

# ***The Impact of Intelligent Auditing on Corporate Debt Default Risk Driven by New-Quality Productivity***

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**Abstract:** The new wave of artificial intelligence (AI) technological revolution is transforming existing industry dynamics and challenging traditional auditing models. Simultaneously, the phenomenon of corporate debt defaults is becoming increasingly severe, making the digital transformation of auditing an urgent necessity. Empowering auditing with new-quality productivity can facilitate a more effective transition to intelligent auditing. This paper, from the novel perspective of new-quality productivity, analyzes the impact of intelligent auditing on corporate debt default risk. Intelligent auditing reduces corporate debt default risk by improving internal control quality, enhancing audit quality, and mitigating resource misallocation. New-quality productivity supports intelligent auditing from three perspectives: technology, talent, and institutions. This paper, to some extent, fills the research gap on the economic consequences of intelligent auditing and provides a reference for enterprises and relevant departments in their digital auditing transformation.

**Keywords:** New-quality productivity, Intelligent auditing, Corporate debt default risk.

## **1. Introduction**

The concept of new-quality productivity was first introduced by President Xi Jinping during a symposium on advancing comprehensive revitalization of Northeast China in September 2023. The question of how to leverage new-quality productivity to drive development has become a focal point across various industries. In the auditing industry, during the first meeting of the 20th Central Auditing Commission in 2023, President Xi Jinping clearly stated that the general requirement for auditing work in the new era is "to focus on building a centralized, unified, fully covered, authoritative, and efficient auditing supervision system, and to better play the role of auditing supervision," thereby ensuring the overall work of the Party and the State and promoting high-quality development. To further strengthen audit supervision, it is necessary to empower auditing work with new-quality productivity, particularly by addressing the issue of intelligent auditing transformation. Especially since the release of large AI models like ChatGPT at the end of 2022, the substantial impact of the new wave of AI technological revolution on various industries has become apparent. Audit institutions must pay close attention to its impact on auditing work, making the digital transformation of auditing an urgent priority. At the same time, since the first substantial default in China's bond market in 2014, the number and amount of bond defaults have continued to rise, necessitating higher quality audit supervision. Therefore, exploring how intelligent auditing driven by new-quality productivity affects corporate debt default risk holds practical significance.

The potential contributions of this paper are twofold: On the one hand, it expands research on the factors influencing corporate debt default risk. In recent years, major corporate defaults have occurred frequently, drawing increasing social attention. However, most existing literature approaches the issue from macroeconomic or corporate perspectives, with relatively few focusing on the auditing viewpoint. On the other hand, this paper enriches research on the economic consequences of intelligent auditing transformation. Existing literature has focused on the stages of digital and intelligent transformation in auditing, but there has been little research on its impact on enterprises. This paper examines intelligent auditing transformation from the perspective of new-quality productivity, combining general trends with China's specific context, and further explores its impact, thereby offering some degree of innovation.

## 2. Literature Review

Currently, research on new-quality productivity is still in its early stages, with existing literature mainly exploring qualitative and quantitative dimensions. In terms of qualitative research, most literature discusses "new" and "quality" separately: "new" is reflected in breakthroughs in key technologies, and "quality" is reflected in the improvement of productivity efficiency and quality driven by technology [1-2]. In terms of quantitative research, many studies use the entropy method to measure the level of new-quality productivity, while others attempt to construct a comprehensive evaluation index system for new-quality productivity from the three dimensions of labor, labor objects, and means of production [3-4]. Regarding intelligent auditing, most current research considers digitalization as a macro background, exploring audit transformation within this context. Zhang Qinglong et al. discussed the drivers of transformation, categorizing them into external and internal factors; Xue Wenyan explored the challenges faced during transformation, which include shifts in audit thinking, the construction of audit teams, changes in audit organizational structure, data governance, and unstructured data [5-6]. Addressing these challenges, Yang Roujian proposed solutions from four dimensions: audit data ecosystem, the synergy between technology and audit operations, intelligent thinking, and data resources [7].

Existing research on the factors influencing corporate debt default risk mainly revolves around two aspects: the external environment faced by companies and the characteristics of the companies themselves. From the external environment perspective, generous tax depreciation subsidies, reductions in monetary policy uncertainty, and the development of financial technology can significantly reduce corporate debt default risk [8-10]. From the perspective of company characteristics, low quality of internal control and strategic positioning that deviates from industry norms can increase the risk of corporate debt default, while well-established executive social networks can reduce the likelihood of default [11-13]. Some studies have also shown that corporate digital transformation can reduce debt default risk, but they have not focused on the perspective of intelligent auditing [14].

