

Government Debt and Capital Structure Decisions: International Evidence

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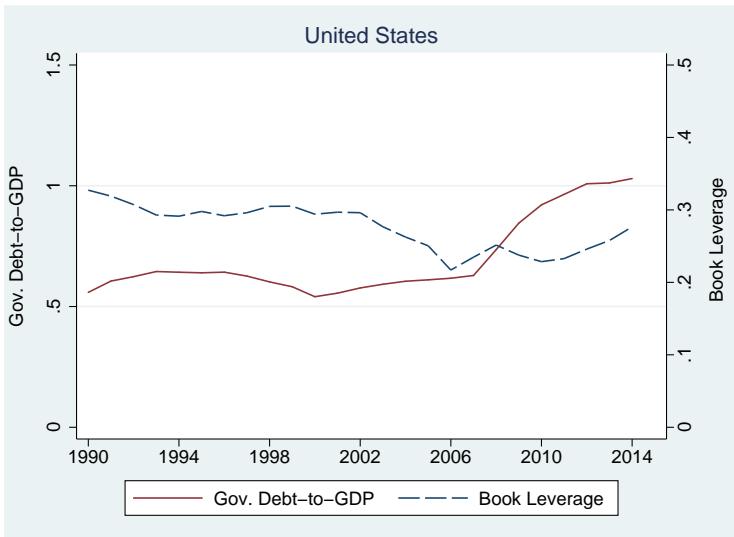
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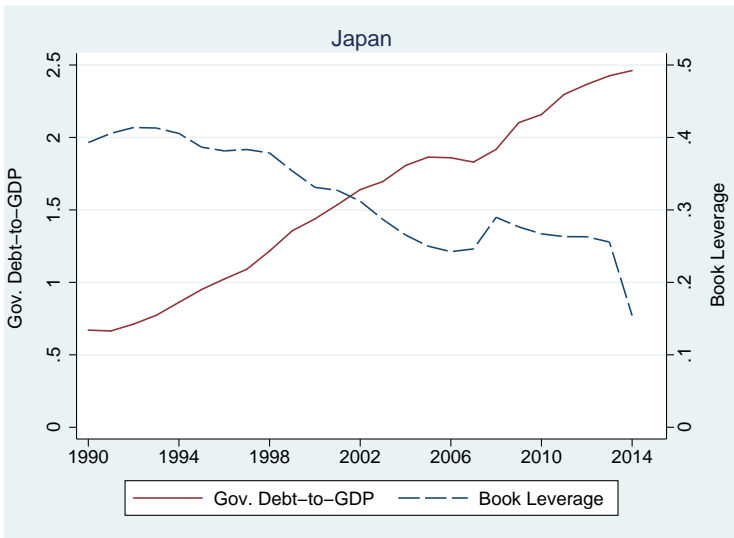
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Introduction

- Question: Do corporations adjust their capital structure decisions in response to government debt changes?
- Motivation: Government debt has varied substantially over time and across countries. How about corporate leverage?
- Demand seems rigid.
 - Desired allocation between debt and equity
 - Preference for safe returns
- What about supply?
 - Government debt varies substantially over time and across countries.
 - Corporations: Debt or equity?





Introduction

- Crowding out effect:
 - An increase in government debt supply might reduce investors' demand for corporate debt relative to equity.
 - In response, corporations might adjust their capital structure and reduce their leverage.
- Findings:
 - Higher government debt is associated with lower corporate leverage.
 - The effect is stronger in financially less open, less bank-dependent countries and in countries with more developed equity markets.
 - The effect is stronger for large firms and more profitable firms.

