

Internet Appendix:  
Government Debt and Corporate Leverage:  
International Evidence

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Table A1  
Variable definitions

This table details the variable construction for the analysis of the sample. Panel A lists the definitions of Compustat variables. The variable Xpressfeed mnemonics are given in bold font. The country-level variables follow firm-level definitions and the ratio variables are calculated by aggregating the numerator and denominator values separately over all firms in a given year and country. Panel B lists the data sources for and the definitions of macro variables. If a variable is available through two different sources for a country, we use the data source that provides the longest series.

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Panel A: Compustat variables

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Variable	Definition and Compustat item name
Ln(Assets)	$\text{Ln}(\text{Total book assets}) = \text{Ln}(\mathbf{at})$
ROA	Operating income (Before depreciation) / Assets = $\mathbf{oibdp} / \mathbf{at}$
Tangibility	Net PPE / Assets = $\mathbf{ppent} / \mathbf{at}$
Market value of equity	$\text{MVE} = \mathbf{prcc} \times \mathbf{cshoc}$
Market value of assets	$\text{MVA} = \mathbf{at} - \mathbf{ceq} + \text{MVE}$
Market-to-book	MVA / Total book assets
Total debt	Short-term debt + Long-term debt = $\mathbf{dltt} + \mathbf{dlc}$
Book leverage	Total debt / Total book assets = $(\mathbf{dltt} + \mathbf{dlc}) / \mathbf{at}$
Debt-to-capital	Total debt / Total capital = $(\mathbf{dltt} + \mathbf{dlc}) / (\mathbf{ceq} + \mathbf{dltt} + \mathbf{dlc})$
Market leverage	Total debt / MVA

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Panel B: Macro variables

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Variable	Data source	Definition
Government debt-to-GDP	IMF (WEO), Central Banks, World Bank	Gross government debt (% GDP)
GDP per capita	World Bank	GDP per capita (current US\$)
Inflation	World Bank and IMF	Inflation, consumer prices (annual %)
S&P global equity indices	World Bank	US\$ price change in the stock markets
Unemployment rate	World Bank and IMF	Unemployment, total (% of total labor force)
Nominal exchange rate	World Bank and ECB	Official exchange rate (LCU per US\$, period avr.)
External government debt	IMF, World Bank and ECB	Gross external debt (% GDP)
Bank dependence	BIS (Total Credit)	Private nonfinancial sector, banks, market value (% Total)
Market capitalization	World Bank (World Federation of Exchanges)	Market capitalization of listed domestic companies (% GDP)
Equity trading	World Bank (World Federation of Exchanges)	Stocks traded, total value (% GDP)
Central, state and local gov. debt	IMF (Government Finance Statistics)	Gross debt (D4) at market value (% GDP)
Long- and short-term gov. debt	World Bank (Public Debt Statistics)	General gov., all instruments, nominal value (% GDP)

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Table A2  
Country distribution

This table reports the frequency distribution of the countries in our sample. *Max. number of firms* denotes the maximum number of unique firms observed in a year. *Number of observations* is the total number of firm-year observations in a given country. *Min. (Max.) year* is the first (last) year that the country is included in the sample. *Number of years* is the total number of years that the country is observed in the sample.

