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The impact of the COVID-19 pandemic on dividends

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ABSTRACT

This paper examines the impact of the COVID-19 pandemic on the dividend payouts of publicly traded firms in the U.S. Out of nearly 1,400 dividend paying firms, 213 cut dividends and 93 omitted dividends entirely in the second quarter of 2020. This proportion of cuts and omissions is three to five times higher than any other quarter since 2015. The 2008 financial crisis was characterized by a high proportion of financial firms cutting dividends without much change in dividends for non-financials. Conversely, we find evidence of increased dividend cuts across all industries. The most common industry grouping, industrials, experienced one out of every six firms cutting dividends. Regression results indicate that net income and debt are determinants of firms cutting dividends in all periods, but the economic significance is much greater during the pandemic.

1. Introduction

The finance and economics literatures are replete with evidence—both formal and anecdotal—that corporate managers are generally reluctant to reduce dividends. Indeed, graphical representations of the typical firm’s dividend payments look more like a set of stairsteps up than the random walk with upward drift that would be expected if dividends naively followed reported earnings. Several theories have been proposed to explain this phenomenon. For example, the dividend signaling literature (e.g., Miller and Rock, 1985, and Baker and Wurgler, 2016) posits that since managers implicitly assume dividends are interpreted by investors as unbiased signals of financial health, decreases in dividend payments must foreshadow (at least temporary) declines in corporate prospects. Similarly, a prime tenet of Jensen’s (1986) agency theory—that dividend payments serve primarily to remove cash from management control that would otherwise be sub-optimally invested—is, ceteris paribus, consistent with the hypothesis that dividend reductions likely portend declines in future corporate efficiency and profitability. It is within the context of these two financial pillars that the dividend reductions announced in response to the COVID-19 crisis of 2020 are particularly relevant for study.

Despite its still-murky origins, one thing is certain: The world-wide toll resulting from the SARS-Cov-2 coronavirus pandemic (approximately 67 million infections and 1.5 million deaths in 2020). Although the economic fallout from the COVID crisis has been unprecedented in the modern era, a recent study (Sun, Wu, Zeng, and Peng, 2020) identified seven industries (including pharmaceuticals) that found themselves the unintended beneficiaries of the COVID “new normal.” Nonetheless, by mid-May of 2020 over 100,000 US businesses had already announced permanent closures. Perhaps not surprisingly, over 800 US publicly-traded companies (including 65 companies listed on the S&P 500) announced either cuts in or the complete elimination of their dividend payments by

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the end of August 2020.1 This paper examines the prevalence of—and the factors associated with—firms announcing dividend cuts and omissions as the impact of COVID-19 spread and compares and contrasts these results with dividend changes in the pre-COVID period beginning in January of 2015.

2. A brief discussion of COVID-19 and its impact on dividend policy

Similar to the case of the “Spanish flu” of 1918, the exact date and point of origination of the SARS-Cov-2 virus is presently unknown. What is known for certain is that the world at large took little notice of the new disease in Hubei province until a widespread outbreak in northern Italy in early February 2020.2

On March 12, the US government banned all non-essential travel to 26 European countries. The next day, President Donald Trump declared a national state of emergency. By early April—almost exactly coincident with the enactment of a host of unprecedented economic stimulus programs around the globe—virtually every “non-essential” business entity in the Western World had been temporarily shuttered in an effort to “flatten the curve” and slow the spread of the virus.

