



# The role of accounting conservatism in M&A target selection



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## ARTICLE INFO

### Article history:

Received 30 November 2020

Accepted 29 September 2021

Available online 23 October 2021

### Keyword:

Target selection

Accounting conservatism

Risk aversion

Risk control

## ABSTRACT

Mergers and acquisitions (M&As) are among the most important investment activities for companies, but they contain great risks. We investigate the role of accounting conservatism in M&A target selection and risk. We find that for risk-averse reasons, firms with high accounting conservatism are likely to acquire profitable targets and avoid loss-making targets. When such firms acquire loss-making targets, the conservatism's risk-control role reduces M&A risk and increases M&A performance, but only when control of the target is transferred and the acquirer has high long-term debt and low management power. Furthermore, accounting conservatism reduces risk by increasing the maturity match between cash flow and debt. Our results suggest that accounting conservatism plays not only a risk-averse role but also a risk-control role, providing new evidence for the usefulness of accounting conservatism in M&A decisions.

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## 1. Introduction

Selecting the right target is important for the success of M&As but is also one of the most challenging issues in M&A decisions. The target itself and the post-merger integration often carry significant risks and uncertainties. Accounting conservatism, as an important corporate governance mechanism (Ball, 2001; Ball and Shivakumar, 2005; Watts, 2003), has a significant impact on a firm's M&A decisions (Francis and Martin, 2010). However, the literature remains controversial regarding the governance mechanisms of accounting conservatism and the conservatism's impact on M&A performance. Some studies suggest that accounting

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conservatism helps management make M&A decisions that enhance a firm's value (Francis and Martin, 2010). Other studies find that accounting conservatism motivates firms to be risk averse, causing such firms to avoid M&A targets with positive net present value (NPV) but high risk, thus leading to underinvestment (Kravet, 2014; Roychowdhury, 2010). We argue that the research controversy exists because the role of accounting conservatism in the M&A process has not been explored in depth. Based on this argument, we explore the role of accounting conservatism in M&A target selection from the perspective of target profitability. Specifically, we try to answer the following questions: Do companies with high accounting conservatism tend to avoid acquiring loss-making targets for risk-averse reasons? More importantly, if a company chooses to acquire a loss-making target, does accounting conservatism help the company control M&A risk effectively and thus improve M&A performance?

Our research perspective on target profitability is determined by the Chinese institutional context. First, after experiencing unstable and rapid development, the profitability of Chinese companies is now declining, and many companies are facing serious losses (Lin et al., 2010). As China's economic development enters the "new normal," many distressed companies are under pressure to transform and upgrade. However, laws and enforcement procedures related to bankruptcy are still being refined, and most companies can only exit the market through M&As. For example, in our sample, 32% of the M&A targets are in a loss-making condition in the year before acquisition. Second, in the Chinese institutional context, listed companies face greater uncertainties and risks in the acquisition of loss-making targets than they would in other markets. The acquisition of loss-making targets faces strict regulation by the China Securities Regulatory Commission (CSRC). Furthermore, the potential loss of the M&A target will directly affect the operating performance of the acquirer. Given the requirement of high profitability for the secondary equity offering (SEO) qualification, such a loss can affect the SEO qualification of the acquirer. Moreover, if a company has losses for two consecutive fiscal years, it will be marked as an "ST" stock and face a risk of delisting. Therefore, the ability of a target to return profits may bring additional risks that are specific to Chinese listed companies. Our study based on target profitability is unique. The results are aligned with the current development of the Chinese economy and China's special institutional background.

For listed companies, loss-making targets may present good opportunities for acquisition. According to neoclassical economics, improved operational efficiency and tax-shield gains make it easy for firms to achieve synergies by acquiring distressed targets (Huang and Walkling, 1987; Peel and Wilson, 1989). However, for acquirers, loss-making targets may bring higher risks than profitable targets do (Bruyland and de Maeseneire, 2016). First, the acquisition of a loss-making target may increase operational risk, and idle assets and continuous losses after an acquisition may diminish operational performance. Considering the relevant Chinese capital market regulations, the poor operating performance of a listed company may affect its SEO qualification. Second, loss-making targets often carry large amounts of debt because they are poorly operated. Therefore, compared with other targets, distressed targets transfer additional risks from the targets to the acquirers, increasing the possibility that an acquirer will fall into financial distress and face its own financial crisis (Bruyland and de Maeseneire, 2016).

Accounting conservatism can make firms risk averse and prevent their engagement in high-risk M&As (Callen et al., 2016; Kravet, 2014). These consequences arise because accounting conservatism comes primarily from demand by the issuers of debt and compensation covenants (Callen et al., 2016; Watts, 2003). To protect their own interests, creditors and shareholders require companies to implement prudent accounting policies, meaning that the companies must be cautious in recognizing "good news" but timely in recognizing "bad news." This feature of accounting conservatism can help creditors and shareholders monitor a company's management. Management's acquisition of loss-making targets may increase the likelihood of asset impairment and diminish the performance of the acquirer, increasing the risk of covenant defaults and dismissals (Kravet, 2014). Therefore, we expect accounting conservatism to make managers more cautious in their M&A decisions, favoring profitable targets and avoiding the increased risk and risk transfer that may be associated with the acquisition of loss-making targets.

Why, then, do firms with high accounting conservatism still choose to acquire loss-making targets? Biddle et al. (2013) argue that accounting conservatism plays a risk-control role, ensuring that the associated uncertainties and risks are fully considered. It can prompt managers and other stakeholders to take remedial actions to address risk consequences before they occur. Specifically, in M&As, accounting conservatism can motivate

firms to increase the maturity match between cash flow and debt to reduce the risk of a loss-making target's acquisition causing downward cash flow fluctuations and debt default (Biddle et al., 2020; Kirschenheiter and Ramakrishnan, 2010). Therefore, if a firm with high accounting conservatism chooses to acquire a loss-making target, it indicates that the firm has identified the potential value of the target and has sufficiently assessed the target's risks. Once a risk's consequence arises, the company is therefore able to quickly respond and control the situation, allowing the realization of potential synergies.

Based on the above analysis, we empirically examine the impact of accounting conservatism on M&A target selection, risk and performance using Chinese M&A events from 2007 to 2016. Our findings show that firms with higher versus lower accounting conservatism are more likely to acquire profitable targets and avoid loss-making targets. However, when firms with high accounting conservatism choose to acquire loss-making targets, their conservatism's risk-control role results in lower M&A risk and higher M&A performance. This relationship holds only when the acquiring company's long-term debt is high, the management power of the acquirers is low and control of the target is transferred. Further analysis finds that accounting conservatism motivates firms to increase the maturity match between cash flow and debt, reducing M&A risk. Our findings suggest that accounting conservatism helps firms to not only avert risk but also to control it.

We aim to contribute to the literature on accounting conservatism and investment risk. The most closely related study is that of Kravet (2014), but ours differs from it in three significant ways. First, our findings about the role of accounting conservatism differ from those of Kravet (2014). Kravet (2014) argues that accounting conservatism leads management to be risk averse and avoid NPV-positive but high-risk projects, which is detrimental to firm value. However, we find that accounting conservatism plays not only a risk-averse role but also a risk-control role. This conclusion is supported by the argument that accounting conservatism can motivate management to control risks and ultimately enhance firm value, even if a firm acquires a high-risk loss-making target. Therefore, we extend the theory of Kravet (2014). Second, the sources of M&A risk in our study are quite different from those in Kravet (2014). Kravet (2014) focuses on total M&A risk. However, total M&A risk may come from multiple factors, including aspects of the acquirers, the targets and the post-merger integration (Bruyland and de Maeseneire, 2016; Furfine and Rosen, 2011). Unlike Kravet (2014), we deepen the study of M&A risks by refining the total M&A risk with a focus on the specific target risks. Third, unlike Kravet's (2014) study, which was based on mature capital markets, this study is based on the unique institutional context of M&As in China. As a rapidly developing emerging economy, China's capital market and M&A system are still in the process of continuous reform, development and improvement. Hence, when acquiring loss-making targets, acquirers may be exposed to greater regulatory uncertainty in China than they are in mature markets. Therefore, compared with Kravet (2014), our study on the impacts of target profitability is more pertinent to China's specific institutional context.