Literature

- Government crowding out of private activities:
 - Friedman (1972, 1978, 1986), Blinder and Solow (1973), Barro (1974), Taggart (1986)
- The supply of Treasury securities affect the supplies of other securities:
 - Greenwood, Hansen, and Stein (2010), Krishnamurthy and Vissing-Jorgensen (2012,2015), Broader and James (2016), Foley-Fisher, Ramcharan, and Yu (2014), Becker and Ivashina (2017)
 - Graham, Leary, and Roberts (2014)
- Our contribution:
 - International evidence on government debt crowding out
 - Various types of government debt
 - Institutional factors

Road Map

- 1 Data and Summary Statistics
- 2 Country-Level Analysis
 - Types of debt
 - Institutional factors
- 3 Endogeneity Concerns
 - Instrumental variable approach
 - Euro-area integration
- 4 Firm-Level Analysis
 - Cross-firm variation

1. Data and Summary Statistics

Data Sources

- Firm-level accounting data: Compustat Global and North America
- Firm-level market data: Compustat Global Security Daily
- Government debt data: WEO data on IMF
- Other country-level variables: World Bank, IMF, ECB, BIS

Sample Selection

- Sample period: 1990 - 2014
- Country-level variables are calculated by aggregating all firms within a given year and country
- 16 domestic or external sovereign debt default or restructuring events are excluded
- The final sample consists of 35,663 firms from 40 countries with a total of 813 country-year and about 340,000 firm-year observations

Summary Statistics

	Mean	St. Dev.	p25	Median	p75	N
Book Leverage _t	0.283	0.065	0.239	0.277	0.318	813
Debt-to-Capital _t	0.423	0.098	0.359	0.420	0.481	813
Market Leverage _t	0.195	0.079	0.140	0.185	0.237	813
Long-Term Leverage _t	0.229	0.056	0.191	0.221	0.255	354
Short-Term Leverage _t	0.052	0.031	0.024	0.051	0.071	354
Corporate Maturity _t	0.815	0.105	0.737	0.824	0.905	354
Gov. Debt-to-GDP _{t-1}	0.583	0.335	0.372	0.527	0.725	813
Domestic Gov. Debt-to-GDP _{t-1}	0.380	0.301	0.190	0.307	0.513	671
External Gov. Debt-to-GDP _{t-1}	0.204	0.169	0.080	0.167	0.292	671
Long-Term Gov. Debt-to-GDP _{t-1}	0.540	0.265	0.346	0.486	0.682	354
Short-Term Gov. Debt-to-GDP _{t-1}	0.119	0.075	0.061	0.119	0.167	354
Gov. Debt Maturity _{t-1}	0.809	0.123	0.729	0.828	0.897	354
Ln(GDP Per Capita _{t-1})	9.684	1.118	9.145	10.048	10.477	813
Ln(CPI Index Level _{t-1})	6.019	2.900	4.881	5.094	5.633	813
Ln(S&P Index Level _{t-1})	5.146	0.795	4.605	5.183	5.714	813
Unemployment Rate _{t-1}	0.074	0.045	0.043	0.068	0.091	813
Ln(Exchange Rate _{t-1})	1.680	2.162	0.030	1.118	2.311	813
Tangibility _{t-1}	0.405	0.108	0.329	0.403	0.477	813
Ln(Assets _{t-1})	12.092	1.595	10.936	11.983	13.134	813
ROA _{t-1}	0.126	0.033	0.103	0.121	0.146	813
Market-to-Book _{t-1}	1.780	2.071	1.232	1.470	1.795	813

2. Country-Level Analysis

Baseline Specification

$$\text{Leverage}_{j,t} = \beta_1 \text{Government Debt-to-GDP}_{j,t-1} + \beta_2 X_{j,t-1} + \beta_3 Y_{j,t-1} + u_j + \delta_t + \varepsilon_{j,t}$$

- $X_{j,t-1}$: Firm-specific determinants of leverage
- $Y_{j,t-1}$: Macro controls
- u_j : Country fixed effects
- δ_t : Year fixed effects
- Clustering: at the country and year level

Traditional Determinants

- Size: $\ln(\text{Total Book Assets})$
- ROA: $\text{Income} / \text{Assets}$
- Tangibility: $\text{Net PPE} / \text{Assets}$
- Market-to-Book: $\text{MV Assets} / \text{BV Assets}$

Leverage Variables

$$\text{Book Leverage} = \frac{\text{LT Debt} + \text{Debt in Cur. Liab.}}{\text{BV Assets}}$$

$$\text{Debt-to-Capital} = \frac{\text{LT Debt} + \text{Debt in Cur. Liab.}}{\text{LT Debt} + \text{Debt in Cur. Liab.} + \text{BV Equity}}$$

$$\text{Market Leverage} = \frac{\text{LT Debt} + \text{Debt in Cur. Liab.}}{\text{BV Assets} - \text{BV Equity} + \text{MV Equity}}$$

