

# The Political Economy of Sovereign Borrowing:

## Online Appendix

# A Appendix

Table A.1: Variable Definitions and Sources

Variable	Definition and Measurement	Source(s)
Primary Fiscal Balance	Government revenues - expenditures Net of interest payments (+/- percent of GDP)	Comision Economica para America Latina y El Caribe (CEPAL).
GDP Growth	Change in real GDP (annual percentage change)	World Development Indicators (WDI)
Inflation	Change in log CPI (annual percentage change)	World Development Indicators (WDI)
Election Dummy	For the inflation regressions, the binary variable takes on the value of 1 in election year and subsequent year, and 0 otherwise. For the fiscal balance and growth regressions, the binary variable takes on the value of 1 in an election year and the preceding N-1 years, and 0 otherwise, where N = 2 or 3.	Political Handbook of the World (2006-2007; 2007-2008; 2008-2009); EIU; Cheibub, Jose A., and Anastassios Kalandrakis 2004. "Global Database of Political Institutions and Economic Performance." <i>Globalization and Self-Determination Project</i> , New Haven: Yale Center for International and Area Studies.
Decentralized Bond Financing	The government's total global bond debt outstanding (or foreign currency bond debt held by foreign creditors) as a share of its total external financing.	Calculated from the World Bank's Global Financial Development (GFD) Database.
Global GDP Growth	Average global real GDP growth (annual percentage change).	Calculated from World Bank's World Development Indicators (WDI).
Terms of Trade	Export value index (2000=100) / import value index (2000=100).	Calculated from WDI.
Trade Openness	Total exports plus total imports (percentage of GDP).	Calculated from WDI.
Domestic Output Gap	Measure of the output gap, calculated as log difference between real GDP and its country specific trend.	Country specific trend calculated using the Hodrick-Prescott filter on real GDP change.
Interest Rates	Deposit interest rate (percent per annum).	International Financial Statistics (IFS).
Unemployment	Change in unemployment (percentage of labor force).	CEPAL.
Domestic Financial Depth	Broad money (M2), as a percentage of GDP.	World Bank's World Development Indicators (WDI).
Domestic Investment	Gross capital formation (annual percentage change).	World Bank's World Development Indicators (WDI).
Total Public External Debt	Total public external debt as a percentage of GDP.	Calculated from the World Bank's Global Development Finance (GDF) Database.
Total Public Debt	Total gross public (external + domestic) debt as a percentage of GDP.	Reinhart and Rogoff 2010 (see full citation below)
Debt Service	Public external debt service as a percentage of GDP.	World Bank's GDF Database.
Income	The log of GNI per capita, constant US(2000)	Calculated from WDI.
Executive Constraints (Polity IV)	Measure of checks on executive power; uses a 7-point scale from unlimited authority to executive parity.	Polity IV Codebook and Database.
Executive Constraints (Henisz)	Measure of political constraints; estimates the feasibility of policy change relative to institutional checks.	Henisz, W.J. 2000. The Institutional Environment for Economic Growth. <i>Economics and Politics</i> , 12(1).
Left Partisanship	Party orientation with respect to economic policy, coded from 0 to 1. Parties that are defined as communist, socialist, social democratic, or left-wing take on a value of 1. Otherwise, the variable is 0.	World Bank's 2010 Database of Political Institutions.
IMF Participation (Vreeland, 2003)	Participation in IMF programs: Dummy variable coded 1 for country-years when there was a conditioned IMF agreement in force, 0 otherwise.	Vreeland, James. 2003. <i>The IMF and Economic Development</i> . Cambridge: Cambridge University Press.
IMF Participation (Dreher, 2006)	IMF Participation: Dummy variable coded 1 for country-years when there was IMF standby or EFF agreement for at least five months, 0 otherwise.	Dreher, Axel 2006. "IMF and Economic Growth: The Effects of Programs, Loans, and Compliance with Conditionality." <i>World Development</i> 34(5).
Exchange Rate Regime	Coded along a four point spectrum moving from fixed to floating currency arrangements to account for the type of exchange rate regime.	IMF classification. Reinhart, Carmen M. and Kenneth S. Rogoff. 2010. "Growth in a Time of Debt." <i>American Economic Review</i> 100 (2) 573-578
Hard Peg	Binary variable coded as a 1 for currency board or dollarization regime, and 0 otherwise.	Calculated from Economist Intelligence Unit (EIU) country reports, using Feldstein (2003) classification.
Central Bank Independence	Measures autonomy of central banks as written into countries' laws and legal systems. Updates Cukierman, Webb, and Neyapti (1992) Index.	Polillo, Simone and Mario Guillen. 2005. "Globalization Pressures and the State." <i>American Journal of Sociology</i> 110 (6).
Baker Plan	Binary variable for 1980s' IMF-led sovereign debt restructuring; 1 for those years when a country received funding through the Baker Plan, and 0 otherwise.	Cline, William R. 1989. "The Baker Plan." <i>Policy Planning and Research Department Working Paper 250</i> , Washington, DC: World Bank.

