Bachelor Thesis

Information disclosure strategies: the bundling of M&A and quarterly earnings

announcements

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Abstract

This study investigates the strategic disclosure timing of M&A deals announcements relative to quarterly earnings announcements. The analysis finds evidence of systematic bundling, that is the simultaneous announcement of M&A deals with quarterly earnings. Acquirer firms are more likely to bundle earnings and M&A announcements when they have lower reported net income, and when the M&A deals are value-enhancing deals which are usually positively perceived by the market. This suggests that managers strategically bundle positive news reports to offset the negative effects of disappointing earnings. Instead, when the announcements are not bundled, firms are indifferent between announcing the M&A deal before or after the earnings announcement.

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1. Introduction

Corporate managers and academics have become increasingly aware of the potential impact that corporate disclosure strategies can have on firm value (Gennotte & Trueman, 1996). Today, firms focus on the systematic formation and implementation of information disclosure strategies. Since the consequences of most voluntary disclosures are significant and long-lasting, disclosure strategies require careful attention and long-term planning. Without an active, well planned and executed disclosure strategy there is no assurance that the intrinsic value of the company and its potential will be fully appreciated by outsiders (Lev, 1992). One important element of a firm's disclosure strategy is the relative timing of its multiple public announcements. Firms persistently choose whether to announce multiple pieces of value-relevant information simultaneously or sequentially, since market prices reflect the valuation implications of multiple announcements differently depending on whether they are announced together or separately (Gennotte & Trueman, 1996).

Reporting strategies can involve any value-relevant mandatory disclosures. Prior studies on the topic of information disclosure strategies have documented that firms tend to cluster bad earnings announcements with good news disclosures (e.g., Waymire, 1984; Gennotte & Trueman, 1996). This paper focuses on the strategic announcement of quarterly earnings and merger and acquisition (M&A) deals. Specifically, this paper analyses whether managers choose to announce M&A deals on the same date as quarterly earnings when earnings are disappointing. Quarterly earnings announcements are one of the most relevant information sources for shareholders, and have significant impact on securities' prices and volumes of trade (Lev, 1992). Mergers and acquisitions are arguably the most transformative corporate decisions that a firm can undertake, and so it is likely that at least a significant portion of the firm's stock return is attributable to the M&A (Edmans et al., 2021). Whilst extensive research exists on the simultaneous announcement of quarterly earnings with other communications (such as dividend declarations, share repurchase programs, seasoned equity offering registrations, or management earnings guidances)[1] for

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[1] Leftwich, R., & Zmijewski, M. E. (1994). Contemporaneous announcements of dividends and earnings. *Journal of Accounting, Auditing & Finance*, *9*(4), 725-762;

Dittmann, I., Li, A. Y., Obernberger, S., & Zheng, J. (2022). The Impact of the Corporate Calendar on the Timing of Share Repurchases and Equity Grants. *Available at SSRN 4004098;*

Rogers, J. L., & Van Buskirk, A. (2013). Bundled forecasts in empirical accounting research. *Journal of Accounting and Economics*, *55*(1), 43-65.

strategic purposes, specific empirical evidence on whether M&A announcements are used to mitigate the negative effects of unfavourable earnings reports is scarce and inconsistent.

First, this study examines whether a disclosure strategy exists for quarterly earnings announcements and M&A announcements. Consistently with the existing literature[2], deals and earnings announcements disclosed on the same date are referred to as "bundled" announcements. Instead, deals and earnings announcements reported with a distance of at most 30 days are referred to as "sequential" announcements. I combine data on the dates of M&A announcements of U.S. public firms with the dates of their quarterly earnings announcements over the period 2006-2019. I find that a relevant share of firms choose to announce an impending acquisition on the same day as they announce their quarterly earnings, in accordance with Gaspar et al. (2017). Around 17% of M&A deals in the 30-days range are bundled deals, hence are announced on the same date as quarterly earnings. Considering existing disclosure regulations, since 2002 the Securities and Exchange Commission (SEC) requires companies to file quarterly earnings reports no later than 35 days after the end of their first three quarters and both quarterly and annual reports no more than 60 days after their fiscal year ends after the fourth quarter. There are no specific regulations regarding the timing of M&A announcements. Such freedom in choosing announcement dates, and the finding that an important share of deals over the time frame considered are bundled deals, suggest that it is unlikely that bundled announcements exist by coincidence. Because managers can choose the announcement dates, it is unlikely that deals and earnings are casually announced on the same date.

Gennotte and Trueman (1996) demonstrate that managers in possess of two pieces of information, one of which is the firm's earnings, prefer to make the earnings announcement simultaneously with the other disclosure if the earnings have unfavourable (or less favourable than expected) implications for the firm's future profitability. As such, the second part of this report studies whether bundling is a form of strategic disclosure, hence whether announcements of M&A deals are bundled to earnings announcements when earnings are unfavourable. Using dollar values of net income reported within quarterly earnings reports, I analyse whether firms who choose to bundle the two announcements have significantly lower net income compared to

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[2] "Bundling" is a term frequently used in the literature to refer to the simultaneous disclosure of multiple announcements (e.g., Rogers & Van Buskirk, 2013; Kaplan, 2014; Gaspar et al., 2017; Hu et al., 2021).

that of firms who do not bundle in those months. I find that bundling and reported net income are significantly and negatively related, indicating that acquirers are more likely to bundle earnings and M&A announcements when they have lower reported earnings.

Furthermore, I analyse the characteristics of M&A deals that are bundled to quarterly earnings. According to Harford et al. (2012), entrenched managers can make value-decreasing acquisitions by avoiding private targets, which have been shown to be generally associated with value creation, and by not using all-equity offers. As such, I analyse whether bundled M&A deals are significantly different from non-bundled deals in terms of the consideration offered and of the target's public status. Assuming that M&A deals are bundled to earnings announcements when earnings are unfavourable, such bundled deals can be either value-enhancing or value-decreasing deals. Firms can choose to bundle two "negative" pieces of information, that are a disappointing earnings report and a value-destroying acquisition deal. Alternatively, firms can choose to bundle a "negative" piece of information with a "positive" one: a disappointing earnings report with a value-enhancing deal. As explained by Gaspar et al. (2017), firms might choose to bundle two negative announcements to lower investor expectations and influence the perception of future earnings releases. This scenario assumes that investors evaluate news with respect to a reference point and that, by shifting the reference point downwards, firms can influence the perception of future improved earnings releases. Instead, firms might choose to bundle announcements of opposite signs since investors punish relatively more a given size loss than they welcome a similar size gain (Gaspar et al., 2017). This second scenario is based on investor loss aversion. Analysing the characteristics of bundled deals compared to non-bundled deals, I find that bundled deals are less likely to be paid in cash and are more likely to involve private targets, indicating that bundled deals are more likely to be value-enhancing deals positively perceived by the market. The results suggest that firms use M&A deals which they expect to be positively perceived by the market to mitigate the negative effects of disappointing earnings on stock returns.

Finally, I analyse the characteristics of earnings announcements that are released before the M&A announcement, compared to those released after the M&A. Announcements that are not bundled could be released in a strategic order, because investors' reactions are susceptible to manipulation based on the order in which firms release their announcements (Hu et al., 2021).

Hence, in addition to investigating why firms bundle the two announcements, I investigate whether firms strategically order the announcements that are not bundled. Analysing net income reported within quarterly earnings reports, I find no significant difference between the earnings announced before the M&A and those announced after. Complementarily, there is no significant difference between the M&A deals announced before compared to those announced after the quarter's earnings report. Also, it appears that firms do not strategically exploit the distance in days between the two announcements.

