	(0.234)	(0.166)	(0.147)	(0.181)	(0.259)
Trade openness	-0.011***	-0.010***	-0.008***	-0.016***	-0.009***	-0.008^{***}	-0.008***	-0.015***	-0.005***	-0.003	-0.003	-0.010***
	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.003)
Currency crisis	0.512***	0.447^{***}	0.345***	0.922***	0.500***	0.418^{***}	0.335***	0.940^{***}	0.579***	0.517^{***}	0.490^{***}	0.948***
	(0.067)	(0.063)	(0.073)	(0.109)	(0.067)	(0.063)	(0.072)	(0.107)	(0.067)	(0.062)	(0.071)	(0.120)
Discret. gov. consumption	-1.428***	-1.716***	-0.698***	-2.346***	-1.417***	-1.711^{***}	-0.685^{***}	-2.287^{***}	-1.230***	-1.532^{***}	-0.501**	-2.843***
	(0.191)	(0.185)	(0.215)	(0.315)	(0.192)	(0.185)	(0.216)	(0.314)	(0.195)	(0.181)	(0.207)	(0.381)
CB assets	-0.015***	(0.000)	-0.014^{***}	0.001	-0.012***	0.001	-0.012**	-0.001	-0.023***	-0.006^{*}	-0.030***	0.003
	(0.005)	(0.003)	(0.005)	(0.004)	(0.004)	(0.003)	(0.005)	(0.004)	(0.004)	(0.003)	(0.005)	(0.004)
Constant	-6.722***	-4.906***	-8.408***	-2.379***	-6.500***	-4.593^{***}	-8.246***	-3.381***	-5.093***	-3.052***	-6.127***	-1.492*
	(0.535)	(0.453)	(0.593)	(0.713)	(0.519)	(0.437)	(0.595)	(0.663)	(0.599)	(0.525)	(0.638)	(0.763)
Observations	3,682	3,682	3,682	3,682	3,682	3,682	3,682	3,682	2,437	2,437	2,437	2,437
Number of countries	142	142	142	142	142	142	142	142	97	97	97	97
Crisis obs.	307	307	307	307	307	307	307	307	272	272	272	272
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Note: Standard errors are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5% and 1% levels, respectively.

1.835***	1.939***	0.766***	0.946***	1.302***	1.083***	0.233	2.080***	0.309***	0.067	0.181	0.432**
(0.237)	(0.213)	(0.263)	(0.358)	(0.174)	(0.154)	(0.194)	(0.276)	(0.108)	(0.099)	(0.119)	(0.178)
1.442***	0.724***	2.832***	-0.178	1.661***	0.868***	3.038***	-0.202	0.876***	0.350***	1.228***	-0.281*
(0.221)	(0.144)	(0.265)	(0.148)	(0.228)	(0.163)	(0.252)	(0.136)	(0.175)	(0.122)	(0.227)	(0.153)
1.166***	0.736***	1.252***	0.897***	1.369***	0.873***	1.224***	1.552***	2.731***	2.048***	3.234***	1.418***
(0.235)	(0.192)	(0.292)	(0.304)	(0.243)	(0.197)	(0.297)	(0.320)	(0.254)	(0.204)	(0.297)	(0.319)
0.035***	0.033***	0.031***	0.033***	0.037***	0.035***	0.032***	0.035***	0.028***	0.026***	0.026***	0.027***
(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.002)
0.941***	0.865***	0.844***	0.789***	0.961***	0.885***	0.849***	0.804***	0.791***	0.750***	0.689***	0.677**
(0.134)	(0.119)	(0.130)	(0.261)	(0.134)	(0.119)	(0.130)	(0.261)	(0.135)	(0.119)	(0.131)	(0.263)
0.020***	0.016***	0.021***	0.015***	0.020***	0.016***	0.022***	0.015***	0.022***	0.017***	0.021***	0.014***
(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
-0.921***	-1.136***	-0.830***	-0.271	-0.651***	-0.892***	-0.744***	-0.074	-0.717***	-0.754***	-0.653***	-0.347
(0.162)	(0.145)	(0.181)	(0.232)	(0.161)	(0.143)	(0.179)	(0.234)	(0.166)	(0.147)	(0.181)	(0.259)
-0.011***	-0.010***	-0.008***	-0.016***	-0.009***	-0.008***	-0.008***	-0.015***	-0.005***	-0.003	-0.003	-0.010***
(0.002)	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)	(0.003)
0.512***	0.447***	0.345***	0.922***	0.500***	0.418***	0.335***	0.940***	0.579***	0.517***	0.490***	0.948***
(0.067)	(0.063)	(0.073)	(0.109)	(0.067)	(0.063)	(0.072)	(0.107)	(0.067)	(0.062)	(0.071)	(0.120)
-1.428***	-1.716***	-0.698***	-2.346***	-1.417***	-1.711***	-0.685***	-2.287***	-1.230***	-1.532***	-0.501**	-2.843***
(0.191)	(0.185)	(0.215)	(0.315)	(0.192)	(0.185)	(0.216)	(0.314)	(0.195)	(0.181)	(0.207)	(0.381)
-0.015***	0.000	-0.014***	0.001	-0.012***	0.001	-0.012**	-0.001	-0.023***	-0.006*	-0.030***	0.003
(0.005)	(0.003)	(0.005)	(0.004)	(0.004)	(0.003)	(0.005)	(0.004)	(0.004)	(0.003)	(0.005)	(0.004)

-6.722***				-6.500***				-5.093***			
(0.535)				(0.519)				(0.599)			
	-4.906***				-4.593***				-3.052***		
	(0.453)				(0.437)				(0.525)		
		-8.408***				-8.246***				-6.127***	
		(0.593)				(0.595)				(0.638)	
			-2.379***				-3.381***				-1.492*
			(0.713)				(0.663)				(0.763)
3,682	3,682	3,682	3,682	3,682	3,682	3,682	3,682	2,437	2,437	2,437	2,437
142	142	142	142	142	142	142	142	97	97	97	97
YES	YES										
1	1	1	1	1	1	1	1	1	1	1	1
307	307	307	307	307	307	307	307	272	272	272	272
215	230	220	192	215	230	220	192	200	210	205	164

4.6. TABLE 5: THE IMPACT OF INFLATION TARGETING ON THE REAL COST OF BANKING CRISES

(Left) MLS average transaction price vs. FHFA purchase-only index vs. Case-Shiller index (all deflated by the PCE). (Right) MLS vs. National Association of Realtors (existing houses) vs. Census (new houses). Months of supply is the number of houses on the market divided by monthly sales.