Based on the above analysis, we contribute to the literature in several ways. First, we provide new theoretical insights into the association between accounting conservatism and investment. Studies in this field apply the perspectives of information asymmetry and risk aversion based on contract theory (Bushman et al., 2011; Francis and Martin, 2010; Lafond and Roychowdhury, 2008). These studies find that accounting conservatism can reduce information asymmetry and enhance investment efficiency, but its associated risk aversion may lead to underinvestment and hence reduce firm value (Roychowdhury, 2010). In addition to the risk-averse role of accounting conservatism in M&As, our further finding of its role in risk-control expands the study of accounting conservatism's economic consequences.

Second, we contribute to the literature on M&A risks by focusing on the specific risks associated with M&A targets. The ability to effectively control risks arising from M&A activities is a key factor affecting the success of M&As (Furfine and Rosen, 2011). Studies show that the risks arising from the target companies are among the most important sources of total M&A risk (Bruyland and de Maeseneire, 2016). Based on the Chinese institutional context, we explore the role of accounting conservatism in avoiding and controlling target risks, deepen the understanding of M&A decision-making and risk-control and provide theoretical guidance for M&A activities.

Finally, we enrich the research on the decision usefulness of accounting information relative to its quality. The literature argues that accounting conservatism has a significant impact on a firm's investment activities (Ahmed and Duellman, 2011; Ferracuti and Stubben, 2019; Roychowdhury et al., 2019). We provide new

empirical evidence of the usefulness of accounting information by exploring the impact of accounting conservatism on the selection of M&A targets.

The remainder of this paper is organized as follows. Section 2 presents the institutional background and hypothesis development. Section 3 describes the research design. Section 4 discusses the empirical results. Section 5 conducts the robustness tests and Section 6 concludes the paper.

## 2. Institutional background and hypothesis development

### 2.1. Institutional background

In the context of China's "new normal" economic development, companies are under pressure to transform and improve their practices. Many companies are encountering operational difficulties in the face of significant changes in the external economic environment. As the laws and enforcement procedures relevant to bankruptcy are still being refined in China, most companies can only exit the market through M&As. In our sample, 32% of the M&A targets are in a loss-making condition in the year before acquisition. Therefore, our focus on the profitability of the M&A targets is consistent with the current development status of the Chinese economy.

Furthermore, from the perspective of a potential acquirer, a target's profitability is important information for the assessment of its associated risks. Unlike mature capital markets, China's capital market is characterized by emerging and transitional features. In the absence of an adequate delisting system, M&As between listed companies are relatively rare in China in comparison to other markets. Hence, most Chinese M&A targets are private companies, meaning that they lack the public market transactions that could otherwise be used to assess their risks based on market performance. In such cases, only financial performance can be used to assess the profitability and development prospects of a target. Poor financial performance indicates that a target is not effectively utilizing its existing resources and faces high uncertainty and risk. Target profitability is a recent focus of the CSRC's regulatory supervision, and acquisitions of loss-making targets are facing stricter oversight. For example, "uncertainty about the sustained profitability of the target assets" is the most commonly reported reason for the M&A project rejections in the first half of 2019.<sup>1</sup>

Moreover, the potential losses of a target can directly impact the operating performance of its acquirer, which can then affect the acquirer's SEO qualification. One of the conditions for public issuances of securities (including convertible corporate bonds, allotment of shares and additional issuance) by companies listed on the main board and on small and medium-sized boards in China is the sustainability of profit-making ability under the Securities Law of the People's Republic of China (Amended, 2014). Under these regulations, the additional issuance and allotment of shares requires that a company's average return on net assets be no lower than 6% for the past 3 years after deduction of nonregular profits and losses. The issuance of corporate convertible bonds requires a company to be continuously profitable for the past 3 years with an average return on net assets of at least 10%. Furthermore, companies with a negative net profit for two consecutive fiscal years are marked as "ST" stocks and face possible delisting.

### 2.2. Literature review

Accounting conservatism includes unconditional accounting conservatism and conditional accounting conservatism (Ball and Shivakumar, 2005). Unconditional accounting conservatism is also known as balance sheet conservatism or ex ante conservatism, and it is independent of information changes in the external environment. This type of conservatism, which includes the historical cost method and the accelerated depreciation of fixed assets, requires firms to adopt prudent accounting policies before external news becomes available. Conditional conservatism, also known as ex post conservatism, refers to its asymmetry in the recognition of losses and gains. Conditional conservatism requires that losses be recognized in a timely manner but

<sup>1</sup> Securities Daily: "8 companies were rejected in the first half of M&A: uncertainty of sustained profitability is the main reason" <https://baijiahao.baidu.com/s?id=1638083308204612878&wfr=spider&for=pc>

that gains not be recognized until sufficient substantiating evidence is available (Ball and Shivakumar, 2005; Basu, 1997; Watts, 2003). Unconditional conservatism differs significantly from conditional conservatism and may have different effects on a firm's real investment activities. The former is a rule-based approach based on strict accounting standards, whereas the latter is a principle-based approach that arises mainly from demand by the issuers of debt and compensation covenants (Watts, 2003) and leaves more flexibility for firms to choose how losses and gains are recognized. As it involves the disclosure of information that is difficult to verify, only conditional accounting conservatism affects the efficiency of covenants and helps creditors and shareholders monitor management's investment behavior (Ball and Shivakumar, 2005). Of the two forms, we argue that conditional accounting conservatism is better able to influence a firm's risk preference for target selection. Therefore, our analysis focuses on conditional accounting conservatism.

Research argues that accounting conservatism can act as a corporate governance mechanism that decreases the incentives for managers to make NPV-negative investments (Ahmed and Duellman, 2011; García Lara et al., 2016; Watts, 2003). The demand for accounting conservatism comes primarily from the parties that make contracts with the affected companies, because it helps investors and creditors obtain timely information about a firm's performance and facilitates monitoring of its management by external stakeholders (Ahmed and Duellman, 2011). To avoid creditor and investor monitoring and reduce the risks of reputational damage and dismissal, managers are more likely to reject projects with negative NPV and promptly withdraw from projects that cause losses (Ball, 2001; Lafond and Roychowdhury, 2008). Bushman et al. (2011) find that the relationship between accounting conservatism and investment is related to the availability of investment opportunities, such that conservatism can only motivate managers to abandon poorly performing projects when investment opportunities are declining. Francis and Martin (2010) argue that accounting conservatism helps management make M&A decisions that are conducive to enhancing a firm's value, with the result that firms with high accounting conservatism perform better in M&As and are less likely to experience divestitures after M&As. Using a sample of M&A events in China, Li and Chen (2015) find that accounting conservatism can act as a corporate governance mechanism and enhance M&A performance by reducing information asymmetry between managers and other contracting parties.

Accounting conservatism also has a risk-averse effect that can reduce the incentives for managers to make high-risk investments (Kravet, 2014; Roychowdhury, 2010). Corporate investment projects tend to be long-lasting and high-risk. As accounting conservatism requires the timely recognition of losses, if an investment fails, its losses will be reflected in the company's earnings in a timely manner, and management will consequently be held liable. To avoid the personal cost of investment failure, managers therefore tend to accept low-risk investments and avoid higher risk but NPV-positive investments, resulting in underinvestment overall (Roychowdhury and Watts, 2007). Kravet (2014) finds that accounting conservatism leads managers to make low-risk acquisitions. However, this choice has the potential cost of management forgoing high-risk but NPV-positive acquisitions that would otherwise improve a company's M&A performance.

In summary, prior studies regarding the impacts of accounting conservatism on investment focus on investment efficiency and M&A performance (Francis and Martin, 2010; García Lara et al., 2016; Kravet, 2014). It is generally agreed that accounting conservatism can enhance a firm's investment efficiency. Previous studies also examine the role of accounting conservatism from a risk aversion perspective. However, Biddle et al. (2013) argue that accounting conservatism is a prudent response to risk and uncertainty that can help control risk and reduce a firm's cash flow and bankruptcy risks. Therefore, accounting conservatism may also have a role in controlling risks specific to M&A decisions. We examine this possible role by investigating the impacts of accounting conservatism on the selection of M&A targets, the integration of acquired companies and the consequences of their acquisitions.

### 2.3. Hypothesis development

As investments, M&As carry high risk and uncertainty. Studies find that the risks faced by acquiring companies increase significantly after M&As (Furfin and Rosen, 2011; Geppert and Kamerschen, 2008; Langetieg et al., 1980; Lubatkin and O'Neill, 1987).

