Internet Appendix
Dividend Smoothing and Firm Valuation

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Internet Appendix Table 1
Summary Statistics for Dividend Valuation Sample

This table contains the summary statistics for the dividend valuation sample. The valuation sample period is from 2001 to 2015. Panel A shows the descriptive statistics for the dividend valuation sample and the speed of adjustment *(SOA)* estimates. The speed of adjustment estimates are estimated using 5 *(SOA5)* and 10 *(SOA10)* year rolling windows. Panel B show the number of observations with respect to industry. Panels C and D show the number of observations with respect to country and year for *SOA10*. For companies from Compustat North America, *V* is the number of shares outstanding (CSHO) multiplied by either the fiscal year-end closing price (PRCC_F), if available, or the fiscal year-end monthly closing price from the Compustat Merged Monthly Security File (PRCCM). For companies from Compustat Global, *V* is the number of current common shares outstanding (CSHOC) multiplied by the appropriate fiscal year-end price (PRCCD), which comes from the Merged Global Security Daily File. We adjust the stock price by the price quotation unit (QUNIT). *A* is the book value of total assets (AT); *E* is earnings before extraordinary items (IB) plus interest (XINT), deferred tax credits, and investment tax credits (TXDITC) if available; dE_t is the change in earnings from the previous year, calculated as $E_t - E_{t-1}$; dE_{t+1} is the one-year ahead lead change in earnings, calculated as $E_{t+1} - E_t$; *CX* is capital expenditures (CAPX); dCX_{t-1} is the change in capital expenditures from the previous year, calculated as $CX_t - CX_{t-1}$; dCX_{t+1} is the one-year ahead lead change in capital expenditures, calculated as $CX_{t+1} - CX_t$; *I* is the annual interest expense (XINT); dI_{t-1} is the change in interest expense from the previous year, calculated as $I_t - I_{t-1}$; dI_{t+1} is the one-year ahead lead change in interest expense, calculated as $I_{t+1} - I_t$; *D* is the annual dividend amount (DVC); dD_{t-1} is the change in dividend amount from the previous year, calculated as $D_t - D_{t-1;}$ and dD_{t+1} is the one-year ahead lead change in dividends, calculated as $D_{t+1} - D_t$.

Panel A: Dividend Valuation Sample Summary Statistics

Variable	*N*	Mean	Median	St.Dev.	*p5*	*p25*	*p75*	*p95*
V_t/A_t	19,022	0.906	0.623	0.928	0.148	0.350	1.110	2.631
E_t/A_t	19,022	0.056	0.050	0.062	-0.021	0.024	0.085	0.155
dE_{t-1}/A_t	19,022	0.003	0.004	0.053	-0.069	-0.013	0.020	0.070
dE_{t+1}/A_t	19,022	0.005	0.005	0.052	-0.068	-0.013	0.023	0.080
dA_{t-1}/A_t	19,022	0.049	0.058	0.129	-0.163	-0.011	0.125	0.236
dA_{t+1}/A_t	19,022	0.066	0.061	0.135	-0.146	-0.014	0.139	0.300
CX_t/A_t	19,022	0.046	0.034	0.043	0.004	0.016	0.061	0.128
dCX_{t-1}/A_t	19,022	0.002	0.001	0.031	-0.045	-0.008	0.011	0.049
dCX_{t+1}/A_t	19,022	0.003	0.001	0.034	-0.044	-0.008	0.012	0.053
I_t/A_t	19,022	0.009	0.005	0.011	0.000	0.001	0.013	0.030
dI_{t-1}/A_t	19,022	0.000	0.000	0.004	-0.006	-0.001	0.001	0.006
dI_{t+1}/A_t	19,022	0.000	0.000	0.004	-0.005	-0.001	0.001	0.006
D_t/A_t	19,022	0.020	0.011	0.030	0.000	0.006	0.024	0.069
dD_{t-1}/A_t	19,022	0.001	0.000	0.012	-0.008	0.000	0.002	0.012
dD_{t+1}/A_t	19,022	0.002	0.000	0.015	-0.009	0.000	0.003	0.016
dV_{t+1}/A_t	19,022	0.076	0.032	0.497	-0.521	-0.079	0.192	0.825
SOA5	19,022	0.388	0.337	0.297	0.007	0.119	0.606	0.936
SOA10	14,407	0.393	0.331	0.303	0.013	0.123	0.621	0.950

Panel B: Number of Observations by Industry

NAICS Industry Definition	2- Digit NAICS Code	*N*	
		SOA5	*SOA10*
Agriculture, Forestry, Fishing and Hunting	11	147	84
Mining	21	429	292
Construction	23	897	685
Manufacturing	31-33	10,483	7,973
Wholesale Trade	42	1,276	1,016
Retail Trade	44-45	1,535	1,188
Transportation and Warehousing	48-49	963	771
Information	51	1,215	863
Real Estate and Rental and Leasing	53	154	113
Professional, Scientific, and Technical Services	54	472	320
Administrative and Support and Waste Management	56	536	417
Educational Services	61	67	53
Health Care and Social Assistance	62	44	32
Arts, Entertainment, and Recreation	71	171	121
Accommodation and Food Services	72	358	271
Other Services	81	113	94
Unclassified	99	162	114
Total		19,022	14,407

Panel C: Number of Observations by Country

Country	*N*
	SOA10
AUS	307
CAN	527
CHE	91
CHN	774
DEU	146
DNK	27
FIN	99
FRA	4
GBR	782
HKG	121
IND	272
JPN	5,926
KOR	533
MYS	503
NLD	58
NOR	33
PAK	18
SGP	171
SWE	181
USA	3,801
ZAF	33
Total	14,407

Panel D: Number of Observations by Year

	N
Fiscal Year	*SOA10*
2001	-
2002	-
2003	-
2004	444
2005	800
2006	892
2007	1,054
2008	1,293
2009	1,648
2010	1,774
2011	1,930
2012	1,880
2013	1,455
2014	1,100
2015	137
Total	14,407

Internet Appendix Table 2
The Asymmetric Impact of Dividend Smoothing on Firm Valuation

This table shows the asymmetric impact of dividend smoothing on the change of firm valuation using a regression model with firm and year fixed effects. The sample covers 15 years from 2001 to 2015. Coefficient estimates, and standard errors of the following specification are reported.

$$\frac{V_t}{A_t} = \alpha_0+\alpha_1 \frac{E_t}{A_t} +\alpha_2 \frac{dE_{t-1}}{A_t} +\alpha_3 \frac{dE_{t+1}}{A_t} +\alpha_4 \frac{dA_{t-1}}{A_t} +\alpha_5 \frac{dA_{t+1}}{A_t} +\alpha_6 \frac{CX_t}{A_t} +\alpha_7 \frac{dCX_{t-1}}{A_t} + \alpha_8 \frac{dCX_{t+1}}{A_t} + \alpha_9 \frac{I_t}{A_t} + \alpha_{10} \frac{dI_{t-1}}{A_t} + \alpha_{11} \frac{dI_{t+1}}{A_t} + \alpha_{12} \frac{D_t}{A_t} + \alpha_{13} \frac{dD_{t-1}}{A_t} +\alpha_{14} \frac{dD_{t+1}}{A_t} +\alpha_{15}$$

$$\frac{dV_{t+1}}{A_t} + \alpha_{16}\, SOA5 + \alpha_{17}\, SOA5\, \frac{D_t}{A_t} + \alpha_{18}\, SOA5\, \frac{dD_{t-1}}{A_t} + \alpha_{19}\, SOA5\, \frac{dD_{t+1}}{A_t} + \varepsilon_t$$

For companies from Compustat North America, V is the number of shares outstanding (CSHO) multiplied by either the fiscal year-end closing price (PRCC_F), if available, or the fiscal year-end monthly closing price from the Compustat Merged Monthly Security File (PRCCM). For companies from Compustat Global, V is the number of current common shares outstanding (CSHOC) multiplied by the appropriate fiscal year-end price (PRCCD), which comes from the Merged Global Security Daily File. We adjust the stock price by the price quotation unit (QUNIT). A is the book value of total assets (AT); E is earnings before extraordinary items (IB) plus interest (XINT), deferred tax credits, and investment tax credits (TXDITC) if available; dE_t is the change in earnings from the previous year, calculated as $E_t - E_{t-1}$; dE_{t+1} is the one-year ahead lead change in earnings, calculated as $E_{t+1} - E_t$; CX is capital expenditures (CAPX); dCX_{t-1} is the change in capital expenditures from the previous year, calculated as $CX_t - CX_{t-1}$; dCX_{t+1} is the one-year ahead lead change in capital expenditures, calculated as $CX_{t+1} - CX_t$; I is the annual interest expense (XINT); dI_{t-1} is the change in interest expense from the previous year, calculated as $I_t - I_{t-1}$; dI_{t+1} is the one-year ahead lead change in interest expense, calculated as $I_{t+1} - I_t$; D is the annual dividend amount (DVC); dD_{t-1} is the change in dividend amount from the previous year, calculated as $D_t - D_{t-1;}$ and dD_{t+1} is the one-year ahead lead change in dividends, calculated as $D_{t+1} - D_t$. *SOA5* is the speed of adjustment, estimated using a 5-year rolling window. ***, **, and * indicate statistical significance at the 10%, 5%, and 1% levels respectively.

