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Research Article

Research on Financial Development of Water Resources Enterprises Based on Blockchain Technology

Ruowei Zhang

Department of Finance, Institute of Economic and Statistical, XingZhi College of Xi'an University of Finance and Economics, Xian, Shaanxi 710038, China

Correspondence should be addressed to Ruowei Zhang; ruowei_zhang@163.com

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From the perspective of economics, blockchain is simply an Internet, which can meet the needs of the sharing economy to a certain extent. With the development of the world, blockchain technology has developed in an explosive growth. At present, the systematic research on blockchain technology at home and abroad is still in its initial stage, mainly focusing on the application prospect, especially in the fields of traditional finance and digital currency. The development of environmentally friendly water resources enterprises has the support background of the country, and the financial impact of blockchain technology also affects environmentally friendly water resources enterprises. In order to explore the development of blockchain technology in water resources protection, based on the advantages and application status of blockchain technology, this paper firstly constructs a supply chain financial system model of water resources enterprises based on blockchain and secondly analyzes the financial environment of seven water enterprises in China by constructing a financial environment evaluation model. The results show that Chongqing Water has the highest target degree of 0.76 and target level of 3, indicating that the enterprise has good adaptability and maintains the stability of financial environment under the influence of blockchain technology. Furthermore, the asset valuation of Chongqing Water is analyzed by Monte Carlo method. The results show that, under the blockchain financial model, the fierce competition in the wealth management products market will make issuers lose their dominant position in pricing and reduce profits in order to attract investors.

1. Introduction

Whether from the establishment of government institutions and corporate systems or the development of Internet world and digital world, the development of human society is the continuation of the centralized mechanism [1]. Nowadays, with the rapid development of computer science and technology, great changes have taken place in people's lives, whether they are economic or military, or even life is inseparable from the Internet. However, the centralized system restricts the development of social economy in a sense, which is manifested in three aspects: First is data security [2, 3]. All information is recorded in the central node, which is easy to cause tampering, forgery, and leakage. Second is cost. With more and more nodes, the cost of using data will be higher and higher. Third is efficiency [4]. As the ownership belongs to a central node, the lack of incentives for other nodes is not conducive to the efficiency of other nodes. The core advantage of blockchain technology lies in decentralization. It can use cryptography to program and operate the smart contract composed of data encryption and automated script code and also use means such as distributed infrastructure and economic incentives [5, 6]. In the nodes of the distributed system, third-party trust is not added, and only cryptography and programs are used to realize point-to-point transactions and accomplish mutual cooperation and assigned tasks [7]. At the same time, it is able to overcome the low efficiency, high cost, and data security problems caused by the centralized system. Blockchain technology has developed with explosive growth

trend and is widely used in digital currency, data storage, data authentication, medical insurance, social security, asset management, election and voting, financial transactions, and other fields. Blockchain technology can also be explained from the field of economics [8, 9]. In short, blockchain is actually an Internet, which can meet the needs of sharing economy to a certain extent.

At present, the systematic research on blockchain technology at home and abroad is still in its initial stage, mainly focusing on the prospective application, especially in traditional finance, digital currency, and other fields. However, there is no relevant research at home or abroad on the specific prospect of the application of blockchain technology to the financial development of green enterprises [10]. The application of blockchain technology in finance can be realized through financial activities and industrial activities. At the financial level, blockchain applications mainly include payment and clearing and digital bills, while at the industrial activity level, blockchain technology can be applied to proof of equity and logistics operation. At present, problems such as high labor cost, high operational risk, and low income are revealed because the financial transaction process of supply chain is complex and the business processing is highly dependent on labor. The combination of blockchain technology with corporate finance can reduce labor costs, improve security, and achieve end-to-end transparency [11]. For water resources enterprises, the development of water resources enterprises is an essential part of the development of green enterprises. Under the background of water shortage in China, in order to deal with the problems of excessive development, inefficient use, and pollution of water resources, China has paid more attention to the development of environmentally friendly water resources enterprises. By improving the water resources management system, China has continuously encouraged water resources enterprises to move toward the direction of being environmentally friendly. At the same time, it has implemented strict control and management on total water consumption, water use efficiency, and sewage discharge. In recent years, the stock prices of local water companies have also been polarized. Among them, the stock prices of environmentally friendly water resources enterprises have increased year by year, while the stock prices of non-environmentally-friendly water resources enterprises have not been affected by policy dividends. However, business person from water supply enterprises participating in the disclosure of water price cost said that, with the increase of water shortage, the price of water resource fee may be doubled in the future [12, 13]. In view of the fact that water price is related to people's livelihood, it still needs to be weighed by the competent authorities [14, 15]. Therefore, the development of water resources enterprises has the national support background, and the blockchain technology has a direct or indirect effect on the development of enterprises mainly from the financial direction. Based on the advantages and application status of blockchain technology, this paper will explore how to better achieve the fundamental goal of financial development of water resources enterprises in China and creatively analyze the prospect of blockchain technology to promote the financial development of water resources enterprises.