This report is organised as follows: the next section discusses the related literature. Section 3 describes the data and the methodology applied for the analysis. Section 4 illustrates the results. Section 5 discusses the limitations of this research, and section 6 concludes.

2. Literature review

Firms' information disclosure strategies have been thoroughly studied throughout the years. As Lev (1992) advocated, disclosure strategies warrant the careful attention and long-term planning accorded to any major corporate activity, given the significant and long-lasting consequences of most voluntary disclosures. Disclosure strategies can comprehend all types of voluntary and mandatory announcements, and can involve the daily and weekly timing of individual announcements or the timing of multiple announcements relative to each other. Most existing analyses study the daily or weekly release timing of announcements. For example, beginning with Patell and Wolfson (1982), several papers have documented that earnings announcements made at times of decreased media attention, such as after the market closes and/ or on Fridays, tend to contain worse earnings news than those made at other times (DellaVigna and Pollet, 2009; Doyle & Magilke, 2009; DeHaan et al., 2015). On the other hand, studies find that firms are more likely to announce their M&A plans on Mondays than on other weekdays to attract investor attention (Wang & Kang, 2017; Filipovic, 2021).

For the purpose of this study, the most relevant literature concerns analyses of the bundling of earnings announcements with other disclosures. As Kaplan (2014) explains, firms release disclosures to investors frequently at the time of the earnings announcement, then provide relatively few disclosures during the course of the quarter. Firms nearly always disclose certain items together, such as revenues and expenses, when one item disclosed separately is difficult to

interpret without the other. However, firms also bundle disclosures with less obvious complementarities, such as earnings announcements and acquisition announcements, but do so less frequently (Kaplan, 2014). Gennotte and Trueman (1996) provide a useful overview of the reasons for bundling and the implications of bundling strategies in terms of stock returns. They frame their analyses in terms of quarterly earnings reports and argue that firms should release earnings reports simultaneously to other announcements when earnings are less favourable than expected by the average investor. Instead, if the announcements have positive implications for firm value, managers should prefer to make them separately, since market prices better reflect the valuation implications of multiple announcements when they are made at different times. Consistently, Graham et al. (2005) report that one third of chief financial officers admit to trying to package bad news with other disclosures. Segal and Segal (2016) more recently revise this topic and confirm that public firms are likely to strategically disclose mandatory and voluntary reports by bundling positive and negative news. These analyses suggest that managers systematically bundle unassociated disclosures to hide disappointing news and mitigate investors' negative reactions.

Other studies analyse the simultaneous release of a disappointing announcement with other unrelated disclosures. For example, Gay (2017) examines how firms strategically bundle news reports to offset the negative effects of a privacy breach disclosure. He finds that the decrease in the stock price following the news of the privacy breach is offset by a larger than usual number of positive news reports released on that day. Similarly, Lansford (2006) examines patent disclosure behavior before earnings announcements in light of managers' incentives to avoid the stock price-related consequences of earnings disappointments. He finds that some firms engage in the strategic voluntary disclosure of proprietary information in order to manage their short-term stock prices before the mandatory adverse information event. Consistently, Bliss et al. (2018) examine information bundling that occurs when a firm releases a restatement and find evidence for positive bundling (the release of good news with the restatement), which offsets the stock decline at the restatement announcement.

The existing literature that focuses specifically on the disclosure of quarterly earnings and M&A announcements is scarce and controvert. Only Gaspar et al. (2017) and Hu et al. (2021) study the strategic announcement sequencing of earnings and M&A deals. As

summarised, previous studies agree that firms strategically bundle good news with disappointing news to offset the stock decline following the negative announcement. However, these findings might not be generalisable to M&A announcements, since M&A deals are mostly negatively received by the market (Hu et al., 2021), and hence might not be used as "good news" to mitigate the negative effects of disappointing earnings. Indeed, Gaspar et al. (2017), who analyse abnormal returns to bundled bids, find that firms may bundle a skeptical acquisition announcement when they have relatively disappointing earnings. Lumping together two pieces of negative news can reset investor expectations for the next quarter and influence the perception of future earnings releases (Gaspar et al., 2017). Instead, Hu et al. (2021) focus on the order in which the announcements are sequenced. They find that acquiring companies are more likely to announce earnings before M&As if their earnings are favorable. This creates a more positive news environment and generates higher abnormal returns for the subsequently announced acquisition (Hu et al., 2021). Although these findings are not necessarily contradictory, a detailed and comprehensive analysis of the characteristics of quarterly earnings released before, after or bundled to the M&A announcements is missing.

This study contributes to the literature firstly by investigating why firms strategically choose to bundle the two announcements, and then by analysing whether firms also use the order in which the two announcements are released as a strategy to model investors' reactions. This study also provides a descriptive inspection of the timing of M&A announcements over the corporate calendar to discover patterns in the relationship with quarterly earnings announcements.

3. Data and Methodology

3.1 Construction of a firm-level data set

The M&A announcements data set is constructed following Edmans et al. (2021) and Gaspar et al. (2017). M&A announcement dates rather than completion dates are used: 97% of M&A announcements (for which the eventual outcome is known) in my sample are eventually completed. Thus, it is the announcement that is the relevant event (Edmans et al., 2021). I collect data for all M&As announced between January 2006 and December 2019 by U.S. public firms, from Eikon ThomsonReuters. The dates provided include the deals' announcement date, date of record and date of withdrawal (if withdrawn). Deals' specific characteristics, such as the payment type and the deal size in dollar value, are provided. The data set also contains information regarding the acquiror target firms: full name, micro and macro industry, nation and public status. The 6-digit CUSIP identifier is provided for both the acquiror and the target. The data set covers 6,512 firms and 18,393 deals announced.

Firms' quarterly earnings announcement dates are collected from Compustat through WRDS for the same period from January 2006 to December 2019. For each report date, the data set provides the calendar year and quarter, the respective fiscal year and quarter, the fiscal year-end month and the actual period end date - that is, the end date of the current quarter. These information allow to translate the firms' calendar time into corporate time. Earnings and financial statement data, such as quarterly reported net income, debt and total assets, are also provided. The firms' 9-digit CUSIP identifier is provided. The data set covers 2,411 U.S. public firms and 107,576 earnings announcements.

The M&A and earnings announcements data sets are merged on the firms' CUSIP identifiers. To make them compatible, the 6-digit identifier from the M&A data set is turned into 9-digit CUSIP using the WRDS CUSIP converter tool. Each firm's M&A announcement is joined to the respective earnings announcement that occurs in that same fiscal quarter of the same fiscal year. Deals that do not have a corresponding earnings announcement in the same quarter of the same year are excluded. Only 5 firms from Compustat have missing data in the linking process with the Eikon data set. in The sample that results from the linking process consists of 2,406 acquiror and respective target firms, and 9,412 deals and earnings announcements.

