The real cost of litigation: Evidence from security class actions and M&As[⋆]

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Abstract

We investigate the influence of ongoing security class action lawsuits (SCAs) on takeover premiums, M&A announcement returns, and the likelihood of deal completion. Targets subject to an SCA receive between 7.6 and 10.2 percentage points lower takeover premiums, with this negative effect extending to target M&A announcement returns. Acquirers of firms subject to ongoing litigation likewise experience more pronounced share price reductions than acquirers of targets not subject to litigation. Categorizing SCAs by their ultimate outcome reveals that these negative effects are more pronounced if the SCA is ultimately settled rather than dismissed. Our results hold for a variety of robustness tests that address potential endogeneity concerns. We further show that the presence of an ongoing SCA weakens the positive impact of termination fees on the likelihood of deal completion. Our results highlight the significant and economically relevant impact of litigation on major corporate events. [145 words]

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1 Introduction

Being named a defendant in a security class action lawsuit (SCA) is a major corporate event that can have severe negative repercussions for the affected firm. The filing of an SCA not does only lead to negative press coverage about the defendant due to the revelation of (potential) corporate misconduct, but typically has multiple additional adverse consequences for the firm. In the short term, the SCA filing can lead to a significant drop in the company's share price, not only for the defendant firm (Fich and Shivdasani, 2007; Gande and Lewis, 2009), but also for its peers (Gande and Lewis, 2009). Moreover, SCAs also have longer term consequences and can lead to an increase in the firm's cost of equity (Chava, Cheng, Huang and Lobo, 2010) and debt (Arena, 2018), result in CEO pay reductions or turnover (Crutchley, Minnick and Schorno, 2015; Humphery-Jenner, 2012), and force the company to improve its corporate governance (Cheng, Huang, Li and Lobo, 2010) and investment policies (Arena and Julio, 2015; McTier and Wald, 2011). Given that SCAs affect corporations in a variety of ways, it stands to reason that they will also impact major corporate events such as initial public offerings (IPOs) and mergers and acquisitions (M&As). Higher litigation risk has been associated with higher IPO underpricing (Lowry and Shu, 2002) and an increase in firms' delisting probability (Brogaard, Le, Nguyen and Sila, 2023). When it comes to the impact of SCAs on M&As, however, there is so far only limited evidence on the way in which SCAs interact with M&As.

In this study we investigate how SCAs affect M&As across multiple dimensions. Specifically, we want to test the impact of SCAs on takeover premiums, target and acquirer M&A announcement returns, acquirer post-M&A returns, and the likelihood of deal completion. To this end, we construct a sample of publicly traded US targets that are subject to an ongoing SCA at the time of the takeover announcement. Our results show that takeover premiums of these SCA-affected targets are significantly lower than for targets that are not subject to ongoing litigation. All else being equal, SCAs reduce premiums by 7.6 to 10.2 percentage points, corresponding to an average loss between USD 79 and USD 102 million.

However, the average SCA settlement amount, where data is available, is about three to four times smaller, at around USD 24.6 million. This suggests that in addition to the SCA's direct costs, the reduction in takeover premiums also reflects additional indirect costs to the target, for example through an increase in the acquirer's bargaining power or reputational losses due to the SCA. Moreover, we find that shareholders of SCA-affected targets experience lower announcement returns than those of non-SCA affected targets. Concurrently, we observe that acquirers experience more pronounced share price reductions when they announce to purchase an SCA-affected target compared to a non-SCA-affected one. Interestingly, acquirers of SCA-affected targets appear to be able to recoup some of their share price losses during the 12-month period following the M&A announcement. Finally, when looking at the way that SCAs affect the likelihood of deal completion, we find that transactions with SCA-affected targets are significantly more likely to be withdrawn, even when the acquisition agreement stipulates acquirer or target termination fees.

While the outcome of an SCA is unknown at the time of its filing, Bradley, Cline and Lian (2014) document that the stock market reactions to SCA filings differ depending on whether the SCA is ultimately settled or dismissed. In cases where the SCA is eventually dismissed, the stock market reaction is less negative compared to cases where the SCA is eventually settled. They interpret this as a sign that stock market participants are cognizant about the merits of an SCA and react accordingly. Building on the results of Bradley et al. (2014), we split our sample of SCA-affected targets into those whose SCA is ultimately settled and those whose SCA is eventually dismissed. In a first step, we replicate the results of Bradley et al. (2014) for our sample and establish that there is a significant difference in the stock market reaction to the filing of an SCA, conditional on its outcome. SCAs that are eventually dismissed lead to a less pronounced reduction in share prices than those that are settled.

In a next step, we test the extent to which the outcome of an SCA affects our baseline results. With respect to takeover premiums, we find only small differences between SCAs that

are ultimately settled and those that are dismissed. Target M&A announcement returns, however, are more clearly impacted. Here, target shareholders experience significantly lower returns if the target is subject to an ongoing SCA that is ultimately dismissed, while shareholders in targets whose SCA is eventually settled are generally less impacted. The opposite is observed for acquirer returns. Specifically, acquirers that purchase an SCA-affected target where the SCA finally results in a settlement earn significantly lower announcement returns, while purchasing an SCA-affected target where the SCA is ultimately dismissed has no significant impact on acquirer returns. The results for the takeover premiums and the target and acquirer M&A announcement returns imply that acquirers of targets subject to an ongoing SCA that is ultimately dismissed benefit. These acquirers pay lower takeover premiums while the impact on their share price appears limited. This result is further strengthened when looking at long-term buy-and-hold returns, where acquirers of SCA-affected targets with eventually dismissed SCAs achieve higher 12-month returns than other acquirers. Finally, we document a higher likelihood of deal withdrawal for deals where the SCA is ultimately settled, even if acquirer termination fees are negotiated in the acquisition agreement.

To address potential endogeneity concerns that may affect our baseline results, we conduct several robustness and sensitivity tests. First, we use a switching regression model with endogenous switching to address concerns that the acquirer's decision to purchase an SCA-affected target may be endogenous and that certain unobservable target characteristics make the target itself more susceptible to being subject to SCAs. In addition, the switching regression set-up allows us to build a counterfactual to answer the question of how much higher the target premium could have been if the target had not been subject to ongoing litigation. Using litigation intensity as an instrumental variable, we find that SCA-affected targets could have earned up to 6 percentage points higher premiums had they not been subject to an ongoing SCA. This result provides additional support for our baseline results. As a further robustness test, we conduct a matched sample analysis to address potential issues with our sample selection. Only a relatively small portion of all public targets in our

sample are subject to an ongoing SCA at the time of the acquisition announcement, with these SCA-affected targets displaying some differences in their firm characteristics compared to non-SCA-affected targets. The matched sample approach eliminates these differences and validates our main results. Finally, focusing on SCA-affected targets implies that all our targets are publicly listed, while this may not necessarily be the case for the acquirer. This may leave us vulnerable to an omitted variable bias by not being able to include acquirer-specific variables. Therefore, as a final robustness test, we address this issue by rerunning our main regression analyses on takeover premiums and target abnormal returns using only our subset of public acquirers, which allows us to include a large number of acquirer-specific variables. The results of our baseline regressions remain largely unchanged.

Our study adds to the research on value drivers in M&As in multiple ways. First, we contribute to the literature exploring the factors that influence takeover premiums (e.g., Bargeron, Schlingemann, Stulz and Zutter, 2008; Eaton, Liu and Officer, 2021; Eckbo, 2009; Gaspar, Massa and Matos, 2005; de La Bruslerie, 2013; Mulherin and Simsir, 2015). Specifically, we provide empirical evidence of a negative impact of SCAs on takeover premiums and undertake a first attempt to quantify the costs associated with litigation by estimating the loss in takeover premiums. Crucially, our identification strategy deviates from prior studies that examine litigation based on the M&A itself (e.g., Krishnan, Masulis, Thomas and Thompson, 2012), which occurs after the M&A announcement, and only focus on SCAs that are already ongoing before the announcement of the transaction. In this way, we can more clearly isolate the costs that SCAs impose on target shareholders in the form of foregone takeover premiums and stock price appreciation around the M&A announcement. Second, our study contributes to the existing literature on the factors influencing M&A announcement returns (Fuller, Netter and Stegemoller, 2002; Golubov, Yawson and Zhang, 2015; Harford, Humphery-Jenner and Powell, 2012) by highlighting the impact of litigation risk on target and acquirer returns. We find that the presence of ongoing litigation significantly diminishes the positive wealth effects typically experienced by target shareholders. Moreover, acquirers

that purchase a target which is subject to ongoing litigation assume additional risks, which are consequently reflected in lower returns surrounding the M&A announcement. By examining the interplay between litigation and M&A announcement returns, our study provides insights into the determinants of shareholder wealth effects in M&A transactions.

Our study also adds to the literature on the factors influencing deal completion. While we confirm prior results that the inclusion of termination fees increases the likelihood of deal completion ((Bates and Lemmon, 2003; Krishnan et al., 2012; Neyland and Shekhar, 2018; Officer, 2003), we offer more nuanced insights into the interplay of termination fees and litigation. Specifically, we show that acquisitions in which the target is subject to ongoing litigation are less likely to be completed, even if termination fees are agreed in the acquisition agreement. Chen, Mahmudi, Virani and Zhao (2022) show that the value of a termination fee largely depends on the volatility of the target firm's value to the bidder and Bhagwat, Dam and Harford (2016) find that high market volatility decreases the likelihood of deal completion. Our findings therefore contribute to this strand of the literature by showing that the litigation risk created by SCAs as well as the related potential changes in target firm value for the bidder negatively affect the likelihood of deal completion. We also build on and expand the results of Bradley et al. (2014) by decomposing our SCA variable into ultimately dismissed and settled SCAs and extending this analysis to M&As. We thereby provide a nuanced picture on how investors' assessment of the ultimate outcome of an SCA may influence M&As. Investors appear, to some extent, cognizant of the merits of an SCA and react accordingly. This suggests that acquirers capable of accurately anticipating whether an SCA will be dismissed, could avoid many of the negative spillover effects associated with eventually settled SCAs.

Our study also relates to the literature on the real consequences of SCAs for companies. Prior research has shown that greater litigation risk plays a role in discouraging firms from engaging in innovation (Kempf and Spalt, 2022), increasing a firm's cost of equity (Chava et al., 2010) and debt (Arena, 2018), favoring corporate alliances as a growth strategy over

M&As (Huang, Ozkan and Xu, 2023), heightening firm's stock price crash risk (Obaydin, Zurbruegg, Hossain, Adhikari and Elnahas, 2021), and may even drive firms' delisting decisions (Brogaard et al., 2023). Our study extends this area of research by highlighting the negative economic consequences of securities litigation in the context of corporate acquisitions. Specifically, we show that these negative consequences not only affect the shareholders of the target company that is subject to an SCA through lower takeover premiums and lower announcement returns, but that the negative impact appears to spill over to the acquirer as well. These negative spillover effects manifest themselves through even more pronounced reductions in the acquiring firm's share price surrounding the M&A announcement. Therefore, litigation has a significant and economically relevant impact on M&As by imposing additional costs on firms beyond the original adverse stock market reaction to the SCA filing.

The remainder of the paper is structured as follows. Section 2 describes our sample selection procedure and introduces our dataset. Section 3 explains our empirical strategy, while Section 4 reports our results. Section 5 divides our sample of SCA-affected targets by the SCAs' ultimate outcome to test whether differences exist between dismissed and settled SCAs. Section 6 includes multiple robustness tests and sensitivity analyses and Section 7 concludes.

2 Data

2.1 Sample selection procedure

To investigate the impact of ongoing litigation on M&As, we combine data on M&As with data on SCAs. For our sample of M&As, we retrieve all completed and withdrawn M&A transactions between 2000 and 2021 where the acquirer and target are located in the US from Refinitiv's Securities Data Company (SDC) database. As SCAs are typically brought against

publicly traded firms, we require that SDC records the target as being a publicly listed entity.[1] In addition, this allows us to calculate takeover premiums as well as stock market reactions to the takeover announcement. We do not place any restrictions on the acquirer's public status. Next, we remove all transactions that are considered to be restructurings or where the acquirer purchased less than a 50% ownership in the target. Then, and in line with standard practice (e.g., Hackbarth and Morellec, 2008; Masulis and Simsir, 2018), we drop transactions where the target is from the financial sector (Standard Industry Classification (SIC) codes 6000 to 6999) or a utilities firm (SIC codes 4900 to 4999). Finally, we drop all deals where the target was acquired within 20 trading days after the SCA filing[2] and where the target firm was affected by two SCAs with subsequently different outcomes (settlement or dismissal, respectively) to avoid overlapping time frames or unclear event identification. This leaves us with a sample of 3,985 acquisition announcements of US listed public targets, whereof 3,277 transactions were completed and 708 were withdrawn. The sample of completed M&A deals will serve as the basis for our analyses, while we add the withdrawn transactions back to the sample of completed deals to assess the impact of SCAs on the likelihood of deal completion in Section 5.4.

We supplement our M&A sample with data on SCAs from the Stanford Securities Class Action Clearinghouse Database. We only use SCAs that are resolved and which resulted in either a settlement or the dismissal of the case. Next, we match the SCAs to the target firms from our M&A sample. In order for a target to be considered subject to an ongoing SCA, we require that the SCA was filed within three calendar years prior to the acquisition announcement and that the outcome of the SCA is not yet known when the deal is announced (i.e., the resolution of the SCA through a settlement or dismissal is not formally known at

[1] Generally, SCAs may be brought against companies by investors if they suffered a financial loss in a specific stock, bond, or investment fund. This also implies that a firm does not necessarily have to be stock-listed (e.g., a firm may be private but has issued a publicly traded bond). Of the 4,626 SCAs filed between the years 2000 and 2021 that are recorded in the Stanford Securities Class Action Clearinghouse Database, only 138 (2.98%) are considered to be filed against privately held firms, which are too few observations to warrant further analyses.

[2] We leave a 20-day gap window between the SCA filing date and the M&A announcement date to avoid overlapping event windows for our event study analyses.

the time of the M&A announcement). This identification strategy differs from prior studies that focused on the M&A as the trigger for litigation (e.g., Krishnan et al., 2012) and allows us to isolate the impact of the ongoing SCA on takeover premiums, target and acquirer announcement returns, and the likelihood of deal completion. Figure 1 further illustrates the chronological order of events. Using this approach, we are able to match a total of 298 SCAs to our target sample (216 settled and 82 dismissed), of which 229 SCAs can be matched to completed M&A transactions (166 settled and 63 dismissed) and 69 SCAs to withdrawn transactions (50 settled and 19 dismissed).

[Insert Figure 1 approximately here]

2.2 Descriptive statistics

Table 1 provides an overview over the distribution of completed M&A transactions by year and industry.[3] The number of transactions display a slight tendency to go down over the years. Looking at the number of SCA-affected targets, we observe that the majority of SCA-affected transactions result in a settlement (166; 72.5%), while approximately one quarter of the SCAs are dismissed (63; 27.5%). Most SCA-affected targets are from the high-tech industry (104) followed by firms operating in the healthcare (40) and retail (22) sectors.

[Insert Table 1 approximately here]

Table 2 shows the descriptive statistics of our sample, divided into deal characteristics (Panel A) and target characteristics plus our variables of interest (Panel B), and further split into SCA-affected and non-SCA-affected transactions (all variables are defined in Appendix A).[4] The deal characteristics in Panel A show that about 10% of the deals in our sample involve a financial acquirer, while 57% of the acquirers are public firms. As we only selected

[3]Detailed sample statistics for our sample of withdrawn deals are provided in Table OA-1 and OA-2 in the Online Appendix.