One of the main sources of M&A risk relates to the profitability of M&A targets; compared to profitable targets, loss-making targets pose a higher risk to the acquirer (Bruylant and de Maeseneire, 2016). Due to the

uncertainty around a loss-making target's revenue stability and future profitability, extensive resources are required to reverse its loss-making status and realize synergies from its integration with the acquiring company (Bruyland and de Maeseneire, 2016). If the acquirer is unable to mitigate or eliminate the operating distress of a loss-making target, idle assets and continuous losses after the acquisition may burden the acquirer. This may lead to increases in the acquirer's corporate costs and expenses, reduce its operating performance and increase its operational risk. In China, poor operating performance may affect a listed company's SEO qualification. Moreover, if reduced performance results in losses for two consecutive years, a firm may become listed as an "ST" company, increasing its risk of delisting. Furthermore, the acquisition of a loss-making target may increase the acquiring firm's financial risk. Bruyland and de Maeseneire (2016) find that compared with acquiring other targets, acquiring a distressed target may incur a notable transfer of risk from the target to the acquirer, increasing the possibility that the acquirer will fall into financial crisis. In summary, if an acquirer ignores or does not accurately judge the potential risks of a loss-making target, it increases the pressure that the target is likely to impose on the acquirer's subsequent operations and financial conditions. In such a case, an acquisition can increase operational risk, delisting risk and bankruptcy risk.

Accounting conservatism can play a risk-averse role and constrain firms from engaging in high-risk M&As (Callen et al., 2016; Kravet, 2014). First, in the M&A decision-making process, higher accounting conservatism increases the likelihood that an acquiring firm will recognize losses and effectively curbs incentives for its managers to overestimate earnings and assets and underestimate expenses and liabilities. According to the International Financial Reporting Standards Foundation and China's own accounting standards, firms should maintain accounting conservatism by being cautious in recognizing "good news" but timely in recognizing "bad news." This means that the criteria for recognizing losses should be lower than the criteria for recognizing earnings (Basu, 1997). Therefore, if a company with high accounting conservatism chooses to acquire a loss-making target, gains from the acquisition require higher recognition criteria for inclusion in financial statements than losses do; losses associated with the investment are difficult to defer to future periods and must be recognized in the company's financial statements in a timely manner. Hence, the requirement to recognize "bad news" in a timely manner may increase the likelihood of asset impairment, which may affect post-acquisition operating performance and reduce management's incentive to acquire a loss-making target.

Second, under conservative accounting policies, the possibility of reporting significant asset impairments and investment losses can cause serious consequences for firms and managers if they acquire loss-making targets. Two important potential consequences for managers are debt default and the risk of dismissal (Kravet, 2014). Debt covenants are one of the key reasons for the emergence of accounting conservatism (Watts, 2003). When a firm acquires a project that incurs losses, the resulting increased risk may result in a loss of wealth for its creditors. To protect their own interests, creditors rely on accounting information to assess the risk of default. Hence, they demand different levels of accounting conservatism, depending on the loan terms. When issuing long-term loans to firms, the risks are higher than those for short-term loans, so creditors demand greater accounting conservatism and include debt covenant clauses that limit high-risk investments. In such cases, the acquisition of a high-risk loss-making target may trigger a debt default clause. In addition, accounting conservatism is an important indicator for shareholder monitoring of management. The risk of performance declines resulting from acquisitions of loss-making targets may increase management's risk of reductions in compensation or even dismissal (Kravet, 2014). Hence, in firms with high accounting conservatism, the risks of debt default and dismissal reduce the likelihood that management will acquire loss-making targets.

Based on the above analysis, we believe that under a conservative accounting policy, managers tend to restrict their investment in high-risk projects that carry high uncertainty. This leads to the following hypothesis:

**H1.** Firms with higher accounting conservatism are less likely to acquire loss-making targets than are firms with lower accounting conservatism.

Although accounting conservatism can induce firms to avoid high-risk investment projects, it may also lead firms to avoid high-risk but NPV-positive projects (Kravet, 2014). As previously noted, loss-making targets often carry increased risks due to poor operational performance. However, synergy theory suggests that

the acquisition of distressed targets can expand firm size, increase market power, reduce costs and create new growth opportunities (Bruton et al., 1994). Synergies can be achieved when the acquirer has a better ability to make use of resources than the target. Therefore, avoiding such M&A targets is not conducive to increasing the value of an acquiring firm. The key to the creation of synergies depends on whether the acquirer can effectively control the risk of a loss-making target and then integrate the target to stimulate its potential value.

We argue that accounting conservatism plays a role in M&A risk-control as well as risk aversion. Even if a firm acquires a high-risk project with positive NPV, accounting conservatism can help the firm control risk and thus exploit M&A synergies. Accounting conservatism helps control M&A risks because it ensures prudent consideration of the uncertainty and risk inherent in business situations and promotes optimal decision-making by managers (Biddle et al., 2013). In the M&A process, a conservative accounting policy can motivate firms to conduct more detailed due diligence on a target, to explore the potential integration value of a loss-making target and to fully and carefully consider and assess a target's risks. Under conservative accounting, managers and other stakeholders, such as creditors, retain additional resources before the risk consequences occur and take timely remedial actions to address them when they happen (Biddle et al., 2013). Specifically, in response to the potential operational and financial risks associated with loss-making targets, accounting conservatism can motivate firms to enhance the maturity match between cash flow and debt, reducing the risk of downward fluctuations in cash flow and the risk of debt default (Biddle et al., 2020; Kirschenheiter and Ramakrishnan, 2010). Effective control of a target's associated risks can prevent negative impacts on the acquirer's operating and financial conditions, allowing potential synergies to be realized and increasing corporate value. This leads to our second hypothesis:

**H2.** If listed firms with high accounting conservatism choose to acquire loss-making targets, the M&A risk is lower and the M&A performance is higher than in such acquisitions by firms with low accounting conservatism.

### 3. Research design

#### 3.1. Sample and data

Our initial sample includes all of the completed M&A transactions announced by A-share listed firms in China from 2007 to 2016, as listed in the China Stock Market and Accounting Research (CSMAR) database. Since the implementation of the new Accounting Standards for Business Enterprises (ASBE) in 2007, the accounting policies of business enterprises have changed significantly, so we begin our sample period then. In addition, because the M&A performance commitment period is generally 3 years, we extend the M&A event date forward by 3 years, to 2016, to explore the M&A risk and M&A performance 3 years after each M&A transaction. The sample selection process is as follows: (1) we retain all transactions where the acquirer is a publicly listed firm, (2) we exclude M&As involving financial firms because these firms have their own distinct regulations and accounting rules, (3) we exclude firms that initiated multiple M&A acquisitions on a single day and (4) we exclude samples in which data required for the computation of the dependent and control variables are missing. By adopting these screening standards, we obtain a final sample of 3735 M&A events. The M&A transaction data and financial data of the listed companies are obtained from the CSMAR database. The financial data of the target companies are manually collected and compiled from M&A announcements.

#### 3.2. Regression model

To capture the effect of accounting conservatism on M&A target selection, we estimate the following regression model:

$$Prob(Loss = 1) = F(\alpha_0 + \alpha_1 Cscore + \sum Controls + \sum Year + \sum Industry + \varepsilon) \quad (1)$$

In this equation, *Loss* is the dependent variable and represents the profitability of the target. It is an indicator variable that equals 1 when the net profit of the target is negative in the year before the acquisition and 0 otherwise. The independent variable, *Cscore*, measures firm-year-specific conditional conservatism, as developed by Khan and Watts (2009), drawing from the Basu (1997) model. We expect a negative relationship between *Loss* and *Cscore*. That is, in comparison to firms with low accounting conservatism, firms with high accounting conservatism are more likely to acquire profitable targets and less likely to acquire loss-making targets. *Controls* is a vector of control variables that affect M&A decisions and M&A risk, including firm characteristics and M&A characteristics. Drawing on previous studies (Ahern, 2012; Ishii and Xuan, 2014; Kravet, 2014; Lee et al., 2018), we include control variables for the acquiring firm's size (*Asset*), leverage (*Lev*), free cash flow (*FCF*), return on assets (*ROA*), market-to-book ratio (*Tobin'Q*), age (*Age*), managerial overconfidence (*Overconfidence*), deal size (*RelativeSize*) and payment type (*PayType*) and for whether the firms involved in the M&A are in the same industry (*Sameind*). The model's regression constant, *Cscore* regression coefficient and error terms are given by  $\alpha_0$ ,  $\alpha_1$  and  $\varepsilon$ , respectively.

