# *Wining, Dining, and Contracting in M&A*

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**Abstract**

Wining and dining, as a socially embedded venue for bonding and face-face communication, induces more favorable M&A outcomes. On average, an increase in wining and dining fees of 1 million is associated with a reduction in goodwill impairment that accounts for 2.67% of the purchase price. Utilizing an exogenous shock that curbs wining and dining for a subset of acquisitions as the identification strategy, we find that affected deals experience a greater increase in goodwill impairment, but a greater decline in integration and performance target achievability than unaffected deals, suggesting trust building and information acquisition as two underlying channels.

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## I. Introduction

The successful completion and implementation of corporate acquisitions pose two major challenges. First, the seller has some information advantage over the buyer on the prospect of the target firm, and even in the absence of information asymmetry, private information on both sides of the transaction creates a wedge between the target's and the acquirer's estimate of the intrinsic value of the deal and expected synergies. Second, despite their critical importance to the successful integration of the target and the acquiring firms, target managers may decide to leave or have little incentive to generate expected synergies even if they do remain with the combined company after the closing of the acquisition.

Contracting theory suggests that one way to resolve those problems is to include both an upfront component and an additional future transfer that is contingent on some observable measure of performance in the payment to the target firm's shareholders (e.g., Schelling 1956, 1960; Williamson 1979; Klein 1980). In practice, many M&A agreements either include earnouts that provide sellers with an additional payment conditional on the occurrence of specified future events or meeting certain condition[1] or include post-closing adjustment provisions that require sellers to pay a penalty if the target firm fails to deliver pre-committed post-acquisition performance targets. Such contractual arrangements are consistent with models of Myers and Majluf (1984) and DeMarzo and Duffie (1999) that targets could signal their higher assessment of value by offering acquirers a claim contingent on future performance and Holmstrom (1979) that optimal incentive contracts tie the agent's payoff to observable signals of effort.

Williamson (1975, 1985) recognizes the cost of gathering and processing information for contracting purposes and Tirole (2009) explicitly models pre-contractual cognitive costs and assumes that such costs enhances contract completeness to the extent that it lowers the likelihood of ex-post adjustment. Tirole (2009) suggest that cognition is a natural source of adverse selection in contractual relationships and that rent seeking, coupled with the avoidance of ex post contract adjustment, drives individual party's

[1] Earnouts are a more popular contractual arrangement in US (Kohers and Ang 2000; Datar et al. 2001; Cain et al. 2011; Cadman et al. 2014). These contracted outcomes, which generally extend up to five years after the acquisition, are often based on financial performance measures, such as revenue and earnings targets, and/or nonfinancial performance hurdles, such as Food and Drug Administration (FDA) approval and clinical trial success.

incentive to incur pre-contractual cognitive costs in identifying the appropriate contract**.** This study examines *empirically* whether wining and dining, as a socially embedded venue for developing relationships and face-to-face communication, complements contractual arrangements in ensuring more favorable M&A outcomes. To the extent that wining and dining incurred before the closing of the acquisition can be interpreted as pre-contractual cognitive costs, empirical evidence from this study sheds some light on the broad question of whether more pre-contractual cognitive costs indeed mitigate opportunism and bridge the cognitive gap between contracting parties (Tirole 2009).

One major empirical difficulty, however, is the lack of public data on wining and dining. However, in China, publicly listed companies are required to disclose fees incurred for wining, dining, and entertainment (WDE) in the footnotes to their financial statements. The data availability on *firm*-level WDE and its panel structure make it feasible to examine whether and when M&A outcomes vary with out-of-pocket costs of WDE and thus provides a unique opportunity to quantify the cross-sectional effect of wining and dining. We normalize WDE fees by total administrative expenses to proxy for the *level* of wining and dining. To mitigate the endogeneity concern that arises from time-invariate buyer characteristics, we use the *change* in normalized WDE fees during the acquisition year relative to a benchmark period rather than their *level* to capture wining and dining for M&A purposes.

In China, the most popular contractual arrangement for contingent considerations is post-closing adjustment provisions, under which the seller commits to post-acquisition performance targets and the buyer imposes a penalty on the seller if the target firm fails to deliver them.[2] Key terms in post-closing adjustment provisions include the time limit of the provisions, post-closing performance targets for the target firm, and penalties imposed on the seller if the target firm fails to reach its performance targets. The time limit is usually set at three years after the close of the deal, the performance target is usually set as net

[2] The structure of post-closing adjustment provisions in M&A agreements in China parallels the financing of portfolio companies by business development companies in the United States. For example, when Apollo Investment Corp., one of the largest business development companies, provides debt financing to a portfolio company, the two parties sign a contract under which the portfolio company promises to reach a performance target, and Apollo has the right to take an additional equity stake in the portfolio company if it fails to deliver on the promise.

income of the target firm within the time limit, and the contingent penalty is either in stock or cash. We are able to collect the detailed terms of post-closing adjustment provisions, including income targets committed to by the seller and the penalties imposed by the buyer, for a sample of 373 stock-financed acquisitions.

Malmendier et al. (2018) suggest that both announcement returns and long-term abnormal returns are biased estimates of M&A outcomes due to either market inefficiency or other confounding factors that are unrelated with M&A. Gu and Lev (2011) suggest that goodwill impairment is not just an accounting adjustment, but an important event that demonstrates a dysfunctional investment strategy. Goodwill impairment arises when realized future cash flows or cost savings from the merger (synergies) are *lower* than the acquisition price net of the fair value of the target firm's net assets. Goodwill impairment is not an automatic by-product of large goodwill, but rather results from overestimation of expected synergies or unexpected decline in synergies (e.g., Shleifer and Vishny 2003). Accordingly, we use goodwill impairment associated with a specific acquisition as the summary measure of economic outcomes**.** As goodwill impairment is conditional on a positive goodwill booked at the closing of the acquisition, out of the sample deals, we are able to hand collect deal-specific goodwill impairment for 215 deals. In the cross section, we find that, after controlling for firm and deal characteristics and the role of financial intermediaries, a higher increase in WDE fees in the M&A year is associated with a lower probability and magnitude of goodwill impairment.[3] In economic terms, for an average firm, an increase in M&A-related WDE of 1 million CNY is associated with a decrease of 9.22% in the probability of goodwill impairment and a decrease of goodwill impairment that accounts for 2.67% of the purchase price.

Despite that we use the *change* in rather than the *level* of normalized WDE fees in the M&A year to capture M&A-related wining and dining, the empirical proxy could still be endogenously determined by some unobservable firm and deal characteristics. To address the concern that M&A-related wining and

[3] Controls for buyer characteristics include ownership structure, management compensation, profitability, and corporate governance. Controls for deal characteristics include valuation multiples, valuation method, relative size, relatedness of business lines, related party transactions, and reverse mergers.

dining could be endogenous to unobservable factors, we identify the economic consequences of wining and dining by exploiting the enactment of an administrative order as an exogenous shock. On December 4, 2012, the new leadership of China adopted an administrative order that explicitly bans government functionaries and state-owned enterprises (SOEs) from using public or corporate funds to pay for wining and dining and bans party members and SOE managers from attending dinners hosted by individuals and various entities.[4] The policy change lends itself well to a difference-in-differences design in *identifying* the economic consequences because the applicability of the government ban on WDE varies by the ownership structure of firms in M&A transactions. The administrative order explicitly curbs the use of corporate accounts for WDE by SOEs (the treatment group) and bans SOE managers from attending receptions and dinners, but is not applicable to privately held firms (the control group) and their managers.

Compared to privately owned buyers, SOEs have greater bargaining power that gives them an edge in negotiating more favorable terms. Compared to managers of privately owned buyers, managers in SOE buyers are more interested in achieving private benefits of control, which implies greater agency costs. Those differences could result in systematic differences in M&A outcomes between the two groups. Therefore, we employ a difference-in-differences design to identify the effect of wining and dining on goodwill impairment. We find that, after the enactment of the administrative order, SOE buyers took larger goodwill impairment charges on M&A transactions during the first year after the closing compared with privately owned buyers. A key identifying assumption central to a causal interpretation of the results is that, in the absence of the administrative order, the average change in goodwill impairment would have been the same for SOEs and privately owned buyers. In support of the parallel trends assumption, we find *no* difference in the change in goodwill impairment between the two groups *before (in the absence of)* the enactment and that a statistically significant difference-in-differences between SOEs and privately owned buyers appears only *after* the enactment. In summary, the changes in goodwill impairment suggest that the

[4] The administrative order is the first provision of an eight-point regulation to cut bureaucracy and maintain close ties with the people. The eight-point regulation also includes provisions that fight against formalism and bureaucracy by simplifying government meetings and cutting red tape. The remaining provisions reduce perks for party and government officials, such as housing and transportation allowances.

administrative order has a more pronounced adverse effect on M&A outcomes for the treatment group than for the control group.

We next explore the channels through which wining and dining addresses the major challenges in the successful completion and implementation of M&A, and thus, lowers goodwill impairment. We identify trust building and information acquisition as the two possible mechanisms. Wining and dining between counterparties in the pre-contractual period facilitates the development of interpersonal trust and helps management teams of the acquiring and target firms work together more smoothly. Furthermore, face-to-face communication over WDE mitigates opportunism in information transmission and bridges the cognitive gap between contracting parties about post-acquisition performance, both of which enable the formation of more realistic expectations and increase the achievability of performance targets. One trigger for goodwill impairment is the target firm's failure to deliver pre-committed performance targets. For instance, in 2017, when an acquired firm, Yinde Biological, failed to deliver its performance target set for the third year after the consummation of its sale, the buyer, Xinhua Medical, had to take a goodwill impairment charge of 100 million CNY. The magnitude of the goodwill impairment charge accounted for 27% of the purchase price and 42.5% of the goodwill booked at the time of the acquisition (See appendix 1 for detailed terms of the acquisition and post-closing adjustment provisions.) Accordingly, the increased achievability of post-acquisition performance targets lowers goodwill impairment.

First, given the critical importance of target managers to the successful integration of the target and acquiring firms, the first major challenge is to continue to motivate target managers to deliver expected synergies after the closing of the deal. A survey of more than 200 European chief executives found that the "ability to integrate the combined company" ranked as the most important factor (higher than financial and strategic factors) for acquisition success (Cartwright and Cooper 1993). Wining and dining, as a socially embedded arena for bonding, creates a "social zone" that enables people to feel emotionally connected and establish relationships with counterparties in M&A transactions (Nardi and Whittaker 2002). From the acquirer's perspective, wining and dining is a form of relationship "investment" that convey strong social bond. From the perspective of target managers, wining and dining with managers of the acquirer symbolizes

an inclusion in a new social "circle" in which people implicitly agree to abide its rules and cooperate. Theoretical models suggest that face-to-face pre-play interaction allows more efficient social learning and facilitates coordination in some common-interest games (e.g., Ellison and Fudenberg 1995; Ellingsen and Östling 2010). Under the setting of common-pool resource appropriation, Ostrom and Walker (1991) provide strong experimental evidence that, when face-to-face interaction is a "costless" institution, players successfully use the institution to increase cooperation. However, when the provision of the face-to-face interaction becomes more costly or more difficult, it diminishes the success of cooperation and the efficiency of resource allocation. Similarly, Greiner, Caravella and Roth (2014) find experimental evidence that face-to-face interaction increases offers and agreement rates more significantly than does text-chat in an ultimatum game experiment.[5]

Accordingly, we hypothesize that wining and dining between counterparties in M&A transactions in the pre-contractual period facilitates the development of interpersonal trust and helps management teams of the buyer and the target firm work together more smoothly during both the contracting process and the implementation process. More integrated and cooperative management teams of the combined business increase the likelihood that anticipated performance targets and synergies will materialize and decrease the likelihood of unexpected declines in synergies. Empirically, we use two proxies for integration. First, we perform a textual analysis of the M&A agreement and use the number of characters in which integration or cooperation is discussed to proxy for the perceived importance of integration at the contracting stage. Second, we use the percentage of managers in the combined company who have prior working experience in the target firm to proxy for integration at the implementation stage. In the cross section, we find that

[5] Experiments further explore the mechanism through which face-to-face interaction improves coordination and provide some interesting evidence. Ostrom (1998) and Cardenas, Ahn and Ostrom (2004) suggest that multiple mechanisms, such as the ability to better assess another's trustworthiness and promise making, induce cooperation in repeated face-to-face interaction. Frank, Gilovich, and Regan (1993) provide experimental evidence that face-to-face discussions increase the capacity of subjects to predict whether others would play cooperatively. Charness and Dufwenberg (2006) provide experimental evidence that promises enhance trust and cooperation because players' guilt aversion influences beliefs and motivates players to live up to others' expectations. Jiang et al. (2012) find a significant increase in the neural synchronization in the left inferior frontal cortex during face-to-face interaction between partners, which could be the neural underpinning for its effectiveness.

integration, as measured by both the perceived importance of integration at the contracting stage and the extent of post-acquisition human integration, is positively associated with the *change* in the out-of-pocket cost of WDE in the M&A year. In economic terms, for an average firm, an increase of M&A-related WDE fees of 1 million CNY is associated with an increase of 6.3% of managers in the combined business who have prior working experience in the target firm.

Furthermore, to address the endogeneity of M&A-related WDE, using the difference-in-differences design, we find a greater decline in post-acquisition human integration for SOE buyers than for privately owned buyers after the enactment of the administrative order. In support of the parallel trend assumption, we find no difference in the change in the extent of human integration between SOEs and privately owned buyers *before* (in the absence of) the administrative order and a statistically significant difference-in-differences between the two groups appears only *after* the enactment of the administrative order. The result from the difference-in-differences design in response to the exogenous shock helps identify the effect of wining and dining on integration and cooperation.

Second, one of the central frictions in M&A markets is the information advantage that the seller has over the buyer on the prospect of the target firm. The seller has incentives to extract informational rents by intentionally overstating performance targets in order to receive a higher valuation. Wining and dining provides a socially embedded arena for *face-to-face* communication between counterparties that facilitates more truthful information transmission. Face-to-face communication has comparative advantage relative to other modes of communication to the extent that both issue-relevant messages and *cues* that relate to the credibility of the sender coexist (e.g., Petty and Cacioppo 1981, 1986; Straus and McGrath 1994; Gillespie and Corti 2016). Experimental evidence suggests that compared with communication through an intermediary, face-to-face communication promotes honesty either because it activates potential deceivers' moral interests or because nonverbal cues are believed to be less deceptive (e.g., Zant and Kray 2014; Toma, Jiang and Hancock 2018). More truthful information transmission mitigates opportunism and lowers the information rents that can be extracted by the informed seller, therefore increasing the achievability of performance targets.

Furthermore, even in the absence of information asymmetry, *private* information on both sides of the transaction creates a wedge between the target's and the acquirer's estimate of post-acquisition performance and expected synergies. Assessing future performance and potential synergies of business combinations is highly uncertain (e.g., Roll 1986). Feldman (1981) suggests that noninterpersonal and interpersonal sources are instrumental for learning about and interpreting the different domains of an organization. Although a buyer can learn a great deal of information about the target firm with the assistance of investment banks and financial advisors through the *formal* due diligence process, wining and dining provides a socially embedded venue for *private* communication with counterparties that facilitates the acquisition and processing of soft information (Liberti and Peterson 2019). In a relationship-based economy like China, the benefits of wining and dining as a *private* communication channel is especially salient because relationship-based contracts for both parties frequently involve terms that are not formally specified and are difficult to verify. The implicit nature of these contracts gives rise to mostly soft information, which complicates or even preclude public disclosure (Gu et al. 2019; Li et al. 2020). According to the mosaic theory (Solomon and Soltes 2015), counterparties have a better context for verifying and interpreting relationship-based contracts and soft information and thus are able to derive valuable insights about each other. Accordingly, private face-to-face communication over WDE help counterparties learn additional *soft* aspects about each other, which include, but are not limited to, political connections, social ties, managerial ability and styles, and value premises. As a result, wining and dining bridges the cognitive gap between counterparties about post-acquisition performance and synergies.

Accordingly, we hypothesize that wining and dining facilitates more truthful information transmission and bridges the cognitive gap between counterparties, both of which enable the formation of more realistic expectations and increase the achievability of post-acquisition performance targets. Strategic communication models suggest that communication *interacts* with alignment of incentives in facilitating more truthful information transmission (e.g., Crawford and Sobel 1982; Crawford 2003; Krishna and Morgan 2004; Kartik 2009; Hagenbach and Koessler 2010). For instance, Krishna and Morgan (2004) suggest that active participation by the less informed buyer, along with multiple stages of messages, reduces

the more informed seller's incentive to strategically withhold information and leads to more information being conveyed, especially when the preferences and incentives of participants are better aligned. Kartik (2009) models strategic communication between an uninformed receiver and an informed but upwardly biased sender and concludes that the degree of language inflation and how much information is revealed depend upon the sender's cost of misrepresenting his private information. We examine whether WDE interacts with contractually stipulated incentives in influencing the achievability of performance targets. In the cross section, consistent with theoretical predictions, we find that WDE enhances the achievability of performance targets to a greater extent when the contingent payback is in stock. In economic terms, using the method in Ai and Norton (2003), the marginal effect of M&A-related WDE on the probability of delivering the first-year performance target for stock paybacks is about twice that of cash paybacks.

To address the endogenity of M&A-related WDE, using the difference-in-differences design, we find a greater decline in target firms' odds of delivering performance targets for SOE buyers than for privately owned buyers after the enactment of the administrative order. The descriptive statistics suggest that, for SOE buyers, the odds of delivering the performance target for the first fiscal year after the close of the deal decrease from 94% before to 84% after the enactment of the administrative order, and the *p*-value for the difference is 0.055. However, among privately owned buyers, the change in the odds before and after the enactment remains statistically insignificant. After controlling for firm characteristics, deal characteristics, and the role of financial intermediaries, we find that the probability of delivering promised performance targets for an average SOE buyer declined by 12.2% more than that experienced by an average privately owned buyer after the enactment. In support of the parallel trend assumption, we find *no* difference in the change in the odds of delivering performance targets between SOEs and privately owned buyers *before (in the absence of)* the administrative order and a statistically significant difference-in-differences between the two groups appears only *after* the enactment of the administrative order. The result from the difference-in-differences design in response to the exogenous shock helps identify the effect of wining and dining on the achievability of performance targets.