[4]The pairwise correlation matrix for the variables presented in Table 2 is shown in Table OA-3 in the Online Appendix.

majority acquisitions, we find that the average stake acquired is about 98% with a median of 100%. The univariate difference tests further show that SCA-affected targets are more likely to be acquired by a public firm and that bids for SCA-affected targets are more likely to be contested by other potential acquirers. These later points are relevant for our subsequent analyses as Rossi and Volpin (2004) document that contested bids are associated with higher takeover premiums while Bargeron et al. (2008) find that public acquirers tend to pay higher premiums than private acquirers.

Table 2 Panel B further highlights certain differences in the target characteristics for targets subject to an ongoing SCA and those that are not subject to one. The average SCA-affected target has significantly lower return on assets and leverage than targets not affected by an SCA. However, the average and median total assets and market-to-book ratios are significantly higher for SCA-affected targets than for non-affected ones. Particularly the difference in market-to-book ratios is relevant in the context of takeover premiums, as Eckbo (2009) finds that target firms with market-to-book ratios above their respective industry median obtain higher premiums that those with market-to-book ratios below their respective industry median. Finally, we also observe some minor differences in our variables of interest. While the differences in takeover premiums between targets subject to an ongoing SCA and those without ongoing litigation have the expected signs, the differences are generally small and lack significance in the univariate setting. When it comes to the announcement returns, however, we observe some differences between SCA-affected and non-SCA-affected targets. The abnormal returns for both the target and acquirer are lower when the target is SCA-affected, albeit the statistical significance of this difference is weak.

[Insert Table 2 approximately here]

3 Empirical Strategy

In order to examine the impact of SCAs on M&As, our empirical approach consists of three main steps. First, we explain how we derive our dependent variables for our regressions, which are the takeover premiums, the short-term target and acquirer abnormal announcement returns, and the long-term acquirer returns for up to one year following the acquisition. We show how we derive these variables in Sections 3.1 and 3.2, respectively. In a second step, we use these dependent variables in different robust ordinary least squares (OLS) regression settings and test the impact of an ongoing SCA, along with a large number of control variables, on our dependent variables. In the third and final step, we utilize our sample of withdrawn transactions along with our completed deals to test how SCAs influence the likelihood of deal completion.

3.1 Estimation of takeover premiums

Following the approach of Officer (2003), we use two different types of takeover premiums: the initial premium and the combined premium. The initial premium is calculated as follows:

$$InitialPremium = \frac{Price_{initial}}{Price_{t=-42}} \tag{1}$$

where $Price_{initial}$ represents the initial offer price and $Price_{t=-42}$ is the target share price 42 trading days prior to the announcement adjusted for any stock splits and dividends. In line with prior research (e.g., Betton, Eckbo and Thorburn, 2008; Eckbo, 2009; Mulherin and Simsir, 2015), we use the stock price 42 trading days prior to the acquisition announcement in the denominator as this is generally considered to be the last date unaffected by any potential stock price runups associated with the market anticipating the transaction (Schwert, 1996).[5] In addition, and motivated by the recent studies of Eaton et al. (2021) that suggests that

[5]While we leave a 20-day gap between the SCA filing date and the M&A announcement date, there may be instances where the SCA filing occurs between 20 days to 42 days prior to the M&A announcement date and may therefore affect our results. However, this is only the case for five SCAs and does not change our results.

the runup in targets' share prices associated with M&A announcements starts earlier than prior research indicated, we also use targets' share prices 105 trading days before the M&A announcement ($Price_{t=-105}$) as the basis for the calculation of takeover premiums.

Furthermore, we also estimate the combined premium in a similar manner to Officer (2003). For this, we first need to calculate the component-based premium as the aggregate amount of all payments offered to target shareholders (i.e., cash, equity, debt, etc.) divided by the target firm's market capitalization 42 (or 105) trading days prior to the announcement date minus one. We then set the combined premium equal to the component-based premium if that premium can be calculated and lies between −50% and 500% to avoid extreme outliers.[6] In case the component-based premium does not fall within this range, the combined premium is set to the initial premium as long as this number is between −50% and 500%. In the event that neither condition is met, the combined premium is left blank.

3.2 Stock market reactions

3.2.1 Short-term stock market reactions

To investigate the short-term stock market reaction around the SCA filing date and the M&A announcement date, we use an event study based on the Fama and French (1993, 1996) three-factor model.[7] We calculate the three-factor model using a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date ($t = 0$), taking the form:[8]

$$R_{it} - r_{ft} = \alpha_i + \beta_{MKT,i}(R_{Mt} - r_{ft}) + \beta_{SMB,i}SMB_t + \beta_{HML,i}HML_t + \epsilon_{i,t} \quad (2)$$

[6] It is common practice to truncate premiums that are considered outliers (Dong, Hirshleifer, Richardson and Teoh, 2006; Moeller, Schlingemann and Stulz, 2004; Officer, 2007), albeit the precise cutoff values vary for each study. As a sensitivity analysis, we also used cut-offs of 450% and 400% and the results remain qualitatively the same.

[7] To address concerns that the regression coefficients for the estimation of the abnormal returns surrounding the M&A announcements could be impacted by the SCA filing, we also run a market-adjusted event study model. The results are largely the same, both in terms of significance and magnitude.

[8] As a robustness exercise, we also vary the length of the event windows to capture any potential pre-M&A announcement price runups. To this end, we use the [−104; +10] and [−42; +10] event window, in each case keeping a 230-day estimation window starting one day prior to the first day of the event window. The results show no meaningful price runups.

where R_{it} is firm i's stock return on day t during the estimation period, r_{ft} is the one-month Treasury bill rate on day t, R_{mt} is the market return of the CRSP value-weighted index on day t, SMB_t is the size factor and represents the average return of three small-cap portfolios versus three large-cap portfolios on day t, and HML_t is the value factor and represents the difference in the average return of two value and two growth portfolios on day t. Data for the daily returns of the three factors was collected from Kenneth French's Data Library website.[9] The regression coefficients associated with the market return and the size and value factors are $\beta_{MKT,i}$, $\beta_{SMB,i}$, and $\beta_{HML,i}$, respectively.

The cumulative abnormal returns (CARs) for different event windows are calculated by:

$$CAR_{i,[\tau_1;\tau_2]} = \sum_{t=\tau_1}^{\tau_2} [R_{it} - (r_{ft} + \beta_{MKT,i}(R_{Mt} - r_{ft}) + \beta_{SMB,i} SMB_t + \beta_{HML,i} HML_t)] \tag{3}$$

where $CAR_{i,[\tau_1;\tau_2]}$ is the CAR during the event window measured in days $[\tau_1;\tau_2]$ with $\tau_1, \tau_2 \in [-10, \ldots, +10]$. Average CARs (ACARs) are calculated by summing all $CAR_{i,[\tau_1;\tau_2]}$ for a specific event window and dividing by the number of observations. We test for statistical significance using the standard t-test and the nonparametric Wilcoxon rank-sum test.

3.2.2 Long-term stock price performance

We measure the long-run stock returns for acquirers following the M&A announcement using buy-and-hold abnormal returns (BHARs). We calculate BHARs in line with standard practice (e.g., Brau, Couch and Sutton, 2012; Lyon, Barber and Tsai, 1999):

$$BHAR_i = \prod_{t=\tau_1}^{\tau_2} (1 + R_{it}) - \prod_{t=\tau_1}^{\tau_2} (1 + R_{pt}) \tag{4}$$

where$BHAR_i$ is firm i's BHAR,$\tau_1, \tau_2 \in [0, \ldots, 12]$ are the holding periods in months, excluding the first trading date after the M&A announcement, and R_{pt} is an equally weighted

[9]The data is readily available for download through Kenneth French's website under https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html.

matched portfolio. For the calculation of the matched portfolio, we use up to five style-matched competitor firms leveraging the text-based industry matching procedure introduced by Hoberg and Phillips (2010, 2016) and select up to five competitors with the highest similarity scores.[10,11] We calculate BHARs for holding periods of 3 months, 6 months, and 12 months.

3.3 Multivariate setting

Our baseline OLS regression model to measure the impact of SCAs on M&As takes the following form:

$$VAR_i = \alpha + \beta_1 SCA_i + \sum_j \gamma_j Y_{i,j} + \sum_k \delta_k Z_{i,k} + YearFE + IndustryFE + \epsilon_i \quad (5)$$

where the variable VAR_i is defined as one of our main dependent variables and can be either the initial or combined takeover premium measures, the target or acquirer CAR for a specific event window, or the acquirer BHARs for a specific holding period. Our main independent variable of interest is SCA_i, which is a binary variable defined as one if the target is subject to an ongoing SCA at the time of the acquisition announcement, and zero otherwise. Prior research by Bradley et al. (2014) documents that the stock market reactions to SCA filings differ depending on the outcome and that capital market participants therefore appear to be able to distinguish between meritorious SCAs that will eventually be settled and those

[10] Prior studies document that using a matched-firm approach compared to using a reference portfolio approach (e.g., based on a market index) leads to superior results (Barber and Lyon, 1997; Kothari and Warner, 1997). In unreported results and as a further test, we calculate BHARs benchmarked against a CRSP value-weighted portfolio of all US firms listed on NYSE, AMEX or NASDAQ. The results tend to show more pronounced BHARs (both positive and negative) and comparable levels of significance, suggesting that our benchmarking approach results in a more conservative measurement of BHARs.

[11] Bessembinder and Zhang (2013) and Bessembinder, Cooper and Zhang (2019) point out that there are potential issues when using BHARs to evaluate the impact of corporate events on firms' long-term stock performance. Essentially, they argue that the observed BHARs could be driven by a bad benchmark problem. We cannot rule out that this issue may also affect our analysis, but we are confident that the matching procedure we selected arrives at robust results. The main benefit of our approach is that we employ the text-based Network Industry Classifications developed by Hoberg and Phillips (2010, 2016) for our matched firm selection. This means that the matched portfolio firms are likely to have the same underlying risk factors and are similarly exposed to industry-wide systemic shocks. This should, at least to a certain degree, ameliorate the bad benchmarking problem.

that will be dismissed. To explore whether there is a differential effect depending on the ultimate outcome of the SCA in our setting, we decompose the SCA variable in Section 5 into the two binary variables $Settled_i$ and $Dismissed_i$, which take the value of one if the SCA is eventually settled or dismissed, respectively, and zero otherwise.

The vectors $Y_{i,j}$ and $Z_{i,k}$ consist of control variables related to deal characteristics and target characteristics. These control variables are the most commonly used ones in the M&A literature (see e.g., Golubov et al., 2015; Harford et al., 2012). The deal characteristics variables include controls for financial acquirers, publicly listed acquirers, hostile takeovers, contested bids, divestitures and diversifying deals, transactions paid in cash, the stake acquired, and whether or not a tender offer was made. The target control variables include the target's return on assets, its leverage, its total assets, and its market-to-book ratio, all as of the end of the fiscal year prior to the M&A announcement.[12] All variables are defined in detail in Appendix A. Finally, $YearFE$ and $IndustryFE$ are year fixed and industry fixed effects, respectively, and ϵ_i is the error term. For the regressions where the acquirer CARs and BHARs are the dependent variable, as well as for our robustness checks in Section 6.2, we extend our baseline regression model by adding a vector of acquirer-specific independent variables. These include acquirer's return on assets, leverage, size, free cash flow, Tobin's Q, as well as the acquirer's stock market returns, the standard deviation of the acquirer's market adjusted buy-and-hold returns during the runup to the M&A announcement, and a binary variable controlling for any ongoing SCAs at the acquirer level. All continuous variables are winsorized at the 1^{st} and 99^{th} percentile to mitigate the effects of potential outliers. The acquirer-specific variables are described in detail in Appendix A.

In order to estimate the effect of SCAs on the likelihood of deal completion, we use several logistic regression models. For this analysis, we add our 708 withdrawn deals to the sample

[12] We also measure the impact of the relative importance of the target to the acquirer by using relative size, defined as acquirer's revenue divided by the target's revenue, as an additional control variable. Our results still hold when including this variable jointly with other variables measuring either target or acquirer size. However, as we already include proxies for target and acquirer size as controls, we drop the relative acquirer size variable from our regressions due to multicollinearity concerns.

of completed deals, bringing our sample for this analysis to 3,985 observations. The baseline logit regression model takes the form:

$$\begin{aligned} Completion_i = \alpha + \beta_1 SCA_i + \beta_2 Term\ Fees_i + \beta_3 SCA_1 \times Term\ Fees_i \\ + \sum_j \gamma_j Y_{i,j} + \sum_k \delta_k Z_{i,k} + YearFE + IndustryFE + \epsilon_i \end{aligned} \tag{6}$$

where $Completion_i$ is a binary variable taking the value of one if the M&A transaction was completed and a value of zero if the deal was withdrawn. For the estimation of the likelihood of deal completion, it is important to include variables designating whether acquirer or target termination fees have been included in the acquisition agreement. Prior research has repeatedly demonstrated that termination fees are a central variable in explaining the likelihood of deal completion and that the inclusion of termination fees in the acquisition agreement leads to a higher likelihood of deal completion (e.g., Jeon and Ligon, 2011; Krishnan et al., 2012; Neyland and Shekhar, 2018; Officer, 2003). To account for this, we introduce the variable $Term\ Fees_i$ into our regression, whereby $Term\ Fees_i$ can take two different forms. It can either be $Acquirer\ Term\ Fees_i$, a binary variable that takes the value of one if acquirer termination fees are negotiated in the acquisition agreement, and zero otherwise, or $Target\ Term\ Fees_i$, a binary variable that takes the value of one if target termination fees are included in the acquisition agreement, and zero otherwise. SCA_i is again an indicator variable for the target being subject to ongoing litigation, which we again decompose into its two manifestations $Settled_i$ or $Dismissed_i$. The interaction term $SCA_i \times Term\ Fees_i$, as well as the different forms for each of the two variables, are included to test to what degree SCAs in conjunction with termination fees determine the likelihood of deal completion. $Y_{i,j}$ and $Z_{i,k}$ are again the same vectors of control variables related to deal characteristics and target characteristics as discussed before. Moreover, for certain regression specifications, the vector of acquirer-specific independent variables discussed above is added to ensure the

results remain robust. All variable definitions can again be found in Appendix A.

4 The effect of security class actions on M&As

4.1 The impact of security class actions on takeover premiums

We start by testing the impact of SCAs on takeover premiums. We use our baseline regression model, using either the initial premium or the combined premium as the dependent variable.[13] The results of the regressions are reported in Table 3.

The results show that SCAs have a significant negative impact on takeover premiums, irrespective of which method we use for the premium estimations. The impact varies depending on the selected premium estimation and, all else being equal, lies between 7.6 and 10.2 percentage points. In economic terms, this implies an average forgone premium between USD 79 and USD 102 million for the target company due to the ongoing litigation. The average reduction in takeover premiums is slightly higher when using the target's share price 105 trading days prior to the M&A announcement date as the base value instead of the share price 42 trading days prior to the announcement. The results suggest that acquirers incorporate ongoing litigation into their takeover premium calculations and are offering significantly lower premiums. The foregone premium amounts are economically relevant for the target, indicating that SCAs have real costs that extend beyond the immediate negative stock market valuation effects and continue to affect the firm in case of major corporate events, such as M&As. Comparing the loss in takeover premium with the final settlement amount for a subsample of settled SCAs, we find that the average settlement amount is around USD 24.6 million, which is about three to four times smaller than the average takeover premium loss for the entire sample. Therefore, other factors, such as the increased bargaining power

[13] In unreported results, we also rerun the same regression specifications using the final premium, defined similar to the initial premium but calculated using the final offer price instead, as the dependent variable. The results remain qualitatively unchanged and are not reported for reasons of brevity given the very high correlation between the initial and final premium (correlation coefficient of 0.97).

of the acquirer due to the potential risks associated with the ongoing SCA or reputational losses at the target due to the SCA, may also play a role. Regarding reputational losses, our result echoes that of Karpoff, Lee and Martin (2008), who find that the average reputational loss in dollar terms far exceeds the penalties imposed on firms by the SEC as a result of enforcement actions related to misrepresentation of the company's financial situation.

