

Research on Financial Statistics Model Method under the Background of Big Data

Yixin Chen*

*Zhejiang University of Finance and Economics, Hangzhou, China
931555421@qq.com

ABSTRACT

With the rapid development of science and technology, China has entered the era of big data, which has new requirements for data collection and processing. For financial statistics, the original financial statistical model has been difficult to meet the development needs of financial statistics in the era of big data, and it is necessary to innovate the existing financial statistical model. Based on the analysis of the era of big data, this article focuses on the impact of the era of big data on financial statistics, and formulates financial model optimization strategies based on the impact.

Keywords: *big data, financial statistics, influence, strategy*

1. THE MEANING OF BIG DATA AND FINANCIAL STATISTICS

1.1. The meaning of big data

Big data is built on the basis of Internet technology, driven by Internet technology. It mainly refers to the collection of data that is difficult to be managed, collected and processed by conventional software within a certain range and time. Information assets can realize massive, efficient and diversified data processing. Big data mainly embodies a correlation between people and network information. It can quickly process data information through cloud computing and other methods to better meet human needs for information resources [1].

1.2. Characteristics of big data

High speed, mainly refers to the ability to achieve rapid collection and efficient processing of data information with the help of tools such as cloud computing, which is difficult to achieve with traditional financial statistical models, and must be achieved with the help of network information technology; mass, mainly refers to The corresponding data information in the era of big data is very large, there are relatively many types of information, and massive amounts of information need to be processed; authenticity mainly means that the data information is not generated out of thin air, all from real life, work, data The source can be traced back and has the characteristics of authenticity; diversity, mainly refers to the variety of data types, relatively complex, and more difficult in the processing process, you need to use computer tools to classify, summarize, and analyze diversified data information; Low value is mainly due to the massive nature of data information, valuable information is difficult to be effectively mined, especially

with the large increase in data, the proportion of valuable information in the data is relatively small [2].

1.3. the meaning of financial statistics

Financial statistics is mainly a statistical work conducted for the development of the financial industry. Its content mainly includes analysis, statistics, surveys, and risk assessment and prediction of financial data. Its purpose is to timely grasp the current status and characteristics of China's financial market development through financial statistics To understand the risks faced by China's financial development based on financial statistics, and formulate countermeasures to improve the level of financial supervision and reduce financial risks to provide a good operating environment for China's capital market development. Financial statistics are mainly based on financial data and flow in economic development, and based on social monetary accommodation. The statistical direction is mainly based on the amount, structure, circulation, and balance of monetary funds.

1.4. Technology Finance Statistics

Scholars at home and abroad have conducted a lot of research on what is "technical finance". Although the perspectives are different, they all affirm the support and promotion of finance to science and technology, especially emphasizing that the channel of finance to promote science and technology is mainly reflected in funds Support, that is, the basic function of "financial institutions through review, providing funds to those enterprises that are most likely to successfully develop new products and put them into production to assist them in completing innovative activities and forming new productivity" (Schumpeter (1912)) . Although financial support and promotion of science and technology are not only reflected in the simple problem of financial support, most other functions revolve around this

problem. Based on the above understanding, "technical finance" is simply defined as "financial support activities for science and technology", which belongs to the narrow sense of financial activities.

Further, science and technology finance statistics is defined as "building an indicator system and using statistical methods to quantitatively measure the total amount and structure of financial support for science and technology funds." In theory, "financial support for science and technology" can be measured at three levels: industry, industry, and a single activity subject, but because science and technology activities are not concentrated in one or two industries or industries, they are scattered in interrelated In different industries or industries, it is difficult to completely distinguish and measure independently. At the same time, considering the main positions of scientific and technological enterprises, scientific research institutions, colleges and universities and other scientific and technological activity units in scientific and technological activities and financing of scientific and technological activities, it is relatively easy to distinguish and measure. The article starts directly from the scientific and technological activity unit, and reflects the financial support of science and technology through the measurement of its financing status. Therefore, the scientific and technological financial statistical system in this article refers specifically to a set of indicator systems that use statistical methods to measure and reflect on the "overall quantitative characteristics and quantitative relationships of financial support for various types of scientific and technological activity unit funds."

