Scale of Goodwill Impairment and Audit Charge

Yanru Wang* [a] and Yuju Li [b]
Bejing Jiaotong University, China

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Abstract: In the capital market, auditors perform forensic evaluation of accounting information and express independent audit opinions. Based on the agency theory, stakeholder theory and large sample empirical method, this paper selects A-share listed companies from 2014 to 2021 as samples to deeply analyze the impact of the scale of goodwill impairment on the pricing level of audit services, in order to provide empirical evidence for accounting information users. The results show that the larger the size of goodwill impairment provision made by clients, the higher the pricing of audit fees in the current year, and the auditor maintains a higher level of prudence. It is recommended that audits should focus on the subsequent measurement risk of goodwill, give full play to the external oversight function of audits, and enhance the signaling effect of audit pricing on the capital market.

1 INTRODUCTION

While the Chinese economic market continues to expand, mergers and acquisitions have also led to the accumulation of large amounts of goodwill in the capital market in a few short years, and the risk of large goodwill impairment charges is hidden behind high goodwill. Essentially, the goodwill recognized in the consolidated statements of operations arises from the difference between the cost of the merger and the fair value of the identifiable net assets of the acquiree acquired in the merger, which is a kind of merger premium paid by the listed company for the value creation ability and market development prospect of the acquire. Although goodwill is an asset class, it cannot be realized due to its own properties and cannot be reversed once a provision for goodwill impairment is made. As an unidentifiable, unverifiable and non-physical asset, it is highly subjective and complex, making it difficult to accurately estimate the fair value of goodwill assets. In addition, in 2006, China implemented new accounting standards and adopted the practice of convergence with international accounting standards for the recognition and subsequent measurement of goodwill in business combinations by withdrawing the amortization of goodwill and replacing it with impairment testing only. Enterprises should determine whether there is an indication of impairment at the balance sheet date and perform impairment tests at least at the end of each year. Goodwill impairment in the capital market has been a frequent lightning rod in recent years, with financial fraud occurring from time to time and investors and regulators questioning the CPA as the gatekeeper of the capital market.

The existing literature generally considers the impairment of M&A goodwill as a negative risk matter, which will adversely affect listed companies. Empirical studies have found that impairment of goodwill implies that the excess premium paid in M&A restructuring of listed companies does not bring real benefits to the companies, but also provides room for management to manage surplus to some extent (Goncalves et.al., 2019), causing poorer company performance (Glaum et.al., 2018) and triggering drastic fluctuations in stock prices in the market (Knauer and Woehrmann, 2016), exacerbating the risk of sharp fluctuations in the company's future share price (Han et al., 2019), increasing the company's debt financing costs (Xu et al., 2017), and leading to the generation of pessimism among investors, analysts, and other stakeholders (Li et.al. 2011). In fact, the goodwill impairment of

[a] https://orcid.org/0000-0002-7512-4708
[b] https://orcid.org/0000-0002-2558-5063

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mergers and acquisitions has been one of the major risks of listed companies and capital markets that the CSRC, the Ministry of Finance and other government regulatory departments focus on. CSRC has repeatedly urged accounting firms and market intermediaries to strengthen supervision to prevent the risks associated with large-scale goodwill impairment charges by listed companies. It can be seen that the goodwill impairment of mergers and acquisitions of listed companies may not only be an accounting confirmation behavior, but also may lead to the risk of material misstatement of the company and the risk of management information disclosure violation, which will bring uncertainty to the external stakeholders of the company and the capital market. Auditors, as the assurance evaluators of accounting information of listed companies, have clients with huge goodwill impairment triggering higher risk of audit failure. In terms of audit risk response, established literature suggests that increasing audit procedures, expanding audit scope, and devoting more audit hours to obtain sufficient and appropriate audit evidence are indispensable work elements for auditors to reduce the risk of material misstatement at the financial reporting determination level and thus reduce audit risk, so whether auditors will require an increase in audit fees as cost compensation and whether the size of goodwill impairment charged by the enterprise in the current year affects audit pricing in the current year, there is less research in the existing literature.