	Max. number of firms	Number of observations	Min. year	Max. year	Number of years
Argentina	43	261	1998	2014	8
Australia	1,316	16,298	1990	2014	25
Austria	68	1,167	1990	2014	25
Belgium	88	1,518	1990	2014	25
Brazil	161	1,457	2001	2014	13
Canada	1,248	19,875	1990	2014	25
Chile	102	1,285	1997	2014	18
China	2,264	17,195	1996	2014	19
Denmark	108	1,862	1993	2014	22
Finland	110	1,874	1990	2014	25
France	521	9,188	1990	2014	25
Germany	538	8,761	1992	2014	23
Greece	192	2,217	1997	2014	17
Hong Kong	112	1,239	2002	2014	13
India	1,940	14,507	1996	2014	19
Indonesia	293	2,542	2002	2014	12
Ireland	50	905	1990	2014	25
Israel	261	2,126	1998	2014	17
Italy	186	2,920	1990	2014	25
Japan	2,819	53,333	1990	2014	25
Malaysia	736	10,647	1996	2014	19
Mexico	74	1,140	1997	2014	18
Netherlands	149	2,663	1990	2014	25
New Zealand	88	1,278	1992	2014	23
Norway	162	2,274	1990	2014	25
Peru	63	605	2000	2014	15
Philippines	117	1,517	1996	2014	19
Poland	337	2,852	1997	2014	18
Portugal	41	697	1995	2014	20
Russia	115	940	2002	2014	13
Singapore	494	6,921	1991	2014	24
South Africa	222	3,227	1996	2014	19
South Korea	1,124	9,268	1996	2014	19
Spain	96	1,834	1992	2014	23
Sweden	331	4,378	1994	2014	21
Switzerland	168	3,081	1990	2014	25
Thailand	401	5,193	1997	2014	18
Turkey	211	1,840	2001	2014	13
United Kingdom	1,211	22,223	1990	2014	25
United States	5,215	97,182	1990	2014	25
Total	20,305	340,290	1990	2014	25

Table A3  
Summary statistics by country

This table shows the summary statistics for the country-level variables. *Book leverage* is defined as the ratio of total book debt of all firms in a country to sum of their assets. *Debt-to-capital* is the ratio of total corporate debt to total corporate capital (book value of debt plus equity) in each country. *Market leverage* is defined as the ratio of total book debt of all firms in a country to their market value of assets. *Government debt* is gross government debt divided by GDP and *GDP per capita* is measured in current US dollars.  $\ln(\text{CPI index level})$  and  $\ln(\text{S\&P index level})$  are calculated by taking the natural logarithm of the level of S\&P Global Equity Index and the level of CPI. *Unemployment* is measured as a proportion of the labor force and *Exchange rate* is denoted in local currency units per US dollar.