2. THE IMPACT OF FINANCIAL STATISTICS MODELS IN THE ERA OF BIG DATA

The characteristics of big data are difficult for traditional financial statistical models to meet the development needs of the era of big data, and are restricted in terms of statistical methods, statistical efficiency, and statistical accuracy, mainly including the following aspects:

2.1. Impact on data accuracy

In the traditional statistical mode, the statistical method is relatively lagging, and it is mainly reported according to the requirements of the People's Bank to achieve the summary and analysis of financial data. This statistical model is affected by many external factors in the statistics, and the statistical process is too slow and vulnerable. Influenced by human factors, statistical efficiency is low, lack of timeliness and accuracy. However, in the era of big data, with the help of cloud computing, big data and other technical means, it can realize the rapid collection and processing of massive information, and the entire statistical process relies on the computer system. The statistical cost is

low and the efficiency is high. The statistical results are more real and effective.

2.2. Impact on financial analysis

The traditional financial statistics method is relatively simple. It mainly focuses on financial data. It simply summarizes and analyzes the data. It does not explore the deep-level problems of the data. The exploration of financial problems is not easy. On the one hand, it is limited by the analysis ideas and cannot grasp the core and Essentially, on the other hand, it is difficult to make effective statistics on financial data due to technical factors. However, in the era of big data, with the development of science and technology, various statistical tools have emerged at the historic moment, providing more options for financial statistics and realizing the comprehensive upgrade of financial analysis methods. Under the background of big data, statisticians can grasp more comprehensive and deep-level financial data information with the help of tools such as cloud computing and big data.

2.3. Impact on financial regulation

Financial risk prevention is the main purpose of financial supervision, and financial supervision is mainly achieved through financial statistics, so fundamentally speaking, financial statistics affect the efficiency of financial supervision and play a decisive role in the prevention of financial risks. In the traditional financial statistical model, due to the singleness of the statistical method and the limitation of statistical data, the statistical results are biased, and it is impossible to evaluate financial risks in a timely and effective manner, resulting in low efficiency of financial supervision and difficulty in playing the role of financial supervision. However, in the era of big data, with the help of cloud computing and big data, financial statistics are more accurate and efficient. At the same time, statistical tools can accurately analyze data and present potential risk factors to decision makers [3]. Factors to strengthen financial supervision and formulate financial risk response measures to avoid the occurrence of financial risks.

2.4. Impact on financial statistical thinking

The thinking of financial statistics is based on the development of the corresponding era. Before the era of big data, due to the influence of statistical tools, statistical methods and technical means, financial statisticians have relatively narrow thinking and targeted characteristics in statistics, The corresponding statistical work is mainly carried out according to statistical purposes, and there are strict requirements for the matching of statistical data; at the same time, the statistical methods are mainly standardized and standardized, and the data collection is relatively simple and limited; but in the era of big data, due to data sources

The breadth of statistics and the advanced nature of statistical technology have made people's statistical thinking unrestricted and more diversified. Whether it is data screening, statistical methods, or statistical objects, they are relatively extensive. Statistical results are no longer unique, but provide corresponding data references for decision makers based on the data. The scientificity and accuracy of data enable decision makers to make more efficient financial decisions.

3. FINANCIAL STATISTICS MODEL OPTIMIZATION STRATEGY IN THE ERA OF BIG DATA

3.1. Improve statistical tools and standardize statistical models

Financial statistics in the era of big data are inseparable from advanced technical tools and standardized statistical models. These are the basic factors to ensure the effective development of financial statistics, and are also important measures to improve the efficiency of financial statistics. First, improve the basic settings of financial statistics, especially to configure high-end computer hardware facilities and advanced software systems, and apply cloud computing and big data technology to financial statistical systems to realize the intelligent collection, processing, and analysis of data. Secondly, according to the characteristics of big data with massive and low value, it is necessary to improve the statistical efficiency of data through the construction of standard data statistical models, to avoid the omission and absence of data statistics, and to improve the accuracy and standardization of data statistics. At the same time, standardized and standardized statistical models can improve the processing efficiency of financial data and provide a better reference for financial decision makers.