Original:

	Inflation targeting				
	loss_5years	loss_all	$trend_{loss}$	cycle_loss	
I-O-tion towarding	0.050***	0.045***	0.001***	0.000****	
Inflation targeting	-0.858***	-0.845***	-0.931***	-0.628***	
CDD ::	(0.143)	(0.131)	(0.152)	(0.243)	
GDP per capita	1.918***	0.985***	2.845***	-0.136	
	(0.206)	(0.146)	(0.236)	(0.143)	
Inflation	1.579***	1.127***	2.077***	0.999***	
	(0.223)	(0.186)	(0.267)	(0.294)	
Bank credit / GDP	0.032^{***}	0.029^{***}	0.029^{***}	0.031^{***}	
	(0.001)	(0.001)	(0.001)	(0.002)	
Credit-to-GDP gap	0.879^{***}	0.788^{***}	0.771^{***}	0.770^{***}	
	(0.134)	(0.118)	(0.130)	(0.261)	
Public debt / GDP	0.023^{***}	0.018^{***}	0.024^{***}	0.015^{***}	
	(0.001)	(0.001)	(0.001)	(0.001)	
Financial openness	-0.783***	-0.815^{***}	-0.785^{***}	-0.127	
	(0.153)	(0.137)	(0.165)	(0.228)	
Trade openness	-0.010***	-0.007***	-0.009^{***}	-0.015^{***}	
	(0.002)	(0.002)	(0.002)	(0.003)	
Currency crisis	0.410***	0.335***	0.316***	0.875***	
	(0.060)	(0.056)	(0.064)	(0.102)	
Discret. gov. consumption	-1.275***	-1.430***	-0.609***	-2.272***	
0	(0.174)	(0.163)	(0.186)	(0.307)	
CB assets	-0.035***	-0.013***	-0.042***	-0.000	
	(0.004)	(0.003)	(0.005)	(0.004)	
Constant	-6.488***	-4.300***	-8.296***	-1.848***	
	(0.532)	(0.450)	(0.586)	(0.646)	
Observations	4,043	4,043	4,043	4,043	
Number of countries	146	146	146	146	
Crisis obs.	330	330	330	330	
Year FE	YES	YES	YES	YES	

Note: Standard errors are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5% and 1% levels, respectively.

Reproduced (we only reproduced the results based on non-confidential data):

-0.858***	-0.845***	-0.931***	-0.628***
(0.143)	(0.131)	(0.152)	(0.243)
1.918***	0.985***	2.845***	-0.136
(0.206)	(0.146)	(0.236)	(0.143)
1.579***	1.127***	2.077***	0.999***
(0.223)	(0.186)	(0.267)	(0.294)
0.032***	0.029***	0.029***	0.031***
(0.001)	(0.001)	(0.001)	(0.002)
0.879***	0.788***	0.771***	0.770***
(0.134)	(0.118)	(0.130)	(0.261)
0.023***	0.018***	0.024***	0.015***
(0.001)	(0.001)	(0.001)	(0.001)
-0.783***	-0.815***	-0.785***	-0.127
(0.153)	(0.137)	(0.165)	(0.228)
-0.010***	-0.007***	-0.009***	-0.015***
(0.002)	(0.002)	(0.002)	(0.003)
0.410***	0.335***	0.316***	0.875***
(0.060)	(0.056)	(0.064)	(0.102)
-1.275***	-1.430***	-0.609***	-2.272***
(0.174)	(0.163)	(0.186)	(0.307)
-0.035***	-0.013***	-0.042***	-0.000
(0.004)	(0.003)	(0.005)	(0.004)

-6.488***			
(0.532)			
	-4.300***		
	(0.450)		
		-8.296***	
		(0.586)	
			-1.848***
			(0.646)
4,043	4,043	4,043	4,043
146	146	146	146
YES	YES	YES	YES
1	1	1	1
330	330	330	330
229	245	238	199

4.7. TABLE 6: ROBUSTNESS CHECKS WHEN THE POLICY RESPONSES AND THE CURRENCY CRISIS DUMMY ARE DROPPED

The results shown in tables 6 to 8 are a simplified version of the complete results: they only focus on the statistical significance (or lack thereof) of the coefficients and do not indicate their estimated values. For those tables, we present the complete results we computed. The absence of stars next to a coefficient's estimated value indicate a lack of statistical significance (N.S), and a negative sign (respectively no sign) indicate a negative (respectively positive) impact.

Original:

Dropping discretionary government consumption as a control variable							
	loss_5years loss_all trend_loss cycle_loss						
Budget balance rule	_	—	_	N.S.			
No. budg. bal. rule	+	+	+	+			
Budg. bal. rule without clause	+	+	+	+			
Dropping currency crisis as a control variable							
	loss_5years	$loss_all$	$\operatorname{trend}_{\operatorname{loss}}$	$cycle_loss$			
Corner ERR dummy	+	+	+	+			
ER regime	_	_	_	_			
ER regime (squared)	+	+	+	+			
Dropping central	l bank assets a	as a contro	l variable				
	loss_5years	$loss_all$	$\operatorname{trend}_{\operatorname{loss}}$	cycle_loss			
CWN	+	+	+	+			
CWN_OBJ	+	+	N.S.	+			
CONS_W	+	N.S.	+	+			
Inflation targeting	_	_	_	_			

Note: +/- means that the variable noted has a significant positive/negative impact on the unconditional cost of banking crises. N.S. means that the estimated coefficient is not statistically significant at the conventional levels.