Table A.2: Summary Statistics (16 Latin American Countries)

	mean	sd	min	max
Fiscal Balance	0.01	3.61	-28	9
Growth	3.83	4.30	-26	18
Inflation	2.83	1.25	-0	10
Bond Financing	0.20	0.25	0	1
Global Growth	3.55	1.72	-2	7
Terms of Trade	1.18	0.50	0	7
Trade Openness	42.86	23.96	9	146
Output Gap	0.95	1.89	-15	13
Interest Rate	2.75	1.36	-0	12
Unemployment	8.87	3.81	2	21
Financial Depth	32.32	16.35	7	111
Domestic Investment	5.41	16.56	-65	152
External Public Debt	40.88	60.99	0	830
Total Public Debt	54.62	90.16	2	1209
Debt Service	4.24	4.10	0	58
Income	7.77	0.64	6	9
Exec. Constraints	4.68	2.06	0	7
Left Governments	0.25	0.43	0	1
IMF Program	0.34	0.47	0	1
Exchange Rate	2.33	1.22	1	4

Inflation, interest rate, and income converted to natural logarithms.

**Table A.3: List of 16 Latin American Countries**

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Argentina	Colombia	Guatemala	Panama
Bolivia	Costa Rica	Honduras	Peru
Brazil	Ecuador	Mexico	Uruguay
Chile	El Salvador	Nicaragua	Venezuela

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*Note: Panel data covers these 16 countries from 1961-2011.*

**Table A.4: AR(1) Fixed Effects Regressions without Lagged Dependent Variables**

<i>Dependent Variable:</i>	Fiscal (2)	Fiscal (4)	Fiscal (5)	Inflation (2)	Inflation (4)	Inflation (5)	Growth (2)	Growth (4)	Growth (5)
Elections	-1.035*** (0.262)	-1.042*** (0.256)	-1.027*** (0.263)	0.048 (0.065)	-0.031 (0.065)	0.028 (0.069)	0.540 (0.417)	0.563 (0.415)	0.631 (0.423)
Bond Financing	0.720 (0.996)	0.830 (1.024)	0.821 (1.054)	-0.781** (0.393)	-0.815** (0.390)	-0.859** (0.397)	0.459 (1.192)	-0.228 (1.228)	0.211 (1.286)
Elections * Bonds	1.263** (0.616)	1.270** (0.616)	1.284** (0.630)	-0.340** (0.163)	-0.333** (0.164)	-0.345** (0.173)	-1.873** (0.999)	-1.942* (0.995)	-2.208** (1.027)
Observations	366	366	354	416	416	399	370	370	355
R <sup>2</sup>	0.16	0.17	0.19	0.25	0.26	0.27	0.59	0.60	0.61

*Note: The lagged dependent variables in Model 2 and Models 4-5 from Table 1-3 in the main text are replaced by an AR(1) fixed effects specification.*