3.2 Variable construction

3.2.1 Deal-level characteristics

During the merger process, the deals announcements are matched to the earnings announcement that occurs in the same fiscal quarter and year. I generate a variable *Days to Announcement* that measures the difference in calendar days between the M&A announcement date and the respective earnings announcement date. The variable is positive if the earnings report is announced before the M&A, whilst it is negative if the earnings report is announced after. If the days to announcement variable is equal to zero, the M&A and the quarterly earnings are announced on the same date (same day, month and year). I use this variable to investigate whether the two announcements are bundled: I generate the binary variable *Bundled* which is equal to 1 if the days to announcement variable is equal to -1, 0 or 1. Hence, I allow for a one-day discrepancy between the M&A and the earnings announcement since there might be data recording errors of acquisition/earnings announcement dates in different sources. This definition of bundling is analogous to those employed by the literature (Gaspar et al., 2017)[3]. The variable is equal to zero, and hence the announcements are sequenced rather than bundled, if the M&A announcement takes place outside the [-1,+1] days range relative to its earnings announcement. Figure 1 illustrates the timeline of sequential and bundled disclosures. Figure 2 illustrates the distribution of the *Days to Announcement* variable. Furthermore, I generate the variable *Earnings Before* that indicates the order in which the non-bundled announcements are sequenced: it is equal to 1 if the earnings report is announced before the M&A deal, hence if *Days to Announcement* is larger than one.

From the announcement dates, I generate categorical variables that indicate the day of the week in which the announcement was made, as well as variables that indicate the month of the fiscal year in which the announcement occurred. These variables help illustrate the distribution of the announcements over the week or over the fiscal year, to investigate the existence of weekly- or year-level patterns in the timing of the announcements, as done in the first section of the analysis. Then, I generate a binary variable *Friday* that is equal to 1 if the

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[3] Existing literature allows for a few days gap in the definition of bundling. For example, Kaplan (2014) defines bundled dividend announcements as those announced within one calendar day around earnings; Rogers and Van Buskirk (2013) define bundled management forecasts as those issued within two days around earnings.

quarterly earnings report is announced on a Friday: according to DeHaan et al. (2015) and DellaVigna and Pollet (2009), bad earnings are reported on Fridays to avoid investor attention.

Finally, I generate a binary variable *Cash* that indicates the consideration offered, that is, the deal's means of payment. It is equal to 1 if the deal is financed 100% in cash, whilst it is 0 if the deal is financed with equity or with any other combination. Deals paid in cash are viewed as value-decreasing since not using all-equity offers has the effect of avoiding the transfer of a valuable blockholder to the bidder (Harford et al. 2012).

3.2.2 Firm-level characteristics

The variable *Net Income* measures the income or loss (in million dollars) reported by the acquirer company in their income statement (earnings announcement) after expenses and losses have been subtracted from all revenues and gains for the fiscal period including extraordinary items and discontinued operations. I generate a binary variable *High Income* that indicates whether the value of net income is higher than the median value. Following Harford et al. (2012) I generate a set of control variables for the acquirer firms, to control for their characteristics and size. I generate variables that measure total assets, market value, leverage and ROA.

For the target firm, I generate a binary variable *Private* that is equal to 1 if the target is a private firm, and 0 if the target is a public, subsidiary, joint venture or governmental firm. Furthermore, I generate the binary variable *High Tech* that is equal to 1 if both the acquirer and the target operate in high-tech industries. Operating in high-tech industry is a feature that is typically associated with high acquisition activity (Gaspar et al., 2017).

Appendix B provides a description of the variables used for the analysis.

3.2.3 Descriptive statistics

Table 1 provides the descriptive statistics of the relevant variables. As shown, 11% of all deals are announced on the same date as quarterly earnings. Of all 9,412 deals, 5,996 are announced in the same month as that quarter's earnings, and hence fit in a [-30, +30] days range relative to its earnings announcement. 17,3% of such deals are bundled. Only 2,8% of deals are withdrawn, and most deals (77,8%) are completed with transfers of cash. Around 5% of quarterly earnings are announced on a Friday. The mean value of M&A deals is 735 million dollars. 50% of the target firms are private, only 1% of acquirer and target firms operate in high-tech industries, and the average net income reported by acquirer firms is of 165 million dollars.

3.3 Analysis design

The first section of the analysis investigates the schedule of deals and earnings announcements over the fiscal quarter and year, and investigates the existence of bundling of the two types of announcements. Figure 2 plots the difference in calendar days between the announcement of an M&A deal and the respective announcement of earnings. Figure 3 analyses the distribution of the announcements over the days of the week, where the 0 corresponds to Sunday and the 6 corresponds to Saturday. Panel A plots the percentage of deals and earnings announced in each day of the week; Panel B plots the distribution over the days of the week of the bundled deals. Figure 4 shows the distribution of the announcements over the fiscal year, to investigate whether similar patterns exist in the distribution of M&A announcements with respect to earnings announcements over the fiscal months. Panel A plots the percentage of M&A deals and of quarterly earnings announced in each fiscal month; Panel B plots the percentage of M&A deals and of quarterly earnings announced in the first, second or third month of the quarter.

The second section of the analysis examines the relationship between the timing of the announcements and the acquirer's net income. The first and second regression models investigate whether acquirers who choose to bundle deals announcements with earnings announcements report significantly lower earnings compared to acquirers who do not bundle. The general specification of the models are:

$$\text{Model 1: } prob\,(Bundled) = \alpha + \beta \cdot NetIncome_i + \theta \cdot Controls_i + \gamma_i + \delta_i + \varepsilon_i$$

$$\text{Model 2: } prob\,(Bundled) = \alpha + \beta \cdot HighIncome_i + \lambda \cdot Interaction\ terms + \theta \cdot Controls_i + \gamma_i + \delta_i + \varepsilon_i$$

Both regressions are run as probit models. Model 1 analyses whether reported net income is correlated to the probability of bundling, and in what direction. The set of control variables includes the firm and deal level characteristics presented in section 3.2. Hence, the model controls for acquirer characteristics such as firm size (total assets), target characteristics such as public status, and deal characteristics such as deal value and payment type. The γ_i and δ_i denote year fixed-effects and industry fixed-effects respectively. Model 2 develops a heterogeneous analysis by including the interaction effects between the variable *High Income* and the variables *Cash, Private and Friday,* in addition to the other controls that were also included in the first model. This regression indicates whether, for all the firms with income above the median,

announcing cash deals, private target deals or announcing the deals on Friday correlate with the bundling of the announcements.

The third and fourth regression models analyse the relative timing of the two announcements to investigate whether firms strategically sequence non-bundled announcements. The general specifications of the models are:

Model 3: prob (Earnings Before)= $\alpha + \beta \cdot NetIncome_i + \theta \cdot Controls_i + \gamma_i + \delta_i + \varepsilon_i$

Model 4: Days to Announcement = $\alpha + \beta \cdot NetIncome_i + \theta \cdot Controls_i + \gamma_i + \delta_i + \varepsilon_i$

The third regression is run as a probit model. It investigates whether the announcements that are released in the order (earnings announcement , M&A announcement) have different characteristics from those released in the order (M&A announcement , earnings announcement). It analyses whether net income and the other controls have an impact on determining whether the announcements are released in the order (earnings announcement , M&A announcement). Hence, the model investigates whether the level of net income and the characteristics of the M&A deal are correlated to the probability of announcing the earnings report before the M&A deal. Finally the fourth model, rather than simply analysing the order in which the announcements are released, explores whether firms strategically exploit the distance in dates. It investigates whether the acquirer's level of net income and the characteristics of the M&A deal are related to the distance in days of the two announcements. For this model, the sample is restricted to announcements having a maximum distance of 30 days, to only consider those announcements that could have been reported on the same date as earnings, but were purposefully announced separately (Gaspar et al., 2017). Once again, γ_i and δ_i denote year fixed-effects and industry fixed-effects respectively. The same control variables are included as in the previous models.