l budget balance rule	-0.426***	-0.494***	-0.802***	-0.124
	(0.131)	(0.121)	(0.154)	(0.211)
I_CA_norule	1.544***	1.558***	1.915***	1.577***
	(0.233)	(0.216)	(0.259)	(0.505)
I_CA_rule	1.291***	1.215***	1.255***	1.649***
	(0.210)	(0.193)	(0.223)	(0.496)
l_er_defacto_corner	0.835***	1.025***	1.002***	0.386***
	(0.070)	(0.065)	(0.080)	(0.105)
l_er_defacto_fine	-0.810***	-0.921***	-0.881***	-0.505***
	(0.049)	(0.044)	(0.054)	(0.078)
l_er_defacto_fine_2	0.047***	0.053***	0.050***	0.030***
	(0.003)	(0.003)	(0.003)	(0.004)
l_cwn_weighted	1.765***	1.941***	0.690***	0.947***
	(0.237)	(0.212)	(0.261)	(0.358)
l_cuk_obj	1.303***	1.086***	0.222	2.077***
	(0.174)	(0.153)	(0.194)	(0.276)
I_CONS_W	0.371***	0.086	0.276**	0.425**
	(0.107)	(0.099)	(0.119)	(0.177)
l_it_ff	-0.618***	-0.772***	-0.662***	-0.627***
	(0.135)	(0.129)	(0.142)	(0.242)

Original:

Adding prompt corrective action as an additional control variable					
	loss 5years	loss all	trend loss	cycle loss	
Budget balance rule	N.S.	_	N.S.	_	
No. budg. bal. rule	+	+	+	+	
Budg. bal. rule without clause	+	+	+	+	
Corner ERR dummy	+	+	+	+	
ER regime	_	_	_	_	
ER regime (squared)	+	+	+	+	
CWN	+	+	+	+	
CWN_OBJ	+	+	+	+	
CONS W	+	N.S.	+	N.S.	
Inflation targeting	_	_	_	_	
Adding banking activitie	es restriction a	as an addit	ional control	variable	
	loss 5years	loss all	trend loss	cycle loss	
Budget balance rule	N.S.	_	N.S.	_	
No. budg. bal. rule	+	+	+	+	
Budg. bal. rule without clause	+	+	+	+	
Corner ERR dummy	+	+	+	+	
ER regime	_	_	_	_	
ER regime (squared)	+	+	+	+	
CWN	+	+	+	+	
CWN OBJ	+	+	+	+	
CONSW	+	N.S.	+	+	
Inflation targeting	_	_	_	_	
Adding supervisory po	ower index as	an additio	nal control va	riable	
	loss 5years	loss all	trend loss	cycle loss	
Budget balance rule		_	_	N.S.	
No. budg. bal. rule	+	+	+	+	
Budg. bal. rule without clause	+	+	+	+	
Corner ERR dummy	+	+	+	+	
ER regime	_	_	_	_	
ER regime (squared)	+	+	+	+	
CWN	+	+	+	+	
CWN_OBJ	+	+	+	+	
CONS_W	+	N.S.	+	+	
Inflation targeting	_	_	_	_	
Adding the existence of a depos	sit insurance s	cheme as a	an additional o	control variable	
	loss_5years	loss_all	trend_loss	cycle_loss	
Budget balance rule	_	_	_	_	
No. budg. bal. rule	+	+	+	+	
Budg. bal. rule without clause	+	+	+	+	
Corner ERR dummy	+	+	+	+	
ER regime	_	_	_	_	
ER regime ER regime (squared)	- +	- +	- +	- +	
ER regime ER regime (squared) CWN	- + +	- + +	- + N.S.	- + N.S.	
ER regime ER regime (squared) CWN CWN OBJ	- + +	- + + +	+ N.S. N.S.	- + N.S. +	
ER regime ER regime (squared) CWN CWN_OBJ CONS_W	- + + +	- + + N.S.	- + N.S. N.S. +	- + N.S. + N.S.	

Note: +/- means that the variable noted has a significant positive/negative impact on the unconditional cost of banking crises. N.S. means that the estimated coefficient is not statistically significant at the conventional levels. 24

-Adding prompt corrective action as an additional control variable:

I budget balance rule	-0.250	-0.444***	-0.272	-0.541*
	(0.154)	(0.151)	(0.171)	(0.285)
I_CA_norule	1.693***	1.912***	1.778***	1.965***
	(0.258)	(0.248)	(0.278)	(0.547)
I_CA_rule	1.617***	1.638***	1.661***	1.664***
	(0.216)	(0.204)	(0.227)	(0.510)
l_er_defacto_corner	1.065***	1.127***	0.996***	0.956***
	(0.120)	(0.114)	(0.130)	(0.205)
l_er_defacto_fine	-0.868***	-0.977***	-0.894***	-0.696***
	(0.080)	(0.075)	(0.087)	(0.140)
l_er_defacto_fine_2	0.050***	0.055***	0.051***	0.042***
	(0.005)	(0.004)	(0.005)	(0.008)
I_cwn_weighted	1.397***	1.686***	1.513***	1.275**
	(0.290)	(0.279)	(0.310)	(0.540)
l_cuk_obj	1.821***	1.688***	1.239***	1.689***
	(0.260)	(0.235)	(0.272)	(0.449)
I_CONS_W	0.461***	0.031	0.453***	0.451
	(0.154)	(0.143)	(0.161)	(0.308)
l_it_ff	-1.474***	-1.859***	-1.502***	-1.240***
	(0.182)	(0.175)	(0.196)	(0.300)