To test H2, we extend the above analysis to investigate the effect of accounting conservatism on M&A risk and M&A performance when firms choose to acquire loss-making targets. We select a sample of loss-making target firms and estimate the following regression to test the hypothesis:

$$Risk/Performance = \alpha_0 + \alpha_1 Cscore + \sum Control + \sum Year + \sum Industry + \varepsilon \# \quad (2)$$

In this equation, *Risk* refers to M&A risk. As in Agrawal and Mandelker (1987) and Kravet (2014), we measure *Risk* as the change in the standard deviation of an acquirer's industry-adjusted abnormal returns for 1–3 years before and after its M&A transaction. *Performance* refers to the acquirer's long-term performance, measured by 1-, 2- and 3-year post-acquisition buy-and-hold abnormal returns (*BHAR*). Specifically, following the studies of Dong et al. (2021), we measure *BHAR* as the difference between the buy-and-hold returns of a sample firm and that of the market portfolio return over the 1-, 2- and 3-year periods following an M&A deal. *Cscore* is the independent variable and again indicates accounting conservatism. We expect a negative relationship between *Risk* and *Cscore* and a positive relationship between *Performance* and *Cscore*. This expectation suggests that when firms with high accounting conservatism choose to acquire loss-making targets, the risk-control effect of accounting conservatism reduces M&A risk and increases M&A performance.

We include industry-fixed effects and year-fixed effects in the *Risk/Performance* regression. Industries are classified according to the 2012 industry classification standard of the CSRC. To mitigate endogeneity problems, such as reverse causality, all firm-level control variables in the model are lagged by 1 year relative to their corresponding announcement years. To eliminate the influence of extreme values, winsorization is performed on the main continuous variables at the 1% and 99% levels. The robust standard errors are clustered at the firm level to account for any correlations among the firms. Table 1 defines the variables in detail.

## 4. Empirical results and analysis

### 4.1. Descriptive statistics

Table 2 reports the descriptive statistics of the key variables used in this study. Among the statistics, we note that the mean value of *Loss* is 0.316, which indicates that approximately 31.6% of the target firms in the sample have a negative net profit for the year before the M&A. We also note that the mean value of *Cscore* is 0.016 and its standard deviation is 0.092.

### 4.2. Empirical results

#### 4.2.1. Accounting conservatism and M&A target selection

Table 3 reports the results from our testing of the association between accounting conservatism and M&A target selection using Eq. (1). The dependent variable is *Loss* and the independent variable is *Cscore*. In column (1), the reported coefficients control only for the characteristics of the acquiring firm. In column (2), additional coefficients are included to control for the transaction characteristics of the M&A activity. The *Cscore* coefficients are all significantly negative at the 5% level in both columns, indicating that firms with higher

Table 1  
Variable definitions.

Variable	Definition
<i>Loss</i>	Dummy variable that equals 1 when the net profit of the target is negative in the year before the acquisition and 0 otherwise
<i>Risk1</i>	The change in the standard deviation of the acquirer's industry-adjusted abnormal returns for 1 year before and after the M&A
<i>Risk2</i>	The change in the standard deviation of the acquirer's industry-adjusted abnormal returns for 2 years before and after the M&A
<i>Risk3</i>	The change in the standard deviation of the acquirer's industry-adjusted abnormal returns for 3 years before and after the M&A
<i>BHAR1</i>	The difference between the buy-and-hold returns of a sample firm and those of the market portfolio return over the 1-year period following an M&A deal
<i>BHAR2</i>	The difference between the buy-and-hold returns of a sample firm and those of the market portfolio return over the 2-year period following an M&A deal
<i>BHAR3</i>	The difference between the buy-and-hold returns of a sample firm and those of the market portfolio return over the 3-year period following an M&A deal
<i>Cscore</i>	The year-specific conditional conservatism of the acquiring firm, as developed by Khan and Watts (2009)
<i>Asset</i>	The natural logarithm of the total assets
<i>Lev</i>	The ratio between the acquiring firm's debts and its total assets
<i>FCF</i>	Operating income before depreciation, interest expenses, income taxes and capital expenditures, scaled by total assets
<i>ROA</i>	The acquiring firm's earnings scaled by total assets
<i>Tobin'Q</i>	The ratio between the market value of the acquiring firm's assets and the book value of its assets
<i>Age</i>	The natural logarithm of the acquiring firm's listing time
<i>Overconfidence</i>	Dummy variable that equals 1 if the acquiring firm's managers increase their holdings and 0 otherwise
<i>Relative Size</i>	The ratio between the transaction size and the acquiring firm's assets
<i>Pay Type</i>	Dummy variable that equals 1 if the deal is paid with cash and 0 otherwise
<i>Sameind</i>	Dummy variable that equals 1 if the acquirer and the target are in the same industry and 0 otherwise

Table 2  
Descriptive statistics.

Variables	Observations	Mean	SD	Min	Max
<i>Loss</i>	3735	0.316	0.465	0.000	1.000
<i>Risk1</i>	3272	-0.089	1.129	-3.305	3.039
<i>Risk2</i>	3272	-0.119	0.878	-2.690	2.238
<i>Risk3</i>	3272	-0.110	0.778	-2.169	2.030
<i>BHAR1</i>	2917	-0.029	0.711	-5.985	11.478
<i>BHAR2</i>	2917	-0.205	1.070	-14.321	12.677
<i>BHAR3</i>	2917	-0.414	1.595	-34.271	8.340
<i>Cscore</i>	3735	0.016	0.092	-0.420	0.207
<i>Asset</i>	3735	21.830	1.129	19.226	25.404
<i>Lev</i>	3735	0.438	0.211	0.040	0.974
<i>FCF</i>	3735	-0.005	0.120	-0.534	0.260
<i>ROA</i>	3735	0.044	0.049	-0.156	0.209
<i>Tobin'Q</i>	3735	2.786	1.955	0.943	12.258
<i>Age</i>	3735	1.975	0.759	0.000	3.135
<i>Overconfidence</i>	3735	0.395	0.489	0.000	1.000
<i>Relative Size</i>	3735	0.215	0.822	0.000	7.327
<i>Pay Type</i>	3735	0.852	0.355	0.000	1.000
<i>Sameind</i>	3735	0.267	0.442	0.000	1.000

accounting conservatism are more likely to acquire profitable targets and avoid loss-making targets. These results confirm H1.

#### 4.2.2. Accounting conservatism, loss-making targets and M&A risk

We further examine whether the M&A risk of firms with high accounting conservatism is significantly lower than that of firms with low accounting conservatism when acquiring loss-making targets. The results from the

Table 3  
Accounting conservatism and M&A target selection: *Loss* regression results from Eq. (1).

Variable	(1) <i>Loss</i>	(2) <i>Loss</i>
<i>Cscore</i>	-0.969** (-2.05)	-0.967** (-1.96)
<i>Asset</i>	-0.094* (-1.95)	-0.214*** (-4.12)
<i>Lev</i>	0.567** (2.32)	0.723*** (2.76)
<i>FCF</i>	-0.148 (-0.48)	-0.074 (-0.23)
<i>ROA</i>	-3.349*** (-3.69)	-5.445*** (-5.41)
<i>Tobin'Q</i>	-0.038 (-1.33)	-0.000 (-0.01)
<i>Age</i>	-0.081 (-1.39)	-0.051 (-0.87)
<i>Overconfidence</i>	0.123 (1.55)	0.086 (1.07)
<i>Relative Size</i>		-0.666*** (-2.74)
<i>Pay Type</i>		1.140*** (6.96)
<i>Sameind</i>		-0.062 (-0.72)
<i>Constant</i>	1.605 (1.56)	3.050*** (2.76)
Year	Yes	Yes
Industry	Yes	Yes
Pseudo R <sup>2</sup>	0.04	0.08
Observations	3735	3735

Note: The robust z-statistics are in parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 levels, respectively. Standard errors are adjusted for clustering at the firm level.

regression of Eq. (2) are presented in Table 4. The results in columns (1) to (3) show that the *Cscore* coefficients are significantly negative at the 1% confidence level for Risk1 to Risk3, respectively, and that the absolute values gradually increase with the correspondingly increasing time windows around the acquisition year. This finding indicates that when firms choose to acquire loss-making targets, the M&A risk decreases as accounting conservatism increases, suggesting that accounting conservatism plays a significant role in controlling long-term M&A risk. These results align with H2.

