# Case Study on the Bankruptcy Reorganization of Yi'an Property Insurance Co, Ltd.

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## Yiting He

Law School, Southwest Petroleum University, Chengdu, 610500, Sichuan, China heyiting@stu.swpu.edu.cn

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Abstract: The bankruptcy reorganization of Yi'an Property & Casualty Insurance Co., Ltd. stands as China's pioneering judicial intervention in insurance sector insolvency, demonstrating a critical legal mechanism for addressing systemic financial risks and institutional vulnerabilities. Through rigorous examination of this landmark case, fundamental legal challenges emerge in three dimensions: the determination of insolvency causation, the fulfillment of regulatory prerequisites prior to bankruptcy filings, and the comprehensive safeguarding of policyholder rights and interests as contractual creditors. These challenges may be systematically addressed through strategic reforms, including establishing solvency-focused regulatory thresholds for bankruptcy adjudication, standardizing pre-bankruptcy administrative coordination procedures, and implementing legally binding prioritized protection frameworks for insurance beneficiaries during reorganization processes.

#### 1. Introduction

Yi'an Property & Casualty Insurance Co., Ltd. (hereinafter "Yi'an P&C"), incorporated on February 16, 2016, holds distinction as one of China's four licensed professional online insurers authorized by the former China Banking and Insurance Regulatory Commission (CBIRC), alongside Zhongan Online, Taikang Online, and Anxin Insurance. The company specializes in underwriting internet transaction-related insurance products, primarily encompassing short-term health coverage, accidental injury protection, and property insurance schemes. Notwithstanding its market position, Yi'an P&C encountered significant operational challenges. Financial disclosures reveal a net loss of RMB 167 million in 2019, attributable to strategic misalignments and operational deficiencies. This financial deterioration intensified during Q1 2020, with losses escalating to RMB 262 million. Pursuant to Article 144 of the Insurance Law of the People's Republic of China, which mandates regulatory intervention when insurers jeopardize policyholder interests or financial system stability, the CBIRC initiated administrative receivership effective on July 17, 2020. This extraordinary measure, implemented to safeguard stakeholder interests and maintain market order, was originally scheduled for twelve-month duration. However, given the receivership's failure to achieve prescribed rehabilitation objectives, the regulator extended the administration period through July 16, 2022 dated July 16, 2021.

The Net Asset Special Audit Report issued by Accounting Firm as of March 31, 2022 revealed Yi'an P&C's critical financial position: total assets of RMB 334.7 million juxtaposed against liabilities amounting to RMB 461.9 million, resulting in negative shareholders' equity of RMB 127.2 million a classic case of balance sheet insolvency (assets < liabilities). Notably, while asset revaluation generated an appraisal surplus of RMB 3.4164 million, this valuation adjustment proved insufficient to rectify the company's technical insolvency. Pursuant to the insolvency criteria under Article 2 of the PRC Enterprise Bankruptcy Law (inability to discharge matured debts with insufficient repayment capacity), the Administrators formally endorsed Yi'an P&C's debt restructuring petition on May 26, 2022. This determination followed rigorous analysis of (1) enterprise risk resolution imperatives and (2) policyholder protection mandates under Article 87 of the Insurance Law. Subsequently, the CBIRC issued Approval Document on June 29, 2022 authorizing commencement of bankruptcy reorganization proceedings. Following regulatory approval, Yi'an P&C filed its restructuring application with the Beijing Financial Court on July 8, 2022, citing dual statutory grounds: failure to satisfy due obligations and demonstrable lack of repayment capacity. The court convened a mandatory creditors' hearing on July 12, 2022 with participation from: Corporate legal representative, Chief Financial Officer, Business Operations Director, Administrative receivership delegates and Trusteeship Group Finance Committee Chair.

It has been found that Yi'an P&C's, as a corporate legal person, has the subject qualification for corporate bankruptcy reorganization. Combined with the existing evidence, Yi'an P&C's cannot repay its due debts, obviously lacks solvency, and does not meet the regulatory requirements for the solvency adequacy ratio of insurance companies, <sup>1</sup> and has reasons for bankruptcy reorganization. At the same time, as one of the four Internet insurance companies, Yi'an P&C's has a flat management structure, light asset operation, and its own assets and liabilities are not large. It is expected to improve its solvency through limited investment, and has certain reorganization value and rescue possibilities. Therefore, on July 15, 2022, the Beijing Financial Court ruled to accept the reorganization application of Yi'an P&C's, and appointed the Yi'an P&C's Liquidation Group as the administrator to carry out management work.