Macro Controls

- GDP Per Capita (Current US\$)
- Inflation (Consumer Price Index)
- S&P Global Equity Indices
- Unemployment Rate (% of Total Labor Force)
- Nominal Exchange Rate

Baseline Results

	Book Leverage _t	Debt-to-Capital _t	Market Leverage _t
Gov. Debt-to-GDP _{t-1}	-0.074*** (-3.694)	-0.096*** (-3.140)	-0.055** (-2.371)
Ln(GDP Per Capita _{t-1})	0.014 (0.706)	0.048** (2.096)	0.029 (1.067)
Ln(CPI Index Level _{t-1})	0.017 (0.721)	0.030 (1.009)	-0.020 (-0.573)
Ln(S&P Index Level _{t-1})	-0.016 (-1.363)	-0.032* (-1.980)	-0.049*** (-3.405)
Unemployment Rate _{t-1}	0.266*** (3.367)	0.322*** (2.991)	0.130 (1.099)
Ln(Exchange Rate _{t-1})	-0.014*** (-3.533)	-0.014* (-2.020)	-0.013*** (-3.066)
Tangibility _{t-1}	0.048 (0.679)	-0.062 (-0.619)	0.139* (1.716)
Ln(Assets _{t-1})	-0.001 (-0.162)	0.006 (0.675)	-0.010 (-1.108)
ROA _{t-1}	-0.812*** (-5.661)	-1.171*** (-5.570)	-1.055*** (-4.403)
Market-to-Book _{t-1}	-0.000 (-0.128)	0.003** (2.188)	-0.007*** (-3.008)
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	813	813	813
R-squared	0.697	0.747	0.711

Alternative Variable Definitions

	Ln(Corporate Debt _t)	Corporate Debt-to-GDP _t
Ln(Gov. Debt _{t-1})	-0.142** (-2.505)	
Gov. Debt-to-GDP _{t-1}		-0.040*** (-3.459)
Ln(GDP Per Capita _{t-1})	0.074 (0.683)	-0.010 (-0.702)
Ln(CPI Index Level _{t-1})	0.084 (0.986)	0.013 (1.038)
Ln(S&P Index Level _{t-1})	0.046 (0.997)	-0.006 (-1.129)
Unemployment Rate _{t-1}	1.074*** (3.237)	0.077 (1.358)
Ln(Exchange Rate _{t-1})	-0.038** (-2.500)	-0.005*** (-2.963)
Tangibility _{t-1}	0.076 (0.292)	-0.046 (-1.257)
Ln(Assets _{t-1})	1.048*** (19.944)	0.018*** (3.374)
ROA _{t-1}	-2.128*** (-3.840)	-0.210*** (-4.116)
Market-to-Book _{t-1}	0.002 (0.491)	0.001 (1.454)
Book Value of Assets-to-GDP _{t-1}	-0.216 (-1.182)	0.215*** (8.503)
Country FE	Yes	Yes
Year FE	Yes	Yes
Observations	813	813
R-squared	0.990	0.919

Robustness Tests

- Alternative variable definitions
- First differences
- Alternative clustering
- OECD subsample
- Subperiod analysis (1990-2006)
- Country-by-country regressions