-Adding banking activities restriction as an additional control variable

l_budget_balance_rule	-0.183	-0.334**	-0.194	-0.536*
	(0.156)	(0.154)	(0.172)	(0.287)
I_CA_norule	1.791***	1.945***	1.835***	2.048***
	(0.272)	(0.258)	(0.287)	(0.558)
I_CA_rule	1.799***	1.810***	1.817***	1.759***
	(0.230)	(0.216)	(0.237)	(0.519)
l_er_defacto_corner	0.992***	1.071***	1.017***	0.904***
	(0.119)	(0.114)	(0.131)	(0.204)
l_er_defacto_fine	-0.862***	-0.976***	-0.903***	-0.670***
	(0.079)	(0.075)	(0.087)	(0.141)
l_er_defacto_fine_2	0.049***	0.054***	0.050***	0.040***
	(0.005)	(0.004)	(0.005)	(0.008)
I_cwn_weighted	1.943***	2.335***	2.208***	1.506***
	(0.292)	(0.281)	(0.313)	(0.545)
l_cuk_obj	2.092***	1.912***	1.420***	1.898***
	(0.269)	(0.242)	(0.279)	(0.467)
I_CONS_W	0.421***	-0.027	0.376**	0.602*
	(0.154)	(0.143)	(0.163)	(0.314)
l_it_ff	-1.329***	-1.737***	-1.401***	-1.229***

-Adding supervisory power index as an additional control variable:

l_budget_balance_rule	-0.323**	-0.476***	-0.400**	-0.389
	(0.163)	(0.163)	(0.180)	(0.298)
I_CA_norule	2.224***	2.086***	2.374***	1.828***
	(0.283)	(0.260)	(0.307)	(0.529)
I_CA_rule	2.304***	1.946***	2.376***	1.820***
	(0.258)	(0.232)	(0.279)	(0.510)
l_er_defacto_corner	1.145***	1.186***	1.119***	0.935***
	(0.126)	(0.118)	(0.139)	(0.211)
l_er_defacto_fine	-0.947***	-1.029***	-0.931***	-0.707***
	(0.084)	(0.078)	(0.091)	(0.149)
l_er_defacto_fine_2	0.054***	0.057***	0.052***	0.042***
	(0.005)	(0.004)	(0.005)	(0.008)
I_cwn_weighted	1.301***	1.615***	1.420***	1.129**
	(0.301)	(0.289)	(0.323)	(0.553)
l_cuk_obj	1.861***	1.646***	1.344***	1.847***
	(0.270)	(0.237)	(0.279)	(0.459)
I_CONS_W	0.529***	0.043	0.530***	0.688**
	(0.166)	(0.152)	(0.175)	(0.335)
l_it_ff	-1.545***	-1.987***	-1.590***	-1.184***
	(0.184)	(0.173)	(0.201)	(0.293)

-Adding the existence of a deposit insurance scheme as an additional control variable:

l_budget_balance_rule	-0.453***	-0.368***	-0.791***	-0.520**
	(0.148)	(0.138)	(0.171)	(0.258)
I_CA_norule	1.770***	1.781***	2.049***	2.080***
	(0.253)	(0.236)	(0.278)	(0.535)
I_CA_rule	1.479***	1.573***	1.386***	1.822***
	(0.218)	(0.202)	(0.228)	(0.511)
l_er_defacto_corner	0.966***	1.012***	1.065***	0.651***
	(0.085)	(0.078)	(0.099)	(0.126)
l_er_defacto_fine	-0.855***	-0.890***	-0.985***	-0.449***
	(0.060)	(0.054)	(0.068)	(0.094)
l_er_defacto_fine_2	0.051***	0.052***	0.059***	0.026***
	(0.003)	(0.003)	(0.004)	(0.005)
l_cwn_weighted	0.489*	0.541**	-0.310	-0.344
	(0.251)	(0.229)	(0.275)	(0.387)
l_cuk_obj	0.910***	0.593***	-0.002	1.583***
	(0.185)	(0.161)	(0.208)	(0.301)
I_CONS_W	0.433***	0.031	0.470***	0.255
	(0.126)	(0.116)	(0.137)	(0.205)
l_it_ff	-1.024***	-1.101***	-0.983***	-0.909***
	(0.153)	(0.139)	(0.161)	(0.251)

Original:

A 11:	1.115	1157 1	4 1 1 1	1
Adding government st	ability as an a	dditional	control variat	ble
	loss_5years	$loss_all$	$trend_{loss}$	cycle_loss
Budget balance rule	_	_	_	_
No. budg. bal. rule	+	+	+	+
Budg. bal. rule without clause	+	+	+	+
Corner ERR dummy	+	+	+	+
ER regime	_	_	_	_
ER regime (squared)	+	+	+	+
CWN	+	+	+	N.S.
CWN_OBJ	+	+	+	+
CONS_W	+	+	+	+
Inflation targeting	_	_	_	_

Adding democratic accountability as an additional control variable

	loss_5years	$loss_all$	${\rm trend_loss}$	$cycle_{loss}$
Budget balance rule	_	_	_	N.S.
No. budg. bal. rule	+	+	+	+
Budg. bal. rule without clause	+	+	+	+
Corner ERR dummy	+	+	+	+
ER regime	_	_	_	_
ER regime (squared)	+	+	+	+
CWN	+	+	+	+
CWN_OBJ	+	+	+	+
CONS_W	+	+	+	+
Inflation targeting	—	_	—	—

Note: +/- means that the variable noted has a significant positive/negative impact on the unconditional cost of banking crises. N.S. means that the estimated coefficient is not statistically significant at the conventional levels.

-Adding government stability as an additional control variable:

l_budget_balance_rule	-0.319**	-0.472***	-0.547***	-0.482**
	(0.137)	(0.125)	(0.160)	(0.233)
I_CA_norule	1.693***	1.694***	1.956***	1.896***
	(0.245)	(0.228)	(0.265)	(0.536)
I_CA_rule	1.569***	1.375***	1.597***	1.612***
	(0.218)	(0.202)	(0.226)	(0.521)
I_er_defacto_corner	0.830***	0.948***	1.058***	0.390***
	(0.091)	(0.084)	(0.108)	(0.128)
l_er_defacto_fine	-0.907***	-0.962***	-1.060***	-0.397***
	(0.068)	(0.061)	(0.078)	(0.096)
l_er_defacto_fine_2	0.054***	0.056***	0.062***	0.023***
	(0.004)	(0.003)	(0.004)	(0.005)
I_cwn_weighted	1.756***	2.025***	1.307***	0.379
	(0.273)	(0.245)	(0.311)	(0.422)
I_cuk_obj	2.085***	1.787***	1.284***	2.114***
	(0.225)	(0.191)	(0.237)	(0.351)
I_CONS_W	0.892***	0.404***	0.776***	0.581***
	(0.135)	(0.124)	(0.148)	(0.216)
l_it_ff	-1.621***	-1.655***	-1.668***	-1.424***
	(0.172)	(0.156)	(0.180)	(0.268)