*Standard errors in parentheses; \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$*

**Table A.5: Specification Tests for GMM estimation**

<i>Dependent Variable:</i>	Fiscal	Fiscal	Fiscal	Inflation	Inflation	Inflation	Growth	Growth	Growth
	(6)	(7)	(8)	(6)	(7)	(8)	(6)	(7)	(8)
Elections	-1.096*** (0.305)	-1.159*** (0.308)	-1.068*** (0.299)	-0.013 (0.063)	-0.018 (0.065)	-0.030 (0.059)	0.664* (0.361)	0.723** (0.360)	0.563 (0.357)
Bond Financing	1.213** (0.593)	1.044** (0.505)	0.840 (0.592)	-0.555** (0.258)	-0.649** (0.299)	-0.479* (0.247)	0.774 (1.473)	1.363 (1.650)	0.821 (1.406)
Elections * Bonds	1.247* (0.650)	1.281** (0.636)	1.181* (0.616)	-0.346** (0.169)	-0.370** (0.184)	-0.349** (0.155)	-2.171** (0.985)	-2.216** (1.030)	-1.977** (0.979)
Serial correlation tests (p-value)									
AR(1)	(0.010)	(0.014)	(0.015)	(0.018)	(0.023)	(0.009)	(0.004)	(0.004)	(0.004)
AR(2)	(0.485)	(0.461)	(0.359)	(0.293)	(0.309)	(0.927)	(0.192)	(0.227)	(0.124)
Overidentifying restrictions (p-value)									
Sargan test	(0.131)	(0.121)	(0.255)	(0.190)	(0.149)	(0.139)	(0.121)	(0.145)	(0.114)

*Note: Specification tests for Model 6-8 in Table 1-3; reported estimates, with the exception of the Sargan tests, are based on GMM estimates robust to heteroskedasticity.*

**Table A.6: Specification Tests for GMM estimation (with Predetermined Variables)**

<i>Dependent Variable:</i>	Fiscal (6)	Fiscal (7)	Fiscal (8)	Inflation (6)	Inflation (7)	Inflation (8)	Growth (6)	Growth (7)	Growth (8)
Elections	-1.139*** (0.325)	-1.191*** (0.331)	-1.101*** (0.297)	-0.012 (0.053)	-0.015 (0.056)	-0.031 (0.051)	0.712** (0.321)	0.775** (0.309)	0.619 (0.378)
Bond Financing	1.083* (0.596)	0.897* (0.476)	1.165 (0.816)	-0.518** (0.255)	-0.616** (0.291)	-0.488** (0.241)	-0.106 (1.176)	0.307 (1.311)	-0.206 (1.143)
Elections * Bonds	1.105* (0.661)	1.143* (0.679)	1.070* (0.630)	-0.403*** (0.148)	-0.431*** (0.157)	-0.385*** (0.135)	-2.177** (0.929)	-2.208** (0.941)	-2.075** (0.844)
Serial correlation tests (p-value)									
AR(1)	(0.009)	(0.013)	(0.006)	(0.007)	(0.008)	(0.002)	(0.003)	(0.003)	(0.004)
AR(2)	(0.713)	(0.650)	(0.925)	(0.424)	(0.527)	(0.991)	(0.216)	(0.250)	(0.123)
Overidentifying restrictions (p-value)									
Sargan test	(0.228)	(0.227)	(0.141)	(0.295)	(0.207)	(0.279)	(0.201)	(0.231)	(0.116)

*Note: Main regression results and specification tests for Model 6-8 in Table 1-3, employing the lagged levels of predetermined regressors as instruments.*

*Predetermined regressors include public debt, interest rates, fiscal balances, the output gap, inflation, growth, and unemployment.*

*Reported estimates, with the exception of the Sargan tests, are based on GMM estimates robust to heteroskedasticity.*

Table A.7: The Effect of Elections on Fiscal Balances (16 Latin American Countries)

