

# Supplementary Materials for “Government Choices of Debt Instruments”, Rosendorff and Mosley

## SM1 Variable Descriptions

**Bilateral Credit (share of official credit)** Bilateral debt includes loans from governments and their agencies (including central banks), loans from autonomous bodies, and direct loans from official export credit agencies as a share of total official credit. Source: International Debt Statistics, hosted by The World Bank.

**Bonds Credit (share of private credit)** Public and publicly guaranteed debt from bonds that are either publicly issued or privately placed as a share of total private credit. Source: International Debt Statistics, hosted by The World Bank.

**Bonds Credit (share of bonds and banks credit)** Public and publicly guaranteed debt from bonds that are either publicly issued or privately placed as a share of bond and commercial banks credit. Source: International Debt Statistics, hosted by The World Bank.

**Debt Crisis** Indicator on whether a given country undergoes a debt crises on a given year. Source: [Laeven and Valencia \(2018\)](#).

**Domestic Lending Rate** The bank rate that usually meets the short- and medium-term financing need of the private sector. Source: Source: World Development Indicators, hosted by The World Bank.

**Democracy** Polity 2 Score (from -10 to +10.) Source: Polity IV

**Economic Transparency (E-HRV)** Measures the disclosure of economic policy-relevant information —i.e., credible aggregate economic data— by the government to the public based on the reporting of countries with respect to 142 economic related variables from the World Bank’s *World Development Indicators* (WDI); it summarizes such disclosure on a single dimension via an item response model for a given country on a given year.

**External debt (% of GNI)** External debt stocks as a share of GNI. Source: World Development Indicators, hosted by The World Bank.

**Financial System Deposits (% of GDP)** Demand, time and saving deposits in deposit money banks and other financial institutions as a share of GDP. Source: Global Financial Development Database, The World Bank.

**Foreign Aid** Natural log of the net official development assistance received. Source: World Development Indicators, hosted by The World Bank.

**FDI Inflows** Foreign direct investment, net inflows as a share of GDP. Source: World Development Indicators, hosted by The World Bank.

**Freedom of Information Law** Dichotomous indicator on whether a country has an FOI law in place in a given year. Source: [Chaitanya Vadlamannati and de Soysa \(2018\)](#).

**Information Transparency (AW)** This measure uses 13 separate indicators for the Information Transparency Index (six for the quantity of information, four for the processes that generate that information, and three for the infrastructure required to disseminate that information). Source: [Williams \(2015\)](#).

**Left** Indicator for left-leaning ideology of the incumbent on a given year. Source: Database of Political Institutions. It is based on the party orientation with respect to economic policy, coded based on the description of the party. Left stands for parties that are defined as communist, socialist, social democratic, or left-wing. Source: Database of Political Institutions.

**GDP** Natural log of the total GDP. Source: World Development Indicators, hosted by The World Bank.

**GDP Growth** Annual rate of GDP growth (in %). Source: World Development Indicators, hosted by The World Bank.

**GDP per capita** Natural log of the GDP per capita. Source: World Development Indicators, hosted by The World Bank.

**Natural resource rents** Total natural resources rents as a share of GDP. Source: World Development Indicators, hosted by The World Bank.

**Open Budget Index** A measure of whether governments give public access to budget information and opportunities to participate in the budget process at the national level, based on expert surveys. Source: <http://survey.internationalbudget.org/#home>

**Private Credit (share of total credit)** Public and publicly guaranteed debt from private creditors include bonds that are either publicly issued or privately placed; commercial bank loans from private banks and other private financial institutions; and other private credits from manufacturers, exporters, and other suppliers of goods, and bank credits covered by a guarantee of an export credit agency as a share of total public and publicly guaranteed debt. Source: International Debt Statistics, hosted by The World Bank.

**Right** Indicator for right-leaning ideology of the incumbent on a given year. It is based on the party orientation with respect to economic policy, coded based on the description of the party. Right stands for parties that are defined as conservative, Christian democratic, or

right-wing. Source: Database of Political Institutions.

