

Online Appendix for
Asymmetric Cost Behavior and Dividend Policy*

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Table A1: Subsample analysis based on cash holdings or retained earnings

This table presents the results of OLS regressions of dividend payouts on cost stickiness for subsamples split by cash holdings or retained earnings (scaled by total assets) measured in year t . Columns 1 and 3 report the results for firms with higher-than-median cash holdings and retained earnings, respectively. Columns 2 and 4 report the results for firms with lower-than-median cash holdings and retained earnings, respectively. The dependent variable, dividends per share (DPS), is measured at year $t+1$. Cost stickiness in year t is estimated using the most recent 16 quarterly observations from year $t-3$ to year t . All other variables, measured at year t , are defined in the Appendix. Each regression includes a separate (unreported) intercept. The t -statistics, based on standard errors clustered by firm, are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dep. Var.	<i>DPS</i>			
Subsample Var.	<i>Cash</i>		<i>Retained Earnings</i>	
	High (1)	Low (2)	High (3)	Low (4)
<i>CostStickiness</i>	-0.003 (-1.423)	-0.007*** (-2.592)	-0.002 (-0.818)	-0.004** (-2.334)
Controls	Yes	Yes	Yes	Yes
Industry×Year	Yes	Yes	Yes	Yes
Observations	41,941	42,409	41,973	41,574
<i>R</i> -squared	0.314	0.397	0.359	0.325

Table A2: OLS regressions of total payout measures on cost stickiness

This table presents the results of OLS regressions of various total payout measures on cost stickiness and control variables. Total payouts (*Total*) are measured as the sum of annual cash dividends and stock repurchases. We follow Grullon and Michaely (2002) to define repurchases as the total expenditures on the purchase of common and preferred stocks minus any reduction in the redemption value of the net preferred stocks outstanding. The total payout measures we consider include the total payouts to assets ratio (*Total/Asset*), the total payouts to market value ratio (*Total/MV*), the total payouts to sales ratio (*Total/Sales*), the total payouts to income ratio (*Total/Income*), and the natural logarithm of one plus the dollar value of total payouts in millions (*LnTotal*). The total payout measures in columns (1)-(4) are expressed in percentage points. All dependent variables are measured at year $t+1$. Cost stickiness in year t is estimated using the most recent 16 quarterly observations from year $t-3$ to year t . We include the same set of control variables as in Table 3 as well as industry \times year fixed effects in all models. Each regression includes a separate (unreported) intercept. The t -statistics, based on standard errors clustered by firm, are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dep. Var.	<i>Total/Assets</i>	<i>Total/MV</i>	<i>Total/Sales</i>	<i>Total/Income</i>	<i>LnTotal</i>
	(1)	(2)	(3)	(4)	(5)
<i>CostStickiness</i>	-0.029** (-2.002)	-0.029** (-2.419)	-0.049** (-2.413)	-0.448* (-1.936)	-0.018*** (-3.548)
Controls	Yes	Yes	Yes	Yes	Yes
Ind. \times Year FE	Yes	Yes	Yes	Yes	Yes
Observations	86,126	85,610	85,987	77,734	86,133
<i>R</i> -squared	0.254	0.222	0.248	0.200	0.598

Table A3: OLS regressions after controlling for cost-sales sensitivity for sales increase

This table presents the results of OLS regressions after controlling for cost-sales sensitivity for sales increase (i.e., β_1 in Equation (1)). The dependent variable is the dividend per share (*DPS*) measured at year $t+1$. *CostStickiness* and *CostSalesSensitivity* in year t are estimated using the 16 most recent quarterly observations from year $t-3$ to year t . We include the same set of control variables as in Table 3. All variables are defined in the Appendix. Each regression includes a separate (unreported) intercept. The t -statistics, based on standard errors clustered by firm, are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dep. Var.	<i>DPS</i>		
	(1)	(2)	(3)
<i>CostStickiness</i>	-0.007*** (-2.679)		
<i>CostSalesSensitivity</i>	0.008 (1.498)		
<i>CostStickiness</i> (<i>OperatingCost</i>)		-0.013*** (-2.795)	
<i>CostSalesSensitivity</i> (<i>OperatingCost</i>)		0.003 (0.317)	
<i>CostStickiness</i> (<i>TotalCost</i>)			-0.013*** (-2.634)
<i>CostSalesSensitivity</i> (<i>TotalCost</i>)			0.010 (1.039)
Controls	Yes	Yes	Yes
Industry×Year FE	Yes	Yes	Yes
Observations	86,718	95,962	81,421
<i>R</i> -squared	0.326	0.323	0.330