4. Results

4.1 Descriptive evidence

In this section I provide evidence of strategic bundling of the two announcements and an analysis of their distribution over the fiscal year.

Figure 2 is the most relevant figure for the development of this study. It provides evidence of systematic bundling of M&A announcements with earnings announcements, showing the unlikeliness that bundling occurs by chance. Indeed, Figure 2 plots the distribution of the *Days to Announcement* variable*,* hence plots the frequency of M&A announcements around earnings announcement dates. It shows an evident spike exactly at the earnings announcement date, with a frequency that is considerably higher than for other days around the earnings announcement. As shown in Panel A, out of the whole sample, around 8% of the M&A deals are announced on the same date as earnings (*Days to Announcement* = 0). As reported in Table 1 by the mean value of *Bundled*, this percentage increases to 11%, which corresponds to 1,040 deals, when also considering deals announced one day before or one day after earnings (*Days to Announcement* = -1, 0, 1). One potential explanation for non-bundling is that bundling some disclosures will involve delaying disclosures (where in this case the disclosure is the announcement of the M&A deal). If other investors learn of the disclosure before its release, they could potentially extract informational rents (Kaplan, 2014). As such, it is interesting to consider only the announcements that are made within a limited distance range. As discussed by Gaspar et al. (2017), acquirers involved in sequential bids, which the authors define as bids announced with a maximum distance of 30 days from that quarter's earnings announcement, could have reported the deal on the earnings date (without encountering issues related to their delayed announcement) but have chosen not to do so. Hence, I restrict the analysis to only consider deals sequenced in a 30-days range: Panel B plots the difference in calendar days between the announcement of an M&A deal and the respective announcement of earnings and shows that around 13% of the M&A deals in the [-30, +30] days range are announced on the same date as earnings. As reported in Table 1, this percentage increases to 17% when also considering deals announced one day before or one day after earnings.

Figure 2 shows a clear "wave" pattern in the distribution of the M&A announcements around earnings, which could be due to weekly effects. I inspect whether M&A deals and

quarterly earnings have similar announcement trends over the days of the week, and I analyse how such trends adapt when the two announcements are bundled. Figure 3 Panel A shows that most earnings reports are announced on Wednesdays and Thursdays. Contrarily, most M&A deals are announced on Mondays, in accordance with Wang and Kang (2017) and Filipovic, (2021) who discuss the existence of a "Merger Monday". Almost no announcements are disclosed over the weekends, and few are disclosed on Fridays. Panel B shows how these opposite patterns align when the announcements are bundled: although more flattened, the distribution of bundled announcements over the days of the week suggests that the weekly pattern of earnings announcements prevails over that of M&A deals.

Figure 4 analyses the distributions of the two types of announcements over the fiscal year. Panel A depicts the announcement of quarterly earnings and deals over the twelve months of the corporate calendar (the calendar months are adjusted to the firm's fiscal calendar). The distribution of earnings announcements shows a clear pattern throughout the fiscal year, in line with the SEC regulations. During the second, third and fourth quarters, most announcements take place in the first and second month of each quarter, since the SEC requires companies to file earnings reports no later than 35 days after the end of their first three quarters. During the first quarter, most earnings announcements take place in the second month, since firms are given 60 days to file earnings after their fiscal year ends. Instead, the distribution of M&A announcements does not show a pattern nor trend over the fiscal months. Panel B once again shows that whilst earnings are for the most part announced during the first and second months of the quarters, M&A deals are announced during any of the three months. Given the absence of regulation regarding the timing of M&A announcements and the very clear schedule of earnings announcements, these figures suggest that the announcement of M&A deals is not dependent on the timing of earnings announcements. Apparently, managers do not prefer nor disregard announcing M&A deals in the same period as quarterly earnings. This makes it increasingly interesting to understand why managers choose to announce a significant share of deals on the exact same date as quarterly earnings.

4.2 Regression results

The regression results of the probit models 1 and 2 are presented in Table 2. Column 1 presents the results of the first regression model, and Column 2 of the second regression model. The marginal effects of the explanatory variables are shown between squared brackets.

Column 1 shows that the coefficient of *Net Income* is negative and significant at the 5% level: acquirers are more likely to bundle earnings and M&A announcements when they have lower reported earnings. In terms of economic significance, a one standard deviation increase in the acquirer's net income reduces the likelihood of bundling by 1.43% (as obtained from the product of the standard deviation of *Net Income* in Table 1 and the marginal effect of *Net Income* in Table 2, -0.0000201 x 713.320). The coefficient of *Cash* is negative and significant at the 1%, indicating that bundled announcements are more likely to be paid in stock or with a hybrid consideration of stock and cash. A deal paid fully in cash has a 2.4% lower probability of being bundled to the earnings announcement. The coefficient of *Private* is positive and significant at the 5% level, indicating that bundled announcements are more likely to involve private targets, perhaps because acquirers have more discretion to decide the timing of the announcements in that case (Gaspar et al., 2017). A deal involving a private target has a 1.6% higher probability of being bundled to the earnings announcement. Taken together, these last two findings indicate that bundled M&A deals are more likely to be value-increasing deals. Indeed, the literature argues that private deals paid in stock are associated with value increasing acquisitions that are positively perceived by the market (Chang, 1998; Harford et al., 2012; Gaspar et al., 2017). Overall, these results indicate that managers choose to bundle the "negative" piece of information with a "positive" one: disappointing earnings with a value-enhancing deal. These results are consistent with the existing literature on the strategic timing and bundling of announcements, which shows the propensity of managers to strategically bundle positive news reports to offset the negative effects of disappointing earnings. Firms release earnings reports simultaneously to value-increasing M&A announcements when earnings are less favourable.

Furthermore, Column 1 shows that the coefficient of *Friday* is negative and significant at the 1% level. Compared to sequential announcements, bundled announcements are less likely to take place on Fridays. This finding could be explained by the fact that M&A deals are announced mostly during the first days of the week (Mondays and Tuesdays) as shown in Figure 3.

Moreover, DeHaan et al. (2015) find negative returns when the market is notified of an upcoming Friday announcement, since managers tend to report bad news on Fridays. As such, managers who bundle disappointing earnings to positive M&A announcements to mitigate investors' reactions do not have incentives to disclose such bundled reports on Fridays. Also, the coefficient of *High Tech* is positive and significant at the 1% level, indicating that firms that operate in high-tech industries have a higher likelihood of bundling the two announcements. This could be due to the fact that operating in high-tech industry is a feature that is typically associated with high acquisition activity (Gaspar et al., 2017). Finally, the size of the M&A deal is insignificant to determine the portability of bundling of the two announcements.

The insignificance of the interaction results in Column 2 and of the *High Income* variable indicate that there is no significant difference in the probability of bundling between high-income firms and low-income firms. The relative net income between firms of similar sizes and industry, and the income of the firm across the years and fiscal quarters, is what is relevant to explain differences in bundling probabilities (as measured with the first regression model).