Types of Government Debt

- 1 External versus Domestic Debt
- 2 Long-Term versus Short-Term Debt

External versus Domestic Government Debt

	Book Leverage _t	Debt-to-Capital _t	Market Leverage _t
Domestic Gov. Debt-to-GDP _{t-1}	-0.128*** (-3.338)	-0.180*** (-2.836)	-0.130*** (-3.303)
External Gov. Debt-to-GDP _{t-1}	0.017 (0.446)	-0.009 (-0.191)	0.042 (1.042)
Ln(GDP Per Capita _{t-1})	0.027 (1.458)	0.065*** (2.885)	0.038 (1.316)
Ln(CPI Index Level _{t-1})	0.022 (0.576)	0.013 (0.254)	-0.043 (-0.765)
Ln(S&P Index Level _{t-1})	-0.015 (-1.071)	-0.036* (-1.870)	-0.045** (-2.638)
Unemployment Rate _{t-1}	0.222* (1.827)	0.312* (1.945)	0.025 (0.141)
Ln(Exchange Rate _{t-1})	-0.004 (-1.303)	-0.001 (-0.091)	-0.003 (-1.044)
Tangibility _{t-1}	0.087 (1.309)	-0.026 (-0.265)	0.182** (2.255)
Ln(Assets _{t-1})	0.000 (0.033)	0.011 (1.154)	-0.007 (-0.747)
ROA _{t-1}	-0.690*** (-5.153)	-0.980*** (-5.119)	-1.033*** (-4.221)
Market-to-Book _{t-1}	0.001 (1.334)	0.003*** (3.458)	-0.006* (-2.051)
Country FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	671	671	671
R-squared	0.723	0.772	0.731

Debt Maturity

	Book Leverage _t	Long-Term Leverage _t	Short-Term Leverage _t	Corporate Maturity _t
Long-Term Gov. Debt-to-GDP _{t-1}	-0.091*** (-3.288)	-0.099*** (-3.025)	0.007 (0.599)	
Short-Term Gov. Debt-to-GDP _{t-1}	0.026 (0.363)	0.041 (0.380)	-0.013 (-0.294)	
Gov. Debt Maturity _{t-1}				-0.152 (-1.145)
Ln(GDP Per Capita _{t-1})	-0.009 (-0.402)	-0.031 (-1.189)	0.026 (1.107)	-0.108 (-1.314)
Ln(CPI Index Level _{t-1})	0.226** (2.796)	0.193* (2.057)	0.023 (0.587)	-0.056 (-0.358)
Ln(S&P Index Level _{t-1})	-0.004 (-0.319)	0.010 (0.644)	-0.013 (-1.463)	0.051* (1.804)
Unemployment Rate _{t-1}	0.101 (0.647)	0.097 (0.490)	0.060 (0.638)	-0.290 (-1.382)
Ln(Exchange Rate _{t-1})	-0.011*** (-3.202)	-0.012*** (-3.242)	0.001 (0.902)	-0.010** (-2.470)
Tangibility _{t-1}	0.000 (0.005)	-0.023 (-0.272)	0.021 (0.474)	0.007 (0.045)
Ln(Assets _{t-1})	-0.008 (-0.386)	-0.006 (-0.215)	-0.002 (-0.116)	0.012 (0.218)
ROA _{t-1}	-0.597*** (-3.901)	-0.659*** (-4.036)	0.063 (0.574)	-0.599 (-1.708)
Market-to-Book _{t-1}	0.006 (1.611)	0.006 (1.157)	-0.001 (-0.282)	0.005 (0.583)
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	354	354	354	354
R-squared	0.765	0.724	0.763	0.766

Country Characteristics and Crowding Out

- 1 Financial Openness
 - Degree of capital account openness measured by Chinn and Ito index (2006)
- 2 Private sector's bank dependence
 - Outstanding amount of bank credit extended to the private sector as a fraction of total credit
- 3 Equity market capitalization
 - Total market value of public firms as a percent of GDP
- 4 Liquidity in the equity market
 - Total volume of stocks traded as a percentage of GDP

Country Characteristics

Dependent Variable: Book Leverage_{*t*}

	Financial Openness	Bank Dependence	Equity Capitalization	Equity Trading
Gov. Debt-to-GDP _{<i>t-1</i>} × I(Low)	-0.139** (-2.743)	-0.134*** (-4.018)	-0.045 (-1.334)	-0.040 (-1.550)
Gov. Debt-to-GDP _{<i>t-1</i>} × I(Medium)	-0.114*** (-3.023)	-0.092*** (-4.394)	-0.077*** (-3.408)	-0.098*** (-3.339)
Gov. Debt-to-GDP _{<i>t-1</i>} × I(High)	-0.053* (-1.841)	-0.028 (-0.553)	-0.070** (-2.635)	-0.093*** (-3.460)
I(Medium)	0.037 (0.247)	-0.404* (-1.885)	0.118 (1.626)	0.035 (0.306)
I(High)	0.240 (0.816)	-0.578** (-2.625)	-0.312 (-1.306)	-0.160 (-0.642)
Year FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Observations	806	761	767	773
Adj. R-squared	0.725	0.740	0.719	0.736
High-Low Interactions	0.087* (1.769)	0.106** (2.066)	-0.025 (-0.779)	-0.053* (-1.836)
t-stat				