-Adding democratic accountability as an additional control variable:

l_budget_balance_rule	-0.333**	-0.530***	-0.577***	-0.277
	(0.133)	(0.123)	(0.156)	(0.222)
I_CA_norule	1.517***	1.628***	1.864***	1.725***
	(0.231)	(0.216)	(0.257)	(0.523)
I_CA_rule	1.381***	1.256***	1.484***	1.640***
	(0.207)	(0.192)	(0.221)	(0.511)
I_er_defacto_corner	0.845***	1.102***	1.162***	0.388***
	(0.091)	(0.084)	(0.108)	(0.126)
l_er_defacto_fine	-1.020***	-1.124***	-1.177***	-0.494***
	(0.067)	(0.060)	(0.078)	(0.093)
l_er_defacto_fine_2	0.061***	0.066***	0.069***	0.029***
	(0.004)	(0.003)	(0.004)	(0.005)
I_cwn_weighted	2.450***	2.723***	1.791***	1.462***
	(0.272)	(0.241)	(0.305)	(0.407)
I_cuk_obj	2.791***	2.397***	1.667***	2.985***
	(0.229)	(0.194)	(0.238)	(0.350)
I_CONS_W	0.662***	0.367***	0.609***	0.720***
	(0.130)	(0.119)	(0.145)	(0.207)
l_it_ff	-1.259***	-1.223***	-1.381***	-0.912***
	(0.160)	(0.144)	(0.169)	(0.260)

4.10. FIGURE A1: DISTRIBUTION OF ANNUAL OUTPUT LOSSES DUE TO BANKING CRISES







4.11. FIGURE A2: MEASURING THE REAL OUTPUT COSTS ASSOCIATED WITH BANKING CRISES: THE CASE OF THE UNITED STATES

Original:





4.12. TABLE A2: RESULTS OBTAINED BY SIMULTANEOUSLY CONSIDERING THE DIFFERENT POLICY FRAMEWORKS

Original:

Variable	Obs	Mean	Std. Dev.	Min	Max
Loss_5years	4,043	0.615	3.195	0	41.755
Loss_all	4,043	0.717	3.502	0	37.003
Trend_loss	4,043	0.542	2.740	0	39.408
Cycle_loss	4,043	0.201	1.169	0	19.083
GDP per capita (ln)	4,043	3.636	1.501	0.718	6.801
Inflation (normalised)	4,043	0.095	0.125	-0.559	0.996
Bank credit / GDP	4,043	38.66	34.98	0.186	312.15
Credit-to-GDP gap	4,043	0.092	3.291	-6.580	6.796
Public debt / GDP	4,043	58.82	47.45	0	629.18
Financial openness	4,043	0.440	0.347	0	1
Trade openness	4,043	72.65	43.67	6.320	531.73
Currency crisis	4,043	0.183	0.386	0	1
Discret. gov. consumption	4,043	-0.004	0.123	-0.736	1.724
CB assets	4,043	7.410	11.32	0	197.59
Budget balance rule	1,713	0.458	0.498	0	1
No budg. bal. rule	1,713	0.542	0.498	0	1
Budg. bal. rule without clause	1,713	0.375	0.484	0	1
Corner ERR dummy	3,472	0.525	0.499	0	1
ER regime	$3,\!472$	8.123	4.399	1	14
CWN	3,682	0.513	0.208	0.017	0.904
CWN_OBJ	$3,\!682$	0.531	0.267	0	1
CONS_W	2,437	0.448	0.365	0	1
Inflation targeting	4,043	0.075	0.263	0	1

Variable	Obs	Mean	Std. Dev.	Min	Max
outpu~s_cens	4,043	.6153657	3.194812	0	41.75547
outpu~l_cens	4,043	.7168528	3.502196	0	37.00251
trend_loss~s	4,043	.5420396	2.73969	0	39.40767
cycle_loss~s	4,043	.2012506	1.168971	0	19.08296
l_gdpc	4,043	3.635668	1.500645	.7181911	6.801417
l_inf	4,043	.095019	.1252722	5585228	.9958112
1_bankcred	4,043	38.66756	34.98533	.1858528	312.1536
l_credgap	4,043	.0915013	3.291226	-6.579535	6.795776
l_debt	4,043	58.82078	47.44971	0	629.186
1_open	4,043	.4398632	.347238	0	1
l_trade	4,043	72.65716	43.67508	6.320343	531.7374
currency_c~s	4,043	.1825377	.3863349	0	1
l_discret_~v	4,043	0041391	.1227817	7364323	1.723691
l_cbasset	4,043	7.409661	11.32205	1.42e-13	197.5944
budget_ba~le	1,759	.4769756	.4996116	0	1
l_CA_norule	1,713	.5417396	.4984003	0	1
l_CA_rule	1,713	.3747811	.4842077	0	1
l_er_defac~r	3,472	.5250576	.4994437	0	1
l_er_defac~e	3,472	8.122696	4.399449	1	14
l_cwn_weig~d	3,682	.5134579	.2081365	.0166667	.904
l_cuk_obj	3,682	.5312874	.2667969	0	1
1_CONS_W	2,437	.4476595	.3645248	0	.9997193
l_it_ff	4,043	.0749443	.2633341	0	1

4.13. TABLE A3: RESULTS OBTAINED BY SIMULTANEOUSLY CONSIDERING THE DIFFERENT POLICY FRAMEWORKS

Original:

	Cent	Central bank independence (CWN)				Central bank conservatism (CWN OBJ)			
	loss 5years	loss all	trend loss	cycle_loss	loss_5years	loss all	trend loss	cycle loss	
No budg. bal. rule	1.700***	1.825^{***}	2.148^{***}	1.910^{***}	1.347***	1.297^{***}	1.684^{***}	1.927^{***}	
	(0.243)	(0.230)	(0.275)	(0.514)	(0.249)	(0.227)	(0.274)	(0.589)	
Budg. bal. rule without clause	1.408***	1.342^{***}	1.309^{***}	1.779^{***}	1.387***	1.204^{***}	1.192^{***}	1.988^{***}	
	(0.211)	(0.197)	(0.229)	(0.494)	(0.230)	(0.209)	(0.241)	(0.581)	
Corner ERR dummy	0.684***	0.949^{***}	1.004^{***}	0.154	0.853***	1.124^{***}	1.156^{***}	0.307*	
	(0.111)	(0.106)	(0.129)	(0.168)	(0.113)	(0.108)	(0.130)	(0.171)	
CWN	2.457***	3.032^{***}	2.340***	2.658^{***}					
	(0.307)	(0.294)	(0.329)	(0.504)					
CWN OBJ					3.411***	3.028^{***}	2.911 ***	3.029^{***}	
					(0.303)	(0.262)	(0.320)	(0.462)	
Observations	1,672	1,672	1,672	1,672	1,672	1,672	1,672	1,672	
Number of countries	77	77	77	77	77	77	77	77	
Crisis obs.	205	205	205	205	205	205	205	205	
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	
	Central bank conservatism (CONS W)								
	Centra	l bank conser	vatism (CON	S_W)		Inflation	targeting		
	Centra loss_5years	l bank conser loss_all	vatism (CON trend_loss	S_W) cycle_loss	loss_5years	Inflation loss_all	targeting trend_loss	cycle_loss	
	Centra loss_5years	l bank conser loss_all	vatism (CON trend_loss	S_W) cycle_loss	loss_5years	Inflation loss_all	targeting trend_loss	cycle_loss	
No budg. bal. rule	Centra loss_5years 1.346***	l bank conser loss_all 1.530***	vatism (CON trend_loss	5_W) cycle_loss 1.334***	loss_5years	Inflation loss_all 1.525***	targeting trend_loss	cycle_loss	
No budg. bal. rule	Centra loss_5years 1.346*** (0.230)	l bank conser loss_all 1.530*** (0.217)	vatism (CONS trend_loss 1.802*** (0.260)	S_W) cycle_loss 1.334*** (0.493)	loss_5years 1.497*** (0.238)	Inflation loss_all 1.525*** (0.224)	targeting trend_loss 1.884*** (0.271)	cycle_loss 1.712*** (0.516)	
No budg. bal. rule Budg. bal. rule without clause	Centra loss_5years 1.346*** (0.230) 1.454***	l bank conser loss_all 1.530*** (0.217) 1.296***	vatism (CONS trend_loss 1.802*** (0.260) 1.481***	S_W) cycle_loss 1.334*** (0.493) 1.717***	loss_5years 1.497*** (0.238) 1.369***	Inflation loss_all 1.525*** (0.224) 1.348***	targeting trend_loss 1.884*** (0.271) 1.360***	cycle_loss 1.712*** (0.516) 1.659***	
No budg. bal. rule Budg. bal. rule without clause	Centra loss_5years 1.346*** (0.230) 1.454*** (0.206)	l bank conser loss_all 1.530*** (0.217) 1.296*** (0.193)	vatism (CONS trend_loss 1.802*** (0.260) 1.481*** (0.221)	S_W) cycle_loss 1.334*** (0.493) 1.717*** (0.481)	loss_5years 1.497*** (0.238) 1.369*** (0.212)	Inflation loss_all 1.525*** (0.224) 1.348*** (0.199)	targeting trend_loss 1.884*** (0.271) 1.360*** (0.233)	cycle_loss 1.712*** (0.516) 1.659*** (0.503)	
No budg. bal. rule Budg. bal. rule without clause Corner ERR dummy	Centra loss_5years 1.346*** (0.230) 1.454*** (0.206) 0.342***	l bank conser loss_all 1.530*** (0.217) 1.296*** (0.193) 0.508***	vatism (CON trend_loss 1.802*** (0.260) 1.481*** (0.221) 0.476***	S_W) cycle_loss 1.334*** (0.493) 1.717*** (0.481) 0.394**	loss_5years 1.497*** (0.238) 1.369*** (0.212) 0.750***	Inflation loss_all 1.525*** (0.224) 1.348*** (0.199) 0.992***	targeting trend_loss 1.884*** (0.271) 1.360*** (0.233) 1.035***	cycle_loss 1.712*** (0.516) 1.659*** (0.503) 0.200	
No budg, bal. rule Budg, bal. rule without clause Corner ERR dummy	Centra loss_5years 1.346*** (0.230) 1.454*** (0.206) 0.342*** (0.114) (0.114)	l bank conser loss_all 1.530*** (0.217) 1.296*** (0.193) 0.508*** (0.105)	vatism (CON trend_loss 1.802*** (0.260) 1.481*** (0.221) 0.476*** (0.132)	S_W) cycle_loss 1.334*** (0.493) 1.717*** (0.481) 0.394** (0.182)	loss_5years 1.497*** (0.238) 1.369*** (0.212) 0.750*** (0.111)	Inflation loss_all 1.525*** (0.224) 1.348*** (0.199) 0.992*** (0.105)	targeting trend_loss (0.271) 1.360*** (0.233) 1.035*** (0.129)	cycle_loss 1.712*** (0.516) 1.659*** (0.503) 0.200 (0.165)	
No budg. bal. rule Budg. bal. rule without clause Corner ERR dummy CONS_W	Centra loss_5years 1.346*** (0.230) 1.454*** (0.206) 0.342*** (0.114) 1.319***	l bank conser loss_all 1.530*** (0.217) 1.296*** (0.193) 0.508*** (0.105) 0.811***	vatism (CON trend_loss 1.802*** (0.260) 1.481*** (0.221) 0.476*** (0.132) 0.971***	S_W) cycle_loss 1.334*** (0.493) 1.717*** (0.481) 0.394** (0.182) 1.625***	loss_5years 1.497*** (0.238) 1.369*** (0.212) 0.750*** (0.111)	Inflation loss_all 1.525*** (0.224) 1.348*** (0.199) 0.992*** (0.105)	targeting trend_loss 1.884*** (0.271) 1.360*** (0.233) 1.035*** (0.129)	cycle_loss 1.712*** (0.516) 1.659*** (0.503) 0.200 (0.165)	