**SDDS Subscription** Takes a value of 1 the year after the date of subscription and 0 otherwise, with the following exception: we code the first year of subscription as the proportion of the year during which the country subscribes. For example, Argentina subscribed on August 16, 1996; hence `SDDS SUBSCRIPTION= 0.62` in 1996. Subscriptions dates coded from <http://dsbb.imf.org/Pages/SDDS/DateOfSubscription.aspx>

**Trade (% of GDP)** Total imports plus total exports as a share of total GDP. Source: World Development Indicators, hosted by The World Bank.

**Transparency (HRV)** Measures the disclosure of policy-relevant information —i.e., credible aggregate economic data— by the government to the public based on the reporting of countries with respect to 240 variables from the World Bank’s *World Development Indicators* (WDI); it summarizes such disclosure on a single dimension via an item response model for a given country on a given year. Source: [Hollyer, Rosendorff, and Vreeland \(2014\)](#)

**UN Ideal Point difference with US** Difference in Ideal Point estimates between a given country and the US on a given year, based on UN Voting Ideal Points from [Bailey, Strezhnev, and Voeten \(2017\)](#).

**UNSC membership** indicator on whether the country is a member of the UN Security Council on a given year. Source: [Dreher, Sturm, and Vreeland \(2009\)](#).

**US Federal Funds Rate** Yearly average of the US Federal Funds rate. Source: Board of Governors of the Federal Reserve System.

**US Troops** Natural log of the total number of US Troops on a country on a given year. Source: [Aklin and Kern \(2019\)](#)

## SM2 Supplementary Tables

Table SM1: **Transparency and private types of borrowing**

	Bonds Credit (as a share of Bonds & Banks credit)			
	(1)	(2)	(3)	(4)
Transparency Index [HRV]	0.044* (0.024)	0.044 (0.027)	0.091*** (0.015)	0.044* (0.023)
GDP per capita		0.207 (0.234)	0.495** (0.190)	0.495 (0.298)
GDP		-0.212 (0.255)	-0.587*** (0.200)	-0.552* (0.289)
GDP Growth		0.000 (0.001)	0.002 (0.001)	0.002 (0.002)
Trade (% of GDP)		0.000 (0.001)	-0.000 (0.001)	0.000 (0.001)
FDI Inflows			0.003 (0.005)	0.004 (0.006)
Natural Resource Rents			-0.005** (0.002)	-0.002 (0.003)
Foreign Aid			-0.007 (0.005)	-0.007 (0.007)
Debt Crisis			-0.083** (0.036)	-0.094** (0.042)
External debt (% of GNI)			0.000 (0.000)	0.000 (0.000)
Democracy			0.002 (0.005)	0.010* (0.006)
Right			0.007 (0.050)	-0.021 (0.047)
Left			0.011 (0.046)	-0.026 (0.060)
Domestic Lending Rate				-0.001*** (0.000)
Financial System Deposits				-0.002
Observations	1417	1307	1204	846
$R^2$	0.24	0.26	0.33	0.26
Countries	80	78	75	65
Outcome mean	0.22	0.22	0.22	0.26
Country FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓

*Notes:* All specifications are estimated using OLS. Standard errors clustered by country are in parentheses. \* denotes  $p < 0.1$ , \*\* denotes  $p < 0.05$ , \*\*\* denotes  $p < 0.01$ .

Table SM2: **Transparency and Types of Borrowing, by Creditor Type: Adding Region specific time-trends**

	Types of Borrowing			
	(1)	(2)	(3)	(4)
<b>Panel A: Bonds Credit (as a share of total private credit)</b>				
Transparency (HRV)	0.055*** (0.021)	0.090*** (0.016)		
Transparency (HRV) × US FFR	-0.004 (0.002)	-0.007*** (0.002)		
Transparent × US FFR			-0.012** (0.005)	-0.013*** (0.003)
Observations	1,762	1,472	2,597	2,039
$R^2$	0.55	0.58	0.51	0.53
Countries	85	79	85	80
Outcome mean	0.16	0.16	0.15	0.16
<b>Panel B: Bilateral Credit (as a share of total official credit)</b>				
Transparency (HRV)	-0.023** (0.010)	-0.021** (0.010)		
Transparency (HRV) × US FFR	0.002** (0.001)	0.003* (0.002)		
Transparent × US FFR			0.007** (0.003)	0.004 (0.003)
Observations	2,554	2,132	3,628	2,861
$R^2$	0.43	0.43	0.38	0.44
Countries	88	82	88	83
Outcome mean	0.10	0.09	0.10	0.10
Year FE	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Region time-trends	✓	✓	✓	✓
Covariates		✓		✓