The results from the mediation analysis (e.g., Baron and Kenny 1986; Zhao, Lynch and Chen 2010) confirms that face-to-face communication improves M&A outcomes through both a trust-building effect on integration and an information-acquisition effect on the achievability of performance targets. It is equally important to point out that the information-acquisition effect is intricately intertwined with and, largely inseparable from, the trust-building effect. For instance, Hagenbach and Koessler (2010) model a disciplinary effect of coordination of multiple agents on communication and suggest that agents are more prone to communicate private signals when their ideal actions are more similar and the need for coordination becomes larger.

While the main premise is that M&A-related WDE enhances cooperation and improves information transmission between buyers and sellers, a portion of WDE could captures a firm's efforts to wine and dine regulators in order to seek approval of the deal. The M&A market in China is highly regulated—official approval from the China Securities Regulatory Commission (CSRC) is *required* for the consummation of stock-financed acquisitions by publicly listed companies. Accordingly, we examine whether the economic benefits of WDE continue to hold after controlling for regulatory engagement and find that the patterns are robust to a battery of sensitivity checks.

This study contributes to multiple strands of the literature. First, this study is related to the literature on implementation of incomplete contract. The evidence suggests that face-to-face communication over WDE complements the contractually stipulated ex ante incentives in enhancing the achievability of contractual commitments, thereby mitigating information asymmetry and lowering informational rents that could be extracted by the informed seller. It provides direct support to the theoretical assumption in Tirole (2009) that pre-contractual cognitive costs bridge the cognitive gap between contracting parties and mitigate adverse selection, both of which result in a lower probability of contract adjustment ex post. Although theoretical models predict that commitments are advantageous (e.g., Li and Shi 2017; Hart, Kremer and Perry 2017), this study is the first to explicitly investigate the achievability of contractual commitments and the associated economic determinants and consequences.

Second, this study is closely related to the strand of literature that analyzes mergers and acquisitions. The evidence suggests that WDE, as a socially embedded venue for bonding and face-to-face communication, complements contractual arrangements in ensuring more favorable M&A outcomes. The worldwide volume of corporate mergers and acquisitions exceeded $4.1 and $3.7 trillion in 2018 and 2019 respectively. M&A transactions represent the very act of adjusting firm boundaries (Holmstrom and Roberts 1998). Accordingly, in addition to the *formal* verification and certification role of financial intermediaries (Chemmanur and Fulghieri 1994; Golubov, Petmezas and Travlos 2012), it is economically important to understand the implications of *all* types of pre-contractual transaction costs, including the *informal* trust-building and information-acquisition effect of M&A-related wining and dining. This study is also related to prior studies that examine whether to include earnouts in M&A agreements (Kohers and Ang 2000; Datar et al. 2001) and those that examine the choice of performance measures to be used in the earnout clause (Cain et al. 2011; Cadman et al. 2014).

Third, economic actions are embedded in the ongoing system of social norms (Granovetter 1985). Despite the prevalence of wining and dining in various business settings, the issue of *whether and when* it has real economic *benefits* for corporations is yet to be addressed. Prior studies, using survey data, find that drinking enhances an employee's social capital and facilitates salary increases and promotions (e.g., Peters and Stringham 2006). This study, using archival data, extends the scope of the investigation from economic benefits for *individuals* in *labor* markets to those for *corporations* in *M&A* markets. This is the first empirical study to document that wining and dining has real economic *benefits* when economic transactions are trust-sensitive and information asymmetry/uncertainty are central market frictions. As economic actions are embedded in the ongoing system of social norms, the evidence in M&A markets provides a concrete example for the "less often noted, but probably more important, savings achieved" when actors pursue economic goals through social norms (e.g., Granovetter 2005, 2017).

Last, this study is related to the literature on social factors on decision making and the power of face-to-face communication. Prior studies have investigated the influence of social *ties* on information acquisition, auditor independence, business partnership, and contracting in various markets (e.g. Cohen et

al. 2008; Engelberg et al. 2012, 2013; Bruynseels and Cardinaels 2014; Akbas et al. 2016; He et al. 2017; Houston et al. 2018; Gu et al. 2019; Li et al. 2020). In contrast, this study examines whether wining and dining, as social *activities*, complements contractual arrangements and interacts with contracting in improving M&A outcomes. Relatedly, this study complements prior experimental and theoretical studies on the power of face-to-face interaction. Using archival data, this study extends the investigation by exploring an exogenous shock that restricts a firm's ability to use WDE as the arena for face-to-face interaction. Utilizing a difference-in-differences design, we find less favorable M&A outcomes for the subset of buyers that lost the opportunity to communicate face-to-face over WDE with counterparties in M&A transactions. The archival evidence suggests that the power of face-to-face interaction goes beyond decision making in a lab setting and applies to the domain of real decision making in financial markets.

## II. Institutional background

### *2.1. Mergers and acquisitions in China*

To protect the interests of minority shareholders, official approval from the China Securities Regulatory Commission (CSRC) is required for the consummation of stock-financed mergers and acquisitions of publicly listed companies. The CSRC also imposes more stringent disclosure rules on stock-financed mergers and acquisitions than on all-cash transactions. On April 16, 2008, the CSRC issued a rule entitled "Measures for Administration of Material Assets Reorganization of Listed Companies." The rule states that a publicly listed buyer that intends to finance a merger or acquisition by issuing new shares is required to publicly disclose the M&A agreement, including the terms of any post-closing adjustments, in its registration statement for the new shares. If the buyer and the seller agree to use income-based models (either comparable price-to-earnings ratios or discounted future income) to value the target firm for determining the purchase price, the CSRC mandates income-based performance targets in the post-closing adjustment provisions. If the valuation model is asset-based, performance targets are not mandatory, but the parties have the option of including them in the post-closing adjustment provisions. Furthermore, the CSRC rule requires financial advisory and other intermediaries to issue special reports on whether the target

firm has delivered the committed performance target for each of the subsequent years in which post-closing adjustment provisions apply and that the special reports be included in the buyer's annual reports.

Accordingly, this institutional setting enables us to hand collect detailed terms in post-closing adjustment provisions and gauge the target firm's success or failure in delivering post-acquisition performance targets. Based on publicly available sources, we identify all stock-financed acquisitions in which the seller commits to income-based performance targets and the buyer imposes penalties on the seller if the target firm fails to reach them. All buyers in the sample are public companies listed on domestic Chinese stock exchanges. All sellers in the sample chose to commit to income-based performance targets. Consistent with prior findings that contingent considerations are dominantly used in acquisitions of private targets or private subsidiary of public firms in US (e.g. Cain et al. 2011), target firms in acquisitions with post-closing adjustment provisions in China are all private firms with concentrated ownership. Accordingly, paybacks in the event of the target firm's failure to deliver performance targets are practicable. Each target firm operates as a stand-alone subsidiary of the combined business after the acquisition. There are no "poison pill" or "golden parachute" agreements for managers of the target firm. Indeed, the managers and key technical employees of the target firm, in virtually all cases, are required to stay in the combined entity and manage the target firm after the acquisition. All target firms have a designated auditor for auditing post-acquisition financial statements on a stand-alone basis. In exchange for the target firm, the buyer issued new shares at an average discount of 12% to the market price.

Because the time limit is usually set at three years after the close of the deal, contracts are incomplete and thus the seller has an incentive to overstate performance targets. A buyer, on the other hand, is entitled to claw back a portion of the purchase price from the seller if the target firm fails to reach its income targets. Penalties can be in the form of either cash or stock paybacks. Cash paybacks entitle the buyer to claw back the dollar amount of the shortfall between realized income and the promised target. Stock paybacks entitle the buyer to claw back the amount of the purchase price that is proportional to the overstatement of the performance targets. A numerical example illustrates the difference between cash and stock paybacks. Assume the earnings target was 110 CNY, and the buyer used a price-to-earnings ratio of

eight to value the target firm. Accordingly, the purchase price for the target firm was 880 CNY. If the realized earnings of the target firm were 100 CNY for the first year after the close of the deal, the seller overstated the performance target by 10 CNY. If the penalty was set as a cash payback, the buyer is entitled to claw back 10 CNY in cash. If the penalty was set as a stock payback, the seller overstated the performance target by 10%, and the buyer was entitled to claw back shares worth 88 CNY, which corresponds to 10% of the purchase price. In general, stock paybacks align the interests of the seller much more closely with those of the buyer than do cash paybacks and impose more severe penalties on the seller.

However, regardless of whether the penalty is a cash payback or a stock payback, a buyer always has an incentive to avoid overly optimistic performance targets because overstated performance targets impose additional costs on a buyer after the closing. An example of such costs is goodwill impairment charges that a buyer might be required to take if the target firm fails to deliver on the promise. The failure to deliver performance targets often triggers goodwill impairment. We hand collect goodwill impairments for all deals where the target firm fails to deliver performance targets for any of the contractually specified years and find that goodwill impairments net of paybacks average as high as 20.5% of the purchase price for those firms. However, the target firm's failure to deliver performance targets is not the *only* trigger for goodwill impairment. Goodwill impairment could arise even when the target firm successfully delivered performance targets. For instance, if the buyer overestimates synergies accruing to other units of the combined business rather than the target firm itself, goodwill impairment could also arise.

*2.2. WDE data in China*

In China, there is an embedded social norm for developing relationships and doing business over wining and dining, which even gives rise to a popular cultural term "*Chi He Wen Hua*". According to official statistics, revenue of the catering industry in China comprised, on average, approximately 70 basis points of national GDP during the last 10 years. On December 4, 2012, the new leadership of China adopted an administrative order that explicitly bans government functionaries and state-owned enterprises (SOEs) from using public or corporate funds to pay for wining and dining and bans party members and SOE managers from attending dinners hosted by individuals and various entities.

Publicly listed companies are required to disclose fees incurred for WDE in the footnotes to their financial statements. According to the Chinese Generally Accepted Accounting Standards, fees incurred for WDE with customers and suppliers are classified as marketing costs, but fees incurred for WDE with parties other than customers and suppliers are classified as administrative expenses. Publicly listed firms are required to disclose the two types of fees separately in the footnotes to the corresponding accounts on an annual basis. Accordingly, we hand collect WDE fees that are classified as administrative expenses at the firm level from financial statements and footnotes. We normalize the out-of-pocket cost of WDE by total administrative expense to proxy for the *level* of face-to-face communication for all business purposes. M&A-related WDE takes place in multiple stage of the M&A process (see appendix 2). We use the average of normalized WDE fees during the two fiscal years preceding the acquisition as the benchmark for the *normal* level of WDE for a particular firm. Accordingly, the *change* in normalized WDE fees during the M&A year relative to those in the previous two years is used to proxy for M&A-related face-to-face communication. Figure 2 plots the mean of WDE fees per 1000 CNY of administrative expenses in the year of the acquisition (year *t*), during the two years before the acquisition (years *t–1* and *t–2*), and during the two years after the acquisition (years *t+1* and *t+2*). We notice that the mean of normalized WDE fees peaks in the year of the acquisition, which validates using the *change* in normalized WDE fees during the year of the acquisition (AB_WDE) as an empirical proxy for M&A-related wining and dining.

Compared with prior studies that use survey data to collect entertainment and travel costs (ETC) for a particular year (e.g., Cai, Fang and Xu 2011), we collect WDE fees directly from audited financial statements, which are more objective and present a panel structure. In addition to the different sources of information, our measure of M&A-related WDE is distinct from the ETC used in Cai, Fang and Xu (2011) in two other respects. First, our measure is transaction-based, which reflects the *change* rather than the *level* of fees incurred for WDE during the acquisition year relative to a benchmark. Second, by definition, WDE fees exclude travel costs, which are a major component of ETC.[6]

[6] Under common business practices in China, companies could easily use travel costs to disguise the cost of gifts to bribe government officials and their families (e.g., Cai, Fang and Xu 2011). For example, many hotels in China operate

## III. Sample selection and data

We limit our sample to all deals initiated by publicly listed companies on the Shanghai Securities Exchange and the Shenzhen Securities Exchange between 2008 and 2014. The sample period starts with 2008 because the CSRC requires the inclusion and public disclosure of post-closing adjustment provisions beginning in April 2008. The sample period ends in 2014 because it is necessary to track a target firm's success in delivering post-closing performance targets for at least three fiscal years after the close of the deal. Table 1 explains the sample selection process and the distribution of mergers and acquisitions on a yearly basis. We are able to obtain 373 deals by 365 unique buyers where both dependent and independent variables are available to examine the economic consequences of the administrative order. In terms of economic importance, the sample of 373 stock-financed deals with post-closing adjustment provisions accounts for 50% (29%) of the total number (transaction value) of all, including both cash and stock, deals in M&A markets in China during the corresponding period. As goodwill impairment is conditional on a positive goodwill booked at the closing, we are able to hand collect goodwill impairment for 215 deals.

We hand collect information on the dependent variables and independent variables from various publicly available sources. WDE is hand collected from administrative expenses reported in financial statements and the footnotes to administrative expenses in annual reports. Contractual terms, including the payback structure and the method of valuation, are obtained directly from M&A agreements. The success or failure of the target firm in delivering performance targets and goodwill impairment associated with a particular acquisition are obtained from annual reports or special reports on the M&A transaction, where financial advisors are required to report such information. We also hand collect deal-specific characteristics,

boutiques for expensive gifts, and those gifts can be invoiced as room charges. In addition to the differences in source and measurement, the net benefits of the *change* in normalized WDE in the year of M&A is in sharp contrast to the finding in Cai, Fang, and Xu (2011) that the *level* of entertainment and travel costs is negatively associated with total factor productivity. Generally speaking, social activities blend both a positive "bonding and discovery" effect emphasized in this paper and a possible negative "corruption" effect documented in Cai et al. (2011). Arguably, the "bonding and discovery" process of social activities is more valuable for *external* market transactions than *internal* decision making. Accordingly, the *net* effect of social activities depends on the nature of the decision context.

such as whether the buyer and the target firm operate in related lines of business, from M&A agreements approved by the CSRC. Buyers' financial data and corporate governance data are obtained from the China Stock Market and Accounting Research (CSMAR) database. Information about investment banks is from the website of the Securities Association of China.

Panel A of table 2 presents the detailed definitions for all variables, and panel B of table 2 provides summary statistics for those variables. The mean (median) WDE fees is 8.2 (2.9) million CNY. The mean (median) value for WDE_NORMALIZED is 39 (26) CNY per 1000 CNY of administrative expenses, suggesting that an average (representative) firm spends 3.9% (2.6%) of administrative expenses on WDE with parties other than customers and suppliers. The mean (median) for AB_WDE, the proxy for M&A-related face-to-face communication, is 1.78% (0.56%) of administrative expenses *before* the issuance of the administrative order, suggesting that an average (representative) buyer spends 1.78% (0.56%) of administrative expenses on M&A-related WDE. AB_WDE is measured as the *change* in normalized WDE fees during the M&A year relative to those in the previous two years. The mean (median) of AB_WDE is negative after the enactment of the administrative order, suggesting that the government ban significantly curbs WDE funded by corporate accounts.[7] The standard deviation for AB_WDE is 4.04%, suggesting a significant variation in M&A-related WDE. Of target firms, 81% are successful in delivering all post-acquisition performance targets. On average, goodwill accounts for 53.03% of the purchase price. Buyers took goodwill impairment charges in 13.95% of the acquisitions. The average goodwill impairment charges summed over all contractually specified years is 2.36% of the purchase price and the largest goodwill impairment is about 80% of the purchase price. On average, 35% of managers in the combined business have prior working experience in the target firm.

The overwhelming majority of buyers (77.5%) impose stock-based paybacks on sellers if target firms fail to deliver post-closing performance targets. Among all acquisitions, 79.9% (20.1%) of buyers use

[7] Abnormal wining and dining fees in the event year could take a negative value in some cases, which does not lend itself well to natural economic interpretation. To account for this, we use a modified variable, AB_WDE _MODIFIED, which takes the value of zero if AB_WDE is negative and is equal to AB_WDE otherwise. The results are largely similar when this modified variable is used as the proxy for face-to-face communication and schmoozing.

income-based (asset-based) valuation models to determine the valuation of the target firm. The price-to-earnings ratio used to determine the valuation of the target firm is, on average, 2.09 times that for comparable firms. As the price-to-earnings ratio is available only when the buyer uses income-based models, the number of observations for PE_XCOMP is 294. As to the buyer characteristics, 34% of buyers are SOEs and the remaining 66% of buyers are privately owned companies, suggesting that privately owned companies were more active in the M&A market during the sample period. The average (median) compensation for the three highest-paid executives is 2.9 (1.2) CNY per 1000 CNY of revenue. The mean values for institutional holding and the percentage of shares controlled by the largest shareholder are 29% and 37%, respectively, suggesting the presence of influential investors in buyers.

**IV. Research design on the cross-sectional effect and results**

We first examine whether, in the cross section, M&A-related wining and dining varies with M&A outcomes, as summarized by *deal-specific* goodwill impairment. M&A-related wining and dining (AB_WDE) is calculated as WDE fees normalized by administrative expenses in the year of acquisition minus its average value for the previous two years. We use the following model to test whether M&A-related wining and dining (i.e., the change in WDE in the year of acquisition) is associated with a lower odds and magnitude of goodwill impairment:

$$IMPAIRMENT\_ALL(IMPAIRMENT\_SUM) = \alpha + \beta 1 * GOODWILL + \beta 2 * AB\_WDE + \boldsymbol{\beta 3} * \boldsymbol{GOODWILL} * \boldsymbol{AB\_WDE} + \beta 4 * STOCKPAYBACK + \beta 5 * METHOD + \beta 6 * RELATED + \beta 7 * REVERSEMERGER + \beta 8 * RELATIVESIZE + \beta 9 * RPT + \beta 10 * TOPINVESTBANK + \beta 11 * ADVISORFEE + \beta 12 * EXECUTIVEPAY + \beta 13 * INSTITUTION + \beta 14 * LARGESTHOLDING + \beta 15 * ROABUYER + \beta 16 * SOEBUYER + INDUSTRYDUMMY + \mathcal{E} \quad Equation\ (1)$$

IMPAIRMENT_ALL is an indicator variable that takes the value of one if the buyer takes a goodwill impairment charge on a specific acquisition within the time limit of post-closing adjustment provisions, and zero otherwise. IMPAIRMENT_SUM is the sum of goodwill impairment charges normalized by the purchase price during *all* years stipulated in post-closing adjustment provisions. Goodwill impairment is conditional on a positive goodwill and the upper bound of goodwill impairment is the magnitude of

goodwill booked at the close of the deal. Accordingly, the variable of interest is the slope coefficient on the interaction between $AB$_WDE and GOODWILL, which is expected to be negative.