3. Endogeneity Concerns

Endogeneity Concerns

- 1 Instrumental Variable Approach
 - Military expenditures as an instrument for government debt
- 2 Euro-Area Integration
 - Integration in financial markets
 - Increase in the cross-border holdings of securities (39% between 1997 and 2004)

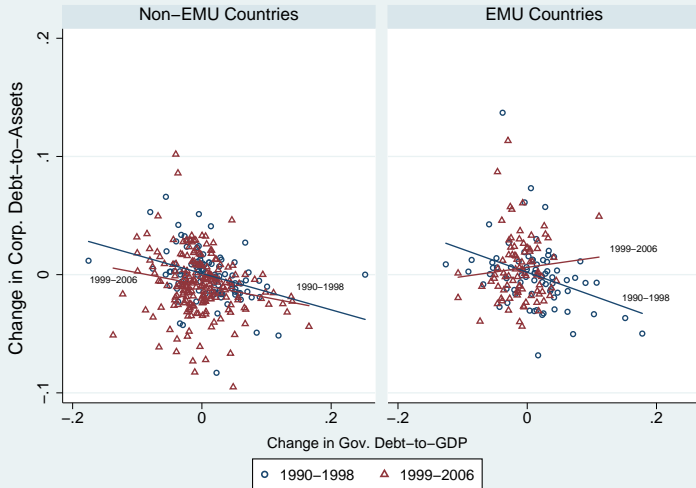
Instrumental Variable Approach

	Gov. Debt-to-GDP _{t-1}	Book Leverage _t	Debt-to-Capital _t	Market Leverage _t
Military Expenditures _{t-2}	11.923** (2.192)			
Gov. Debt-to-GDP _{t-1}		-0.142** (-2.344)	-0.174* (-1.874)	-0.188** (-2.093)
Ln(GDP Per Capita _{t-1})	-0.210*** (-2.851)	0.001 (0.049)	0.036 (1.259)	-0.001 (-0.029)
Ln(CPI Index Level _{t-1})	-0.260* (-2.027)	-0.004 (-0.112)	0.007 (0.156)	-0.057 (-1.319)
Ln(S&P Index Level _{t-1})	-0.115*** (-2.919)	-0.024 (-1.639)	-0.040* (-1.847)	-0.062*** (-3.352)
Unemployment Rate _{t-1}	2.445*** (3.883)	0.436** (2.375)	0.540* (2.023)	0.508* (1.800)
Ln(Exchange Rate _{t-1})	0.009 (0.728)	-0.014*** (-2.928)	-0.014* (-1.834)	-0.012** (-2.345)
Tangibility _{t-1}	0.089 (0.382)	0.051 (0.680)	-0.054 (-0.543)	0.158* (1.811)
Ln(Assets _{t-1})	0.024 (0.794)	-0.001 (-0.080)	0.006 (0.613)	-0.007 (-0.746)
ROA _{t-1}	0.115 (0.257)	-0.802*** (-5.157)	-1.112*** (-5.156)	-1.011*** (-3.695)
Market-to-Book _{t-1}	-0.003 (-0.742)	-0.000 (-0.268)	0.003** (2.426)	-0.008*** (-3.612)
Country FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Observations	800	800	800	800
R-squared	0.891	0.660	0.720	0.652
Kleibergen-Paap LM statistic	3.74			
P-value	0.053			
Kleibergen-Paap F statistic	4.81			