As the economic devastation spread, firms around the globe reevaluated their financial positions in light of both observed and expected declines in revenues. Emergency measures to preserve cash—long considered the “king” in times of panic—were quickly enacted. In addition to the tens of millions of people affected by corporate layoffs and furloughs, corporate dividends were slashed or suspended altogether. Perhaps not surprisingly given its particular vulnerability, the first of the well-known “shoes to drop” was AMC Theaters, with an announcement on February 27th of an 85% reduction in its dividend. Occidental Petroleum (March 10), Marriott (March 18), Ford (March 19), Delta Airlines (March 20), Boeing (March 20), Macy’s (March 20), GAP (March 26), and Carnival Cruise Lines (March 31) quickly followed, all save Occidental with complete suspensions.3

3. Previous results

Studies of dividend reductions and/or suspensions have been conducted by many scholars. In an extremely thorough work, Michaely, Thaler, and Womack (1995) examine the share price, volume, and clientele effects of dividend initiations and omissions and conclude that, whereas there are highly significant changes in share prices in response to both events, there is little impact in terms of either trading volume or changes in institutional holdings. Baker and Wurgler (2004) document four distinct trends in the payment of dividends between 1963 and 2000, and suggest these trends are explained by corporations “gaming” differences in so-called “catering incentives.” Thus, Baker and Wurgler claim that corporations will tend to initiate (or increase) dividend payouts when investor demand for dividends is demonstrably high and omit (or reduce) dividend payouts when it is low. However, in a later paper, Hoberg and Prabhala (2009), suggest that—once controlling for differences in environmental risk—the vast majority of the evidence for behavioral explanations of dividend policy, such as “catering,” vanishes. They conclude that “…the dividend premium matters in BW not because it reflects behavioral fads but rather because it acts as a proxy for risk.”

It is within the context of risk that two closely-related papers by DeAngelo and DeAngelo (1990) and DeAngelo, DeAngelo, and Skinner (1994) are of particular significance to the present work. These authors demonstrate that financial distress is particularly profound in the case of dividend policy, and note that whereas only 1 percent of studied companies decreased dividends over the 1980-to-1985 interval without experiencing accounting losses, over 50 percent decreased dividends in the presence of such losses. Given that the immediate impact of the COVID-19 pandemic on world economic activity could reasonably be expected to lead to extremely significant reductions in cash flows for many companies—at least in the short-term—the dividend omissions and reductions noted in Section 2 above (almost all of which preceded reported losses) may be viewed as rational, survival-motivated “anticipatory strikes.”

4. Data and empirical methodology

To assess the frequency and magnitude of dividend cuts and omissions of U.S.-listed companies, dividend data for approximately 1400 dividend paying stocks from both COMPSTAT and CRSP were collected from Q1 2015 through Q2 2020.4 For consistency, regular quarterly dividends paid in January, February, or March were classified as Q1, from April, May, or June as Q2, etc., regardless of the fiscal calendars of the individual firms. As noted in news items above, significant instances of dividend cuts and omissions due to the COVID-19 pandemic began to appear early in the second quarter of 2020.

Firms were classified (via an indicator variable), as enacting a dividend cut when both the total amount of cash allocated to regular quarterly dividends and the per share dividend rate declined relative to the previous quarter (as one analysis) or to the same quarter of the previous calendar year (as a separate analysis).5 This dual requirement is designed to capture intentional changes in dividend

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1 See, e.g., https://www.simplysafedividends.com/dividend-safety-scores

2 The first Italian cases— involving two Chinese tourists in Rome—were announced on January 31, 2020.

3 See, e.g., https://www.kiplinger.com/slideshow/investing/t018-s001-15-dividend-cuts-and-suspensions-coronavirus/index.html. While such dividend announcements began, in earnest, in March of 2020, the lag until actual payment dictated that the initial dividend cuts and omissions related to COVID-19 were realized primarily in Q2 of 2020.

4 The actual number of firms in the sample changes slightly from quarter-to-quarter as noted in the tables to follow.

5 Only publicly-traded firms with CRSP share codes 10 or 11—that is, not ADRs or ETFs—were included in the analysis.
policy free of the influence of other voluntary corporate events such as stock splits and share repurchases. Firms were classified (again, via an indicator variable) as enacting a dividend omission if they had paid regular, quarterly dividends for at least the four most recent, consecutive quarters but ceased doing so in the quarter of record.