	(1)	(2)	(3)	(4)	(5)
	FISC	FISC/Pre-95	FISC/Post-95	FISC	FISC
Elections	-1.034*** (0.297)	-1.543*** (0.592)	-0.662*** (0.139)	-1.036*** (0.294)	-1.019*** (0.296)
Bond Financing	0.950** (0.483)	2.858** (1.376)	1.195* (0.687)	0.795 (0.584)	0.651 (0.572)
Elections*Bonds	1.174* (0.614)	2.566* (1.348)	0.651** (0.315)	1.184* (0.618)	1.211** (0.610)
Global Growth	0.315*** (0.087)	0.149 (0.203)	0.334*** (0.093)	0.319*** (0.087)	0.318*** (0.087)
Terms of Trade (t-1)	0.596*** (0.227)	1.771*** (0.572)	0.465*** (0.078)	0.588*** (0.227)	0.623*** (0.226)
Inflation	0.401* (0.208)	0.365 (0.228)	0.813*** (0.155)	0.406** (0.207)	0.412** (0.207)
Output Gap (t-1)	0.030 (0.038)	0.033 (0.095)	0.014 (0.031)	0.035 (0.041)	0.031 (0.037)
Interest Rate (t-1)	-0.318** (0.129)	-0.570* (0.336)	-0.751*** (0.173)	-0.298** (0.135)	-0.340*** (0.124)
Unemployment (t-1)	-0.084* (0.046)	-0.452*** (0.129)	0.016 (0.045)	-0.088** (0.040)	-0.074 (0.045)
Ext. Public Debt (t-1)	-0.003* (0.002)	-0.015*** (0.003)	-0.002 (0.004)	-0.003* (0.002)	-0.003* (0.002)
Fiscal Balance (t-1)	0.366*** (0.125)	0.220 (0.151)	0.473*** (0.062)	0.366*** (0.124)	0.362*** (0.125)
Income (t-1)	-3.385*** (0.873)	-7.174** (3.387)	-3.704*** (1.294)	-3.760*** (0.958)	-3.073*** (0.851)
Exec. Constraints	0.282*** (0.092)	0.400** (0.168)	0.215** (0.093)	0.278*** (0.097)	0.281*** (0.085)
Left Governments	0.548** (0.233)	-1.023 (1.167)	0.352* (0.186)	0.530** (0.246)	0.547** (0.219)
Year				0.017 (0.030)	
Brady Restructuring					0.637 (0.402)
Observations	357	125	232	357	357

Standard errors in parentheses

Regressions based on Model 3 from Table 1 of the main text.

Differenced-GMM estimator, with first differences, robust standard errors, and 1 lag of the dependent variable.

Employs all of the available lags in levels of the lagged dependent variable as instruments.

Year=year effects

\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$



Table A.8: The Effect of Elections on Inflation (16 Latin American Countries)

	(1)	(2)	(3)	(4)	(5)
	CPI	CPI/Pre-95	CPI/Post-95	CPI	CPI
Elections	0.002 (0.061)	-0.028 (0.082)	-0.087* (0.052)	0.031 (0.065)	0.001 (0.060)
Bond Financing	-0.774** (0.311)	-1.052* (0.631)	-0.185 (0.234)	-0.490 (0.321)	-0.798*** (0.294)
Elections*Bonds	-0.343** (0.173)	-0.110 (0.422)	-0.195 (0.155)	-0.358** (0.175)	-0.336* (0.172)
Global Growth	0.067*** (0.018)	0.044 (0.056)	0.041*** (0.011)	0.060*** (0.020)	0.067*** (0.018)
Terms of Trade	0.287** (0.132)	0.661*** (0.227)	0.158 (0.103)	0.232 (0.141)	0.289** (0.132)
Trade Openness	0.001 (0.003)	0.016* (0.009)	0.002 (0.002)	0.006* (0.003)	0.001 (0.003)
Financial Depth (t-1)	0.008* (0.005)	0.025*** (0.008)	0.000 (0.001)	0.011** (0.005)	0.008* (0.005)
Fiscal Balance (t-1)	-0.037*** (0.007)	-0.045** (0.019)	0.016 (0.014)	-0.027*** (0.007)	-0.037*** (0.007)
Growth (t-1)	0.008*** (0.003)	-0.002 (0.008)	0.001 (0.004)	0.006* (0.004)	0.008*** (0.003)
Ext. Public Debt (t-1)	0.000 (0.000)	0.001* (0.001)	0.002** (0.001)	0.000 (0.000)	0.000 (0.000)
Inflation (t-1)	0.918*** (0.076)	0.654*** (0.101)	0.606*** (0.099)	0.877*** (0.068)	0.917*** (0.076)
Inflation (t-2)	-0.135* (0.072)	-0.100 (0.111)	-0.067 (0.047)	-0.140** (0.068)	-0.137* (0.072)
Year				-0.022*** (0.004)	
Brady Restructuring					0.065 (0.104)
Observations	414	160	254	414	414