[Insert Table 3 approximately here]

4.2 M&A announcement effects

From Table 2 Panel B, it can already be observed that SCA-affected targets experience lower announcement returns than those targets that are not subject to an ongoing SCA. The difference in mean and median announcement returns for the $[-1;+1]$ and $[-3;+3]$ event windows vary between 3 and 4 percentage points but are only weakly significant at best. Similarly, it can also be observed that mean and median acquirer announcement returns are negative for the $[-1;+1]$ as well $[-3;+3]$ event windows. However, acquirers of SCA-affected targets earn significantly lower announcement returns than acquirers of targets that are not affected by an SCA. The average and median difference generally ranges between 1 and 3 percentage points, which is mostly significant.

Next, we go beyond these univariate results and test how SCAs influence M&A announcement returns in a multivariate setting. To this end, we again use our baseline regression with either the target or acquirer $[-1;+1]$ or $[-3;+3]$ event window CARs as the dependent variable. The results are presented in Table 4.[14] Looking at the impact of SCAs on target announcement returns in the multivariate set-up in columns (1) and (2) of Table 4, it can be seen that the coefficient of the SCA variable is significant and negative, irrespective of which event window CAR is used as the dependent variable. This negative stock market reaction mirrors the negative effect observed for SCAs on takeover premiums in Table 3 and is in line

[14]The results are qualitatively similar if we use the target or acquirer CARs of any other symmetrical event window between the $[-1;+1]$ and $[-10;+10]$ one as the dependent variable.

with expectations, as lower takeover premiums should result in lower M&A announcement returns. The regression coefficients suggest that, all else being equal, the reduction in target CARs around the M&A announcement date slightly exceeds 5.0 percentage points. This result, in conjunction with the previous result on takeover premiums, suggests that the discount acquirers apply to takeover premiums for targets that are subject to an ongoing SCA is substantial and then consequently also reflected in lower M&A announcement returns.

[Insert Table 4 approximately here]

To see how acquirer returns are affected by the purchase of an SCA-affected target, we examine the impact of the SCA variable on acquirer returns. Table 4 columns (3) and (4) show the regression results using the acquirer announcement CARs as the dependent variable. Overall, the impact of SCAs on acquirers appears to be lower than for targets. While the coefficient for *SCA* is negative, it is only significant for the $[-3; +3]$ event window CAR. Nevertheless, this finding suggests that the acquisition of an SCA-affected target leads to an adverse stock price reaction for acquirers, which may be due to a potential litigation risk transfer from the target to the acquirer. If this were the case, we would expect to observe a more pronounced negative reaction for SCAs that are eventually settled than for those that are ultimately dismissed. We will explore the effect of differences between SCAs that are resolved through a settlement or dismissal in more detail in the next section.

5 The ultimate resolution of security class actions and M&As

5.1 Target stock price reactions to security class action filings

We start our analysis regarding the impact of the ultimate outcome of SCAs on M&As by examining the stock price reactions to SCA filings for our sample of target firms. While the stock market reaction to the filing of SCAs is not the main focus of this study, we still

begin our analysis with this for two main reasons. First, we want to understand whether the stock market reaction to SCA fillings within our sample of eventual acquisition targets is significantly negative and thereby in line with the prior literature (Fich and Shivdasani, 2007; Gande and Lewis, 2009; Humphery-Jenner, 2012). Second, we also want to test whether the results of Bradley et al. (2014) hold in our setting. That is, we want to test whether the stock market reactions already differ at the time of the SCA filing depending on whether the SCA is ultimately resolved through a settlement or dismissal.

We calculate ACARs for the $[-10; +10]$ event window surrounding the SCA filing date for our sample of eventual acquisition targets. Figure 2 shows the return patterns and it can be seen that there is a significant negative market reaction around the SCA filing date, with the ACAR reaching −7.66% during the $[-10; +10]$ event window. In economic terms, this is equivalent to an average abnormal loss of approximately USD 149 million. This pronounced negative market reaction is in line with prior research, not only in terms of significance but also largely in terms of magnitude (Fich and Shivdasani, 2007; Gande and Lewis, 2009; Humphery-Jenner, 2012).

[Insert Figure 2 approximately here]

Dividing our sample of SCAs by their ultimate outcome reveals that the stock market reactions differ depending on whether the SCA is eventually settled or dismissed. While both outcomes lead to negative share price reactions with ACARs between −3.12% and −9.44% for the $[-10; +10]$ event window, they are only significant for SCAs that are eventually settled and not for those that are dismissed at a later stage. Moreover, the negative reaction is much less pronounced for those SCA filings where the SCA is ultimately dismissed compared to those that are eventually settled (the precise results are shown in Table OA-4 in the Online Appendix). This confirms the results of BcitetBradley2014 and provides evidence that investors appear to differentiate already at the time of the SCA filing how the SCA will finally be resolved.[15]

[15]While the results presented in this section only document the stock market reactions to SCA filings for

The results in this section show that SCAs that are ultimately dismissed do not have a significant impact on share prices around the filing date, while SCAs resulting in a settlement lead to significant share price reductions. This differential stock market reaction at the time of SCA filing may also be reflected in later takeover premiums and target and acquirer M&A announcement returns. Moreover, long-term post M&A announcement returns may also differ depending on the ultimate outcome of the SCA, as may the likelihood of deal completion. We will explore these assumptions in the following sections.

5.2 Takeover premiums and M&A announcement returns

Table 5 Panel A reports the regression results using our different takeover premium measures as dependent variables. We find that both dismissed and settled SCAs are associated with lower takeover premiums, but only SCAs that are eventually settled show a consistent and significant premium reduction. This result is intuitive, as acquirers are likely to apply a larger discount to the takeover premium when a settlement is expected. Although the SCA is still ongoing at the time of the M&A announcement, the acquirer is likely aware of the merits of the SCA based on its due diligence efforts. That we also observe some instances with weakly significant reductions in takeover premiums even for eventually dismissed SCAs may be due to our setting. Given that the SCA is still ongoing at the time of the acquisition announcement, there may still be residual uncertainty regarding the ultimate resolution of the SCA. Acquirers are likely to demand compensation for this uncertainty, resulting in lower premiums.

[Insert Table 5 approximately here]

Table 5 Panel B examines how the eventual resolution of an SCA at the target level affects target and acquirer CARs. The regression results for the target CARs in columns (1)

targets where the M&A is eventually completed, the results remain unchanged when we add the withdrawn M&A deals to our sample. In this case, the negative ACAR for the $[-10; +10]$ event window is -7.74%. The differential return patterns between SCAs that are eventually settled and those that are ultimately dismissed are also still apparent.

and (2) show that the ultimate outcome of an SCA, either through settlement or a dismissal, is associated with lower CARs, as indicated by the negative and significant coefficients for the variables *Settled* and *Dismissed*. This is in line with our general finding and is likely reflective of the lower takeover premiums SCA-affected targets receive. Notably, SCAs that are eventually dismissed lead to more pronounced reductions in target announcement returns than SCAs that are settled.

Table 5 Panel B columns (3) and (4) show the impact of SCAs on acquirer M&A announcement returns, depending on the SCA's resolution. The results reveal that the negative effect of an ongoing SCA at the target is entirely driven by SCAs that are eventually settled, as indicated by the significant and negative coefficient for *Settled*. This result appears sensible since for SCAs that are ultimately settled, any risks associated with the ongoing litigation at the target level will be transferred to the acquirer. This should result in more negative stock market valuations for acquirers, even though takeover premiums are significantly lower for SCA-affected targets where the SCA is ultimately settled. In contrast, if the SCA is eventually dismissed, this does not appear to have a detrimental impact on the acquirer's announcement returns, as the coefficient for Dismissed lacks significance.[16]

5.3 Acquirer post-M&A buy-and-hold returns

To understand acquirers' post-M&A stock price performance, we estimate the stock returns for holding periods of up to 12 months following the M&A announcement. The univariate results in Table 2 Panel B show no differences in BHARs between acquirers of SCA-affected and non-affected targets for the first three and six months following the acquisition, while

[16] We also investigate whether the length of the time period between the SCA filing date and the acquisition announcement date has an impact on acquirer M&A announcement returns. To this end, we run an OLS regression for the subsample of SCA-affected targets with a public acquirer and define the variable *Time – to – Acquisition* as one divided by the natural logarithm of the trading days between SCA filing date and M&A announcement date (i.e., the higher the value of this variable, the faster the SCA-affected target was bought following the SCA filing date). The results are reported in Table B-1 in Appendix B. While the coefficient for *Time – to – Acquisition* itself remains insignificant, it becomes positive and significant when interacting it with *Dismissed*. This suggests that acquirers that purchase a target affected by an ultimately dismissed SCA at an earlier stage may be able to capture more value by benefitting from the decline of the target's share price in the wake of the SCA filing.

there is weak evidence that acquirers of SCA-affected firms achieve higher BHARs over the 12-month holding period. We again use our baseline regression as a starting point, including acquirer controls, to see whether a similar pattern is observed in the multivariate setting. The regression results are shown in Table 6. The coefficients of *SCA* largely lack significance, except for the 12-month holding period where the coefficient becomes weakly significant. Decomposing the SCA variable into its respective outcomes reveals that these significant positive returns are entirely driven by SCAs that are eventually dismissed. Following the M&A announcement, it may become gradually more apparent that the SCA will be dismissed and that there is no further risk for acquirer from the litigation at the target level. This is then reflected in positive BHARs.

[Insert Table 6 approximately here]

5.4 Security class actions and the likelihood of deal completion

In this section, we now focus on the impact of an ongoing SCA at the target firm on the likelihood of deal completion. To this end, we add the 708 withdrawn deals back to the sample of 3,277 completed transactions. Given the well-established finding on the importance of termination fees on deal completion (e.g., Bates and Lemmon, 2003; Jeon and Ligon, 2011; Officer, 2003), we are particularly interested in the way in which SCAs interact with termination fees. The results of the previous subsections indicate that there is a difference how an ongoing SCA at the target level affects acquirers contingent on the ultimate outcome of the SCA. Consequently, it is reasonable to assume that this will also be reflected in the likelihood of deal completion. This may especially be the case if following the M&A announcement it becomes increasingly obvious that the SCA will eventually result in a settlement. To examine how SCAs affect the likelihood of deal completion, we run our baseline logit regression introduced in Equation (6) and its variations. The results of the regressions are presented in Table 7.

[Insert Table 7 approximately here]

In line with prior research and expectations, we find that the inclusion of either acquirer or target termination fees increases the likelihood of deal completion. The coefficient of the SCA variable, however, remains insignificant, indicating that acquiring an SCA-affected target does not materially affect the likelihood of deal completion. Examining the interplay between SCAs and termination fees, we observe that the interaction between these two variables is negative and significant, particularly when the SCA variable is interacted with acquirer termination fees. This suggests that if the target is SCA-affected, acquirers are more likely to withdraw from the transaction even if acquirer termination fees are negotiated in the acquisition agreement. Decomposing the SCA variable into the eventual outcome of the SCA offers a more nuanced picture. We find that the negative coefficient observed for the interaction of the SCA variable with the acquirer termination fees is entirely driven by those SCAs that are ultimately settled. This aligns well with our previous findings. If it becomes increasingly apparent that the SCA will be resolved through a settlement, the costs that are potentially associated with the ongoing litigation at the target firm may lead the acquirer to reevaluate the transaction. If these costs (e.g., potential settlement amount, reputation risk) are deemed too high, the acquirer may choose to withdraw from the deal. This result also highlights that concerns regarding the ongoing litigation at the target are likely an important consideration for acquirers, so much so that acquirers may choose to withdraw from a deal despite acquirer termination fees being agreed in the acquisition agreement. In contrast, we find that the effect of target termination fees on the completion probability of the deal is less pronounced, with only weakly significant coefficients for the interaction terms $Target\,Term\,Fees \times SCA$ and $Target\,Term\,Fees \times Settled$.

6 Robustness tests

6.1 Endogeneity and switching regression

Given our empirical set-up, we acknowledge that there may be concerns regarding endogeneity, particularly with respect to a potential selection bias affecting the way in which acquirers may select SCA-affected takeover targets. To address this, we apply an endogenous switching regression framework (Barbopoulos, Adra and Saunders, 2020; Fang, 2005; Golubov, Petmezas and Travlos, 2012; Heckman, 1979) to account for the potentially endogenous choice of an acquirer to buy an SCA-affected target. Moreover, the switching regression framework allows us to undertake a What-if type analysis to answer the question of how much higher the target takeover premium could have been, were the target not subject to an SCA.

We start by estimating a first-stage selection equation predicting whether a deal involves a target firm that is SCA-affected or not. For this model, we require an exogenous instrumental variable that should influence whether the target in the deal is SCA-affected or not but does not have an impact on our outcome variables (i.e., takeover premiums and target CARs). We use *LitigationIntensity* as our instrumental variable, which is defined as the number of SCAs filed in the 3-digit SIC code of the target firm during the six months prior to the M&A announcement. Previous research demonstrated that the litigation intensity within a given industry has a significant effect on a firm's probability to be subject to an SCA (Arena and Julio, 2015; Gande and Lewis, 2009). At the same time, the industry-wide litigation intensity should satisfy the exclusion restriction as there is no clear economic rationale why Litigation Intensity should significantly impact an individual transaction's takeover premium or target M&A announcement date CAR, as the effect of an SCA on these measures is captured by the SCA variable. We find that the average litigation intensity across all industries remains relatively constant over time with slightly elevated levels between 2017 and 2019 and a distinct peak in 2001 due to the 'In RE IPO Securities Litigation' class action that ultimately combined a large number of SCAs where investment banks and

companies were sued over alleged fraud in the pricing of IPOs during the late 1990s and early 2000s. However, this relative consistency masks some large variation within industries, where computer and data processing services providers (SIC code 737), drug makers (SIC code 283), and communication equipment and electronic components and accessories manufacturers (SIC codes 366 and 367) being among the most effected industries.[17]

We include *Litigation Intensity* in our first-stage probit regression predicting the likelihood of a deal involving an SCA-affected target firm. We find that the coefficient of *Litigation Intensity* is positive and highly significant, indicating that the number of previously filed SCA lawsuits in the target firm's respective 3-digit SIC code helps to predict the likelihood of a transaction involving an SCA-affected target firm (Table 8 Panel A column (1)). Next, we proceed to estimate the second-stage equation which leverages the Inverse Mills Ratio (IMR) constructed from the first-stage selection equation to correct for selection bias (Li and Prabhala, 2007). The IMR is included as an additional control variable in the second-stage models to correct for a potential endogeneity bias in the regression model specifications in Table 8 Panel A columns (2) through (5). The coefficient of the IMR is negative and significant in all second-stage specifications, indicating that self-selection may have adversely affected our previous results.