The regression results of the models 3 and 4 are presented in Table 3. Column 1 presents the results of the third regression model, and Column 2 of the fourth regression model. For the third model, the marginal effects of the explanatory variables are shown between squared brackets. The results in Column 1 indicate that there is no significant difference between the announcements released in the order (earnings announcement , M&A announcement) and the announcements released in the order (M&A announcement , earnings announcement). The firm's reported net income is not related to the probability of announcing quarterly earnings before the M&A deal. Whether the M&A deal is paid in cash or stock is also not related to the probability of announcing the M&A deal after quarterly earnings. These results suggest that the order in which the two announcements are released is irrelevant for the firm's disclosure strategies; the only strategic tool that managers use is their simultaneous (bundled) disclosure. The insignificance of the results in Column 2 provides further support for this argument: it appears that managers do not sequence announcements strategically since the variables used in the analysis are insignificant to explain the difference in days between the two announcements. The only other considerable result concerns the coefficient of the variable *Private* in Column 1, which is negative and significant at the 1% level. This indicates that M&A deals involving private targets

decrease the probability of announcing earnings reports before M&As by 5.5%, and symmetrically increase the probability of announcing M&A deals before earnings. Since deals involving private targets are generally well perceived by the market, this result could suggest that value-enhancing deals tend to be announced early during the quarter and before earnings. However, further investigation would be required to fully and correctly interpret this result. Overall, these results suggest that managers do not strategically sequence the two announcements, and do not exploit strategically the distance in dates. The only strategic tool that managers use is the simultaneous (bundled) disclosure of the two announcements, as found with model 1.

5. Limitations

The main limitation of this study involves the concern that regression models only display the association between variables rather than their causal relationship, hence it cannot be concluded that managers bundle the two announcements *because* they have lower reported earnings. Furthermore, the regression models probably include a scarce number of control variables. Other variables could be included that measure, for example, the market conditions, the target's industry conditions, and analyst forecasts. The consequent suggestions for further research are to develop a framework that measures the causal relationship between the bundling of announcements and the level of the acquirer's net income. One example of such a framework would be to find an exogenous shock which caused a share of U.S. public firms' earnings to change significantly at a certain point in time. This would allow to compare the bundling behaviour of firms who suffered the income shock to the bundling behaviour of the firms who did not suffer the shock. Furthermore, the result that deals involving private targets tend to be announced before earnings, found whilst analysing the sequencing of the two types of announcements, requires further research.

6. Conclusion

In this study, I document that firms strategically bundle earnings and M&A announcements, since firms have freedom in choosing the disclosure dates of both announcements, and since a relevant share (ranging between 11% and 17%) of deals and

earnings released throughout the period 2006-2019 by public U.S. firms are announced on the same date (same day, month and year). Investigating the reasons why firms choose to bundle the two announcements, I find that acquirer firms are more likely to bundle earnings and M&A announcements when they have lower reported net income. Furthermore, I find that firms are more likely to bundle the two announcements when the M&A deal is paid fully or partly with stock and when it involves a private target. Considering that deals paid with equity and involving private targets are generally considered to be value-enhancing deals, it appears that firms bundle the "negative" piece of information with a "positive" one: disappointing earnings with a value-enhancing acquisition deal. In accordance with the existing literature on related topics, these results suggest that managers tend to strategically bundle positive news reports to offset the negative effects of disappointing earnings. Firms release earnings reports simultaneously to value-increasing M&A announcements when earnings are less favourable to mitigate the negative effect of insufficient earnings on stock returns. Furthermore, the analysis of non-bundled announcements suggests that the order in which the two announcements are released, and the distance in days between the two announcements, is irrelevant for the firm's disclosure strategies.

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Appendix A. Tables and Figures

Table 1

Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max	Median
Bundled						
(total)	9,412	0.110	0.314	0	1	0
(range [-30, +30])	5,996	0.173	0.379	0	1	0
Earnings Before	8,372	0.623	0.485	0	1	1
Cash	9,412	0.778	0.416	0	1	1
Friday	9,412	0.056	0.232	0	1	0
HighTech	9,412	0.095	0.294	0	1	0
High Income	9,412	0.500	0.500	0	1	0
Private	9,412	0.490	0.500	0	1	0
Withdrawn	9,412	0.028	0.164	0	1	0
Deal Value	9,412	735.153	4,400.359	0.006	148,705.300	83
Leverage	7,187	0.278	0.405	0	21	0
Net Income	9,410	165.403	713.320	-10,713	19,965	14.348
ROA	8,095	0.009	0.518	-25.435	0.384	0.029
Total Assets	9,411	16,490.210	93,445.770	0	2,609,785	1,904.942

Notes: This table reports the descriptive statistics for the dependent variable, main independent variable, and the control variables for a sample of U.S. public acquirer firms over the period 2006 to 2019. All variables are defined in Appendix B. For each variable, the arithmetic mean, the median, the standard deviation, the minimum and the maximum values are reported. All continuous variables are winsorized at the 1st and 99th percentile. The descriptives of the dependent variable Bundle are reported both for the whole sample of announcements and for the sample of M&A and earnings announcements that have a maximum distance range of [-30, +30] days.

Figure 1

Timeline of bundled and sequential announcements
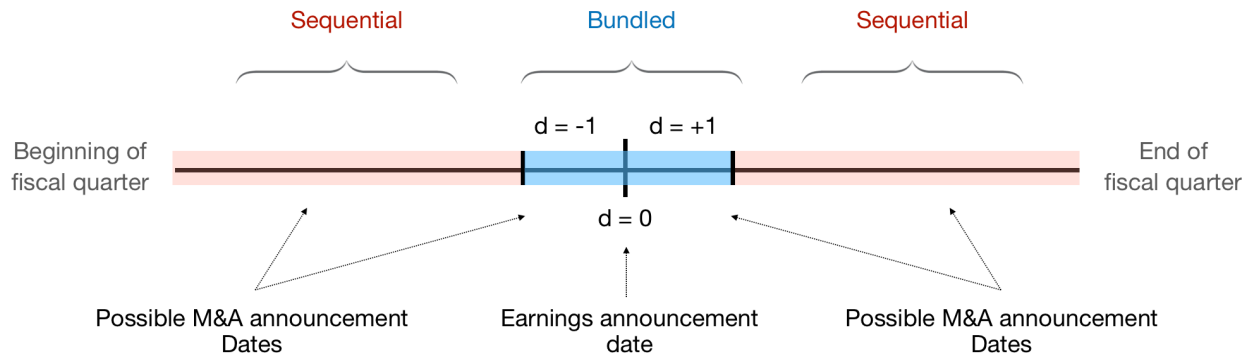
Notes:This figure shows the timeline of how M&A and earnings announcements are matched to each other in the data set and how they are classified either as bundled or as sequential deals. The figure represents one fiscal quarter. In each fiscal quarter, the quarterly earnings of the preceding quarter are announced. The M&A deals and the earnings announcements that occur in the same fiscal quarter are classified as "Bundled" if they are announced with a distance of at most one day.
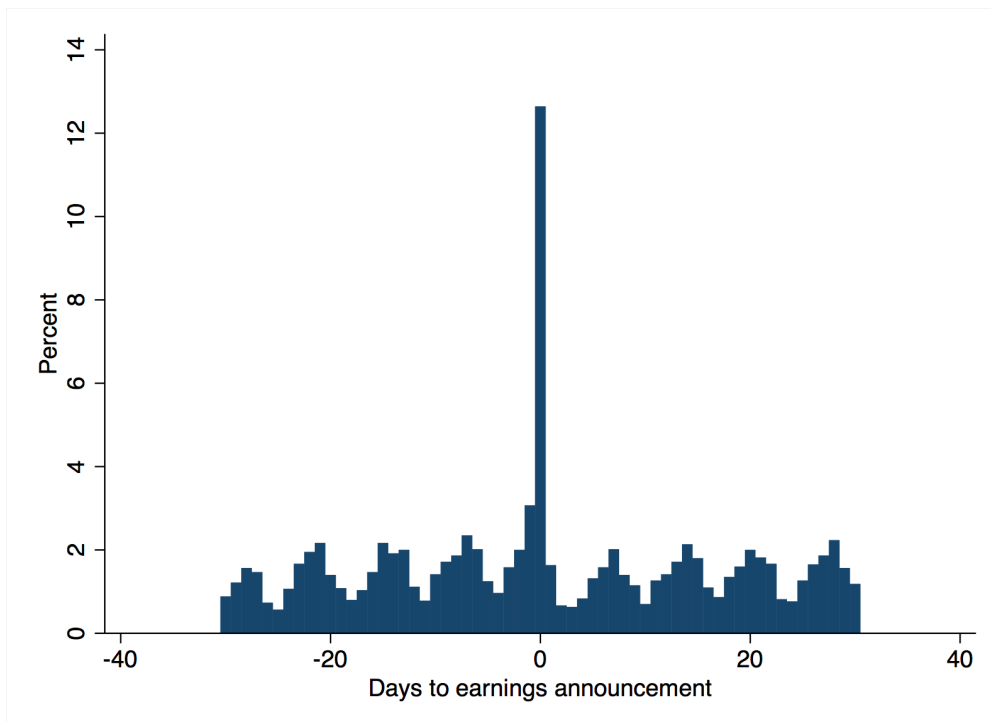
Figure 2