Based on the existing literature, it can be observed that research combining new-quality productivity with other industries is relatively scarce. At the same time, the digital transformation of auditing should continue to focus on supervising companies as its core focus. However, current research mainly concentrates on the process of intelligent auditing, with less focus on the economic consequences of this transformation. Therefore, it is necessary to further analyze how intelligent auditing can improve supervision quality. Finally, although the factors influencing corporate debt default risk have been well analyzed, there is still a lack of literature examining the impact of intelligent auditing on corporate debt default risk.

### **3. The Impact Pathways of Intelligent Auditing on Corporate Debt Default Risk**

#### **3.1. Intelligent Auditing Facilitates the Improvement of Internal Control Quality, Thereby Reducing Debt Default Risk**

Although the objectives of internal control have diversified with the evolution of modern corporate structures, ensuring asset security and the accuracy of accounting information remain core aspects. There is an inherent connection between internal control and auditing: on the one hand, the information source for auditing is based on effective internal control; on the other hand, auditing identifies and reduces earnings management risks, alleviates potential conflicts between shareholders and management, thereby safeguarding assets and verifying the reliability of financial reporting. Therefore, accounting control is considered the core of corporate internal control. Nowadays, many companies have proactively undertaken the transition to intelligent auditing, improving the quality of internal control by reducing discretionary powers of management and enhancing the quality of disclosed accounting information. The improvement in internal control quality leads to a significant reduction in bond credit spreads, enhances corporate debt repayment capabilities, and lowers the risk of debt default. Therefore, it is reasonable to believe that intelligent auditing can promote the improvement of internal control quality, thereby reducing the risk of debt default.

#### **3.2. Digitally Skilled Auditing Personnel Improve Audit Quality, Simultaneously Reducing Stock Price Crash Risk and Debt Default Risk**

Auditors with a high proportion of digital clients are defined as auditors with expertise in intelligent auditing. These auditors, through accumulating experience in intelligent auditing, can provide higher-quality audit services to digital clients. To meet the growing demand for intelligent auditing, firms have increasingly sought these skilled auditors. This expertise in intelligent auditing represents a specialized perspective within industry expertise and has been recognized by the capital market, as evidenced by the significant reduction in future stock price crash risk when a company hires an accounting firm with stronger industry expertise. Debt default incidents in listed companies, as severe negative events, may trigger stock price crashes, transmitting bond market risks to the stock market. Conversely, a stock price crash can feed risk back into the banking system, creating a chain reaction that intensifies and propagates the risk. The two are significantly positively correlated. Therefore, firms can enhance audit quality through the digital transformation of their human capital structure, thereby reducing the risk of stock price crashes and debt default in the audited companies.

#### **3.3. Intelligent Auditing Alleviates Audit Resource Mismatches, Thereby Reducing Debt Default Risk**

In the digital economy era, digital technologies like cloud computing, big data, and artificial intelligence have improved resource mismatches, such as labor and capital mismatches. Audit resource mismatch, a common form of resource mismatch, is exemplified by "small firms auditing large clients, and large firms auditing small clients." On the one hand, smaller firms, with relatively lower bargaining power, struggle to resolve information asymmetry with large clients, making it difficult to ensure audit quality; on the other hand, small clients tend to hire larger firms, leveraging the favorable audit opinions of large firms to send positive signals to the market, often driven by earnings management motives. These issues, reflected in audit resource mismatches, indicate that auditing has not fully performed its supervisory role, leading to serious problems in internal control and other aspects of companies. These problems negatively impact future cash flows and profitability, exacerbating corporate debt default risk. Based on the above analysis, intelligent auditing, as a key

component of corporate digital transformation, can more effectively address audit resource mismatches and has positive implications for reducing debt default risk.

#### **4. The Development of Intelligent Auditing Transformation in the Context of New Quality Productivity**

"New" and "Quality" are the two core elements of new quality productivity. The term "new" emphasizes the distinction between new quality productivity and traditional productivity, with a focus on breakthroughs in forward-looking technologies. The term "quality" emphasizes innovative allocation of productive factors, where technological breakthroughs must ultimately return to productivity itself, promoting leaps in productivity levels through the integration with labor, means of production, and objects of labor.