Ordinary least squares (OLS) regressions to explain differences in dividend policy over the 2015-to-2020 time period follow the methods of Becker et al. (2011) and Krieger, Lee, and Mauck (2013). Explanatory variables potentially predictive of dividend cuts or omissions include MarketCap (defined as the natural log of firm market value), and NetIncome, Cash, and Debt (each scaled by total

### Table 1

**Historical frequency of dividend cuts.**

|                      | Panel A: All firms |    | Panel B: Industrials |                      |    | Panel C: Financials |                      | Panel D: Utilities |                      |
|----------------------|-------------------|----|----------------------|---------------------|----|---------------------|-------------------|-------------------|-------------------|
|                      | From Prior Quarter | Cut | No Cut | %            | From Prior Year | Cut | No Cut | %            | From Prior Quarter | Cut | No Cut | %            | From Prior Year | Cut | No Cut | %            |
| 2015, Q1             | 53                | 1378 | 3.7%            | 42            | 1321 | 3.1%            | 31            | 888 | 3.4%            | 32            | 849 | 3.6%            |
| 2015, Q2             | 81                | 1393 | 5.5%            | 43            | 1366 | 3.1%            | 59            | 889 | 6.2%            | 36            | 870 | 4.0%            |
| 2015, Q3             | 53                | 1429 | 3.6%            | 44            | 1370 | 3.1%            | 34            | 916 | 3.6%            | 39            | 864 | 4.3%            |
| 2015, Q4             | 49                | 1447 | 3.3%            | 65            | 1354 | 4.6%            | 39            | 929 | 4.0%            | 49            | 864 | 5.4%            |
| 2016, Q1             | 70                | 1341 | 5.0%            | 65            | 1285 | 4.8%            | 44            | 867 | 4.8%            | 49            | 818 | 5.7%            |
| 2016, Q2             | 81                | 1356 | 5.6%            | 53            | 1330 | 3.8%            | 57            | 872 | 6.1%            | 40            | 849 | 4.5%            |
| 2016, Q3             | 48                | 1399 | 3.3%            | 56            | 1332 | 4.0%            | 31            | 903 | 3.3%            | 44            | 845 | 4.9%            |
| 2016, Q4             | 40                | 1428 | 2.7%            | 69            | 1336 | 4.9%            | 35            | 916 | 3.7%            | 54            | 846 | 6.0%            |
| 2017, Q1             | 49                | 1357 | 3.5%            | 50            | 1307 | 3.4%            | 28            | 880 | 3.1%            | 38            | 834 | 4.4%            |
| 2017, Q2             | 76                | 1359 | 5.3%            | 43            | 1339 | 3.1%            | 51            | 880 | 5.5%            | 35            | 855 | 3.9%            |
| 2017, Q3             | 52                | 1393 | 3.6%            | 46            | 1340 | 3.3%            | 35            | 909 | 3.7%            | 36            | 860 | 4.0%            |
| 2017, Q4             | 51                | 1399 | 3.5%            | 60            | 1342 | 4.3%            | 38            | 914 | 4.0%            | 43            | 866 | 4.7%            |
| 2018, Q1             | 49                | 1350 | 3.5%            | 42            | 1301 | 3.1%            | 26            | 890 | 2.8%            | 28            | 848 | 3.2%            |
| 2018, Q2             | 85                | 1367 | 5.9%            | 33            | 1357 | 2.4%            | 63            | 896 | 6.6%            | 30            | 882 | 3.3%            |
| 2018, Q3             | 52                | 1409 | 3.6%            | 38            | 1349 | 2.7%            | 27            | 937 | 2.8%            | 28            | 884 | 3.0%            |
| 2018, Q4             | 34                | 1443 | 2.3%            | 39            | 1374 | 2.8%            | 26            | 954 | 2.7%            | 25            | 906 | 2.7%            |
| 2019, Q1             | 57                | 1352 | 3.6%            | 39            | 1308 | 2.9%            | 35            | 907 | 3.8%            | 27            | 862 | 3.0%            |
| 2019, Q2             | 81                | 1361 | 3.6%            | 38            | 1350 | 2.7%            | 58            | 896 | 6.1%            | 27            | 890 | 2.9%            |
| 2019, Q3             | 69                | 1395 | 4.7%            | 49            | 1351 | 3.5%            | 43            | 934 | 4.4%            | 32            | 898 | 3.4%            |
| 2019, Q4             | 40                | 1434 | 2.7%            | 65            | 1333 | 4.6%            | 29            | 955 | 2.9%            | 45            | 879 | 4.9%            |
| 2020, Q1             | 47                | 1355 | 4.2%            | 123           | 896 | 3.2%            | 36            | 853 | 4.0%            | 33            | 847 | 4.0%            |
| 2020, Q2             | 213               | 1145 | 15.7%           | 173           | 1148 | 13.1%           | 164           | 737 | 18.2%           | 141           | 738 | 16.0%           |
| Overall              |                   |      |                  |                | 4.5%          |      |                  |                | 4.0%          |      |                  |                | 4.7%          |      |                  |                | 4.6%          |