Country	Book leverage	Debt-to-capital	Market leverage	Gov. debt-to-GDP	Ln(GDP per capita)	Ln(CPI index)	Ln(S\&P index)	Unemployment	Ln(Exchange rate)
Argentina	0.27	0.36	0.19	0.39	9.19	5.08	5.08	0.11	0.72
Australia	0.27	0.38	0.18	0.21	10.24	5.02	5.25	0.07	0.29
Austria	0.25	0.43	0.21	0.67	10.37	4.88	4.80	0.05	0.87
Belgium	0.28	0.45	0.21	1.12	10.32	4.89	5.21	0.08	1.30
Brazil	0.31	0.44	0.06	0.66	8.80	22.21	5.81	0.08	0.75
Canada	0.27	0.39	0.20	0.84	10.27	4.93	5.17	0.08	0.22
Chile	0.28	0.37	0.22	0.11	8.94	6.03	4.83	0.08	6.27
China	0.26	0.36	0.22	0.34	7.50	5.59	4.96	0.04	2.03
Denmark	0.27	0.39	0.17	0.51	10.64	4.94	5.64	0.07	1.82
Finland	0.29	0.44	0.18	0.42	10.36	4.92	5.73	0.09	0.51
France	0.27	0.48	0.20	0.61	10.28	4.88	5.15	0.09	0.58
Germany	0.26	0.49	0.20	0.61	10.38	4.92	5.54	0.08	0.05
Greece	0.31	0.45	0.24	1.11	9.86	5.93	5.35	0.12	1.52
Hong Kong	0.17	0.23	0.09	0.01	10.30	5.33	6.28	0.05	2.05
India	0.33	0.46	0.24	0.73	6.58	5.81	5.27	0.04	3.79
Indonesia	0.32	0.43	0.19	0.37	7.57	6.62	4.25	0.08	9.15
Ireland	0.33	0.46	0.18	0.68	10.30	4.96	5.34	0.10	-0.29
Israel	0.34	0.51	0.23	0.80	10.07	5.96	5.40	0.08	1.39
Italy	0.30	0.53	0.26	1.08	10.17	5.10	4.79	0.09	2.81
Japan	0.32	0.49	0.26	1.48	10.47	4.72	3.93	0.04	4.70
Malaysia	0.28	0.38	0.21	0.42	8.64	5.09	4.16	0.03	1.22
Mexico	0.30	0.43	0.21	0.43	8.89	6.87	5.70	0.04	2.36
Netherlands	0.25	0.44	0.15	0.63	10.40	4.88	5.47	0.05	0.13
New Zealand	0.32	0.41	0.17	0.30	9.96	4.96	4.67	0.06	0.48
Norway	0.30	0.46	0.23	0.37	10.80	4.93	5.12	0.04	1.90
Peru	0.24	0.31	0.19	0.36	8.10	15.85	5.66	0.08	1.14
Philippines	0.35	0.47	0.28	0.53	7.24	5.83	3.87	0.09	3.76
Poland	0.22	0.31	0.18	0.46	8.92	10.19	5.32	0.13	1.20
Portugal	0.39	0.59	0.29	0.70	9.69	5.41	5.22	0.09	1.14
Russia	0.20	0.24	0.16	0.19	8.82	11.82	5.37	0.07	3.37
Singapore	0.22	0.32	0.13	0.85	10.22	4.86	5.14	0.03	0.44
South Africa	0.20	0.30	0.11	0.39	8.44	5.96	4.85	0.24	1.92
South Korea	0.33	0.51	0.31	0.23	9.68	5.36	4.74	0.04	6.99
Spain	0.35	0.56	0.23	0.56	9.94	5.19	5.35	0.16	1.56
Sweden	0.25	0.38	0.13	0.51	10.55	5.02	5.78	0.08	2.03
Switzerland	0.25	0.38	0.15	0.52	10.82	4.87	5.75	0.03	0.25
Thailand	0.37	0.49	0.25	0.44	8.01	5.27	3.42	0.02	3.57
Turkey	0.25	0.35	0.18	0.49	8.92	12.51	6.01	0.10	0.34
United Kingdom	0.22	0.35	0.13	0.49	10.27	5.00	5.25	0.07	-0.50
United States	0.28	0.42	0.16	0.68	10.50	5.00	5.54	0.06	0.00
Total	0.28	0.42	0.19	0.58	9.68	6.02	5.15	0.07	1.68

Table A4  
Government debt by sector (Country averages)

This table reports the country averages for the debt-to-GDP ratios of general government and of its subsectors.

	General gov. debt-to-GDP	Central gov. debt-to-GDP	Local and state gov. debt-to-GDP
Australia	0.424	0.260	0.167
Austria	0.791	0.729	0.088
Belgium	1.176	1.060	0.172
Denmark	0.582	0.495	0.103
Finland	0.510	0.492	0.084
Ireland	0.588	0.581	0.028
Italy	1.221	1.153	0.096
Japan	1.559	1.329	0.334
Netherlands	0.664	0.555	0.138
Poland	0.535	0.509	0.042
Portugal	0.859	0.836	0.049
Spain	0.650	0.510	0.153
Sweden	0.631	0.584	0.108
Switzerland	0.458	0.234	0.224
United Kingdom	0.626	0.561	0.109
United States	0.930	0.686	0.281
Total	0.787	0.691	0.133

Table A5  
Net leverage

This table reports the estimation results from our baseline specification with an alternative leverage definition. The dependent variable, *Net leverage*, is defined as total debt net of cash divided by total assets. The remaining variables are defined in the legend of Table 1. All regressions include country- and year-fixed effects. Standard errors are clustered at both the country and year level. “\*”, “\*\*” and “\*\*\*” denote significance at the 10%, 5%, and 1% level, respectively.

