



Research on Legal Risk and Regulation of Robo-advisor in China

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Abstract. Robo-advisor, one of the important parts of Fin-tech, has changed the business model of traditional investment advisers and investment decisions. Robo-advisor brings new vitality to China's securities investment market but also carries some legal risks. Based on the comparison of the development of Robo-advisor in China and other countries, this paper will explore the legal risk associated with intelligent investment and advise on market access, carte Blanche, protection of investors' personal information, and compliance with fiduciary duties.

Keywords: Robo-advisor, Financial Technology, Algorithm, Legal Risk, Regulation

1 Introduction

Robo-advisor, a new online wealth management service, is one of the branches of Financial Technology (Fintech). With the development of Internet technology and financial innovation, Robo-advisor went through three stages: Human investment advisor, Online investment advisor, and Robo-advisor [9]. Currently, the development of Robo-advisor in China is still in a backward state, especially in the aspect of laws and regulations, which hinder the further development of Robo-advisor. Therefore, comprehensive legal safeguards are essential to ensuring the sustainable and healthy development of Robo-advisor in China. This article will start by comparing China and other countries and then discuss the legal risks of Robo-advisor, thus finding possible resolutions from the legislative level.

2 Overviews of Robo-advisor

2.1 Definition of Robo-advisor

Nowadays, there is no unified definition of a Robo-advisor in academic and practical circles. In Investopedia, it defines Robo-advisors as digital platforms that provide automated, algorithm-driven financial planning services with little to no human supervision. A typical Robo-advisor asks questions about your financial situation and future

goals through an online survey; it then uses the data to offer advice and automatically invest for you [2]. In Wikipedia, it defines Robo-advisors as a class of financial adviser that provide financial advice and investment management online with moderate to minimal human intervention [6]. They provide digital financial advice based on mathematical rules or algorithms. These algorithms are designed by financial advisers, investment managers and data scientists, and coded in software by programmers. These algorithms are executed by software and do not require a human advisor to impart financial advice to a client. The software utilizes its algorithms to automatically allocate, manage and optimize clients' assets for either short-run or long-run investment [1].

As seen from these definitions above, Robo-advisor is characterized by using algorithms to build personalized, intelligent investment portfolios. In personalization, systematic models are used to offer specific investment suggestions for investors based on their data, such as risk tolerance level, risk preference, and income target. Intelligence includes three aspects: automated investment trading, where the system issues trading orders on behalf of clients; automatic portfolio rebalancing, in which the system can adjust positions in time or even in real-time according to changes in market conditions or investor needs; autonomous algorithm learning, continuous self-improvement, improve the algorithm quality.

2.2 Business service process of Robo-advisor

In mature capital markets in the West, Robo-advisor makes money by charging intermediate fees. Robo-advisor provides clients with services such as client analysis, broad asset class allocation, portfolio selection, trade execution, portfolio rebalancing, tax planning, and portfolio analysis. Taking the advantages of Internet, Robo-advisor has a lower margin cost than traditional investment advisor, which reduces a large amount of intermediate fees. Comparing with traditional investment advisor, Robo-advisor only charges advisory fees and later management fees, and the process is completely transparent.

In China, Robo-advisor has three types of business service process. The first is the mainstream model. Its advantage lies in the ability to provide users with a rich, comprehensive, and regional range of investment portfolios, so as to spread the risk and increase the rate of return. The second is the asset suggestion allocation model. As the name suggests, this kind of Robo-advisor only provides asset allocation advice and does not participate in subsequent tracking operations. The third is the securities investment model. This kind of mode is related to securities business, which mainly provides services for stock market users and carries out stock market analysis.