Distribution of M&A announcements by the distance in days to the nearest earnings report

Panel A: distribution of the full sample of M&A announcements around the nearest earnings announcement
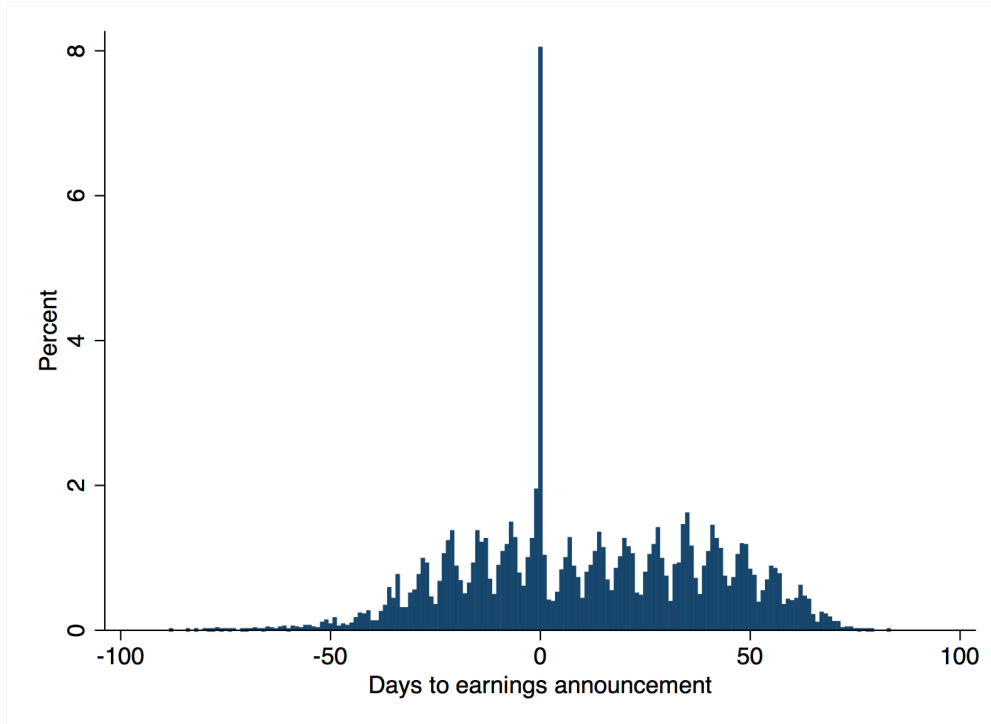
Panel B: distribution of M&A announcements with a maximum distance of 30 days to the nearest earnings announcement
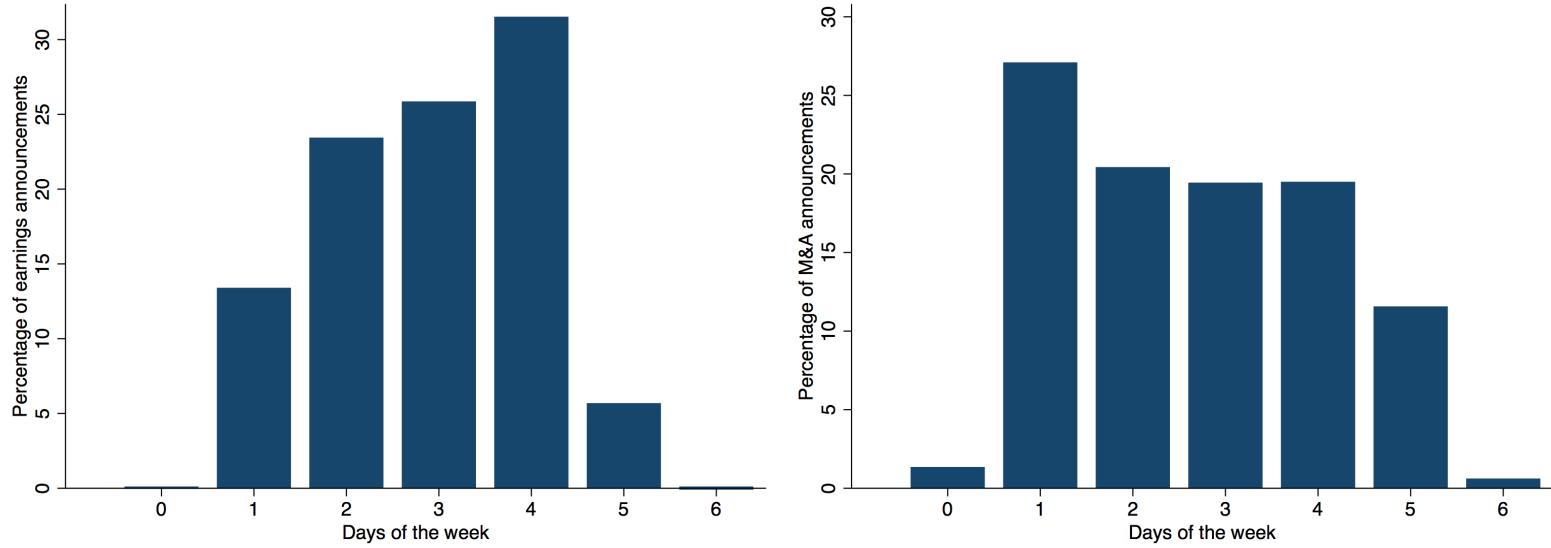
Notes: This figure plots the percentage of M&A deals announced per day, in terms of distance in days to the nearest earnings announcement, for a sample of U.S. public acquirer firms over the period 2006 to 2019. The y-axis shows the percentage of M&A deals, whilst the x-axis shows the Days to earnings announcement variable, which measures the difference in days between the deal announcement and the earnings announcement. The Days to earnings announcement variable equal to 0 indicates that the deal announcement and the earnings announcement were disclosed on the same date. Panel A shows the distribution of the whole sample of M&A deals. Panel B only considers the M&A deals that were announced with a maximum distance of 30 days from the earnings announcement, hence were released within a [-30, +30] days range.
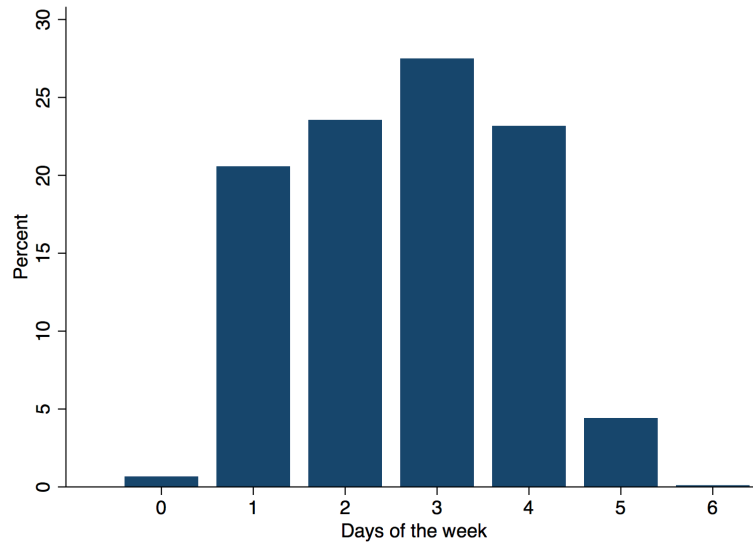
Figure 3