	(Total debt <sub>t</sub> - Cash <sub>t</sub> )/Assets <sub>t</sub>
Gov. debt-to-GDP <sub>t-1</sub>	-0.085*** (-3.656)
Ln(GDP per capita <sub>t-1</sub> )	0.022 (0.803)
Ln(CPI index level <sub>t-1</sub> )	-0.019 (-0.494)
Ln(S&P index level <sub>t-1</sub> )	-0.020 (-1.250)
Ln(Exchange rate <sub>t-1</sub> )	-0.015*** (-3.499)
Unemployment rate <sub>t-1</sub>	0.105 (0.940)
Tangibility <sub>t-1</sub>	0.222** (2.338)
Ln(Assets <sub>t-1</sub> )	-0.004 (-0.363)
ROA <sub>t-1</sub>	-0.888*** (-4.786)
Market-to-book <sub>t-1</sub>	-0.001 (-0.691)
Country FE	Yes
Year FE	Yes
Observations	813
Adj. <i>R</i> -squared	0.691

Table A6  
Domestic debt sample

This table reports our baseline estimation results for the subsample used in our domestic and external government debt analysis (Table 5). The variables are defined in the legend of Table 1. All regressions include country- and year-fixed effects. Standard errors are clustered at both the country and year level. “\*”, “\*\*” and “\*\*\*” denote significance at the 10%, 5%, and 1% level, respectively.

	Book leverage <sub>t</sub>	Debt-to-capital <sub>t</sub>	Market leverage <sub>t</sub>
Gov. debt-to-GDP <sub>t-1</sub>	-0.064** (-2.124)	-0.105** (-2.481)	-0.054 (-1.652)
Ln(GDP per capita <sub>t-1</sub> )	0.016 (0.780)	0.053** (2.127)	0.026 (0.882)
Ln(CPI index level <sub>t-1</sub> )	0.033 (0.816)	0.026 (0.488)	-0.030 (-0.528)
Ln(S&P index level <sub>t-1</sub> )	-0.015 (-1.129)	-0.037* (-1.951)	-0.046** (-2.691)
Ln(Exchange rate <sub>t-1</sub> )	-0.011** (-2.627)	-0.008 (-1.160)	-0.011** (-2.574)
Unemployment rate <sub>t-1</sub>	0.255** (2.082)	0.352** (2.312)	0.065 (0.374)
Tangibility <sub>t-1</sub>	0.120* (1.733)	0.012 (0.132)	0.220** (2.578)
Ln(Assets <sub>t-1</sub> )	-0.004 (-0.453)	0.006 (0.568)	-0.011 (-1.168)
ROA <sub>t-1</sub>	-0.801*** (-5.312)	-1.111*** (-4.928)	-1.164*** (-4.193)
Market-to-book <sub>t-1</sub>	0.001** (2.143)	0.004*** (3.363)	-0.005* (-1.765)
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	671	671	671
Adj. <i>R</i> -squared	0.706	0.762	0.715

Table A7  
First differences

This table reports the first-differences estimation results for our baseline specification. The variables are defined in the legend of Table 1. All regressions include year-fixed effects. Standard errors are clustered at both the country and year level. “\*”, “\*\*” and “\*\*\*” denote significance at the 10%, 5%, and 1% level, respectively.