2.3 Legal System of Robo-advisor in Foreign Countries

Robo-advisor was first invented in the United States. In May 2015, the U.S. Securities and Exchange Commission (SEC) and Financial Industry Regulatory Authority (FINRA) placed Robo-advisor in the category of Automated Investment Tools in "Investor Announcement: Automated Investment Tools." Robo-advisor is in parallel with Private Wealth Management Tools and Asset Allocation Services. Then in March 2016,

FINRA defined the Digital Investment Advice and Robo-advisor by enumeration in its "Report of Digital Investment Advice." The report of FINRA pointed out that investment adviser value chains consist of seven activities, including user profiling, asset allocation, portfolio selection, trade execution, portfolio rebalancing, tax loss harvesting, and portfolio analysis. Robo-advisor is an investment advisory tool combining seven types of activities above, while Digital Investment Advice involves only one or more of them. FINRA's report lays the foundation for Robo-advisor's precise nature and function. In February 2017, Robo-advisor firstly appeared in the American legal system. SEC issued "Robo-advisor Supervision Guidelines", which refers to Section 203 (b) and (c) of the Investment Advisers Act 1940. According to guidelines, Robo-advisors are essentially typical registered investment advisers providing discretionary asset management services to clients through online algorithmic programs and bounded by fiduciary duty [8].

The Australian Securities & Investments Commission (ASIC) is the principal agency in Australia to fulfill the responsibility of Robo-advisor supervision. On August 30, 2016, the ASIC issued "Providing Digital Financial Product Advice to Retail Clients." It pointed out that Robo-advisor provides clients with digital financial product advice using technology and algorithms without the need for the direct intervention of investment advisers. Specific advice can be divided into personal and general depending on whether there is a matching algorithm based on individual investment style. To encourage the development of Fintech, the ASIC founded an Innovation Center to help qualified enterprises obtain legal applications or qualification permits. The ASIC also established Digital Finance Advisory Commission to advise Fintech enterprises and explain new regulations about Robo-advisor [5].

Some creative regulatory measures also exist in the United Kingdom for Fintech enterprises. On November 10, 2015, the Financial Conduct Authority (FCA) issued a report on "Regulatory Sandbox," introducing a safe space in which Fintech enterprises could test innovative products, service models, payment methods, and other financial innovations products. Besides, FCA first put forward the concept of "Regtech," the disruptive innovation of "technology-assisted regulation." The British government considered that Fintech has the potential to be applied to regulation and enhance efficiency and transparency.

2.4 Legal System of Robo-advisor in China

In China, Robo-advisor firstly appeared in "Interim provisions on strengthening supervision over the use of 'stock recommendation software' to engage in securities investment consulting business," issued by the China Securities Regulatory Commission (CSRC) in December 2012. At that time, most of the judicial arguments equated the concept of Robo-advisor to stock recommendation software, whereas Robo-advisor did not limit themselves to the function of investment advice. In November 2017, a draft document from the People's Bank of China pointed out that Robo-advisor is a service used by financial institutions to apply robot investment advisers to manage asset business operations by employing artificial intelligence-related technologies. But this definition was deleted from the later official document. In 2018, the People's Bank of China

issued the "Guiding Opinions on Standardizing Asset Management Business of Financial Institutions" (the "Opinions"). Its Rule 23 stipulated that financial institutions should have corresponding qualifications to conduct Robo-advisory business and that non-financial institutions shall not operate beyond the scope or engage in asset management business in disguise. Rule 23, to a certain extent, created a sound development environment for compliance in traditional financial institutions such as banks and securities companies. At the same time, it clarified that financial institutions should adhere to the general provisions of the Opinions when engaging in Robo-advisor services, including investment scope, risk isolation, investor suitability, and information disclosure.

In current China, there are three types of Robo-advisors in the market. The first is independent third-party Robo-advisor platforms such as MiCai, LiCaiMoFang, and Blue Ocean. The second is intelligent Robo-advisor platforms launched by Internet and technology companies such as Baidu, Alibaba, and iFinD. The third one is the intelligent investment platform established by banks, securities companies, fund companies, and other traditional financial institutions, such as Robo-advisor launched by Huatai Securities and Everbright securities. Combining the definition of Robo-advisor in China and other countries' legal systems, Ouyang summarized that Robo-advisor should belong to the investment consultant category [7]. However, the definition and business types of securities investment consulting in China's Securities Law are unclear. Only in the "Interim Provisions on Securities Investment Consulting Business," securities investment consulting is defined as the business activities in which securities companies and securities consulting institutions accept clients' entrustment and provide investment suggestions and assist in investment decision-making under the agreement. Therefore, China still has a long way to go before establishing a sound legal supervision system for Robo-advisors.