Distribution of announcements over days of the week

Panel A: percentage of M&A announcements and earnings announcements per week day

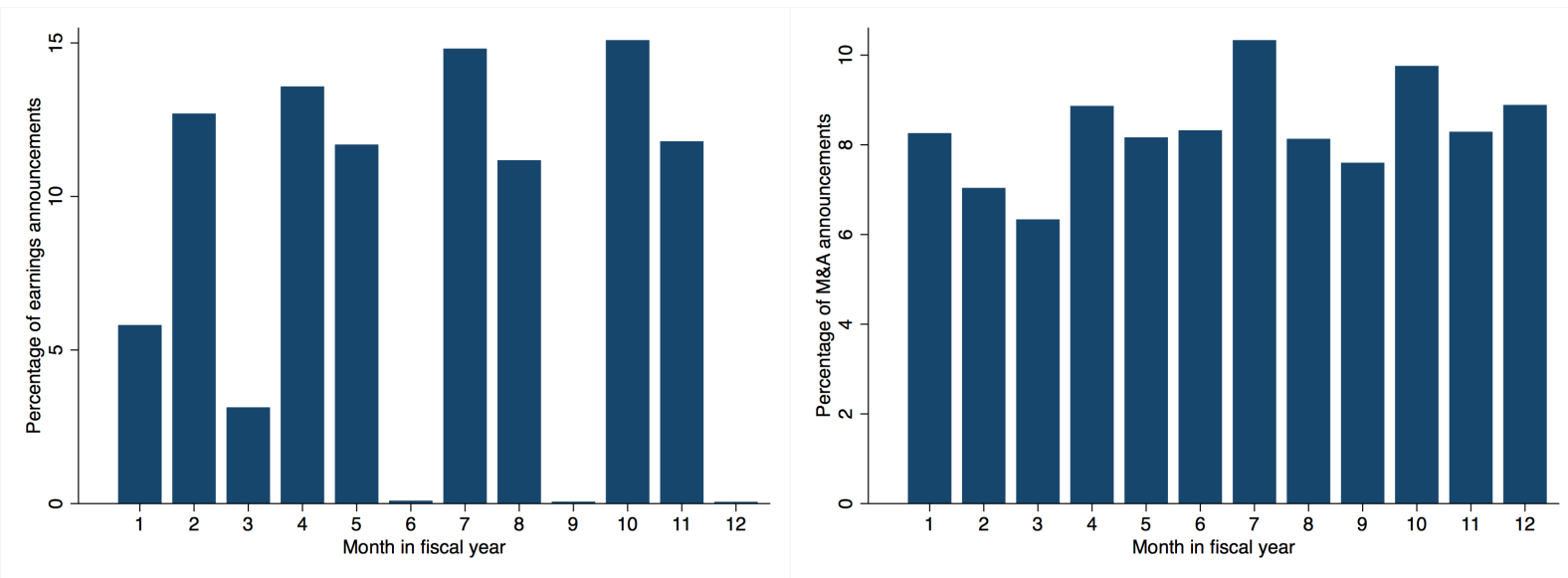Panel B: percentage of bundled announcements per week day

Notes: This figure plots the percentage of earnings announcement and M&A deals disclosed per day of the week, for a sample of U.S. public acquirer firms over the period 2006 to 2019. The days on the y-axis are reported as follows: 0 = Sunday, 1 = Monday, 2 = Tuesday, 3= Wednesday, 4 = Thursday. 5 = Friday, 6 = Saturday. Panel A shows the announcement day of all earnings announcements in the sample and of all M&A announcements in the sample. Panel B shows the announcement day of the M&A and earnings announcements that were bundled (announced on the same date).
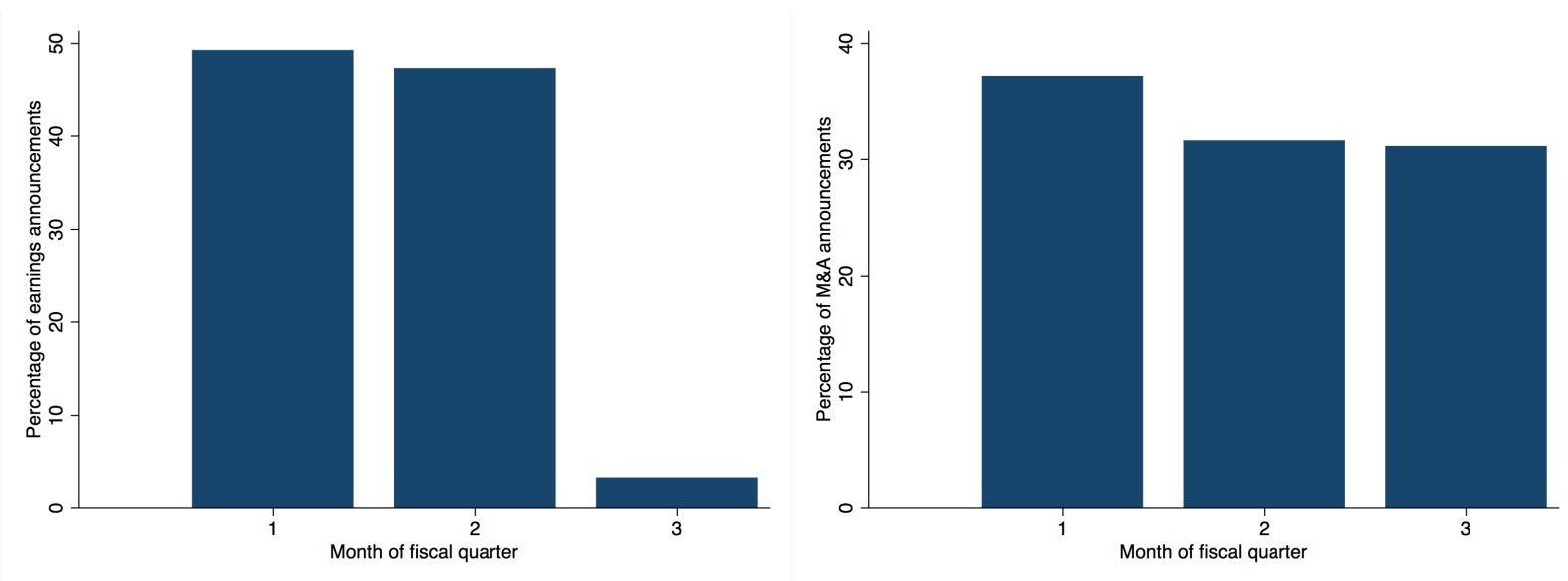
Figure 4

Distribution of announcements over the corporate calendar

Panel A: fraction of earnings announcements and of M&A announcements per month over fiscal year

Panel B: fraction of M&A deals and of quarterly earnings per month of the quarter

Notes: This figure plots the percentage of earnings announcement and M&A deals disclosed per fiscal month, for a sample of U.S. public acquirer firms over the period 2006 to 2019. Panel A plots the distribution of the earnings announcements and of the M&A announcements over the 12 fiscal months. On the y-axis, the number 1 corresponds to the first month of the firm's corporate calendar. Panel B shows the percentage of announcements that were made in the first, second and third month of the fiscal quarters.