[Insert Table 8 approximately here]

In a similar vein to prior studies (Fang, 2005; Golubov et al., 2012), we estimate the second-stage equation separately for SCA-affected targets and for non-SCA-affected targets. This approach enables us to employ a switching regression framework to compute hypothetical takeover premiums (Table 8 Panel A columns (2) and (3)) and target M&A announcement CARs (Table 8 Panel A columns (4) and (5)) for SCA-affected deals as if they had not been

[17] Figure OA-1 in the Online Appendix shows the average litigation intensity across all industries during our sample period, while Table OA-5 in the Online Appendix shows litigation intensity over time on a semi-annual basis, first in the average across all industries and then for the ten 3-digit SIC codes with the highest litigation intensity values during the sample period. The ten 3-digit SIC codes with the highest litigation intensity show large overlap with the FPS variable of Kim and Skinner (2012) that is based on the work of Francis, Philbrick and Schipper (1994), which indicates industries with high susceptibility to SCAs.

SCA-affected (and vice versa, for non-SCA-affected targets as if they had been subject to an ongoing SCA). Table 8 Panel B shows the results of this What-if type analysis and confirms our prior findings. The average actual initial premium received by SCA-affected firms is 38.8% whereas the hypothetical premium the target could have achieved had it not been subject to an ongoing SCA is 45.0%. This implies a statistically significant improvement of 6.2 percentage points in takeover premiums if the target had not been subject to an SCA. Using the same approach for non-SCA-affected target firms reveals that these firms' premiums would have deteriorated by 3.3 percentage points if they had been SCA-affected. Running the same What-if analysis for the target CARs, we similarly find that target CARs could have been approximately 8.2 percentage points higher if the target were not subject to an ongoing SCA. At the same time, non-SCA affected targets would have experienced 5.9 percentage point lower returns if they had been subject to an SCA.[18] The results of this analysis underscore the real economic costs that SCAs have for target shareholders in the form of foregone takeover premiums and lower shareholder wealth effects.[19]

6.2 Additional checks

We conduct two additional robustness checks. First, we use a propensity score matching (PSM) to address potential differences between the company characteristics of SCA-affected and non-SCA-affected targets. Second, we introduce a large set of acquirer control variables to our main regression models for takeover premiums and target M&A announcement returns. This restricts our sample to transactions with public acquirers but allows us to ameliorate

[18] We also estimate the switching regression framework with endogenous switching using the combined premium (instead of initial premiums) as well as for target CARs for the $[-1;+1]$ event window (instead of the $[-3;+3]$ event window) as the dependent variables for the second-stage models. The results remain qualitatively unchanged and are omitted here for reasons of brevity.

[19] We use the same switching regression framework using the acquirer $[-3;+3]$ event window CARs as the dependent variable. The results are presented in Table B-2 in Appendix B and likewise confirm our prior results regarding acquirer M&A announcement CARs being significantly lower in the case of the purchase of an SCA-affected target. Acquirers of SCA-affected targets would have achieved 4.2 percentage points higher abnormal returns if the target were not subject to an SCA. Correspondingly, acquirers of non-SCA-affected targets would have experienced 1.9 percentage points lower returns if the target were subject to an ongoing litigation. These results suggest that acquiring firm shareholders also bear some of the costs of an SCA at the target through more negative wealth effects surrounding the M&A announcement.

potential concerns regarding an omitted variable bias that may be present in the absence of acquirer controls.

The univariate results of the difference tests in Table 2 suggest that SCA-affected targets may be different from non-SCA-affected targets across several dimensions. To address this potential sample selection bias, we check our results using PSM. Similar to the approach of Alexandridis, Antypas and Travlos (2017), we estimate propensity scores via a logit regression to predict the probability of the transaction involving an SCA-affected target. We then use these scores to match treated observations (i.e., SCA-affected deals) to our control group (i.e., non-SCA-affected deals) using 1:1 nearest neighbor matching with replacement, which yields a total of 424 observations (212 matched pairs).[20]

Next, we use this propensity score matched subsample and re-estimate our main regression specifications from Table 3 (takeover premiums) and Table 4 (target and acquirer announcement CARs). The results for these replication analyses are presented in Table 9. Our findings related to takeover premiums and target CARs generally remain robust for the PSM subsample. SCA-affected target firms receive lower takeover premiums and experience lower M&A announcement date CARs than non-SCA-affected targets. Our results also hold when decomposing the SCA variable into its components of eventually dismissed and settled SCAs, with the coefficients largely keeping the same levels of significance as before. The results for the PSM subsample using the acquirer M&A announcement date CARs as the dependent variable likewise confirm our prior results (Table 9 Panel C).[21] Acquirers of SCA-affected target firms continue to achieve significantly lower abnormal returns compared to acquirers of non-SCA-affected firms. This is again entirely driven by acquisition of SCA-affected targets where the SCA is ultimately settled. Therefore, our results remain robust even after controlling for potential differences in the target characteristics of SCA-affected

[20] The results of our matching procedure reported in Table OA-6 in the Online Appendix show that any differences in the covariates are eliminated through the matching procedure as the differences among all covariates are insignificant after matching.

[21] Given the relatively small sample size due to the inclusion of acquirer controls, we omit year-fixed effects in Table 9 Panel C to avoid overfitting the regression model.

firms and non-SCA affected ones.

[Insert Table 9 approximately here]

Our final robustness check addresses potential concerns regarding an omitted variable bias given that our analyses on takeover premiums and target CARs so far did not include any acquirer-specific variables. Including acquirer controls limits our sample to only public acquirers with readily available data and reduces our sample size from 3,277 to 1,873 observations. We rerun our regressions from Table 3 (takeover premiums) and Table 4 (target M&A announcement CARs) and include a large set of acquirer controls in the regression specifications (see Appendix A for a definition of the acquirer controls). The results of these additional analyses are shown in Table OA-7 in the Online Appendix. Our findings in relation to takeover premiums remain robust, both for the coefficient of our SCA variable as well as for the decomposition of the SCA variable into its components of eventually dismissed and settled deals. The regression results for target M&A announcement CARs likewise hold when adding acquirer controls to the regression models, but the level of significance for the SCA variable is generally lower, reaching only the 10% level of significance. The results are somewhat less robust when decomposing the SCA variable into ultimately dismissed and settled lawsuits. While the coefficients for *Dismissed* remain negative and significant, they are now only significant at the 10% level. The coefficients for *Settled* were only weakly significant in our main analyses and now fail to reach common thresholds of statistical significance. This is likely driven by the smaller sample size of SCA-affected targets when including acquirer controls. Finally, we also rerun our logit regressions from Table 7 for the likelihood of deal completion including acquirer controls. The results presented in Table OA-8 in the Online Appendix likewise confirm our previous results even though the levels of significance are reduced in some instances.

7 Conclusion

SCAs can have severe consequences for companies that go beyond the initial stock price drop at the time of the SCA filing. While prior studies documented that SCAs, among other things, increase a firm's cost of equity (Chava et al., 2010), lead to CEO pay reductions or turnover (Crutchley et al., 2015; Humphery-Jenner, 2012),, and force changes to a firm's investment policies (Arena and Julio, 2015; McTier and Wald, 2011), there is so far little evidence how SCAs may impact major corporate events, such as M&As. This study contributes to the existing literature by examining the impact of SCAs on different dimensions of M&A transactions. Specifically, we investigate the effects of SCAs on takeover premiums, target and acquirer M&A announcement returns, acquirer post-M&A BHARs, and the likelihood of deal completion.

Our results with respect to takeover premiums suggest that targets that are subject to an ongoing SCA at the time of the M&A announcement receive significantly lower premiums, with our baseline results indicating that the reduction due to the SCA is between 7.6 and 10.2 percentage points. These negative effects are predominantly driven by SCAs that are eventually settled. Looking at the stock returns around the M&A announcement date, we continue to see the negative impact of the SCAs observed for the takeover premiums. Targets that are subject to an ongoing SCA achieve significantly lower announcement returns compared to targets that are not subject to ongoing litigation. Moreover, the negative impact of the SCA also carries over to the acquirer, as acquirers of SCA-affected targets obtain significantly lower M&A announcement date returns than other acquirers that purchase targets that are not subject to an ongoing SCA. For acquirers the negative announcement returns are entirely driven by SCAs which are eventually settled. Interestingly, acquirers that purchase SCA-affected targets appear to be able to record significantly positive 12-month BHARs, but only if the ultimate outcome of the target firm's SCA is a dismissal. One possible explanation could be that the resolution of the SCA through a dismissal shows that the allegations against the target were not meritorious, while there are also no settlement

costs incurred by the acquirer. Additionally, we find that transactions with SCA-affected targets impact the likelihood of deal completion. While an SCA at the target level in itself has no impact on the likelihood of deal completion, when interacted with termination fees, we find that transactions with SCA-affected targets lead to a lower deal completion probability, despite termination fees being included in the acquisition agreement. That acquirers are willing to withdraw from a transaction despite the costs they incurred due to the termination fees demonstrates that ongoing litigation at the target level is an important consideration for acquirers. Our results remain valid even when undertaking a variety of robustness checks, including controlling for endogeneity, sample composition, and potential omitted variables.

The results of our study add to the literature on factors influencing acquisition premiums (e.g., Eaton et al., 2021; Mulherin and Simsir, 2015), M&A announcement returns (e.g., Golubov et al., 2015; Harford et al., 2012), and the likelihood of deal completion (e.g., Neyland and Shekhar, 2018; Officer, 2003) by showing that ongoing litigation at the target has an economically relevant impact on M&As for both targets and acquirers and is therefore an important consideration for M&A deals. Moreover, we add to the literature on the real consequences of SCAs (e.g., Arena and Julio, 2015; Chava et al., 2010) by showing that they can significantly impact major corporate events, such as M&As, and thereby continue to impose costs on the firm affected by the SCA beyond the original negative stock market reaction to the SCA filing. We also find that the ultimate outcome of an SCA either through a settlement or a dismissal appears to be anticipated by investors. While the ultimate outcome of the SCA has little impact on takeover premiums, acquirers appear to be able to obtain slight benefits when the SCA is eventually dismissed, particularly in the long run. Therefore, acquirers may derive additional benefits from a rigorous legal evaluation of the likely outcome of the target firm's SCA.

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Table 1: Sample distribution

This table provides an overview of the sample of the 3,277 completed M&A transactions between 1 January 2000 and 31 December 2021. Panel A shows the distribution of transactions by year and further subdivides the sample into targets that are subject to an ongoing security class action lawsuit (SCA-affected) and those that are not subject to one (non-SCA-affected). For the SCA-affected targets, the sample is further split by the eventual resolution of the security class action, which is either a settlement or a dismissal of the lawsuit. Panel B shows the distribution of transactions by target industry. We use the Fama-French 10 industry definition to classify our firms to a given industry, except for utilities, which are excluded based on our sample selection procedure. The distribution by industry is likewise subdivided into SCA-affected and non-SCA-affected targets, whereby the sample of SCA-affected targets is further split by the eventual resolution of the security class action, which is either a settlement or dismissal of the lawsuit.

Panel A: Sample distribution by year

		Non-SCA-	SCA-affected		
Year	N	affected	All	Settled	Dismissed
2000	314	293	21	16	5
2001	266	246	20	16	4
2002	174	149	25	24	1
2003	192	170	22	20	2
2004	152	133	19	18	1
2005	179	162	17	12	5
2006	207	195	12	11	1
2007	204	189	15	8	7
2008	125	120	5	3	2
2009	131	124	7	5	2
2010	159	153	6	4	2
2011	129	119	10	6	4
2012	129	126	3	0	3
2013	108	102	6	3	3
2014	102	100	2	0	2
2015	118	114	4	3	1
2016	126	118	8	4	4
2017	106	94	12	7	5
2018	113	105	8	2	6
2019	90	84	6	3	3
2020	60	60	0	0	0
2021	93	92	1	1	0
Total	**3,277**	**3,048**	**229**	**166**	**63**

Panel B: Sample distribution by target industry

		Non-SCA-	SCA-affected		
Target industry	N	affected	All	Settled	Dismissed
Consumer Durables	59	54	5	3	2
Consumer Non-Durables	175	168	7	4	3
Manufacturing	319	311	8	4	4
High Tech	1107	1003	104	75	29
Retail	328	306	22	17	5
Telecommunications	142	129	13	8	5
Energy	187	185	2	2	0
Healthcare	492	452	40	29	11
Other	468	440	28	24	4
Total	**3,277**	**3,048**	**229**	**166**	**63**

Table 2: Descriptive statistics

This table provides an overview of the descriptive statistics of the sample of 3,277 completed M&A transactions between 1 January 2000 and 31 December 2021. Panel A shows the mean, median, and number of observations for selected deal characteristics and further subdivides the sample into targets that are subject to an ongoing security class action lawsuit (SCA-affected) and those that are not subject to one (non-SCA-affected). The last two columns show the differences in mean and median between the SCA-affected and non-SCA-affected targets. Panel B shows the mean, median, and number of observations for selected target characteristics and our main dependent variables for the subsequent regression analyses. The sample is again subdivided into deals with SCA-affected and non-SCA-affected targets and the last two columns again show the differences in mean and median between these two subsamples of targets. Detailed definitions of the variables are provided in Appendix A. Differences in mean and median for the two target groups are tested for significance using the parametric two-sample t-test and the nonparametric Wilcoxon rank-sum test. *, **, and *** indicate significance at the 10%, 5%, and 1% level of significance, respectively.