3 Legal risks of Robo-advisor

3.1 Market Access Standards are Vague

Access to the Chinese market is the first challenge needed to solve for Robo-advisors. Financial regulatory authorities should put forward market access requirements to offer investment consulting services using artificial intelligence technology based on Robo-advisor's characteristics [8]. As mentioned above, the "Opinions" and other securities investment regulations have market access requirements for financial institutions to provide investment consulting business. Robo-advisor business involves the interests of the majority of investors, and it use the Internet to lead investment inevitably need to collect and process a large number of personal information. Therefore, financial supervision and regulation departments need to perform their duties to protect the security of personal information. However, it is not specified which is the supervising department and what are the exact market access requirements for Robo-advisor. As a matter of fact, in recent years, the amount of investment consulting licenses has been decreasing, leading to their soaring market price. Most Fintech companies are unwilling and unable to afford such high costs.

Additionally, there is a legal risk of compliance. Under present regulations in China, the investment consulting license is restricted to traditional financial institutions operating Robo-advisor services within the scope of their existing business. It means Internet companies and independent Robo-advisor platforms cannot conduct Robo-advisor business. The shortage of licenses and the compliance risk led to license sublease and transfer, increasing social costs and threatening financial security and market stability, thus making supervision more difficult.

3.2 Carte Blanche Mode against Current Law

The core functions of Robo-advisor services are automatic investments and dynamic positioning, which are called *carte Blanche* or Authorized Account Service in Australia. The *carte Blanche* in the field of securities investment is that the securities company completes the whole investment process on behalf of the investor and makes decisions on investment matters such as the amount and type of investment. The client lacks professional knowledge and energy, so he hopes to hand over the money to the experienced and reliable securities company. However, influenced by the market economy, the securities company will also make mistakes. It is a basic requirement for employees of securities companies to abide by integrity. However, behaviors that violate regulations and take advantage of customers' *carte Blanche* to seek personal gains for themselves often occur.

In China, the *carte Blanche* is reflected in asset management or financial services on behalf of customers. Although the "Opinions" stipulates that asset management is part of the business scope of Robo-advisor, Rule 161 of Securities Law states that securities investment consultants shall not make decisions on behalf of their clients. It is evident that the regulations contradict each other. Meanwhile, according to Rule 2 of "Interim Measures for the Administration of Commercial Banks' Overseas Wealth Management Services on behalf of Clients," only commercial banks can offer overseas wealth management services on behalf of customers. But the actual operators of Robo-advisor are mostly Fintech companies without permission to provide financial services on behalf of customers by present regulations [9]. Suppose the Robo-advisor companies cannot find the legal norms as the basis for their business development. The "business innovation" of financial management on behalf of customers is likely to touch the red line of supervision.

However, the unique feature of Robo-advisor lies in its intelligence, using an algorithm to automatically make portfolio investments, choose the best investment way, track data, take the initiative to balance assets when necessary, and make favorable decisions. The above functions can only be achieved and work best with *carte Blanche*. Traditional investment advisers aim to manage financial affairs on customers' behalf, while Robo-advisor has the dual advantages of automation and intelligence. Banning *carte Blanche* may not only impede the development of Robo-advisor, but also force some platforms to direct investors to third-party licensed financial institutions to avoid legal conflicts and fall into the dilemma of illegal fund sales.

3.3 Risk of Investors' Personal Information

Robo-advisor is a service based on the development of financial technology, so the users' information is undoubtedly important for the operation. Investor information is indispensable, from understanding clients' preferences to recommending portfolios to help them rebalance their investments. But that is why, in the Internet era, financial investors' information is threatened.