No budg. bal. rule Budg. bal. rule without clause Corner ERR dummy CONS_W	Centra loss_5years 1.346*** (0.230) 1.454*** (0.206) 0.342*** (0.114) 1.319*** (0.177)	l bank conser loss_all 1.530*** (0.217) 1.296*** (0.193) 0.508*** (0.105) 0.811*** (0.158)	vatism (CON trend_loss 1.802*** (0.260) 1.481*** (0.221) 0.476*** (0.132) 0.971*** (0.192)	S_W) cycle_loss 1.334*** (0.493) 1.717*** (0.481) 0.394** (0.182) 1.625*** (0.315)	loss_5years 1.497*** (0.238) 1.369*** (0.212) 0.750*** (0.111)	Inflation loss_all 1.525*** (0.224) 1.348*** (0.199) 0.992*** (0.105)	targeting trend_loss 1.884*** (0.271) 1.360*** (0.233) 1.035*** (0.129)	cycle_loss 1.712*** (0.516) 1.659*** (0.503) 0.200 (0.165)	
No budg. bal. rule Budg. bal. rule without clause Corner ERR dummy CONS_W Inflation targeting	Centra loss_5years 1.346*** (0.230) 1.454*** (0.206) 0.342*** (0.114) 1.319*** (0.177)	l bank conser loss_all 1.530*** (0.217) 1.296*** (0.193) 0.508*** (0.105) 0.811*** (0.158)	vatism (CON: trend_loss 1.802*** (0.260) 1.481*** (0.221) 0.476*** (0.132) 0.971*** (0.192)	S W) cycle_loss 1.334*** (0.493) 1.717*** (0.481) 0.394** (0.182) 1.625*** (0.315)	loss_5years 1.497*** (0.238) 1.369*** (0.212) 0.750*** (0.111) -0.167 (0.167	Inflation loss_all 1.525*** (0.224) 1.348*** (0.199) 0.992*** (0.105) -0.421**	targeting trend_loss 1.884*** (0.271) 1.360*** (0.233) 1.035*** (0.129) -0.537***	cycle_loss 1.712*** (0.516) 1.659*** (0.503) 0.200 (0.165) 0.217 (0.502)	
No budg. bal. rule Budg. bal. rule without clause Corner ERR dummy CONS_W Inflation targeting	Centra loss_5years 1.346*** (0.230) 1.454*** (0.206) 0.342*** (0.114) 1.319*** (0.177)	l bank conser loss_all 1.530*** (0.217) 1.296*** (0.193) 0.508*** (0.105) 0.811*** (0.158)	vatism (CON: trend_loss 1.802*** (0.260) 1.481*** (0.221) 0.476*** (0.132) 0.971*** (0.192)	S_W) cycle_loss 1.334*** (0.493) 1.717*** (0.481) 0.394** (0.182) 1.625*** (0.315)	loss_5years 1.497*** (0.238) 1.369*** (0.212) 0.750*** (0.111) -0.167 (0.171)	Inflation loss_all 1.525*** (0.224) 1.348*** (0.199) 0.992*** (0.105) -0.421** (0.166)	targeting trend_loss 1.884*** (0.271) 1.360*** (0.233) 1.035*** (0.129) -0.537*** (0.186)	cycle_loss 1.712*** (0.516) 1.659*** (0.503) 0.200 (0.165) 0.217 (0.306)	
No budg. bal. rule Budg. bal. rule without clause Corner ERR dummy CONS_W Inflation targeting	Centra loss_5years 1.346*** (0.230) 1.454*** (0.206) 0.342*** (0.114) 1.319*** (0.177) 1,118	l bank conser loss_all 1.530*** (0.217) 1.296*** (0.193) 0.508*** (0.105) 0.811*** (0.158) 1,118	vatism (CON: trend_loss 1.802*** (0.260) 1.481*** (0.221) 0.476*** (0.132) 0.971*** (0.192) 1,118	S_W) cycle_loss 1.334*** (0.493) 1.717*** (0.481) 0.394** (0.182) 1.625*** (0.315) 1,118	loss_5years 1.497*** (0.238) 1.369*** (0.212) 0.750*** (0.111) -0.167 (0.171) 1,713	Inflation loss_all 1.525*** (0.224) 1.348*** (0.199) 0.992*** (0.105) -0.421** (0.166) 1,713	targeting trend_loss 1.884*** (0.271) 1.360*** (0.233) 1.035*** (0.129) -0.537*** (0.186) 1,713	cycle_loss 1.712*** (0.516) 1.659*** (0.503) 0.200 (0.165) 0.217 (0.306) 1.713	
No budg. bal. rule Budg. bal. rule without clause Corner ERR dummy CONS_W Inflation targeting Observations Number of countries	Centra loss_5years 1.346*** (0.230) 1.454*** (0.206) 0.342*** (0.114) 1.319*** (0.177)	l bank conser loss_all 1.530*** (0.217) 1.296*** (0.193) 0.508*** (0.105) 0.811*** (0.158)	vatism (CON: trend_loss 1.802*** (0.260) 1.481*** (0.221) 0.476*** (0.132) 0.971*** (0.192)	S_W) cycle_loss 1.334*** (0.493) 1.717*** (0.481) 0.394** (0.382) 1.625*** (0.315)	loss_5years 1.497*** (0.238) 1.369*** (0.212) 0.750*** (0.111) -0.167 (0.171) 1.713 77 	Inflation loss_all 1.525*** (0.224) 1.348*** (0.199) 0.992*** (0.105) -0.421** (0.166) 1,713 77	targeting trend_loss 1.884*** (0.271) 1.360*** (0.233) 1.035*** (0.129) -0.537*** (0.186) 1.713 77	cycle_loss 1.712*** (0.516) 1.659*** (0.503) 0.200 (0.165) 0.217 (0.306) 1.713 77 77	
No budg. bal. rule Budg. bal. rule without clause Corner ERR dummy CONS_W Inflation targeting Observations Number of countries Crisis obs.	Centra loss_5years 1.346*** (0.230) 1.454*** (0.206) 0.342*** (0.114) 1.319*** (0.177) 1,118 59 161	l bank conser loss_all 1.530*** (0.217) 1.296*** (0.193) 0.508*** (0.105) 0.811*** (0.158) 1,118 59 161	vatism (CON: trend_loss 1.802*** (0.260) 1.481*** (0.221) 0.476*** (0.132) 0.971*** (0.192) 1,118 59 161	S_W) cycle_loss 1.334*** (0.493) 1.717*** (0.481) 0.394** (0.182) 1.625*** (0.315) 1,118 59 161	loss_5years 1.497*** (0.238) 1.369*** (0.212) 0.750*** (0.111) -0.167 (0.171) 1.713 77 208	Inflation loss_all 1.525*** (0.224) 1.348*** (0.199) 0.992*** (0.105) -0.421** (0.166) 1,713 77 208	targeting trend_loss 1.884*** (0.271) 1.360*** (0.233) 1.035*** (0.129) -0.537*** (0.186) 1,713 77 208 	cycle_loss 1.712*** (0.516) 1.659*** (0.503) 0.200 (0.165) 0.217 (0.306) 1.713 77 208	