Panel A: Deal characteristics

	Full sample (1)			SCA-affected (2)			Non-SCA-affected (3)			(2) – (3)	
	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
Financial Acquirer	0.10	0.00	3,277	0.10	0.00	229	0.09	0.00	3,048	0.01	0.00
Public Acquirer	0.57	1.00	3,277	0.63	1.00	229	0.57	1.00	3,048	0.06*	0.00*
Hostile Deal	0.00	0.00	3,277	0.00	0.00	229	0.00	0.00	3,048	0.00	0.00
Contested Bid	0.05	0.00	3,277	0.08	0.00	229	0.05	0.00	3,048	0.03**	0.00**
Divestiture	0.06	0.00	3,277	0.03	0.00	229	0.06	0.00	3,048	−0.03*	0.00*
Diversifying Deal	0.55	1.00	3,277	0.53	1.00	229	0.55	1.00	3,048	−0.01	0.00
All Cash	0.53	1.00	3,277	0.51	1.00	229	0.53	1.00	3,048	−0.02	0.00
Stake Acquired	0.98	1.00	3,277	0.97	1.00	229	0.98	1.00	3,048	−0.00	0.00
Tender Offer	0.20	0.00	3,277	0.22	0.00	229	0.20	0.00	3,048	0.02	0.00

Panel B: Target characteristics and dependent variables

	Full sample (1)			SCA-affected (2)			Non-SCA-affected (3)			(2) – (3)	
	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
Target RoA	−0.11	0.01	3,009	−0.26	−0.06	215	−0.10	0.01	2,794	−0.16***	−0.07***
Target Assets (USD million)	1,639.5	247.9	3,011	2,383.1	302.1	215	1,582.4	244.1	2,796	800.8*	58.0**
Target Leverage	0.24	0.16	2,976	0.19	0.07	208	0.24	0.17	2,768	−0.06**	−0.10***
Target Market-to-Book	3.38	1.96	2,617	4.69	2.53	196	3.28	1.93	2,421	1.41***	0.60***
Initial Premium	0.44	0.34	2,749	0.44	0.33	182	0.44	0.34	2,567	−0.01	−0.02
Combined Premium	0.48	0.34	2,841	0.47	0.38	191	0.48	0.34	2,650	−0.01	0.04
Target CAR $[-1;+1]$	0.28	0.21	2,560	0.24	0.19	187	0.28	0.21	2,373	−0.03	−0.02*
Target CAR $[-3;+3]$	0.28	0.22	2,560	0.25	0.19	187	0.29	0.23	2,373	−0.03	−0.04*
Acquirer CAR $[-1;+1]$	−0.01	−0.01	1,747	−0.03	−0.01	135	−0.01	−0.01	1,612	−0.02*	0.00
Acquirer CAR $[-3;+3]$	−0.01	−0.01	1,747	−0.04	−0.01	135	−0.01	−0.01	1,612	−0.03**	−0.01**
Acquirer BHAR 3m	−0.01	−0.01	1,565	−0.03	0.00	119	−0.01	−0.01	1,446	−0.02	0.01
Acquirer BHAR 6m	−0.02	−0.02	1,513	0.02	−0.02	113	−0.02	−0.02	1,400	0.05	0.00
Acquirer BHAR 12m	−0.03	−0.03	1,463	0.05	0.01	109	−0.03	−0.03	1,354	0.09*	0.04

Table 3: Security class actions and takeover premiums

This table reports the regression results using the initial takeover premium (columns (1) and (2)) and the combined takeover premium (columns (3) and (4)) as compared to the target firm's stock price 42 trading days and 105 trading days before the acquisition announcement as dependent variables. The variable of interest is SCA, defined as one if the target firm is affected by a security class action lawsuit (SCA) that has not yet resolved at the time of M&A announcement, and zero otherwise. The other variables are divided into deal controls and target controls. All variables are defined in Appendix A. The standard errors are corrected for heteroskedasticity with associated t-values given in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	(1) Initial Premium (t = −42)	(2) Initial Premium (t = −105)	(3) Combined Premium (t = −42)	(4) Combined Premium (t = −105)
Security class action variable				
SCA	−0.081**	−0.102**	−0.076**	−0.094**
	(−2.504)	(−2.561)	(−2.311)	(−2.191)
Deal controls				
Financial Acquirer	−0.052**	−0.026	−0.032	−0.001
	(−2.151)	(−0.822)	(−0.856)	(−0.021)
Public Acquirer	0.032	0.089***	−0.026	0.031
	(1.441)	(3.465)	(−0.903)	(1.066)
Hostile Deal	−0.226**	−0.224	0.008	0.027
	(−2.286)	(−0.796)	(0.065)	(0.095)
Contested Bid	0.047	−0.008	0.100**	0.031
	(1.164)	(−0.166)	(2.100)	(0.553)
Divestiture	−0.065	−0.014	−0.103**	−0.077
	(−1.449)	(−0.194)	(−2.333)	(−1.324)
Diversifying Deal	−0.035	−0.065**	−0.037	−0.059**
	(−1.626)	(−2.503)	(−1.515)	(−2.058)
All Cash	0.051**	0.021	−0.111***	−0.137***
	(2.225)	(0.739)	(−4.111)	(−4.155)
Stake Acquired	0.004***	0.003	0.016***	0.017***
	(2.637)	(1.421)	(13.418)	(13.947)
Tender Offer	0.049**	0.022	0.092***	0.066**
	(2.073)	(0.773)	(3.548)	(2.086)
Target controls				
Target RoA	−0.191***	0.005	−0.255***	0.394***
	(−3.107)	(0.068)	(−4.407)	(4.619)
Target Assets	−0.017**	−0.024***	−0.012	−0.023**
	(−2.195)	(−2.671)	(−1.512)	(−2.461)
Target Leverage	0.009	0.005	0.390***	0.394***
	(0.170)	(0.068)	(5.748)	(4.619)
Target Market-to-Book	−0.005**	−0.008**	−0.013***	−0.013***
	(−1.970)	(−2.247)	(−4.027)	(−3.236)
Constant	0.354	0.780***	−0.906***	−0.680***
	(1.535)	(2.668)	(−5.091)	(−3.372)
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	2,263	2,236	2,333	2,302
R-squared	0.117	0.116	0.149	0.146

Table 4: Security class actions and short-term returns M&A announcement returns

This table reports the regression results using the target cumulative abnormal returns (CARs) (columns (1) and (2)) and the acquirer CARs (columns (3) and (4)) for the $[-1;+1]$ and $[-3;+3]$ event window surrounding the M&A announcement date as dependent variables. The target and acquirer CARs are calculated using a three-factor model based on Fama and French (1993, 1996) with a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date ($t = 0$). The variable of interest is SCA, defined as one if the target firm is affected by a security class action lawsuit (SCA) that has not yet resolved at the time of M&A announcement, and zero otherwise. The other variables are divided into deal controls and target controls, and, in case the acquirer CARs are used as the depended variable, acquirer controls. All variables are defined in Appendix A. The standard errors are corrected for heteroskedasticity with associated t-values given in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	(1) Target $CAR_{[-1;+1]}$	(2) Target $CAR_{[-3;+3]}$	(3) Acquirer $CAR_{[-1;+1]}$	(4) Acquirer $CAR_{[-3;+3]}$
Security class action variable				
SCA	-0.051^{***}	-0.052^{**}	-0.008	-0.024^{**}
	(-2.588)	(-2.570)	(-0.832)	(-2.072)
Constant	0.326^{***}	0.312^{***}	0.048	0.070
	(3.025)	(2.929)	(0.990)	(1.102)
Deal controls	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes
Acquirer controls	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	2,196	2,196	1,288	1,288
R-squared	0.145	0.146	0.128	0.113

Table 5: Takeover premiums and M&A announcement returns depending on the ultimate outcome of security class actions

This table reports the regression results using takeover premiums and target and acquirer cumulative abnormal returns (CARs) as the dependent variable. Panel A reports the results when using the initial takeover premium (columns (1) and (2)) and the combined takeover premium (columns (3) and (4)) as compared to the target firm's stock price 42 trading days and 105 trading days before the acquisition announcement as dependent variables. Panel B reports the regression results using the target cumulative abnormal returns (CARs) (columns (1) and (2)) and the acquirer CARs (columns (3) and (4)) for the $[-1;+1]$ and $[-3;+3]$ event window surrounding the M&A announcement date as dependent variables. The target and acquirer CARs are calculated using a three-factor model based on Fama and French (1993, 1996) with a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date ($t = 0$). The variables for interest relate to the ultimate outcome of the security class action lawsuit (SCA) and are the two binary variables *Dismissed* and *Settled*, which take the value of one if the SCA is eventually dismissed or settled, respectively, and zero otherwise. The other variables are divided into deal controls and target controls, and, in case the acquirer CARs are used as the depended variable, acquirer controls. All variables are defined in Appendix A. The standard errors are corrected for heteroskedasticity with associated t-values given in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Takeover premiums				
	(1)	(2)	(3)	(4)
	Initial Premium	Initial Premium	Combined Premium	Combined Premium
	($t = -42$)	($t = -105$)	($t = -42$)	($t = -105$)
Security class action variables				
Dismissed	−0.080*	−0.086	−0.085*	−0.079
	(−1.826)	(−1.500)	(−1.656)	(−1.041)
Settled	−0.081**	−0.109**	−0.072*	−0.100**
	(−2.023)	(−2.184)	(−1.828)	(−1.992)
Constant	0.353	0.779***	−0.906***	−0.681***
	(1.534)	(2.665)	(−5.086)	(−3.378)
Deal controls	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	2,263	2,236	2,333	2,302
R-squared	0.117	0.116	0.149	0.146
Panel B: Target and acquirer M&A announcement returns				
	(1)	(2)	(3)	(4)
	Target	Target	Acquirer	Acquirer
	$CAR_{[-1;+1]}$	$CAR_{[-3;+3]}$	$CAR_{[-1;+1]}$	$CAR_{[-3;+3]}$
Security class action variables				
Dismissed	−0.065**	−0.064**	0.015	0.005
	(−2.118)	(−2.002)	(0.878)	(0.284)
Settled	−0.045*	−0.047*	−0.016	−0.034**
	(−1.919)	(−1.946)	(−1.582)	(−2.476)
Constant	0.326***	0.313***	0.046	0.068
	(3.025)	(2.931)	(0.961)	(1.076)
Deal controls	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes
Acquirer controls	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	2,196	2,196	1,288	1,288
R-squared	0.145	0.146	0.130	0.115

Table 6: Security class actions and acquirer long-run returns

This table reports the regression results using the acquirer firm's buy-and-hold abnormal returns (BHARs) over a time frame of three months ($BHAR_{[0;3]}$), six months ($BHAR_{[0;6]}$), and twelve months ($BHAR_{[0;12]}$) as dependent variables. The market return is estimated using an equally weighted portfolio of up to five style-matched competitor firms. For the matched portfolio, we utilize the text-based industry matching approach by Hoberg and Phillips (2010, 2016) and use up to five competitor firms with the highest similarity scores. The variable of interest is SCA, defined as one if the target firm is affected by a security class action lawsuit (SCA) that has not yet resolved at the time of M&A announcement, and zero otherwise. The SCA variable is also split into the two binary variables *Dismissed* and *Settled*, which take the value of one if the SCA is eventually dismissed or settled, respectively, and zero otherwise. The other variables are divided into deal controls, target controls, and acquirer controls. All variables are defined in Appendix A. The standard errors are corrected for heteroskedasticity with associated t-values given in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	(1) $BHAR_{[0;3]}$	(2) $BHAR_{[0;3]}$	(3) $BHAR_{[0;6]}$	(4) $BHAR_{[0;6]}$	(5) $BHAR_{[0;12]}$	(6) $BHAR_{[0;12]}$
Security class action variables						
SCA	−0.027		0.018		0.098*	
	(−1.041)		(0.552)		(1.898)	
Dismissed		−0.007		0.100**		0.136**
		(−0.182)		(2.035)		(2.295)
Settled		−0.033		−0.009		0.085
		(−1.068)		(−0.240)		(1.313)
Constant	−0.110	−0.111	−0.064	−0.073	−0.072	−0.076
	(−0.783)	(−0.797)	(−0.312)	(−0.357)	(−0.271)	(−0.285)
Deal controls	Yes	Yes	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes	Yes	Yes
Acquirer controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,032	1,032	1,006	1,006	979	979
R-squared	0.062	0.063	0.052	0.054	0.074	0.074

Table 7: Security class actions and the likelihood of deal completion

This table reports the logit regression results on the effect of security class action lawsuits (SCAs) on the likelihood of deal completion. The dependent variable is *Completion*, a binary variable equal to one if the deal was completed and zero if the deal was withdrawn. The variables of interest are *SCA*, defined as one if the target firm is affected by an SCA that has not yet resolved at the time of M&A announcement, and zero otherwise, and *Acquirer Term Fees* and *Target Term Fees*, defined as one if the acquisition agreement contained acquirer or target termination fees, respectively, and zero otherwise. The SCA variable is also split into the two binary variables *Dismissed* and *Settled*, which take the value of one if the SCA is eventually dismissed or settled, respectively, and zero otherwise. The other variables are divided into deal controls and target controls. All variables are defined in Appendix A. The standard errors are corrected for heteroskedasticity with associated z-values given in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Completion					
	(1)	(2)	(3)	(4)	(5)	(6)
Termination fee related variables						
Acquirer Term Fees	0.982***	1.104***	1.104***			
	(6.688)	(6.965)	(6.962)			
Target Term Fees				2.446***	2.507***	2.508***
				(17.302)	(17.097)	(17.083)
Acquirer Term Fees × *SCA*		−1.148***				
		(−2.700)				
Acquirer Term Fees × *Dismissed*			−1.101			
			(−1.538)			
Acquirer Term Fees × *Settled*			−1.168**			
			(−2.311)			
Target Term Fees × *SCA*					−0.693*	
					(−1.770)	
Target Term Fees × *Dismissed*						−0.497
						(−0.713)
Target Term Fees × *Settled*						−0.776*
						(−1.695)
Security class action variables						
SCA	−0.177	0.053		−0.129	0.189	
	(−0.954)	(0.266)		(−0.584)	(0.678)	
Dismissed			0.036			0.126
			(0.103)			(0.264)
Settled			0.060			0.216
			(0.258)			(0.659)
Constant	2.456**	2.392**	2.397**	4.599***	4.584***	4.597***
	(2.559)	(2.492)	(2.494)	(4.064)	(4.079)	(4.094)
Deal controls	Yes	Yes	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,060	3,060	3,060	3,060	3,060	3,060
Pseudo R-squared	0.210	0.212	0.212	0.326	0.327	0.327

Table 8: Endogeneity and switching regressions for takeover premiums and target M&A announcement returns

This table reports the results of the switching regression models with endogenous switching. Panel A presents the results of the two-stage models. The first stage in column (1) is the selection model using a probit regression with SCA, defined as one if the target firm is affected by a security class action lawsuit (SCA) that has not yet resolved at the time of M&A announcement, and zero otherwise, as the dependent variable. The second stage regression models using the initial takeover premium, measured compared to the target firm's stock price 42 trading days before the acquisition announcement, as dependent variable are shown in columns (2) and (3) for deals involving SCA-affected and non-SCA-affected target firms, respectively. Columns (4) and (5) present the second stage regression models using the target $[-3;+3]$ event window cumulative abnormal returns (CARs) surrounding the M&A announcement date as the dependent variables, again divided into SCA-affected and non-SCA-affected targets. The target CARs are calculated using a three-factor model based on Fama and French (1993, 1996) with a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date ($t = 0$). *LitigationIntensity* serves as the instrumental variable and is defined as the number of SCAs filed in the 3-digit SIC industry of the target firm within six months prior to the acquisition announcement. The Inverse Mills Ratio adjusts for the non-zero mean of the error terms. All variables are defined in Appendix A. The standard errors are corrected for heteroskedasticity with associated t-values (z-values for the probit regression) given in parentheses. Panel B reports the results for the switching regression model estimates for the What-if analyses of SCA-affected and non-SCA-affected targets for the initial premium and the target $[-3;+3]$ event window CARs surrounding the M&A announcement date and the respective differences. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Model

	First stage	Second stage: Initial Premium		Second stage: Target CARs $[-3;+3]$	
	(1)	(2)	(3)	(4)	(5)
	Selection	SCA-affected	Non-SCA affected	SCA-affected	Non-SCA-affected
Litigation Intensity	0.008***				
	(2.745)				
Inverse Mills Ratio		−0.748***	−0.492**	−0.503***	−0.290**
		(−2.713)	(−2.015)	(−3.481)	(−1.962)
Financial Acquirer	0.093	−0.010	−0.124***	−0.063	−0.024
	(0.631)	(−0.094)	(−3.903)	(−0.747)	(−0.917)
Public Acquirer	0.149	0.007	−0.030	0.008	−0.002
	(1.546)	(0.072)	(−0.769)	(0.134)	(−0.081)
Contested Bid	0.235	0.002	−0.060	−0.119**	−0.156***
	(1.525)	(0.014)	(−0.957)	(−2.234)	(−4.264)
Divestiture	−0.176	−0.196	0.024	−0.026	−0.049
	(−0.782)	(−1.478)	(0.394)	(−0.418)	(−1.459)
Diversifying Deal	0.106	−0.114	−0.071**	−0.062	−0.044**
	(1.253)	(−1.382)	(−2.169)	(−1.143)	(−2.190)
All Cash	0.001	0.097	0.011	0.154***	0.082***
	(0.015)	(1.189)	(0.470)	(3.538)	(5.433)
Stake Acquired	−0.008*	0.007*	0.007***	0.004**	0.004***
	(−1.844)	(1.661)	(3.129)	(2.024)	(2.853)
Tender Offer	0.089	−0.046	0.053*	0.089	0.074***
	(0.889)	(−0.568)	(1.722)	(1.466)	(3.448)
Target RoA	−0.686***	0.377	0.109	0.264	−0.019
	(−5.590)	(1.532)	(0.673)	(1.618)	(−0.191)
Target Assets	0.153***	−0.129***	−0.097***	−0.096***	−0.054***
	(6.118)	(−2.659)	(−3.044)	(−4.047)	(−2.782)
Target Leverage	−0.948***	0.741**	0.428**	0.511***	0.289**
	(−3.778)	(2.445)	(2.097)	(2.832)	(2.234)
Target Market-to-Book	0.012	-0.000	−0.010**	−0.024***	−0.008***
	(1.320)	(−0.031)	(−2.449)	(−3.086)	(−3.293)
Constant	−2.782***	2.713**	1.957***	1.964***	1.121**
	(-5.675)	(2.606)	(2.589)	(3.229)	(2.478)
Observations	2,473	154	2,102	156	2,034
(Pseudo) R-squared	0.060	0.164	0.061	0.304	0.106