*Notes:* All specifications are estimated using OLS. Covariates are GDP per capita, GDP, growth, trade, FDI inflows, natural resource rents, foreign aid, debt crisis, external debt, democracy, right and left ideology. Standard errors clustered by country are in parentheses. \* denotes  $p < 0.1$ , \*\* denotes  $p < 0.05$ , \*\*\* denotes  $p < 0.01$ .

Table SM3: **Transparency and private vs. official borrowing**

	Private Credit (as a share of total credit)			
	(1)	(2)	(3)	(4)
Transparency Index [HRV]	0.014 (0.019)	0.009 (0.020)	0.030** (0.012)	0.019 (0.016)
GDP per capita		0.033 (0.176)	0.217* (0.124)	0.245 (0.186)
GDP		0.081 (0.195)	-0.138 (0.123)	-0.185 (0.177)
GDP Growth		-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.002)
Trade (% of GDP)		-0.000 (0.000)	-0.001 (0.000)	-0.001 (0.001)
FDI Inflows			0.003 (0.002)	0.002 (0.002)
Natural Resource Rents			-0.002 (0.002)	-0.001 (0.002)
Foreign Aid			-0.009*** (0.003)	-0.008** (0.003)
Debt Crisis			-0.011 (0.019)	-0.016 (0.028)
External debt (% of GNI)			0.000 (0.000)	0.000 (0.000)
Democracy			0.002 (0.002)	0.001 (0.003)
Right			-0.002 (0.025)	-0.027 (0.032)
Left			-0.010 (0.019)	-0.005 (0.031)
Domestic Lending Rate				0.000 (0.000)
Financial System Deposits				0.001 (0.001)
Observations	2567	2311	2142	1452
$R^2$	0.10	0.13	0.16	0.14
Countries	88	86	82	78
Outcome mean	0.24	0.25	0.24	0.25
Country FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓

*Notes:* All specifications are estimated using OLS. Standard errors clustered by country are in parentheses. \* denotes  $p < 0.1$ , \*\* denotes  $p < 0.05$ , \*\*\* denotes  $p < 0.01$ .

Table SM4: **Transparency and private types of borrowing (liquidity)**

	Bonds Credit (as a share of Bonds & Banks credit)			
	(1)	(2)	(3)	(4)
Transparency Index [HRV]	0.074*** (0.025)	0.059** (0.024)		
Transparency Index [HRV] $\times$ US Fed. Funds Rate	-0.009*** (0.002)	-0.005* (0.003)		
Transparent $\times$ US Fed. Funds Rate			-0.026*** (0.005)	-0.006 (0.006)
Observations	1417	846	2056	1036
$R^2$	0.26	0.27	0.29	0.26
Countries	80	65	83	67
Outcome mean	0.22	0.26	0.21	0.28
Year FE	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Covariates		✓		✓

*Notes:* All specifications are estimated using OLS. Covariates are GDP per capita, GDP, growth, trade, FDI inflows, natural resource rents, foreign aid, debt crisis, external debt, democracy, right and left ideology, domestic lending rates and financial system deposits. Standard errors clustered by country are in parentheses. \* denotes  $p < 0.1$ , \*\* denotes  $p < 0.05$ , \*\*\* denotes  $p < 0.01$ .