##### **4.1. The "New" Aspect of New Quality Productivity Facilitates Technological Innovation in Intelligent Auditing**

With the rapid formation of corporate big data, the digitalization of audited entities has also driven changes in the data storage formats that auditors encounter. New quality productivity promotes the establishment of data communication networks between auditing entities and audited entities, gradually forming a shared data element system across industries. Using this system, auditors can efficiently access the data of audited entities, and conduct in-depth analyses of market trends and industry environments through horizontal comparisons. Building on the digital foundation represented by the data element system, auditing further transitions towards intelligence, creating a shared auditing platform. By leveraging advanced artificial intelligence technology, the platform integrates existing information, experience, and methods into digital resources. Repetitive and low-technical content tasks can be intelligently handled by the shared auditing platform, freeing auditors from mechanical labor. Routine issues can be analyzed using the platform, combining past experiences to make comprehensive judgments, while complex and highly innovative issues can be addressed with the platform's big data predictions to find optimal solutions, making audit decisions more scientific and rational.

##### **4.2. The "Quality" Aspect of New Quality Productivity Empowers The Cultivation of Digitally Skilled Auditing Talent**

Labor is the main force of productivity and plays a crucial role in the development of new quality productivity. Focusing on the auditing field, on one hand, auditing has always kept pace with the times; on the other hand, the auditing discipline is highly practical, often requiring specific analysis based on the different circumstances of audited entities. These factors impose high demands on auditors, who need to possess a combination of professional competence, learning ability, and innovation capability. With the impact of new quality productivity, traditional auditing models are gradually being replaced by intelligent auditing. More convenient data capture channels, more integrated and open data analysis platforms, offer auditors opportunities for rapid learning. Meanwhile, the development of new quality productivity also enables auditors to continuously update their knowledge and skills in a more efficient and rational manner, ensuring their knowledge system remains at the forefront of the industry. Moreover, quantitative analysis of auditors' work results has become more convenient with the support of digital technology, making it easier to understand each auditor's strengths and weaknesses, providing more targeted training, and promoting the development of multidisciplinary talents.

### 4.3. New Quality Productivity Drives Institutional Improvements, Ensuring Intelligent Auditing

Institutional construction covers innovation activities across multiple dimensions, including policies and regulations, management systems, and market mechanisms. Firstly, in recent years, the Party and the government have emphasized the transformation of the auditing system driven by the digital economy, revising regulations and rules that cannot adapt to the current situation. Secondly, new quality productivity optimizes management structures and processes, allowing for pre-judgment of key aspects and risk points in auditing matters, thereby improving decision-making efficiency and execution speed. In the problem identification phase of auditing, imported data can automatically match corresponding management regulations, better standardizing auditing behavior. In the evidence collection phase, advanced technology assists in optimizing evidence collection chains and further standardizes existing auditing procedures. In the audit countermeasure recommendation phase, a dynamic adjustment mechanism regularly reviews the effectiveness of current regulations, ensuring that every adopted audit countermeasure is implemented effectively. Lastly, new quality productivity helps companies move away from extensive, short-sighted development models, promoting integration with the emerging digital economy and driving high-quality, standardized development, thereby providing a favorable environment for intelligent auditing.

## 5. Conclusion

In the context of groundbreaking advancements in artificial intelligence worldwide, the concept of new quality productivity has garnered widespread attention across various industries from the moment it was proposed. It has become a new driving force in the digital era, leading China's efforts to build a modern industrial system and achieve high-quality economic development. At the same time, the rising number and value of bond defaults in China's capital market have placed higher demands on auditing practices. Auditing should seize the opportunity empowered by new quality productivity and actively pursue digital transformation.

This paper explores the impact of intelligent auditing on corporate debt default risk and concludes that intelligent auditing can significantly reduce such risk. The findings are reflected in the following aspects: first, intelligent auditing can enhance the quality of internal control, thereby reducing debt default risk; second, the improvement in auditors' digital literacy can enhance audit quality, simultaneously reducing the risk of stock price crashes and debt defaults; and finally, intelligent auditing can alleviate audit resource mismatches, thereby lowering debt default risk. With new quality productivity as a driving force, the process of intelligent auditing will be greatly accelerated. New quality productivity can facilitate technological innovation in intelligent auditing, empower the cultivation of digitally skilled auditing talent, and provide a more comprehensive institutional framework to support the construction of intelligent auditing.

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