Appendix 1: Classification of Budgetary Expenditures in the IMF Dataset

MAIN CATEGORY	SUB-CATEGORY
General Public Services	
Defense	
Education	Schools
	Universities and Colleges
Health	Hospital and Clinics
	Individual Health Services
Social Security and Welfare	Social Security and Assistance
	Welfare Spending
Housing and Community Amenities	Housing
	Community Development
	Sanitary Service
Other Community and Social Services	
Economic Services	Electricity, Gas, and Water
	Agriculture, Forestry, Fishing, and Hunting
	Mining, Manufacturing, and Construction
	Roads
	Transportation and Communication
Others	

Appendix 2: Estimation Results from Panel Unit Root Tests

Social Welfare Spending				
Deterministics Chosen	Coefficient	t-value	t*	p
Constant	-0.233	-5.597	0.903	0.817
Constant, Trend	-0.600	-11.022	-0.821	0.205
None	-0.042	-3.137	-3.006	0.001

District-Specific Spending				
Deterministics Chosen	Coefficient	t-value	t*	p
Constant	-0.246	-6.308	-0.525	0.299
Constant, Trend	-0.613	-12.102	-2.397	0.008
None	-0.054	-4.064	-3.889	0.0001

Note: Levin-Lin-Chu test: augmented by 1 lag.

H_0: Nonstationarity

Coefficient: Coefficient on lagged levels.

t-value: t-value of coefficient.

t*: transformed t-value. t* $\sim$N(0, 1)

p: p-value of t*

Appendix 3: Alternative Measurement and Model Specification

	Model 5: Alternative Model	Model 6: Alternative Model with Fixed Effects
SWS_{t-1}	-0.031***	-0.072***
	[0.011]	[0.020]
ELE_t	0.542	0.480
	[0.381]	[0.379]
ELE_{t-1}	0.798**	0.721**
	[0.373]	[0.366]
SMD_t	0.958***	-2.021
	[0.289]	[1.451]
$SMD \times (ELE_t + ELE_{t-1})$	-0.978***	-1.093***
	[0.359]	[0.356]
$RANGE_t$	0.201*	0.154
	[0.112]	[0.130]
$RANGE \times (ELE_t + ELE_{t-1})$	-0.312*	-0.282*
	[0.174]	[0.174]
ΔPOSIT	0.149	0.113
	[0.129]	[0.125]
$POSIT_{t-1}$	0.144	0.154
	[0.089]	[0.097]
ΔUE	0.176*	0.136
	[0.091]	[0.087]
UE_{t-1}	-0.106***	-0.155***
	[0.035]	[0.040]
ΔPOP1565	0.311	0.136
	[0.292]	[0.299]
$POP1565_{t-1}$	0.063**	0.125
	[0.027]	[0.079]
ΔINF	-0.051***	-0.049***
	[0.017]	[0.016]
INF_{t-1}	-0.035***	-0.025**
	[0.012]	[0.012]
ΔlnCGDP	0.205	0.168
	[0.886]	[0.862]
$lnCGDP_{t-1}$	0.332**	0.703***
	[0.145]	[0.262]
Constant	-3.644*	
	[2.068]	
N	547	547

Notes: The dependent variable = ΔSWS. Panel-corrected standard errors in parentheses. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$. All tests are two-tailed. The individual country coefficients (including the constant) in the fixed-effects model are omitted in the interest of space.

Appendix 4: Robustness Checks for Social Welfare Spending Cycles

	Model 7: Endogeneity	Model 8: Exchange Rate Regimes
SWS_{t-1}	-0.038***	-0.033***
	[0.013]	[0.012]
Residuals	-0.828	
	[0.567]	
ΔELE	-0.201	-0.208
	[0.214]	[0.199]
ELE_{t-1}	1.585**	1.002*
	[0.708]	[0.61]
SMD_{t-1}	0.894***	0.868***
	[0.274]	[0.250]
$SMD \times ELE_{t-1}$	-1.324***	-1.323***
	[0.472]	[0.453]
VP_{t-1}	0.373	0.320
	[0.253]	[0.250]
$VP \times ELE_{t-1}$	-0.874	-0.973*
	[0.581]	[0.534]
Exchange Rate_{t-1}		-0.302
		[0.240]
Exchange $\text{Rate} \times ELE_{t-1}$		-0.090
		[0.446]
ΔPOSIT	0.077	0.100
	[0.161]	[0.131]
$POSIT_{t-1}$	0.118	0.115
	[0.101]	[0.092]
ΔUE	0.117	0.139
	[0.107]	[0.095]
UE_{t-1}	-0.107***	-0.101***
	[0.040]	[0.035]
ΔPOP1565	0.208	0.335
	[0.333]	[0.294]
$POP1565_{t-1}$	0.006	0.045*
	[0.045]	[0.027]
ΔINF	-0.054***	-0.048***
	[0.019]	[0.017]
INF_{t-1}	-0.033***	-0.029**
	[0.012]	[0.013]
ΔlnCGDP	0.058	0.051
	[1.054]	[0.901]
$lnCGDP_{t-1}$	0.294	0.252*
	[0.187]	[0.146]
Constant	-1.156	-1.978
	[2.807]	[2.126]
N	451	547