In China, there is still no specific law protecting personal information. Currently, legislation for protecting personal information distributes in fragments. Provisions are scattered in various laws and regulations, including but not limited to Civil Code, Consumer Rights and Interests Protection Law, Tort Liability Law and other laws and regulations [10]. For example, the Network Security Law only mandates that personal information collected shall be handled under necessary measures to ensure information security, and irrelevant information shall not be collected. However, Robo-advisor is an emerging field with no specific provision for personal information. The Chinese Robo-advisor industry also lacks specific provisions on what information the platform can collect from investors, what obligations it should undertake to protect users' information, and the subsequent remedies and punishments.

Personal information in Fintech spreads faster, so its security is more important than traditional user information. Data leakage not only concerns the rights and interests of each investor, but also can cause great damage to the stability in the financial field. Therefore, the legislative department shall take measures immediately to protect the personal information security of the investors.

3.4 Fiduciary Duty of Robo-advisor

The fiduciary duty is a criterion stricter than the propriety duty applying to securities brokers, investment consultants, and asset management institutions. It is also an act to maximize the benefit of the beneficiary. It originated from the fiduciary relationship and then expanded to the agency relationship, guardianship relationship, and other aspects. In the Robo-advisor industry, the main legal risk of fiduciary duty is information disclosure. Because of the virtuality of the network and the complexity of the algorithm-generated portfolio, an information asymmetry has been formed in the Robo-advisor industry [11]. The difference between Robo-advisor service and traditional customer service in information transparency consists in its own characteristics: the complexity of algorithms and the multiplicity of process links. The "Opinions" stipulates that the financial institutions should fulfill the obligation of information disclosure when engaging in Robo-advisor business. But detailed provisions on specific disclosure and the supporting regulatory technical means are absent, so Robo-advisor results in great legal risk in information disclosure. For example, the transparency required by Robo-advisor services is mainly reflected in service transaction records, data information storage, continuous information disclosure, account storage, charging methods, etc. They could easily raise the potential legal risk that the Robo-advisor operator creates a pool of cap-

ital. Due to the lack of information disclosure, Robo-advisor operators may use information advantages to violate fiduciary duty in grey areas by integrating all kinds of services and holding multiple identities.

4 ADVICES on regulations of robo-advisor in china

4.1 Standardizing Market Access Mechanisms

The market access standards of the Robo-advisor industry are the minimum requirements those relevant institutions and platforms must meet to enter the industry and engage in the Robo-advisor business. As mentioned above, nowadays, the main problem with the market access standards of the Robo-advisor industry is the license. Therefore, on the one hand, the regulatory department should be clarified and then resume issuing licenses for financial institutions to engage in Robo-advisor business and strictly scrutinize their qualifications. On the other hand, for Internet companies and independent Robo-advisor platforms, relevant departments could combine their technology and professionalism and set different market access standards based on their business scope to give them sufficient space for development [12]. Moreover, for Robo-advisory business, the regulatory department could set up a Robo-advisor license separately, but certain standards need to be set in advance according to laws and regulations and market practice. It is difficult in China since Robo-advisor has just been developed.

4.2 Establishing the Legitimacy of Carte Blanche Mode

The prohibition of carte Blanche is a requirement for securities consulting institutions and securities practitioners under the Securities Law of China. However, from the perspective of the Robo-advisors' global development, the existence of carte Blanche mode is more consistent with the business essence of Robo-advisor and can promote its development. The majority believes Carte Blanche belongs to asset management, while another opinion considers carte Blanche to belong to the trust business. By defining Carte Blanche business as a trust, taking Trust Law as the superior law of Robo-advisor, and allowing the existence of carte Blanche, the conflict between carte Blanche and the existing Securities Law can be solved.