Standard errors in parentheses

Regressions based on Model 3 from Table 2 of the main text.

Differenced-GMM estimator, with first differences, robust standard errors, and 2 lags of the dependent variable.

Employs all of the available lags in levels of the lagged dependent variables as instruments.

Year=year effects

\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

Table A.9: The Effect of Elections on Economic Growth (16 Latin American Countries)

	(1)	(2)	(3)	(4)	(5)
	GDP	GDP/Pre-95	GDP/Post-95	GDP	GDP
Elections	0.505 (0.374)	1.419** (0.659)	0.387* (0.217)	0.460 (0.368)	0.490 (0.370)
Bond Financing	1.069 (1.368)	1.239 (1.447)	0.392 (1.338)	-0.073 (1.436)	0.640 (1.396)
Elections*Bonds	-1.727** (0.801)	-4.223*** (1.592)	-1.268* (0.659)	-1.670** (0.749)	-1.598** (0.805)
Global Growth	0.428*** (0.096)	0.051 (0.269)	0.408*** (0.077)	0.446*** (0.086)	0.425*** (0.096)
Terms of Trade	0.018 (0.275)	-0.963 (0.602)	-0.418* (0.231)	0.264 (0.278)	0.037 (0.267)
Trade Openness	0.023* (0.013)	-0.072 (0.050)	0.052*** (0.011)	0.002 (0.020)	0.027** (0.013)
Domestic Investment	0.143*** (0.030)	0.158*** (0.038)	0.158*** (0.019)	0.148*** (0.029)	0.143*** (0.030)
Fiscal Balance (t-1)	0.116** (0.049)	-0.059 (0.064)	-0.069 (0.067)	0.087** (0.039)	0.112** (0.048)
Inflation (t-1)	-0.112 (0.218)	-0.096 (0.275)	0.174 (0.259)	0.031 (0.209)	-0.159 (0.222)
Ext. Public Debt (t-1)	0.000 (0.001)	0.010** (0.004)	0.004 (0.005)	0.001 (0.002)	0.000 (0.001)
Growth (t-1)	0.224*** (0.044)	0.213*** (0.065)	0.144*** (0.027)	0.235*** (0.043)	0.220*** (0.045)
Growth (t-2)	-0.024 (0.042)	-0.071 (0.050)	-0.009 (0.054)	-0.019 (0.042)	-0.027 (0.043)
Year				0.079** (0.037)	
Brady Restructuring					0.972*** (0.343)
Observations	370	134	236	370	370

Standard errors in parentheses

Regressions based on Model 3 from Table 3 of the main text.

Differenced-GMM estimator, with first differences, robust standard errors, and 2 lags of the dependent variable.

Employs all of the available lags in levels of the lagged dependent variables as instruments.

Year=year effects

\* $p < 0.10$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

**Figure A.1: Latin American Presidential Elections  
(16 Latin American Countries, 1961-2011)**