	$\Delta$ Book leverage <sub>t</sub>	$\Delta$ Debt-to- capital <sub>t</sub>	$\Delta$ Market leverage <sub>t</sub>
$\Delta$ Gov. debt-to-GDP <sub>t-1,t-2</sub>	-0.068** (-2.632)	-0.109*** (-3.235)	-0.059 (-1.681)
$\Delta$ Ln(GDP per capita <sub>t-1,t-2</sub> )	0.031** (2.538)	0.046** (2.438)	0.042* (1.848)
$\Delta$ Ln(CPI index level <sub>t-1,t-2</sub> )	-0.034 (-1.228)	-0.047 (-0.907)	-0.021 (-0.375)
$\Delta$ Ln(S&P index level <sub>t-1,t-2</sub> )	-0.004 (-0.562)	-0.003 (-0.288)	-0.011 (-1.130)
$\Delta$ Ln(Exchange rate <sub>t-1,t-2</sub> )	-0.002 (-1.662)	-0.001 (-0.253)	-0.003 (-0.955)
$\Delta$ Unemployment rate <sub>t-1,t-2</sub>	-0.104 (-1.437)	-0.074 (-0.932)	-0.099 (-0.959)
$\Delta$ Tangibility <sub>t-1,t-2</sub>	0.005 (0.090)	-0.077 (-1.064)	-0.030 (-0.432)
$\Delta$ Ln(Assets <sub>t-1,t-2</sub> )	-0.000 (-0.073)	0.005 (0.643)	0.013** (2.403)
$\Delta$ ROA <sub>t-1,t-2</sub>	-0.148** (-2.183)	-0.187* (-1.749)	-0.142 (-1.439)
$\Delta$ Market-to-book <sub>t-1,t-2</sub>	-0.001* (-1.877)	-0.001 (-0.956)	-0.003 (-0.753)
Year FE	Yes	Yes	Yes
Observations	780	780	780
Adj. <i>R</i> -squared	0.188	0.191	0.389



Table A8  
Asymmetry tests

This table uses the first differences specification (Table A7) to estimate the coefficients for positive and negative values of  $\Delta$  *Government debt-to-GDP* separately. The variables are defined in the legend of Table 1. All regressions include year-fixed effects. Standard errors are clustered at both the country and year level. “\*”, “\*\*” and “\*\*\*” denote significance at the 10%, 5%, and 1% level, respectively.

	$\Delta$ Book leverage <sub>t</sub>	$\Delta$ Debt-to- capital <sub>t</sub>	$\Delta$ Market leverage <sub>t</sub>
Max( $\Delta$ Gov. debt-to-GDP <sub>t-1,t-2</sub> ,0)	-0.069** (-2.207)	-0.117*** (-3.076)	-0.086* (-1.906)
Min( $\Delta$ Gov. debt-to-GDP <sub>t-1,t-2</sub> ,0)	-0.067* (-1.878)	-0.090 (-1.417)	-0.001 (-0.017)
$\Delta$ Ln(GDP per capita <sub>t-1,t-2</sub> )	0.031** (2.341)	0.046** (2.387)	0.041* (1.787)
$\Delta$ Ln(CPI index level <sub>t-1,t-2</sub> )	-0.034 (-1.190)	-0.045 (-0.833)	-0.015 (-0.275)
$\Delta$ Ln(S&P index level <sub>t-1,t-2</sub> )	-0.004 (-0.537)	-0.003 (-0.281)	-0.010 (-0.780)
$\Delta$ Ln(Exchange rate <sub>t-1,t-2</sub> )	-0.002* (-1.757)	-0.001 (-0.250)	-0.003 (-0.802)
$\Delta$ Unemployment rate <sub>t-1,t-2</sub>	-0.103 (-1.462)	-0.069 (-0.977)	-0.083 (-0.875)
$\Delta$ Tangibility <sub>t-1,t-2</sub>	0.005 (0.090)	-0.077 (-1.082)	-0.032 (-0.466)
$\Delta$ Ln(Assets <sub>t-1,t-2</sub> )	-0.000 (-0.070)	0.005 (0.603)	0.013** (2.385)
$\Delta$ ROA <sub>t-1,t-2</sub>	-0.148** (-2.197)	-0.186* (-1.749)	-0.140 (-1.447)
$\Delta$ Market-to-book <sub>t-1,t-2</sub>	-0.001** (-2.554)	-0.001 (-0.554)	-0.003 (-0.925)
Year FE	Yes	Yes	Yes
Observations	780	780	780
Adj. <i>R</i> -squared	0.187	0.191	0.389

Table A9  
OECD sample

This table reports our baseline estimation results for the subsample of OECD countries. The variables are defined in the legend of Table 1. All regressions include country- and year-fixed effects. Standard errors are clustered at both the country and year level. “\*”, “\*\*” and “\*\*\*” denote significance at the 10%, 5%, and 1% level, respectively.