Panel A: Summary Statistics

Variable	Mean	Median	p25	p75
SOA5	0.388	0.337	0.119	0.606
SOA5 (above target)	0.352	0.291	0.076	0.560
SOA5 (below target)	0.416	0.377	0.164	0.638

Panel B: Valuation Regressions

Independent Variables	Dependent variable = V_t/A_t	
	Model 1	Model 2
D_t/A_t	**3.329*** **	**6.132*** **
	(10.76)	**(10.55)**
D_t/A_t*SOA5 (above target)	**-0.920** **	**-1.740** **
	(-2.33)	**(-2.45)**
D_t/A_t*SOA5 (below target)	**-2.787*** **	**-4.061*** **
	(-4.97)	**(-3.07)**
Firm & Year FE	Yes	Yes
R-squared	0.432	0.477
N	19,022	6,185
USA	Incl.	Excl.
JPN	Incl.	Excl.
GBR	Incl.	Excl.
Test of coefficients		
D_t/A_t*SOA5 (above target) (minus) ***D_t/A_t*SOA5 (below target)***	-3.707	-5.801
p-value	0.000	0.001

Internet Appendix Table 3

The Impact of Dividend Smoothing on Firm Valuation using a 10-year SOA Rolling Estimate

This table shows the impact of dividend smoothing on the change of firm valuation using a regression model with firm and year fixed effects. It contains robust standard errors but results are similar when clustering by firm and year. The sample covers 12 years from 2004 to 2015. ***, **, and * indicate statistical significance at the 10%, 5%, and 1% levels respectively.

Independent Variables	Dependent variable = *Vt/At*	
	Model 1	Model 2
Dt/At	**4.209*** **	**10.648*** **
	(0.361)	**(0.853)**
Dt/At*SOA10	**-1.808*** **	**-4.605*** **
	(0.331)	**(1.005)**
Et/At	5.119***	5.474***
	(0.129)	(0.344)
dEt-1/At	-0.536***	-0.628***
	(0.076)	(0.205)
dEt+1/At	2.805***	2.913***
	(0.080)	(0.202)
dAt-1/At	-0.120***	0.042
	(0.031)	(0.066)
dAt+1/At	0.220***	0.292***
	(0.029)	(0.064)
CXt/At	1.338***	0.180
	(0.203)	(0.391)
dCXt-1/At	-0.247*	-0.109
	(0.134)	(0.256)
dCXt+1/At	1.140***	0.487**
	(0.115)	(0.206)
It/At	-12.079***	-6.299***
	(0.961)	(2.116)
dIt-1/At	-0.169	-3.325*
	(0.914)	(1.728)
dIt+1/At	-2.893***	-1.389
	(0.954)	(1.662)
dDt-1/At	3.492***	1.372
	(0.535)	(1.127)
dDt+1/At	2.710***	4.917***
	(0.392)	(0.876)
dVt+1/At	-0.425***	-0.446***
	(0.006)	(0.009)
SOA10	0.037**	0.109**
	(0.015)	(0.048)
*dDt-1/At*SOA10*	-3.814***	-4.602**
	(0.912)	(1.808)
*dDt+1/At*SOA10*	-0.988	-3.161**
	(0.726)	(1.444)
Constant	0.590***	0.519***
	(0.016)	(0.046)
Firm & Year FE	Yes	Yes
R-squared within	0.470	0.566
R-squared between	0.440	0.270
R-squared overall	0.445	0.345
N	14,407	3,898
USA	Incl.	Excl.
JPN	Incl.	Excl.
GBR	Incl.	Excl.

Internet Appendix Table 4

Summary Statistics, Dividend Valuation and Shareholder Rights

This table augments the Table 4 from the main text and shows additional sample statistics. Panel A shows the level of anti-self-dealing index for each country and their respective numbers of observation for SOA10. Panel B shows the number of observations by year. Panel C (D) shows the summary statistics for the low (high) Anti-Self-Dealing Index countries. The anti-self-dealing index *(ANTI-SELF-DEALING)* comes from Andrei Shleifer's website.

Panel A: Number of Observations by Country and Anti-Self-Dealing Index Level

Countries with low anti-self-dealing index (High Anti-Self-Dealing = 0)			Countries with high anti-self-dealing index (High Anti-Self-Dealing = 1)		
Country	*SOA10*	Anti-Self-Dealing Index	Country	*SOA10*	Anti-Self-Dealing Index
CHE	91	0.267	AUS	307	0.79
DEU	146	0.279	CAN	527	0.651
DNK	27	0.466	CHN	774	0.778
FIN	99	0.46	GBR	782	0.927
FRA	4	0.382	HKG	121	0.964
IND	272	0.549	MYS	503	0.948
JPN	5,926	0.483	SGP	171	1
KOR	533	0.461	USA	3,801	0.651
NLD	58	0.209	ZAF	33	0.814
NOR	33	0.435			
PAK	18	0.408			
SWE	181	0.34			
Total	7,388		Total	7,019	

Panel B: Number of Observations by Year and Anti-Self-Dealing Index Level

Countries with low anti-self-dealing index (High Anti-Self-Dealing = 0)			Countries with high anti-self-dealing index (High Anti-Self-Dealing = 1)		
Year	*SOA5*	*SOA10*	Year	*SOA5*	*SOA10*
2001	24		2001	30	
2002	46		2002	354	
2003	202		2003	504	
2004	299	62	2004	642	382
2005	427	296	2005	694	504
2006	491	360	2006	757	532
2007	673	540	2007	718	514
2008	853	698	2008	750	595
2009	1,131	940	2009	849	708
2010	1,138	972	2010	924	802
2011	1,247	1,093	2011	974	837
2012	1,123	1,002	2012	1,007	878
2013	912	797	2013	765	658
2014	649	564	2014	620	536
2015	104	64	2015	115	73
Total	9,319	7,388		9,703	7,019

Panel C: Summary Statistics for the Low Anti-Self-Dealing Index Countries

Statistic	High Anti-Self-Dealing = 0															
	Variables															
	$\frac{V_t}{A_t}$	$\frac{E_t}{A_t}$	$\frac{dE_{t-1}}{A_t}$	$\frac{dE_{t+1}}{A_t}$	$\frac{dA_{t-1}}{A_t}$	$\frac{dA_{t+1}}{A_t}$	$\frac{CX_t}{A_t}$	$\frac{dCX_{t-1}}{A_t}$	$\frac{dCX_{t+1}}{A_t}$	$\frac{I_t}{A_t}$	$\frac{dI_{t-1}}{A_t}$	$\frac{dI_{t+1}}{A_t}$	$\frac{D_t}{A_t}$	$\frac{dD_{t-1}}{A_t}$	$\frac{dD_{t+1}}{A_t}$	$\frac{dV_{t+1}}{A_t}$
N	9319	9319	9319	9319	9319	9319	9319	9319	9319	9319	9319	9319	9319	9319	9319	9319
Mean	0.635	0.040	0.001	0.004	0.050	0.063	0.041	0.002	0.002	0.005	0.000	0.000	0.014	0.001	0.001	0.035
Median	0.453	0.034	0.002	0.003	0.060	0.062	0.031	0.001	0.000	0.003	0.000	0.000	0.009	0.000	0.000	0.013
Std	0.688	0.047	0.037	0.038	0.119	0.129	0.038	0.029	0.031	0.007	0.003	0.003	0.019	0.007	0.008	0.337
5th	0.127	-0.019	-0.057	-0.052	-0.150	-0.142	0.003	-0.041	-0.043	0.000	-0.003	-0.003	0.002	-0.004	-0.006	-0.352
25th	0.268	0.017	-0.012	-0.011	-0.010	-0.018	0.013	-0.007	-0.008	0.001	0.000	0.000	0.005	0.000	0.000	-0.065
75th	0.747	0.060	0.015	0.017	0.123	0.139	0.056	0.011	0.011	0.007	0.001	0.001	0.015	0.001	0.002	0.110
95th	1.751	0.120	0.052	0.062	0.218	0.277	0.116	0.045	0.048	0.020	0.003	0.003	0.041	0.006	0.009	0.483

