

Do Investors Value Dividend Smoothing Stocks Differently?

Internet Appendix

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Table I.A-I

In table I.A-I we perform a simple non-parametric analysis to distinguish between dividend smoothing preferences of institutional versus retail investors. Every year we independently sort all the stocks in the sample into quintiles of smoothing and quintiles of dividend yield. We then average the number of investors and institutional holdings across each of the resulting 25 dividend yield-smoothing portfolios and report our results in Table 2.

Two clear trends emerge from the table. Overall, the weight of institutional ownership decreases with the dividend level, consistent with Grinstein and Michaely (2005). While institutional investors tend to hold firms that pay dividends as opposed to those that do not, within the dividend paying sample, institutions seem to avoid high levels of dividends. Second, within each dividend yield group, institutions exhibit a clear preference for dividend smoothing firms. Among the firms in the low-yield quintile, institutions hold only 39% of the shares of low dividend smoothing firms (as measured by *SOA*), but they own almost half of the equity (46%) of high-smoothing firms (Panel A). The pattern remains robust, although somewhat less significant, when we look at the overall number of institutions, rather than their relative weight (Panel B), and suggests that the preference for dividend smoothing firms is not driven by institutions of a particular size. At the same time, we do not observe a clear preference of retail investors toward dividend smoothing firms (Panel C). While the number of shareholders is higher for high-smoothing versus low-smoothing firms within the top dividend yield quintile, there is no pattern for the rest of the sample. Using *RelVol* instead of *SOA* to measure smoothing yields very similar results.

Table I.A-II

Table I.A.-II reports is a full version of Table 3, reported in the paper. Specifically, it shows the coefficients on all the control variables used in the specifications (except for year and industry dummies).

There is substantial variation in the firm characteristics to which different types of institutions are attracted. For example, Panel A shows that while both mutual funds (column (3)) and investment advisors (column (4)) prefer to invest in large and liquid firms with low-risk, mutual funds also care about tangibility, as well as moderate expenses on advertising, which seem to matter less to investment advisors. At the same time, investment advisors are the only group that prefers firms with low M/B ratios. Institutional groups also seem to exhibit different preferences towards dividend policy. While bank trusts (column (1)) like higher payouts, all the other institutional types prefer lower levels of dividends. Similar patterns emerge when relative volatility is used as the smoothing measure (Panel B).

Interestingly, only mutual funds robustly hold a greater concentration in dividend smoothing firms. The coefficient on *SOA* is -0.008, the only one that is statistically significant in both panels. It also has the highest (absolute) value among all the types in Panel B. The heterogeneity of institutional preferences for dividend smoothing stocks is especially noteworthy given that most types of institutions (except for bank trusts) are similar in their avoidance of high dividend levels. It suggests that dividend level and the degree of dividend smoothing are dissimilar characteristics in their impacts on investors' decisions to hold a stock.

Table I.A-III

To ensure that our results are not driven by bias in the coefficient estimates or misspecification of the standard errors, we construct a non-parametric measure of dividend smoothing. Specifically, we convert our continuous smoothing measures into a vector of dummy variables. Every year we allocate *SOA* and *RelVol* into quartiles of smoothing, and construct dummy variables that take on a value of one if *SOA* [*RelVol*] belongs to a certain quartile, and zero otherwise. Firms in the bottom quartile of *SOA* [*RelVol*] are high smoothing firms, and firms in the top quartile are low smoothing firms. We then repeat the analysis of institutional holdings (equivalent to Table 3 in the paper) as a function of dividend smoothing and controls.

Table A-III shows that using the discretized *SOA* measure, holdings of insurance companies, investment banks, and investment advisors, as well as overall institutional holdings, are significantly higher for firms in the two lowest quartiles. However, when we use the *RelVol*-based definition, only mutual funds exhibit a strong preference for dividend smoothing stocks, as indicated by the positive and significant coefficient on *Dum_RelVol1*, while there is no significant relation for the other institutions. Overall, these results are consistent with the ones that we obtain using a continuous measure of smoothing,

Table I.A.-IV

Table I.A.-IV provides a formal validation of the idea that Rule 10b-18 is related to the degree of dividend smoothing by individual firms by verifying that dividend smoothing policy has become more prevalent following its passage. The table presents the results of panel regressions, using data from 1972 – 1992, of each smoothing measure on a post-1982 indicator (*After*) along with several firm characteristics that may be associated with variation in smoothing. For each firm we include two observations, one in which smoothing is measured over 1972 – 1981 and the other where smoothing is measured over the period of 1983 – 1992. The specifications in columns (2) and (4) include firm fixed effects to capture any unmeasured persistent firm characteristics. The coefficients on *After* indicate a large and highly significant increase in dividend smoothing (i.e., reduction in *SOA/RelVol*) following the introduction of Rule 10b-18.