Table SM5: **Transparency and types of borrowing, by creditor category: Binary measure with Interaction**

	Types of Borrowing			
	(1)	(2)	(3)	(4)
<b>Panel A: Any Bond Credit</b>				
Transparency (HRV)	0.073*** (0.027)	0.098*** (0.022)		
Transparency (HRV) $\times$ US FFR	-0.003 (0.002)	-0.004 (0.003)		
Transparent $\times$ US FFR			-0.015** (0.006)	-0.013** (0.006)
Observations	1,763	1,472	2,598	2,039
$R^2$	0.13	0.16	0.14	0.14
Countries	86	79	86	80
Outcome mean	0.27	0.29	0.27	0.30
<b>Panel B: Any Bilateral Credit</b>				
Transparency (HRV)	-0.045*** (0.009)	-0.032*** (0.012)		
Transparency (HRV) $\times$ US FFR	0.003*** (0.001)	0.004*** (0.001)		
Transparent $\times$ US FFR			0.008*** (0.003)	0.007** (0.003)
Observations	2,554	2,132	3,628	2,862
$R^2$	0.22	0.22	0.20	0.24
Countries	88	82	88	84
Outcome mean	0.10	0.09	0.10	0.10
Year FE	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Covariates		✓		✓

*Notes:* All specifications are estimated using OLS. Covariates are GDP per capita, GDP, growth, trade, FDI inflows, natural resource rents, foreign aid, debt crisis, external debt, democracy, right and left ideology. Standard errors clustered by country are in parentheses. \* denotes  $p < 0.1$ , \*\* denotes  $p < 0.05$ , \*\*\* denotes  $p < 0.01$ .



Table SM6: **Economic transparency, liquidity and types of borrowing, by creditor category**

	Types of Borrowing			
	(1)	(2)	(3)	(4)
<b>Panel A: Bonds Credit (as a share of total private credit)</b>				
Econ. Transparency	0.087*** (0.022)	0.113*** (0.017)		
Econ. Transparency × US Federal Funds Rate	-0.007** (0.003)	-0.009*** (0.003)		
Econ. Transparent × US Federal Funds Rate			-0.025*** (0.005)	-0.023*** (0.003)
Observations	1,763	1,472	2,598	2,039
$R^2$	0.26	0.34	0.30	0.27
Countries	86	79	86	80
Outcome mean	0.16	0.16	0.15	0.16
<b>Panel B: Bilateral Credit (as a share of total official credit)</b>				
Econ. Transparency	-0.049*** (0.010)	-0.039*** (0.012)		
Econ. Transparency × US Federal Funds Rate	0.005*** (0.001)	0.006*** (0.002)		
Econ. Transparent × US Federal Funds Rate			0.008*** (0.003)	0.012*** (0.002)
Observations	2,554	2,132	3,628	2,862
$R^2$	0.22	0.23	0.20	0.18
Countries	88	82	88	84
Outcome mean	0.10	0.09	0.10	0.10
Year FE	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Covariates		✓		✓

*Notes:* All specifications are estimated using OLS. Covariates are GDP per capita, GDP, growth, and trade, FDI inflows, natural resource rents, foreign aid, debt crisis, external debt, democracy, right and left ideology. Standard errors clustered by country are in parentheses. \* denotes  $p < 0.1$ , \*\* denotes  $p < 0.05$ , \*\*\* denotes  $p < 0.01$ .

Table SM7: **SDDS, liquidity and types of borrowing, by creditor category**

	Types of Borrowing			
	(1)	(2)	(3)	(4)
<b>Panel A: Bonds Credit (as a share of total private credit)</b>				
SDDS subscription	0.267*** (0.060)	0.223*** (0.060)		
SDDS subscription × US Federal Funds Rate	-0.008 (0.014)	-0.004 (0.013)		
SDDS sub. × US FFR			-0.025*** (0.005)	-0.017*** (0.006)
Observations	3,062	2,213	3,062	2,213
$R^2$	0.28	0.32	0.27	0.31
Countries	119	99	119	99
Outcome mean	0.14	0.16	0.14	0.16
<b>Panel B: Bilateral Credit (as a share of total official credit)</b>				
SDDS subscription	-0.060** (0.026)	-0.038 (0.031)		
SDDS subscription × US Federal Funds Rate	-0.000 (0.005)	-0.003 (0.005)		
SDDS sub. × US FFR			0.006** (0.003)	0.001 (0.004)
Observations	4,646	3,237	4,646	3,237
$R^2$	0.14	0.21	0.14	0.20
Countries	121	105	121	105
Outcome mean	0.10	0.10	0.10	0.10
Outcome std. dev.	0.18	0.17	0.18	0.17
Year FE	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Covariates		✓		✓

*Notes:* All specifications are estimated using OLS. Covariates are GDP per capita, GDP, growth, trade, FDI inflows, natural resource rents, foreign aid, debt crisis, external debt, democracy, right and left ideology. Standard errors clustered by country are in parentheses. \* denotes  $p < 0.1$ , \*\* denotes  $p < 0.05$ , \*\*\* denotes  $p < 0.01$ .