Panel D: Summary Statistics for the High Anti-Self-Dealing Index Countries

Statistic	High Anti-Self-Dealing = 1															
	Variables															
	$\frac{V_t}{A_t}$	$\frac{E_t}{A_t}$	$\frac{dE_{t-1}}{A_t}$	$\frac{dE_{t+1}}{A_t}$	$\frac{dA_{t-1}}{A_t}$	$\frac{dA_{t+1}}{A_t}$	$\frac{CX_t}{A_t}$	$\frac{dCX_{t-1}}{A_t}$	$\frac{dCX_{t+1}}{A_t}$	$\frac{I_t}{A_t}$	$\frac{dI_{t-1}}{A_t}$	$\frac{dI_{t+1}}{A_t}$	$\frac{D_t}{A_t}$	$\frac{dD_{t-1}}{A_t}$	$\frac{dD_{t+1}}{A_t}$	$\frac{dV_{t+1}}{A_t}$
N	9,703	9,703	9,703	9,703	9,703	9,703	9,703	9,703	9,703	9,703	9,703	9,703	9,703	9,703	9,703	9,703
Mean	1.166	0.072	0.004	0.007	0.048	0.068	0.050	0.001	0.004	0.012	0.000	0.000	0.027	0.002	0.003	0.115
Median	0.856	0.070	0.007	0.007	0.057	0.059	0.037	0.001	0.001	0.010	0.000	0.000	0.017	0.000	0.000	0.073
Std	1.047	0.070	0.065	0.063	0.137	0.141	0.047	0.033	0.036	0.013	0.005	0.005	0.036	0.015	0.019	0.609
5th	0.206	-0.024	-0.085	-0.085	-0.178	-0.152	0.006	-0.050	-0.045	0.000	-0.008	-0.007	0.000	-0.014	-0.014	-0.683
25th	0.509	0.040	-0.014	-0.014	-0.012	-0.012	0.019	-0.009	-0.008	0.003	-0.002	-0.002	0.006	0.000	0.000	-0.103
75th	1.463	0.104	0.025	0.028	0.127	0.138	0.065	0.011	0.013	0.018	0.002	0.002	0.034	0.003	0.004	0.294
95th	3.119	0.180	0.087	0.096	0.248	0.321	0.140	0.053	0.061	0.035	0.007	0.008	0.089	0.018	0.022	1.061

Internet Appendix Table 5

Dividend Smoothing and Firm Valuation in High and Low Shareholder Rights Countries

This table shows the relationship between dividend smoothing and firm valuation in high and low shareholder rights countries, as proxied by the anti-self-dealing index, using a regression model with firm and year fixed effects. The sample period is from 2001 to 2015 for the 5 year rolling estimate of the speed of adjustment *(SOA5)*. Panel A, and from 2004 to 2015 for the 10-year rolling windows estimate *(SOA10)*, Panel B. Coefficient estimates, and standard errors of the following specification are reported.

$$\frac{V_t}{A_t} = \alpha_0 + \alpha_1 \frac{E_t}{A_t} + \alpha_2 \frac{dE_{t-1}}{A_t} + \alpha_3 \frac{dE_{t+1}}{A_t} + \alpha_4 \frac{dA_{t-1}}{A_t} + \alpha_5 \frac{dA_{t+1}}{A_t} + \alpha_6 \frac{CX_t}{A_t} + \alpha_7 \frac{dCX_{t-1}}{A_t} + \alpha_8 \frac{dCX_{t+1}}{A_t} + \alpha_9 \frac{I_t}{A_t} + \alpha_{10} \frac{dI_{t-1}}{A_t} + \alpha_{11} \frac{dI_{t+1}}{A_t} + \alpha_{12} \frac{D_t}{A_t} + \alpha_{13} \frac{dD_{t-1}}{A_t} + \alpha_{14} \frac{dD_{t+1}}{A_t} + \alpha_{15} \frac{dV_{t+1}}{A_t} + \alpha_{16} SOA + \alpha_{17} SOA \frac{D_t}{A_t} + \alpha_{18} SOA \frac{dD_{t-1}}{A_t} + \alpha_{19} SOA \frac{dD_{t+1}}{A_t} + \varepsilon_t$$

For companies from Compustat North America, *V* is the number of shares outstanding (CSHO) multiplied by either the fiscal year-end closing price (PRCC_F), if available, or the fiscal year-end monthly closing price from the Compustat Merged Monthly Security File (PRCCM). For companies from Compustat Global, *V* is the number of current common shares outstanding (CSHOC) multiplied by the appropriate fiscal year-end price (PRCCD) which comes from the Merged Global Security Daily File. We adjust the stock price by the price quotation unit (QUNIT). *A* is the book value of total assets (AT); *E* is earnings before extraordinary items (IB) plus interest (XINT), deferred tax credits, and investment tax credits (TXDITC) if available; dE_t is the change in earnings from the previous year, calculated as $E_t - E_{t-1}$; dE_{t+1} is the one-year ahead lead change in earnings, calculated as $E_{t+1} - E_t$; *CX* is capital expenditures (CAPX); dCX_{t-1} is the change in capital expenditures from the previous year, calculated as $CX_t - CX_{t-1}$; dCX_{t+1} is the one-year ahead lead change in capital expenditures, calculated as $CX_{t+1} - CX_t$; *I* is the annual interest expense (XINT); dI_{t-1} is the change in interest expense from the previous year, calculated as $I_t - I_{t-1}$; dI_{t+1} is the one-year ahead lead change in interest expense, calculated as $I_{t+1} - I_t$; *D* is the annual dividend amount (DVC); dD_{t-1} is the change in dividend amount from the previous year, calculated as $D_t - D_{t-1;}$ and dD_{t+1} is the one-year ahead lead change in dividends, calculated as $D_{t+1} - D_t$. *SOA* is the speed of adjustment. *SOA5* is the speed of adjustment, estimated using a 5-year rolling window. *SOA10* is the speed of adjustment estimated using a 10-year rolling window. ***, **, and * indicate statistical significance at the 10%, 5%, and 1% levels respectively. The anti-self-dealing index *(ANTI-SELF-DEALING)* comes from Andrei Shleifer's website.

Panel A: Dividend Smoothing on Firm Valuation in High and Low Shareholder Rights Countries with *SOA5*

Independent Variables	Dependent variable = V_t/A_t					
	High Anti-Self-Dealing Index			High Anti-Self-Dealing Index		
	0	1	*p*-value for	0	1	*p*-value for
	Model 1	Model 2	the difference	Model 3	Model 4	the difference
E_t/A_t	5.821***	4.425***		6.339***	4.664***	
	(0.163)	(0.161)		(0.418)	(0.314)	
dE_{t-1}/A_t	-0.907***	-0.530***		-0.791***	-0.914***	
	(0.103)	(0.091)		(0.273)	(0.195)	
dE_{t+1}/A_t	2.963***	2.332***		3.455***	2.115***	
	(0.102)	(0.102)		(0.287)	(0.196)	
dA_{t-1}/A_t	-0.109***	-0.037		0.248***	-0.050	
	(0.029)	(0.045)		(0.075)	(0.073)	
dA_{t+1}/A_t	0.112***	0.426***		0.155**	0.363***	
	(0.027)	(0.044)		(0.078)	(0.067)	
CX_t/A_t	0.963***	1.348***		1.150**	-0.047	
	(0.197)	(0.255)		(0.479)	(0.376)	
dCX_{t-1}/A_t	-0.377***	-0.077		-0.952***	0.285	
	(0.127)	(0.178)		(0.311)	(0.254)	
dCX_{t+1}/A_t	0.553***	1.156***		0.217	0.584***	
	(0.112)	(0.158)		(0.265)	(0.211)	
I_t/A_t	-19.999***	-11.934***		-17.255***	-5.467***	
	(1.284)	(1.050)		(2.317)	(1.953)	
dI_{t-1}/A_t	5.150***	-0.641		2.803	-4.243***	
	(1.143)	(1.044)		(2.019)	(1.643)	
dI_{t+1}/A_t	-6.215***	-4.717***		-6.365***	-0.648	
	(1.361)	(1.123)		(2.392)	(1.646)	
D_t/A_t	**7.253*** **	**3.197*** **	**0.000**	**8.221*** **	**5.810*** **	**0.077**
	(0.640)	**(0.403)**		**(1.183)**	**(0.677)**	
dD_{t-1}/A_t	3.434***	2.245***		3.095**	1.653**	
	(0.878)	(0.431)		(1.557)	(0.657)	
dD_{t+1}/A_t	6.612***	1.920***		6.431***	2.537***	

	(0.708)	(0.334)		(1.266)	(0.523)	
dV_{t+1}/A_t	-0.466***	-0.442***		-0.460***	-0.450***	
	(0.009)	(0.008)		(0.018)	(0.010)	
SOA5	0.067***	0.100***		0.095*	0.216***	
	(0.018)	(0.026)		(0.054)	(0.043)	
D_t/A_t*SOA5	**-9.919*** **	**-1.742*** **	**0.000**	**-6.261*** **	**-2.695*** **	**0.092**
	(1.565)	**(0.494)**		**(2.018)**	**(0.701)**	
dD_{t-1}/A_t*SOA5*	-3.705***	-0.909*		-5.150***	-3.223***	
	(1.153)	(0.511)		(1.989)	(1.015)	
dD_{t+1}/A_t*SOA5*	-1.580*	-0.934*		-2.063	-1.983**	
	(0.942)	(0.485)		(1.607)	(0.831)	
Constant	0.388***	0.827***		0.391***	0.637***	
	(0.016)	(0.024)		(0.054)	(0.042)	
Firm & Year FE	Yes	Yes		Yes	Yes	
R-squared within	0.474	0.428		0.482	0.496	
R-squared between	0.600	0.370		0.595	0.209	
R-squared overall	0.578	0.394		0.586	0.305	
N	9,319	9,703		2,335	3,850	
USA, JPN, GBR	Incl.	Incl.		Excl.	Excl.	