In view of this, this paper empirically examines the relationship between M&A goodwill impairment and audit fees for listed companies, using a sample of Chinese A-share listed companies over the period 2014-2021, with a view to interpreting the information content contained in M&A goodwill impairment for listed companies from the perspective of auditors' risk decisions.

2 LITERATURE REVIEW

Regarding the factors influencing audit fees, an analysis of the impact of audit pricing based on the cost hypothesis suggests that firm characteristics, client characteristics, and government regulation all affect audit pricing. Overall, audit costs are higher and audit pricing is higher when accounting firms provide audit services to clients with large firms and complex organizational structures and operations. Chen et al. (2010) argue that institutional advances have led firms to focus less on the financial benefits derived from auditing clients and more on the audit cost factor invested in ensuring audit quality. When firms have industry expertise and higher reputation, the transmission of economies of scale becomes more pronounced, triggering a decrease in audit pricing levels (Chen and Ma, 2013). Therefore, cost savings from economies of scale and learning curve effects provide the possibility for firms to reduce audit pricing (Yu et al., 2020).

Regarding the relationship between goodwill impairment and audit pricing, M&A goodwill impairment is prone to higher risks and negative economic consequences. The cost of goodwill generated by high premium M&A can enhance the firm's current operating performance, but there is a lag in the negative impact of goodwill cost on firm performance (Zheng et al., 2014), and the higher the M&A premium rate, the weaker the economic synergy effect, the greater the possibility of triggering goodwill impairment and the greater the stock return volatility (Liu and Wang, 2019), increasing the risk of stock price collapse (Liu et al., 2019). Auditing should play an external monitoring role in the impairment of M&A goodwill. On the one hand, an effective reputation mechanism can motivate accounting firms to provide high-quality audit reports, and accounting firms that provide high audit quality can receive a fee premium (Liu et al., 2018). In addition, when the auditor faces a high enough audit risk, the accounting firm devotes more total audit time and more higher staff level audit time to high-risk engagements (Bell et.al., 2008), and according to the cost-benefit theory, the firm will charge more audit fees to the audited entity.

Some scholars study the impact of goodwill on audit fees, for example, Zheng and Li (2018) empirically analyze that the ratio of goodwill opening balance to assets positively affects audit fees in the case of positive or negative surplus management. Ye et al. (2016) argue that the complexity and subjectivity of goodwill impairment testing leads firms to invest in greater audit costs, resulting in higher audit fees. The current period premium M&A generates additional goodwill, and auditors charge a risk premium for audits in response to the massive goodwill impairment charged by clients, thus increasing audit pricing. Based on this, this paper proposes the hypothesis.

H1: Other things being equal, the larger the goodwill impairment charged in the period, the higher the audit fee.

3 RESEARCH DESIGN

3.1 Sample Selection and Data Sources

This paper uses Chinese A-share listed enterprises from 2014 to 2021 as the research object, and further screened to ensure the reasonableness of the data: excluding enterprises in the financial industry; excluding enterprises with all 0 goodwill impairment provisions during the sample period; enterprises with missing data on the main variables during the sample period and those listed after 2017. Finally, to guard against the impact of extreme values on our study, 1% and 99% quantile tailing was applied to all continuous variables, and a total of 10,319 valid data were obtained for 1175 firms. All variable data were obtained from the Cathay Capital database (CSMAR).

3.2 Sample Selection and Data Sources

3.2.1 Explained Variable: Audit Fees (Afee)

The natural logarithm of audit fees paid by the firm in the current period is used to measure, which has been determined to be basically in line with the normal distribution.