Table 2

Determinants of bundling and of the sequencing of M&A and earnings announcements

	Dependent variable: Bundled	
Variable	Probit (1)	Probit (2)
High Income * Cash		-0.148* (0.089)
High Income * Private		-0.026 (0.077)
High Income * Friday		0.037 (0.189)
High Income		0.142 [0.004] (0.087)
Net Income	-1.05e-4** [-2.01e-5] (4.81e-5)	
Cash	-0.128*** [-0.024] (0.044)	-0.074 [-0.030] (0.057)
Private	0.085** [0.016] (0.039)	0.103* [0.017] (0.055)
Friday	-0.292*** [-0.056] (0.095)	-0.308** [-0.047] (0.136)
Deal Value	3.60e-6 [6.88e-7] (3.93e-6)	2.28e-6 [4.36e-7] (4.18e-6)
High Tech	0.238*** [0.045] (0.057)	0.242*** [0.046] (0.057)
Market Value	-1.60e-6* [-3.05e-7] (8.63e-7)	-2.76e-6* [-5.27e-7] (7.11e-7)
Total Assets	5.40e-7** [1.03e-7] (2.19e-7)	3.82e-7** [7.29e-8] (2.12e-7)
Other Controls	Yes	Yes
Year FE	Yes	Yes
Industry FE	Yes	Yes
Observations	7,676	7,676

Notes: This table presents the relationship between the probability of bundling M&A announcements with earnings announcements and the firm's income, for a sample of U.S. public acquirer firms over the period 2006 to 2019. The table presents two probit models in which the dependent variable is Bundled, a binary variable that denotes whether the two announcements were released on the same date (with a maximum discrepancy of one day). The model in Column 1 regresses the variable Bundled on the variable Net Income, whilst the model in Column 2 regresses the variable Bundle on the binary variable High Income and on interactions of High Income with other controls. Additional variables are included as controls. All variables are defined in Appendix B. Standard errors are shown in parentheses. Marginal effects are shown in square brackets. ***, **, and * indicate significance at the 1%, 5% and 10% levels respectively.

Table 3

Determinants of the sequencing and disclosure timing of M&A and earnings announcements

Variable	Dependent variable: Earnings Before	Dependent variable: Days to Announcement
	Probit (1)	OLS (2)
Net Income	2.69e-5 [1.02e-5] (3.31e-5)	2.56e-4 (2.97e-4)
Cash	-0.023 [-0.008] (0.038)	0.496 (0.329)
Private	-0.145*** [-0.055] (0.032)	-0.020 (0.277)
Friday	0.017 [0.006] (0.066)	0.269 (0.554)
Deal Value	5.92e-6 [2.24e-6] (4.42e-6)	-4.87e-6 (5.18e-6)
High Tech	0.047 [0.018] (0.052)	-0.959** 0.438
Market Value	1.53e-6* [5.78e-7] (8.22e-7)	-4.87e-6 5.15e-6
Total Assets	2.16e-7 [8.17e-8] (2.25e-7)	-1.34e-6 (1.64e-6)
Other Controls	Yes	Yes
Year FE	Yes	Yes
Industry FE	Yes	Yes
Observations	6,795	4,944

Notes: This table presents the relationship between the firm's net income and the relative disclosure timing of M&A and earnings announcements, for a sample of U.S. public acquirer firms over the period 2006 to 2019. Column 1 presents a probit model in which the dependent variable is Earnings Before, a binary that indicates whether earnings were announced before the M&A. Column 2 presents an OLS model in which the dependent variable is Days to Announcement, a continuous variable that measures the difference in days between the disclosure dates of the two announcements. Additional variables are included as controls. All variables are defined in Appendix B. Standard errors are shown in parentheses. Marginal effects are shown in square brackets. ***, **, and * indicate significance at the 1%, 5% and 10% levels respectively.

Appendix B. Variable Definition

Firm-level variables

EPS	Basic earnings per share of the acquirer firm including all extraordinary items and discontinued operations as reported by the company.
High Income	A dummy variable equal to 1 if the value of the variable Net Income is above the mean value, and equal to 0 if it is lower than or equal to the mean value.
High Tech	A dummy variable equal to one for high-tech acquisitions, and zero otherwise. An acquisition is high-tech if both the acquirer and the target are technology firms. Following Loughran and Ritter (2004), tech stocks are defined as those in SIC codes 3571, 3572, 3575, 3577, 3578, 3661, 3663, 3669, 3671, 3672, 3674, 3675, 3677, 3678, 3679, 3812, 3823, 3825, 3826, 3827, 3829, 3841, 3845, 4812, 4813, 4899, 7371, 7372, 7373, 7374, 7375, 7378, 7379.
Leverage	The ratio of the acquirer firm's total debt (the sum of debt in current liabilities and long-term debt) to total assets (Harford et al., 2012).
Market Value	The sum of all issue-level market values, including trading and non-trading issues, of the acquirer firm. Market value for single issue companies is common shares outstanding multiplied by the month-end price that corresponds to the period end date.
Net Income	The income or loss (in million dollars) reported by the acquirer company in their income statement (earnings announcement) after expenses and losses have been subtracted from all revenues and gains for the fiscal period including extraordinary items and discontinued operations.
Private	A dummy variable equal to 1 if the target is a private firm or an unlisted subsidiary, and zero if the target is listed.
ROA	The ratio of operating income before depreciation to total assets, of the acquirer firm, calculated by the end of the fiscal year prior to the M&A announcement (Harford et al., 2012).
Total Assets	The total value of assets of the acquirer company reported on the Balance Sheet at the end of the fiscal year prior to the M&A announcement.

Deal-level variables

Bundled	A dummy variable equal to 1 if the acquirer made an M&A announcement during [-1,+1] days from the earnings announcement date.
Earnings Before	A dummy variable equal to 1 if the earnings announcement is made before the M&A announcement, and equal to 0 if the earnings announcement is made after the M&A announcement (outside the range [-1, +1] days).
Cash	A dummy variable equal to 1 if the deal is 100% cash financed, and zero otherwise. The consideration is identified as 100% cash if the only consideration offered is cash, earnout or assumption of liabilities, or any combination of the tree. Otherwise, the consideration offered can be stock, a combination of stock and cash, or other combinations.
Deal Value	The dollar value of the M&A deal (in million).
Friday	A dummy variable equal to 1 if the bundled deal is announced on a Friday
Withdrawn	A dummy variable equal to 1 if the deal was withdrawn after announcement, and zero if the deal was completed.