Panel B: Dividend Smoothing on Firm Valuation in High and Low Shareholder Rights Countries with *SOA10*

Independent Variables	Dependent variable = V_t/A_t					
	High Anti-Self-Dealing Index			High Anti-Self-Dealing Index		
	0	1	*p*-value for	0	1	*p*-value for
	Model 1	Model 2	the difference	Model 3	Model 4	the difference
E_t/A_t	6.181***	4.486***		7.551***	4.261***	
	(0.190)	(0.185)		(0.625)	(0.419)	
dE_{t-1}/A_t	-0.979***	-0.388***		-1.233***	-0.402*	
	(0.120)	(0.103)		(0.391)	(0.240)	
dE_{t+1}/A_t	3.189***	2.482***		4.117***	2.212***	
	(0.112)	(0.115)		(0.387)	(0.235)	
dA_{t-1}/A_t	-0.101***	-0.119**		0.260***	-0.179**	
	(0.032)	(0.051)		(0.098)	(0.090)	
dA_{t+1}/A_t	0.045	0.391***		-0.069	0.448***	
	(0.029)	(0.051)		(0.101)	(0.082)	
CX_t/A_t	0.883***	1.625***		0.955	0.041	
	(0.229)	(0.316)		(0.672)	(0.474)	
dCX_{t-1}/A_t	-0.266*	-0.323		-0.865**	0.122	
	(0.144)	(0.216)		(0.419)	(0.319)	
dCX_{t+1}/A_t	0.525***	1.488***		0.045	0.796***	
	(0.127)	(0.182)		(0.360)	(0.245)	
I_t/A_t	-15.548***	-11.561***		-10.723***	-3.130	
	(1.868)	(1.263)		(3.804)	(2.534)	
dI_{t-1}/A_t	0.887	-0.129		-3.252	-4.321**	
	(1.561)	(1.231)		(3.132)	(2.056)	
dI_{t+1}/A_t	-4.868***	-2.993**		-4.158	0.741	
	(1.651)	(1.281)		(3.268)	(1.918)	
D_t/A_t	**11.669*** **	**3.441*** **	**0.000**	**13.450*** **	**9.053*** **	**0.029**
	(0.782)	**(0.470)**		**(1.753)**	**(0.998)**	
dD_{t-1}/A_t	4.824***	3.100***		4.674**	0.838	
	(1.080)	(0.700)		(2.126)	(1.322)	
dD_{t+1}/A_t	8.745***	2.062***		8.410***	3.331***	
	(0.769)	(0.514)		(1.509)	(1.059)	
dV_{t+1}/A_t	-0.408***	-0.431***		-0.376***	-0.461***	
	(0.010)	(0.008)		(0.021)	(0.010)	
SOA10	0.080***	0.076***		0.183**	0.073	
	(0.016)	(0.029)		(0.075)	(0.062)	
D_t/A_t*SOA10	**-6.462*** **	**-1.407*** **	**0.000**	**-7.964*** **	**-3.099** **	**0.026**

	(0.870)	**(0.424)**	**(1.831)**	**(1.210)**
dD_{t-1}/A_t*SOA10*	-6.826***	-2.892**	-7.508**	-3.532
	(1.612)	(1.223)	(3.011)	(2.222)
dD_{t+1}/A_t*SOA10*	-4.944***	-0.874	-5.987**	-2.145
	(1.245)	(0.982)	(2.348)	(1.798)
Cosnstant	0.265***	0.853***	0.118	0.732***
	(0.018)	(0.029)	(0.080)	(0.056)
Firm & Year FE	Yes	Yes	Yes	Yes
R-squared within	0.493	0.478	0.521	0.615
R-squared between	0.642	0.364	0.645	0.131
R-squared overall	0.619	0.387	0.627	0.251
N	7,388	7,019	1,462	2,436
USA, JPN, GBR	Incl.	Incl.	Excl.	Excl.

Internet Appendix Table 6

Insider Trading Law Change: An Exogenous Shock to Agency Costs and Dividend Smoothing

This table shows the summary statistics, the covariate balance and the test of parallel trend assumptions for the matched sample diff-in-diff analysis in Table 6. The sample covers 5 and 10 years before and after 1976, during which the insider trading laws were first enforced in Canada. Firms in the Canada sample are the treatment group and their p-score matched counterpart firm comes from the US. We use exact matching on industry, and year, in addition to matching on three firm characteristics. The firm characteristics are size, tangibility, and market to book ratio. The regression model uses industry and time fixed effects and the standard errors are clustered at the firm level. Coefficient estimates and standard errors are reported. Panel B shows the covariate balance. Panel C tests the parallel trend assumptions. ***, **, and * indicate statistical significance at the 10%, 5%, and 1% levels respectively.

Panel A: Number of Observations by Year

Fiscal Year	*N*
1970	291
1971	316
1972	321
1973	336
1974	333
1975	-
1976	Enforcement year
1977	-
1978	425
1979	444
1980	454
1981	461
1982	433
Total	3,814

Panel B: Covariate Balance

Variable	Mean		t-test	
	Treated	*Control*	t-stat	p-value
SIZE	5.152	5.066	1.33	0.182
$SIZE^2$	29.119	28.092	1.49	0.136
M/B	1.268	1.285	0.72	0.473
M/B^2	1.968	2.022	0.53	0.593
TANGIBILITY	0.458	0.452	0.71	0.479
$TANGIBILITY^2$	0.259	0.249	1.13	0.258

Panel C: Parallel Trend Assumptions

Independent Variables	Dependent Variable= SOA
Treat	-0.024
	(0.099)
Treat x *Year* (-6)	0.235
	(0.144)
Treat x *Year* (-5)	0.174
	(0.141)
Treat x *Year* (-4)	0.123
	(0.141)
Treat x *Year* (-3)	0.053
	(0.140)
Constant	0.660***
	(0.071)
Industry & Year FE	Yes
R-squared	0.02
N	1,852

Internet Appendix Table 7

Insider Trading Law Change: An Exogenous Shock to Agency Costs, Dividend Smoothing, and Firm Valuation

This table shows detailed summary statistics for the regime-shift sample. The sample covers 5 years before and after 1976, during which the insider trading laws were first enforced in Canada. *SOA* is the speed of adjustment which was estimated using the Lintner (1956) model on the pre and post enforcement period using 5 years of data. *IT_ENFORCED* equals 1 in the year after the first time prosecution of insider trading laws took place and 0 otherwise. The regression model uses industry and time fixed effects and the standard errors are clustered at the firm level (Petersen, 2009). Coefficient estimates, and standard errors are reported. Panel A shows the number of observations by year. Panel B shows the descriptive statistics of the variables. *V* is the number of shares outstanding (CSHO) multiplied by either the fiscal year-end closing price (PRCC_F), if available, or the fiscal year-end monthly closing price from the Compustat Merged Monthly Security File (PRCCM). *A* is the book value of total assets (AT); *E* is earnings before extraordinary items (IB) plus interest (XINT), deferred tax credits, and investment tax credits (TXDITC) if available; dE_t is the change in earnings from the previous year, calculated as $E_t - E_{t-1}$; dE_{t+1} is the one-year ahead lead change in earnings, calculated as $E_{t+1} - E_t$; *CX* is capital expenditures (CAPX); dCX_{t-1} is the change in capital expenditures from the previous year, calculated as $CX_t - CX_{t-1}$; dCX_{t+1} is the one-year ahead lead change in capital expenditures, calculated as $CX_{t+1} - CX_t$; *I* is the annual interest expense (XINT); dI_{t-1} is the change in interest expense from the previous year, calculated as $I_t - I_{t-1}$; dI_{t+1} is the one-year ahead lead change in interest expense, calculated as $I_{t+1} - I_t$; *D* is the annual dividend amount (DVC); dD_{t-1} is the change in dividend amount from the previous year, calculated as $D_t - D_{t-1;}$ and dD_{t+1} is the one-year ahead lead change in dividends, calculated as $D_{t+1} - D_t$. ***, **, and * indicate statistical significance at the 10%, 5%, and 1% levels respectively.