2. Materials and Methods

2.1. Construction of Supply Chain Financial System Model of Water Resources Enterprises Based on Blockchain. In this study, the supply chain financial system model of water resources enterprises based on blockchain mainly includes supply chain financial processes and modules such as account registration, credit application, financing application, and loan repayment. Among them, the credit application module mainly includes water resources enterprise credit and bank credit. Firstly, the supplier submits the credit application to the water resources enterprise and bank, and then the water resources enterprise and bank judge whether to give an approval according to the credit information and return the final credit line according to the rules. Finally, the platform writes the "data" generated by the returned credit amount, credit start date, and credit maturity date into the blockchain. Based on this, the supply chain financial system model of water resources enterprises based on blockchain is built, as shown in Figure 1. Founded on the built model, the monitoring indicators of the supply chain financial block of water resources enterprises are further clarified, mainly including block height of water resources enterprises, block hash value of water resources enterprises, generation time, transaction quantity, transaction type, and transaction hash value.

2.1.1. Financial Environment Evaluation Model. There are few studies on the construction of science and technology financial environment system in China, which may be due to the lack of time for the theoretical research, the whole system is not perfect, and the theoretical framework still needs to be improved. In addition, the science and technology financial environment system is relatively complex, so the analysis on this topic in the paper is relatively one-sided [16]. The composition of science and technology financial environment is particularly complex, so the index selection of science and technology financial environment evaluation system should be both feasible and representative [17]. Therefore, in the process of selecting indexes, this paper draws on the results of selecting indexes in the Technology and Finance and the Study on Shanghai Technology and Finance Environmental Development Index and also refers to the results of related indexes in the Study on Ecological Environment Evaluation in Technology and Finance in Hunan Province and finally satisfies the principles of constructing index system [18, 19]. In order to base on the research viewpoint of this paper, science and technology financial environment is set as the first-level index. Six dimensions are considered as the second-level indexes: government policy and law, economic development, credit environment, scientific and technological resources, financial management system and science, and technology financial development status [20]. After analyzing the specific

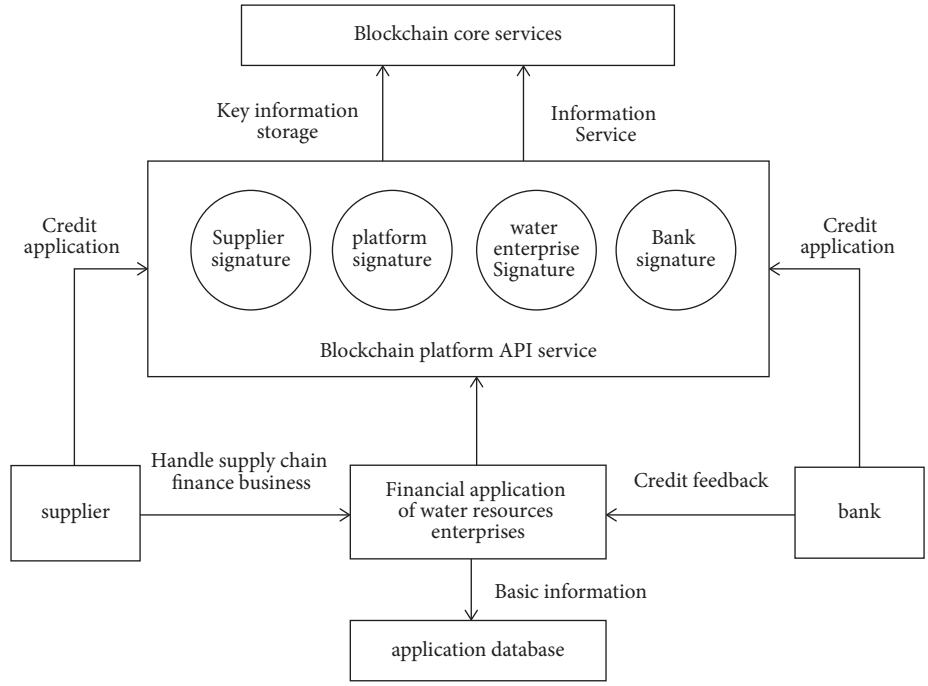

Figure 1: Supply chain financial system model of water resources enterprises based on blockchain.

contents of each dimension, third-level indexes are constructed. The evaluation system in this paper is divided into three levels: one first-level index, six second-level indexes, and eleven third-level indexes. The specific indexes are shown in Figure 2.