On July 20, 2022, the administrator issued an announcement on the recruitment of strategic investors for the reorganization of Yi'an P&C's, and held the first and second creditors' meetings on September 6 of the same year and January 12, 2023, respectively, to review and declare claims, pass the property management plan, designate the chairman of the creditors' meeting, and pass the reorganization plan (draft) with a high vote. On February 24, 2023, the court ruled to approve the reorganization plan of Yi'an P&C's and terminate the reorganization procedure. During the three-month implementation period after the reorganization plan was passed, Yi'an P&C's completed the payment of funds, repayment of claims, and approval and implementation of shareholder changes. On May 9, 2023, the former China Banking and Insurance Regulatory Commission issued an announcement that BYD acquired 100% of the shares of Yi'an P&C's for 3.6 billion yuan. Yi'an P&C's became a wholly-owned subsidiary of BYD, and BYD also became the first Chinese automaker approved to wholly own a property and casualty insurance company. On May 24, the Beijing Financial Court ruled to terminate the case reorganization procedure.

The bankruptcy and reorganization case of Yi'an P&C's is the first insurance company reorganization case in China. It reflects the positive role of bankruptcy and reorganization procedures

<sup>&</sup>lt;sup>1</sup> Insurance Law of the People's Republic of China (Revision 2015) Article 101 An insurance company shall maintain a minimum solvency commensurate with the size of its business and the degree of risk. After deduction of amount of its actual liability from the value of its actual assets, the balance shall not be less than the amount specified by the insurance supervision and control authority under the State Council. In the case that the balance is less than the amount stipulated, the insurance company shall, in accordance with the requirement prescribed by the insurance supervision and control authority under the State Council, take corresponding measures to make up for the deficit.

in resolving financial risks and is an innovative exploration of financial services for the real economy. By analyzing the case, we can promote the development of similar cases with individual cases, which has a demonstrative significance and far-reaching impact.

### 2. Legal Issues in the Bankruptcy Reorganization Process

The bankruptcy reorganization process of Yian Property & Casualty Insurance is a relatively standardized corporate bankruptcy reorganization process. As an insurance company, it faces greater complexity and pressure when facing financial risks. Insurance companies combine the characteristics of the insurance industry and ordinary enterprises, and have their own natural particularities when they go bankrupt. By analyzing the legal issues existing in the bankruptcy process of insurance companies, we can enhance our understanding of the Insurance Law and the Bankruptcy Law, which has a strong guiding significance.

## 2.1 Causes of Insurance Company Bankruptcy

During the bankruptcy reorganization process of Yi'an P&C's, Yi'an P&C's applied to the court for bankruptcy reorganization on the grounds that it could not repay its due debts and obviously lacked the ability to repay. The reasons for the bankruptcy of insurance companies in my country are stipulated in Articles 90<sup>2</sup> and 149<sup>3</sup> of the Insurance Law. Article 90 points the reasons for the bankruptcy of insurance companies to the provisions of Article 2 of the Enterprise Bankruptcy Law<sup>4</sup>, which is the same as the reasons for the bankruptcy of general enterprises - "inability to repay due debts" externally, "insolvency" or "obviously lacking the ability to repay" internally. Article 149 also does not distinguish between insurance companies and general enterprises in bankruptcy reorganization or bankruptcy liquidation procedures. It can be seen that my country's current laws do not make special provisions for the reasons for the bankruptcy of insurance companies. However, it should be noted that the requirements of financial institutions represented by insurance companies for social-oriented value orientations such as financial security and risk stability determine that the bankruptcy standards of insurance companies are different from those of ordinary enterprises.[1]

Before analyzing the specific content of the reasons for the bankruptcy of insurance companies, it is necessary to clarify the categories of the reasons for the bankruptcy of insurance companies. Generally speaking, there are three categories, namely cash flow standards, balance sheet standards and regulatory standards. The first two categories are mostly general reasons for bankruptcy, and the latter category is special reasons for bankruptcy. The cash flow standard defines the debtor's insolvency and inability to repay debts from three perspectives: first, the debtor objectively loses the

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<sup>&</sup>lt;sup>2</sup> Insurance Law of the People's Republic of China (Revision 2015) Article 90 Upon the approval of the insurance supervision and control authority under the State Council, an insurance company in the circumstance specified in Article 2 of the Bankruptcy Law of the People's Republic of China or its creditors may, in accordance with the law, apply to the People's court for restructuring, reconciliation or bankruptcy; The insurance supervision and control authority under the State Council may also apply to the People's court for restructuring an insurance company or announcing bankruptcy and liquidation of an insurance company in accordance with the law.