Panel A: Number of observations by year

Fiscal Year	*N*
1970	113
1971	122
1972	121
1973	125
1974	127
1975	-
1976	*IT_ENFORCED*
1977	-
1978	124
1979	121
1980	121
1981	117
1982	142
Total	1,233

Panel B: Descriptive Statistics

	Variables															
	$\frac{V_t}{A_t}$	$\frac{E_t}{A_t}$	$\frac{dE_{t-1}}{A_t}$	$\frac{dE_{t+1}}{A_t}$	$\frac{dA_{t-1}}{A_t}$	$\frac{dA_{t+1}}{A_t}$	$\frac{CX_t}{A_t}$	$\frac{dCX_{t-1}}{A_t}$	$\frac{dCX_{t+1}}{A_t}$	$\frac{I_t}{A_t}$	$\frac{dI_{t-1}}{A_t}$	$\frac{dI_{t+1}}{A_t}$	$\frac{D_t}{A_t}$	$\frac{dD_{t-1}}{A_t}$	$\frac{dD_{t+1}}{A_t}$	$\frac{dV_{t+1}}{A_t}$
Statistic	All															
N	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233	1,233
Mean	0.732	0.145	0.019	0.023	0.118	0.143	0.089	0.013	0.017	0.023	0.004	0.004	0.022	0.003	0.002	0.098
Median	0.468	0.140	0.021	0.022	0.111	0.112	0.077	0.010	0.008	0.020	0.002	0.001	0.016	0.001	0.001	0.037
Std	0.772	0.074	0.049	0.061	0.131	0.192	0.064	0.054	0.071	0.018	0.009	0.013	0.026	0.012	0.014	0.465
5th	0.152	0.038	-0.063	-0.072	-0.078	-0.092	0.011	-0.065	-0.070	0.000	-0.006	-0.013	0.000	-0.011	-0.013	-0.444
25th	0.291	0.091	0.000	-0.004	0.042	0.030	0.042	-0.011	-0.017	0.008	0.000	-0.001	0.007	0.000	0.000	-0.065
75th	0.848	0.191	0.042	0.050	0.187	0.216	0.123	0.035	0.039	0.032	0.007	0.008	0.026	0.004	0.004	0.177
95th	2.337	0.275	0.095	0.122	0.338	0.482	0.203	0.095	0.121	0.060	0.023	0.029	0.066	0.019	0.018	0.849
	IT_ENFORCED = 0															
N	608	608	608	608	608	608	608	608	608	608	608	608	608	608	608	608
Mean	0.888	0.129	0.023	0.028	0.131	0.151	0.081	0.013	0.015	0.017	0.003	0.003	0.023	0.003	0.003	0.055
Median	0.549	0.120	0.023	0.024	0.121	0.122	0.070	0.010	0.010	0.015	0.001	0.001	0.016	0.001	0.001	0.010
Std	0.924	0.072	0.046	0.059	0.117	0.186	0.058	0.051	0.063	0.013	0.006	0.008	0.030	0.012	0.015	0.520
5th	0.152	0.027	-0.052	-0.060	-0.028	-0.053	0.010	-0.059	-0.064	0.000	-0.005	-0.007	0.000	-0.009	-0.013	-0.651
25th	0.320	0.077	0.004	0.003	0.056	0.042	0.039	-0.008	-0.012	0.007	0.000	-0.001	0.005	0.000	0.000	-0.110
75th	1.043	0.170	0.042	0.053	0.189	0.221	0.112	0.035	0.036	0.025	0.006	0.006	0.028	0.005	0.005	0.159
95th	2.907	0.261	0.096	0.124	0.328	0.450	0.188	0.089	0.105	0.037	0.015	0.018	0.073	0.021	0.021	0.951
	IT_ENFORCED = 1															
N	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625	625
Mean	0.579	0.161	0.016	0.018	0.106	0.135	0.096	0.013	0.018	0.029	0.006	0.005	0.020	0.002	0.002	0.140
Median	0.398	0.162	0.020	0.015	0.100	0.101	0.084	0.009	0.005	0.026	0.002	0.002	0.016	0.001	0.001	0.060
Std	0.548	0.073	0.051	0.063	0.142	0.198	0.068	0.057	0.077	0.021	0.011	0.016	0.021	0.013	0.013	0.401
5th	0.154	0.054	-0.080	-0.082	-0.118	-0.122	0.012	-0.068	-0.071	0.000	-0.006	-0.019	0.000	-0.011	-0.013	-0.219
25th	0.274	0.109	-0.006	-0.011	0.022	0.012	0.047	-0.014	-0.022	0.012	0.000	-0.001	0.009	0.000	0.000	-0.024
75th	0.678	0.208	0.042	0.047	0.185	0.213	0.130	0.036	0.041	0.041	0.010	0.011	0.024	0.004	0.004	0.189
95th	1.545	0.280	0.088	0.121	0.346	0.505	0.217	0.107	0.150	0.069	0.028	0.036	0.056	0.016	0.015	0.790

Internet Appendix Table 8

Analyses based on Alternative Proxies for Smoothing

This table shows the relationship between dividend smoothing and firm valuation using relative volatility (*RELVOL*) as an alternative proxy for dividend smoothing. *REL5* is the relative volatility using a 5-year rolling window. *REL10* is the relative volatility using a 10-year rolling window. *SOA5* is the speed of adjustment, estimated using a 5-year rolling window. *SOA10* is the speed of adjustment estimated using a 10-year rolling window. Panel A uses *REL5* and *REL10* as the smoothing variable. Panel B (C) uses *REL5* (*REL10*) as the smoothing variable and shows the impact of dividend smoothing on the change of firm valuation in high and low shareholder rights countries. Coefficient estimates, and standard errors of the following specification are reported.

$$\frac{V_t}{A_t} = \alpha_0+\alpha_1 \frac{E_t}{A_t} +\alpha_2 \frac{dE_{t-1}}{A_t} +\alpha_3 \frac{dE_{t+1}}{A_t} +\alpha_4 \frac{dA_{t-1}}{A_t} +\alpha_5 \frac{dA_{t+1}}{A_t} +\alpha_6 \frac{CX_t}{A_t} +\alpha_7 \frac{dCX_{t-1}}{A_t} + \alpha_8 \frac{dCX_{t+1}}{A_t} + \alpha_9 \frac{I_t}{A_t} + \alpha_{10} \frac{dI_{t-1}}{A_t} + \alpha_{11} \frac{dI_{t+1}}{A_t} + \alpha_{12} \frac{D_t}{A_t} + \alpha_{13} \frac{dD_{t-1}}{A_t} +\alpha_{14} \frac{dD_{t+1}}{A_t} +\alpha_{15}$$
$$\frac{dV_{t+1}}{A_t} + \alpha_{16} REL+ \alpha_{17} REL \frac{D_t}{A_t} + \alpha_{18} REL \frac{dD_{t-1}}{A_t} + \alpha_{19} REL \frac{dD_{t+1}}{A_t} + \varepsilon_t$$

For companies from Compustat North America, *V* is the number of shares outstanding (CSHO) multiplied by either the fiscal year-end closing price (PRCC_F), if available, or the fiscal year-end monthly closing price from the Compustat Merged Monthly Security File (PRCCM). For companies from Compustat Global, *V* is the number of current common shares outstanding (CSHOC) multiplied by the appropriate fiscal year-end price (PRCCD) which comes from the Merged Global Security Daily File. We adjust the stock price by the price quotation unit (QUNIT). *A* is the book value of total assets (AT); *E* is earnings before extraordinary items (IB) plus interest (XINT), deferred tax credits, and investment tax credits (TXDITC) if available; dE_t is the change in earnings from the previous year, calculated as $E_t - E_{t-1}$; dE_{t+1} is the one-year ahead lead change in earnings, calculated as $E_{t+1} - E_t$; *CX* is capital expenditures (CAPX); dCX_{t-1} is the change in capital expenditures from the previous year, calculated as $CX_t - CX_{t-1}$; dCX_{t+1} is the one-year ahead lead change in capital expenditures, calculated as $CX_{t+1} - CX_t$; *I* is the annual interest expense (XINT); dI_{t-1} is the change in interest expense from the previous year, calculated as $I_t - I_{t-1}$; dI_{t+1} is the one-year ahead lead change in interest expense, calculated as $I_{t+1} - I_t$; *D* is the annual dividend amount (DVC); dD_{t-1} is the change in dividend amount from the previous year, calculated as $D_t - D_{t-1;}$ and dD_{t+1} is the one-year ahead lead change in dividends, calculated as $D_{t+1} - D_t$. ***, **, and * indicate statistical significance at the 10%, 5%, and 1% levels respectively. The anti-self-dealing index *(ANTI-SELF-DEALING)* comes from Andrei Shleifer's website.