Notes: The dependent variable = ΔSWS. Panel-corrected standard errors in parentheses. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$. All tests are two-tailed.

Appendix 5: Robustness Checks for District-Specific Spending Cycles

	Model 9: Endogeneity	Model 10: Exchange Rate Regimes
DSS_{t-1}	-0.064***	-0.051***
	[0.014]	[0.013]
Residuals	0.110	
	[0.411]	
ΔELE	0.218	0.201
	[0.187]	[0.174]
ELE_{t-1}	0.857**	.1.079**
	[0.417]	[0.430]
PR_{t-1}	0.028	0.057
	[0.232]	[0.214]
$PR\times ELE_{t-1}$	-0.771**	-0.781**
	[0.333]	[0.306]
VP_{t-1}	0.043	0.006
	[0.196]	[0.188]
$VP\times ELE_{t-1}$	-0.306	-0.317
	[0.414]	[0.399]
Exchange $Rate_{t-1}$		-0.138
		[0.161]
Exchange $Rate\times ELE_{t-1}$		-0.339
		[0.359]
ΔlnED	-0.243	-0.268
	[0.373]	[0.361]
$lnED_{t-1}$	-0.077	-0.044
	[0.055]	[0.050]
ΔPOSIT	0.137	0.027
	[0.116]	[0.100]
$POSIT_{t-1}$	0.012	-0.015
	[0.062]	[0.062]
ΔINF	0.027	0.045
	[0.032]	[0.028]
INF_{t-1}	0.025	0.028
	[0.020]	[0.019]
ΔlnCGDP	0.201	0.573
	[0.736]	[0.655]
$lnCGDP_{t-1}$	0.145	0.100
	[0.168]	[0.138]
Constant	-0.845	-0.657
	[1.704]	[1.419]
N	451	547

Notes: The dependent variable = ΔDSS. Panel-corrected standard errors in parentheses. *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$. All tests are two-tailed.

Appendix 6: Summary Statistics

	N	Mean	Standard Deviation	Minimum	Maximum
ΔSWS	551	.150	1.739	-15.692	10.220
SWS_{t-1}	551	36.328	10.251	7.922	64.175
ΔDSS	551	-.268	1.386	-8.980	6.806
DSS_{t-1}	551	12.297	5.883	.77	33.47445
ΔELE	551	-.008	.525	-2.047	1.655
ELE_{t-1}	551	.296	.353	0	2.180
SMD_{t-1}	551	.289	.453	0	1
$SMD\times ELE_{t-1}$	551	.084	.239	0	2.180
VP_{t-1}	547	.696	.460	0	1
$VP\times ELE_{t-1}$	547	.207	.325	0	2.180
$RANGE_t$	547	1.202	1.044	0	4.597
$RANGE\times(ELE_t+ELE_{t-1})$	547	.693	.895	0	6.096517
Exchange $Rate_{t-1}$	551	.428	.495	0	1
Exchange $Rate\times ELE_{t-1}$	551	.129	.277	0	2.127
ΔPOSIT	551	-.013	.655	-2.996	3.102
$POSIT_{t-1}$	551	-.124	1.038	-2.269	2.122
ΔINF	551	-.260	4.166	-55.1	33.3
INF_{t-1}	551	7.311	8.062	-16.7	84.3
ΔlnCGDP	551	.063	.109	-.293	.379
$lnCGDP_{t-1}$	551	9.437	.655	7.512	10.725
ΔUE	551	.122	1.019	-2.759	5.097
UE_{t-1}	551	6.338	3.959	.003	20.151
ΔPOP1565	551	-.147	.268	-1.228	.684
$POP1565_{t-1}$	551	34.201	3.100	23.884	42.220
ΔlnED	551	.008	.168	-1.596	2.697
$lnED_{t-1}$	551	4.689	1.646	1	7.490