3.2. Improve the legal mechanism of financial statistics and improve the sharing of statistical data

In the era of big data, the construction of financial statistical models must be based on the legal system, and must be implemented within the scope of the legal system. The various legal mechanisms of traditional financial statistics can no longer meet the needs of the development of the big data era. Financial statistics must be perfected. Legal mechanism. First, improve the existing financial statistical mechanism and reform the original system guidelines in light of the characteristics of the big data era; second, standardize the financial statistical process through the legal system, clarify the responsibilities of each subject in financial statistics, and ensure the comprehensiveness of statistical work. Implementation; again, develop a sound management mechanism for statisticians, provide regular

training for statisticians, improve the core qualities and professional ethics of financial statisticians, enable them to better perform their statistical duties, and improve the efficiency of financial statistics. Finally, speed up the construction of financial statistical information sharing mechanism, improve the transparency of financial data, give play to the role of public supervision, and improve the level of supervision to find and solve problems in a timely manner.[4]

3.3. Optimize the data collection method to improve the accuracy of data collection

The method of data collection determines the final statistical results and also affects the accuracy of data statistics. In the era of big data, it is necessary to optimize the data collection method, learn from and introduce advanced foreign financial data collection methods, give full play to the maximum role of data collection methods, make data collection more comprehensive, in-depth and diverse, and achieve accurate data analysis. In the era of big data, the fine-grained data collection method has relative advantages. It can realize the comprehensive collection and analysis of data, and grasp the development trend of the financial market through dynamic tracking. It is of great significance for decision-makers to make scientific financial decisions and solve financial problems. China should accelerate the promotion and application of fine-grained data collection methods to better meet the development needs of financial statistics in the era of big data.

3.4. Build a financial statistical system to effectively prevent financial risks

The financial industry provides capital guarantee for the development of China's market economy and is also a pillar industry for the development of China's national economy. Therefore, it is very important to build a scientific and complete financial statistical system, which is of great significance for improving the efficiency of financial statistics and avoiding financial risks.[5] First, use the technical means of the era of big data to establish a perfect statistical system, through accurate analysis of financial data, timely grasp the hidden financial risks in the development of the market economy, and formulate solutions; second, the financial industry is characterized by high profits and high risks. The financial industry must grasp the fate of the industry through the improvement of the financial statistical system, use data analysis to avoid financial risks, and achieve its own sustainable development.

4. CONCLUSION

The financial statistical model is related to the long-term development of the financial industry, and it has a profound

impact on the stability of China's economic development. With different times, the financial statistical model should be changed. In the era of big data, the financial statistical model must be based on big data, with the help of advanced technologies, concepts, and means in the era of big data to achieve its own optimization and upgrading. In view of the impact of the era of big data on financial statistical models, this article proposes countermeasures in terms of perfect statistical tools, legal system construction, statistical method transformation, and statistical system construction, hoping to provide a reference for the optimization of China's financial statistical models.

REFERENCES

- [1] Huang Anqi. Bank economic forecast and financial statistics research under the background of big data [J]. *Global Market Information Herald*, 2017(901): 324-326.
- [2] Ding Chunni. Challenges and reflections faced by financial statistics in the new era [J]. *Finance and Economics*, 2018 (04): 6-7.
- [3] Liu Lu. Research on the impact of big data on financial statistics [J]. *Financial Economy*, 2018(906): 130-132.
- [4] Cheng Bo, Sun Yanmei. Thinking on the Teaching Mode of Statistics Course under the Background of Big Data [J]. *Course Education Research*, 2017.
- [5] Wu Dongwu, Wang Runliang. Research on teaching methods of statistics in the context of big data [J]. *Journal of Higher Education*, 2017, 000 (015): 76-78.