Panel A: Dividend Smoothing and Firm Valuation using Alternative Proxies

	Dependent variable = V_t/A_t			
	Smoothing Proxy: *REL5*		Smoothing Proxy: *REL10*	
Independent Variables	Model 1	Model 2	Model 3	Model 4
E_t/A_t	5.024***	5.461***	4.962***	4.795***
	(0.113)	(0.246)	(0.124)	(0.323)
dE_{t-1}/A_t	-0.640***	-0.895***	-0.521***	-0.602***
	(0.067)	(0.158)	(0.073)	(0.191)
dE_{t+1}/A_t	2.640***	2.685***	2.765***	2.620***
	(0.072)	(0.161)	(0.078)	(0.195)
dA_{t-1}/A_t	-0.071***	0.065	-0.094***	0.124**
	(0.027)	(0.053)	(0.030)	(0.061)
dA_{t+1}/A_t	0.272***	0.280***	0.229***	0.348***
	(0.026)	(0.051)	(0.028)	(0.061)
CX_t/A_t	1.224***	0.279	1.391***	0.267
	(0.168)	(0.298)	(0.198)	(0.369)
dCX_{t-1}/A_t	-0.177	-0.102	-0.305**	-0.285
	(0.114)	(0.198)	(0.130)	(0.240)
dCX_{t+1}/A_t	0.951***	0.397**	1.025***	0.210
	(0.101)	(0.167)	(0.115)	(0.202)
I_t/A_t	-13.607***	-10.638***	-12.465***	-6.884***
	(0.774)	(1.453)	(0.932)	(1.989)
dI_{t-1}/A_t	0.461	-0.680	-0.410	-3.818**
	(0.753)	(1.252)	(0.905)	(1.663)
dI_{t+1}/A_t	-4.627***	-2.806**	-2.829***	-1.406
	(0.835)	(1.353)	(0.979)	(1.699)
D_t/A_t	**3.148*** **	**5.233*** **	**3.620*** **	**8.666*** **
	(0.319)	**(0.560)**	**(0.343)**	**(0.683)**
dD_{t-1}/A_t	2.764***	2.546***	1.875***	-0.141
	(0.503)	(0.816)	(0.480)	(0.854)
dD_{t+1}/A_t	1.767***	1.947***	2.285***	4.862***
	(0.386)	(0.686)	(0.377)	(0.836)

dV_{t+1}/A_t	-0.445***	-0.451***	-0.436***	-0.470***
	(0.006)	(0.009)	(0.006)	(0.009)
Relative Volatility (REL)	0.037***	0.089***	0.005	0.037**
	(0.010)	(0.021)	(0.008)	(0.018)
D_t/A_t*Relative Volatility (REL)	**-1.627*** **	**-2.153** **	**-2.182*** **	**-3.074*** **
	(0.514)	**(0.954)**	**(0.409)**	**(0.739)**
*dD_{t-1}/A_t*Relative Volatility (REL)*	-1.339**	-2.828***	-0.005	-1.263
	(0.530)	(0.872)	(0.880)	(1.605)
*dD_{t+1}/A_t*Relative Volatility (REL)*	0.299	0.692	-0.034	-2.024
	(0.439)	(0.811)	(0.693)	(1.339)
Constant	0.618***	0.581***	0.611***	0.566***
	(0.014)	(0.033)	(0.016)	(0.041)
Firm & Year FE	Yes	Yes	Yes	Yes
R-squared within	0.431	0.475	0.468	0.578
R-squared between	0.422	0.338	0.443	0.299
R-squared overall	0.433	0.388	0.460	0.402
N	19022	6185	14407	3898
USA	Incl.	Excl.	Incl.	Excl.
JPN	Incl.	Excl.	Incl.	Excl.
GBR	Incl.	Excl.	Incl.	Excl.

Panel B: Dividend Smoothing and Firm Valuation in High and Low Shareholder Rights Countries using *REL5*

Independent Variables	Dependent variable = V_t/A_t					
	High Anti-Self-Dealing Index			High Anti-Self-Dealing Index		
	0	1	*p*-value for	0	1	*p*-value for
	Model 1	Model 2	the difference	Model 1	Model 2	the difference
E_t/A_t	5.846***	4.482***		6.414***	5.932***	
	(0.163)	(0.161)		(0.430)	(0.346)	
dE_{t-1}/A_t	-0.939***	-0.546***		-0.722***	-0.729***	
	(0.103)	(0.091)		(0.273)	(0.213)	
dE_{t+1}/A_t	2.937***	2.348***		3.326***	2.783***	
	(0.102)	(0.102)		(0.287)	(0.211)	
dA_{t-1}/A_t	-0.111***	-0.043		0.219***	-0.147*	
	(0.029)	(0.045)		(0.073)	(0.081)	
dA_{t+1}/A_t	0.116***	0.423***		0.171**	0.464***	
	(0.027)	(0.044)		(0.077)	(0.074)	
CX_t/A_t	0.976***	1.332***		0.822*	-0.487	
	(0.197)	(0.256)		(0.466)	(0.417)	
dCX_{t-1}/A_t	-0.373***	-0.068		-0.863***	0.515*	
	(0.128)	(0.178)		(0.303)	(0.282)	
dCX_{t+1}/A_t	0.557***	1.143***		0.072	0.760***	
	(0.112)	(0.158)		(0.257)	(0.226)	
I_t/A_t	-19.902***	-12.273***		-15.362***	-9.335***	
	(1.286)	(1.049)		(2.281)	(2.192)	
dI_{t-1}/A_t	5.310***	-0.565		2.250	-1.803	
	(1.146)	(1.044)		(1.971)	(1.785)	
dI_{t+1}/A_t	-6.153***	-4.887***		-5.139**	-3.044*	
	(1.362)	(1.123)		(2.369)	(1.715)	
D_t/A_t	**8.050*** **	**2.868*** **	**0.000**	**7.892*** **	**3.113*** **	**0.001**
	(0.662)	**(0.419)**		**(1.326)**	**(0.743)**	
dD_{t-1}/A_t	1.129	3.172***		-1.105	3.012***	
	(1.074)	(0.645)		(1.855)	(1.051)	
dD_{t+1}/A_t	5.507***	1.667***		3.607**	0.494	
	(0.946)	(0.487)		(1.727)	(0.875)	
dV_{t+1}/A_t	-0.467***	-0.442***		-0.452***	-0.440***	
	(0.009)	(0.008)		(0.018)	(0.010)	
REL5	0.060***	0.079***		0.053*	0.155***	

	(0.012)	(0.018)		(0.031)	(0.031)	
D_t/A_t*REL5	**-8.512*** **	**-1.421** **	**0.000**	**-6.014** **	**-2.656** **	**0.000**
	(1.198)	**(0.694)**		**(2.757)**	**(1.187)**	
*dD_{t-1}/A_t*REL5*	0.108	-1.822***		1.366	-4.231***	
	(0.986)	(0.697)		(1.560)	(1.195)	
*dD_{t+1}/A_t*REL5*	0.400	-0.151		1.215	-0.635	
	(0.897)	(0.573)		(1.527)	(1.158)	
Constant	0.379***	0.822***		0.406***	0.726***	
	(0.016)	(0.025)		(0.053)	(0.048)	
Firm & Year FE	Yes	Yes		Yes	Yes	
R-squared within	0.474	0.428		0.480	0.493	
R-squared between	0.603	0.376		0.596	0.213	
R-squared overall	0.578	0.398		0.585	0.308	
N	9319	9703		2335	3850	
USA, JPN, GBR	Incl.	Incl.		Excl.	Excl.	