Table I.A.-V

Table I.A.-V presents summary statistics for dividend cuts and increases. Looking across the first row in Panel A reveals that the mean announcement reaction to a dividend cut is -2.97%, but it is only 1.41% for dividend increase announcements. The differences are also statistically significant when comparing the median differences (unreported). However, the magnitudes of dividend cuts are also higher in absolute value (mean of -46.3% for cuts compared to 31.7% for increases).

Therefore, in the remainder of Panel A, we compare the average market reactions for cuts and increases of comparable size. While small dividend increases evoke a slightly stronger response than small cuts (see the bottom row of Panel A), for every dividend-change size

category greater than 20% the CAR is larger in magnitude for cuts than increases, and almost all the differences are statistically significant. This seems consistent with managers' views that they are penalized more for cutting dividends than they are rewarded for an equivalent increase. However, the results in Panel B show that this is driven largely by the first time a firm cuts its dividend. In Panel B, we repeat the analysis of Panel A only for those firms that have cut their dividend in the past.¹ Here we see that the asymmetry largely disappears, and the differences (in absolute value) in the market responses to increases and decreases are insignificant. This suggests that among firms for which investors are not expecting a smooth dividend stream because those firms have already cut their dividends in the past, there is not a significant penalty for dividend cuts relative to equivalent increases.

Table I.A.-VI

This table reports the results of a univariate analysis of firm equity returns as a function of smoothing. In June of each year t , we divide all the firms in the sample into deciles based on our two measures of dividend smoothing estimated over the ten year period from $t-10$ through $t-1$. We then calculate equally-weighted returns from July of year t to June, of year $t+1$ of all firms within each smoothing decile portfolio. Finally, we calculate the mean and median monthly returns of the resulting time-series of each portfolio. We examine this relationship over our main sample period of 1970 – 2012, as well as the extended period of 1937 – 2012 that includes information back to the beginning of CRSP coverage.

For each sample period and smoothing measure there is no discernible pattern in average returns across smoothing deciles. Panel A shows that the difference in mean return between the highest and the lowest *SOA* and *RelVol* deciles is only -0.02%. The differences are also quantitatively small when examining the more recent period of 1970 – 2012. Statistically, there is also no significant difference in either mean or median returns between the highest and lowest deciles across all panels and smoothing measures. For robustness, we examine the early period (1937 – 1969) separately, and find that the pattern is similar to the ones presented in the table, and reveals no economically or statistically significant differences (unreported).

¹ Since the sample used in the analysis of this section starts in 1970, firms that have cut their dividends before 1970 can be potentially omitted from Panel B. However, the bias due to imperfect classification works against our findings that the asymmetry is driven primarily by the first time dividend cutters.

Table I.A.-I

Investor composition by dividend yield and smoothing

This table presents the proportion of institutional holdings (*InstHold*) out of the overall investor holdings, the overall number of institutions (*InstNum*), and the overall number of common shareholders, in thousands (*#Invest*), by quintiles of dividend smoothing and dividend level (defined as common dividends scaled by assets). The sample consists of CRSP-Compustat firms for the period 1980-2010. The number of retail investors and the number of institutions are converted to natural logarithms (a value of one is added before the conversion). The groups are formed by independently partitioning the sample by *SOA* in the left column [*RelVol* in the right column] and also partitioning the sample by *Dividend yield* quintiles as of year (*t-1*). The quintiles are re-formed every year. *Dividend yield* is the ratio of common dividend to the product of the number of shares outstanding and the stock price at the end of the fiscal year. Reported averages are cross-sectional averages for firm-year observation in each of the resulting 25 smoothing-*Dividend yield* groups. See Table 1 for the description of the estimation methodology of *SOA* and *RelVol*. *InstNum* and *InstHold* are obtained from 13F reports, as of December of each year. *InstHold* is defined as the sum of shares held by all the institutions, divided by the overall number of shares outstanding. The symbols ***, ** and * indicate p-values of 1%, 5%, and 10%, respectively.