2.1.2. Financial Environment Evaluation Method. Grey target model can solve the problem that other models cannot be graded and can obtain the contribution of each index to technology and finance environment and rank each province as a whole, which can effectively comprehensively evaluate the technology and finance environment of each company. Its main principle is to construct a set of pattern sequences according to the research proposition. In this pattern sequence, the pattern composed of data values closest to the proposition is taken as the standard pattern, and then, together with the whole pattern sequence, the grey target is formed. This standard pattern is the bull's eye of grey target, and the pattern deviating from the target center is the target edge. The model is evaluated by calculating the coincidence degree between the model of grey relational difference information space and the bull's eye and is divided according to its proximity. It is considered as bull's eye degree, which is graded and sorted according to the size of target degree. The main steps are as follows.

In the first step, the polarity of relevant evaluation indexes is obtained, and the standard mode is obtained, making POL(max) OL(med), and POL(min) represent maximum polarity value, moderate polarity value, and minimum polarity value, as shown in the following equation:

$$\omega i = \left\{ \begin{array}{l} \max \omega i(K), POL(\omega(K)) = POL(\max) \\ \text{med}\, \omega i(K), POL(\omega(K)) = POL(med) \\ \min \omega i(K), POL(\omega(K)) = POL(\min) \end{array} \right\}. \quad (1)$$

The standard mode is $\omega(0) = (\omega_1(0), \omega_1(0), \ldots, \omega_n(0))$, where ω_i is the standard mode and K is the original data sequence.

Secondly, the grey correlation degree is calculated as follows:

$$\begin{aligned} x(K) = {} & \left(x_1(K), x_2(K, \ldots x_m(K), v_{x1}(K) = x(K)\right. \\ & \left. \longrightarrow x_i(K) = T_r \omega_i(K)\right), \end{aligned} \quad (2)$$

$$\begin{aligned} & X_1(0), X_2(0, \ldots x_m(0), v_{x1}(0) \\ & \quad = x(0) \longrightarrow x_i(0) = T_r \omega_i(0)). \end{aligned} \quad (3)$$

In the above formulas, $x(K)$ is the grey correlation degree and $x(0)$ is the grey correlation degree of the standard mode.

We have that

$$Tr = \left\{ \begin{array}{l} Tu, POL(\omega(K)) = POL(\max) \\ Tm, POL(\omega(K)) = POL(\text{med}) \\ Tn, POL(\omega(K)) = POL(\min) \end{array} \right\} \quad (4)$$

where Tr is the transformation mode of $x(k)$.

In the third step, the difference information sequence of M modes is calculated:

$$\begin{aligned} & \triangle(0, K) = \left(\triangle_1(0, K), \triangle_2(0, K), \ldots \triangle_m(0, K)\right), \\ & \triangle_i(0, K) = \left|x_i(0) - x_i(K)\right|. \end{aligned} \quad (5)$$

The fourth step is to calculate the bull's eye coefficient:

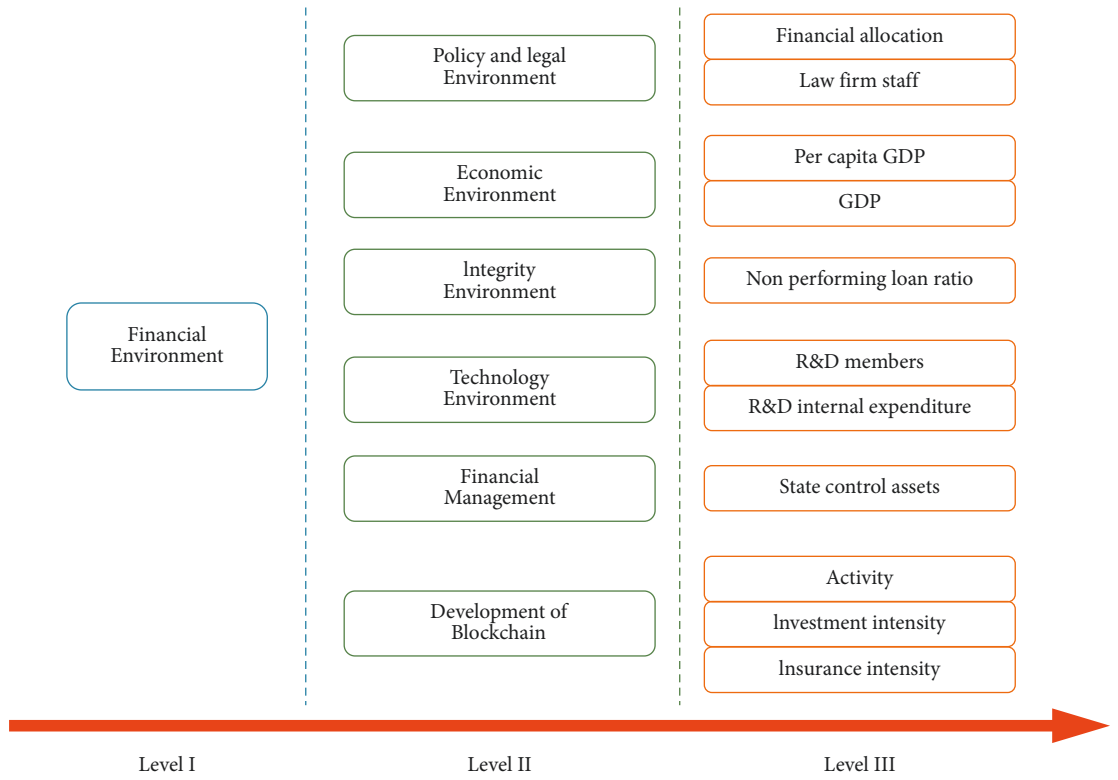

Figure 2: Financial environment evaluation model.

$$\gamma\left(x_0(K), x_j(K)\right) = \frac{\min \min/ik\Delta_i(K) + \varepsilon \max \max/ik\Delta_i(K)}{\Delta_i(K) + \varepsilon \max \max/ik\Delta_i(K)}. \tag{6}$$

The bull's eye degree is

$$\gamma\left(x_0(K), x_j(K)\right) = \frac{1}{n}\sum_{k=1}^{n}\gamma\left(x_0(K), x_j(K)\right). \tag{7}$$

In the above formula, $\gamma(x_0(K), x_j(K))$ is the bull's eye degree of evaluation unit x_0 and x_j is the weight of the jth index.

2.1.3. Financial Market Valuation Scheme. Monte Carlo method is to generate random numbers with the help of computer to conduct a large number of simulations on the price fluctuation path of the underlying assets, which is similar to the financial model of blockchain. According to the option price Cr, based on the Black-Scholes model, assuming that the risk-free interest rate r_f is constant during the option holding period and using r_f to discount the theoretical present value of multiple options for $C_{t,j}$, the price of the ith simulated option is $C_{0,j} = e^{-rfT}C_{t,j}$. When the number of simulations is enough, according to the large number theorem and the central limit theorem of probability theory, it can be considered that the arithmetic average of the discounted value of option price obtained by simulation for enough times is the approximate real option value. Assuming that the mathematical model describing the price change of the underlying assets and the probability distribution of each variable affecting the price change in the model are known, a large number of random numbers conforming to the probability distribution are generated, and a large number of possible paths of asset prices are generated, corresponding option maturity prices $C_{t,j}$ are simulated, and then $C_{t,j}$ can be discounted by r_f to obtain theoretical present values $C_{0,j}$; the arithmetic mean of $C_{0,j}$ of n samples is obtained, which simulates the theoretical value of options. The mathematical expression is as follows:

$$C = \frac{1}{n}\sum_{i=1}^{n}C_{0,j}. \tag{8}$$

In the above formula, C is the theoretical value of options, n is the number of samples or operations, and $C_{0,j}$ is the theoretical present value. From the above discussion, it can be seen that the specific steps of pricing structured products by Monte Carlo simulation method are as follows:

(1) Simulate the price of the underlying asset S. In the risk-neutral world, the change of the underlying asset price is composed of trend term and drift term and obeys the following equation:

$$dS = \left(r_f - q\right)S\,dt + \sigma S\,dw. \tag{9}$$

In the above formula, S is the logarithmic price of the underlying asset, $f(S, t)$ is the value of the European option of the corresponding underlying asset after t, r_f is risk-free interest rate during the complete

holding period, K is the option execution price, and σ is the price volatility of the underlying asset. Knowing the option expiration date T from the initial time t, dividing the whole time period into cells with the length of $\triangle t$, and simulating the target asset price for the right end point of each interval, we can get

$$S(t+\triangle t)-S(t)=\left(r_f-q\right)S(t)\triangle t+t\sigma S(t)\varepsilon\sqrt{\Delta t}. \quad (10)$$

In the above formula, $S(t)$ represents the price of the underlying asset S at time t, and ε is a random sample extracted from the standard normal distribution. Given S_0 at the initial time, risk-free rate of return r_f, the underlying asset return rate q, and the price volatility of underlying asset σ, Monte Carlo simulation can discretely simulate the time series describing the price fluctuation path of target asset price S.

(2) Calculate the option value according to the underlying asset price path; that is, calculate the value $C_{T,j}$ of the option at the expiration time through the option structure.

(3) Repeat the first step and the second step N times (N should be large enough) to get enough simulation samples.

(4) Taking the mean value, according to the law of large numbers and the central limit theorem, the expectation of option value in the risk neutral world can be obtained.

(5) Use risk-free interest rate r; the theoretical value $C_{0,j}$ is obtained by discounting.

3. Results and Discussion

3.1. Financial Environment of Water Resources Enterprises under the Influence of Blockchain Technology. Based on the relevant theory of grey target model, this paper selects $10\times7\times11$ data samples and uses EVIEWS and EXCEL to calculate the relevant data indexes. As some evaluation indexes have missing data, this paper uses interpolation method and three-year moving average method to supplement the missing data. Through formulas (1)–(7), the 10-year bull's eye degree of seven water companies can be obtained, as shown in Table 1. According to the principle of minimum information, the bull's eye degree is equal to or greater than 0.3333, so the bull's eye degree values are divided into seven grades: (0.9, 1), (0.8, 0.9), (0.7, 0.8), (0.6, 0.7), (0.5, 0.6), (0.4, 0.5), and (0.333, 0.4). Among them, (0.9, 1) is level 1, and so on, and (0.3333, 0.4) is level 7. According to the average bull's eye degree in 10 years, the financial environment of seven water companies is classified. Then, based on the bull's eye degree of each company in 2010–2011, 2012–2013, 2014–2015, 2016–2017, and 2018–2019, the situation of the seven enterprises is sorted according to the above five time periods. In order to observe the construction of each enterprise's financial environment and its evolution process in time, this paper ranks the financial environment construction of water companies in different time periods from 2010 to 2011, from 2012 to 2013, from 2014 to 2015, from 2016 to 2017, and from 2018 to 2019 in accordance with the calculation results of grey target theory. The results are shown in Figure 3.

According to the analysis in Figure 4, Chongqing Water is the strongest in the construction adaptation of the financial environment among the seven water companies, followed by Capital Shares, Nanhai Development, Sander Environment, InterChina Water, Chengtou Holding, and Wuhan Holding. Chongqing Water and Capital Shares are the leaders of water resources enterprises in China. From the data, the adaptability of Chongqing Water and Capital Shares on blockchain technology is much better than those of other companies. From the perspective of development process, Chongqing Water maintains a good financial environment, and its many indexes are the best among the seven water companies (as shown in Table 1). Under the guidance of many profitable technological innovations, its maintenance ability of the financial environment is much stronger than those of other water companies. The bull's eye degree of Chongqing Water has increased from 0.7532 in 2010 to 0.7409 in 2019, which has been stable, and the values of various indexes have also developed stably. The economic strength of Capital Shares is also very strong. From a numerical point of view, although the financial environment index of Capital Shares fluctuates up and down, it remains stable on the whole. The bull's eye degrees of Nanhai Development and Sander Environment change a little, and the ranking only fluctuates up and down. In terms of data performance, the technology and financial environment of InterChina Water show a trend of deterioration year by year. The bull's eye degree is from level 4 from 2010 to 2012 to level 5 from 2018 to 2019. The ranking also shows a downward trend among the seven water companies, but the overall situation is better than that of Chengtou Holding and Wuhan Holding. On the whole, the financial environment of Chengtou Holding and Wuhan Holding has been optimized year by year. Among them, Wuhan Holding has significantly improved its bull's eye ranking in the seven water companies. After a comprehensive analysis on the data and bull's eye degree of various water companies, this paper believes that the scientific and financial construction of Chongqing Water is the best and has made obvious progress, and the construction of Capital Shares is good and stable, only a little behind Chongqing Water, while the development of Nanhai Development and Sander Environment is slow and unstable, and InterChina Water shows a backward state; finally Chengtou Holding and Wuhan Holding have made rapid progress.