<sup>&</sup>lt;sup>3</sup> Insurance Law of the People's Republic of China (Revision 2015) Article 149 Where an insurance company is revoked its insurance business permit in accordance with the law due to illegal operation, or its solvency is lower than the requirement stipulated by the insurance supervision and control authority under the State Council, which will seriously jeopardize the insurance market order and damage public interests, the insurance supervision and control authority under the State Council may revoke the company with an announcement and arrange a liquidation group in a timely manner in accordance with the law.

<sup>&</sup>lt;sup>4</sup> Enterprise Bankruptcy Law of the People's Republic of China Article 2 Where an enterprise legal person is unable to pay off its debts due and its assets are insufficient to pay off all its debts or such legal person is obviously insolvent, its debts shall be liquidated in accordance with this Law.

ability to repay; second, the type of debt that cannot be repaid is the matured debt; and finally, the insolvency status continues. The balance sheet standard, as the name suggests, compares all its assets with the debts owed, and uses the assets and liabilities as a judgment on whether it is bankrupt. Both the cash flow standard and the balance sheet standard have "postponement in start time", which makes it impossible for insurance companies and regulatory authorities to prevent bankruptcy risks in advance. At the same time, for insurance companies, the probability of insurance contracts determines that their debt leverage ratio is higher than that of ordinary enterprises, which makes it impossible for the balance sheet standard to accurately judge the solvency of insurance companies. Therefore, the cash flow standard and the balance sheet standard have defects in defining the reasons for the bankruptcy of insurance companies. Based on the above, modern insurance bankruptcy legislation believes that the cause of bankruptcy of an insurance company should have "pre-initiation time", and regulatory standards have emerged. Regulatory standards are led by the insurance regulatory department, which determines whether the assets and liabilities of an insurance company meet regulatory requirements. Under this judgment standard, the insurance regulatory department may believe that an insurance company whose assets and liabilities show that its owner's equity is positive does not meet regulatory requirements, and on this basis, it is determined that the insurance company has lost its solvency and is bankrupt.[2]

Through the consideration of the relevant provisions of the Insurance Law of China, it can be found that the judgment of the bankruptcy cause of insurance companies in China adopts the cash flow standard and the balance sheet standard, and for the judicial practice of insurance company bankruptcy, these two judgment standards are obviously insufficient in terms of legislative understanding, legislative effect, and protection of the rights and interests of the insured. First of all, in terms of legislative understanding and legislative effect, it is not inappropriate to adopt the general cause of bankruptcy of a commercial legal person, i.e., the provisions of Article 2 of the Enterprise Bankruptcy Law, on the basis of determining that an insurance company is a commercial legal person with a profit-making nature. However, it should be noted that the indebtedness, liquidity and security of insurance companies determine that their bankruptcy costs are higher than those of ordinary enterprises, and are more harmful to the insurance industry, financial markets and society as a whole. In addition, insurance companies value their own reputation more than other enterprises. Therefore, legislators should pay attention to the particularity of the bankruptcy causes of insurance companies, pay attention to bankruptcy prevention, and seek new bankruptcy reasons suitable for insurance companies. Secondly, in terms of the rights and interests of the insured, the insured is naturally at a disadvantage in the signing of the insurance contract due to the influence of unfavorable factors such as the asymmetry of information and the fact that the insurance contract mostly adopts standard contracts. On this basis, the insurance company adopts the cash flow and balance sheet standards to initiate bankruptcy proceedings, and the insured faces the double adverse consequences of losing the original insurance protection and needing to seek insurance protection on its own, which is extremely detrimental to the protection of the rights and interests of the insured. To sum up, the current definition of the reasons for bankruptcy of insurance companies in the Insurance Law and the Enterprise Bankruptcy Law in China does not meet the special requirements of the bankruptcy nature of insurance companies and the protection of the rights and interests of the insured, and should be revised and improved through legislation.