	Book leverage <sub>t</sub>	Debt-to-capital <sub>t</sub>	Market leverage <sub>t</sub>
Gov. debt-to-GDP <sub>t-1</sub>	-0.079*** (-3.416)	-0.098** (-2.585)	-0.048* (-2.059)
Ln(GDP per capita <sub>t-1</sub> )	-0.028 (-1.001)	0.020 (0.619)	0.020 (0.606)
Ln(CPI index level <sub>t-1</sub> )	0.032 (1.064)	0.064 (1.156)	0.002 (0.054)
Ln(S&P index level <sub>t-1</sub> )	-0.024 (-1.420)	-0.044** (-2.092)	-0.049** (-2.573)
Ln(Exchange rate <sub>t-1</sub> )	-0.012*** (-3.314)	-0.012* (-1.912)	-0.008** (-2.627)
Unemployment rate <sub>t-1</sub>	0.128 (1.165)	0.200 (1.325)	0.140* (1.743)
Tangibility <sub>t-1</sub>	0.033 (0.420)	-0.017 (-0.135)	0.077 (1.101)
Ln(Assets <sub>t-1</sub> )	0.027** (2.560)	0.028* (1.931)	0.017* (1.829)
ROA <sub>t-1</sub>	-0.844*** (-4.898)	-1.313*** (-5.036)	-0.855*** (-4.120)
Market-to-book <sub>t-1</sub>	0.007 (1.042)	0.015 (1.515)	-0.022 (-1.695)
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	567	567	567
Adj. <i>R</i> -squared	0.665	0.705	0.753

Table A10  
Subperiod analysis (1990-2007)

This table reports the estimation results from our baseline specification for the period before the 2007 financial crisis. The variables are defined in the legend of Table 1. All regressions include country- and year-fixed effects. Standard errors are clustered at both the country and year level. “\*”, “\*\*” and “\*\*\*” denote significance at the 10%, 5%, and 1% level, respectively.

	Book leverage <sub>t</sub>	Debt-to-capital <sub>t</sub>	Market leverage <sub>t</sub>
Gov. debt-to-GDP <sub>t-1</sub>	-0.102*** (-3.541)	-0.116** (-2.717)	-0.075** (-2.657)
Ln(GDP per capita <sub>t-1</sub> )	0.023 (0.995)	0.060 (1.680)	0.055* (1.805)
Ln(CPI index level <sub>t-1</sub> )	-0.007 (-0.199)	0.028 (0.415)	-0.034 (-0.897)
Ln(S&P index level <sub>t-1</sub> )	-0.020 (-1.221)	-0.037 (-1.536)	-0.031 (-1.417)
Ln(Exchange rate <sub>t-1</sub> )	-0.013*** (-3.922)	-0.014** (-2.379)	-0.010*** (-3.160)
Unemployment rate <sub>t-1</sub>	0.241 (1.609)	0.155 (0.638)	0.256 (1.429)
Tangibility <sub>t-1</sub>	0.057 (0.751)	-0.011 (-0.099)	0.033 (0.409)
Ln(Assets <sub>t-1</sub> )	-0.002 (-0.163)	0.010 (0.701)	-0.018 (-1.475)
ROA <sub>t-1</sub>	-0.816*** (-5.360)	-1.187*** (-5.222)	-0.933*** (-5.137)
Market-to-book <sub>t-1</sub>	0.001 (0.200)	0.006 (0.628)	-0.032** (-2.284)
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	538	538	538
Adj. <i>R</i> -squared	0.744	0.756	0.766

Table A11  
Sovereign debt default and restructuring episodes

This table reports our baseline estimation results for the full sample of countries without excluding the debt default and restructuring events. The variables are defined in the legend of Table 1. All regressions include country- and year-fixed effects. Standard errors are clustered at both the country and year level. “\*”, “\*\*” and “\*\*\*” denote significance at the 10%, 5%, and 1% level, respectively.