3.2. Influence of Blockchain Technology on the Valuation of Water Resources Enterprises. In order to more clearly quantify the relationship between market pricing (SP^{market}) and theoretical pricing (SP^{Theo}) of water resources enterprise products, firstly a premium rate is defined, as shown in the following equation:

$$\triangle V_i=\frac{\left(SP_i^{\text{market}}-SP_i^{\text{Theo}}\right)}{SP_i^{\text{Theo}}}. \quad (11)$$

Table 1: Target degree of each company from 2010 to 2019.

Company	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
China Water	0.5973	0.6369	0.6179	0.6369	0.5850	0.5720	0.5876	0.5789	0.5676	0.5831
City Investment	0.5206	0.4847	0.4859	0.5186	0.5136	0.5460	0.5093	0.5619	0.5896	0.5471
South China Sea Development	0.5467	0.5423	0.5443	0.5383	0.5105	0.5314	0.5414	0.5422	0.5625	0.5453
Sound Environment	0.5884	0.5976	0.5506	0.5754	0.6171	0.5727	0.5898	0.5769	0.5700	0.5628
Chongqing Water	0.7532	0.7373	0.7694	0.7965	0.7230	0.7524	0.7698	0.7838	0.7969	0.7409
Wuhan Holding	0.5665	0.5021	0.5204	0.5461	0.5195	0.5186	0.5270	0.5485	0.5312	0.5454
Capital Stock	0.7699	0.6794	0.6945	0.6610	0.7003	0.6959	0.7193	0.6827	0.6650	0.6851

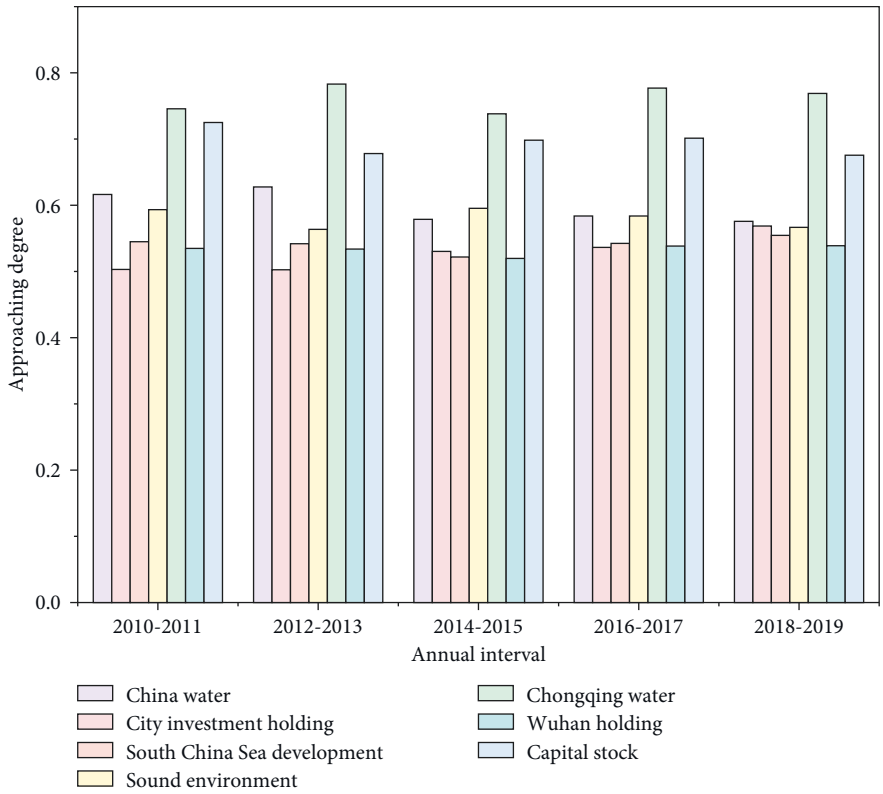

Figure 3: Annual interval target degree of each water company.