### 2.2 Administrative Preconditions for Bankruptcy

In the case of Yi'an P&C's's bankruptcy and reorganization, it can be found that its application for bankruptcy and reorganization was carried out with the permission of the my country Banking and Insurance Regulatory Commission. This situation complies with the provisions of Article 90 of

China's "Insurance Law", that is, with the consent of the insurance supervision and administration agency, the insurance company may apply to the people's court for reorganization in accordance with the law. However, it should be noted that the current law has not yet unified the role and rights of insurance regulatory agencies when insurance companies go bankrupt. Specifically, Article 134<sup>5</sup> of the "Enterprise Bankruptcy Law" clarifies that the financial supervision and administration agency of the State Council may apply to the court for the bankruptcy of financial institutions; Articles 90 and 149 of the "Insurance Law" give regulatory agencies the right to consent to insurance companies or creditors applying for reorganization, reconciliation or liquidation in addition to the regulatory agency's direct application right.

In modern insurance legislation, insurance regulators play an important role in the bankruptcy initiation procedures of insurance companies in various countries around the world. In the United States and Japan, insurance companies and creditors do not have the right to initiate takeover, reorganization and liquidation on their own. The initiation rights have been monopolized by insurance regulators, who hold a dominant position.[3] The importance of insurance regulators in the bankruptcy procedures of insurance companies is self-evident. Therefore, the law should clarify and connect the status of insurance regulators in the Enterprise Bankruptcy Law and the Insurance Law.

#### 2.3 Protection of Creditors under Insurance Contracts

In this case, on the same day that the Beijing Financial Court accepted the reorganization application of Yi'an P&C's, China Insurance Security Fund Co., Ltd. issued the "Announcement on Legal Protection of the Rights and Interests of Policy Creditors of Yi'an P&C's Co., Ltd." The announcement lists three situations in which creditors need to declare their claims to the administrator, and states that policy creditors who have no objections will be deemed to authorize China Insurance Security Fund Co., Ltd. to declare their claims, attend creditors' meetings and exercise voting rights on their behalf, etc. This authorization does not require the issuance of a separate authorization document. Policy creditors with objections can raise objections within 30 days of the announcement, directly participate in the reorganization process as creditors, and personally exercise relevant rights.

It can be considered that the practices of the Insurance Guarantee Fund Company and Yi'an Property Insurance have simplified the procedures for claim declaration, protected the legitimate rights and interests of policy creditors, and provided a feasible model for the bankruptcy reorganization of insurance companies. However, it should be noted that my country's current Enterprise Bankruptcy Law still lags behind in protecting the interests of insurance contract creditors. First, the Enterprise Bankruptcy Law requires creditors to proactively declare claims to the administrator in order to determine their creditor identity and the nature and amount of their claims. For insurance contract creditors, the relevant information and time nodes for claim declaration are too complicated. They are not easy to grasp and are prone to miss the time window for claim declaration, so their interests are easily lost in the process. Secondly, the Enterprise Bankruptcy Law does not restrict the administrator's right to terminate the contract, which means that high-risk insurance contracts may be terminated by the administrator for the sake of interests, and

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<sup>&</sup>lt;sup>5</sup> Enterprise Bankruptcy Law of the People's Republic of China Article 134 If any commercial bank, securities company, insurance company or other financial institution is under any of the circumstances as prescribed in Article 2 of the present Law, the financial supervision and administration institution of the State Council may apply to the people's court for reforming this financial institution or for bankruptcy liquidation. Where the financial supervision and administration authorities of the State Council adopts takeover or custodian measures pursuant to the law against a financial institution that is experiencing significant business risk, an application may be made to the People's Court for suspension of civil proceedings or enforcement procedures whereby the financial institution is the defendant or the party subject to enforcement.

policyholders, especially life insurance policyholders, are difficult to obtain risk protection.[4] At the same time, the insurance contract creditor group was absent during the group voting of the draft reorganization plan. The current system does not list it as a separate group, and also ignores the protection of the rights and interests of insurance contract creditors. In summary, my country's current Enterprise Bankruptcy Law is flawed in protecting the rights and interests of insurance contract creditors when an insurance company goes bankrupt, and relevant laws are urgently needed to be improved.