We control for firm characteristics, deal characteristics, and the role of financial intermediaries in equation (1). The first set of control variables accounts for the acquisition of information through due diligence. We use TOPINVESTBANK to proxy for the quantity and quality of the due diligence process. TOPINVESTBANK takes the value of one if the buyer hired an investment bank that is among the top 10 investment banks in the year of the acquisition, and zero otherwise. Top investment banks have more professionals and a stronger incentive to maintain their reputations and thus are assumed to provide buyers with more and high-quality hard information through the due diligence process. We use ADVISORFEE to proxy for the quantity and quality of information acquired by financial advisors. Similar to the measurement window for AB_WDE, ADVISORFEE is measured as fees paid to financial advisors normalized by total administrative expenses in the year of acquisition minus its average value for the previous two years.

The second set of control variables are deal characteristics, including STOCKPAYBACK, METHOD, RELATED, REVERSEMERGER, RPT, and RELATIVESIZE. STOCKPAYBACK is an indicator variable that takes the value of one if the buyer imposes a stock payback on the seller in the case of the target firm's failure to deliver performance targets, and zero otherwise. METHOD is an indicator variable that takes the value of one when the valuation method for the target firm is income-based, and zero otherwise. We include this variable because post-closing adjustment provisions are mandatory when the valuation method is an income-based model, whereas they are voluntary when the valuation method is not income-based. RELATED is an indicator variable that takes the value of one when the buyer and the target firm operate in related business lines, and zero otherwise. REVERSEMERGER is an indicator variable that takes the value of one when the deal is structured as a reverse merger, and zero otherwise. In a reverse merger, the target firm ultimately goes public, and it has a stronger incentive to deliver committed performance targets. RPT is an indicator variable that takes the value of one when the buyer and the seller are related parties, and zero otherwise. RELATIVESIZE is a continuous variable that compares the relative

value of the buyer's total assets at the end of the fiscal year before the closing to the target firm's total assets at the closing to capture the relative bargaining power of the buyer.

The third set of control variables are the financial performance and corporate governance characteristics of the buyer, including the majority ownership of the buyer (SOEBUYER), financial performance of the buyer (ROABUYER), executive pay (EXECUTIVEPAY), the percentage of shares held by the largest shareholder (LARGESTHOLDING), and the percentage of shares held by institutional investors (INSTITUTION). Compared to privately owned buyers, SOEs have greater bargaining power that gives them an edge in negotiating more favorable terms. Compared to managers of privately owned buyers, managers in SOE buyers are more interested in achieving private benefits of control, which implies greater agency costs. Those differences could result in systematic differences in M&A outcomes between the two groups. SOEBUYER is one if the buyer is an SOE, and zero otherwise. ROABUYER is the average return on assets over the two years prior to the acquisition, which measures the financial performance of the buyer prior to the acquisition. EXECUTIVEPAY is the sum of salaries and bonuses for the three highest-paid executives normalized by revenue. LARGESTHOLDING is the percentage of shares held by the largest shareholder of the buyer, which is included to control for the largest shareholder's ownership stake. INSTITUTION is the percentage of shares held by all institutional investors, which is included to control for the disciplinary forces of the capital market on the buyer's business decisions. In addition to the control variables mentioned above, we include industry dummies in equation (1).

As reported in column 1 of panel A of table 3, when the dependent variable is the odds of goodwill impairment, the slope coefficient on AB_WDE*GOODWILL is –44.96 and statistically significant with a *p*-value of 0.05. Results are similar when the dependent variable is the magnitude of goodwill impairment. As reported in column 2 of table 3, when the dependent variable is the magnitude of goodwill impairment, the slope coefficient on AB_WDE*GOODWILL is –5.489 and statistically significant with a *p*-value of 0.10. Based on the method in Ai and Norton (2003), for an average firm, an increase in M&A-related WDE of 1 million CNY is associated with a decrease of 9.22% in the probability of goodwill impairment and a

decrease of goodwill impairment that accounts for 2.67% of the purchase price. The mean (median) purchase price for the sample used in equation (1) is 1,143 (640) millions in CNY.

**V. Research design on the two mechanisms and results**

We next explore the channels through which wining and dining improves M&A outcomes. First, to investigate the trust-building effect on integration, we use the following equation is used to examine whether M&A-related wining and dining is positively associated with integration:

$$INTEGRATION(INTEGRATION\_PERCEIVED\ ) = \alpha + \boldsymbol{\beta 1} * \boldsymbol{AB\_WDE} + Control\ variables + Industry\ Dummies + \varepsilon \qquad Equation\ (2)$$

We use two proxies for integration as the dependent variable. First, we perform a textual analysis of the M&A agreement and use the number of characters in which integration or cooperation is discussed to proxy for the perceived importance of integration at the contracting stage. INTEGRATION_PERCEIVED is a standardized measure of the number of words that discuss the importance of integration and cooperation and possible integration plans in finalized M&A agreements. Second, we use the percentage of managers in the combined company who have prior working experience in the target firm to proxy for integration at the implementation stage. INTEGRATION (INTEGRATION_YEAR3) is measured as the percentage of managers in the combined business who have prior working experience in the target firm at the end of the first (third) year after the closing of the deal. Variable of interest is the slope coefficient on AB_WDE, which is expected to be positive. Table 4 reports that M&A-related WDE is associated with integration and cooperation. When the dependent variable is the perceived importance of integration in the M&A agreement, the slope coefficient on AB_WDE is 2.379 and statistically significant with a *p*-value of 0.067. When the dependent variable is human integration one year after the closing, the slope coefficient on AB_WDE is 0.591 and statistically significant with a *p*-value of 0.096. When the dependent variable is human integration three years after the closing, the slope coefficient on AB_WDE is 0.679 and statistically significant (*p*-value =0.057).

To investigate the *information acquisition* effect on the achievability of performance targets, we use the following equation to investigate whether M&A-related wining and dining interacts with contractually stipulated incentives in enhancing the odds of achieving performance targets:

$$REALIZE(REALIZE\_ALL) = \alpha + \beta 1 * AB\_WDE + \beta 2 * STOCKPAYBACK + \boldsymbol{\beta 3} * \boldsymbol{AB\_WDE} * \boldsymbol{STOCKPAYBACK} + Control\ Variables\ + Industry\ Dummies + \varepsilon \quad \textit{Equation (3)}$$

The dependent variable, REALIZE, is an indicator variable that takes the value of one if the target firm is successful in delivering the first-year performance target stipulated in the post-closing adjustment provisions, and zero if the target firm fails to do so in the first year. The variable of interest is the interaction term between AB_WDE and STOCKPAYBACK. We expect that the slope coefficient on AB_WDE*STOCKPAYBACK is positive. As reported in column 2 of Table 5, when the dependent variable is REALIZE, after controlling for the valuation of the target firm, the slope coefficient on AB_WDE*STOCKPAYBACK is 34.638 and statistically significant with a *p*-value of 0.02. Based on the method in Ai and Norton (2003), the marginal effect of M&A-related WDE on the probability of delivering first-year performance target for stock paybacks is about twice that of cash paybacks. We then examine whether the results are robust when the measurement window extends to all contractually specified years in post-closing adjustment provisions. REALIZE_ALL is an indicator variable that takes the value of one if the target firm is successful in delivering performance targets for all contractually specified years stipulated in the post-closing adjustment provisions, and zero if the target firm fails to do so for all contractually specified years. As reported in column 4 (3) of table 5, with (without) control for the valuation of the target firm, when the dependent variable is REALIZE_ALL, the slope coefficient on AB_WDE*STOCKPAYBACK is positive and statistically significant with a *p*-value of 0.067 (0.083). The results on the achievability of performance targets suggests that WDE, as socially embedded venue for private face-to-face communication, complements contractual arrangements in ensuring more favorable M&A outcomes.

Last, we use the following mediation analysis to test whether M&A-related WDE influences goodwill impairment through either or both of the bonding effect and the information–acquisition effect:

$$IMPAIRMENT\_ALL\ (IMPAIRMENT\_SUM) = \alpha 1 + \boldsymbol{\sigma 1} * \boldsymbol{INTEGRATION\_YEAR3} + \varepsilon 1 \qquad \textit{Equation (4a)}$$

$$\text{I}MPAIRMENT\_ALL\ (IMPAIRMENT\_SUM) = \alpha 2 + \boldsymbol{\sigma 2} * \boldsymbol{REALIZE\_ALL} + \varepsilon 2 \qquad \textit{Equation (4b)}$$

$$IMPAIRMENT\_ALL(IMPAIRMENT\_SUM) = \alpha 3 + \beta 1 * GOODWILL + \beta 2 * AB\_WDE + \boldsymbol{\beta 3} * \boldsymbol{GOODWILL} * \boldsymbol{AB\_WDE} + \boldsymbol{\beta 4} * \boldsymbol{INTEGRATION\_YEAR3} + \boldsymbol{\beta 5} * \boldsymbol{REALIZE\_ALL} + Control\ Variables + Industry\ Dummies + \varepsilon 3 \qquad \textit{Equation (4c)}$$

The first set of variables of interest includes the slope coefficient on INTEGRATION_YEAR3 in equation (4a) and the slope coefficient on REALIZE_ALL in equation (4b), both of which are expected to be negative. The second set of variables of interest includes the slope coefficient on the interaction between GOODWILL and AB_WDE, the slope coefficient on INTEGRATION_YEAR3, and the slope coefficient on REALIZE_ALL in equation (4c). If the effect of WDE on M&A outcomes is fully mediated by the trust-building effect and the information-acquisition effect of face-to-face communication, σ1 (β4) or σ2 (β5) or both are expected to be negative and statistically significant, whereas β3 is expected to be insignificant.

Table 6 provides results on the mediation analysis. As reported in the column 1 (2) of panel A, a higher level of human integration (achievability of performance targets) is negatively associated with the odds of goodwill impairment. As reported in column 3, once both INTEGRATION_YEAR3 and REALIZE_ALL are included on equation (4c), REALIZE_ALL continues to be negative and statistically significant, whereas M&A-related WDE has no *direct* effect on the odds of goodwill impairment. As shown in panel B of table 6, similar results are obtained when the dependent variable is the magnitude of goodwill impairment. The results from the mediation analysis suggest that wining and dining improves M&A outcomes through both the trust-building channel and the information-acquisition channel.

**VI. Research design on identifying the economic effect of wining and dining and results**

Despite that we use the *change* in rather than the *level* of normalized WDE fees in the M&A year to capture M&A-related wining and dining, the empirical proxy could still be endogenously determined by some unobservable firm and deal characteristics. To address the endogeneity, we utilize the enactment of the administrative order that curbs wining and dining for a subset of acquisitions as the identification

strategy. The policy shock lends itself well to a difference-in-differences design in *identifying* the economic consequences because the applicability of the government ban on WDE varies by the ownership structure of firms in M&A transactions. The administrative order explicitly curbs the use of corporate accounts for WDE by SOEs (the treatment group) and bans SOE managers from attending receptions and dinners, but is not applicable to privately held firms (the control group) and their managers. Specifically, we adopt a difference-in-differences design and use the following model to identify the effect of wining and dining on M&A outcomes:

$$OUTCOME = \alpha + \beta 1 * SOEBUYER + \beta 2 * POST + \boldsymbol{\beta 3} * \boldsymbol{SOEBUYER} * \boldsymbol{POST} + Control\ Variables + INDUSTRYDUMMY + \mathcal{E} \qquad Equation\ (5)$$

In this equation, the dependent variable can be IMPAIRMENT, or INTEGRATION, or REALIZE. The time indicator, POST, is one if the acquisition occurs after the administrative order, and zero otherwise. The variable of interest is the slope coefficient on the interaction term between SOEBUYER and POST. Unlike managers of privately owned buyers, managers in SOE buyers are subject to the government ban on wining and dining. When the dependent variable is goodwill impairment, the slope coefficient on SOEBUYER*POST is expected to be positive. In contrast, when the dependent variable is the achievability of performance targets or integration, the slope coefficient on SOEBUYER*POST is expected to be negative.

A key identifying assumption central to a causal interpretation of the difference-in-differences design is that, in the absence of the administrative order, the average *change* in outcome variables would have been the same for SOEs and privately owned buyers. To test whether the parallel trends assumption holds, following Serfling (2016), we replace POST with the following indicator variables, $ORDER^{-1}$, $ORDER^{0}$, and $ORDER^{1}$. These variables are set to one if an acquisition occurs (1) in the year before the administrative order became effective, (2) in the year the administrative order became effective, and (3) in the year after the administrative order became effective, respectively. These variables are also interacted with the indicator variable for SOE buyers.

Table 7 presents whether the difference-in-differences in goodwill impairment between SOEs and privately owned buyers is statistically significant in a multivariate specification. As reported in column 1 of table 7, with other control variables, the slope coefficient on SOEBUYER*POST is 0.003 and statistically significant with a *p*-value of 0.095. The positive slope coefficient suggests that SOE buyers took bigger goodwill impairment charges after the enactment of the administrative order than that taken by privately owned buyers. Column 2 of panel C of table 7 presents the results on whether the parallel trends assumption holds. The insignificant (significant) slope coefficient on the interaction between SOEs and the indicator variable for the year before (after) the administrative order suggests that, in the absence of the administrative order, the average change in goodwill impairment is the same for SOEs and privately owned buyers. In column 3, we perform a placebo test by moving forward the timing of the administrative order artificially by two years. The indicator variable, FAKE_POST, takes the value of one if the acquisition takes place after 2010, and zero otherwise. The slope coefficient on the interaction term between FAKE_POST and SOEBUYER is statistically *insignificant*. Results from table 7 helps identify the effect of wining and dining on goodwill impairment.

As reported in table 8, the results are similar when the outcome variable is human integration. Using the difference-in-differences design, after the enactment of the administrative order, the level of post-acquisition integration declined more for SOE buyers than for privately owned buyers, suggesting a greater decline in cooperation after the government ban on wining and dining for SOE buyers. In support of the parallel trend assumption, the slope coefficient on the interaction between SOEs and the indicator variable for the year is insignificant (significant) before (after) the administrative order. Results from table 8 provides corroborating evidence on the trust-building effect of wining and dining on integration.

Panel A and panel B of table 9 report the before-and-after differences in REALIZE for the treatment sample in which the buyer is an SOE (SOEBUYER = 1) and for the control sample in which the buyer is a privately owned company (SOEBUYER = 0), respectively. As evident from panel A, among SOE buyers, the odds of delivering the performance target for the first fiscal year after the close of the deal decrease from 94% before to 84% after the enactment of the order, and the *p*-value for the difference is 0.055.

However, as reported in panel B, among privately owned buyers, the change in REALIZE before and after the enactment is not statistically significant. Column 1 of Panel C presents whether the difference-in-differences in REALIZE between SOEs and privately owned buyers is statistically significant in a multivariate specification. The slope coefficient on SOEBUYER*POST is –1.343 and statistically significant with a *p*-value of 0.09. Using the method in Ai and Norton (2003), the probability of delivering promised performance targets for an average SOE buyer declined by 12.2% more than that experienced by an average privately owned buyer after the enactment of the administrative order. In support of the parallel trend assumption, the slope coefficients on SOEBUYER*ORDER$^{-1}$ and SOEBUYER*ORDER$^{0}$ are statistically insignificant, whereas the slope coefficient on SOEBUYER*ORDER$^{1}$ is statistically significant (*p*-value = 0.055). The result is also robust to the placebo test. Figure 1 confirms the same message: the target firm's odds of delivering promised performance targets is consistently higher for SOEs in each of the year before the enactment. However, after the enactment of the government ban on wining and dining for SOEs, the achievability of performance targets for SOEs trends downward and becomes lower than that for privately held firms in 2014. In summary, results from table 9 and figure 1 provide corroborating evidence for the information-acquisition effect of wining and dining on the achievability of performance targets.

## VII. Robustness checks and supplemental analyses

### *7.1. Comparative statistics on the economic benefits of WDE*

Table 10 reports the cross-sectional variation in the effect of WDE on goodwill impairment. The effect of WDE on the odds of goodwill impairment is largely concentrated in the subsample in which the buyer and the target firm operate in related business lines. For instance, as reported in column 2, the slope coefficient on AB_WDE*GOODWILL is –51.999 and statistically significant with a *p*-value of 0.063 when RELATED is equal to one, whereas the slope coefficient as reported in column 1 is statistically insignificant when RELATED is equal to zero. Similarly, the effect of WDE on the magnitude of goodwill impairment is also largely concentrated in the subsample in which the buyer and the target firm operate in related business lines. Comparative statistics suggest that WDE improves M&A outcomes to a greater extent when

the buyer and the target firm operate in related lines of business. The result is consistent with the prediction from Cartwright and Cooper (1993) that the success of M&A depends more heavily on human integration in combinations of companies in related business lines than those in unrelated business activities.