This table reports historical frequency of dividend cuts for those firms which had paid regular, quarterly dividends either in the prior quarter or in the same quarter one year ago. Firms must have CRSP and COMPUSTAT data available with a CRSP share code of either 10 or 11 for inclusion in the sample. Firms were classified as enacting a dividend cut when both the total amount of cash allocated to regular quarterly dividends and the per share dividend rate each declined relative to the same quarter of the previous quarter (year). For consistency, regular quarterly dividends paid in January, February, or March are classified as Q1, from April, May, or June Q2, etc., regardless of the fiscal calendars of the individual firms. Financials (Panel C) are defined as those firms with two-digit SIC codes from 60-69. Utilities (Panel D) are defined as those firms with a two-digit SIC code of 49. Industrials (Panel B) are all firms not classified as financials or utilities.
These controls were each previously found to be significant determinants of corporate dividend policy by Brav et al. (2005, 2008), and Fama and French (2002). Each firm’s growth opportunities (Q) — proxied by the market-to-book value ratio — is included in the regressions since high-growth firms have previously been shown to have lower payout ratios (Lang and Litzenberger, 1989), while the variable Age controls for the finding that firm age and dividend payouts are known to be positively correlated (Leary and Michaely, 2011). All explanatory variables are measured at the end of quarter t–1 in order to assess the likelihood of a dividend cut or omission in quarter t.

Regression models including all firms, financial firms (two-digit SIC codes between 60-69), utilities (two-digit SIC code 49), and industrials (all other 2-digit SIC codes) are separately analyzed. Coefficients are estimated with (reported) robust standard errors, clustered by firm, in all specifications. Finally, one-digit SIC dummy variables were employed as controls when analyzing both the full and industrials-only samples.

5. Empirical results

Table 1 documents the number and proportion of dividend cuts in comparison both to the prior quarter and the prior year for each quarter from Q1 2015 to Q2 2020. Statistics are provided for the complete sample of approximately 1400 firms, as well as for separate industrial, financial, and utility subsamples. Overall, firms cut dividends at frequencies between three and five times greater during the COVID pandemic than during any other quarter since 2015.7 As expected given their generally more volatile earnings, industrial firms registered dividend cuts at a substantially greater frequency than financial services firms or utilities. Indeed, approximately 1 in 6 industrial firms announced cuts in their dividend payout ratios during Q2 2020. Not since the financial crisis of 2008-2009 has a sector of the economy (in that case financials) experienced dividend cuts of such prevalence and magnitude (Floyd, Li, and Skinner, 2015). Remarkably, even public utilities proved susceptible to the COVID panic, with approximately 1 in 20 utilities (approximately four times recent prior experience) choosing to enact cuts in their dividends in Q2 2020.

In unreported results, the Table 1 analysis was extended by separating the complete sample into 11 different industries based on SIC

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6 As there are no recorded instances of a publicly traded-utility omitting dividends in Q2 2020, no regression was performed for this subsample in Table 4.