#### 4.2.3. Accounting conservatism, loss-making targets and M&A performance

The above analysis suggests that accounting conservatism can inhibit managers from acquiring high-risk loss-making targets. When firms with high accounting conservatism choose to acquire loss-making targets, the accompanying M&A risk tends to be significantly lower than that taken on by firms with lower accounting conservatism. However, the literature on accounting conservatism and investment efficiency also argues that accounting conservatism is likely to lead firms to avoid high-risk but NPV-positive projects and instead choose low-risk projects, even if they are not necessarily NPV-positive (Kravet, 2014; Roychowdhury, 2010). We therefore consider whether publicly listed firms with high accounting conservatism perform well when acquiring loss-making targets and whether firms choose loss-making targets because they create value or simply to avoid risk.

Table 5 presents our empirical results from the examination of the impacts of accounting conservatism on the long-term performance of M&As involving loss-making targets. The results show that accounting conservatism does not have a significant effect on M&A performance in the first year after an M&A transaction.

Table 4  
Accounting conservatism, loss-making targets and M&A risk: *Risk* regression results from Eq. (2).

Variable	<i>Risk1</i>	<i>Risk2</i>	<i>Risk3</i>
<i>Cscore</i>	-1.005*** (-2.81)	-1.204*** (-4.08)	-1.134*** (-3.93)
<i>Asset</i>	-0.159*** (-3.32)	-0.121*** (-3.25)	-0.118*** (-3.64)
<i>Lev</i>	0.096 (0.38)	-0.180 (-0.90)	-0.095 (-0.54)
<i>FCF</i>	0.204 (0.58)	0.384 (1.38)	0.574** (2.25)
<i>ROA</i>	2.811*** (2.93)	0.931 (1.29)	0.633 (1.01)
<i>Tobin'Q</i>	-0.130*** (-4.27)	-0.119*** (-4.87)	-0.096*** (-4.30)
<i>Age</i>	0.074 (1.16)	0.060 (1.17)	0.047 (1.04)
<i>Overconfidence</i>	-0.136* (-1.78)	-0.117* (-1.87)	-0.051 (-0.92)
<i>Relative Size</i>	-0.004 (-0.03)	0.067 (0.70)	0.128 (1.64)
<i>Pay Type</i>	0.047 (0.29)	0.067 (0.50)	0.035 (0.29)
<i>Sameind</i>	0.080 (0.94)	0.063 (0.97)	0.024 (0.41)
<i>Constant</i>	3.418*** (3.48)	2.450*** (3.18)	2.440*** (3.65)
Year	Yes	Yes	Yes
Industry	Yes	Yes	Yes
Adj. R <sup>2</sup>	0.05	0.03	0.03
Observations	1031	1031	1031

Note: The robust t-statistics are in parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 levels, respectively. Standard errors are adjusted for clustering at the firm level.

However, over time, the positive impacts of accounting conservatism begin to emerge, and they gradually increase over the second and third years after a transaction. As anticipated by H2, these results suggest that accounting conservatism is positively associated with long-term market performance after listed firms acquire loss-making targets.

### 4.3. Further analysis

#### 4.3.1. Impact of debt covenants

Debt contracting requirements present one of the primary explanations for the emergence of accounting conservatism (Watts, 2003). To verify the mechanism by which debt covenants influence acquisition outcomes, we use debt maturity to divide the collective sample into acquiring firms that carry high long-term debt and those that carry low long-term debt. We then perform subsample regressions for each of these two groups. The regression results are presented in Table 6. The results show that accounting conservatism is significantly and negatively correlated with M&A target selection and M&A risk in firms with high long-term debt, whereas there is no significant correlation in firms with low long-term debt. This suggests that accounting conservatism makes firms more cautious in selecting loss-making targets if their long-term debt is high.

#### 4.3.2. Impact of the transfer of corporate control

Compared to acquiring a minority stake in a target, acquiring control of a target has a greater impact on the acquirer; after an M&A transaction is completed, the acquirer needs to participate in the operational deci-

Table 5  
Accounting conservatism, loss-making targets and M&A performance: *Performance* regression results from Eq. (2).

Variable	BHAR1	BHAR2	BHAR3
<i>Cscore</i>	0.324 (1.57)	0.979*** (2.94)	1.483*** (3.03)
<i>Asset</i>	0.087*** (4.18)	0.312*** (6.64)	0.626*** (4.23)
<i>Lev</i>	-0.218* (-1.80)	-0.858*** (-2.72)	-2.072** (-1.98)
<i>FCF</i>	-0.188 (-1.18)	-0.139 (-0.44)	0.092 (0.24)
<i>ROA</i>	-0.904* (-1.95)	-1.618* (-1.72)	-3.592 (-1.16)
<i>Age</i>	-0.092*** (-2.97)	-0.134** (-2.38)	-0.104 (-1.46)
<i>Overconfidence</i>	-0.039 (-0.91)	-0.123* (-1.69)	-0.181 (-1.62)
<i>Relative Size</i>	-0.078 (-0.79)	-0.243*** (-2.63)	-0.274* (-1.71)
<i>Pay Type</i>	-0.154* (-1.69)	-0.185 (-1.58)	-0.277 (-1.36)
<i>Sameind</i>	-0.004 (-0.10)	0.081 (1.20)	0.225* (1.92)
<i>Constant</i>	-1.552*** (-3.70)	-5.880*** (-6.59)	-11.856*** (-4.82)
Year	Yes	Yes	Yes
Industry	Yes	Yes	Yes
Adj.R <sup>2</sup>	0.06	0.12	0.16
Observations	907	907	907

Note: The robust t-statistics are in parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 levels, respectively. Standard errors are adjusted for clustering at the firm level.

sions of the target, and the financial condition of the target will be recorded in the acquirer's consolidated financial statements. Therefore, firms with high accounting conservatism will be more cautious and better prepared in M&A decisions that involve a transfer of corporate control than they will be in decisions that do not. We expect that accounting conservatism will play a significant role only when an acquirer buys control of their target.

We divide the sample into two groups according to whether the transaction transfers control of the target. We then perform subsample regressions of Eqs. (1) and (2) for each of these two groups. The results are shown in Table 7. In the group that includes transfer of control, the coefficients of *Cscore* on *Loss* and *Risk* are significantly negative at the 1% and 5% confidence levels, respectively. In contrast, the coefficients of *Cscore* are not significant in the group for which no transfer of control occurred. These results indicate that the impact of accounting conservatism on M&A decisions and M&A risk is only significant in the group that includes transfer of control.

#### 4.3.3. Impact of management power

The literature suggests that there is a complementary relationship between accounting conservatism and corporate governance. Accounting conservatism works only in firms with good internal oversight mechanisms (García Lara et al., 2009; Kravet, 2014). If management has too much power, this power will increase management's ability to make high-risk investments and reduce its subsequent accountability for the accompanying risks. In such cases, accounting conservatism plays a limited role and has a low inhibitory effect on high-risk investment behavior. Therefore, we argue that management with low power is more likely to be affected by accounting conservatism than management with high power. By this argument, only in listed firms with low

Table 6  
The impact of debt covenants: *Loss* and *Risk* regression results from Eqs. (1) and (2), respectively.

Variable	<i>Loss</i>		<i>RiskI</i>	
	Low long-term debt group	High long-term debt group	Low long-term debt group	High long-term debt group
<i>Cscore</i>	-0.270 (-0.33)	-2.609*** (-3.46)	-0.437 (-0.86)	-1.341*** (-3.50)
<i>Asset</i>	-0.151** (-2.09)	-0.278*** (-3.41)	-0.069 (-1.47)	-0.173*** (-3.56)
<i>Lev</i>	0.451 (0.89)	0.457 (1.04)	0.026 (0.08)	0.064 (0.22)
<i>FCF</i>	-0.403 (-0.74)	0.074 (0.18)	0.701 (1.63)	0.513 (1.64)
<i>ROA</i>	-5.974*** (-3.92)	-5.199*** (-3.79)	1.105 (1.23)	-0.288 (-0.32)
<i>Tobin'Q</i>	0.065 (1.43)	-0.070* (-1.67)	-0.082** (-2.40)	-0.087*** (-3.08)
<i>Age</i>	-0.135 (-1.52)	0.049 (0.58)	0.060 (0.84)	0.079 (1.25)
<i>Overconfidence</i>	0.097 (0.80)	0.090 (0.79)	-0.098 (-1.15)	0.029 (0.39)
<i>Relative Size</i>	-0.592*** (-2.60)	-0.817 (-1.61)	0.154 (1.46)	0.101 (1.02)
<i>Pay Type</i>	1.170*** (5.16)	1.113*** (4.35)	0.123 (0.71)	0.023 (0.16)
<i>Sameind</i>	-0.149 (-1.18)	0.019 (0.15)	-0.067 (-0.76)	0.138* (1.66)
<i>constant</i>	2.350 (1.52)	4.060** (2.37)	1.040 (1.10)	3.587*** (3.46)
<i>Year</i>	Yes	Yes	Yes	Yes
<i>Industry</i>	Yes	Yes	Yes	Yes
Pseudo/Adj. R <sup>2</sup>	0.09	0.10	0.03	0.04
Observations	1691	2039	560	518

Note: The robust t/z-statistics are in parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 levels, respectively. Standard errors are adjusted for clustering at the firm level.

management power will the associated M&A risk cause accounting conservatism to be negatively related to the probability of acquiring loss-making targets.