		Panel A: <i>InstHold</i>							Panel B: <i>RelVol</i>				
		Low	2	3	4	High			Low	2	3	4	High
SOA		<i>Dividend yield</i>					RelVol		<i>Dividend yield</i>				
Low		0.46	0.50	0.49	0.50	0.45	Low		0.47	0.50	0.51	0.50	0.44
2		0.46	0.49	0.51	0.51	0.43	2		0.43	0.50	0.49	0.49	0.41
3		0.45	0.50	0.48	0.49	0.40	3		0.43	0.48	0.49	0.48	0.41
4		0.42	0.47	0.48	0.47	0.40	4		0.44	0.47	0.47	0.46	0.40
High		0.39	0.45	0.46	0.44	0.37	High		0.42	0.47	0.44	0.43	0.36
High-Low		-0.07	-0.05	-0.03	-0.06	-0.08	High-Low		-0.05	-0.03	-0.07	-0.08	-0.08
t-stat(High-Low)		***	***	***	***	***	t-stat(High-Low)		***	***	***	***	***

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Table I.A.-I (cont.)

		Panel B: <i>Log (InstNum)</i>											
		Low	2	3	4	High			Low	2	3	4	High
SOA		<i>Dividend yield</i>					RelVol		<i>Dividend yield</i>				
Low		3.71	4.05	4.07	4.18	3.98	Low		3.79	4.08	4.22	4.26	3.98
2		3.79	4.09	4.25	4.24	3.88	2		3.69	4.21	4.13	4.24	3.87
3		3.71	4.12	4.13	4.17	3.75	3		3.60	4.09	4.24	4.14	3.79
4		3.58	4.05	4.12	4.18	3.84	4		3.78	4.05	4.10	4.15	3.91
High		3.44	3.91	4.11	3.95	3.53	High		3.73	4.02	4.04	3.82	3.37
High-Low		-0.27	-0.14	0.04	-0.23	-0.45	High-Low		-0.06	-0.05	-0.18	-0.44	-0.61
t-stat(High-Low)		***	**		***	***	t-stat(High-Low)			**	***	***	

		Panel C : <i>Log(#Invest)</i>											
		Low	2	3	4	High			Low	2	3	4	High
SOA		<i>Dividend yield</i>					RelVol		<i>Dividend yield</i>				
Low		1.53	1.76	1.92	2.15	2.23	Low		1.66	1.79	2.01	2.16	2.26
2		1.70	1.83	1.97	2.11	2.14	2		1.67	1.91	1.92	2.23	2.24
3		1.63	1.84	2.03	2.07	2.15	3		1.61	1.86	2.07	2.10	2.24
4		1.67	1.82	1.91	2.14	2.17	4		1.68	1.85	2.00	2.16	2.29
High		1.58	1.80	2.02	2.14	2.17	High		1.79	1.84	1.99	2.04	1.83
High-Low		0.05	0.04	0.11	-0.02	-0.06	High-Low		0.14	0.05	-0.02	-0.12	-0.43
t-stat(High-Low)							t-stat(High-Low)		**				***

Table I.A.-II**Multivariate Regression of Institutional Holdings by Institutional Type**

This table reports the results of estimating Tobit regressions, where the dependent variable is the logarithms of 1 plus the weight of the institutional holding of each type out of the overall holdings of a stock. The sample consists of CRSP-Compustat firms for the period 1980-1997. See Section I and Appendix A for the description of the independent variables. All estimation models include year and industry (defined at 2-digit SIC code level) fixed effects. Standard errors are reported in parenthesis and are based on heteroskedasticity-consistent errors adjusted for clustering at the firm level (Rogers (1993)). ***, ** and * indicate p-values of 1%, 5%, and 10%, respectively.

