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Capital Market Surplus Measurement and Application -- Timeliness and Robustness of Surpluses

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Abstract

This paper summarizes the commonly used measurement methods of accounting soundness and their development, and evaluates their advantages and disadvantages. In the literature review section, the research on the existence of accounting soundness, the research on economic consequences, and the research on accounting soundness and corporate governance are reviewed. When studying the earnings management of Chinese enterprises, it is necessary to improve and optimize foreign models in combination with the actual situation in China, so as to more accurately measure the timeliness and robustness of accounting for earnings management.

Keywords

Accounting Soundness; Earnings Management; Timeliness.

1. Introduction

The study of earnings management emerged in the 80s of the 20th century, and the arbitrary abuse of surplus management has increasingly become a topic of concern for regulators and regulators. In the securities market, accounting information dominates the information publicly disclosed by listed companies, and the most concerned about accounting information is earnings information, and investors require enterprises to publish earnings information to be "true and fair", and enterprise management authorities may "manage" or "manipulate" the surplus for various purposes. In recent years, with the development of China's securities market, it is more and more common for enterprises to carry out surplus management, and the issue of surplus management has attracted more and more attention from all parties.

Foreign academic circles have done a lot of research in the field of earnings management, and the main difference between these studies is how to measure the degree of earnings management. In relevant foreign studies, robustness and timeliness are often used as the main connotations of surplus quality, especially robustness (Watts, 2003; Ball, 2003). Timeliness refers to the speed at which accounting earnings reflect economic gains and losses, while robustness is the asymmetric degree of the response of surpluses to economic gains and losses, that is, surpluses respond to economic losses more timely than to economic gains, and the faster the surplus responds to losses, the higher the level of robustness. Therefore, this paper studies the measurement and application of capital market surplus management from the perspectives of timeliness and robustness.

2. Measure the Model

In 1997, Basu innovatively used the asymmetric method of earnings response to measure the robustness of surplus, pioneering empirical research in this field. The Basu study found that there is a general robustness in the accounting surplus of US listed companies, that is, the timeliness of earnings recognition of bad news is significantly greater than that of good news, and the robustness of accounting surplus varies with the degree of legal risk faced by auditors.

After Basu, a large number of papers on earnings robustness appeared abroad, such as the existence and measurement effectiveness of surplus robustness (Holthausen, et al., 2001; Givoly, et al, 2007), country-specific comparisons of surplus robustness (Ball, et al, 2000; Gassen, et al, 2006), and the relationship between surplus robustness and corporate governance (Ahmed, et al., 2007; Lafond, et al Smith et al., 2008; Garcira Lara, et al., 2009), Economic Consequences of Surplus Robustness (Beatty, et al., 2008; Bushman, et al., 2011).

Later, Khan and Watts (2009) proposed C_Score model, C_Score motivated by Watts (2003) The Four Determinants of American Conservatism: Contract Theory, Legal Proceedings, Taxation, and Regulation. It predicts the flow conservatism of the horizon (Basu's asymmetric timeliness coefficient) for up to the next 3 years, and this predictive power is even applicable to a sample of companies with positive returns in the forecast year. This is an important attribute because Basu (1997) asymmetric timeliness measures cannot estimate a sample of companies with only positive returns. Moreover, Basu only measures robustness for overall robustness, C_Score for the company's annual individuals.

3. Literature Review

As mentioned above, timeliness refers to the speed at which accounting surpluses react to economic gains and losses, and robustness is the asymmetric degree of the response of surpluses to economic gains and losses, that is, surpluses respond to economic losses more timely than to economic gains, and the faster the surplus responds to losses, the higher the level of robustness. Ball et al. (2000) argue that the core characteristics of accounting surpluses are timeliness and robustness. In fact, according to Basu's (1997) definition of robustness, "the current accounting surplus contains the degree of economic loss, compared with the degree of economic gain contained in the pattern of asymmetrical patterns", robustness is only a more timely information containing economic loss, and can therefore be regarded as another form of expression of timeliness. Therefore, the literature review mainly focuses on accounting soundness, which is divided into three aspects: research on the existence of accounting soundness, research on economic consequences, and accounting soundness and corporate governance.

3.1. Existential Problem Research

Basu (1997) innovatively used the asymmetric method of earnings response to measure the robustness of surplus, pioneering empirical research in this field. Basu's research found that there is a general robustness in the accounting surplus of U.S. public companies, that is, the timeliness of earnings recognition of bad news is significantly greater than that of good news, and the robustness of accounting surpluses varies with the degree of legal risk faced by auditors. (1997, Journal of accounting and economics).