We divide the sample into two groups according to management power, and we regress Eqs. (1) and (2). To do so, we follow previous studies in using the combination of chairman and manager as a proxy for management power. If the chairman and the manager are the same person, it means that management power is high; otherwise, management power is low. The subsample regression results for each of these two groups are shown in Table 8. The coefficient of *Cscore* on both *Loss* and *Risk* is significantly negative in the low management power group. In contrast, in the high management power group, the coefficients of *Cscore* are not significant. These results indicate that the roles of accounting conservatism in M&A decisions and M&A risk exist only in the low management power group. In the high management power group, the influence of management power inhibits the ability of accounting conservatism to play a disciplining role.

#### 4.3.4. Mediation mechanism

The previous section argues that accounting conservatism serves a risk-control role because a conservative accounting policy increases the resources that an acquirer will retain to consolidate its target, thereby reducing the risk of default due to illiquidity. Based on this concept, we use the ratio between the net cash flow from operating activities and the current liabilities (*OCF/D*) to measure the maturity match between cash flow and debt. We further test how accounting conservatism achieves its risk-control role.

Table 9 presents the results of our *OCF/D* regressions. Column (1) presents the results of the first stage, which considers the relationship between *OCF/D* and accounting conservatism. The results indicate that

Table 7

The impact of the transfer of corporate control: *Loss* and *Risk* regression results from Eqs. (1) and (2), respectively.

Variable	<i>Loss</i>		<i>RiskI</i>	
	With the transfer of control	Without the transfer of control	With the transfer of control	Without the transfer of control
<i>Cscore</i>	-2.028*** (-2.79)	0.180 (0.25)	-1.138** (-2.06)	-0.560 (-1.08)
<i>Asset</i>	-0.282*** (-3.73)	-0.148** (-1.97)	-0.153** (-2.14)	-0.148** (-1.97)
<i>Lev</i>	0.683* (1.86)	0.801** (2.06)	0.275 (0.80)	-0.002 (-0.01)
<i>FCF</i>	-0.358 (-0.79)	0.315 (0.67)	-0.403 (-0.72)	0.793* (1.65)
<i>ROA</i>	-4.794*** (-3.22)	-5.993*** (-4.34)	2.009 (1.29)	3.531** (2.53)
<i>Tobin'Q</i>	-0.057 (-1.28)	0.049 (1.13)	-0.142*** (-2.87)	-0.124*** (-2.68)
<i>Age</i>	0.017 (0.20)	-0.093 (-1.00)	0.137 (1.48)	-0.024 (-0.22)
<i>Overconfidence</i>	0.077 (0.66)	0.098 (0.81)	-0.087 (-0.79)	-0.167 (-1.40)
<i>Relative Size</i>	-0.891*** (-3.36)	-0.555 (-1.63)	0.146 (0.71)	-0.280 (-1.08)
<i>Pay Type</i>	1.159*** (5.48)	0.860*** (2.79)	0.074 (0.36)	0.175 (0.45)
<i>Sameind</i>	-0.196 (-1.55)	0.058 (0.46)	0.176 (1.41)	-0.011 (-0.09)
<i>Constant</i>	4.856*** (3.04)	1.388 (0.83)	2.954* (1.95)	3.481** (2.18)
Year	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes
Pseudo/Adj. R <sup>2</sup>	0.05	0.02	0.04	0.03
Observations	1886	1684	512	496

Note: The robust t/z-statistics are in parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 levels, respectively. Standard errors are adjusted for clustering at the firm level.

compared to firms with low accounting conservatism, firms with high accounting conservatism retain more cash flow to deal with acquisition risk. Column (2) shows the results of the second stage, in which *OCF/D* is added to the variables in the Eq. (2) *Risk* model. We find that *OCF/D* has a significant negative relationship with M&A risk. The *Cscore* coefficient in the *RiskI* model is -0.943, and it is significantly negative at the 1% level. These results suggest that *OCF/D* plays a partial mediating effect on acquisition risk. Hence, accounting conservatism can prompt firms to increase resources retained for risk prevention and control.

## 5. Robustness tests

We perform additional tests to confirm the robustness of our findings.

### 5.1. Alternative measure of target profitability

First, we broaden our definition of target profitability. For this section only, we redefine *Loss* as equal to 1 if the target's operating performance has experienced a loss in the 3 years before its acquisition and 0 otherwise. We then rerun the regressions of Eqs. (1) and (2). The regression results, which are shown in Table 10, do not significantly change our findings.

Table 8  
The impact of management power: *Loss* and *Risk* regression results from Eqs. (1) and (2), respectively.

Variable	<i>Loss</i>		<i>Risk</i>	
	High management power	Low management power	High management power	Low management power
<i>Cscore</i>	-0.061 (-0.06)	-1.569*** (-2.60)	-0.587 (-0.84)	-1.122** (-2.55)
<i>Asset</i>	-0.376*** (-3.05)	-0.198*** (-3.35)	-0.065 (-0.57)	-0.169*** (-3.06)
<i>Lev</i>	1.170** (2.28)	0.531* (1.70)	0.365 (0.82)	-0.022 (-0.07)
<i>FCF</i>	0.505 (0.85)	-0.090 (-0.23)	0.421 (0.83)	0.320 (0.64)
<i>ROA</i>	-3.657* (-1.90)	-5.985*** (-4.99)	5.878*** (4.25)	0.645 (0.51)
<i>Tobin'Q</i>	0.015 (0.26)	-0.030 (-0.80)	-0.137** (-2.48)	-0.101** (-2.29)
<i>Age</i>	0.119 (0.88)	-0.048 (-0.67)	-0.275* (-1.87)	0.141* (1.70)
<i>Overconfidence</i>	0.111 (0.69)	0.121 (1.24)	-0.217 (-1.36)	-0.094 (-1.03)
<i>Relative Size</i>	-0.980** (-2.36)	-0.617*** (-3.23)	-0.005 (-0.01)	0.036 (0.31)
<i>Pay Type</i>	1.137*** (3.54)	1.163*** (6.07)	0.161 (0.65)	0.007 (0.03)
<i>Sameind</i>	-0.147 (-0.80)	-0.090 (-0.88)	-0.018 (-0.08)	0.060 (0.63)
<i>Constant</i>	5.658** (2.07)	2.751** (2.20)	1.774 (0.77)	3.641*** (3.20)
Year	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes
Pseudo/Adj. R <sup>2</sup>	0.11	0.08	0.12	0.04
Observations	981	2695	288	724

Note: The robust t/z-statistics are in parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 levels, respectively. Standard errors are adjusted for clustering at the firm level.