Panel A: SOA

	<i>Bank trusts</i>	<i>Insurance companies</i>	<i>Mutual funds</i>	<i>Investment advisors</i>	<i>Others</i>
	(1)	(2)	(3)	(4)	(5)
<i>Intercept</i>	-0.111*** (0.015)	-0.044 (0.034)	0.031 (0.02)	0.123*** (0.027)	-0.112*** (0.016)
<i>SOA</i>	-0.001 (0.005)	-0.01*** (0.003)	-0.008** (0.003)	-0.012** (0.005)	-0.004 (0.003)
<i>Dividend yield</i>	0.177*** (0.051)	-0.076* (0.04)	-0.165*** (0.0347)	-0.21*** (0.057)	-0.08** (0.0356)
<i>Log(Sale)</i>	0.02*** (0.001)	0.009*** (0.001)	0.007*** (0.0009)	0.008*** (0.001)	0.011*** (0.001)
<i>Log(Age)</i>	0.0016 (0.003)	0.003 (0.002)	0.004** (0.0018)	0.011*** (0.003)	0.009*** (0.002)
<i>M/B</i>	0.007*** (0.002)	0.003*** (0.001)	0.0005 (0.0012)	-0.007*** (0.002)	0.005*** (0.001)
<i>EBITDA</i>	0.06*** (0.015)	0.026** (0.011)	0.018 (0.011)	0.037** (0.018)	0.003 (0.009)
<i>Tangibility</i>	0.014 (0.009)	0.007 (0.005)	0.017*** (0.007)	-0.028** (0.011)	0.006 (0.006)
<i>Leverage</i>	-0.026*** (0.009)	-0.002 (0.006)	0 (0.006)	0.001 (0.009)	-0.011** (0.0047)
<i>Advertising</i>	-0.01 (0.027)	-0.029** (0.013)	-0.042*** (0.016)	-0.04 (0.025)	-0.018 (0.011)
<i>R&D</i>	0.027 (0.051)	-0.024 (0.029)	-0.026 (0.033)	0.008 (0.057)	0.042 (0.031)
<i>Return</i>	-0.072*** (0.023)	-0.081*** (0.016)	-0.018 (0.018)	-0.133*** (0.031)	-0.077*** (0.014)
<i>Stddev(Return)</i>	-0.144*** (0.025)	-0.034** (0.017)	-0.09*** (0.017)	-0.2*** (0.029)	-0.018 (0.015)
<i>Turnover</i>	0.07* (0.039)	0.115*** (0.027)	0.226*** (0.026)	0.577*** (0.046)	0.067*** (0.019)
<i>1/price</i>	-0.062** (0.03)	-0.084*** (0.015)	-0.151*** (0.023)	-0.242*** (0.022)	-0.069*** (0.011)
<i>Obs.</i>	18054	18054	18054	18054	18054
<i># of firms/clusters</i>	2178	2178	2178	2178	2178
<i>Prob. > Chi-squared</i>	0.000	0.000	0.000	0.000	0.000

Table I.A.-II (cont.)