Table A4: OLS regressions of dividend payouts on cost stickiness measures after removing observations with negative cost stickiness values

This table presents the results of OLS regressions of dividend payouts on cost stickiness measures and control variables after removing observations with negative cost stickiness values. The dependent variable is the dividend per share (*DPS*) measured at year $t+1$. We include the same set of control variables as in Table 3 in all models. All variables are defined in the Appendix. Each regression includes a separate (unreported) intercept. The t -statistics, based on standard errors clustered by firm, are presented in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dep. Var.	<i>DPS</i>		
	(1)	(2)	(3)
<i>CostStickiness</i>	-0.007** (-2.253)		
<i>CostStickiness</i> (<i>OperatingCost</i>)		-0.029*** (-5.383)	
<i>CostStickiness</i> (<i>TotalCost</i>)			-0.021*** (-3.775)
Controls	Yes	Yes	Yes
Industry×Year FE	Yes	Yes	Yes
Observations	43,690	50,830	42,854
<i>R</i> -squared	0.366	0.146	0.140

Table A5: Regression discontinuity analysis on predetermined firm characteristics

This table presents the results of nonparametric local linear regressions for firm characteristics measured at the predetermined year (one year before the reported closing date of the union election), using the optimal bandwidth following Imbens and Kalyanaraman (2012) and the triangular kernel. *Ex ante* cost stickiness is calculated using the 16 most recent quarterly observations up to the election year. All other variables are defined in the Appendix. The *z*-statistics are presented in a separate column. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variable	Coefficient	<i>z</i> -statistic
<i>Ex Ante CostStickiness</i>	-0.035	(-0.100)
<i>DPS</i>	-0.059	(-0.416)
<i>Size</i>	-0.094	(-0.410)
<i>Leverage</i>	0.012	(0.594)
<i>TobinQ</i>	-0.006	(-0.083)
<i>Cash</i>	-0.000	(-0.006)
<i>Tangibility</i>	-0.006	(-0.328)
<i>ROA</i>	0.010	(1.115)
<i>NegSI</i>	-0.001	(-0.147)
<i>Loss</i>	0.012	(0.395)
<i>Persistence</i>	0.057	(0.770)
<i>ROAVol</i>	0.003	(0.701)

Table A6: Regression discontinuity analysis on *ex post* cost stickiness and dividend payouts using the rectangular kernel

This table presents the results of nonparametric local linear regression using the optimal bandwidth following Imbens and Kalyanaraman (2012) and the rectangular kernel. Panels A and B report the results for firms' *ex post* cost stickiness and average dividends per share (*DPS*) after union elections, respectively. Cost stickiness is calculated using the 16 quarterly observations after the closing year of the union election (year $t+1$ to year $t+4$). Dividends per share are measured as the average of *DPS* over the same four-year window subsequent to the union election. *Unionization* is a dummy variable that equals one if a majority of employees voted for unionization in a given election and zero if a majority of employees voted against unionization in a given election. The *z*-statistics are presented in parentheses below the coefficients. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Cost stickiness after the election

Dep. Var.	<i>CostStickiness</i>
<i>Unionization</i>	0.650*** (2.794)
Observations	1,825
Bandwidth	+/-0.140

Panel B: Dividends per share after the election

Dep. Var.	<i>Average DPS</i>
<i>Unionization</i>	-0.197** (-2.388)
Observations	2,264
Bandwidth	+/-0.135

Table A7: Regression discontinuity analysis on alternative measures of *ex post* cost stickiness and dividend payouts

This table presents the results of regression discontinuity analysis for alternative measures of *ex post* cost stickiness and average dividend payouts after union elections using the optimal bandwidth following Imbens and Kalyanaraman (2012) and the triangular kernel. Cost stickiness is calculated using the 16 quarterly observations after the closing year of the union election (year $t+1$ to year $t+4$). Dividend payouts are measured as the average over the same four-year window subsequent to the union election. *Unionization* is a dummy variable that equals one if a majority of employees voted for unionization in a given election and zero if a majority of employees voted against unionization in a given election. All variables are defined in the Appendix. The z-statistics are presented in a separate column. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Variable	Coefficient	z-statistic
<i>CostStickiness(OperatingCost)</i>	0.173**	(2.206)
<i>CostStickiness(TotalCost)</i>	0.125**	(2.429)
<i>Div/Assets</i>	-0.003**	(-1.985)
<i>Div/MV</i>	-0.005***	(-2.664)
<i>Div/Sales</i>	-0.005***	(-2.607)
<i>Div/Income</i>	-0.092*	(-1.953)
<i>LnDiv</i>	-0.646**	(-2.311)