### 5.2. Regression with the Basu (1997) model

To mitigate the possible measurement error problem caused by *Cscore*, we follow Kravet (2014) and develop the following modified Basu (1997) model to test the relationship between accounting conservatism and M&A risk:

$$\begin{aligned}
 NI_{i,t-s} = & \beta_0 + \beta_1 D_{i,t-s} + \beta_2 RET_{i,t-s} + \beta_3 D_{i,t-s} * RET_{i,t-s} + \beta_4 Risk_{i,t} + \beta_5 D_{i,t-s} * Risk_{i,t} \\
 & + \beta_6 RET_{i,t-s} * Risk_{i,t} + \beta_7 D_{i,t-s} * RET_{i,t-s} * Risk_{i,t} + \varepsilon_{i,t-s}
 \end{aligned}
 \tag{3}$$

In this equation,  $NI_{i,t-s}$  is the ratio of net income to market value of acquiring firm  $i$  in year  $t - s$ .  $Risk_{i,t}$  means the M&A risk of firm  $i$  in year  $t$  and year  $t$  is the fiscal year of the acquisition announcement.  $RET_{i,t-s}$  denotes the annual stock return of the acquiring firm from April of year  $t - s$  to March of the following year.  $D_{i,t-s}$  is an indicator variable that equals 1 if  $RET_{i,t-s} < 0$  and 0 otherwise. We include data from year  $t - 5$  to  $t - 1$  for the regression. Of the  $\beta$  coefficients, we focus on  $\beta_7$ . A negative estimate of  $\beta_7$  indicates a significant negative relationship between accounting conservatism and M&A risk. Columns (1) to (3) of Table 11 present the regression results for the relationship between accounting conservatism and M&A risk over the 1-, 2- and 3-year periods following an M&A transaction. The results show that the coefficients of  $Risk1 * D * RET$ ,  $Risk2 * D * RET$  and  $Risk3 * D * RET$  are all significantly negative, which is consistent with the results of Kravet (2014).

Table 9  
The mediation mechanism: Results from regressions incorporating *OCF/D*

Variable	(1) <i>OCF/D</i>	(2) <i>Risk I</i>
<i>Cscore</i>	0.453** (2.52)	-0.943*** (-2.66)
<i>OCF/D</i>		-0.136** (-2.01)
<i>Asset</i>	0.046** (2.29)	-0.152*** (-3.20)
<i>Lev</i>	-0.486*** (-3.77)	0.031 (0.12)
<i>FCF</i>	0.546** (2.30)	0.277 (0.79)
<i>ROA</i>	1.517** (2.42)	3.020*** (3.07)
<i>Tobin'Q</i>	0.002 (0.05)	-0.130*** (-4.37)
<i>Age</i>	0.019 (0.83)	0.077 (1.20)
<i>Overconfidence</i>	-0.012 (-0.41)	-0.137* (-1.80)
<i>Relative Size</i>		0.001 (0.01)
<i>Pay Type</i>		0.041 (0.25)
<i>Sameind</i>		0.083 (0.98)
<i>Constant</i>	-0.716 (-1.52)	3.323*** (3.40)
Year	Yes	Yes
Industry	Yes	Yes
Adj. R <sup>2</sup>	0.04	0.09
Observations	1031	1031

Note: The robust t-statistics are in parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 levels, respectively. Standard errors are adjusted for clustering at the firm level.

### 5.3. Omitted variable bias

A firm's manager is its primary decision maker. Managers who tend to choose high accounting conservatism may be more risk averse than those choosing lower accounting conservatism and may avoid choosing high-risk loss-making targets for acquisition. To moderate the influence of management characteristics on our results, we further control for management compensation (*Payment*) and management shareholding (*Managerholder*). The updated regression results in column (1) of Table 12 show that our findings remain unchanged after controlling for these previously omitted variables.

A firm's life cycle may also affect both accounting conservatism and M&A target selection. We control for relevant variables in two ways. First, after controlling for the age of the acquirer, we further control for the quadratic term of the age of the acquirer (*Age<sup>2</sup>*). Arikian and Stulz (2016) find that corporate M&A behavior shows a significant U-shaped relationship with respect to the age of the acquiring firm. Second, we classify firms into those in stages of growth, maturity and decline based on their cash flow portfolios (Dickinson, 2011). If investment cash flow is negative and financing cash flow is positive, a firm is in the growth stage (*Growth*). If operating cash flow is positive and investment cash flow and financing cash flow are negative, a firm is in the maturity stage (*Maturity*). All other cash flow combinations indicate that a firm is in decline (*Recession*). The regression results with inclusion of the *Maturity* and *Recession* dummy variables are shown in column (2) of Table 12. After controlling for life cycle stages, accounting conservatism remains significantly and negatively related to the selection of M&A targets and M&A risk.

Table 10  
 Alternative measure of the profitability of the target: Three-year *Loss* and *Risk* regression results from Eqs. (1) and (2), respectively.

Variable	(1) <i>Loss</i>	(2) <i>RiskI</i>
<i>Cscore</i>	-1.360*** (-3.02)	-1.064*** (-3.24)
<i>Asset</i>	-0.219*** (-4.59)	-0.148*** (-3.50)
<i>Lev</i>	0.561** (2.33)	0.166 (0.73)
<i>FCF</i>	0.190 (0.63)	0.243 (0.81)
<i>ROA</i>	-4.701*** (-5.07)	2.710*** (3.28)
<i>Tobin'Q</i>	-0.026 (-0.96)	-0.133*** (-4.88)
<i>Age</i>	0.019 (0.34)	0.044 (0.79)
<i>Overconfidence</i>	0.177** (2.34)	-0.121* (-1.80)
<i>Relative Size</i>	-0.310*** (-3.46)	-0.017 (-0.24)
<i>Pay Type</i>	0.583*** (4.71)	0.045 (0.39)
<i>Sameind</i>	0.015 (0.18)	0.034 (0.47)
<i>Constant</i>	4.155*** (4.09)	3.322*** (3.79)
Year	Yes	Yes
Industry	Yes	Yes
Pseudo/Adj. R <sup>2</sup>	0.05	0.04
Observations	3735	1353

Note: The robust t/z-statistics are in parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 levels, respectively. Standard errors are adjusted for clustering at the firm level.

A firm's financing environment may affect both its accounting conservatism and its risk-taking propensity. John et al. (2008) find that financing constraints affect the attitudes of corporate decision makers toward risk. Relief of external financing constraints can also decrease accounting conservatism (Rao and Jiang, 2011). Therefore, we further control for the financing constraints (*FC*) of the acquirers in our sample and re-examine the effects of accounting conservatism on M&A decisions. The results are shown in column (3) of Table 12. Our findings remain unchanged.

A firm's corporate governance may affect both accounting conservatism and M&A decisions. Research suggests that firms with better corporate governance are likely to have higher accounting conservatism than those with poorer corporate governance (García Lara et al., 2009). Corporate governance also affects a firm's M&A decisions (Ahn et al., 2010; Renneboog and Vansteenkiste, 2019). We further control for corporate governance variables, including the percentage of shares owned by the largest shareholder (*Top1*), the board size (*Board-size*), the combination of chairman and manager (*Dual*) and the percentage of independent directors (*Indirector*). Our empirical regression results are shown in column (4) of Table 12. The findings do not change after controlling for the corporate governance variables.

Furthermore, a target's profitability may be affected by the target's life cycle stage, and an acquirer may acquire firms in different life cycle stages for strategic purposes. Ransbotham and Mitra (2010) find that companies tend to acquire younger high-tech firms to quickly acquire key technologies and reduce M&A costs. However, because of high technology content and high initial research and development investment, growth-stage high-tech firms often experience operating losses for many years before they can achieve profitability. To control for the effects of the target life cycle stages, we further control for the target age (*Tar\_age*),

Table 11  
Regression results from the Basu (1997) model.

Variable	(1) <i>NI</i>	(2) <i>NI</i>	(3) <i>NI</i>
<i>Risk1*D*RET</i>	-0.043** (-2.03)		
<i>Risk1*RET</i>	0.000 (0.25)		
<i>Risk1*D</i>	-0.008** (-2.36)		
<i>Risk1</i>	0.001** (2.07)		
<i>Risk2*D*RET</i>		-0.075** (-2.44)	
<i>Risk2*D</i>		-0.013** (-2.50)	
<i>Risk2*RET</i>		-0.000 (-0.21)	
<i>Risk2</i>		0.002** (2.42)	
<i>Risk3*D*RET</i>			-0.129*** (-3.27)
<i>Risk3*D</i>			-0.020*** (-3.06)
<i>Risk3*RET</i>			0.001 (0.36)
<i>Risk3</i>			0.002* (1.92)
<i>D</i>	0.008*** (4.07)	0.006*** (3.33)	0.005*** (2.74)
<i>RET</i>	-0.007*** (-11.16)	-0.007*** (-10.36)	-0.007*** (-10.97)
<i>D*RET</i>	0.067*** (6.53)	0.059*** (6.46)	0.048*** (6.33)
<i>constant</i>	0.029*** (50.99)	0.029*** (39.51)	0.029*** (39.04)
Adj. R <sup>2</sup>	0.02	0.03	0.05
Observations	15,416	15,970	16,000

Note: The robust t-statistics are in parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 levels, respectively. Standard errors are adjusted for clustering at the firm level.

the quadratic term of the target age ( $Tar\_age^2$ ), whether the target is a high-tech firm ( $Tar\_IT$ ) and the fixed effect of the target industry. The regression results are shown in column (5) of Table 12. In these results, accounting conservatism retains a significant negative relationship with M&A target selection and M&A risk.