Instrumental Variable Approach

	Domestic Gov. Debt-to-GDP _{t-1}	Book Leverage _t	Debt-to-Capital _t	Market Leverage _t
Military Expenditures _{t-2}	6.401*** (3.693)			
Domestic Gov. Debt-to-GDP _{t-1}		-0.295** (-2.651)	-0.464*** (-3.056)	-0.345** (-2.733)
Ln(GDP Per Capita _{t-1})	0.003 (0.061)	0.027 (1.276)	0.069** (2.807)	0.031 (1.012)
Ln(CPI Index Level _{t-1})	-0.219** (-2.472)	-0.020 (-0.344)	-0.052 (-0.657)	-0.092 (-1.493)
Ln(S&P Index Level _{t-1})	-0.031 (-1.361)	-0.020 (-1.366)	-0.042* (-2.020)	-0.050** (-2.792)
Unemployment Rate _{t-1}	1.139*** (3.539)	0.451** (2.354)	0.669** (2.290)	0.398 (1.651)
Ln(Exchange Rate _{t-1})	0.046*** (4.371)	0.003 (0.398)	0.012 (1.086)	0.005 (0.570)
Tangibility _{t-1}	-0.142 (-0.892)	0.066 (0.894)	-0.065 (-0.584)	0.163* (1.792)
Ln(Assets _{t-1})	0.045* (1.899)	0.007 (0.621)	0.023* (1.876)	0.003 (0.296)
ROA _{t-1}	0.478* (1.956)	-0.631*** (-4.090)	-0.792*** (-3.809)	-0.937*** (-3.454)
Market-to-Book _{t-1}	-0.004*** (-3.188)	0.001 (0.818)	0.002* (1.860)	-0.006** (-2.130)
Country FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Observations	659	659	659	659
R-squared	0.942	0.672	0.702	0.667
Kleibergen-Paap LM statistic	6.07			
P-value	0.014			
Kleibergen-Paap F statistic	13.64			

Euro-Area Integration



Euro-Area Integration

	Book Leverage _t	Debt-to-Capital _t	Market Leverage _t
Gov. Debt-to-GDP _{t-1}	-0.147*** (-4.601)	-0.203*** (-3.820)	-0.140*** (-4.265)
X After 1998 X EMU	0.116** (2.182)	0.087 (1.010)	0.151*** (2.984)
X EMU	0.069 (1.018)	0.032 (0.295)	0.081 (1.632)
X After 1998	0.010 (0.455)	0.039 (0.997)	-0.009 (-0.436)
After 1998	-0.026 (-0.229)	-0.158 (-0.980)	-0.233 (-1.444)
After 1998 X EMU	-0.918*** (-3.580)	-0.735* (-1.912)	-1.719*** (-5.725)
Country FE	Yes	Yes	Yes
Observations	498	498	498
R-squared	0.831	0.822	0.814

4. Firm-Level Analysis

Specification for Firm-Level Analysis

$$\text{Leverage}_{i,t} = \beta_1 \text{Gov. Debt-to-GDP}_{j,t-1} + \beta_2 X_{i,t-1} + \beta_3 Y_{j,t-1} + \alpha_i + \delta_t + \varepsilon_{i,t}$$

- $X_{i,t-1}$: Firm-level controls
- $Y_{j,t-1}$: Macro controls
- α_i : Firm fixed effects
- δ_t : Year fixed effects
- Clustering: at the country and year level

Traditional Determinants

- Size: $\ln(\text{Total Book Assets})$
- ROA: $\text{Income} / \text{Assets}$
- Tangibility: $\text{Net PPE} / \text{Assets}$
- Market-to-Book: $\text{MV Assets} / \text{BV Assets}$

Macro Controls

- GDP Per Capita (Current US\$)
- Inflation: Consumer Price Index
- S&P Global Equity Indices
- Unemployment Rate (% of Total Labor Force)
- Nominal Exchange Rate