*7.2. The economic benefits of WDE and regulatory engagement*

While the main premise is that M&A-related WDE enhances trust building and improves information transmission between buyers and sellers, a portion of WDE also captures the firm's efforts to wine and dine regulators in order to seek approval of the deal. We use two empirical proxies to capture the level of regulatory engagement in the M&A process. The first proxy for regulatory engagement is CONDITIONAL, which is one if CSRC approved the deal conditional on further modifications to designated contractual terms, and zero if CSRC approved the deal unconditionally. The second proxy is FEEDBACK, which sums up the number of times regulators request additional supporting documents, the number of inquiries about the details of the deal, and the number of comment letters sent by CSRC to the buyer during the approval process. We hand collect the above-mentioned information from CSRC's websites or the buyer's public announcements. We include both CONDITIONAL and FEEDBACK as additional explanatory variables to examine whether the economic benefits of WDE are robust to regulatory engagement.

As shown in panel A of table 11, the slope coefficient on AB_WDE continues to be positive and statistically significant when the dependent variable is human integration, whereas neither CONDITIONAL nor FEEDBACK is a significant predictor of the extent of post-acquisition integration. As shown in panel B of table 11, when the dependent variable is the odds of the target firm's delivering performance targets, the slope coefficient on AB_WDE*STOCKPAYBACK continues to be positive and statistically significant. As shown in column 1 (2) of panel C, when the dependent variable is the odds (magnitude) of goodwill impairment, the slope coefficient on AB_WDE*GOODWILL continues to be negative and statistically significant. In summary, the economic effects of WDE are robust to the inclusion of regulatory engagement.

*7.3. The economic benefits of WDE and the possibility of tunneling*

While we argue that the buyer has incentives to avoid overstated performance targets to avoid goodwill impairment and unfavorable M&A outcomes, this section addresses the possibility that some buyers could be colluding with sellers to tunnel resources away from publicly listed buyers by intentionally setting overly optimistic performance targets and overpaying for the target firm. The possibility of tunneling is higher when the buyer and the target firm are related parties than when the parties act at arm's length. When the buyer and the seller are related parties, repeated interaction between them leads to trust and mutual understanding, and, therefore, their need to build trust and learn about each other through wining and dining is rather low. Instead, wining and dining could provide opportunities for the buyer and the seller to collude. If the tunneling effect dominates in related-party transactions, we would expect more goodwill impairment charges for firms with higher M&A-related WDE expenses. However, as reported in column 2 (4) of table 12, the slope coefficient on the interaction between AB_WDE and GOODWILL is statistically insignificant in the subsample where the buyer and the seller are related parties, suggesting that the tunneling effect does not dominate in related-party transactions. Furthermore, as reported in column 1 (3) of table 12, we continue to observe the economic benefits of wining and dining in the subsample where the buyer and the target firm act at arm's length. One interpretation of the above results is that wining and dining has greater economic benefits when the trust-building effect or the information-acquisition effect or both are more relevant. An alternative explanation is that related parties are more likely to engage in collusion to tunnel away resources from publicly listed buyers, which *moderates* the potential benefits of wining and dining.

*7.4. Sensitivity of the results to the time limit of the post-closing adjustment provisions*

The time limit of post-closing adjustment provisions is usually set at three years. However, out of 373 observations, the time limit is longer (shorter) than three years for 45 (14) post-closing adjustment provisions. In the sensitivity checks, we include the time limit of post-closing adjustment provisions as an additional control variable to explain the variation in outcome variables that are measured over the entire contract period. The results after controlling for the time limit are quantitatively and qualitatively similar. For instance, when the dependent variable is REALIZE_ALL, the slope coefficient on

AB_WDE*STOCKPAYBACK is 16.207 (18.995) with a *p*-value of 0.087 (0.088) with (without) valuation of the target firm after controlling for the time limit. When the dependent variable is IMPAIRMENT_ALL (IMPAIRMENT_SUM), the slope coefficient on AB_WDE*GOODWILL is –45.687 (–5.695) with a *p*-value of 0.052 (0.086) after controlling for the time limit.

*7.5. Financial intermediaries' responses to the administrative order*

Investment bankers and financial advisors have strong incentives to drive deal flows and may have been creative in finding ways to make sure merger parties come to agreement after the enactment of the administrative order. Investment banks and financial advisors might have agreed to pay for dinners and increased their fees slightly to cover the expense. Indeed, in untabulated results, we find some evidence for the substitution between buyer-sponsored WDE and fees charged by investment banks and financial advisors after the enactment of the administrative order. For instance, investment bank fees increase from 4.3% of the administrative expense before the enactment of the administrative order to 5.2% after the enactment, whereas there is no statistically significant increase in fees charged by financial advisors. Accordingly, when the buyer's ability to build trust and learn more about the target firm through WDE is impaired, investment banks either step up to build such a channel on the behalf of the buyer or charge more to compensate for the enhanced risk associated with the increased information problems and lack of trust between the buyer and the seller. However, financial intermediaries are not perfect substitutes for buyer-sponsored WDE because, even though investment banks are willing to pay for WDE on behalf of the buyer, managers of SOE buyers cannot attend those events and have a face-to-face interaction with sellers under the directive of the administrative order.

## *VIII. Conclusion*

This study examines whether wining and dining, as a socially embedded venue for bonding and face-to-face communication, complements contractual arrangements in ensuring more favorable M&A outcomes. In the cross section, we find that, after controlling for firm and deal characteristics and the role of financial intermediaries, an increase in fees incurred for wining and dining in the M&A year is associated

with a reduction in the probability and magnitude of goodwill impairment. We identify trust building and information acquisition as the two possible channels through which wining and dining improves M&A outcomes. First, wining and dining between counterparties in the pre-contractual period facilitates the development of interpersonal trust and helps management teams of the acquiring and target firms work together more smoothly during both the contracting phase and the implementation process. Second, face-to-face communication over WDE mitigates opportunism in information transmission and bridges the cognitive gap between contracting parties about post-acquisition performance, both of which enable the formation of more realistic expectations and increase the achievability of performance targets. Utilizing an exogenous policy shock that curbs wining and dining for a subset of acquisitions as the identification strategy, we find that affected deals experience a greater increase in goodwill impairment, but a greater decline in post-acquisition integration and the achievability of performance targets than less affected deals. In summary, using archival data, this study documents that wining and dining has real economic benefits when economic transactions are trust-sensitive and information asymmetry/uncertainty are central frictions.

In practice, markets in venture capital and private equity financing use contractual structures similar to those in the post-closing adjustment provisions in M&A and share market frictions similar to those in M&A. Future studies could explore whether changes in the costs or feasibility of providing a socially embedded arena for bonding and communication result in similar economic outcomes in such markets. On a related note, the COVID-19 pandemic has created physical barriers to face-to-face interaction and provides an exogenous shock to test the power of face-to-face communication relative to internet-mediated communication in decision-making in various markets.

## References


Ai, C., and E. C. Norton. 2003. Interaction terms in logit and probit models. *Economic Letters* 80: 123-29.

Akbas, F., F. M. Meschke and B. Wintoki. 2016. Director networks and informed traders. *Journal of Accounting Economics* 62: 1-23.

Baron, R. M., and D. A. Kenny. 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology* 51: 1173–82.

Bruynseels, L. and E. Cardinaels. 2014. The audit committee: Management watchdog or personal friend of the CEO? *The Accounting Review* 89: 113-45.

Cadman, B. D., R. Carrizosa, and L.e Faurel. 2014. Economic Determinants and Information Environment Effects of Earnouts: New Insights from SFAS 141(R). *Journal of Accounting Research* 52: 37-74.

Cai, H., H. Fang, and L. C. Xu. 2011. Eat, drink, firms, and government: An investigation of corruption from the entertainment and travel costs of Chinese firms. *Journal of Law and Economics* 54: 55–78.

Cain, M. D., D. J. Denis, and D. K. Denis. 2011. Earnouts: A study of financial contracting in acquisition agreements. *Journal of Accounting and Economics* 51: 151-70.

Cardenas, J., T. K. Ahn, and E. Ostrom. 2004. Communication and co-operation in a common-pool resource dilemma: A field experiment. In *Advances in Understanding Strategic Behaviour: Game Theory, Experiments and Bounded Rationality*, edited by Steffen Huck, 258–86. New York: Palgrave Macmillan.

Cartwright, S., and C. Cooper. 1993. The role of culture in successful organizational marriage. *Academy of Management Executive* 7: 57–70.

Charness, G., and M. Dufwenberg. 2006. Promises and partnership. *Econometrica* 74: 1579–1601.

Chemmanur, T. J., and P. Fulghieri. 1994. Investment bank reputation, information production, and financial intermediation. *Journal of Finance* 49: 57–79.

Cohen, L., A. Frazzini, and C. Malloy. 2008. The small world of investing: Board connections and mutual fund returns. *Journal of Political Economy* 116:951-79.

Crawford, V. P. 2003. Lying for strategic advantage: Rational and boundedly rational misrepresentation of intentions. *American Economic Review* 93: 133–49.

Crawford, V. P., and J. Sobel. 1982. Strategic information transmission. *Econometrica* 50: 1431–51.

Datar, S., R. Frankel, and M. Wolfson. 2001. Earnouts: The effects of adverse selection and agency costs on acquisition techniques. *Journal of Law, Economics, and Organization* 17: 201-38.

Demarzo, P., and D. Duffie. 1999. A Liquidity-based Model of Security Design. *Econometrica* 67: 65-99.

Ellison, G., and D. Fudenberg. 1995. Word-of-mouth communication and social learning. *Quarterly Journal of Economics* 110: 93–125.

Ellingsen, T., and R. Östling. 2010. When does communication improve coordination? *American Economic Review* 100: 1695–1724.

Engelberg, J., P. Gao, and C. A. Parsons. 2013. The Price of a CEO's Rolodex. *Review of Financial Studies* 26: 79-114.

———. 2013. The Price of a CEO's Rolodex. *Review of Financial Studies* 26: 79-114.

Feldman, D. C. 1981. The multiple socialization of organization members: A longitudinal study. *Academy of Management* (Proceedings). 1981: 309–18.

Frank, R. H., T. Gilovich, and D. T. Regan. 1993. The Evolution of one-shot cooperation: An experiment. *Ethology and Sociobiology* 14: 247–56.

Gillespie, A., and K. Corti. 2016. The Body that speaks: recombining bodies and speech sources in unscripted face-to-face communication. *Frontier of Psychology* 7: 1–11.

Golubov, A., D. Petmezas, and N. G. Travlos. 2012. When it pays to pay your investment banker: New evidence on the role of financial advisors in M&As. *The Journal of Finance* 67: 271-311.

Grossman, S. J., and O. D. Hart. 1986. The costs and benefits of ownership: A theory of vertical and lateral integration. *Journal of Political Economy* 94: 691–719.

Granovetter, M. 1985. Economic action and economic structure: The problem of embeddedness. *American Journal of Sociology* 91: 481–510.

———. 2005. The impact of social structure on economic outcomes. *Journal of Economic Perspectives* 19: 33–50.

———. 2017. *Society and Economy: Framework and Principles*. Cambridge, MA: Harvard University Press.

Greiner, B., M. Caravella, and A. E. Roth. 2014. Is avatar-to-avatar communication as effective as face-to-face communication? An ultimatum game in first and second life. *Journal of Economic Behavior and Organization* 108: 374–82.

Gu, Z., Z. Li, and Y. G. Yang, G. Li. 2019. Friends in need are friends indeed: An analysis of social ties between financial analysts and mutual fund. *The Accounting Review* 94: 153-81.

Gu, F., and B. Lev. 2011. Overpriced shares, Ill-advised acquisitions, and goodwill Impairment. *The Accounting Review* 86: 1995–2022.

Hagenbach, J., and F. Koessler. 2010. Strategic communication networks. *Review of Economic Studies* 77: 1072–99.

Hart, S., I. Kremer, and M. Perry. 2017. Evidence games: Truth and commitment. *American Economic Review* 107: 690–713.

He, X., J. A. Pittman, O. M. Rui, D. Wu. 2017. Do social ties between external auditors and audit committee members affect audit quality? *The Accounting Review* 92: 61-87.

Holmstrom, B. 1979. Moral Hazard and Observability. *The Bell Journal of Economics* 10: 74-91.

Holmstrom, B. and J. Roberts. 1998. The Boundaries of the Firm Revisited. *Journal of Economic Perspectives* 12: 73-94.

Houston, J. F., J. Lee, and F. Suntheim. 2018. Social networks in the global banking sector. *Journal of Accounting and Economics* 65: 237-69.

Huang, J., and K. Li. 2013. Eat-Drink, corruption and firm's purchase order. *Economic Research Journal* (in Chinese) 6: 71–84.

Jiang, J., B. Dai, D. Peng, C. Zhu, L. Liu, and C. Lu. 2012. Neural synchronization during face-to-face communication. *Journal of Neuroscience* 32: 16064–69.

Kartik, N. 2009. Strategic communication with lying costs. *Review of Economic Studies* 76: 1359–95.

Klein, B. 1980. Transaction cost determinants of 'unfair' contractual arrangements. *American Economic Review* 70: 356–62.

Kohers, N., and J. Ang. 2000. Earnouts in Mergers: Agreeing to Disagree and Agreeing to Stay. *The Journal of Business* 73: 445-76.

Krishna, V. and J. Morgan. 2004. Art of conversation: Eliciting information from experts through multi-stage communication. *Journal of Economic Theory* 117: 147–79.

Li, H., and X. Shi. 2017. Discriminatory information disclosure. *American Economic Review* 107: 3363–85.

Li, Z., T.J. Wong, G. Yu. 2020. Information dissemination through embedded financial analysts: Evidence from China. *The Accounting Review* 95: 257-81.

Liberti, J. M. and M. A. Peterson. 2019. Information: Hard and soft. *Review of Corporate Finance Studies* 8: 1–41.

Malmendier, U., E. Moretti, F. S. Peters. 2018. Winning by Losing: Evidence on the Long-run Effects of Mergers. *The Review of Financial Studies* 31: 3212-63.

Myers, S. C., and N. S. Majluf. 1984. Corporate financing decisions when firms have information investors do not have." *Journal of Financial Economics* 13: 187-221.

Nardi, B. A. and S. Whittaker. 2002. The place of face-to-face communication in distributed work. In *Distributed Work*, edited by Pamela J. Hinds and Sara Kiesler, 83–111. Cambridge, MA: MIT Press.

Ostrom, E. 1998. A behavioral approach to the rational theory of collective action: Presidential address. *American Political Science Review* 92: 1–22.

Ostrom, E. and J. Walker. 1991. Communication in a commons: Cooperation without external enforcement. In *Laboratory Research in Political Economy*, edited by T. R. Palfrey, 287–322. Ann Arbor: University of Michigan Press.

Ostrom, E., R. Gardner, and J. Walker. 1994. *Rules, Games, and Common-Pool Resources*. Ann Arbor: University of Michigan Press.

Peters, B. L., and E. Stringham. 2006. No booze? You may lose: Why drinkers earn more money than nondrinkers. *Journal of Labor Research* 27: 411–21.

Petty, R. E., and J. T. Cacioppo. 1981. *Attitudes and Persuasion: Classic and Contemporary Approaches*. Dubuque, IA: Wm. C. Brown.

———. 1986. *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*. New York: Springer-Verlag.

Roll, R. 1986. The hubris hypothesis of corporate takeovers. *Journal of Business* 59: 197–216.

Schelling, T. C. 1956. An essay on bargaining. *American Economic Review* 46: 281–306.

———. 1960. *The Strategy of Conflict.* Cambridge, MA: Harvard University Press.

Serfling, M. 2016. Firing costs and capital structure decisions. *Journal of Finance* 71: 2239–86.

Shleifer, A. and R. W. Vishny. 2003. Stock market driven acquisitions. *Journal of Financial Economics* 70: 295–311.

Solomon, D., and E. F. Soltes. 2015. What are we meeting for? The consequences of private meetings with investors. *Journal of Law and Economics* 58: 322-55.

Straus, S. G., and J. E. McGrath. 1994. Does the medium matter? The interaction of task type and technology on group performance and member reactions. *Journal of Applied Psychology* 79: 87–97.

Tirole, J. 2009. Cognition and incomplete contract. *American Economic Review* 99: 265-94.

Toma, C. L., L. C. Jiang, and J. T. Hancock. 2018. Lies in the eye of the beholder: Asymmetric beliefs about one's own and others' deceptiveness in mediated and face-to-face communication. *Communication Research* 45: 1167 –92.

Zant, V., A. B., and L. J. Kray. 2014. 'I can't lie to your face': Minimal face-to-face interaction promotes honesty. *Journal of Experimental Social Psychology* 55: 234–38.

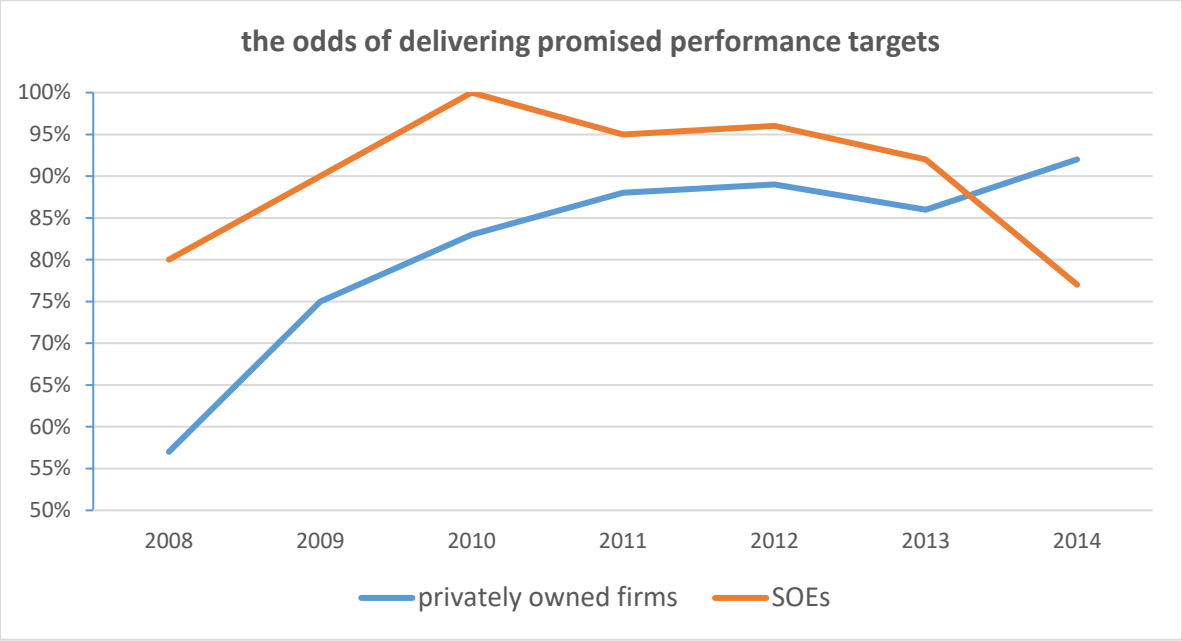
Williamson, O. E. 1975. *Markets and Hierarchies: Analysis and Antitrust Implications: A Study of Internal Organization*. New York: The Free Press.