Finally, we add all of the above omitted variables to the regression model. The results are shown in column (6) of Table 12. The findings do not change after controlling for the relevant omitted variables.

#### 5.4. Sample selection bias

Our results could suffer from sample selection bias. For example, our sample contains only successful M&As, but the decision of a firm to initiate an M&A is influenced by a form of risk aversion. We use Heckman's two-stage regression method to mitigate this potential problem. In the first stage, we construct a probit model that uses the full sample to estimate the probability of a firm initiating an M&A. The dependent variable is a dummy variable indicating whether a firm initiates an M&A (*Merger*). To control for other variables that influence M&A decisions, we use the M&A frequency of firms that are in the same province and belong to the same industry as an exogenous variable (*PI\_Merger*). Our results are presented in column (1) of Table 13.

Table 12

Omitted variable bias: *Loss* (Panel A) and *Risk* (Panel B) regression results from Eqs. (1) and (2), respectively.

Panel A Controlling for the effect of omitted variables on the target selection						
Variable	(1) <i>Loss</i>	(2) <i>Loss</i>	(3) <i>Loss</i>	(4) <i>Loss</i>	(5) <i>Loss</i>	(6) <i>Loss</i>
<i>Cscore</i>	-0.918* (-1.85)	-0.972** (-1.97)	-0.985** (-1.99)	-0.999** (-2.00)	-1.161** (-2.22)	-1.223** (-2.28)
<i>Payment</i>	0.071 (0.22)					-0.024 (-0.07)
<i>Managerholder</i>	0.116 (0.35)					-0.060 (-0.16)
<i>FC</i>		0.220 (1.00)				0.180 (0.57)
<i>Age</i> <sup>2</sup>			-0.012 (-0.19)			0.024 (0.30)
<i>Maturity</i>			0.072 (0.79)			0.084 (0.83)
<i>Recession</i>			0.028 (0.25)			0.078 (0.62)
<i>Top1</i>				-0.004 (-1.43)		-0.004 (-1.40)
<i>Dual</i>				0.145 (1.62)		0.038 (0.37)
<i>Board size</i>				-0.655*** (-2.66)		-0.571** (-2.12)
<i>Indedirector</i>				-0.469 (-0.54)		-0.243 (-0.26)
<i>Tar_age</i>					-0.568** (-2.46)	-0.579** (-2.44)
<i>Tar_age</i> <sup>2</sup>					-0.074 (-1.15)	-0.073 (-1.11)
<i>Tar_IT</i>					-0.078 (-0.45)	-0.081 (-0.46)
<i>Constant</i>	2.964** (2.55)	7.827 (1.59)	2.926*** (2.59)	3.843*** (3.12)	3.504*** (2.91)	8.084 (1.14)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes
Acq_Industry	Yes	Yes	Yes	Yes	Yes	Yes
Tar_Industry	No	No	No	No	Yes	Yes
Pseudo R <sup>2</sup>	0.08	0.08	0.08	0.08	0.15	0.15
Observations	3704	3735	3735	3676	3713	3626

Panel B Controlling for the effect of omitted variables on M&amp;A risk

Variable	(1) <i>Risk1</i>	(2) <i>Risk1</i>	(3) <i>Risk1</i>	(4) <i>Risk1</i>	(5) <i>Risk1</i>	(6) <i>Risk1</i>
<i>Cscore</i>	-1.027*** (-2.87)	-0.988*** (-2.76)	-0.979*** (-2.72)	-0.921** (-2.57)	-1.055*** (-2.80)	-0.947** (-2.45)
<i>Payment</i>	-0.280 (-0.90)					-0.262 (-0.78)
<i>Managerholder</i>	0.102 (0.34)					0.200 (0.59)
<i>FC</i>		0.259 (1.27)				0.329 (1.17)
<i>Age</i> <sup>2</sup>			0.050 (0.52)			0.057 (0.53)
<i>Maturity</i>			-0.080 (-0.88)			-0.080 (-0.85)
<i>Recession</i>			-0.011 (-0.09)			-0.033 (-0.29)

<i>Top1</i>				0.005*		0.005*
				(1.86)		(1.79)
<i>Dual</i>				-0.047		-0.048
				(-0.56)		(-0.50)
<i>Board size</i>				0.175		0.042
				(0.78)		(0.18)
<i>Indedirector</i>				1.938**		1.473
				(2.26)		(1.63)
<i>Tar_age</i>					0.346*	0.335*
					(1.96)	(1.83)
<i>Tar_age</i> <sup>2</sup>					-0.108**	-0.103*
					(-2.12)	(-1.96)
<i>Tar_IT</i>					-0.266*	-0.281*
					(-1.68)	(-1.72)
<i>Constant</i>	3.701***	9.044**	3.699***	2.583**	2.976***	10.058
	(3.55)	(1.98)	(3.55)	(2.28)	(2.76)	(1.57)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes
Acq_Industry	Yes	Yes	Yes	Yes	Yes	Yes
Tar_Industry	No	No	No	No	Yes	Yes
Adj. R <sup>2</sup>	0.05	0.05	0.05	0.05	0.04	0.04
Observations	1022	1031	1031	1011	1022	995

Note: The robust z-statistics are in parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 levels, respectively. Standard errors are adjusted for clustering at the firm level.

Table 13  
Heckman's two-stage regression results.

Variable	(1) <i>Merger</i>	(2) <i>Loss</i>
<i>PI_Merger</i>	0.220*** (14.11)	
<i>Cscore</i>		-0.957** (-2.04)
<i>IMR</i>		-0.030 (-0.07)
<i>Constant</i>	-1.401*** (-7.60)	1.646 (1.24)
Controls	Yes	Yes
Year	Yes	Yes
Industry	Yes	Yes
Pseudo R <sup>2</sup>	0.05	0.05
Observations	19,770	3735

Note: The robust z-statistics are in parentheses. \*\*\*, \*\* and \* denote significance at the 0.01, 0.05 and 0.10 levels, respectively. Standard errors are adjusted for clustering at the firm level.

In the second stage, we estimate Eq. (1) by including the inverse Mills ratio (*IMR*), estimated in the first stage, as a control variable. The results are presented in column (2) of Table 13. Accounting conservatism remains significantly and negatively correlated with the probability of acquiring loss-making targets in these results.

## 6. Conclusion

In this study, we empirically examine the impacts of accounting conservatism on M&A target selection decisions. The findings show that relative to firms with lower accounting conservatism, firms with higher accounting conservatism are more likely to acquire profitable targets and avoid loss-making targets for

risk-averse reasons. However, when firms with high accounting conservatism choose to acquire loss-making targets, the conservatism's risk-control role reduces M&A risk and improves M&A performance. This relationship holds only when the acquiring company's long-term debt is high, the management power of the acquirer is low and control of the target is transferred. Further analysis finds that accounting conservatism reduces the risk by increasing the maturity match between cash flow and debt. These findings suggest that accounting conservatism plays not only a risk-averse role but also a risk-control role.

Our results have implications for the design of M&A policies. Target profitability is a recent focus of the CSRC's regulation activity, and one of the most common reasons for the CSRC's rejection of M&A proposals is uncertainty about the ongoing profitability of proposed targets. The findings of this study suggest that the CSRC's concern about target profitability is justified and that poor profitability adds risk to M&As. However, regulators cannot take a uniform approach to the level of target profitability. We find that accounting conservatism can help listed companies control the risks associated with loss-making targets and thus realize potential synergies by acquiring them. Therefore, we suggest that synthetic evaluation of accounting conservatism and target profitability can allow regulators to make more comprehensive judgments on the feasibility of M&As and the integration abilities of the acquiring companies. By taking such an approach, regulators can improve their regulatory abilities and achieve precise regulation for the M&A market.

### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### Acknowledgments

We appreciate the valuable comments from the anonymous referees. This work was supported by funds from the National Natural Science Foundation of China (No. 71790603, 71672204).

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