	Book leverage <sub>t</sub>	Debt-to-capital <sub>t</sub>	Market leverage <sub>t</sub>
Gov. debt-to-GDP <sub>t-1</sub>	-0.064*** (-3.040)	-0.080** (-2.541)	-0.049* (-2.030)
Ln(GDP per capita <sub>t-1</sub> )	0.001 (0.056)	0.026 (0.944)	0.020 (0.786)
Ln(CPI index level <sub>t-1</sub> )	0.012 (0.560)	0.025 (0.894)	-0.041 (-1.166)
Ln(S&P index level <sub>t-1</sub> )	-0.015 (-1.264)	-0.031* (-1.901)	-0.049*** (-3.418)
Ln(Exchange rate <sub>t-1</sub> )	-0.014*** (-3.429)	-0.013* (-1.901)	-0.013*** (-3.106)
Unemployment rate <sub>t-1</sub>	0.246*** (2.830)	0.259** (2.425)	0.148 (1.102)
Tangibility <sub>t-1</sub>	0.042 (0.628)	-0.077 (-0.791)	0.136* (1.768)
Ln(Assets <sub>t-1</sub> )	0.003 (0.311)	0.012 (1.043)	-0.005 (-0.502)
ROA <sub>t-1</sub>	-0.797*** (-5.732)	-1.124*** (-5.333)	-1.082*** (-4.773)
Market-to-book <sub>t-1</sub>	-0.001 (-0.920)	0.001 (0.591)	-0.006*** (-4.734)
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	829	829	829
Adj. <i>R</i> -squared	0.689	0.741	0.705

Table A12  
Corporate taxes

This table reports the results from the subsample analysis of our baseline specification by including corporate tax rate as a control variable. The tax rate data is obtained from the OECD and is defined as the basic central government statutory (flat or top marginal) corporate income tax rate. The remaining variables are defined in the legend of Table 1. All regressions include country- and year-fixed effects. Standard errors are clustered at both the country and year level. “\*”, “\*\*” and “\*\*\*” denote significance at the 10%, 5%, and 1% level, respectively.

	Book leverage <sub>t</sub>	Debt-to-capital <sub>t</sub>	Market leverage <sub>t</sub>
Gov. debt-to-GDP <sub>t-1</sub>	-0.064*** (-3.049)	-0.073** (-2.309)	-0.030 (-1.422)
Corporate tax rate <sub>t-1</sub>	-0.001 (-1.366)	-0.001 (-1.156)	-0.001 (-0.802)
Ln(GDP per capita <sub>t-1</sub> )	-0.034 (-1.331)	0.006 (0.227)	0.017 (0.478)
Ln(CPI index level <sub>t-1</sub> )	0.026 (1.452)	0.042 (1.156)	0.025 (0.965)
Ln(S&P index level <sub>t-1</sub> )	-0.012 (-0.747)	-0.033 (-1.523)	-0.036* (-1.916)
Ln(Exchange rate <sub>t-1</sub> )	-0.012** (-2.674)	-0.012 (-1.589)	-0.007*** (-2.841)
Unemployment rate <sub>t-1</sub>	0.156 (1.379)	0.194 (1.188)	0.156* (1.748)
Tangibility <sub>t-1</sub>	0.032 (0.393)	-0.009 (-0.070)	0.084 (1.373)
Ln(Assets <sub>t-1</sub> )	0.027** (2.704)	0.037** (2.757)	0.014 (1.532)
ROA <sub>t-1</sub>	-0.789*** (-4.919)	-1.246*** (-5.170)	-0.826*** (-4.716)
Market-to-book <sub>t-1</sub>	0.003 (0.402)	0.011 (1.203)	-0.024* (-1.862)
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	541	541	541
Adj. <i>R</i> -squared	0.702	0.754	0.776

Table A13  
Alternative clustering of standard errors

This table reports our baseline estimation results for *Book leverage* under different assumptions regarding the level at which the standard errors are clustered. The variables are defined in the legend of Table 1. All regressions include country- and year-fixed effects. “\*”, “\*\*” and “\*\*\*” denote significance at the 10%, 5%, and 1% level, respectively.