Watts (1993) argues that the robustness of accounting earnings mainly comes from internal contracts, including compensation contracts and debt contracts. Robustness can delay payments to shareholders with low profits, thereby ensuring the interests of creditors; At the same time, robustness also delays the payment of earnings-based remuneration, thereby preserving the interests of shareholders. Watts (2003) based on extensive empirical research boils down the causes of robustness to four areas: contracts, litigation, regulation, and taxation. (2003, Journal of accounting and economics).

Zengquan Li and Wenbin Lu(2003) analyzed the robustness of the accounting surplus of listed companies in China, and they believed that the degree of response of accounting surplus to "bad news" is greater than the degree of response to "good news", and this asymmetry indicates that the accounting surplus is generally stable, and at the same time, the change of accounting surplus also shows asymmetry, that is, the negative accounting surplus change has a greater reversal rate than the positive accounting surplus change. (2003, Accounting Research).

3.2. Study of Economic Consequences

Ball and Shivakumar (2005) empirically found that public companies are more robust than private companies, implying that public equity markets need more robust accounting information than private equity markets. Ball, Robin et al. (2006) found that the size of the debt market well explained the changes of robustness in the cross-sectional data of various countries through the study of the relationship between robustness and the national cross-sectional data of the equity market and the debt market, while the size of the equity market had no significant impact on robustness. (2010, Oriental Corporate Culture).

Guohua Jiang and Ran Zhang (2007) discussed the impact of information asymmetry inside and outside enterprises on the principle of robustness and fair value measurement, and combined with the characteristics of modern economy, it was argued that equity investors should become the main service objects of accounting information. A large number of empirical studies show that sound accounting methods and aggressive accounting methods also pose obstacles to equity investors' understanding of accounting information, so the appropriate introduction of fair value measurement methods in accounting standards is beneficial to the development of capital markets. (2007, Accounting Research).

Yanyan Chen (2013) et al. used Basu model and C-score to measure accounting robustness, and the empirical results show that the smaller the number of local listed companies, the greater the economic influence of listed companies, and the lower the accounting soundness of listed companies. The test results remain robust in a series of sensitivity tests, and overall, a firm's political affiliation reduces accounting soundness. (2013, Nankai Management Review).

Xiaosu Zhou and Xihao Wu (2013) take the transparency of accounting information of listed companies as the starting point to explore the impact of robustness on corporate information disclosure. The preliminary test shows that there is an inverted U-shaped relationship between soundness and transparency of accounting information, that is, within a moderate range, the enhancement of robustness helps to improve the transparency of accounting information, while the "excessive robustness" caused by extreme downward earnings management leads to a decrease in the transparency of accounting information. Further examination shows that the enhancement of robustness helps to alleviate the level of information asymmetry without interference from the motivation of earnings management. However, if companies implement extreme downward earnings management in the name of robustness, it will exacerbate the degree of information asymmetry. (2013, Nankai Management Review).

Xiaosu Zhou et al. (2015) examined the impact of accounting robustness of enterprises with different life cycles on the efficiency of capital investment and found that: first, when the life cycle stage of enterprises is not distinguished, accounting robustness can significantly reduce the overall inefficient investment and excessive investment of enterprises, but the effect on insufficient investment is not significant; Second, in the sample group where enterprises in the growth and mature stages had underinvestment, accounting soundness exacerbated the underinvestment of enterprises, while the effect of accounting soundness in the sample group with underinvestment in recession was reversed. Third, in the sample group of excessive investment of enterprises in the growth, mature and recession periods, accounting soundness had a significant inhibitory effect on excessive investment, and this effect was the largest in the recession period, followed by the growth period and the smallest in the mature period. (2015, Accounting and Economic Research).

Xiaofeng Quan and Hongjun Xiao(2016) believe that there is a significant negative relationship between the level of social responsibility information disclosure and conditional accounting soundness, and this negative relationship only exists in social responsibility reporting

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companies that have mandatory disclosure and have not carried out third-party information assurance. Conditional accounting soundness negatively affects the risk of future stock price crashes. They believe that in China's capital market, the disclosure of non-financial information will affect the management's accounting policy choices and thus have an extreme impact on the capital market. (2016, China Soft Science).

Shufeng Fang (2020) analyzes the impact of earnings management on analysts' earnings forecasting from the perspectives of accounting robustness and risk disclosure of enterprises. After empirical testing, the following conclusions are concluded: risk information disclosure is significantly positively correlated with the accuracy of analysts' earnings forecast; There is a significant positive correlation between accounting robustness and analysts' earnings forecasts; Accounting robustness enhances the correlation between the quality of risk disclosures and analysts' earnings forecasts. (2020, Finance and Accounting Newsletter).