7 The only exception to this finding is that of utilities in 2016, when a wave of cuts followed regulator claims that many utilities were under-depreciating their capital stock, leading to abnormally high profit margins (and, therefore, excessive dividends). See, e.g., https://oilprice.com/Energy/Energy-General/Why-Utilities-Have-To-Decrease-Dividends.html
## Table 3
OLS regressions predicting dividend cuts.

|                  | Panel A: All firms |                  | Panel B: Industrials |                  | Panel C: Financials |                  | Panel D: Utilities |                  |
|------------------|--------------------|------------------|----------------------|-------------------|--------------------|-------------------|--------------------|-------------------|
|                  | Pre COVID          | COVID            | Diff                 | Pre COVID          | COVID            | Diff              | Pre COVID          | COVID            | Diff              |
| Intercept        | 0.114***           | 0.365***         | 0.251***             | 0.110***           | 0.374***         | 0.264***          | 0.168***           | 0.415**          | 0.247**           |
|                  | (0.014)            | (0.075)          |                      | (0.014)           | (0.080)          |                  | (0.040)           | (0.178)          |                  |
| MarketCap        | -0.009***          | -0.034***        | -0.025***            | -0.008***         | -0.035***        | -0.027***         | -0.017***         | -0.032***        | -0.004***         |
|                  | (0.001)            | (0.007)          |                      | (0.001)           | (0.008)          |                  | (0.004)           | (0.019)          |                  |
| NetIncome        | -0.106***          | -0.525**         | -0.419***            | -0.055            | -0.476*          | **                | -0.001            | 0.089            | -0.040            |
|                  | (0.035)            | (0.267)          |                      | (0.039)           | (0.269)          |                  | (0.000)           | (0.954)          |                  |
| Cash             | 0.037              | -0.148           | -0.185**             | 0.041             | -0.214*          |                  | -0.059            | -0.129           |                  |
|                  | (0.027)            | (0.105)          |                      | (0.029)           | (0.116)          |                  | (0.067)           | (0.281)          |                  |
| Debt             | -0.025***          | 0.207***         | -0.232***            | -0.023**          | 0.203***         | **                | -0.059*           | 0.181            | **                |
|                  | (0.009)            | (0.063)          |                      | (0.010)           | (0.070)          |                  | (0.036)           | (0.158)          |                  |
| Q                | -0.000             | -0.005           | -0.005               | -0.001            | -0.005           |                  | 0.007**           | 0.008            |                  |
|                  | (0.001)            | (0.005)          |                      | (0.001)           | (0.005)          |                  | (0.004)           | (0.019)          |                  |
| Age              | 0.000              | 0.000            | 0.000                | 0.000             | 0.000            | 0.002*            | 0.002*            | -0.002           | -0.001            |
|                  | (0.000)            | (0.002)          |                      | (0.000)           | (0.002)          |                  | (0.001)           | (0.005)          |                  |
| n                | 23445              | 1048             | 18873                | 836               | 2974             | 142               | 1598              | 70               |
| R²               | 0.017              | 0.075            | 0.041                | 0.076             | 0.032            | 0.052             | 0.019             | 0.149            |

This table reports the estimation results of OLS regressions (in the form of Becker et al., (2011) and Krieger et al. (2013)) predicting dividend cuts separately in the Pre COVID period and in the COVID period. Clustered standard errors, by firm, are reported as are significance levels of coefficients. Results for tests of differences of coefficients between Pre COVID and COVID samples are also provided. ***(**,*) denotes significance at a 1% (5%, 10%) level. The ‘Pre COVID’ period is defined as each quarter of 2015-2019 as well as Q1 of 2020. The ‘COVID’ period is defined as Q2 of 2020. Dividend cuts occur in quarter t and predictors are measured at the end of quarter t-1. Explanatory variables are: MarketCap (defined as the natural log of firm market value); NetIncome, Cash, and Debt (each scaled by total assets); Q, proxied by the market-to-book value ratio; and Age measured in years. One-digit SIC dummy variables (estimates omitted for space purposes) are included as additional controls for Panels A and B. CRSP share codes of 10 or 11 are required for inclusion. Financials (Panel C) are defined as those firms with two-digit SIC codes from 60-69. Utilities (Panel D) are defined as those firms with a two-digit SIC code of 49. Industrials (Panel B) are all firms not classified as financials or utilities.
Table 4
OLS regressions predicting dividend omissions.