———. 1979. Transaction-cost economics: The governance of contractual relations. *Journal of Law and Economics* 22: 233–61.

———. 1985. *The Economic Institute of Capitalism*. New York: Free Press.

Zhao, X., J. G. Lynch Jr., and Q. Chen. 2010. Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research* 37: 197–206.

**Figure 1**
**The target firm's odds of delivering promised performance targets over time**




The period ***before*** the enactment of the administrative order: 2008 to 2012

The period ***after*** the enactment of the administrative order: 2013 and 2014

**Figure 2**
**Mean of WDE fees per 1000 CNY of administrative expenses**

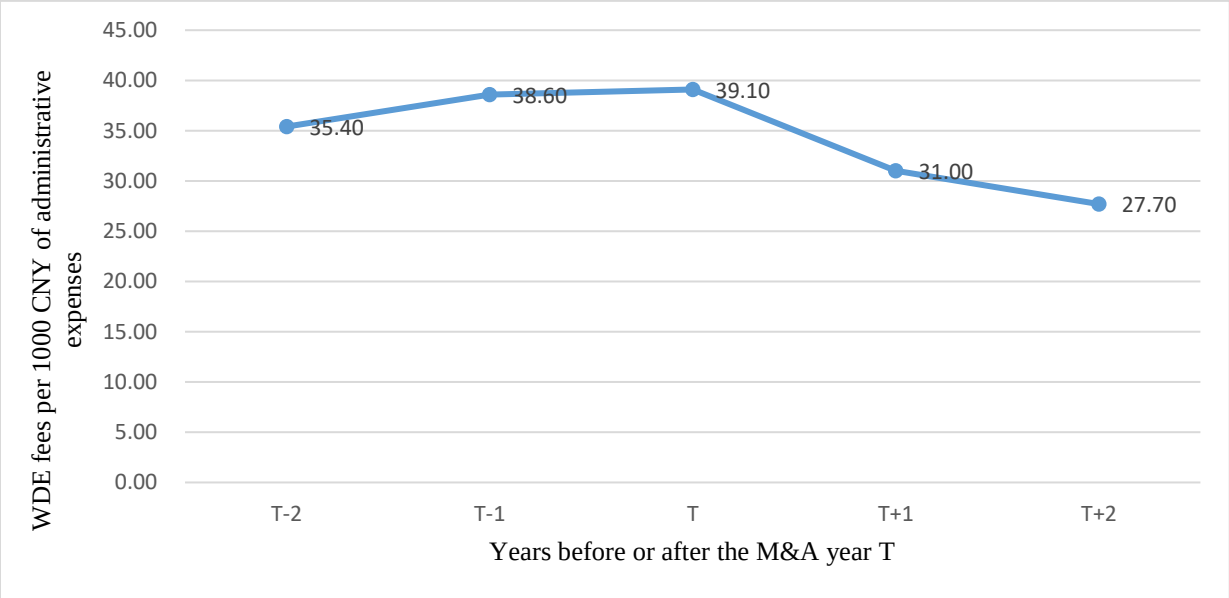


**Figure 3**

**Channels for the effect of wining and dining**

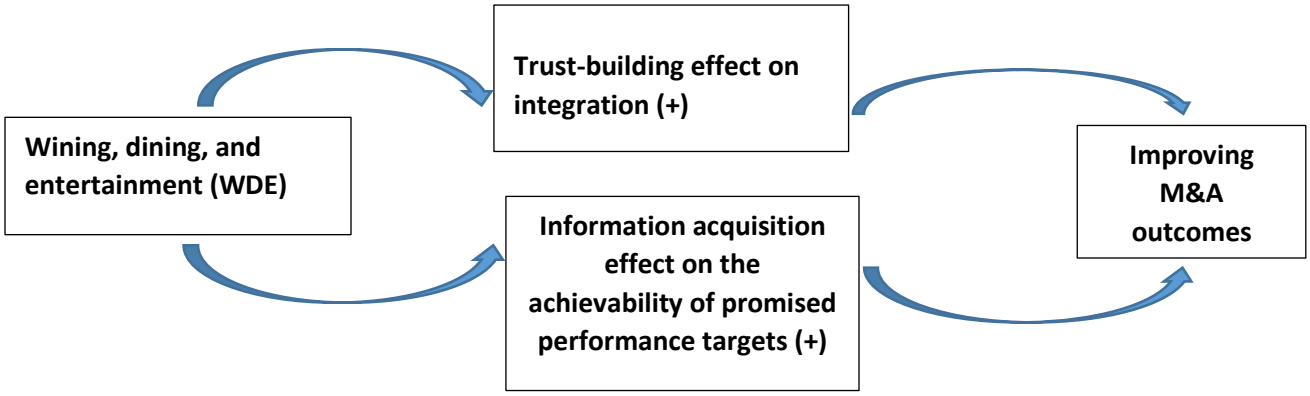


**Table 1**

**Sample selection**

**Panel A: Sample formation**

| Sample formation steps | Number of observations |
|---|---|
| Acquisitions with publicly available post-closing adjustment provisions that include an income-based performance target during the period from 2008 to 2014 | 390 |
| Acquisitions with overseas targets or delisted buyers | (6) |
| Acquisitions without data on whether the target firm has delivered all performance targets specified in post-closing adjustment provisions | (8) |
| Acquisitions with information available on whether the target firm has delivered all performance targets | 376 |
| Acquisitions with information available for control variables | 373 |
| Acquisitions without information available for goodwill impairment | (158) |
| Acquisitions with information available for goodwill impairment | 215 |

**Panel B: Yearly distribution of the main sample**

| Year | Number of deals in the sample | Number of deals in the sample as a *percentage* of total number of all deals in M&A markets in China | Transaction value of deals in the sample as a *percentage* of total transaction value of all deals in M&A markets in China |
|---|---|---|---|
| 2008 | 12 | 55% | 95% |
| 2009 | 14 | 24% | 23% |
| 2010 | 25 | 34% | 14% |
| 2011 | 36 | 50% | 44% |
| 2012 | 51 | 55% | 51% |
| ***Subtotal (before the administrative order)*** | ***138*** | ***43%*** | ***32%*** |
| 2013 | 67 | 45% | 28% |
| 2014 | 168 | 61% | 26% |
| ***Subtotal (after the administrative order)*** | ***235*** | ***56%*** | ***27%*** |
| ***Total*** | ***373*** | ***50%*** | ***29%*** |

**Table 2**

**Variable definitions and summary statistics**

**Panel A: Variable definitions**

| VARIABLES | DESCRIPTION |
|---|---|
| REALIZE | An indicator variable that takes the value of one if the target firm is successful in delivering performance targets for the first year stipulated in the post-closing adjustment provisions, and zero if the target firm fails to do so for the first year stipulated in the post-closing provisions**.** |
| REALIZE_ALL | An indicator variable that takes the value of one if the target firm is successful in delivering performance targets for *all* the years stipulated in the post-closing adjustment provisions, and zero if the target firm fails to do so for all the years stipulated in the post-closing provisions**.** |
| IMPAIRMENT_ALL | An indicator variable that takes the value of one if the buyer takes a goodwill impairment charge on a specific acquisition within the time limit of the post-closing adjustment provisions, and zero otherwise. |
| IMPAIRMENT_SUM | A continuous variable that is the sum of goodwill impairment charges normalized by the purchase price during *all* years stipulated in post-closing adjustment provisions. |
| IMPAIRMENT | A continuous variable that is the sum of goodwill impairment charges normalized by the purchase price for the first year stipulated in post-closing adjustment provisions. |
| INTEGRATION_PERCEIVED | A standardized measure of the number of words that discuss the importance of integration and cooperation and possible integration plans in the M&A agreement. |
| INTEGRATION | A continuous variable that is measured as the percentage of managers of the buyer who have working experience in the target firm at the end of the first year after the deal has been completed. |
| INTEGRATION_YEAR3 | A continuous variable that is measured as the percentage of managers of the buyer who have working experience in the target firm at the end of the third year after the deal has been completed. |
| WDEFEES | Wining, dining and entertainment fee in the year of acquisition. |
| WDE_NORMALIZED | A continuous variable that is calculated as fees incurred on wining, dining, and entertainment (WDEFEES) normalized by administrative expenses. |
| AB_WDE | A continuous variable that is calculated as WDE fees normalized by administrative expenses in the year of acquisition minus its average value for the previous two years. |
| POST | An indicator variable that takes the value of one if observation is taken in 2013 and 2014 (after the administrative order was enacted), and zero otherwise. |
| AB_WDE_BEFORE | A continuous variable that is calculated as WDE fees normalized by administrative expenses in the year of acquisition minus its average value for the two years before the administrative order was enacted. |
| AB_WDE_AFTER | A continuous variable that is calculated as WDE fees normalized by administrative expenses in the year of acquisition minus its average value for the two years after the administrative order was enacted. . |
| CONDITIONAL | An indicator variable that takes the value of one when the deal is conditionally approved by China Securities Regulation Commission, and zero otherwise. |
| FEEDBACK | The number of feedbacks that require listed firm to feedback the inquire of securities exchanges and China Securities exchanges |
| STOCKPAYBACK | An indicator variable that takes the value of one if the buyer imposes a stock payback on the seller when the target firm fails to deliver performance targets, and zero otherwise. |

| | |
|---|---|
| GOODWILL | A continuous variable that is the amount of goodwill normalized by the purchase price, which captures the percentage of the purchase price that is allocated to goodwill. |
| METHOD | An indicator variable that takes the value of one when the valuation method for the target firm is income-based, and zero otherwise. |
| RELATED | An indicator variable that takes the value of one when the buyer and the target firm operate in related business lines either horizontally or vertically, and zero otherwise. |
| RPT | An indicator variable that takes the value of one when the buyer and the seller are related parties, and zero otherwise. |
| RELATIVESIZE | A continuous variable that compares the value of the buyer's total assets at the end of fiscal year before the deal has been completed to the target firm's total assets at the time of deal. |
| PE_XCOMP | A continuous variable that is measured as the price-to-earnings ratio in determining the valuation of the target firm compared with those for comparable publicly listed firms. |
| REVERSEMERGER | An indicator variable that takes the value of one when the deal is structured as a reverse merger, and zero otherwise. |
| TOPINVESTBANK | An indicator variable that takes the value of one if the buyer hired an investment bank that is among the top 10 investment banks in the year of the acquisition, and zero otherwise. |
| ADVISORFEE | A continuous variable that is measured as fees paid to financial advisors normalized by total administrative expenses in the year of acquisition minus its average value for the previous two years. |
| SOEBUYER | An indicator variable that takes a value of one if the buyer is an SOE, and zero otherwise. |
| ROABUYER | A continuous variable that measures the average return on assets over the two years prior to the acquisition. |
| EXECUTIVEPAY | A continuous variable that is the sum of salaries and bonuses for the three highest-paid executives normalized by revenue in the year prior to the acquisition. |
| INSTITUTION | A continuous variable that is the percentage of shares held by all institutional investors. |
| LARGESTHOLDING | A continuous variable that is the percentage of shares held by the largest shareholder of the buyer. |
| PERIODS | The number of years that the seller is committed to deliver promised performance targets. |
| FAKEPOST | An indicator variable that takes the value of one if observation is taken in 2011–14, and zero otherwise. |
| $ORDER^{-1}$ | An indicator variable that takes the value of one if an acquisition occurs in the year before the administrative order become effective, zero otherwise. |
| $ORDER^{0}$ | An indicator variable that takes the value of one if an acquisition occurs in the year the administrative order became effective, zero otherwise. |
| $ORDER^{+1}$ | An indicator variable that takes the value of one if an acquisition occurs in the year after the administrative order became effective, zero otherwise. |

**Panel B: Summary statistics of main variables**

| | Number of observations | Minimum | Mean | Median | Maximum | Standard deviation |
|---|---|---|---|---|---|---|
| REALIZE | 373 | 0.0000 | 0.8901 | 1.0000 | 1.0000 | 0.3132 |
| REALIZE_ALL | 373 | 0.0000 | 0.8070 | 1.0000 | 1.0000 | 0.3952 |
| INTEGRATION_WORD | 373 | 0.0000 | 2715 | 1977 | 25517 | 3464.5 |
| INTEGRATION | 373 | 0.0000 | 0.3182 | 0.2143 | 1.0000 | 0.3462 |
| INTEGRATION_YEAR3 | 373 | 0.0000 | 0.3513 | 0.2407 | 1.0000 | 0.3493 |
| WDEFEES | 373 | 0.0000 | 8,163,899 | 2,947,932 | 549,970,329 | 31,322,992 |
| WDE_NORMALIZED | 373 | 0.0000 | 0.0391 | 0.0259 | 0.3469 | 0.0457 |
| AB_WDE | 373 | -0.0853 | 0.0025 | -0.0017 | 0.3363 | 0.0404 |
| POST | 373 | 0.0000 | 0.6300 | 1.0000 | 1.0000 | 0.4834 |
| AB_WDE_BEFORE | 138 | -0.0853 | 0.0178 | 0.0056 | 0.3045 | 0.0522 |
| AB_WDE_AFTER | 235 | -0.0783 | -0.0064 | -0.0061 | 0.3363 | 0.0279 |
| STOCKPAYBACK | 373 | 0.0000 | 0.7748 | 1.0000 | 1.0000 | 0.4183 |
| METHOD | 373 | 0.0000 | 0.7989 | 1.0000 | 1.0000 | 0.4013 |
| RELATED | 373 | 0.0000 | 0.6729 | 1.0000 | 1.0000 | 0.4698 |
| RPT | 373 | 0.0000 | 0.4290 | 0.0000 | 1.0000 | 0.4956 |
| RELATIVESIZE | 373 | 0.0000 | 9.3394 | 2.6930 | 314.7924 | 28.8855 |
| REVERSEMERGER | 373 | 0.0000 | 0.2306 | 0.0000 | 1.0000 | 0.4218 |
| TOPINVESTBANK | 373 | 0.0000 | 0.5630 | 1.0000 | 1.0000 | 0.4967 |
| ADVISORFEE | 373 | 0.0000 | 0.0134 | 0.0010 | 0.4330 | 0.0634 |
| SOEBUYER | 373 | 0.0000 | 0.3405 | 0.0000 | 1.0000 | 0.4745 |
| ROABUYER | 373 | -0.2181 | 0.0350 | 0.0349 | 0.2943 | 0.0404 |
| EXECUTIVEPAY | 373 | 0.0000 | 0.0029 | 0.0012 | 0.2546 | 0.0135 |
| INSTITUTION | 373 | 0.0000 | 0.2905 | 0.2701 | 0.8869 | 0.2108 |
| LARGESTHOLDING | 373 | 0.0666 | 0.3746 | 0.3542 | 0.8523 | 0.1585 |
| CONDITIONAL | 373 | 0.0000 | 0.6622 | 1.0000 | 1.0000 | 0.4736 |
| FEEDBACK | 373 | 0.0000 | 2.0161 | 2.0000 | 5.0000 | 1.1845 |
| PERIODS | 373 | 1.0000 | 3.0000 | 3.0000 | 6.0000 | 0.5259 |
| PE_EXCOMP | 294 | 0.0009 | 2.0988 | 0.2521 | 41.7914 | 5.5117 |
| GOODWILL | 215 | 0.0000 | 0.5303 | 0.5988 | 0.9682 | 0.2886 |
| IMAIRMENT | 215 | 0.000 | 0.0004 | 0.0000 | 0.0616 | 0.0044 |
| IMPAIRMENT_SUM | 215 | 0.0000 | 0.0236 | 0.0000 | 0.8046 | 0.0972 |
| IMPAIRMENT_ALL | 215 | 0.0000 | 0.1395 | 0.0000 | 1.0000 | 0.3473 |

**Table 3**

**M&A-related WDE and goodwill impairment in the cross section**

| | | **IMPAIRMENT_ALL** | **IMPAIRMENT_SUM** |
|---|---|---|---|
| | | (1) | (2) |
| **Explanatory Variables** | Predicted Sign | Coefficient (*T*-value) | Coefficient (*T*-value) |
| INTERCEPT | | INCLUDED | INCLUDED |
| AB_WDE | | 11.797 | 2.124 |
| | | (1.246) | (1.338) |
| GOODWILL | | -0.180 | -0.091 |
| | | (0.054) | (0.896) |
| **AB_WDE*GOODWILL** | （-） | **-44.960**** | **-5.489*** |
| | | **(3.713)** | **(-1.655)** |
| STOCKPAYBACK | | 1.026 | 0.058 |
| | | (2.394) | (0.696) |
| METHOD | | -0.736 | 0.205* |
| | | (0.763) | (1.760) |
| RELATED | | 0.554 | 0.111* |
| | | (1.292) | (1.744) |
| RPT | | -0.513 | -0.623 |
| | | (1.164) | (1.255) |
| RELATIVESIZE | | -0.001 | 0.005*** |
| | | (0.042) | (5.690) |
| REVERSEMERGER | | 0.537 | 0.249** |
| | | (0.528) | (2.494) |
| TOPINVESTBANK | | 0.524 | 0.048 |
| | | (2.054) | (0.976) |
| ADVISORFEE | | -1.299 | -0.020 |
| | | (0.170) | (-0.047) |
| SOEBUYER | | 0.376 | 0.191 |
| | | (0.530) | (0.096) |
| ROABUYER | | -29.782*** | -2.642*** |
| | | (17.787) | (3.778) |
| EXECUTIVEPAY | | 46.357 | 4.178 |
| | | (0.889) | (0.601) |
| INSTITUTION | | 0.020 | -0.074 |
| | | (0.000) | (-0.583) |
| LARGESTHOLDING | | 0.549 | 0.077 |
| | | (0.225) | (0.477) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED |
| *N* | | 215 | 215 |
| $R^2$ | | 0.276 | 0.201 |
| *Wald* value/*F*-value | | 33.120*** | 3.449*** |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively.