Panel B: ReIVol					
	<i>Bank trusts</i>	<i>Insurance companies</i>	<i>Mutual funds</i>	<i>Investment advisors</i>	<i>Others</i>
	(1)	(2)	(3)	(4)	(5)
<i>Intercept</i>	-0.112*** (0.017)	-0.038 (0.031)	0.034* (0.02)	0.125*** (0.027)	-0.114*** (0.015)
<i>RelVol</i>	-0.0011 (0.002)	-0.0014 (0.001)	-0.003*** (0.001)	0.0001 (0.002)	-0.0002 (0.001)
<i>Dividend yield</i>	0.144*** (0.053)	-0.072** (0.034)	-0.173*** (0.0361)	-0.183*** (0.057)	-0.096*** (0.035)
<i>Log(Sale)</i>	0.02*** (0.001)	0.009*** (0.001)	0.007*** (0.0009)	0.007*** (0.001)	0.011*** (0.001)
<i>Log(Age)</i>	0.0019 (0.003)	0.0017 (0.002)	0.004** (0.0018)	0.01*** (0.003)	0.009*** (0.002)
<i>M/B</i>	0.007*** (0.002)	0.003*** (0.001)	0.0007 (0.0013)	-0.007*** (0.002)	0.004*** (0.001)
<i>EBITDA</i>	0.063*** (0.016)	0.022* (0.012)	0.008 (0.012)	0.022 (0.019)	0.003 (0.009)
<i>Tangibility</i>	0.014 (0.01)	0.007 (0.005)	0.017** (0.007)	-0.023** (0.011)	0.005 (0.006)
<i>Leverage</i>	-0.027*** (0.01)	-0.002 (0.006)	0 (0.006)	-0.001 (0.01)	-0.012*** (0.005)
<i>Advertising</i>	-0.024 (0.028)	-0.03** (0.013)	-0.042** (0.018)	-0.044 (0.027)	-0.016 (0.011)
<i>R&D</i>	0.002 (0.056)	-0.005 (0.028)	-0.017 (0.033)	0.034 (0.058)	0.047 (0.032)
<i>Return</i>	-0.062*** (0.023)	-0.078*** (0.016)	-0.022 (0.018)	-0.115*** (0.031)	-0.087*** (0.014)
<i>Stddev(Return)</i>	-0.152*** (0.027)	-0.022 (0.015)	-0.084*** (0.017)	-0.196*** (0.03)	-0.021 (0.015)
<i>Turnover</i>	0.057 (0.039)	0.093*** (0.023)	0.223*** (0.025)	0.56*** (0.046)	0.069*** (0.018)
<i>1/price</i>	-0.059 (0.039)	-0.091*** (0.015)	-0.163*** (0.027)	-0.262*** (0.025)	-0.063*** (0.012)
<i>Obs.</i>	17373	17373	17373	17373	17373
<i># of firms/clusters</i>	2099	2099	2099	2099	2099
<i>Prob. > Chi-squared</i>	0.000	0.000	0.000	0.000	0.000

Table I.A.-III**Multivariate Regression of Institutional Holdings – Indicator Variables Analysis**

This table reports the results of estimating Tobit regressions, where the dependent variable is the weight of the institutional holding of each type out of the overall holdings of a stock. *Type1* is bank trusts, *Type2* is insurance companies, *Type3* consists of investment companies (primarily mutual funds), *Type4* is investment advisors, and *Type5* is all the other institutions. The sample consists of CRSP-Compustat firms for the period 1980-1997. To construct the explanatory variables *Dum_SOA* and *Dum_RelVol*, every year we allocate SOA [RelVol] into quartiles, and convert each quartile into a dummy variable that takes on a value of 1 if the SOA [RelVol] belongs to that quartile, and zero otherwise. All estimation models include year and industry (defined at 2-digit SIC code level) fixed effects, as well as the vector of control variables, as presented in Table 4 of the new draft. See Section I and the Appendix for the description of the independent variables. Standard errors are reported in parenthesis and are based on heteroskedasticity-consistent errors adjusted for clustering at the firm level (Rogers (1993)). ***, ** and * indicate p-values of 1%, 5%, and 10%, respectively.

Panel A: SOA

	<i>InstHold</i>	<i>Bank trusts</i>	<i>Insurance companies</i>	<i>Mutual funds</i>	<i>Investment advisors</i>	<i>Others</i>
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Dum_SOA1</i>	0.014** (-0.043)	-0.002 (-0.478)	0.004** (-0.038)	0.003* (-0.096)	0.007* (-0.079)	0.002 (-0.266)
<i>Dum_SOA2</i>	0.018*** (-0.006)	0.004 (-0.241)	0.005** (-0.017)	0.005** (-0.034)	0.007** (-0.041)	0 (-0.813)
<i>Dum_SOA3</i>	0.007 (-0.239)	-0.002 (-0.451)	0.004** (-0.041)	0.002 (-0.195)	0.005* (-0.091)	0.001 (-0.59)

Panel B: RelVol

	<i>InstHold</i>	<i>Bank trusts</i>	<i>Insurance companies</i>	<i>Mutual funds</i>	<i>Investment advisors</i>	<i>Others</i>
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Dum_RelVol1</i>	0.012* (0.073)	0.000 (0.965)	0.002 (0.287)	0.005** (0.025)	0.002 (0.690)	0.000 (0.887)
<i>Dum_RelVol2</i>	0.009 (0.126)	0.005 (0.160)	0.003 (0.133)	0.002 (0.389)	(0.001) (0.731)	(0.001) (0.552)
<i>Dum_RelVol3</i>	0.002 (0.682)	(0.001) (0.748)	0.001 (0.680)	0.001 (0.494)	(0.001) (0.808)	0.000 (0.984)