3.2.2 Explanatory Variable: Goodwill Impairment Size (IG)

The provision for goodwill impairment in the notes to the financial statements was directly adopted as a proxy for goodwill impairment, and the classification of goodwill impairment of size was made on this basis, which consisted of two indicators: the natural logarithm of the provision for goodwill impairment of the enterprise in the current year was adopted (IG1); the ratio of the provision for goodwill impairment of the enterprise to the total assets of the enterprise in the current year was adopted (IG2).

3.2.3 Control Variables

The size of the enterprise (Size), the previous period's surplus position (Isloss), the type of accounting firm (Big4), the degree of surplus management (EM, as measured by the modified Jones model), the asset-liability ratio (TDR), and the equity pledge (Gqzz) are selected, and the specific indicators are described in Table 1.

Table 1: Variable definition table.

Type	Variable	Symbol	Calculation Method
Explained variables	Audit fees	AFee	Natural logarithm of audit fees paid in the current year
Explanatory variables	Size of goodwill impairment	IG1	Natural logarithm of goodwill impairment provision in the current year
		IG2	Ratio of provision for goodwill impairment to total assets of the firm in the current year
Control variables	Size of the firm	Size	Natural logarithm of total assets
	Previous period's surplus status	Isloss	Previous year's net profit less than 0 is taken as 1, otherwise 0
	Degree of surplus management	EM	Absolute value of manipulative accrued profit
	Balance sheet ratio	TDR	Ratio of total liabilities to total assets at the end of the year
	Equity pledge	Gqzz	The value is 1 if the enterprise has equity pledge at the end of the year, otherwise it is 0
	Type of accounting firm	Big4	The accounting firm hired by the enterprise belongs to the "Big Four" takes the value of 1, otherwise it takes 0
	Industry	Ind	According to the industry classification standards promulgated by the Securities and Futures Commission in 2001, manufacturing industry is classified according to the second level, while others are classified according to the first level.
	Year	Year	Set 2014 as the base, set 8 dummy variables

3.2.4 Model Construction

To test the impact of large-scale goodwill impairment on corporate audit fees, the following multiple regression model is developed.

$$AFee_{it} = C + \alpha \times IG_{it} + \beta \times Size_{it} + \chi \times Isloss_{it} + \theta \times EM_{it} + \sigma \times TDR_{it} + \rho \times Gqzz_{it} + \omega \times Big4_{it} + \varepsilon_{it} \quad (1)$$

In the model $AFee_{it}$ is the audit fee of the ith enterprise in year t, IG_{it} is the size of goodwill impairment of the ith enterprise in year t, $Control_{j,it}$ is the control variable, and C is a constant term. Based on the existing data and with the help of the statistical analysis software stata, we run the above multiple regression model. If the hypothesis holds, the coefficient α should be significantly greater than 0.

4 EMPIRICAL ANALYSIS

4.1 Descriptive Statistics

Table 2 shows the descriptive statistics of the main variables. It can be seen that the mean value of IG1 is 1.044 and the maximum value is 9.815, which indicates that the scale of goodwill impairment is at a high level and the scale of impairment varies greatly among companies; the mean value of IG2 is 0.005, which indicates that the scale of goodwill impairment charged by listed companies is about 0.5% of the total asset value on average; the mean value of AFee is 6.080 and the standard deviation is 0.280, which indicates that the listed companies The mean value of AFee is 6.080 with a standard deviation of 0.280, indicating that the difference in audit fees is not very large among listed companies, which may be related to competition between supply and demand in the audit market. The control variables Size, Big4, Isloss, EM, and Big4 are reasonable and do not differ significantly from the distribution of variables in previous literature.

Table 2: Descriptive statistical analysis of the main variables.