**Table 4**

**Cross-sectional results for the trust-building effect of WDE**

| Explanatory variables | Predicted sign | (1) INTEGRATION_PERCEIVED Coefficient (*T*-value) | (2) INTEGRATION Coefficient (*T*-value) | (3) INTEGRATION_YEAR3 Coefficient (*T*-value) |
|---|---|---|---|---|
| INTERCEPT | | INCLUDED | INCLUDED | INCLUDED |
| **AB_WDE** | **(+)** | **2.464*** | **0.591*** | **0.679*** |
| | | **(1.872)** | **(1.667)** | **(1.913)** |
| RELATED | | -0.013 | 0.036 | 0.039 |
| | | (-0.098) | (1.014) | （1.097） |
| RPT | | -0.001 | 0.036 | 0.033 |
| | | (-0.004) | (1.131) | (1.037) |
| RELATIVESIZE | | 0.000 | 0.000 | -0.001 |
| | | (0.189) | (-0.480 | (-1.222) |
| REVERSEMERGER | | -0.291* | 0.545*** | 0.539*** |
| | | (01.935) | (13.460) | (13.281) |
| SOEBUYER | | -0.137 | -0.018 | -0.005 |
| | | (-1.068) | (-0.531) | (-0.155) |
| ROABUYER | | 0.559 | 0.042 | 0.047 |
| | | (0.422) | (0.118) | (0.137) |
| METHOD | | -0.200 | -0.024 | -0.042 |
| | | (-1.353) | (-0.598) | (-1.056) |
| STOCKPAYBACK | | -0.404*** | -0.041 | -0.022 |
| | | (-2.972) | (-1.127) | (-0.604) |
| TOPINVESTBANK | | 0.063 | -0.022 | -0.005 |
| | | (0.607) | (-0.801) | (-0.169) |
| ADVISORFEE | | -0.285 | -0.218 | -0.171 |
| | | (-0.346) | (-0.980) | (-0.767) |
| EXECTUTIVEPAY | | 3.770 | -0.979 | -0.228 |
| | | (0.969) | (-0.934) | (-0.218) |
| INSTITUTION | | -0.607** | 0.024 | -0.033 |
| | | (-2.262) | (0.330) | (-0.459) |
| LARGESTHOLDING | | -0.250 | 0.669* | 0.168* |
| | | (-0.738) | (1.855) | (1.834) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED | INCLUDED |
| *N* | | 373 | 373 | 373 |
| adjusted-$R^2$ | | 0.053 | 0.427 | 0.435 |
| *F*-value | | 2.037*** | 14.886*** | 15.311*** |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively.

**Table 5**

**Cross-sectional results for the information–acquisition effect of WDE**

| | | REALIZE | | REALIZE_ALL | |
|---|---|---|---|---|---|
| | | (1) | (2) | (3) | (4) |
| **Explanatory variables** | Predicted sign | Coefficient (*W*-value) | Coefficient (*W*-value) | Coefficient (*W*-value) | Coefficient (*W*-value) |
| INTERCEPT | | INCLUDED | INCLUDED | INCLUDED | INCLUDED |
| AB_WDE | | -8. 849** | -9.575* | -2.470 | -4.464 |
| | | (4.830) | （3.569） | (0.370) | (0.934) |
| STOCKPAYBACK | | 1.201* | 1.571*** | 0.842** | 1.146*** |
| | | (6.798) | （7.989） | (4.911) | (6.757) |
| **AB_WDE*STOCKPAYBACK** | （+） | **18.762** | **34.638**** | **16.182*** | **20.176*** |
| | | **(2.568)** | **（5.415）** | **(3.010)** | **(3.351)** |
| RELATED | | 0.629 | 0.817 | -0.180 | -0.351 |
| | | (2.066) | （2.487） | (0.247) | (0.673) |
| RPT | | -0.096 | -0.164 | 0.264 | 0.488 |
| | | (0.052) | （0.104） | (0.634) | (1.534) |
| RELATIVESIZE | | -0.005 | -0.008 | 0.004 | 0.001 |
| | | (0.659) | （1.709） | (0.315) | (0.022) |
| PE_XCOMP | | | -0.026 | | -0.076** |
| | | | （0.302） | | (5.495) |
| REVERSEMERGER | | 0.823 | 0.624 | -0.085 | 0.411 |
| | | (2.043) | （0.573） | (0.041) | (0.422) |
| TOPINVESTBANK | | 0.977*** | 1.201*** | -0.012 | -0.069 |
| | | (6.838) | （6.888） | (0.002) | (0.044) |
| ADVISORFEE | | -0.219 | -2.253 | 2.257 | 2.950 |
| | | （0.006） | (0.443) | (0.916) | (0.826) |
| SOEBUYER | | 0.460 | 0.409 | 0.453 | 0.120 |
| | | （0.997） | (0.544) | (1.520) | (0.079) |
| ROABUYER | | 10.552** | 13.633** | 20.382*** | 15.123*** |
| | | （5.503） | (4.630) | (17.823) | (7.972) |
| EXECUTIVEPAY | | 4.365 | 14.629 | 9.087 | 15.979 |
| | | （0.098） | (0.171) | (0.393) | (0.313) |
| INSTITUTION | | -1.682* | -2.342** | -0.417 | -0.359 |
| | | （3.059） | (4.068) | (0.307) | (0.179) |
| LARGESTHOLDING | | 2.084 | 2.870* | 1.206 | 1.957* |
| | | （2.606） | (3.054) | (1.585) | (2.751) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED | INCLUDED | INCLUDED |
| *N* | | 373 | 294 | 373 | 294 |
| $R^2$ | | 0.187 | 0.268 | 0.175 | 0.193 |
| *Wald* value | | 159.645*** | 127.408*** | 118.886*** | 96.501*** |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively.

**Table 6**

**Channel analysis for the effect of WDE on goodwill impairment**

**Panel A: Channel analysis for the effect of WDE on the odds of goodwill impairment**

| | | IMPAIRMENT_ ALL | | |
|---|---|---|---|---|
| | | (1) | (2) | (3) Mediating Effects |
| **Explanatory Variables** | Predicted Sign | Coefficient (*Wald*-value) | Coefficient (*Wald*-value) | Coefficient (*Wald*-value) |
| INTERCEPT | | INCLUDED | INCLUDED | INCLUDED |
| AB_WDE | | | | 14.560 |
| | | | | (1.519) |
| GOODWILL | | | | 0.009 |
| | | | | (0.000) |
| **AB_WDE*GOODWILL** | | | | **-42.084** |
| | | | | **(2.626)** |
| **INTEGRATION_YEAR3** | **(-)** | **-1.284*** | | **-1.526** |
| | | **(3.545)** | | **(2.161)** |
| **REALIZE_ALL** | **(-)** | | **-2.708**** | **-3.210***** |
| | | | **(40.311)** | **(36.516)** |
| STOCKPAYBACK | | | | 1.289 |
| | | | | (2.407) |
| METHOD | | | | **-0.699** |
| | | | | **(0.388)** |
| RELATED | | | | 0.287 |
| | | | | (0.245) |
| RPT | | | | -0.544 |
| | | | | (0.894) |
| RELATIVESIZE | | | | -0.002 |
| | | | | (0.119) |
| REVERSEMERGER | | | | 1.361 |
| | | | | (1.803) |
| SOEBUYER | | | | 0.306 |
| | | | | (0.355) |
| ROABUYER | | | | -30.442*** |
| | | | | (14.898) |
| TOPINVESTBANK | | | | 0.558 |
| | | | | (1.627) |
| ADVISORFEE | | | | 1.334 |
| | | | | (0.126) |
| EXECUTIVEPAY | | | | 58.135 |
| | | | | (0.688) |
| INSTITUTION | | | | -1.199 |
| | | | | (1.086) |
| LARGESTHOLDING | | | | 1.786 |
| | | | | (1.708) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED | INCLUDED |
| *N* | | 215 | 215 | 215 |
| $R^2$ | | 0.078 | 0.334 | 0.512 |
| *Wald* value | | 33.698*** | 33.698*** | 33.120*** |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively

**Panel B: Channel analysis on the effect of WDE on the magnitude of goodwill impairment**

| | | IMPAIRMENT_SUM | | |
|---|---|---|---|---|
| | | (1) | (2) | (3) Mediating Effects |
| **Explanatory Variables** | Predicted Sign | Coefficient (*T*-value) | Coefficient (*T*-value) | Coefficient (*T*-value) |
| INTERCEPT | | INCLUDED | INCLUDED | INCLUDED |
| AB_WDE | | | | 2.071 |
| | | | | (1.307) |
| GOODWILL | | | | -0.100 |
| | | | | (-0.976) |
| **AB_WDE*GOODWILL** | | | | **-4.983** |
| | | | | **(-1.498)** |
| **INTEGRATION_YEAR3** | **(-)** | **-0.130** | | **-0.064** |
| | | **(-1.192)** | | **(0.574)** |
| **REALIZE_ALL** | **(-)** | | **-0.135**** | **-0.101*** |
| | | | **(-2.045)** | **(-1.648)** |
| STOCKPAYBACK | | | | 0.056 |
| | | | | (0.661) |
| METHOD | | | | 0.214 |
| | | | | (1.838) |
| RELATED | | | | 0.098 |
| | | | | (1.531) |
| RPT | | | | -0.033 |
| | | | | (-0.513) |
| RELATIVESIZE | | | | 0.004*** |
| | | | | (5.679) |
| REVERSEMERGER | | | | 0.271** |
| | | | | (2.372) |
| SOEBUYER | | | | 0.071 |
| | | | | (0.992) |
| ROABUYER | | | | -2.412*** |
| | | | | (-3.394) |
| TOPINVESTBANK | | | | 0.044 |
| | | | | (0.886) |
| ADVISORFEE | | | | 0.059 |
| | | | | (0.136) |
| EXECUTIVEPAY | | | | 4.987 |
| | | | | (0.575) |
| INSTITUTION | | | | -0.093 |
| | | | | (-0.726) |
| LARGESTHOLDING | | | | 0.092 |
| | | | | (0.564) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED | INCLUDED |
| *N* | | 215 | 215 | 215 |
| *Adjusted-R²* | | 0.006 | 0.024 | 0.206 |
| *F*-value | | 0.338 | 0.685 | 3.307*** |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively

**Table 7**
**Regression results for the difference-in-differences design in goodwill impairment**

| | | IMPAIRMENT | | |
|---|---|---|---|---|
| | | (1) | (2) Parallel trend | (3) Placebo test |
| **Explanatory variables** | Predicted sign | Coefficient (*T*-value) | Coefficient (*T*-value) | Coefficient (*T*-value) |
| INTERCEPT | | INCLUDED | INCLUDED | INCLUDED |
| SOEBUYER | | -1.720E-05 | 0.000 | 0.000 |
| | | (-0.013) | (0.100) | (-0.136) |
| POST | | -0.001 | | |
| | | (-1.383) | | |
| **SOEBUYER*POST** | **(+)** | **0.003*** | | |
| | | **(1.679)** | | |
| $ORDER^{-1}$ | | | 0.000 | |
| | | | (-0.224) | |
| **$SOEBUYER*ORDER^{-1}$** | (insignificant) | | **0.001** | |
| | | | **(0.434)** | |
| $ORDER^{0}$ | | | 0.001 | |
| | | | (0.383) | |
| **$SOEBUYER*ORDER^{0}$** | | | **0.009**** | |
| | | | **(3.911)** | |
| $ORDER^{1}$ | | | 0.001 | |
| | | | (0.963) | |
| **$SOEBUYER*ORDER^{1}$** | | | **0.000** | |
| | | | **(-0.224)** | |
| FAKE_POST | | | | 0.000 |
| | | | | (-0.153) |
| **SOEBUYER*FAKE_POST** | (insignificant) | | | **0.003** |
| | | | | **(1.325)** |
| STOCKPAYBACK | | 0.002 | 0.002 | 0.001 |
| | | （1.557） | (1.606) | (1.233) |
| GOODWILL | | -0.001 | -0.001 | -3.514E-05 |
| | | (-0.542) | (-0.576) | (-0.027) |
| METHOD | | 0.001 | 0.002 | 0.002 |
| | | (0.826) | (1.256) | (1.374) |
| RELATED | | 0.002* | 0.001 | 0.001 |
| | | (1.964) | (1.383) | (1.533) |
| RPT | | 0.001 | 0.001 | 0.001 |
| | | (1.147) | (1.321) | (0.986) |
| RELATIVESIZE | | -5.040E-06 | -6.350E-06 | -6.487E-06 |
| | | (-0.594) | (-0.775) | (-0.754) |
| REVERSEMERGER | | 0.005*** | 0.005*** | 0.005*** |
| | | (4.070) | (3.804) | (3.612) |
| TOPINVESTBANK | | -0.001 | -0.001 | -0.001 |
| | | (-1.099) | (-1.520) | (-1.123) |
| ADVISORFEE | | -0.005 | -0.004 | -0.005 |
| | | (-0.814) | (-0.661) | (-0.843) |
| ROABUYER | | 0.004 | 0.002 | 0.002 |
| | | (0.427) | (0.191) | (0.216) |
| EXECUTIVEPAY | | 0.002 | -0.014 | -0.006 |
| | | (0.025) | (-0.166) | (-0.065) |
| INSTITUTION | | 0.001 | 0.001 | 0.001 |
| | | (0.493) | (0.774) | (0.586) |
| LARGESTHOLDING | | 0.003 | 0..001 | 0.002 |
| | | （1.337） | (0.483) | (1.197) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED | INCLUDED |
| *N* | | 215 | 215 | 215 |
| $R^2$ | | 0.076 | 0.151 | 0.051 |
| *F*- value | | 1.824** | 2.48*** | 1.512* |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively

**Table 8**
**Regression results for the difference-in-differences design in post-acquisition integration**

| | | INTEGRATION | | |
|---|---|---|---|---|
| | | (1) | (2) Parallel trend | (3) Placebo test |
| **Explanatory variables** | Predicted sign | Coefficient (*T*-value) | Coefficient (*T*-value) | Coefficient (*T*-value) |
| INTERCEPT | | INCLUDED | INCLUDED | INCLUDED |
| SOEBUYER | | 0.040 (0.861) | 0.006 (0.104) | -0.018 (-0.232) |
| POST | | 0.057 (1.296) | | |
| **SOEBUYER*POST** | **(-)** | **-0.116* (-1.854)** | | |
| $ORDER^{-1}$ | | | -0.058 (-0.845) | |
| **$SOEBUYER*ORDER^{-1}$** | (insignificant) | | **0.089 (0.942)** | |
| $ORDER^{0}$ | | | 0.082 (1.304) | |
| **$SOEBUYER*ORDER^{0}$** | | | **-0.193** (-2.134)** | |
| $ORDER^{1}$ | | | 0.019 (0.351) | |
| **$SOEBUYER*ORDER^{1}$** | | | **-0.013 (-0.163)** | |
| FAKE_POST | | | | -0.002 (-0.035) |
| **SOEBUYER*FAKE_POST** | (insignificant) | | | **-0.001 (-0.017)** |
| STOCKPAYBACK | | -0.083** (-2.066) | -0.084** (-2.107) | -0.071 (-1.632) |
| METHOD | | -0.026 (-0.660) | 0.195 (0537) | -0.022 (-0.541) |
| RELATED | | 0.030 (0.858) | 0.034 (0.952) | 0.035 (0.989) |
| RPT | | 0.050 (1.516) | 0.046 (1.383) | 0.042 (1.305) |
| RELATIVESIZE | | 0.000 (-0.501) | 0.000 (-0.447) | 0.000 (-0.429) |
| REVERSEMERGER | | 0.554*** (13.510) | 0.553*** (13.410) | 0.549*** (13.313) |
| TOPINVESTBANK | | -0.025 (-0.885) | -0.022 (-0.771) | -0.023 (-0.823) |
| ADVISORFEE | | -0.232 (-1.045) | -0.239 (-1.077) | -0.204 (-0.917) |
| ROABUYER | | 0.115 (0.319) | 0.195 (0.537) | 0.087 (0.243) |
| EXECUTIVEPAY | | -1.052 (-1.003) | -1.087 (-1.035) | -1.055 (-0.995) |
| INSTITUTION | | 0.033 (0.451) | 0.018 (0.241) | 0.014 (0.189) |
| LARGESTHOLDING | | 0.159* (1.745) | 0.175* (1.897) | 0.172* (1.879) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED | INCLUDED |
| *N* | | 373 | 373 | 373 |
| Adjusted $R^2$ | | 0.430 | 0.432 | 0.424 |
| *F-value* | | 14.337*** | 13.306*** | 14.034*** |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively

**Table 9**

**Difference-in-Differences Design for the Achievability of Performance Targets**

**Panel A: The odds of delivering performance targets before and after the administrative order for state-owned buyers**

| | Subsample of state-owned buyers (*N* = 127) | | |
|---|---|---|---|
| | **Before mean (*N* = 71)** | **After mean (*N* = 56)** | **Before-and-after difference (*p*-value)** |
| REALIZE | 94% | 84% | -10% (0.055**) |

**Panel B: The odds of delivering performance targets before and after the administrative order for privately owned buyers**

| | Subsample of privately owned buyers (*N* = 246) | | |
|---|---|---|---|
| | **Before mean (*N* = 67)** | **After mean (*N* = 179)** | **Before-and-after difference (*p*-value)** |
| REALIZE | 84% | 91% | 7% (0.129) |