Panel B: What-if Analysis

	SCA-affected	Non-SCA-affected
Initial premiums		
Actual Initial Premium	38.8%	42.8%
Hypothetical Initial Premium	45.0%	39.5%
Deterioration / Improvement	−6.2%**	3.3%***
Target CARs $[-3;+3]$		
Actual Target CAR $[-3;+3]$	24.9%	28.1%
Hypothetical Target CAR $[-3;+3]$	33.1%	22.3%
Deterioration / Improvement	−8.2%***	5.9%***

Table 9: The effect of security class actions on M&As using matched samples

This table reports the regression results using the propensity score matched samples and repeating the regression analyses from Table 3 and Table 4. Panel A reports the results using the initial takeover premium (columns (1) and (2)) and the combined takeover premium (columns (3) and (4)) compared to the target firm's stock price 42 trading days before the acquisition announcement as dependent variables. Panels B and C report the regression results using the target cumulative abnormal returns (CARs) (Panel B) and the acquirer CAR (Panel C) for the $[-1;+1]$ and $[-3;+3]$ event windows surrounding the M&A announcement date as the dependent variables. The target and acquirer CARs are calculated using a three-factor model based on Fama and French (1993, 1996) with a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date ($t = 0$). The variable of interest is *SCA*, defined as one if the target firm is affected by a security class action lawsuit (SCA) that has not yet resolved at the time of M&A announcement, and zero otherwise. The SCA variable is also split into the two binary variables *Dismissed* and *Settled*, which take the value of one if the SCA is eventually dismissed or settled, respectively, and zero otherwise. The other variables are divided into deal controls and target controls, and, in case the acquirer CARs are used as the depended variable, acquirer controls. All variables are defined in Appendix A. The standard errors are corrected for heteroskedasticity with associated *t*-values given in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Takeover Premiums				
	(1) Initial Premium ($t = -42$)	(2) Initial Premium ($t = -42$)	(3) Combined Premium ($t = -42$)	(4) Combined Premium ($t = -42$)
SCA	−0.130**		−0.126**	
	(−2.195)		(−2.009)	
Dismissed		−0.133**		−0.121*
		(−2.142)		(−1.703)
Settled		−0.129*		−0.129*
		(−1.900)		(−1.795)
Constant	−0.183	−0.182	−1.347***	−1.348***
	(−0.372)	(−0.368)	(−3.119)	(−3.107)
Deal controls	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	311	311	324	324
R-squared	0.263	0.263	0.268	0.268
Panel B: Target CARs				
	(1) $CAR_{[-1;+1]}$	(2) $CAR_{[-1;+1]}$	(3) $CAR_{[-3;+3]}$	(4) $CAR_{[-3;+3]}$
SCA	−0.079**		−0.077**	
	(−2.524)		(−2.441)	
Dismissed		−0.082**		−0.091**
		(−2.051)		(−2.258)
Settled		−0.078**		−0.071**
		(−2.206)		(−2.015)
Constant	0.244	0.244	0.291	0.292
	(0.863)	(0.862)	(1.238)	(1.237)
Deal controls	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	316	316	316	316
R-squared	0.296	0.296	0.305	0.306
Panel C: Acquirer CARs				
	(1) $CAR_{[-1;+1]}$	(2) $CAR_{[-1;+1]}$	(3) $CAR_{[-3;+3]}$	(4) $CAR_{[-3;+3]}$
SCA	−0.031**		−0.037**	
	(−2.282)		(−2.471)	
Dismissed		−0.014		−0.023
		(−0.736)		(−1.153)
Settled		−0.038**		−0.043**
		(−2.565)		(−2.490)
Constant	0.080	0.077	0.133	0.131
	(0.667)	(0.638)	(0.960)	(0.894)
Deal controls	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes
Acquirer controls	Yes	Yes	Yes	Yes
Year fixed effects	No	No	No	No
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	187	187	187	187
R-squared	0.345	0.350	0.436	0.438

Figure 1: Illustrative timeline of events

This figure shows an illustrative timeline for our selection of targets with ongoing security class action lawsuits (SCAs) at the time of the M&A announcement date. In order for a target to be considered subject to an ongoing SCA, we require that the SCA was filed within three calendar years prior to the acquisition announcement and that the outcome of the SCA was not yet known (i.e., the resolution of the SCA through a settlement or dismissal was not formally known at the time of the M&A announcement).

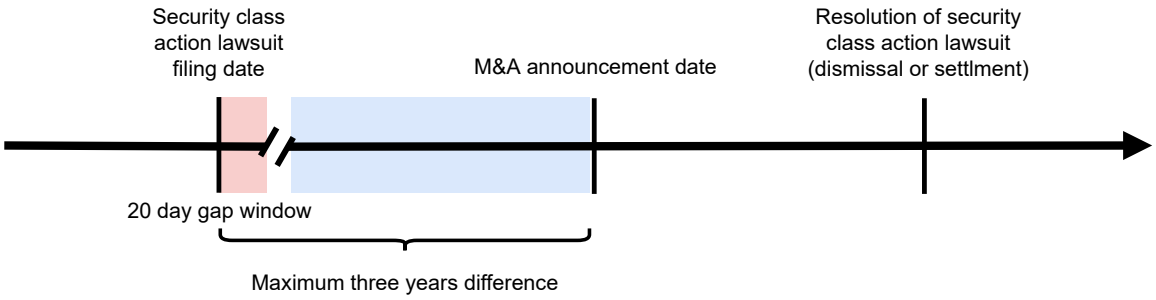
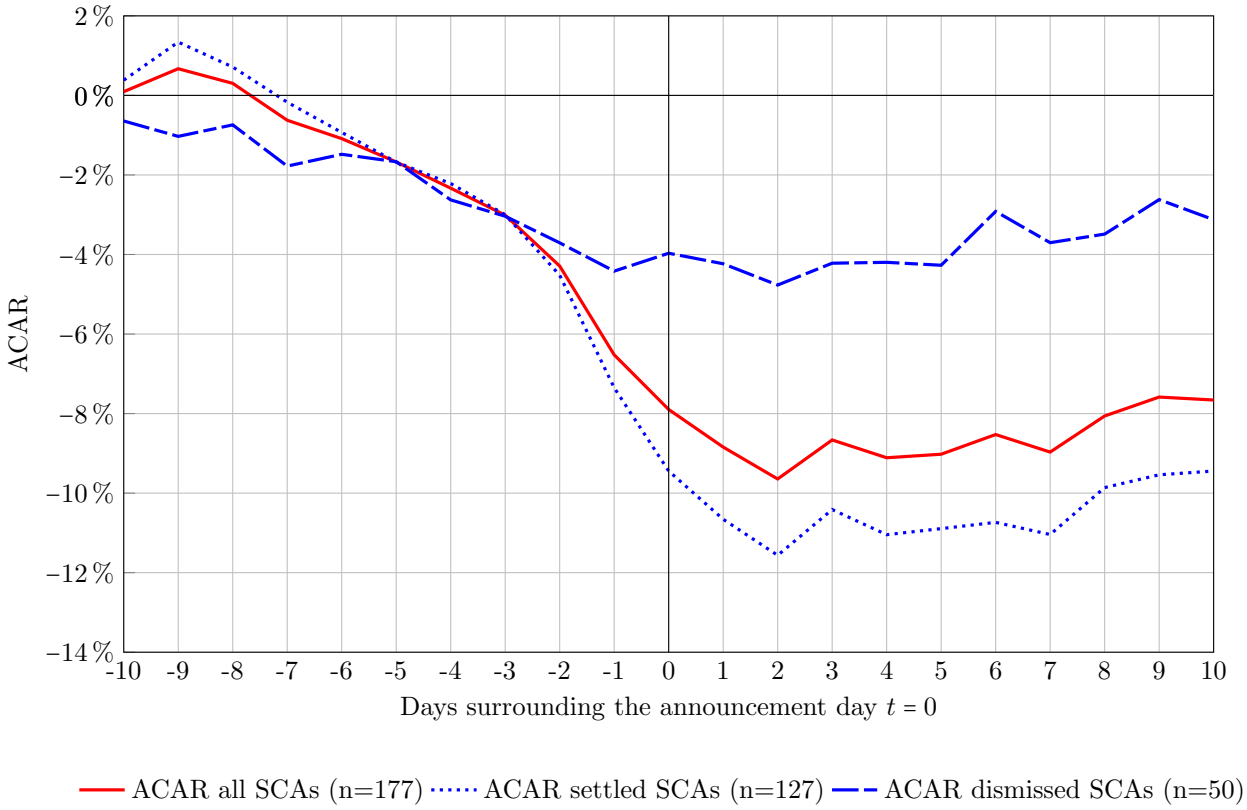


Figure 2: Stock price reaction around the security class action filing date

This figure shows the development of the average cumulative abnormal return (ACAR) around security class action lawsuit (SCA) filing date for the companies that are later target firms in our sample of completed M&A transactions. ACARs around the SCA filing date are calculated with a three-factor event study model based on Fama and French (1993, 1996) with a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date ($t = 0$). The sample of all SCAs is further divided into SCAs that ultimately resulted in a settlement and SCAs that were eventually dismissed.



Appendix A

Variable definitions and data sources

This table defines the variables and describes them in more detail, including an identification of their data source. The variables are divided into security class action variables, dependent variables, deal control variables, target control variables, acquirer control variables, and further variables.

Variable	Definition	Source
Security class action variables		
SCA	Binary variable defined as one if the target firm is subject to an ongoing security class action lawsuit (SCA) within the three years prior to the acquisition that has not been resolved at the time of acquisition announcement, and zero otherwise.	Stanford Security Class Action Clearinghouse
Dismissed	Binary variable defined as one if the target firm is subject to an ongoing SCA within the three years prior to the acquisition that has not been resolved at the time of acquisition announcement that is ultimately dismissed, and zero otherwise.	Stanford Security Class Action Clearinghouse
Settled	Binary variable defined as one if the target firm is subject to an ongoing SCA within the three years prior to the acquisition that has not been resolved at the time of acquisition announcement that is ultimately settled, and zero otherwise.	Stanford Security Class Action Clearinghouse
Dependent variables		
Initial Premium	Initial offer price divided by the target share price 42 (105) trading days prior to the announcement, adjusted for stock splits and dividends, minus one.	SDC, CRSP
Combined Premium	Equal to the component premium, which is defined as the aggregate amount of all payments offered to target shareholders (i.e., cash, equity, debt, etc.) divided by the target firm's market capitalization 42 (105) trading days prior to the announcement date minus one, provided that the component premium is available and lies between −50% and 500%. If the component premium is not available, this variable is equal to the initial premium as long as this premium lies between −50% and 500%. If neither condition is met, the combined premium is left blank.	SDC, CRSP
Target CARs	Target firm cumulative abnormal stock return over the respective event window benchmarked against the expected return using the Fama and French (1993, 1996) three-factor portfolio with a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date.	CRSP, Website of Kenneth French (https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html)
Acquirer CARs	Acquirer firm cumulative abnormal stock return over the respective event window benchmarked against the expected return using the Fama and French (1993, 1996) three-factor portfolio with a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date.	CRSP, Website of Kenneth French

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Variable	Definition	Source
Acquirer BHARs	Acquirer firm buy-and-hold abnormal stock return over the respective holding period excluding the first trading date after the M&A announcement benchmarked against the expected return of an equally weighted matched portfolio of up to five style-matched competitor firms with the highest similarity scores identified using the text-based industry matching procedure introduced by Hoberg and Phillips (2010, 2016).	CRSP, Website of Hoberg and Phillips (https://hobergphillips.tuck.dartmouth.edu/)
Completion	Binary variable defined as one if the deal is flagged in SDC as completed and zero if the deal is flagged as withdrawn.	SDC
Deal control variables		
Financial Acquirer	Binary variable defined as one if the acquirer is identified as a financial sponsor by SDC, and zero otherwise.	SDC
Public Acquirer	Binary variable defined as one if the acquirer is a publicly listed firm, and zero otherwise.	SDC
Hostile Deal	Binary variable defined as one if the deal is flagged as hostile, and zero otherwise.	SDC
Contested Bid	Binary variable defined as one if the acquisition is contested by at least one other buyer, and zero otherwise.	SDC
Divestiture	Binary variable defined as one if the deal is flagged as a corporate divestiture, and zero otherwise.	SDC
Diversifying Deal	Binary variable defined as one if acquirer and target are located in different Fama-French 49 industry portfolios, and zero otherwise.	SDC, Website of Kenneth French
All Cash	Binary variable defined as one if the acquisition is paid exclusively in cash, and zero otherwise.	SDC
Stake Acquired	Percentage of shares that were acquired in the acquisition.	SDC
Tender Offer	Binary variable defined as one if the bid was made as a tender offer, and zero otherwise.	SDC
Target control variables		
Target RoA	Target firm's net income divided by its total assets in the fiscal year prior to the acquisition.	Datastream
Target Assets	Natural logarithm of the target firm's total assets in million US dollars in the fiscal year prior to the acquisition.	Datastream
Target Leverage	Target firm's total long-term debt divided by its total assets in the fiscal year prior to the acquisition.	Datastream
Target Market-to-Book	Target firm's market value of equity divided by its book value of equity in the fiscal year prior to the acquisition.	Datastream
Acquirer control variables		
Acquirer RoA	Acquirer firm's net income divided by its total assets in the fiscal year prior to the acquisition.	Datastream
Acquirer Leverage	Acquirer firm's total long-term debt divided by its total assets in the fiscal year prior to the acquisition.	Datastream
Acquirer Firm Size	Natural logarithm of the acquirer firm's market capitalization in million US dollars the day before the acquisition announcement.	Datastream

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Variable	Definition	Source
Acquirer FCF	Acquirer firm's free cash flow in the last twelve months before the acquisition announcement divided by its total assets.	SDC
Acquirer Q	Acquirer firm's Tobin Q, defined as the market value of equity plus its total liabilities divided by its total assets the day before the acquisition announcement.	SDC
Acquirer Runup	Market-adjusted buy-and-hold return of the acquirer firm's stock over a 230-day time period from $t = -250$ to $t = -21$ days prior to the event date.	CRSP
Acquirer Sigma	Standard deviation of the market-adjusted buy-and-hold return of the acquirer firm's stock over a 30-day time period from $t = -250$ to $t = -21$ days prior to the event date.	CRSP
Acquirer SCA	Binary variable defined as one if the acquirer firm is subject to an ongoing security class action lawsuit (SCA) within the three years prior to the acquisition that has not been resolved at the time of acquisition announcement, and zero otherwise.	Stanford Security Class Action Clearinghouse
Further variables		
Acquirer Term Fees	Binary variable defined as one if acquirer termination fees were agreed in the acquisition agreement, and zero otherwise.	SDC
Target Term Fees	Binary variable defined as one if target termination fees were agreed in the acquisition agreement, and zero otherwise.	SDC
Time-to-Acquisition	One divided by the natural logarithm of the numeric difference in trading days between the SCA filing date and the acquisition announcement date.	SDC, Stanford Security Class Action Clearinghouse
Litigation Intensity	Number of SCAs filed in the target firm's 3-digit SIC code within the six months prior to the M&A announcement.	Stanford Security Class Action Clearinghouse