Variables	N	Mean	SD	Min value	Max value
AFee	10319	6.080	0.280	5.301	7.885
IG1	10319	1.044	2.534	0	9.815
IG2	10319	0.005	0.093	0	8.642
Size	10319	9.715	0.531	7.503	12.437
Isloss	10319	0.160	0.366	0	1
EM	10319	0.081	0.158	0	6.464
Big4	10319	0.037	0.190	0	1
TDR	10319	0.460	0.668	0.014	63.971
Gqzz	10319	0.947	0.224	0	1

4.2 Impact of Goodwill Impairment on Audit Fees

Table 3 shows the regression results of goodwill impairment and audit fees, where columns (1) and (2) show the regression results of IG1 and IG2 as explanatory variables, respectively. As can be seen, the coefficients of goodwill impairment size are positive for both measures and pass the significance test at the 1% level, indicating that goodwill impairment size significantly increases audit pricing and the hypothesis is verified. From the regression results of the control variables, the coefficients of Size, Big4, Isloss, EM, and TDR are significantly positive, which is consistent with the results of existing studies.

Table 3: Impact of the size of goodwill impairment on audit fees.

Variables	(1) IG1	(2) IG2
IG1	0.00703***	
	(0.000703)	

IG2		0.1055***
		(0.0146)
Size	0.341***	0.3465***
	(0.00384)	(0.00383)
Isloss	0.0716***	0.0732***
	(0.00501)	(0.00502)
EM	0.0207*	0.0210*
	(0.0114)	(0.0114)
Big4	0.287***	0.288***
	(0.00988)	(0.00991)
TDR	0.0188***	0.0182***
	(0.00266)	(0.00267)
Gqzz	0.0028	0.0039
	(0.00788)	(0.00791)
Constant	2.7291***	2.6770***
	(0.0378)	(0.0378)
Industries	Control	Control
Year	Control	Control
Observations	10,319	10,319
R-squared	0.5998	0.5971

Note: *** p<0.01, ** p<0.05, * p<0.1, standard errors in parentheses.

4.3 Robustness Tests

4.3.1 Re-Measure the Variables

To determine the degree of influence of the main explanatory variables on the explanatory variables, different measures are used for the control variables, replacing firm reputation from the top four (Big4) to the top ten (Big10) and replacing firm size (Size) with total owner's equity (Equity), and the findings are unchanged after re-measuring the variables.

4.3.2 One Period Lag Treatment for All Explanatory Variables

To mitigate possible reverse causality issues, all explanatory variables are treated with a one-period lag, which also tests the persistence of the effect of premium M&A on audit pricing. The regression results for the lagged treatments are all significant at the 1% level, consistent with the main test.

4.3.3 Fixed Effects Model Regressions Are Used

The study model may have the problem of omitted variables, and in order to remove the effects of firm characteristics that do not vary over time, a fixed-effects model is used for regression testing, and the regression results are consistent with the main test regression results.

5 CONCLUSIONS

In this paper, we selected the data of A-share listed enterprises from 2014-2021 and analyzed the impact of goodwill impairment size on the audit fees of enterprises using panel data. The empirical evidence found that the larger the scale of goodwill impairment of enterprises, the higher the audit fees. In this regard, firstly, the professionalism of auditors should be improved and listed companies should be carefully examined for the existence of goodwill impairment for surplus manipulation; Secondly, the supervision of goodwill information disclosure should be increased to reduce the motivation of companies to use goodwill impairment for surplus management, and a database of different industries should be established to provide a basis for goodwill assessment in M&A and restructuring of listed companies using big data analysis.

The research conclusion of this paper has certain practical significance. First, the professional quality of audit institutions should be improved. Audit institutions shall remain objective and rational, maintain professional skepticism at all times, and issue standard and reliable audit opinions. Certified public accountants should carefully examine the financial statements of listed companies, examine whether listed companies use goodwill impairment to manipulate earnings, prevent the company from major misstatement risks and large goodwill impairment events, and improve the reliability of accounting information quality. Secondly, strengthen the supervision of the disclosure of goodwill information. There is still a large room for improvement in the supervision of goodwill information disclosure. Because the penalty cost is too low, listed companies still have the incentive to manipulate earnings management by goodwill impairment. Therefore, our country should strengthen the information disclosure supervision of goodwill. It is suggested that relevant regulatory authorities should introduce regulatory policies on goodwill information disclosure, increase the content of goodwill information disclosure of listed companies, especially the information technology industry, improve the information transparency of listed companies and reduce the occurrence of violations. Penalties will be increased for listed companies that fail to make timely or inadequate disclosures. In addition, databases of different industries can be established and big data analysis can be used to provide basis for goodwill assessment of listed companies in mergers and acquisitions.