Panel C: Dividend Smoothing and Firm Valuation in High and Low Shareholder Rights Countries using *REL10*

	Dependent variable = V_t/A_t					
	High Anti-Self-Dealing Index			High Anti-Self-Dealing Index		
Independent Variables	0	1	*p*-value for	0	1	*p*-value for
	Model 1	Model 2	the difference	Model 1	Model 2	the difference
E_t/A_t	5.624***	4.482***		6.446***	4.024***	
	(0.178)	(0.182)		(0.565)	(0.402)	
dE_{t-1}/A_t	-0.837***	-0.412***		-0.848**	-0.607***	
	(0.111)	(0.102)		(0.357)	(0.230)	
dE_{t+1}/A_t	2.982***	2.508***		3.542***	2.029***	
	(0.104)	(0.114)		(0.349)	(0.235)	
dA_{t-1}/A_t	-0.118***	-0.083		0.292***	-0.073	
	(0.030)	(0.051)		(0.087)	(0.087)	
dA_{t+1}/A_t	0.080***	0.377***		0.113	0.435***	
	(0.027)	(0.051)		(0.092)	(0.080)	
CX_t/A_t	0.758***	1.736***		0.962	0.144	
	(0.213)	(0.317)		(0.606)	(0.461)	
dCX_{t-1}/A_t	-0.206	-0.414*		-0.872**	-0.098	
	(0.134)	(0.216)		(0.376)	(0.308)	
dCX_{t+1}/A_t	0.474***	1.318***		0.004	0.410*	
	(0.119)	(0.189)		(0.332)	(0.249)	
I_t/A_t	-19.380***	-11.500***		-14.579***	-1.723	
	(1.755)	(1.249)		(3.439)	(2.439)	
dI_{t-1}/A_t	3.741**	-0.976		-0.267	-6.847***	
	(1.461)	(1.246)		(2.843)	(2.045)	
dI_{t+1}/A_t	-5.229***	-2.958**		-4.913	1.276	
	(1.569)	(1.352)		(3.019)	(2.046)	
D_t/A_t	**7.415*** **	**3.273*** **	**0.000**	**8.060*** **	**8.596*** **	**0.754**
	(0.726)	**(0.456)**		**(1.535)**	**(0.771)**	
dD_{t-1}/A_t	2.417**	1.834***		2.830	-0.021	
	(1.032)	(0.634)		(1.915)	(0.981)	
dD_{t+1}/A_t	8.360***	1.797***		8.772***	3.619***	
	(0.789)	(0.497)		(1.527)	(0.992)	
dV_{t+1}/A_t	-0.441***	-0.438***		-0.430***	-0.484***	
	(0.009)	(0.009)		(0.020)	(0.011)	
REL10	0.009	0.026*		0.019	0.060**	
	(0.008)	(0.014)		(0.029)	(0.024)	
D_t/A_t* REL10	**-7.666*** **	**-1.777*** **	**0.000**	**-5.291*** **	**-3.246*** **	**0.102**
	(1.018)	**(0.539)**		**(1.001)**	**(0.749)**	
dD_{t-1}/A_t REL10*	-1.796	0.108		-4.049	-1.825	
	(1.553)	(1.202)		(2.740)	(2.075)	
dD_{t+1}/A_t REL10*	-2.781**	-0.104		-4.095*	-1.597	

	(1.212)	(0.942)	(2.230)	(1.656)
Constant	0.394***	0.845***	0.382***	0.662***
	(0.017)	(0.028)	(0.069)	(0.051)
Firm & Year FE	Yes	Yes	Yes	Yes
R-squared within	0.513	0.465	0.534	0.623
R-squared between	0.631	0.372	0.665	0.136
R-squared overall	0.608	0.411	0.646	0.300
N	7,388	7,019	1,462	2,436
USA, JPN, GBR	Incl.	Incl.	Excl.	Excl.

Internet Appendix Table 9

Tests Based on Random Sampling and Two-Stage Residuals

Panel A shows the distributional properties for two selected coefficients estimated from the valuation regressions. We randomly select 45 observations for each of the 21 countries and run the valuation model on each sample (N=945). We implement country, industry, and year fixed effects as there is no guarantee that each firm will be observed multiple times, but not in the same year. After repeating this process for 1,000 times we report the distribution selected coefficient estimates (D_t/A_t and D_t/A_t*SOA) in Panel A. Panel B reports selected coefficients from the valuation regressions that are estimated using a two-stage residual approach. In the first stage, we project certain firm characteristics on SOA consistent with Leary and Michaely (2011):

$$SOA_t = \alpha_0+\alpha_1 M/B_t +\alpha_2 LOGSIZE +\alpha_3 TANG+\alpha_4 ROA_t +\alpha_5 PAYOUTRATIO_t +\text{Year Effects} + \text{Firm FE} + \varepsilon_t$$

SOA, M/B, $LOGSIZE$, $TANG$, ROA and $PAYOUTRATIO$ are defined as 5-year rolling speed of adjustment, market-to-book ratio, logarithmic transformation of firm's total assets, asset tangibility, net income scaled by total assets and the proportion of dividends to income before extraordinary items respectively. Asset tangibility is calculated as net property, plant and equipment (PPENT) scaled by total assets (AT). In the second stage we estimate the valuation equation shown using the residuals ($\underline{SOA}$) obtained from the above equation. We estimate the valuation equation for the full sample and subsamples based on low- and high-anti-self-dealing indexes. Panel B reports the coefficient estimates for selected coefficients (D_t/A_t and D_t/A_t*SOA).

$$\frac{V_t}{A_t} = \alpha_0+\alpha_1 \frac{E_t}{A_t} +\alpha_2 \frac{dE_{t-1}}{A_t} +\alpha_3 \frac{dE_{t+1}}{A_t} +\alpha_4 \frac{dA_{t-1}}{A_t} +\alpha_5 \frac{dA_{t+1}}{A_t} +\alpha_6 \frac{CX_t}{A_t} +\alpha_7 \frac{dCX_{t-1}}{A_t} + \alpha_8 \frac{dCX_{t+1}}{A_t} + \alpha_9 \frac{I_t}{A_t} + \alpha_{10} \frac{dI_{t-1}}{A_t} + \alpha_{11} \frac{dI_{t+1}}{A_t} + \alpha_{12} \frac{D_t}{A_t} + \alpha_{13} \frac{dD_{t-1}}{A_t} +\alpha_{14} \frac{dD_{t+1}}{A_t} +\alpha_{15} \frac{dV_{t+1}}{A_t} + \alpha_{16} \underline{SOA} + \alpha_{17} \underline{SOA} \frac{D_t}{A_t} + \alpha_{18} \underline{SOA} \frac{dD_{t-1}}{A_t} + \alpha_{19} \underline{SOA} \frac{dD_{t+1}}{A_t} + \varepsilon_t$$

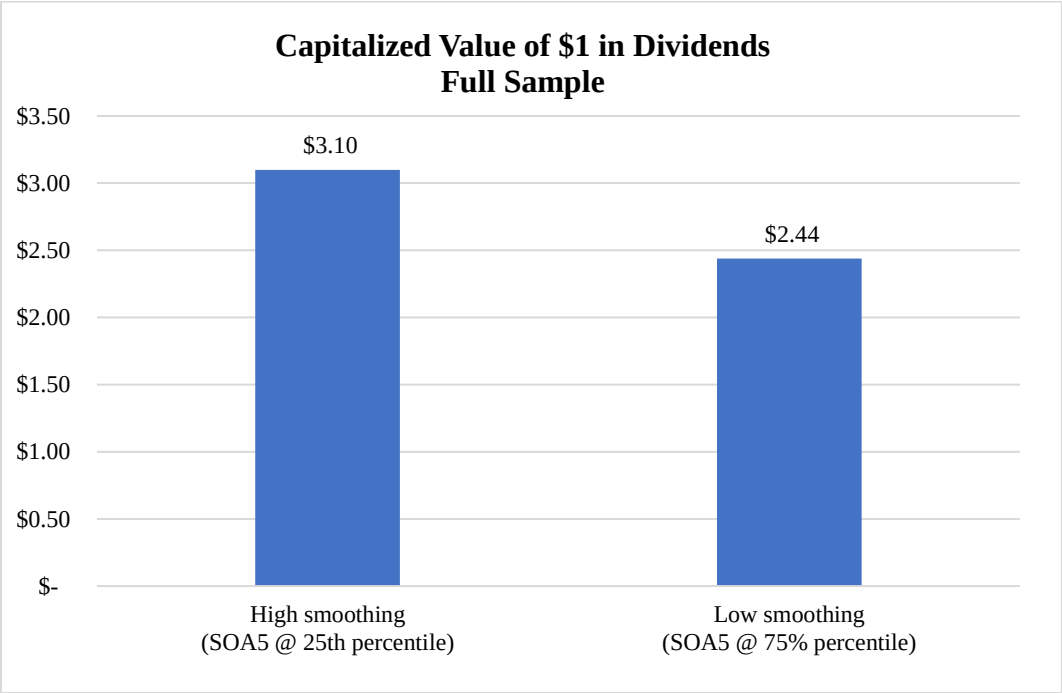
Panel A: Summary statistics for D_t/A_t and D_t/A_t*SOA

Variable	N	Mean	St.Dev.	p-value
D_t/A_t	1,000	10.872	1.805	0.000
D_t/A_t*SOA	1,000	-10.062	4.540	0.000

Panel B: Selected coefficients from second-stage valuation regressions

Independent Variables	Dependent variable = V_t/A_t	Dependent variable = V_t/A_t	
	Full Sample	High Anti-Self-Dealing Index	
		0	1
	Model 1	Model 2	Model 3
D_t/A_t	2.281***	8.806***	1.667***
	(0.321)	(0.732)	(0.421)
D_t/A_t*$\underline{SOA}$	-1.877***	-2.193***	-1.884***
	(0.462)	(0.747)	(0.669)

Internet Appendix Figure 1
Economic Significance of the Effect of Smoothing on the Capitalized Value of Dividends
The figure shows in-sample predictions for the capitalized value of $1 of dividends in the market value of equity for high and low degrees of dividend smoothing. For the high (low) dividend smoothing level, speed of adjustment (*SOA5*) is evaluated at the 25th (75th) percentile of the global sample distribution. Predictions are based on model 1 (full sample) from Table 2.