Obviously, when the premium rate $\triangle V_i = 0$, the market pricing and theoretical pricing of this structured wealth management product are equal. At this time, there is no premium or discount, and this product is issued at a low price. When the premium rate $\triangle V_i > 0$, the market price of the structured wealth management product is higher than the theoretical price, and the financial institutions issue this wealth management product at a premium. The literature shows that this situation is very common, and the issuing institutions always tend to adopt favorable pricing when issuing products. When the premium rate $\triangle V_i < 0$, the market pricing of the structured wealth management product is lower than its theoretical pricing; that is to say, the financial institutions issue this wealth management product in at discount, and the pricing they adopt is unfavorable to themselves. This situation usually occurs when the market demand for wealth management products is low, so the products are sold at a discount to attract investors. Related literature works have drawn the conclusion that structured wealth management products in developed markets in Europe and America are often issued at a premium. However, in the domestic financial products market, due to the competition of financial products from blockchain financial platform and the absence of secondary circulation market, the liquidity of products is affected. Therefore, the premium of domestic structured financial products will not be as obvious as that in European and American markets, and domestic products tend to be cheap or even at discount. It is worth mentioning that when banks and other institutions sell wealth management products, their income source is not only the premium rate of product pricing. Based on 126 data samples, the asset price fluctuation path and the final value of the asset price at maturity date are obtained by Monte Carlo simulation of the linked asset price of each sample product, and then the theoretical price of the wealth management product is obtained according to the revenue design structure of each sample product. Table 2 shows the parameter data and theoretical pricing results of some samples.

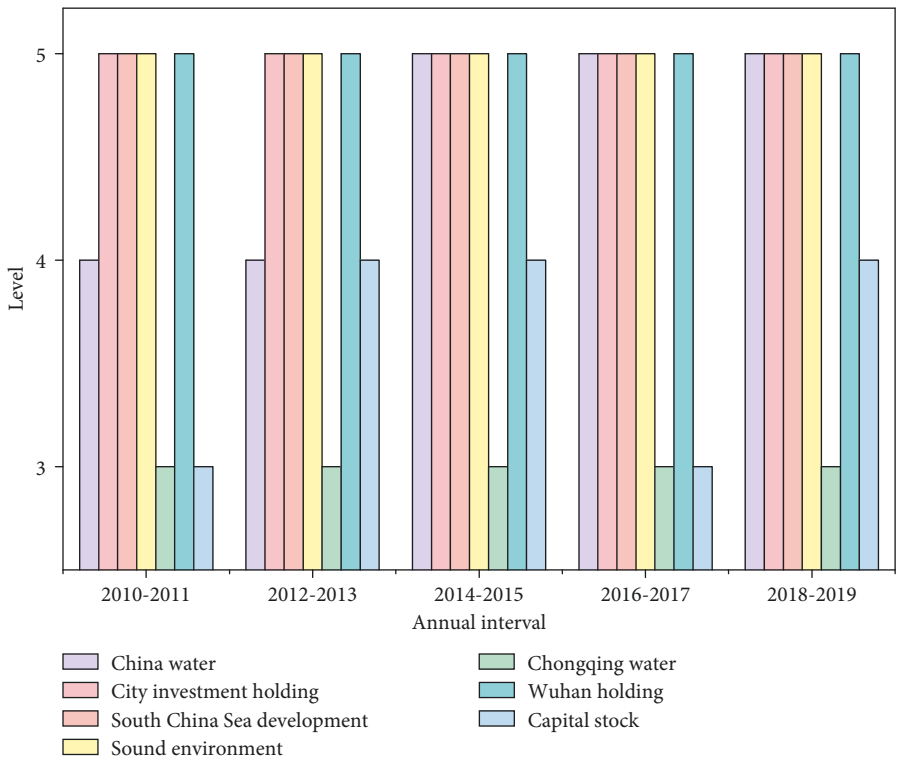

Figure 4: Company approaching degree rating.

Table 2: Parameter data and theoretical pricing results of Chongqing Water.