Table I.A.-IV**Dividend Smoothing and Rule 10b-18**

This table reports the results of OLS estimation of smoothing (the dependent variable is *SOA* in Panel A, and *RelVol* in Panel B). The sample consists of all CRSP-Compustat firms with non-missing smoothing values. In each regression, each firm has two observations, in which smoothing is measured over the 1972-1981 (1983-1992) period. *After dummy* takes a value of 1 for 1983-1992 period, and zero otherwise. See Section I and Appendix A of the paper for the description of control variables. The specification in columns (2) and (4) is based on the subsample of firms for which smoothing measures are non-missing in both periods, and includes firm fixed effects. Standard errors are reported in parenthesis and are based on heteroskedasticity-consistent errors adjusted for clustering at the firm level (Rogers (1993)). ***, ** and * indicate *p*-values of 1%, 5%, and 10%, respectively.

	Panel A: SOA		Panel B: RelVol	
	(1)	(2)	(1)	(2)
<i>Intercept</i>	0.201*** (0.025)	0.235*** (0.039)	0.717*** (0.073)	0.604*** (0.107)
<i>After dummy</i>	-0.032*** (0.011)	-0.073*** (0.016)	-0.121*** (0.038)	-0.18*** (0.044)
<i>Dividend/Assets</i>	0.034 (0.334)	-0.322 (0.421)	-0.036 (1.02)	0.059 (1.498)
<i>Log(Sale)</i>	-0.007** (0.003)	-0.006 (0.004)	-0.042*** (0.008)	-0.033*** (0.01)
<i>M/B</i>	0.032*** (0.008)	0.054*** (0.016)	0.13*** (0.049)	0.168*** (0.046)
<i>EBITDA</i>	0.257*** (0.072)	0.148 (0.12)	0.692*** (0.262)	0.588* (0.33)
<i>Stddev(EBITDA)</i>	0.522*** (0.198)	-0.072 (0.31)	-1.163** (0.589)	-0.466 (1.007)
<i>Firm FE</i>		<i>Yes</i>		<i>Yes</i>
<i>Obs.</i>	2231	1196	2172	1156
<i># of clusters</i>	1639	604	1599	583
<i>R-squared</i>	0.04	0.06	0.07	0.09

Table I.A.-V

Dividend change announcements: Summary statistics by ranges of dividend changes

This table reports dividend payout characteristics around dividend change announcements. See Section III.a and for the description of sample construction. *Three-day CAR* is return of the stock of the announcing firm around the event ((-1; +1) trading days) minus CRSP value-weighted market return. *Dividend change* is the percentage change in cash dividend (dividend per share, adjusted to stock splits) from the previous dividend payment. The reported results are averaged within each range of dividend changes. The difference is between the absolute values of 3-day CARs of dividend cuts and dividend increases. Panel A is based on the entire sample, while Panel B includes only dividend change announcements in which firms have announced at last one dividend cut prior to this announcement.

Panel A: All sample									
Dividend cuts				Dividend increases				Diff.	t-stat.
Range of dividend change (%)	N	3-day CAR (%)	Dividend change (%)	Range of dividend change (%)	N	3-day CAR (%)	Dividend change (%)	(abs(CAR_{cuts})-CAR_{incr.})	
All changes	3055	-2.97	-46.3	All changes	18720	1.41	31.7		
<=-60	727	-3.84	-75.8	>=60	1510	2.50	121.0	1.34	3.00
(-60; -50]	679	-3.77	-51.8	[50; 60]	1000	2.05	51.6	1.72	4.50
[-50; -40]	388	-3.33	-44.8	[40; 50]	648	2.23	46.3	1.09	2.26
[-40; -30]	499	-2.73	-34.8	[30; 40]	2060	1.70	34.6	1.02	2.90
[-30; -20]	449	-1.93	-25.1	[20; 30]	5176	1.40	23.8	0.54	1.45
[-20; -12.5]	313	-0.64	-16.7	[12.5; 20]	8326	1.00	16.0	-0.36	-0.99