## 3. Recommendations for Improving the Bankruptcy Reorganization Framework

## 3.1 Adopting a "Regulatory Standard" for Bankruptcy Causation

The drawbacks of using cash flow standards and balance sheet standards for the bankruptcy of insurance companies in my country can be improved by adopting regulatory standards. It is legitimate and feasible to use regulatory standards as the cause of bankruptcy of insurance companies. Legitimacy can be analyzed from three aspects: the essential attributes, goals and preventive functions of solvency supervision. First, the solvency of an insurance company can be understood as the ability of an insurance company to repay its debts, which is comprehensive and dynamic. The regulatory standards use the solvency of insurance companies as the core of judgment to supervise insurance companies, which is legitimate. Secondly, the goals of solvency supervision and the goals of insurance company bankruptcy legislation are consistent, that is, while protecting the interests of the insured, strengthening supervision of insurance companies to achieve the stability and security of the insurance system, and achieving optimal resource allocation and economic justice. Finally, solvency supervision based on risk prevention has achieved bankruptcy prevention for insurance companies, reflecting the cautious attitude of insurance regulatory agencies. Therefore, it is legitimate to use "regulatory standards" as the cause of bankruptcy for insurance companies.

At the same time, in terms of overseas practices, the mainstream status of regulatory standards has been established in countries around the world. The regulatory standard indicators of insurance companies in the United States are composed of six solvency regulatory systems[5], and are distinguished by the risk index (RBC) of the risk-based capital requirements in solvency, from less than 70% to more than 250%, which are respectively the emphasis on control stage, authorized control stage, regulatory action stage, corporate action stage and no action stage. In 2014, EU countries fully implemented the Solvency II (abbreviated as "Second Generation Solvency") model, which is based on the minimum capital requirement and solvency capital requirement. The former is the minimum regulatory threshold. The insurance regulatory department can revoke the business license of insurance companies below this threshold and execute bankruptcy procedures; the latter is a higher regulatory threshold, which means that the financial risks of insurance companies have been warned. Insurance companies can take risk management measures on their own or be supervised by regulatory departments. Japan has formulated a regulatory standard action table for insurance industry authorities, which divides solvency into four levels, and the competent authorities make different regulatory actions for the four different solvency ratios.

In summary, from the perspective of legitimacy and feasibility of overseas practices, the reasons for the bankruptcy of insurance companies can be modified to the overall idea of the reasons for the bankruptcy of insurance companies with regulatory standards as the core and cash flow standards and balance sheet standards as the overall bottom line. Specific regulatory standards can be refined based on the reference to the "Regulations on Solvency Management of Insurance Companies" issued by my country in 2021 and the EU "Second Generation Solvency" model.

## 3.2 Improving Administrative Procedures for Insurance Bankruptcy

Under the premise of adopting "regulatory standards" for the reasons for the bankruptcy of insurance companies, the perfect regulatory standards are highly complex, which determines the decisive position of insurance regulatory agencies in the initiation of insurance company bankruptcy procedures due to their professionalism. As mentioned above, my country's current "Enterprise Bankruptcy Law" and "Insurance Law" have not yet unified the role and rights of insurance regulatory agencies when insurance companies go bankrupt. In order to better play the role of insurance regulatory agencies, the "Enterprise Bankruptcy Law" should clarify that in addition to the power of regulatory agencies to directly apply for the bankruptcy of insurance companies, regulatory agencies have the right to consent to applications for the bankruptcy of insurance companies by insurance companies or creditors other than themselves. In short, it is to connect with Article 90 of the "Insurance Law" and promote the two-way interaction between the "Enterprise Bankruptcy Law" and the "Insurance Law".

At the same time, safeguarding the discretion of insurance regulators when insurance companies go bankrupt does not mean letting them develop freely. It is necessary to regulate power. For insurance company bankruptcy procedures, the participants involved in the initiation of bankruptcy procedures, information disclosure, rights protection and related relief procedures should be explained and detailed. The Financial Stability Law (Draft for Comments) issued on April 7, 2022 has principle provisions on the effectiveness of disposal measures of the financial management departments of the State Council and the protection of the interests of rights holders and the means of rights relief in bankruptcy procedures. These principles need to be further clarified through the involvement of bankruptcy rules.