Note: Standard errors are reported in parentheses. *, **, and *** denote statistical significance at the 10%, 5% and 1% levels, respectively. To save space, control variables and the constant are included but not reported.

l_CA_norule	1.700***	1.825***	2.148***	1.910***	1.347***	1.297***	1.684***	1.927***
	(0.243)	(0.230)	(0.275)	(0.514)	(0.249)	(0.227)	(0.274)	(0.589)
I_CA_rule	1.408***	1.342***	1.309***	1.779***	1.387***	1.204***	1.192***	1.988***
	(0.211)	(0.197)	(0.229)	(0.494)	(0.230)	(0.209)	(0.241)	(0.581)
l_er_defacto_corner	0.684***	0.949***	1.004***	0.154	0.853***	1.124***	1.156***	0.307*
	(0.111)	(0.106)	(0.129)	(0.168)	(0.113)	(0.108)	(0.130)	(0.171)
l_cwn_weighted	2.457***	3.032***	2.340***	2.658***				
	(0.307)	(0.294)	(0.329)	(0.504)				
l_cuk_obj					3.411***	3.028***	2.911***	3.029***
					(0.303)	(0.262)	(0.320)	(0.462)
Observations	1,672	1,672	1,672	1,672	1,672	1,672	1,672	1,672
Number of id	77	77	77	77	77	77	77	77
Year FE	YES							
Convergence	1	1	1	1	1	1	1	1
Crisis obs.	205	205	205	205	205	205	205	205

I_CA_norule	1.346***	1.530***	1.802***	1.334***	1.497***	1.525***	1.884***	1.712***
	(0.230)	(0.217)	(0.260)	(0.493)	(0.238)	(0.224)	(0.271)	(0.516)
I_CA_rule	1.454***	1.296***	1.481***	1.717***	1.369***	1.348***	1.360***	1.659***
	(0.206)	(0.193)	(0.221)	(0.481)	(0.212)	(0.199)	(0.233)	(0.503)
I_er_defacto_corner	0.342***	0.508***	0.476***	0.394**	0.750***	0.992***	1.035***	0.200
	(0.114)	(0.105)	(0.132)	(0.182)	(0.111)	(0.105)	(0.129)	(0.165)
I_CONS_W	1.319***	0.811***	0.971***	1.625***				
	(0.177)	(0.158)	(0.192)	(0.315)				
l_it_ff					-0.167	-0.421**	-0.537***	0.217
					(0.171)	(0.166)	(0.186)	(0.306)
Observations	1,118	1,118	1,118	1,118	1,713	1,713	1,713	1,713
Number of id	59	59	59	59	77	77	77	77
Year FE	YES	YES						
Convergence	1	1	1	1	1	1	1	1
Crisis obs.	161	161	161	161	208	208	208	208

4.14. TABLE A4: MARGINAL EFFECTS OF POLICY FRAMEWORK VARIABLES ON THE EXPECTED COST OF BANKING CRISES

Original:

		Policy framework	loss_5years	loss_all	$trend_{loss}$	cycle_loss
Ŀ	ø	No budg. bal. rule	382.11%	396.29%	586.89%	448.49%
licy	ğ	Budg. bal. rule without clause	264.73%	241.78%	253.60%	402.29%
Po!	cha	Corner ERR dummy	110.64%	159.09%	144.98%	45.79%
	Ŭ	Inflation targeting	-57.60%	-57.04%	-60.58%	-46.63%
	ase	CWN	1.85%	1.96%	0.77%	0.95%
1% rea	CWN_OBJ	1.31%	1.09%	N.S.	2.10%	
	inc	CONS_W	0.31%	N.S.	N.S.	0.43%

Note: N.S. means that the estimated coefficient is not statistically significant at the conventional levels. Marginal effects are calculated using an exponential transformation of the estimated coefficients.

No budget balance rule	382,108979	396,29484	586,887268	448,490624
Budget balance rule without clause	264,73468	241,781002	253,601363	402,286255
Corner ERR dummy	110,644143	159,088625	144,978435	45,7904309
Inflation targeting	-57,599075	-57,044264	-60,584065	-46,634195
CWN	1,85193958	1,9579207	0,76894129	0,95048872
CWN_OBJ	1,31051293	1,08888567	0,23327166	2,10178277
CONS_W	0,3094779	N.S	N.S	0,43293447

5. REFERENCES

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