Appendix B

Table B-1: Security class actions and time-to-acquisition

This table reports the regression results for the acquirer M&A announcement returns depending on the timing of the acquisition following the security class action lawsuit (SCA) filing. The dependent variable is the acquirer cumulative abnormal return (CAR) for the $[-1;+1]$ and $[-3;+3]$ event windows surrounding the takeover announcement of an SCA-affected target as the dependent variables. The acquirer CARs are calculated using a three-factor model based on Fama and French (1993, 1996) with a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date ($t = 0$). The variables of interest are *Time-to-Acquisition*, defined as one divided by the natural logarithm of the trading days between SCA filing date and M&A announcement date (i.e., the higher the value of this variable, the faster the SCA-affected target was bought following the announcement) and *Dismissed*, which takes the value of one if the SCA is eventually dismissed, and zero otherwise. The other variables are divided into deal controls, target controls, and acquirer controls. All variables are defined in Appendix A. The standard errors are corrected for heteroskedasticity with associated t-values given in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	(1) $CAR_{[-1;+1]}$	(2) $CAR_{[-1;+1]}$	(3) $CAR_{[-3;+3]}$	(4) $CAR_{[-3;+3]}$
Variables of interest				
Dismissed	0.014	−0.205*	0.033	−0.242
	(0.737)	(−1.731)	(1.269)	(−1.665)
Time-to-Acquisition	−0.007	−0.424	−0.590	−1.131
	(−0.024)	(−0.969)	(−1.176)	(−1.648)
Dismissed × *Time-to-Acquisition*		1.161*		1.453*
		(1.901)		(1.869)
Constant	0.037	0.108	0.350*	0.439**
	(0.263)	(0.690)	(1.930)	(2.209)
Deal controls	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes
Acquirer controls	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	101	101	101	101
R-squared	0.370	0.398	0.451	0.474

Table B-2: Endogeneity and switching regressions for acquirer M&A announcement returns

This table reports the results of the switching regression models with endogenous switching. Panel A presents the results of the two-stage model. The first stage in column (1) is the selection model using a probit regression with SCA, defined as one if the target firm is affected by a security class action lawsuit (SCA) that has not yet resolved at the time of M&A announcement, and zero otherwise, as the dependent variable. The second stage regression model using the acquirer $[-3;+3]$ event window cumulative abnormal returns (CARs) surrounding the M&A announcement date as dependent variable are shown in columns (2) and (3) for deals involving SCA-affected and non-SCA-affected target firms, respectively. The acquirer CARs are calculated using a three-factor model based on Fama and French (1993, 1996) with a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date ($t = 0$). Litigation Intensity serves as the instrumental variable and is defined as the number of SCA lawsuits filed in the 3-digit SIC industry of the target firm within six months prior to the acquisition announcement. The Inverse Mills Ratio adjusts for the non-zero mean of the error terms. All variables are defined in Appendix A. The standard errors are corrected for heteroskedasticity with associated t-values (z-values for the probit regression) given in parentheses. Panel B reports the results for the switching regression model estimates for the What-if analyses of SCA-affected and non-SCA affected targets for acquirer $[-3;+3]$ event window CARs surrounding the M&A announcement date and the respective differences. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Model

	First stage	Second stage: Acquirer CARs $[-3;+3]$	
	(1)	(2)	(3)
	Selection	SCA-affected	Non-SCA-affected
Litigation Intensity	0.009**		
	(2.004)		
Inverse Mills Ratio		0.284**	0.071*
		(2.053)	(1.709)
Contested Bid	0.081	0.002	−0.015
	(0.356)	(0.055)	(−1.059)
Divestiture	−0.062	0.039	−0.003
	(−0.182)	(0.200)	(−0.144)
Diversifying Deal	−0.027	−0.010	−0.010*
	(−0.234)	(−0.437)	(−1.686)
All Cash	0.095	0.064**	0.027***
	(0.689)	(2.110)	(3.733)
Stake Acquired	−0.004	−0.001	−0.000
	(−0.372)	(−0.708)	(−0.548)
Tender Offer	0.109	0.055**	0.009
	(0.776)	(2.069)	(1.239)
Target RoA	−0.495**	−0.144	−0.057**
	(−2.409)	(−1.337)	(−2.413)
Target Assets	0.143***	0.021	0.006
	(3.207)	(1.032)	(1.175)
Target Leverage	−0.795**	−0.100	−0.052
	(−2.103)	(−0.741)	(−1.597)
Target Market-to-Book	0.012	−0.001	−0.001
	(0.972)	(−0.248)	(−1.176)
Acquirer RoA	−0.727	−0.240**	−0.018
	(−1.343)	(−2.129)	(−0.370)
Acquirer Leverage	−1.011**	−0.219*	−0.037
	(−2.569)	(−1.795)	(−0.890)
Acquirer Firm Size	0.038	0.005	0.001
	(0.912)	(0.503)	(0.341)
Acquirer Free Cash Flow	0.446	0.087	0.004
	(0.752)	(0.662)	(0.098)
Acquirer Q	−0.075*	−0.020*	−0.005
	(−1.878)	(−1.810)	(−1.267)
Acquirer Runup	0.134	−0.017	−0.014
	(1.311)	(−0.688)	(−1.476)
Acquirer Sigma	2.533	−1.205	−0.486
	(0.555)	(−0.812)	(−1.156)
Constant	−3.057***	−0.705	−0.178
	(−2.888)	(−1.388)	(−1.208)
Observations	1,273	96	1,177
(Pseudo) R-squared	0.070	0.376	0.075

Panel B: What-if Analysis

	SCA-affected	Non-SCA-affected
Acquirer CARs $[-3;+3]$		
Actual Acquirer CAR $[-3;+3]$	−3.5%	−1.5%
Hypothetical Acquirer CAR $[-3;+3]$	0.7%	−3.5%
Deterioration / Improvement	−4.2%***	1.9%***

Online Appendix

Not for publication

The real cost of litigation: Evidence from security class actions and M&As

Table OA-1: Sample distribution – Withdrawn deals sample

This table provides an overview of the sample of the 708 withdrawn M&A transactions between 1 January 2000 and 31 December 2021. Panel A shows distribution of transactions by year and further subdivides the sample into targets that are subject to an ongoing security class action lawsuit (SCA-affected) and those that are not subject to one (non-SCA affected). For the SCA-affected targets, the sample is further split by the eventual resolution of the security class action, which is either a settlement or a dismissal of the lawsuit. Panel B shows the distribution of transactions by target industry. We use the Fama-French 10 industry definition to classify our firms to a given industry, except for utilities, which are excluded based on our sample selection procedure. The distribution by industry is likewise subdivided into SCA-affected and non-SCA-affected targets, whereby the sample of SCA-affected targets is further split by the eventual resolution of the security class action, which is either a settlement or dismissal of the lawsuit.

Panel A: Sample distribution by year

		Non-SCA-	SCA-affected		
Year	N	affected	All	Settled	Dismissed
2000	85	79	6	4	2
2001	52	51	1	0	1
2002	46	34	12	10	2
2003	37	29	8	8	0
2004	32	30	2	1	1
2005	43	42	1	1	0
2006	50	44	6	6	0
2007	50	47	3	2	1
2008	56	47	9	6	3
2009	32	31	1	0	1
2010	32	31	1	0	1
2011	25	24	1	1	0
2012	25	23	2	1	1
2013	21	19	2	1	1
2014	20	19	1	0	1
2015	24	22	2	2	0
2016	14	11	3	2	1
2017	17	12	5	3	2
2018	14	12	2	1	1
2019	8	7	1	1	0
2020	17	17	0	0	0
2021	8	8	0	0	0
Total	**708**	**639**	**69**	**50**	**19**

Panel B: Sample distribution by target industry

		Non-SCA-	SCA-affected		
Target industry	N	affected	All	Settled	Dismissed
Consumer Durables	15	13	2	1	1
Consumer Non-Durables	43	40	3	1	2
Manufacturing	62	60	2	2	0
High Tech	204	176	28	23	5
Retail	119	108	11	6	5
Telecommunications	31	29	2	1	1
Energy	34	31	3	2	1
Healthcare	78	68	10	7	3
Other	122	114	8	7	1
Total	**708**	**639**	**69**	**50**	**19**

Table OA-2: Descriptive statistics – Withdrawn deals sample

This table provides an overview of the descriptive statistics of the sample of 708 withdrawn M&A transactions between 1 January 2000 and 31 December 2021. Panel A shows the mean, median, and number of observations for selected deal characteristics and further subdivides the sample into targets that are subject to an ongoing security class action lawsuit (SCA-affected) and those that are not subject to one (non-SCA-affected). The last two columns show the differences in mean and median between the SCA-affected and non-SCA-affected targets. Panel B shows the mean, median, and number of observations for selected target characteristics and our main dependent variables for the subsequent regression analyses. The sample is again subdivided into deals with SCA-affected and non-SCA-affected targets and the last two columns again show the differences in mean and median between these two subsamples of targets. Detailed definitions of the variables are provided in Appendix A. Differences in mean and median for the two target groups are tested for significance using the parametric two-sample t-test and the nonparametric Wilcoxon rank-sum test. *, **, and *** indicate significance at the 10%, 5%, and 1% level of significance, respectively.

Panel A: Deal characteristics

	Withdrawn sample (1)			SCA-affected (2)			Non-SCA-affected (3)			(2) – (3)	
	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
Financial Acquirer	0.11	0.00	708	0.19	0.00	69	0.10	0.00	639	0.09**	0.00**
Public Acquirer	0.44	0.00	708	0.38	0.00	69	0.45	0.00	639	−0.07	0.00
Hostile Deal	0.05	0.00	708	0.09	0.00	69	0.05	0.00	639	0.04	0.00
Contested Bid	0.31	0.00	708	0.45	0.00	69	0.29	0.00	639	0.16***	0.00**
Divestiture	0.03	0.00	708	0.00	0.00	69	0.03	0.00	639	−0.03	0.00
Diversifying Deal	0.67	1.00	708	0.65	1.00	69	0.67	1.00	639	−0.02	0.00
All Cash	0.57	1.00	708	0.57	1.00	69	0.57	1.00	639	−0.01	0.00
Stake Acquired	0.96	1.00	708	0.96	1.00	69	0.96	1.00	639	0.00	0.00
Tender Offer	0.09	0.00	708	0.09	0.00	69	0.09	0.00	639	0.00	0.00

Panel B: Target characteristics and dependent variables

	Withdrawn sample (1)			SCA-affected (2)			Non-SCA-affected (3)			(2) – (3)	
	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
Target RoA	−0.09	0.01	668	−0.09	−0.04	63	-0.09	0.01	605	0.00	−0.05
Target Assets (USD million)	2,191.8	262.3	669	3,504.3	391.8	63	2,055.4	235.9	606	1,448.9	155.9***
Target Leverage	0.24	0.19	667	0.16	0.11	62	0.25	0.20	605	−0.09**	−0.09**
Target Market-to-Book	3.14	1.86	584	3.89	2.36	63	3.05	1.80	521	0.84	0.56**
Initial Premium	0.37	0.26	599	0.33	0.30	60	0.38	0.25	539	−0.04	0.04
Combined Premium	0.41	0.26	627	0.40	0.24	61	0.41	0.26	566	−0.01	−0.02
Target CAR $[-1;+1]$	0.19	0.15	588	0.14	0.09	58	0.20	0.15	530	−0.06	−0.07**
Target CAR $[-3;+3]$	0.20	0.15	588	0.14	0.07	58	0.21	0.16	530	−0.07	−0.08***
Acquirer CAR $[-1;+1]$	−0.02	−0.01	267	−0.08	−0.05	23	−0.02	−0.01	244	−0.06***	−0.04***
Acquirer CAR $[-3;+3]$	−0.03	−0.02	267	−0.10	−0.07	23	−0.03	−0.02	244	−0.07***	−0.05**
Acquirer BHAR 3m	−0.04	−0.03	231	−0.07	−0.10	21	−0.04	−0.03	210	−0.03	−0.07
Acquirer BHAR 6m	−0.08	−0.07	227	−0.13	−0.05	20	−0.07	−0.07	207	−0.06	0.02
Acquirer BHAR 12m	−0.09	−0.10	218	−0.08	−0.10	19	−0.09	−0.10	199	0.01	0.00

Table OA-3: Correlation matrix

This table reports the pairwise correlations of the variables for our sample of 3,277 completed M&A transactions between 1 January 2000 and 31 December 2021. All variables are defined in AAppendix A.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
(1) Initial Premium	1.00																					
(2) Combined Premium	0.70	1.00																				
(3) Target CAR [−1; +1]	0.52	0.37	1.00																			
(4) Target CAR [−3; +3]	0.54	0.38	0.97	1.00																		
(5) Acquirer CAR [−1; +1]	0.00	0.05	0.11	0.11	1.00																	
(6) Acquirer CAR [−3; +3]	−0.01	0.04	0.11	0.15	0.84	1.00																
(7) Acquirer BHAR 3m	−0.04	−0.02	0.00	0.01	0.12	0.19	1.00															
(8) Acquirer BHAR 6m	−0.08	−0.07	−0.01	0.00	0.10	0.18	0.66	1.00														
(9) Acquirer BHAR 12m	−0.01	−0.05	−0.03	−0.02	0.05	0.08	0.43	0.60	1.00													
(10) SCA	−0.04	−0.04	−0.03	−0.03	−0.04	−0.04	−0.03	0.02	0.04	1.00												
(11) Financial Acquirer	−0.04	−0.04	0.02	0.02	0.03	0.04	0.02	0.00	0.00	−0.02	1.00											
(12) Hostile Deal	−0.02	0.02	−0.03	−0.03	−0.02	−0.03	0.09	0.00	0.02	−0.02	0.00	1.00										
(13) Contested Bid	−0.01	0.03	−0.09	−0.08	−0.02	−0.04	0.04	0.01	0.04	−0.02	−0.02	0.12	1.00									
(14) Divestiture	−0.04	−0.03	−0.06	−0.07	−0.02	−0.01	0.03	0.00	0.04	0.00	−0.01	−0.01	−0.01	1.00								
(15) Diversifying Deal	−0.02	−0.03	−0.01	−0.01	0.00	−0.02	0.00	0.01	0.02	−0.01	0.10	−0.02	−0.02	0.01	1.00							
(16) All Cash	0.06	−0.09	0.20	0.20	0.24	0.20	0.01	0.04	0.04	0.00	0.08	0.01	−0.02	−0.05	0.13	1.00						
(17) Stake Acquired	0.07	0.13	0.06	0.07	−0.02	−0.01	−0.06	−0.07	−0.07	−0.02	0.01	0.01	0.02	−0.03	0.01	0.00	1.00					
(18) Tender Offer	0.10	0.08	0.18	0.18	0.09	0.07	−0.02	0.02	0.00	0.04	−0.01	0.11	0.11	−0.07	0.01	0.30	0.00	1.00				
(19) Target RoA	−0.12	−0.08	−0.23	−0.23	−0.04	−0.05	0.01	−0.02	−0.01	−0.09	0.04	0.02	0.04	0.04	0.06	0.00	−0.01	−0.07	1.00			
(20) Target Assets	−0.16	−0.02	−0.20	−0.19	−0.10	−0.06	0.01	0.00	−0.01	0.01	0.07	0.05	0.07	0.05	−0.05	−0.22	−0.01	−0.13	0.39	1.00		
(21) Target Leverage	−0.07	0.18	−0.09	−0.09	−0.02	0.00	0.02	−0.01	−0.04	−0.06	0.06	0.02	0.01	0.06	−0.05	−0.29	−0.05	−0.14	0.13	0.44	1.00	
(22) Target Market-to-Book	−0.04	−0.03	−0.03	−0.04	−0.05	−0.07	−0.01	0.01	0.02	0.03	0.02	−0.01	−0.02	0.06	−0.04	−0.08	−0.06	0.00	−0.13	−0.01	0.17	1.00