**Panel C: Regression results for DID in the odds of delivering performance targets**

| Explanatory variables | Predicted sign | REALIZE (1) | REALIZE (2) Parallel trend | REALIZE (3) Placebo test |
|---|---|---|---|---|
| | | Coefficient (*W*-value) | Coefficient (*W*-value) | Coefficient (*W*-value) |
| INTERCEPT | | INCLUDED | INCLUDED | INCLUDED |
| SOEBUYER | | 1.265** (3.524) | 1.206 (2.291) | 1.445 (2.292) |
| POST | | 0.261 (0.233) | | |
| **SOEBUYER*POST** | (-) | **-1.343* (2.697)** | | |
| $ORDER^{-1}$ | | | 0.067 (0.006) | |
| **$SOEBUYER*ORDER^{-1}$** | (insignificant) | | **0.255 (0.030)** | |
| $ORDER^{0}$ | | | 0.134 (0.033) | |
| **$SOEBUYER*ORDER^{0}$** | | | **-0.032 (0.001)** | |
| $ORDER^{1}$ | | | 0.370 (0.288) | |
| **$SOEBUYER*ORDER^{1}$** | | | **-1.867* (3.678)** | |
| FAKE_POST | | | | 0.445 (0.412) |
| **SOEBUYER*FAKE_POST** | (insignificant) | | | **-1.195 (1.329)** |
| STOCKPAYBACK | | 1.283*** (7.741) | 1.382*** (7.590) | 1.246** (6.369) |
| METHOD | | -0.184 （0.132） | -0.126 （0.061） | -0.135 （0.071） |
| RELATED | | 0.585 (1.778) | 0.593 (1.752) | 0.604 (1.890) |
| RPT | | -0.203 (0.236) | -0.180 (0.178) | -0.158 (0.147) |
| RELATIVESIZE | | -0.005 (0.678) | -0.005 (0.882) | -0.004 (0.580) |
| REVERSEMERGER | | 0.912 (2.441) | 0.999* (2.896) | 0.966* (2.271) |
| TOPINVESTBANK | | 0.915** (6.102) | 0.949** (6.349) | 0.886** (5.797) |
| ADVISORFEE | | -1.510 (0.300) | -1.035 (0.227) | -1.755 (0.523) |
| ROABUYER | | 8.994** (3.951) | 7.700* (2.751) | 9.588** (4.479) |
| EXECUTIVEPAY | | 4.403 (0.104) | 4.030 (0.088) | 5.079 (0.143) |
| INSTITUTION | | -1.198 (1.570) | -1.067 (1.190) | -1.264 (1.723) |
| LARGESTHOLDING | | 1.463 (1.361) | 1.330 (1.077) | 1.626 (1.676) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED | INCLUDED |
| *N* | | 373 | 373 | 373 |
| $R^2$ | | 0.174 | 0.189 | 0.166 |
| *Wald* value | | 159.645*** | 159.645*** | 159.645*** |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively

**Table 10**

**Cross-sectional variation in the effect of WDE on goodwill impairment**

| | | IMPAIRMENT_ALL | | IMPAIRMENT_SUM | |
|---|---|---|---|---|---|
| | | (1) RELATED=0 | (2) RELATED=1 | (3) RELATED=0 | (4) RELATED=1 |
| Explanatory variables | Predicted sign | Coefficient (*W*-value) | Coefficient (*W*-value) | Coefficient (*T*-value) | Coefficient (*T*-value) |
| INTERCEPT | | INCLUDED | INCLUDED | INCLUDED | INCLUDED |
| AB_WDE | | 26.448 | 13.233 | 0.909 | 3.623* |
| | | (0.001) | (1.225) | (0.595) | (1.802) |
| GOODWILL | | 29.272 | -0.617 | -0.024 | -0.208 |
| | | (0.001) | (0.044) | (-0.215) | (1.503) |
| **AB_WDE*GOODWILL** | (-) | 51.287 | **-51.999*** | -2.765 | **-8.645**** |
| | | (0.001) | **(3.554)** | (-0.863) | **(-2.043)** |
| STOCKPAYBACK | | 1.783 | 0.368 | 0.029 | 0.062 |
| | | (0.001) | (0.222) | (0.406) | (0.542) |
| METHOD | | -46.509 | -1.020 | -0.024 | 0.157 |
| | | (0.001) | (0.713) | (-0.291) | (0.762) |
| RPT | | -37.603 | -0.643 | -0.059 | -0.123 |
| | | (0.001) | (1.239) | (-1.028) | (-1.459) |
| RELATIVESIZE | | 3.608 | -0.001 | 0.005 | 0.004*** |
| | | (0.001) | (0.035) | (1.330) | (4.856) |
| REVERSEMERGER | | 113.404 | 0.530 | -0.039 | 0.690*** |
| | | (0.001) | (0.192) | (-0.528) | (4.067) |
| SOEBUYER | | -163.079 | 0.280 | -0.041 | 0.072 |
| | | (0.001) | (0.180) | (-0.635) | (0.770) |
| ROABUYER | | 0.630 | -26.866*** | -0.673 | -3.435*** |
| | | (1.463) | (12.202) | (-0.993) | (-3.783) |
| TOPINVESTBANK | | 71.293 | 0.262 | 0.056 | 0.040 |
| | | (0.001) | (0.396) | (0.990) | (0.632) |
| AB_ADVISORFEE | | 291.033 | -5.421 | 0.184 | -0.446 |
| | | (0.001) | (1.218) | (0.697) | (-0.611) |
| EXECUTIVEPAY | | 26.398 | 33.932 | -0.677 | 12.443 |
| | | (0.001) | (0.204) | (-0.146) | (1.063) |
| INSTITUTION | | -25.552 | 1.044 | -0.416** | 0.036 |
| | | (0.001) | (1.009) | (-2.507) | (0.229) |
| LARGESTHOLDING | | 56.911 | 0.270 | 0.054 | -0.085 |
| | | (0.000) | (0.038) | (0.42) | (-0.405) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED | INCLUDE | INCLUDED |
| *N* | | 53 | 162 | 53 | 162 |
| $R^2$ | | 0.672 | 0.268 | 0.030 | 0.272 |
| *Wald*-value | | 12.394*** | 21.135*** | 1.086 | 3.735*** |

***, **, and * are significant at level of 1%, 5%, and 10%, respectively.

**Table 11**

**Robustness check I: economic benefits of WDE and regulatory engagement**

**Panel A: The effect of WDE on integration after controlling for regulatory engagement**

| | | **INTEGRATION** | **INTEGRATION_YEAR3** |
|---|---|---|---|
| | | **(1)** | **(2)** |
| **Explanatory variables** | Predicted sign | Coefficient (*T*-value) | Coefficient (*T*-value) |
| INTERCEPT | | INCLUDED | INCLUDED |
| **AB_WDE** | (+) | **0.631*** | **0.697*** |
| | | **(1.771)** | **(1.195)** |
| **CONDITIONAL** | | **-0.030** | **-0.007** |
| | | **(-0.828)** | **(-0.185)** |
| **FEEDBACK** | | **0.019** | **0.018** |
| | | **(1.346)** | **(1.251)** |
| STOCKPAYBACK | | -0.048 | -0.027 |
| | | (-1.300) | (-0.730) |
| RELATED | | 0.034 | 0.039 |
| | | (0.966) | (1.094) |
| RELATIVESIZE | | 0.000 | -0.001 |
| | | (-0.395) | (-1.111) |
| METHOD | | -0.022 | -0.036 |
| | | (-0.542) | (-0.894) |
| RPT | | 0.032 | 0.028 |
| | | (0.999) | (0.874) |
| REVERSEMERGER | | 0.537*** | 0.530*** |
| | | (13.086) | (12.903) |
| SOEBUYER | | -0.021 | -0.009 |
| | | (-0.615) | (-0.256) |
| ROABUYER | | 0.053 | 0.209 |
| | | (0.147) | (0.584) |
| TOPINVESTBANK | | -0.021 | -0.003 |
| | | (-0.760) | (-0.102) |
| ADVISORFEE | | -0.211 | -0.166 |
| | | (-0.949) | (-0.747) |
| EXECUTIVEPAY | | -0.859 | -0.106 |
| | | (-0.816) | (0.101) |
| INSTITUTION | | 0.019 | -0.039 |
| | | (0.267) | (-0.537) |
| LARGESTHOLDING | | 0.160* | 0.166* |
| | | (1.741) | (1.806) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED |
| *N* | | 373 | 373 |
| Adjusted-$R^2$ | | 0.427 | 0.435 |
| *F-value* | | 13.610*** | 14.000*** |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively

**Panel B: The effect of WDE on the achievability of performance targets after controlling for regulatory engagement**

| | | REALIZE | REALIZE_ALL |
|---|---|---|---|
| | | (1) | (2) |
| **Explanatory variables** | Predicted sign | Coefficient (*T*-value) | Coefficient (*T*-value) |
| INTERCEPT | | INCLUDED | INCLUDED |
| AB_WDE | | -8.988** | -2.487 |
| | | (4.894) | (0.367) |
| STOCKPAYBACK | | 1.183** | 0.895** |
| | | (6.424) | (5.453) |
| **AB_WDE*STOCKPAYBACK** | (+) | **20.319*** | **15.845*** |
| | | **(2.906)** | **(2.828)** |
| **CONDITIONAL** | | **0.558** | **0.378** |
| | | **(1.380)** | **(1.071)** |
| **FEEDBACK** | | **-0.009** | **-0.123** |
| | | **(0.003)** | **(0.698)** |
| RELATED | | 0.597 | -0.158 |
| | | (1.816) | (0.188) |
| RELATIVESIZE | | -0.001 | 0.004 |
| | | (-1.191) | (0.267) |
| METHOD | | -0.473 | -0.264 |
| | | (0.802) | (0.381) |
| RPT | | -0.069 | 0.266 |
| | | (0.026) | (0.630) |
| REVERSEMERGER | | 0.863 | -0.049 |
| | | (2.134) | (0.013) |
| SOEBUYER | | 0.483 | 0.455 |
| | | (1.108) | (1.523) |
| ROABUYER | | 11.111** | 20.074*** |
| | | (5.951) | (17.235) |
| TOPINVESTBANK | | 0.950** | -0.006 |
| | | (6.424) | (0.000) |
| ADVISORFEE | | -0.221 | 2.256 |
| | | (0.006) | (0.917) |
| EXECUTIVEPAY | | 4.362 | 8.503 |
| | | (0.100) | (0.337) |
| INSTITUTION | | -1.629* | -0.374 |
| | | (2.788) | (0.242) |
| LARGESTHOLDING | | 1.993** | 1.288 |
| | | (2.367) | (1.795) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED |
| *N* | | 373 | 373 |
| Adjusted-$R^2$ | | 0.196 | 0.180 |
| *Wald*-value | | 159.645*** | 118.886*** |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively

**Panel C: The effect of WDE on goodwill impairment after controlling for regulatory engagement**

| | | IMPAIRMENT_ALL | IMPAIRMENT_SUM |
|---|---|---|---|
| | | (1) | (2) |
| **Explanatory variables** | Predicted sign | Coefficient (*W*-value) | Coefficient (*T*-value) |
| INTERCEPT | | INCLUDED | INCLUDED |
| AB_WDE | | 18.767* | 2.679* |
| | | (2.969) | (1.700) |
| CONDITIONAL | | -2.574*** | -0.147 |
| | | (6.927) | (-0.192) |
| FEEDBACK | | 0.291 | -0.079* |
| | | (0.605) | (-1.731) |
| GOODWILL | | -0.921 | -0.337 |
| | | (0.656) | (-2.252) |
| **AB_WDE*GOODWILL** | （-） | **-56.551**** | **-6.045*** |
| | | **(5.443)** | **(-1.880)** |
| **CONDITIONAL*GOODWILL** | | **4.345***** | **0.333*** |
| | | **(7.719)** | **(1.750)** |
| **FEEDBACK*GOODWILL** | | **-0.867** | **0.044** |
| | | **(1.863)** | **(0.557)** |
| STOCKPAYBACK | | 0.993 | 0.022 |
| | | (2.002) | (0.260) |
| METHOD | | -0.983 | 0.224* |
| | | (1.097) | (1.923) |
| RELATED | | 0.405 | 0.104 |
| | | (0.649) | (1.635) |
| RELATIVESIZE | | -0.003 | 0.004*** |
| | | (0.269) | (5.184) |
| RPT | | -0.466 | -0.028 |
| | | (0.962) | (-0.453) |
| REVERSEMERGER | | 1.035 | 0.312*** |
| | | (1.546) | (30.093) |
| SOEBUYER | | 0.427 | 0.059 |
| | | (0.599) | (0.849) |
| ROABUYER | | -31.548*** | -2673*** |
| | | (18.018) | (-3.875) |
| TOPINVESTBANK | | 0.487 | 0.046 |
| | | (1.695) | (0.936) |
| ADVISORFEE | | -0.717 | 0.087 |
| | | (0.051) | (0.202) |
| EXECUTIVEPAY | | 45.179 | 3.088 |
| | | (0.792) | (0.449) |
| INSTITUTION | | 0.201 | -0.067 |
| | | (0.044) | (-0.531) |
| LARGESTHOLDING | | 0.988 | 0.119 |
| | | (0.700) | (0.738) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED |
| *N* | | 215 | 215 |
| $R^2$ | | 0.323 | 0.242 |
| *Wald* value/*F*-value | | 32.545*** | 3.420*** |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively

**Table 12**

**Robustness check II: economic benefits of WDE and related party transactions**

| | | IMPAIRMENT_ALL | | IMPAIRMENT_SUM | |
|---|---|---|---|---|---|
| | | (1) RPT = 0 | (2) RPT = 1 | (3) RPT=0 | (4) RPT=1 |
| **Explanatory variables** | Predicted sign | Coefficient (*W*-value) | Coefficient (*W*-value) | Coefficient (*T*-value) | Coefficient (*T*-value) |
| INTERCEPT | | INCLUDED | INCLUDED | INCLUDED | INCLUDED |
| AB_WDE | | 54.291 | 13.097 | 0.058 | 1.059 |
| | | (2.663) | (0.085) | (0.224) | (0.995) |
| GOODWILL | | -0.282 | -21.057 | 0.040 | -0.606*** |
| | | (0.082) | (1.730) | (0.615) | (-2.768) |
| **AB_WDE*GOODWILL** | （-） | **-105.024**** | -323.457 | **-6.073*** | -7.660 |
| | | **(4.481)** | (2.269) | **(-1.920)** | (-1.252) |
| STOCKPAYBACK | | 1.018 | 18.496* | -0.010 | -0.077 |
| | | (1.514) | (3.541) | (-0.198) | (-0.416) |
| METHOD | | -0.621 | 5.251 | 0.037 | 0.295 |
| | | (0.297) | (1.061) | (0.454) | (1.628) |
| RELATED | | 0.713 | 2.814 | 0.037 | 0.177 |
| | | (1.485) | (0.524) | (0.936) | (1.326) |
| RELATIVESIZE | | -0.004 | -0.030 | 0.000 | 0.017*** |
| | | (0.280) | (0.057) | (-1.124) | (12.458) |
| REVERSEMERGER | | 0.400 | 12.841 | -0.046 | 0.309* |
| | | (0.147) | (2.676) | (-0.642) | (1.853) |
| TOPINVESTBANK | | 0.704* | -5.564* | 0.030 | 0.064 |
| | | (2.663) | (2.615) | (0.991) | (0.532) |
| ADVISORFEE | | -3.903 | 174.548* | 0.058 | 1.059 |
| | | (0.956) | (3.114) | (0.224) | (0.995) |
| SOEBUYER | | 0.127 | -7.259 | 0.064 | -0.208 |
| | | (0.033) | (1.516) | (0.015) | (-1.649) |
| ROABUYER | | -28.145*** | -539.591* | -1.866*** | -2.859** |
| | | (13.185) | (3.203) | (-4.187) | (-2.541) |
| EXECUTIVEPAY | | 5.002 | 1096.867 | 0.064 | 18.359 |
| | | (0.006) | (2.210) | (0.015) | (1.455) |
| INSTITUTION | | 0.566 | 1.251 | 0.051 | -0.253 |
| | | (0.287) | (0.057) | (0.652) | (-0.975) |
| LARGESTHOLDING | | -0.326 | 29.487* | 0.029 | 0.306 |
| | | (0.056) | (3.076) | (0.294) | (0.945) |
| PERIODS | | 0.137 | -0.188 | 0.104*** | -0.088 |
| | | (0.110) | (0.012) | (3.423) | (-0.558) |
| INDUSTRYDUMMIES | | INCLUDED | INCLUDED | INCLUDED | INCLUDED |
| *N* | | 163 | 52 | 163 | 52 |
| $R^2$ | | 0.285 | 0.801 | 0.128 | 0.832 |
| *Wald value/F-value* | | 24.434*** | 8.700*** | 2.086*** | 12.484*** |

***, **, and * are significant at level of 1%, 5%, and 10%, respectively.

## Appendix 1

## Summary of Sample Post-Acquisition Adjustment Provisions in an M&A Agreement between Xinhua Medical and Yinde Biological

### 1. Participating entities

*1.1 Buyer*

Xinhua Medical (Xinhua), a listed company, acts as buyer. It was founded in Zhibo City, Shandong province, on April 18, 1994. It initially went public in December 1996. Its controlling shareholder is the Shandong State Assets Administrative Committee. Xinhua operates mainly in the area of medical instruments, which account for more than 80% of revenue. Its revenue grew by 57%, 44%, and 38% in 2011, 2012, and 2013, respectively. Earnings per share for 2011, 2012, and 2013 are 0.72 CNY, 0.98 CNY, and 1.28 CNY, respectively. As a regional company in Shandong province, Xinhua has a great incentive to broaden its markets.

*1.2 Target firm*

Yinde Biological (Yinde) is the target firm. It was founded on May 28, 2008. Its headquarters are in Chendu, Sichuan province. Its main operations include research and development, installation of biological equipment, and integration of medical equipment and software. Yinde operates mainly in Sichuan providence, one of the most populated provinces in China, which fits Xinhua's need for market expansion well.