Time/day	Simulation	S0	Rf	Volatility	Company	Time	Assets	Price
40	10000	557	0.27	0.0566906	Chongqing Water	20180927	Crude oil 1812	0.9961
40	10000	557	0.27	0.0566906	Chongqing Water	20180927	Crude oil 1812	1.0007
96	10000	267	0.28	0.027823	Chongqing Water	20180927	Gold 1812	1.004
40	10000	267	0.27	0.0143108	Chongqing Water	20180927	Gold 1812	1.0013
96	10000	3403	0.27	0.1089881	Chongqing Water	20180927	CSI 300 index	1.0033
40	10000	3403	0.27	0.0565524	Chongqing Water	20180927	CSI 300 index	1.0009
96	10000	3403	0.28	0.1089881	Chongqing Water	20180927	CSI 300 index	0.9916
40	10000	3403	0.27	0.0565524	Chongqing Water	20180927	CSI 300 index	0.9979
187	10000	3417	0.27	0.1423824	Chongqing Water	20180926	CSI 300 index	0.9921
96	10000	3417	0.28	0.1089881	Chongqing Water	20180926	CSI 300 index	1.0027
40	10000	3417	0.27	0.0565524	Chongqing Water	20180926	CSI 300 index	1.0005
96	10000	271	0.28	0.026291	Chongqing Water	20180925	Gold 1906	1.0053
41	10000	268	0.27	0.0130516	Chongqing Water	20180925	Gold 1906	1.0022
40	10000	535	0.27	0.0478607	Chongqing Water	20180920	Crude oil 1812	1.0008
40	10000	535	0.27	0.0478607	Chongqing Water	20180920	Crude oil 1812	0.9962
40	10000	272	0.27	0.0137578	Chongqing Water	20180920	Gold 1906	1.0018
96	10000	272	0.28	0.0258774	Chongqing Water	20180920	Gold 1906	1.0037
96	10000	3310	0.28	0.1092439	Chongqing Water	20180920	CSI 300 index	1.0033
40	10000	3310	0.27	0.0516089	Chongqing Water	20180920	CSI 300 index	1.001
95	10000	3310	0.28	0.1092439	Chongqing Water	20180920	CSI 300 index	0.9918
40	10000	3310	0.27	0.0516089	Chongqing Water	20180920	CSI 300 index	0.9979
186	10000	3312	0.32	0.1387165	Chongqing Water	20180919	CSI 300 index	1.0042
95	10000	3312	0.28	0.1092439	Chongqing Water	20180919	CSI 300 index	1.0027

In addition, it can be found that the theoretical price of the product obtained by simulation and calculation of all the sample structured financial products is equal to the actual price (the actual price is set to 1). If the accuracy is improved, it can be said that the theoretical price of the product is higher than the actual price. In other words, almost all products are issued at close to parity or even at a discount, which is obviously different from the product pricing performance in European and American markets. It also proves that, in the primary issuance market, the pricing of

structured wealth management products is basically the same as the theoretical pricing or even lower than the theoretical pricing, but the deviation should not be too large. Generally speaking, the market price will not be too much higher than the theoretical price for the reason that it is subject to competition from the blockchain financial market. Once the product yield loses competitiveness compared with the financial management of the blockchain financial platform, the structured financial product will be difficult to be favored by investors. Traditional financial institutions such as commercial banks generally issue structured financial products, but they have no cost advantage compared with blockchain financial platforms. Therefore, under the blockchain financial model, fierce competition in the financial product market will cause the issuer to lose its dominant position in pricing and reduces profits in order to attract investors.

4. Conclusion

(1) The supply chain financial system model of water resources enterprises based on blockchain is built, which includes account registration, credit application, financing application, loan repayment, and other core modules of supply chain finance.

(2) From the perspective of development process, Chongqing Water maintains a good financial environment, and its indexes are the best among the seven water companies. Under the guidance of many profitable technological innovations, its ability to maintain the financial environment is far stronger than those of the other water companies. The target degree of Chongqing Water has remained stable from 0.7532 in 2010 to 0.7409 in 2019, and the values of various indexes have also developed steadily.

(3) The construction of Capital Shares is favorable and stable, only a little behind Chongqing Water. The environmental improvement of Nanhai Development and Sander Environment is slow and unstable, and InterChina Water presents a regressive state, while Chengtou Holding and Wuhan Holding make rapid progress. Under the blockchain financial model, the development of water companies is influenced by the innovation degree of blockchain technology.

(4) Based on 126 data samples, the fluctuation path of asset price and the final value of asset price at maturity date are obtained by Monte Carlo simulation of the asset price of each sample product. Generally speaking, the market pricing will not be much higher than the theoretical pricing because of the competition of blockchain financial market. Once the product yield loses competitiveness compared with the financial management of blockchain financial platform, this structured wealth management product will be difficult to be favored by investors.

Data Availability

The labeled dataset used to support the findings of this study is available from the author upon request.

Conflicts of Interest

The author declares no conflicts of interest.

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