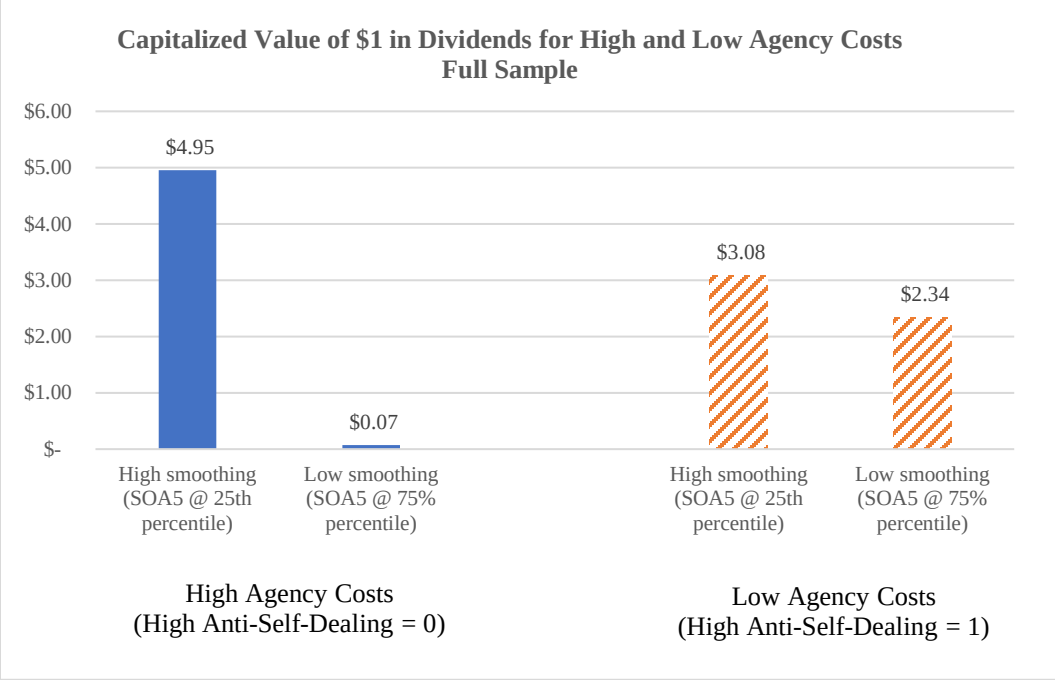
Under Miller and Modigliani's (1961) assumption of zero agency costs of equity, firm value is unrelated to dividend policy and solely dependent on investment policy. Specifically, the sensitivity of firm value to dividend payouts in the M&M world of no agency costs would be zero (i.e., $\partial(V_t/A_t)/\partial(D_t/A_t) = 0$) after controlling for the firm's investment policy. However, prior empirical research has shown that the sensitivity of firm value to dividend payouts is significantly positive (Fama and French, 1998; Pinkowitz, Stulz and Williamson, 2006). These previous findings suggest that investors are willing to pay a premium for higher payouts in order to reduce agency costs associated with cash retention (DeAngelo and DeAngelo, 2006). That is, the sensitivity of firm value to dividends captures the present value of agency cost savings that would otherwise have been borne by shareholders had the firm paid out $1 less in dividends (i.e., defined as the capitalized value of dividends). Consistent with these earlier studies, we posit that the sensitivity of firm value to dividends is dependent on two factors: (1) the smoothness of dividends, and (2) the magnitude of agency costs. We evaluate the economic significance of these effects using the regression estimates presented in these figures.

Turing to our regression estimates, we find a coefficient of 2.44 when smoothing is low (i.e., firms in the 25th percentile), compared to an estimate of 3.10 when smoothing is high (i.e., firms in the 75th percentile), representing an increase of about 27%. So, relative to a low-smoothing firm with a stock price of $100, for example, a high-smoothing firm would be valued at roughly $127. While these figures suggest that dividend smoothing is economically significant, it is also important to note that dividend smoothing is not a costless choice equally available to all firms. The costs of committing to fixed dividend payouts are likely to discourage or preclude some firms from a high-smoothing policy. However, if the firm could make such commitment, the increase in value would be significant, which underlines the important role of smooth dividends in mitigating agency costs of equity.

Internet Appendix Figure 2- Economic Significance

Economic Significance of the Effect of Smoothing on the Capitalized Value of Dividends Conditional on Agency Costs

The figure shows in-sample predictions for the capitalized value of $1 of dividends conditional on the level of shareholder rights. For the high (low) dividend smoothing level, the speed of adjustment (*SOA*) is evaluated at the 25th (75th) percentile of the global sample distribution. In-sample predictions are based on estimated coefficients reported in Panel A of Table 5.



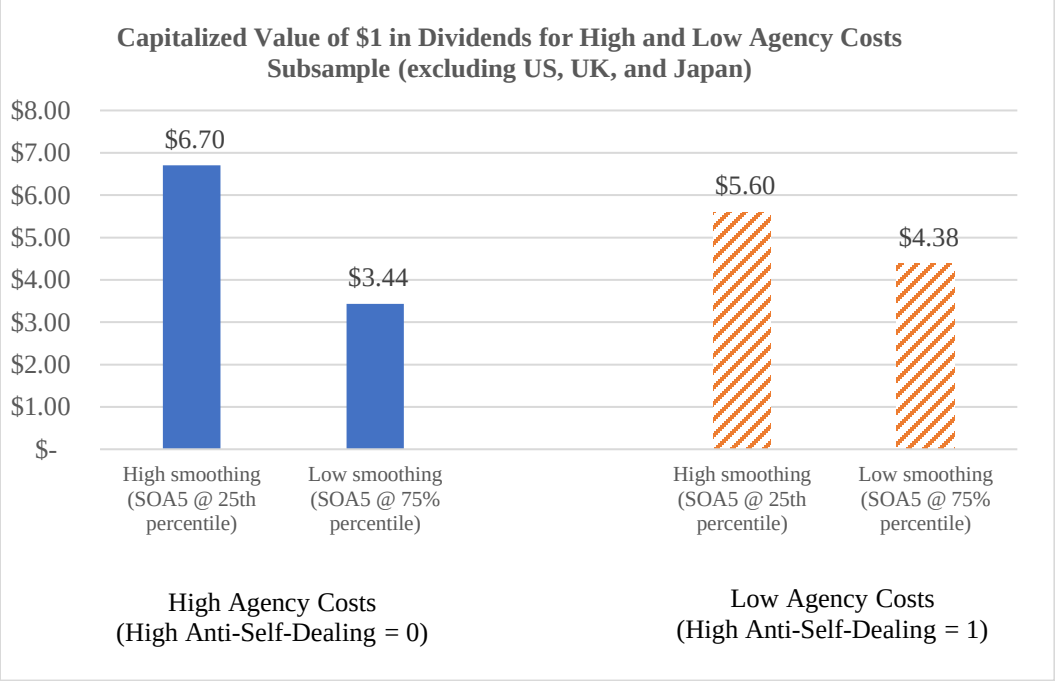


Figure 3
Distribution of Coefficient Estimates based on Randomized Sampling
This figure shows the coefficient distribution. We randomly select 45 observations for each of the 21 countries and run the valuation model with country, industry, and year fixed effects. We conduct this analysis 1000 times and plot the distribution of the coefficients that capture the relationship between dividends and firm value (*D/A* and *SOA*D/A*). Distributions of *D/A* and *SOA*D/A* are shown in the top and bottom figures respectively.