*1.3 Seller*

Ten individuals and three financial institutions collectively own 85% of the outstanding shares of Yinde and act as the sellers. The four largest owners of Yinde are Sui Yong (11.75%), Qiu Jiashan (10.80%), Zhongguan Investment Company (10%), and Su Xiaodong (9.85%). All ten individual owners act as executives or divisional managers of Yinde Biological. None of the thirteen sellers are related parties of the buyer.

*1.4 Independent financial advisor*

Xi Nan Securities Co., Ltd. (Xi Nan) is the independent financial advisor. The company is among the top 10 investment banks in China. Its M&A-related financial advisory revenue accounts for 11.37% of the total market. Xi Nan is responsible for due diligence and deal structure design.

### 2. Contractual Arrangements

*2.1 Valuation method*

Xinhua and the Yinde sellers agree to use an income-based method (using a discounted cash flow model and assuming the cost of capital is 11.77%) to determine the valuation. According to the appraisal opinion of Beijing Dazheng Haidi Ren Assets Appraisal Co., Ltd., the net book value of Yinde is 92.03 million CNY, and the valuation is 435.13 million CNY.

*2.2 Committed performance targets and payback arrangements*

Committed performance targets are shown in the table:

| Year | 2014 | 2015 | 2016 | 2017 | Total |
|---|---|---|---|---|---|
| Committed income (million CNY) | 38.0 | 42.8 | 45.8 | 46.8 | 173.4 |

Sellers are required to pay back twice the shortfall between realized income and committed income for any specified year from 2014 to 2017 in cash. To protect minority stockholders of the buyer, the agreement requires the lockup of the sellers' shares until their obligations for payback have been satisfied. If an individual shareholder is unable to pay back the obligation in full in cash, the buyer can seize the locked shares to offset the shortfall in cash payback.

*2.3 Transaction structure*

Xinhua purchased all shares of Yinde in the hands of the sellers using a combination of new shares and cash. Xinhua issued 5,593,797 new shares at 39.66 CNY per share to the thirteen sellers and paid 123.25 million CNY in cash.

*2.4 Noncompete clause*

Directors, managers, supervisors, and key employees may not work for competing business entities in similar lines of business for at least two years after the close of the deal.

## Appendix 2

## The M&A process and M&A-related Wining and Dining


**$T_0$**: Communications between the buyer and potential targets start

**$T_1$**: After a series of talks over wining and dining and negotiations, the buyer and the seller sign *Initial Draft of M&A Agreements*

**$T_2$**: The stock exchange under which the buyer is listed comments on the Initial Draft of M&A Agreements. The buyer incorporates the exchange's comments in the revised version, which is typically labelled *Revised Draft of M&A Agreements*

**$T_3$**: Shareholders of the buyer vote on the *Revised Draft of M&A Agreements*

**$T_4$**: The China Securities Regulatory Commission (CSRC) reviews the details of the Revised Draft of M&A Agreements and may request more documentation. The buyer responds to CSRC's feedback and requests on an item-by-item basis. To obtain the regulator's approval, all the recommendations of the CSRC have to be incorporated into the finalized M&A Agreements. The deal cannot be consummated until approved by the CSRC.

Most M&A-related wining and dining takes place between the start of communication at $T_0$ and the Initial Draft of M&A Agreements at $T_1$. If CSRC's inquiries are extensive, a component of M&A-related wining and dining takes place after the buyer's shareholders' approval of the Revised Draft of M&A Agreements at $T_3$ but before the CSRC's approval at $T_4$.

## Appendix 3
## Correlation Table

### Panel A: Correlation matrix for variables in the full sample

| | Obs. No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.REALIZE | 373 | 1 | 0.523*** | 0.073 | 0.087* | -0.007 | -0.003 | 0.139*** | 0.016 | 0.029 | -0.024 |
| 2.REALIZE_ALL | 373 | 0.523*** | 1 | 0.022 | 0.049 | 0.06 | -0.023 | 0.110** | 0.009 | -0.022 | 0.04 |
| 3.INTEGRATION | 373 | 0.072 | 1 | 1 | 0.947*** | 0.146*** | -0.184*** | -0.127** | -0.241*** | -0.245*** | 0.098* |
| 4.INTETRATION_YEAR3 | 373 | 0.077 | 0.038 | 0.952*** | 1 | 0.160*** | -0.199*** | -0.092* | -0.230*** | -0.252*** | 0.071 |
| 5.AB_WDE | 373 | -0.108** | 0.034 | 0.108** | 0.123** | 1 | -0.400*** | -0.102** | -0.071 | -0.039 | 0.117** |
| 6.POST | 373 | -0.003 | -0.023 | -0.211*** | -0.233*** | -0.291*** | 1 | 0.318*** | 0.336*** | 0.129** | -0.357*** |
| 7.STOCKPAYBACK | 373 | 0.139*** | 0.110** | -0.126** | -0.111** | -0.195*** | 0.318*** | 1 | 0.322*** | 0.062 | -0.194*** |
| 8.METHOD | 373 | 0.016 | 0.009 | -0.245*** | -0.260*** | -0.158*** | 0.336*** | 0.322*** | 1 | 0.235*** | -0.200*** |
| 9.RELATED | 373 | 0.029 | -0.022 | -0.284*** | -0.290*** | -0.012 | 0.129** | 0.062 | 0.235*** | 1 | 0.108** |
| 10.RPT | 373 | -0.024 | 0.04 | 0.076 | 0.071 | 0.165*** | -0.357*** | -0.194*** | -0.200*** | 0.108** | 1 |
| 11.RELATIVESIZE | 373 | -0.016 | 0.02 | -0.109** | -0.136*** | -0.034 | 0.109** | 0.107** | 0.097* | 0.127** | -0.07 |
| 12.PE_XCOMP | 294 | -0.006 | -0.096 | 0.305*** | 0.317*** | 0.002 | -0.064 | -0.064 | -0.340*** | -0.343*** | 0.062 |
| 13.REVERSEMERGER | 373 | 0.07 | 0.026 | 0.636*** | 0.647*** | 0.043 | -0.240*** | -0.071 | -0.297*** | -0.487*** | -0.024 |
| 14.TOPINVESTBANK | 373 | 0.122** | 0.021 | -0.018 | 0.006 | -0.001 | 0.019 | 0.03 | 0.03 | -0.027 | 0.054 |
| 15.ADVISORFEE | 373 | -0.029 | 0.06 | -0.025 | -0.019 | 0.056 | 0.048 | 0.025 | 0.055 | -0.036 | -0.064 |
| 16.SOEBUYER | 373 | 0.017 | 0.036 | 0.143*** | 0.144*** | 0.139*** | -0.281*** | -0.276*** | -0.247*** | 0.043 | 0.349*** |
| 17.ROABUYER | 373 | 0.114** | 0.253*** | 0.083 | 0.099* | 0.027 | -0.087* | 0.077 | 0.08 | -0.097* | -0.023 |
| 18.EXECUTIVEPAY | 373 | 0.008 | 0.02 | 0.018 | 0.048 | 0.017 | -0.039 | -0.07 | -0.098* | -0.103** | 0.017 |
| 19..INSTITUTION | 373 | -0.024 | 0.038 | -0.065 | -0.096* | -0.081 | 0.035 | 0.008 | 0.07 | 0.160*** | 0.197*** |
| 20.LARGESTHOLDING | 373 | 0.066 | 0.077 | -0.024 | -0.029 | 0.057 | -0.013 | -0.034 | -0.011 | 0.150*** | 0.055 |

**(continued)**

| | Obs. No. | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.REALIZE | 373 | -0.067 | -0.017 | 0.07 | 0.122** | -0.031 | 0.017 | 0.156*** | -0.029 | -0.017 | 0.051 |
| 2.REALIZE_ALL | 373 | -0.001 | 0.034 | 0.026 | 0.021 | 0.093* | 0.036 | 0.284*** | -0.045 | 0.045 | 0.073 |
| 3.INTEGRATION | 373 | -0.489*** | 0.233*** | 0.569*** | 0.01 | -0.033 | 0.131** | 0.066 | -0.065 | -0.053 | -0.031 |
| 4.INTETRATION_YEAR3 | 373 | -0.499*** | 0.262*** | 0.567*** | 0.025 | -0.017 | 0.115** | 0.091* | -0.041 | -0.091* | -0.031 |
| 5.AB_WDE | 373 | -0.199*** | 0.012 | 0.120** | -0.047 | 0.078 | 0.082 | 0.034 | -0.053 | -0.092* | -0.031 |
| 6.POST | 373 | 0.403*** | -0.048 | -0.240*** | 0.019 | 0.066 | -0.281*** | -0.049 | 0.205*** | 0.032 | -0.008 |
| 7.STOCKPAYBACK | 373 | 0.244*** | -0.022 | -0.071 | 0.03 | 0.047 | -0.276*** | 0.129** | 0.162*** | 0.032 | -0.023 |
| 8.METHOD | 373 | 0.313*** | -0.228*** | -0.297*** | 0.03 | 0.088* | -0.247*** | 0.157*** | 0.07 | 0.058 | 0.002 |
| 9.RELATED | 373 | 0.343*** | -0.363*** | -0.487*** | -0.027 | 0.075 | 0.043 | -0.069 | -0.091* | 0.144*** | 0.170*** |
| 10.RPT | 373 | -0.228*** | 0.049 | -0.024 | 0.054 | -0.064 | 0.349*** | -0.064 | -0.321*** | 0.192*** | 0.042 |
| 11.RELATIVESIZE | 373 | 1 | -0.666*** | -0.613*** | 0.01 | 0.023 | -0.203*** | -0.065 | -0.009 | 0.143*** | 0.059 |
| 12.PE_XCOMP | 294 | -0.107* | 1 | 0.432*** | 0.04 | 0.112* | 0.009 | 0.026 | 0.126** | -0.168*** | -0.038 |
| 13.REVERSEMERGER | 373 | -0.113** | 0.521*** | 1 | 0.033 | -0.079 | 0.131** | 0.073 | -0.002 | -0.157*** | -0.207*** |
| 14.TOPINVESTBANK | 373 | 0.086* | 0.034 | 0.033 | 1 | 0.01 | -0.017 | 0.058 | -0.004 | 0.072 | 0.027 |
| 15. ADVISORFEE | 373 | -0.033 | 0.028 | 0.021 | 0.027 | 1 | -0.011 | 0.085* | 0.017 | 0.072 | 0.025 |
| 16.SOEBUYER | 373 | -0.036 | 0.088 | 0.131** | -0.017 | -0.006 | 1 | -0.136*** | -0.345*** | 0.216*** | 0.114** |
| 17.ROABUYER | 373 | -0.068 | 0.087 | 0.128** | 0.062 | 0.061 | -0.117** | 1 | 0.130** | 0.124** | 0.053 |
| 18.EXECUTIVEPAY | 373 | -0.035 | 0.132** | 0.104** | 0.054 | -0.055 | -0.093* | 0.001 | 1 | -0.205*** | -0.146*** |
| 19..INSTITUTION | 373 | 0.053 | -0.062 | -0.163*** | 0.08 | 0.023 | 0.219*** | 0.117** | -0.02 | 1 | 0.211*** |
| 20.LARGESTHOLDING | 373 | -0.012 | -0.160*** | -0.195*** | 0.037 | 0.032 | 0.124** | 0.061 | -0.093* | 0.219*** | 1 |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively. Pearson results are at the lower diagonal, and Spearman results are at the upper diagonal.

**Panel B: Correlation matrix for variables in the sample where goodwill impairment is available**

| | Obs. No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.IMPAIRMENT_ALL | 215 | 1 | 0.980*** | -0.06 | -0.091 | -0.004 | 0.046 | 0.043 | 0.081 | -0.120* |
| 2.IMPAIRMENT_SUM | 215 | 0.603*** | 1 | -0.041 | -0.092 | -0.029 | 0.004 | 0.061 | 0.1 | -0.121* |
| 3.AB_WDE | 215 | -0.085 | -0.071 | 1 | -0.175** | 0.055 | 0.021 | -0.106 | 0.051 | -0.075 |
| 4.GOODWILL | 215 | -0.083 | 0.074 | -0.170** | 1 | 0.284*** | 0.290*** | 0.192*** | -0.388*** | 0.505*** |
| 5.STOCKPAYBACK | 215 | -0.004 | 0.012 | 0.02 | 0.290*** | 1 | 0.364*** | 0.157** | -0.099 | 0.230*** |
| 6.METHOD | 215 | 0.046 | 0.059 | -0.013 | 0.332*** | 0.364*** | 1 | 0.217*** | -0.127* | 0.240*** |
| 7.RELATED | 215 | 0.043 | 0.099 | -0.072 | 0.203*** | 0.157** | 0.217*** | 1 | -0.023 | 0.230*** |
| 8.RPT | 215 | 0.081 | 0.01 | 0.106 | -0.405*** | -0.099 | -0.127* | -0.023 | 1 | -0.194*** |
| 9.RELATIVESIZE | 215 | -0.078 | -0.036 | 0.033 | 0.157** | 0.099 | 0.041 | 0.11 | -0.019 | 1 |
| 10.PE_XCOMP | 215 | 0.085 | -0.053 | 0.029 | -0.356*** | -0.112 | -0.466*** | -0.328*** | 0.158** | -0.102 |
| 11.REVERSEMERGER | 215 | 0.078 | -0.066 | 0.131* | -0.474*** | -0.214*** | -0.354*** | -0.361*** | 0.186*** | -0.022 |
| 12.TOPINVESTBANK | 215 | 0.026 | 0.032 | -0.078 | 0.049 | 0.047 | 0.015 | -0.042 | 0.129* | 0.156** |
| 13. ADVISORFEE | 215 | -0.044 | -0.026 | -0.026 | 0.012 | 0.066 | 0.037 | 0.041 | -0.064 | -0.053 |
| 14.SOEBUYER | 215 | 0.019 | -0.01 | -0.003 | -0.251*** | -0.217*** | -0.235*** | -0.011 | 0.291*** | 0.041 |
| 15.ROABUYER | 215 | -0.228*** | -0.364*** | 0.008 | -0.009 | 0.08 | 0.086 | -0.001 | -0.101 | -0.076 |
| 16.EXECUTIVEPAY | 215 | -0.016 | -0.011 | -0.032 | 0.105 | 0.104 | -0.052 | -0.149** | -0.077 | -0.119* |
| 17.INSTITUTION | 215 | 0.075 | 0.032 | -0.017 | 0.062 | -0.016 | 0.126* | 0.055 | 0.098 | 0.06 |
| 18.LARGESTHOLDING | 215 | -0.074 | -0.038 | -0.004 | 0.099 | 0.017 | 0.012 | 0.045 | -0.082 | -0.013 |

**(continued)**

| | Obs. No. | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.IMPAIRMENT_ALL | 215 | -0.039 | 0.078 | 0.026 | -0.024 | 0.019 | -0.225*** | 0.02 | 0.052 | -0.075 |
| 2.IMPAIRMENT_SUM | 215 | -0.051 | 0.057 | 0.035 | -0.025 | 0.046 | -0.247*** | 0.004 | 0.037 | -0.054 |
| 3.AB_WDE | 215 | -0.074 | 0.118* | -0.057 | 0.029 | -0.041 | 0.049 | -0.022 | -0.033 | -0.005 |
| 4.GOODWILL | 215 | -0.03 | -0.423*** | 0.088 | 0.097 | -0.234*** | 0.026 | 0.208*** | 0.078 | 0.101 |
| 5.STOCKPAYBACK | 215 | 0.003 | -0.214*** | 0.047 | 0.088 | -0.217*** | 0.157** | 0.171** | -0.008 | 0.019 |
| 6.METHOD | 215 | -0.234*** | -0.354*** | 0.015 | 0.117* | -0.235*** | 0.147** | 0 | 0.131* | 0.015 |
| 7.RELATED | 215 | -0.315*** | -0.361*** | -0.042 | 0.115* | -0.011 | 0.006 | -0.007 | 0.029 | 0.074 |
| 8.RPT | 215 | 0.012 | 0.186*** | 0.129* | -0.073 | 0.291*** | -0.106 | -0.257*** | 0.096 | -0.081 |
| 9.RELATIVESIZE | 215 | -0.622*** | -0.464*** | 0.11 | -0.065 | -0.079 | -0.059 | -0.131* | 0.168** | 0.003 |
| 10.PE_XCOMP | 215 | 1 | 0.357*** | -0.028 | 0.170** | -0.022 | -0.005 | 0.251*** | -0.140* | -0.001 |
| 11.REVERSEMERGER | 215 | 0.656*** | 1 | -0.002 | -0.127* | 0.189*** | -0.027 | -0.04 | -0.084 | -0.217*** |
| 12.TOPINVESTBANK | 215 | 0.028 | -0.002 | 1 | -0.056 | 0.046 | 0.007 | -0.002 | 0.098 | -0.017 |
| 13.ADVISORFEE | 215 | 0.078 | 0.021 | -0.001 | 1 | -0.044 | 0.083 | 0.077 | 0.112 | 0.019 |
| 14.SOEBUYER | 215 | 0.168** | 0.189*** | 0.046 | 0.008 | 1 | -0.179*** | -0.270*** | 0.153** | 0.006 |
| 15.ROABUYER | 215 | 0 | -0.005 | -0.021 | 0.106 | -0.164** | 1 | 0.163** | 0.140** | 0.120* |
| 16.EXECUTIVEPAY | 215 | 0.121* | 0.068 | 0.085 | 0.079 | -0.141** | 0.147** | 1 | -0.084 | 0.034 |
| 17.INSTITUTION | 215 | -0.048 | -0.101 | 0.11 | 0.095 | 0.157** | 0.134** | 0.046 | 1 | 0.019 |
| 18.LARGESTHOLDING | 215 | -0.184** | -0.200*** | -0.004 | 0.022 | 0.012 | 0.142** | -0.056 | 0.03 | 1 |

***, **, and * are significant at levels of 1%, 5%, and 10%, respectively. Pearson results are at the lower diagonal, and Spearman result are at the upper diagonal.