4.3 Establishing a Confidentiality System for Investor Information

Robo-advisor platforms obtain investment preferences by using investors' personal information, so information collection is essential for Robo-advisor. The algorithm's ambiguity and the Robo-advisor's big data characteristics make the consequence of personal information leakage extremely serious. Therefore, protecting investors' personal information is particularly important to the sustainable development of Robo-advisor in the financial market. To protect the investors' personal information, firstly, financial enterprises and technology companies using Robo-advisor for investment services shall

establish a confidential system for the personal information. Secondly, various technical measures should be taken to prevent investor information disclosure. Lastly, a certain period shall be set for processing investors' personal information. The platforms may use customers' information for investment purposes with customers' permission during the period. And the platforms must destroy the customers' information and make a declaration after this period.

4.4 Constructing a Perfect Information Disclosure System

Robo-advisor is the intelligence of a traditional investment adviser, and its information disclosure system should comply with the general standards of the securities business and the characteristics of Robo-advisor. Therefore, given the connection and difference between tradition and present, constructing the information disclosure system of Robo-advisor service should consider three aspects: basic principles, content, and form requirements [13]. First, all the information that Robo-advisor platforms disclosed should obey true, accurate, and objective principles. Second, due to the particularity of Robo-advisor, its disclosure should include algorithm description, conflict of interest, asset fees, major changes, and compliance review. Third, the Robo-advisor service involves a lot of professional knowledge, so in making disclosure requirements, it should not only consider its content but also fully consider investors' acceptance degree. A perfect information disclosure system could promote the platforms to operate in compliance, help investors make rational choices, reduce the risks and enable people to enjoy the convenience of Robo-advisor.

5 Conclusions

The emergence of Robo-advisor in China is the epitome of China's financial industry development following the Internet era. Whenever something new emerges, there are bound to be risks and challenges, and legal risks are only a part of them. But at the same time, Robo-advisor also creates new opportunities for developing the securities investment industry. Therefore, we should provide Robo-advisor with enough development space, regulate the compliance and algorithm of competent investment advisers and protect the interests of investors. By perfecting the supervision of intelligent investments from the legal perspective, the Chinese legislative branch can also prepare for the possible emergence of other emerging financial technologies in the future. We should give confidence to Robo-advisor and believe it will develop well in China.

References

1. Qin, Z. (2022). Literature review of Robo-advisor Development. *Co-operative Economy & Science*, 11, 62–63.
2. Frankenfield, J. (2022). *What is a Robo-Advisor*. Retrieved from Investopedia: <https://www.investopedia.com/terms/r/roboadvisor-roboadviser.asp>

3. Lieber, R. (2014). *Financial Advice for People Who Aren't Rich*. Retrieved from Wikipedia: <https://en.wikipedia.org/wiki/Robo-advisor>
4. D'Acunto, Francesco & Prabhala, N. & Rossi, Alberto G. (2019). The Promises and Pitfalls of Robo-Advising. *The Review of Financial Studies*. 32, 1983-2020.
5. Ouyang, D. (2021). Research on Legal Regulation of Robo-advisor. *Finance and Economy*. 01, 82-89.
6. Li, Y. & Lu, X. (2018). Robo-advisor Risk Analysis and Regulatory Path Research. *China Price*. 02, 71-73.
7. Ouyang, D. (2021). Research on Legal Regulation of Robo-advisor. *Finance and Economy*. 01, 82-89.
8. Xing, H. (2020). *The Rise of the Era of Robo-advisor – Research on Legal Issues of Robo-advisor*. China Financial Publishing House. Beijing, 263-268.
9. Liu, P. (2019). Regulatory Thinking on the Development of Robo-advisors in the Chinese Securities Market. *Securities Market Herald*. 01, 62-69.
10. Wang, D. (2019). The New Risks and System Response of Personal Information in the Age of Big Data. *Journal of Xi'an Jiaotong University (Social Science)*. 06, 123-132.
11. Li, Q. (2017). Risk Analysis and Legal Regulation of Robo Advisor. *South China Finance*. 04, 90-98.
12. Guo, J. (2019). Legal Challenges and Regulatory Responses to the Development of Robo-Advisor. *Jianghai Academic Journal*. 06, 127-128.
13. Xing, H. (2020). *The Rise of the Era of Robo-advisor – Research on Legal Issues of Robo-advisor*. China Financial Publishing House. Beijing, 263-268.

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