| Panel A: All firms | Panel B: Industrials | Panel C: Financials |
|--------------------|----------------------|---------------------|
|                    | Pre COVID | COVID | Diff | Pre COVID | COVID | Diff | Pre COVID | COVID | Diff |
| Intercept          | 0.056*** | 0.178*** | 0.022*** | 0.056*** | 0.189*** | 0.033*** | 0.026 | 0.148 |
| MarketCap          | (0.007) | (0.059) | (0.008) | (0.007) | (0.065) | (0.008) | (0.017) | (0.094) |
| Debt               | -0.005*** | -0.019*** | -0.005*** | -0.005*** | -0.021*** | -0.003* | -0.012* |
| Debt               | (0.001) | (0.006) | (0.001) | (0.001) | (0.007) | (0.002) | (0.007) |
| NetIncome          | -0.010 | -0.639** | -0.299*** | -0.670** | 0.008 | 0.364 |
| NetIncome          | (0.020) | (0.302) | (0.069) | (0.325) | (0.011) | (0.558) |
| Cash               | -0.061 | -0.081 | -0.054 | -0.144 | 0.010 | -0.097 |
| Cash               | (0.091) | (0.086) | (0.044) | (0.099) | (0.025) | (0.102) |
| Debt               | 0.008 | 0.161*** | 0.004 | 0.172*** | 0.041** | 0.130* |
| Debt               | (0.006) | (0.053) | (0.004) | (0.062) | (0.020) | (0.073) |
| Q                  | -0.001** | -0.008** | -0.002 | -0.008* | -0.001 | -0.009 |
| Q                  | (0.000) | (0.004) | (0.000) | (0.005) | (0.000) | (0.006) |
| Age                | -0.001 | 0.001 | -0.000 | 0.001 | 0.001 | 0.001 |
| Age                | (0.001) | (0.001) | (0.000) | (0.002) | (0.001) | (0.002) |
| n                  | 21255 | 984 | 17043 | 783 | 2679 | 132 |
| R²                 | 0.029 | 0.073 | 0.045 | 0.081 | 0.036 | 0.044 |

This table reports the estimation results of OLS regressions (in the form of Becker et al., (2011) and Krieger et al. (2013)) predicting dividend omissions separately in the Pre COVID period and in the COVID period. Clustered standard errors, by firm, are reported as are significance levels of coefficients. Results for tests of differences of coefficients between Pre COVID and COVID samples are also provided. *** (**, *) denotes significance at a 1% (5%, 10%) level. The ‘Pre COVID’ period is defined as each quarter of 2015-2019 as well as Q1 of 2020. The ‘COVID’ period is defined as Q2 of 2020. Dividend cuts occur in quarter t and predictors are measured at the end of quarter t-1. Explanatory variables are: MarketCap (defined as the natural log of firm market value); NetIncome, Cash, and Debt (each scaled by total assets); Q, proxied by the market-to-book value ratio; and Age measured in years. One-digit SIC dummy variables (estimates omitted for space purposes) are included as additional controls for Panels A and B. CRSP share codes of 10 or 11 are required for inclusion. Financials (Panel C) are defined as those firms with two-digit SIC codes from 60-69. Utilities are defined as those firms with a two-digit SIC code of 49. Industrials (Panel B) are all firms not classified as financials or utilities. Results are not available for utilities as no utility firms enacted a dividend omission in the COVID period.

codes (Agriculture, Mining, Construction, Manufacturing, Transportation, Utilities, Wholesale, Retail, Finance, Services, and Professional Services). These results indicate that the most COVID-impacted industries were Mining (35.6% cutting dividends compared to the pre-COVID dividend cutting average of 7.6%), Transportation (24.1% cutting dividends compared to an average of 5.6%), Retail (24% cutting compared to an average of 4.9%), and Services (21.7% cutting compared to the average of 5.7%).