Table SM8: **Williams's (2015) Transparency, liquidity and types of borrowing, by creditor category (1980-2010)**

		Types of Borrowing		
	(1)	(2)	(3)	(4)
<b>Panel A: Bonds Credit (as a share of total private credit)</b>				
Information Transparency [AW]	0.012*** (0.002)	0.011*** (0.003)		
Information Transparency [AW] × US Federal Funds Rate	-0.002*** (0.000)	-0.001*** (0.000)		
Transparent [AW] × US Federal Funds Rate			-0.028*** (0.004)	-0.022*** (0.004)
Observations	2,062	1,574	3,005	2,183
$R^2$	0.25	0.31	0.28	0.31
Countries	117	96	117	97
Outcome mean	0.15	0.16	0.15	0.17
<b>Panel B: Bilateral Credit (as a share of total official credit)</b>				
Information Transparency [AW]	-0.005*** (0.002)	-0.003** (0.001)		
Information Transparency [AW] × US Federal Funds Rate	0.001*** (0.000)	0.001*** (0.000)		
Transparent [AW] × US Federal Funds Rate			0.011*** (0.003)	0.009*** (0.003)
Observations	3,260	2,388	4,559	3,180
$R^2$	0.15	0.20	0.15	0.22
Countries	119	100	119	103
Outcome mean	0.09	0.10	0.10	0.10
Year FE	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Covariates		✓		✓

*Notes:* All specifications are estimated using OLS. Covariates are GDP per capita, GDP, growth, trade, FDI inflows, natural resource rents, foreign aid, debt crisis, external debt, democracy, right and left ideology. Standard errors clustered by country are in parentheses. \* denotes  $p < 0.1$ , \*\* denotes  $p < 0.05$ , \*\*\* denotes  $p < 0.01$ .

Table SM9: FOI Laws, liquidity and types of borrowing, by creditor category (1980-2013)

	Types of Borrowing			
	(1)	(2)	(3)	(4)
<b>Panel A: Bonds Credit (as a share of total private credit)</b>				
Freedom of Information Law	0.177*** (0.057)	0.156*** (0.059)		
Freedom of Information Law × US Federal Funds Rate	-0.026** (0.012)	-0.014 (0.012)		
FOI Law (ever) × US FFR			-0.021*** (0.005)	-0.018*** (0.005)
Observations	1,933	1,572	3,062	2,213
$R^2$	0.25	0.29	0.27	0.31
Countries	87	81	119	99
Outcome mean	0.17	0.18	0.14	0.16
Outcome std. dev.	0.33	0.33	0.31	0.32
<b>Panel B: Bilateral Credit (as a share of total official credit)</b>				
Freedom of Information Law	-0.056* (0.029)	-0.010 (0.035)		
Freedom of Information LAW × US Federal Funds Rate	0.004 (0.004)	0.003 (0.005)		
FOI Law (ever) × US FFR			0.007** (0.003)	0.004 (0.003)
Observations	2,657	2,181	4,646	3,237
$R^2$	0.18	0.22	0.14	0.21
Countries	88	83	121	105
Outcome mean	0.10	0.10	0.10	0.10
Outcome std. dev.	0.18	0.17	0.18	0.17
Year FE	✓	✓	✓	✓
Country FE	✓	✓	✓	✓
Covariates		✓		✓

*Notes:* All specifications are estimated using OLS. Covariates are GDP per capita, GDP, growth, trade, FDI inflows, natural resource rents, foreign aid, debt crisis, external debt, democracy, right and left ideology. Standard errors clustered by country are in parentheses. \* denotes  $p < 0.1$ , \*\* denotes  $p < 0.05$ , \*\*\* denotes  $p < 0.01$ .