Panel B: Firms that have cut dividends before									
Dividend cuts				Dividend increases				Diff.	t-stat.
Range of dividend change (%)	N	3-day CAR (%)	Dividend change (%)	Range of dividend change (%)	N	3-day CAR (%)	Dividend change (%)	(abs(CAR_{cuts})-CAR_{incr.})	
<=-60	302	-2.59	-77.0	>=60	601	2.33	131.4	0.25	0.38
(-60; -50]	271	-2.77	-51.9	[50; 60]	274	2.46	51.8	0.31	0.50
[-50; -40]	157	-2.75	-44.6	[40; 50]	171	2.47	45.9	0.28	0.35
[-40; -30]	230	-1.60	-34.6	[30; 40]	503	2.13	34.8	-0.53	-0.98
[-30; -20]	204	-1.29	-25.2	[20; 30]	1137	1.59	23.8	-0.30	-0.66
[-20; -12.5]	170	-0.10	-16.4	[12.5; 20]	1557	1.13	16.0	-1.03	-2.87

Table I.A.-VI

Dividend Smoothing and Monthly Stock Returns – Univariate Analysis

The table presents the distribution of monthly stock returns across deciles of dividend smoothing measures (*SOA* and *RelVol*) over time. The stock returns data is obtained for the period of July, 1936 to June, 2012. To calculate dividend smoothing, we use historical information for fiscal years 1926 – 2010. Dividend smoothing measures are constructed as described in Table 1. To form smoothing portfolios, in June of year t the overall sample is divided into deciles based on the smoothing measure as of $(t-1)$ (that is, *SOA* [*RelVol*] is based on information for the fiscal years $(t-10)$ through $(t-1)$). Firms in the Low *SOA* [*RelVol*] group are firms the smooth the most, while High *SOA* [*RelVol*] consists of non-smoothing firms. Next, for each smoothing portfolio equally-weighted monthly returns are calculated for the period of July, t through June, $t+1$. After that the portfolios are re-formed, and the procedure is repeated. The table presents mean and median returns of each portfolio over the specified time period.

Panel A: July, 1936 - June, 2012					
Rank for SOA	Mean	Median	Rank for RelVol	Mean	Median
Low SOA	1.20%	1.55%	Low RelVol	1.22%	1.54%
2	1.25%	1.46%	2	1.21%	1.36%
3	1.22%	1.49%	3	1.23%	1.63%
4	1.22%	1.37%	4	1.23%	1.51%
5	1.25%	1.53%	5	1.24%	1.40%
6	1.24%	1.46%	6	1.27%	1.41%
7	1.21%	1.39%	7	1.22%	1.37%
8	1.32%	1.53%	8	1.21%	1.39%
9	1.22%	1.44%	9	1.21%	1.36%
High SOA	1.19%	1.40%	High RelVol	1.20%	1.38%
diff (High-Low)	-0.02%	-0.15%	diff (High-Low)	-0.02%	-0.16%
t-stat (High-Low)	-0.07		t-stat (High-Low)	-0.08	
Pr > Chi-square		0.64	Pr > Chi-square		0.57
Panel B: Jan, 1970 - June, 2012					
Panel A			Panel B		
Rank for SOA	Mean	Median	Rank for RelVol	Mean	Median
Low SOA	1.27%	1.42%	Low RelVol	1.29%	1.34%
2	1.30%	1.37%	2	1.20%	1.26%
3	1.23%	1.41%	3	1.23%	1.32%
4	1.21%	1.17%	4	1.29%	1.45%
5	1.32%	1.23%	5	1.31%	1.26%
6	1.36%	1.46%	6	1.32%	1.29%
7	1.21%	1.24%	7	1.24%	1.17%
8	1.31%	1.48%	8	1.21%	1.30%
9	1.22%	1.36%	9	1.24%	1.23%
High SOA	1.22%	1.14%	High RelVol	1.25%	1.37%
diff (High-Low)	-0.05%	-0.28%	diff (High-Low)	-0.03%	0.03%
t-stat (High-Low)	-0.15		t-stat (High-Low)	-0.10	
Pr > Chi-square		0.38	Pr > Chi-square		1.00