Table 2 presents an identical analysis from the standpoint of dividend omissions. As would be expected given their more profoundly negative signal, omissions are much rarer than dividend reductions. Still, fully 7 percent of dividend-paying companies chose to completely omit dividend payments in response to the COVID pandemic. As with the case of reductions, neither financial services companies (1.6 percent) nor utilities (0 percent) omitted dividends at anywhere near the frequency of industrials (9.9 percent). In fact, unlike the case of dividend cuts (which were more evenly distributed), the evidence presented in Table 2 suggests that dividend omissions in response to COVID-19 were almost exclusively restricted to industrial firms—a finding certainly consistent with expected declines in future cash flows.

In unreported results, the analysis of Tables 1 and 2 was extended to focus on dividend increases. While the average proportion of all firms increasing dividends compared to the prior year (quarter) is typically 56.5% (19.3%), Q2 2020 sees 50.1% (10.8%) of the sample increasing dividends. This is a smaller proportion than any other quarter in the sample and certainly advances the narrative that the COVID-19 pandemic had a profound impact on corporate dividend policy.

Tables 3 (dividend cuts) and 4 (dividend omissions) report the results of separate regressions estimated both before (Q1 2015 to Q1 2020) and during (Q2 2020) the COVID period. A statistical test of differences between the coefficients for each variable in the two tested intervals is also presented in the third column of each panel. As noted above, because there were no dividend omissions for the utilities sample during the COVID period, regressions involving dividend omissions are restricted to industrial and financial firms.

As shown in Panel A of Table 3, overall, the net income and debt coefficients are significantly different between the pre-COVID and COVID samples. While, as expected, more profitable firms are less likely to cut dividends in both time periods, the economic magnitude of the differences is much larger in the COVID period. Interestingly, while firms with relatively greater levels of debt were actually less likely to cut their dividends during the pre-COVID period, they were much more likely to resort to dividend cuts in the depths of the pandemic and consequent economic shutdown. This result holds for industrials (Panel B), as well—not surprisingly because they represent the majority of the all-industries sample. Interestingly, only the difference in debt holds for financials (Panel C), while only the net income result holds for utilities (Panel D).

Table 4 repeats the same regression procedure of Table 3, but with dividend omissions serving as the dependent variable. As shown in Panel A, the coefficients on net income and debt are statistically different between the pre-COVID and COVID periods, with both more profitable (somewhat unexpected) and more indebted (as expected) firms more likely to completely omit dividend payments during the pandemic. While the debt result holds for industrial firms considered in isolation (Panel B), there are no statistical differences between the coefficients for financial services firms (Panel C).
6. Conclusion

The market typically reacts unfavorably to dividend cuts and omission and managers are generally reluctant to send negative signals via dividend reductions. However, during times of crisis, reducing or eliminating dividends provides firms with additional cash and flexibility that may prove useful in responding to uncertainty. The financial crisis of 2008 witnessed financial firms cutting dividends at much higher than typical rates, while other firms maintained relatively stable dividend policies. In the COVID period of 2020, publicly traded entities witnessed much higher rates of dividend cuts, and industrial firms had much greater rates of dividend omissions. Thus, viewed solely from the perspective of dividend policy, the COVID pandemic is a unique event and clearly worthy of additional analysis and study.

CRediT authorship contribution statement

Kevin Krieger: Data curation, Methodology, Formal analysis, Writing - review & editing, Software. Nathan Mauck: Conceptualization, Methodology, Writing - review & editing, Data curation, Project administration. Stephen W. Pruitt: Writing - review & editing.

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