3.3. Earnings Robustness and Corporate Governance

Dewu Zhao et al. (2008) empirically tested the influence of independent directors' supervision on earnings soundness through factor analysis and diameter analysis, and found that independent directors' supervision had a significant positive impact on earnings soundness, and this influence increased with the improvement of corporate governance. The performance environment of independent directors has the greatest impact on the soundness of earnings, followed by the size of the number of directors and the ability of accounting expertise, and the impact on remuneration and reputation is relatively small. (2008, Accounting Research).

Xinshu Mao (2009) analyzes the intrinsic relationship and mutual influence between earnings soundness and earnings management, and tests the implementation quality of China's accounting standards on this basis. The study concludes that after deducting manipulative accrued profits, the earnings soundness of listed companies is still closely related to the degree of application of the soundness principle in the accounting system. Moreover, strengthening the soundness principle and limiting the use of fair value significantly reduces the level of overvalued earnings of the company, while the weakening of the soundness principle and expanding the application of fair value leads to a significant improvement in the company's earnings management level. Overall, there is no evidence that improved earnings robustness led to a major purge of listed companies. (2009, Accounting Research).

Zhongbo Yu, Gaoliang Tianet al. (2013) studied the corporate governance function of accounting soundness from the perspective of stock price information content, and found that there was a significant positive correlation between accounting soundness and stock price information content: that is, accounting soundness and stock price synchronization were significantly negatively correlated; It is significantly positively correlated with the probability of informed transactions; Accounting soundness allows stock prices to contain more information about future earnings. At the same time, it is found that there is a complementary relationship between accounting soundness and external governance environment. The restraining function of accounting robustness on managers is more significant in private enterprises. (2013, Management Review).

Guangguo Sun and Jianyu Zhao (2014) empirically examine the impact of managers' overconfidence on accounting soundness from the perspective of behavioral finance, and the difference in the degree of influence between the two under different property rights. Studies have shown that overconfidence in management can significantly reduce a company's level of accounting soundness. Further distinguishing the nature of property rights, due to the absence of owners and soft debt constraints, the impact of overconfidence of management on accounting soundness is stronger than that of private listed companies. (2014, Accounting Research).

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Shangkun Liang et al. (2018) discussed the impact of the network centrality of independent directors on accounting soundness. The study believes that: (1) overall, the higher the network centrality of independent directors, the lower the level of accounting soundness of the company; (2) distinguish different regional environments, only in regions with low levels of financial development and legal environment, the centrality of independent director networks has a significant impact on the level of accounting soundness; (3) Distinguish between different corporate environments, only if the company does not have a bank connection, the centrality of the independent director network has a significant impact on the level of accounting soundness. (2018, Accounting Research).

Yuemei Zhang, Fang Zhang (2019) takes the impact of accounting soundness on investment and financing behavior as the starting point. Empirical results show that accounting robustness can promote the improvement of investment efficiency and solve the governance problem of inefficient investment to a certain extent. Faced with the choice between debt financing and equity financing, accounting soundness promotes underinvested enterprises to choose debt financing instead of equity financing, which is in line with the external financing order in the theory of optimal financing, and it is found that the relationship between accounting soundness, insufficient investment and debt financing is not affected by the debt term but by the nature of property rights, and accounting soundness plays a more significant role in promoting debt financing in underinvested state-owned enterprises. (2019, Management Review).

Haoran Xu et al. (2021) examined the impact of having multiple large creditors on accounting soundness, and found that the joint supervision of multiple large creditors significantly improved the accounting soundness level of enterprises. When the complexity of the enterprise is high or the information environment is poor, the effect of multiple large creditors on the improvement of accounting soundness is more obvious. However, when financial holding banks account for a relatively high proportion of creditors, this promotion effect is significantly weakened. The joint supervision of multiple large creditors has prompted enterprises to record more asset impairment losses and estimated liabilities, thereby improving the level of accounting soundness. (2021, Accounting Research).

4. Conclusion

Based on the above literature reading, the following conclusions are drawn:

Basu's (1997) inverse regression model is the best and most widely applicable to other accounting robustness measurement models. However, there are also limitations, the most prominent of which is that this model has stricter restrictions on market effectiveness than several other measurement models, and has been criticized by accounting academics in accounting measurement.

In addition, the effectiveness of China's stock trading market, option futures trading market, securities trading market, etc. is also very far from Western countries, and we can not copy the accounting robustness measurement model, but should consider its scope of application and application conditions with a prudent attitude.

The economic results of applying this model should also be carefully evaluated. In addition, when we evaluate the accounting soundness of an enterprise's financial reports, if only one accounting soundness measurement method is applied, there is likely to be a certain deviation, so that the final result is biased.

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