Table OA-4: Filing date event study results

This table reports the event study results surrounding the security class action lawsuit (SCA) filing date for the companies that are later target firms in our sample of completed M&A transactions. Panel A shows the event study results for all companies, while Panel B and C divide the sample into SCAs that are ultimately settled and dismissed, respectively. Average cumulative abnormal returns (CARs) and median CARs around the SCA filing date are calculated using a three-factor event study model based on Fama and French (1993, 1996) with a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date ($t = 0$). Average and median CARs are tested for statistical significance using the standard t-test and the nonparametric Wilcoxon rank-sum test (Wilcoxon test), respectively. Differences between SCAs that ultimately resulted in a settlement and SCAs that were eventually dismissed are tested for significance using the parametric two-sample t-test and the nonparametric Mann-Whitney-U-test are used. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

Event Window	ACAR (%)	Median CAR (%)	t-test (t-value)	Wilcoxon test (Z-score)
Panel A: All security class action filings (n=177)				
$[-10;+10]$	−7.66	−4.38	−3.773***	−3.405***
$[-5;+5]$	−7.94	−3.99	−4.878***	−4.633***
$[-3;+3]$	−6.33	−3.66	−4.815***	−4.561***
$[-2;+2]$	−6.63	−3.28	−5.476***	−5.081***
$[-1;+1]$	−4.55	−1.89	−4.912***	−4.596***
Panel B: Security class action filings resulting in a settlement (n=127)				
$[-10;+10]$	−9.44	−7.27	−3.681***	−3.479***
$[-5;+5]$	−9.96	−6.32	−4.829***	−4.550***
$[-3;+3]$	−8.20	−4.92	−4.970***	−4.625***
$[-2;+2]$	−8.56	−4.62	−5.671***	−5.342***
$[-1;+1]$	−6.14	−3.01	−5.269***	−4.986***
Panel C: Security class action filings resulting in a dismissal (n=50)				
$[-10;+10]$	−3.12	−1.58	−1.052	−0.767
$[-5;+5]$	−2.79	−1.80	−1.236	−1.318
$[-3;+3]$	−1.59	−2.63	−0.842	−1.028
$[-2;+2]$	−1.73	−0.87	−0.986	−0.758
$[-1;+1]$	−0.53	−0.26	−0.416	−0.150
Panel D: Differences between eventually settled and dismissed security class actions				
Event Window	Δ ACAR (%)	Δ Median CAR (%)	Two-sample t-test (t-value)	Mann-Whitney-U-Test (Z-score)
$[-10;+10]$	−6.32	−5.69	−1.405	−1.497
$[-5;+5]$	−7.17	−4.51	−2.002**	−1.810*
$[-3;+3]$	−6.60	−2.30	−2.289**	−2.302**
$[-2;+2]$	−6.83	−3.75	−2.580**	−2.875***
$[-1;+1]$	−5.61	−2.76	−2.777***	−3.051***

Table OA-5: Litigation intensity over time and by 3-digit SIC code industry

This table shows the distribution of the *Litigation Intensity* instrumental variable over time on a semi-annual basis, first the average across all 3-digit SIC industries and then split for the ten 3-digit SIC codes with the highest litigation intensity values during the sample period. *Litigation Intensity* is defined as the number of SCAs filed in the 3-digit SIC industry of the target firm within the last half-year prior to the acquisition announcement (see also Appendix A).

Half-year	**Full Sample**	SIC 737	SIC 283	SIC 602	SIC 367	SIC 384	SIC 873	SIC 366	SIC 621	SIC 738	SIC 481
1999-H2	**0.27**	10	1	2	3	0	1	0	0	2	2
2000-H1	**0.39**	27	4	2	3	2	1	4	2	2	3
2000-H2	**0.37**	27	6	1	2	1	1	5	1	5	11
2001-H1	**0.57**	51	4	1	7	0	1	11	1	4	9
2001-H2	**1.17**	133	6	1	23	5	5	27	1	17	20
2002-H1	**0.41**	7	5	3	4	3	3	9	15	3	4
2002-H2	**0.45**	13	8	13	3	3	0	5	15	2	5
2003-H1	**0.41**	11	9	13	8	3	0	3	6	1	3
2003-H2	**0.32**	10	10	5	5	3	1	0	8	1	2
2004-H1	**0.39**	16	10	6	2	2	0	2	4	0	1
2004-H2	**0.41**	17	11	4	8	4	3	3	1	1	4
2005-H1	**0.38**	15	11	5	6	5	3	5	4	0	0
2005-H2	**0.25**	7	7	3	2	3	2	0	0	3	0
2006-H1	**0.23**	5	5	0	5	1	0	2	0	2	2
2006-H2	**0.19**	7	6	0	6	2	0	3	0	1	0
2007-H1	**0.23**	4	9	3	4	1	0	4	0	0	1
2007-H2	**0.39**	4	7	5	5	2	3	5	1	4	3
2008-H1	**0.37**	2	5	25	2	4	1	1	12	3	2
2008-H2	**0.36**	6	6	13	9	6	2	3	8	0	0
2009-H1	**0.24**	3	3	15	0	1	0	1	11	2	2
2009-H2	**0.27**	2	10	7	1	4	0	1	1	1	1
2010-H1	**0.25**	2	8	8	2	5	1	3	3	1	0
2010-H2	**0.35**	9	11	10	0	4	0	1	2	0	0
2011-H1	**0.34**	12	3	7	4	1	3	4	1	0	3
2011-H2	**0.34**	8	9	4	4	5	0	2	2	3	1
2012-H1	**0.34**	9	10	5	2	5	2	3	1	1	0
2012-H2	**0.23**	3	8	3	1	3	1	3	1	2	0
2013-H1	**0.27**	4	9	3	8	4	1	1	0	0	3
2013-H2	**0.32**	8	10	0	2	9	2	5	0	2	2
2014-H1	**0.28**	7	13	1	4	1	2	1	1	5	1
2014-H2	**0.34**	6	17	4	1	4	5	1	3	3	0
2015-H1	**0.36**	12	7	0	6	4	4	3	1	2	0
2015-H2	**0.41**	10	11	2	5	4	9	3	1	4	2
2016-H1	**0.43**	10	15	7	3	9	4	2	3	1	2
2016-H2	**0.56**	12	26	5	4	3	6	1	1	2	1
2017-H1	**0.79**	19	28	8	4	12	13	1	3	10	5
2017-H2	**0.65**	18	20	11	8	4	13	4	0	6	1
2018-H1	**0.70**	18	17	3	8	6	10	5	0	4	2
2018-H2	**0.70**	27	21	5	7	5	6	1	1	4	3
2019-H1	**0.69**	20	21	8	8	7	9	3	1	4	6
2019-H2	**0.75**	27	31	6	3	11	8	4	2	4	2
2020-H1	**0.59**	20	21	11	4	6	6	2	2	1	2
2020-H2	**0.51**	21	22	6	4	7	11	1	0	1	0
2021-H1	**0.38**	20	14	1	2	2	10	2	0	1	1
Full Sample	**0.41**	**15.09**	**11.00**	**5.44**	**4.49**	**3.91**	**3.40**	**3.33**	**2.67**	**2.56**	**2.49**

Table OA-6: Propensity score matching model and results

The table reports the outcome of the propensity score matching (PSM) analysis. The treatment variable is assigned the value of one if the target firm is subject to an ongoing security class action lawsuit (SCA), and zero otherwise. Panel A presents the logit model used to estimate the likelihood of a target firm being SCA-affected. Panel B presents the matching algorithm whereby a nearest-neighbor matching procedure with replacement is used. We report the number of treated and control observations on the matched sample. In Panel C the mean of each variable in the treated group and the control group is reported, in addition to the bootstrapped p-value from the t-test of the null hypothesis that the difference is statistically equal to zero, both before and after matching. All variables are defined in Appendix A.

Panel A: Logit model

Financial Acquirer	*Contested Bid*	*Divestiture*	*All Cash*	*Target RoA*	*Target Assets*	*Target Leverage*	N
0.187	0.226	−0.531	−0.137	−0.764***	0.270***	−1.392***	2,607
(0.271)	(0.318)	(0.528)	(0.174)	(0.263)	(0.052)	(0.441)	

Panel B: Matching results

	Matching specifications
Matching procedure	Nearest neighbor
Matched observations per treated deal	1:1
Number of treated observations	212
Number of control observations	212

Panel C: Covariates' balancing

Sample	Before matching			After matching		
Variable	Treatment	Control	p-value	Treatment	Control	p-value
Financial Acquirer	0.106	0.092	0.50	0.106	0.087	0.51
Contested Bid	0.072	0.050	0.17	0.072	0.072	1.00
Divestiture	0.034	0.055	0.20	0.034	0.024	0.56
All Cash	0.534	0.544	0.77	0.534	0.563	0.56
Target RoA	−0.256	−0.094	0.00	−0.256	−0.210	0.55
Target Assets	12.858	12.511	0.01	12.858	12.905	0.79
Target Leverage	0.187	0.245	0.02	0.187	0.165	0.31

Table OA-7: Regressions on takeover premiums and target M&A announcement returns including acquirer controls

This table reports the regression results for the sensitivity analyses including acquirer controls for the takeover premiums and the target M&A announcement returns. Panel A reports the results using the initial takeover premium (columns (1) and (2)) and the combined takeover premium (columns (3) and (4)) compared to the target firm's stock price 42 trading days before the acquisition announcement as dependent variables. Panel B reports the regression results using the target cumulative abnormal returns (CARs) for the $[-1;+1]$ and $[-3;+3]$ event windows surrounding the M&A announcement date as the dependent variables. The target CARs are calculated using a three-factor model based on Fama and French (1993, 1996) with a 230-day estimation window from $t = -250$ to $t = -21$ days prior to the event date ($t = 0$). The variable of interest is *SCA*, defined as one if the target firm is affected by a security class action lawsuit (SCA) that has not yet resolved at the time of M&A announcement, and zero otherwise. The SCA variable is also split into the two binary variables *Dismissed* and *Settled*, which take the value of one if the SCA is eventually dismissed or settled, respectively, and zero otherwise. The other variables are divided into deal controls, target controls, and acquirer controls. All variables are defined in Appendix A. The standard errors are corrected for heteroskedasticity with associated t-values given in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Takeover premiums

	(1) Initial Premium ($t = -42$)	(2) Initial Premium ($t = -42$)	(3) Combined Premium ($t = -42$)	(4) Combined Premium ($t = -42$)
Security class action variables				
SCA	−0.110***		−0.092**	
	(−2.795)		(−2.102)	
Dismissed		−0.125**		−0.090
		(−2.399)		(−1.309)
Settled		−0.105**		−0.093*
		(-2.194)		(-1.802)
Constant	0.010	0.011	−1.171***	−1.171***
	(0.026)	(0.028)	(−3.667)	(−3.667)
Deal controls	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes
Acquirer controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	1,232	1,232	1,259	1,259
R-squared	0.145	0.145	0.154	0.154

Panel B: Target CARs

	(1) $CAR_{[-1;+1]}$	(2) $CAR_{[-1;+1]}$	(3) $CAR_{[-3;+3]}$	(4) $CAR_{[-1;+1]}$
Security class action variables				
SCA	−0.042*		−0.046*	
	(−1.742)		(−1.884)	
Dismissed		−0.056*		−0.060*
		(−1.810)		(−1.951)
Settled		−0.037		−0.041
		(−1.256)		(−1.374)
Constant	0.424**	0.425**	0.310*	0.311*
	(2.351)	(2.353)	(1.671)	(1.674)
Deal controls	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes
Acquirer controls	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes
Observations	1,186	1,186	1,186	1,186
R-squared	0.190	0.190	0.183	0.183

Table OA-8: Security class actions and the likelihood of deal completion including acquirer controls

This table reports the logit regression results on the effect of security class action lawsuits (SCAs) on the likelihood of deal completion. The dependent variable is *Completion*, a binary variable equal to one if the deal was completed and zero if the deal was withdrawn. The variables of interest are *SCA*, defined as one if the target firm is affected by an SCA that has not yet resolved at the time of M&A announcement, and zero otherwise, and *Acquirer Term Fees* and *Target Term Fees*, defined as one if the acquisition agreement contained acquirer or target termination fees, respectively, and zero otherwise. The SCA variable is also split into the two binary variables *Dismissed* and *Settled*, which take the value of one if the SCA is eventually dismissed or settled, respectively, and zero otherwise. The other variables are divided into deal controls, target controls, and acquirer controls. All variables are defined in Appendix A. The standard errors are corrected for heteroskedasticity with associated z-values given in parentheses. *, **, and *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

	Completion					
	(1)	(2)	(3)	(4)	(5)	(6)
Termination fee related variables						
Acquirer Term Fees	1.191***	1.359***	1.360***			
	(4.729)	(4.809)	(4.808)			
Target Term Fees				2.579***	2.695***	2.696***
				(11.667)	(11.879)	(11.837)
Acquirer Term Fees × *SCA*		−1.398**				
		(−2.165)				
Acquirer Term Fees × *Dismissed*			−1.247			
			(−1.190)			
Acquirer Term Fees × *Settled*			−1.459*			
			(−1.923)			
Target Term Fees × *SCA*					−1.474**	
					(−2.097)	
Target Term Fees × *Dismissed*						0.688
						(0.741)
Target Term Fees × *Settled*						−2.334**
						(−2.387)
Security class action variables						
SCA	−0.181	0.179		−0.301	0.695	
	(−0.595)	(0.487)		(−0.810)	(1.134)	
Dismissed			0.188			−0.522
			(0.294)			(−0.851)
Settled			0.176			1.276
			(0.398)			(1.414)
Constant	13.508***	14.592***	14.605***	14.016***	15.618***	14.955***
	(7.250)	(7.777)	(7.789)	(6.914)	(7.508)	(7.199)
Deal controls	Yes	Yes	Yes	Yes	Yes	Yes
Target controls	Yes	Yes	Yes	Yes	Yes	Yes
Acquirer controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,496	1,496	1,496	1,496	1,496	1,496
Pseudo R-squared	0.267	0.270	0.270	0.370	0.374	0.377

Figure OA-1: Litigation intensity over time

This figure shows the average of the *Litigation Intensity* variable across all 3-digit SIC-codes on a semi-annual basis from 1999-H2 to 2021-H1. *Litigation Intensity* is defined as the number of SCAs filed in the 3-digit SIC industry of the target firm within the last half-year prior to the acquisition announcement (see also Appendix A).