#### 3.3 Enhancing Protection of Insurance Contract Creditors

The legitimate rights and interests of insurance contract creditors can be protected in many ways. First, the obligation of insurance contract creditors to declare their claims can be exempted to protect the interests of this group. In Japan and the United States, the obligation of insurance policyholders to declare insurance claims has been exempted. At the same time, the guarantee fund or insurance company prepares a list of policyholders. The policyholders only need to check the list of policyholders according to the announcement issued by the financial manager. For policyholders who have been included in the list of policyholders, it is deemed that they have declared their claims. According to my country's current judicial practice, it is more appropriate for insurance companies to complete the preparation of the list of policyholders. This is because compared with the guarantee fund, the insurance company is more familiar with the specific insurance business it conducts, and the integrity and degree of informatization of the archives are higher than those of the guarantee fund. Therefore, it is believed that in the reorganization procedure, whether the entity responsible for management is the guarantee fund or the insurance company, the list of policyholders should be prepared by the insurance company and its insurance claims should be confirmed. After the results are publicized, they will be available for verification by the policyholders. Secondly, restricting the contract termination rights of the financial manager can effectively protect the legitimate rights and interests of policyholders of insurance contracts with higher risks. Finally, it is necessary to set up a separate insurance contract creditor group. Whether it is the insurance fund that has acquired all the debts or the policy holders who have not transferred the debts, they should be included in the insurance contract creditor group and vote on the draft reorganization plan, parallel to the existing four types of voting rights groups, to fully express their opinions.[6]

#### 4. Conclusion

The Yi'an Insurance bankruptcy reorganization case offers a pioneering example of resolving financial instability within China's insurance sector through judicial means. Analysis of this case highlights three critical areas for legal reform: (1) adopting a forward-looking regulatory standard to trigger bankruptcy proceedings, thereby enabling early intervention and enhancing policyholder protection; (2) clarifying and harmonizing the CBIRC's administrative role across the Insurance Law and Enterprise Bankruptcy Law to ensure procedural transparency and regulatory accountability; and (3) strengthening safeguards for insurance-contract creditors by simplifying claim procedures, limiting contract-termination powers, and establishing a distinct creditor class. Implementing these reforms will not only safeguard public and policyholder interests but also reinforce the resilience of China's insurance industry and financial markets

# **References**

- [1] Zhu Ciyun, Jiang Wanying. The Legislative Model and Bankruptcy Criteria for Financial Institutions [C]// Proceeding of the First China Bankruptcy Law Forum. 2025:209-220.
- [2] Sai Zheng. On the Appropriateness of the Legislation on the Causes of Bankruptcy of Insurance Companies in China—Also on the Provisions of Articles 90 and 149 of the Insurance Law of China [J]. Law Science in Times, 2020(1): 64-72. DOI:10.19510/j.cnki.43-1431/d.20191224.006.
- [3] Sheng Jianming, Jia Jing. On the Practice, Dilemmas and Solutions of the Pre-Bankruptcy Procedure for Insurance Companies in China [J]. Law Journal, 2015, 36(12): 8. DOI: CNKI: SUN: FXAS.0.2015-12-007.
- [4] Jia Jing. On the Protection of Policyholders' Rights and Interests in the Legal System of Bankruptcy Reorganization of Insurance Companies in China [J]. Insurance Studies, 2015, (4): 115-123.
- [5] They are respectively the Insurance Regulatory Information System (IRIS), the Financial Analysis and Solvency Tracking System (FAST), the Minimum Risk-Based Capital Requirements (MRBC) for property and liability insurance companies, the Risk-Based Capital Requirements (RBC), and the Dynamic Financial Analysis (DFA) for the insurance industry. Meanwhile, insurance companies are required to record their business operations and periodically submit annual and quarterly financial reports in accordance with the Statutory Accounting Principles (SAP).
- [6] Wang Jing. Research on Several Issues in the Bankruptcy Disposal of Insurance Companies—From the Perspective of the Revision of the Enterprise Bankruptcy Law and the Coordination and Connection with the Insurance Law [J]. Application of Law, 2022, 2022(9): 152-158.