	Dependent variable: Book leverage <sub>t</sub>			
	No clustering	By year	By country	By year and country
Gov. debt-to-GDP <sub>t-1</sub>	-0.074*** (-6.714)	-0.074*** (-7.758)	-0.074*** (-3.617)	-0.074*** (-3.694)
Ln(GDP per capita <sub>t-1</sub> )	0.014 (1.269)	0.014 (1.672)	0.014 (0.663)	0.014 (0.706)
Ln(CPI index level <sub>t-1</sub> )	0.017 (1.270)	0.017* (1.811)	0.017 (0.662)	0.017 (0.721)
Ln(S&P index level <sub>t-1</sub> )	-0.016*** (-3.580)	-0.016** (-2.684)	-0.016 (-1.361)	-0.016 (-1.363)
Ln(Exchange rate <sub>t-1</sub> )	-0.014*** (-10.227)	-0.014*** (-6.716)	-0.014*** (-3.758)	-0.014*** (-3.533)
Unemployment rate <sub>t-1</sub>	0.266*** (3.494)	0.266*** (3.427)	0.266*** (2.992)	0.266*** (3.367)
Tangibility <sub>t-1</sub>	0.048 (1.489)	0.048 (1.579)	0.048 (0.662)	0.048 (0.679)
Ln(Assets <sub>t-1</sub> )	-0.001 (-0.330)	-0.001 (-0.299)	-0.001 (-0.155)	-0.001 (-0.162)
ROA <sub>t-1</sub>	-0.812*** (-11.424)	-0.812*** (-10.311)	-0.812*** (-5.688)	-0.812*** (-5.661)
Market-to-book <sub>t-1</sub>	-0.000 (-0.119)	-0.000 (-0.173)	-0.000 (-0.110)	-0.000 (-0.128)
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	813	813	813	813
Adj. R-squared	0.697	0.697	0.697	0.697

Table A14  
OECD sample (Firm panel)

This table reports the results from our firm-level analysis estimated for the subsample of OECD countries. The variables are defined in the legend of Table 2. All regressions include firm- and year-fixed effects. Standard errors are clustered at both the country and year level. “\*”, “\*\*” and “\*\*\*” denote significance at the 10%, 5%, and 1% level, respectively.

	Book leverage <sub>t</sub>	Debt-to-capital <sub>t</sub>	Market leverage <sub>t</sub>
Gov. debt-to-GDP <sub>t-1</sub>	-0.060*** (-3.689)	-0.061*** (-2.849)	-0.050** (-2.282)
Ln(GDP per capita <sub>t-1</sub> )	-0.005 (-0.411)	-0.016 (-0.815)	0.015 (0.994)
Ln(CPI index level <sub>t-1</sub> )	0.049 (1.222)	0.116** (2.147)	0.016 (0.349)
Ln(S&P index level <sub>t-1</sub> )	-0.021*** (-3.110)	-0.023** (-2.293)	-0.053*** (-6.328)
Ln(Exchange rate <sub>t-1</sub> )	-0.009*** (-3.334)	-0.010** (-2.255)	-0.011** (-2.755)
Unemployment rate <sub>t-1</sub>	-0.077 (-0.892)	-0.130 (-1.060)	-0.117 (-1.098)
Tangibility <sub>t-1</sub>	0.121*** (6.046)	0.141*** (4.943)	0.098*** (5.140)
Ln(Assets <sub>t-1</sub> )	0.032*** (9.435)	0.041*** (8.980)	0.038*** (11.508)
ROA <sub>t-1</sub>	-0.095*** (-8.334)	-0.088*** (-6.109)	-0.063*** (-5.890)
Market-to-book <sub>t-1</sub>	-0.004*** (-4.608)	-0.006*** (-3.519)	-0.009*** (-9.954)
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	270,628	264,517	260,744
Adj. <i>R</i> -squared	0.620	0.701	0.724