In addition, the following deficiencies exist in this paper. The article also does not analyze the role mechanism of goodwill impairment scale affecting audit fees deeply enough. In the future it and should be studied in depth by combining the reasons of both firms and enterprises. In addition, the ambiguity of M&A goodwill from the time it arises, coupled with the subsequent measurement using the method of impairment, leads to more room for manipulation by firms. In the future, it may be possible to initially analyze the reasons for the firm's M&A and to examine the changes in the firm's surplus before and after the impairment of goodwill, which will help to deeply understand the purpose of each relevant act.

REFERENCES

Bell, T. B, R. Doogar, and I. Solomon. (2008). Audit labor usage and fees under business risk auditing. J. Journal of Accounting Research. 46(4), 729–760.

Glaum Martin, Landsman Wayne R., WyrwaSven. (2018). Good will Impairment: The Effects of public enforcement and monitoring by institutional investors J. The Accounting Review. 93(6).

Goncalves C, Ferreira L,Rebelo E, Fernandes JS. (2019). Big bath and good will impairment. J. RBGN-Revista Brasileirade Gestaode Negocios. 21(2), 312–331.

Lauren C. Reid, Joseph V. Carcello, Chan Li,Terry L. Neal. (2019). Impact of auditor report changes on financial reporting quality and audit costs: evidence from the United Kingdom. J. Contemporary Accounting Research. 36(3).

Thorsten Knauer. & Arnt Wöhrmann. (2016). Market reaction to good will impairments. J. European Accounting Review. 25(3).

Zining Li,Pervin K.Shroff,Ramgopal Venkataraman,Ivy XiyingZhang. (2011). Causes and consequences of good will impairment losses. J. Review of Accounting Studies. 16(4).

Chen, S, L. Ma, H. (2013). The transmission effects of accounting firm industry expertise, reputation and economies of scale. J. Audit Research. 06, 84–92.

Han, H, W. Tang, Q, Q.Li, W, F. (2019). M&A goodwill impairment, information asymmetry and share price collapse risk. J. Securities Market Herald. 03, 59–70.

Liu, C. Xu, D, D. Zheng, C, Y. (2019). Goodwill, high premium M&A and the risk of share price collapse. J. Financial Regulation Research. 06, 1–20.

Liu, X, H. & Wang, J, Y. (2019). Premium M&A, goodwill impairment and stock yield volatility effects. J. Financial Economics Research. 34 (03), 83–93.

Liu, X, Q. Sun, J, Yuan, R, L. (2018). M&A performance compensation commitments and audit fees. J. Journal of Accounting Research. 12, 70–76.

Xu, J, C. Zhang, D, X. Liu, H, H. (2017). Does M&A goodwill information affect the cost of debt capital? J. Journal of Central University of Finance and Economics. 03, 109–118.

Ye, J, F. He, K, G. Yang, Q. Ye, Y. (2016). Unverifiable goodwill impairment test estimates and audit costs. J. Audit Research. 01, 76–84.

Yu, Y, M. Fan, Y, X. Zhou, K, T. (2020). Pre-determination of audit expenses, abnormal audit expenses and audit quality. J. Audit Research. 02, 67–75.

Zheng, C, M. & Li, X. (2018). M&A goodwill and Audit service pricing. J. Audit Research. 06, 113–120.

Zheng, H, Y. Liu, Z, Y. Feng, W, D. (2014). Does M&A goodwill improve company performance? -- Empirical evidence from A-share listed companies. J. Journal of Accounting Research. 03, 11–17+95.