Firm-Level Analysis

	Book Leverage _t	Debt-to-Capital _t	Market Leverage _t
Gov. Debt-to-GDP _{t-1}	-0.066*** (-5.114)	-0.074*** (-4.227)	-0.046*** (-2.873)
Ln(GDP Per Capita _{t-1})	-0.027*** (-3.143)	-0.024** (-2.443)	-0.010 (-0.663)
Ln(CPI Index Level _{t-1})	0.015 (0.662)	0.039 (1.205)	0.022 (0.784)
Ln(S&P Index Level _{t-1})	-0.015** (-2.363)	-0.017* (-1.992)	-0.046*** (-5.145)
Unemployment Rate _{t-1}	0.016 (0.206)	0.054 (0.460)	-0.121 (-1.124)
Ln(Exchange Rate _{t-1})	-0.010*** (-3.391)	-0.010** (-2.251)	-0.012** (-2.733)
Tangibility _{t-1}	0.126*** (7.953)	0.147*** (6.537)	0.103*** (6.525)
Ln(Assets _{t-1})	0.037*** (8.412)	0.048*** (7.975)	0.042*** (10.702)
ROA _{t-1}	-0.105*** (-8.560)	-0.102*** (-5.926)	-0.075*** (-5.655)
Market-to-Book _{t-1}	-0.004*** (-3.882)	-0.005*** (-2.893)	-0.010*** (-11.587)
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	340290	333373	326965
R-squared	0.632	0.706	0.726

Government Debt and Firm Characteristics

- 1 Large firms
 - Closer substitute to government debt
 - Higher financial flexibility
- 2 Profitable firms
 - Lower costs of adjustment

Firm Characteristics

	Book Leverage _t	Debt-to Capital _t	Market Leverage _t	Book Leverage _t	Debt-to Capital _t	Market Leverage _t
Gov. Debt-to-GDP _{t-1}	-0.063*** (-4.862)	-0.071*** (-4.002)	-0.044** (-2.753)	-0.060*** (-4.887)	-0.069*** (-4.070)	-0.042** (-2.670)
x Large	-0.012*** (-2.802)	-0.014* (-1.978)	-0.010** (-2.373)			
x Profitable				-0.017*** (-6.302)	-0.021*** (-6.828)	-0.017*** (-6.868)
Large	0.016*** (2.890)	0.018** (2.151)	0.016*** (3.069)			
Profitable				-0.005 (-1.400)	-0.014*** (-3.275)	-0.013*** (-4.169)
Ln(GDP Per Capita _{t-1})	-0.028*** (-3.123)	-0.025** (-2.495)	-0.011 (-0.689)	-0.027*** (-3.014)	-0.024** (-2.523)	-0.010 (-0.626)
Ln(CPI Index Level _{t-1})	0.015 (0.674)	0.039 (1.215)	0.023 (0.795)	0.014 (0.612)	0.037 (1.150)	0.021 (0.741)
Ln(S&P Index Level _{t-1})	-0.015** (-2.331)	-0.017* (-1.968)	-0.046*** (-5.081)	-0.016** (-2.405)	-0.018* (-2.062)	-0.047*** (-5.110)
Unemployment Rate _{t-1}	0.021 (0.278)	0.061 (0.522)	-0.115 (-1.074)	0.017 (0.219)	0.053 (0.449)	-0.123 (-1.092)
Ln(Exchange Rate _{t-1})	-0.010*** (-3.379)	-0.010** (-2.242)	-0.012** (-2.726)	-0.010*** (-3.377)	-0.010** (-2.247)	-0.012** (-2.701)
Tangibility _{t-1}	0.126*** (7.966)	0.147*** (6.549)	0.103*** (6.555)	0.126*** (7.869)	0.148*** (6.443)	0.104*** (6.543)
Ln(Assets _{t-1})	0.036*** (8.179)	0.047*** (7.853)	0.041*** (10.297)	0.037*** (8.330)	0.048*** (7.912)	0.042*** (10.808)
ROA _{t-1}	-0.104*** (-8.425)	-0.101*** (-5.856)	-0.074*** (-5.586)	-0.093*** (-9.780)	-0.080*** (-6.067)	-0.055*** (-5.789)
Market-to-Book _{t-1}	-0.004*** (-3.946)	-0.005*** (-2.899)	-0.010*** (-11.888)	-0.003*** (-2.956)	-0.004** (-2.286)	-0.009*** (-11.326)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	340290	333373	326965	340290	333373	326965
R-squared	0.632	0.706	0.726	0.633	0.708	0.729

Conclusion

- International evidence for government crowding out
- Type of government debt matters
 - Crowding out is specific to domestic debt
- Maturity of government debt matters
- Cross-country variation
 - Low financial openness
 - Low bank dependence
 - Developed equity markets
- Cross-firm variation
 - Larger
 - More profitable
- Crowding out effect disappears
 - after the monetary integration in EMU countries