



# Analysis of VIE Structure Used by New Energy Enterprises to List Overseas

Yaoyao Liu

Xi'an Mingde Institute of Technology, Xi'an, Shaanxi, 710124, China

Corresponding author. Email: hiyaoyao611@126.com

**Abstract.** The high-quality development of economy and society cannot be separated from a healthy and sustainable way, and green and low-carbon are the key links of this way. It has become the consensus of today's society to advocate green consumption and promote the formation of green and low-carbon production and lifestyle.

New energy enterprises represented by BYD Automobile, Xiaopeng Automobile and Li Xiang Automobile are leading the subtle change of social energy consumption structure. While promoting clean, low-carbon and efficient utilization of energy, they are also actively promoting the gradual realization of carbon peak and carbon neutrality goals. New energy companies go overseas to list in the VIE model to obtain the support of external capital, technology and management experience, which will help shape the visibility of enterprises and products, and gain a place in the fierce international competition.

This paper first reviews the development process of overseas listed enterprises, and then initially builds the VIE model framework for new energy enterprises to go overseas listed and analyzes the key points. On this basis, it points out three key issues including legal effect risk, credit risk, and the lack of regulatory rules of the VIE model. Finally, suggestions are given from the perspective of promoting the legislation of VIE mode supervision, improving the VIE mode information disclosure system, and establishing a unified supervision mechanism.

**Keywords:** VIE model, agreement control, overseas listing, new energy enterprises

## 1 Introduction

The development of human society cannot be separated from the drive of energy. The gradual evolution from fuelwood to coal, oil, natural gas and then to renewable energy reflects the historical context and future direction of green development. The high-quality development of economy and society cannot be separated from a healthy and sustainable way, and green and low-carbon are the key links of this way. Advocating green consumption and promoting the formation of green and low-carbon production methods and lifestyles has become the consensus of today's society.

© The Author(s) 2024

A. Rauf et al. (eds.), *Proceedings of the 3rd International Conference on Management Science and Software Engineering (ICMSSE 2023)*, Atlantis Highlights in Engineering 20,

[https://doi.org/10.2991/978-94-6463-262-0\\_32](https://doi.org/10.2991/978-94-6463-262-0_32)

At present, new energy enterprises, including BYD Automobile, Xiao peng Automobile and Li xiang Automobile, are leading the subtle change of social energy consumption structure. While promoting clean, low-carbon and efficient utilization of energy, they are also actively promoting the realization of carbon peak and carbon neutrality goals. Because most new energy enterprises are faced with problems such as high financing risk and long investment recovery cycle, obtaining funds from traditional financing channels is too restricted. Therefore, the advantages of overseas listing are obvious. On the one hand, it can obtain the support of overseas capital, technology and management experience, on the other hand, it is conducive to shaping the visibility of enterprises and products, and gaining a place in the fierce international competition.

The data used in this article are from the wind database.

## 2 The development of domestic enterprises to list overseas

New energy enterprises listed overseas belong to a kind of "China concept stocks". China concept stocks refer to the stocks of enterprises listed overseas but whose production and operation business is concentrated in China. By the end of 2022, a total of nearly 1,700 Chinese enterprises have chosen cross-border listing<sup>[1]</sup>. They are mainly concentrated in Hong Kong Stock Exchange, Singapore Stock Exchange, London Stock Exchange, Nasdaq Stock Exchange, New York Stock Exchange and Germany Frankfurt Stock Exchange.

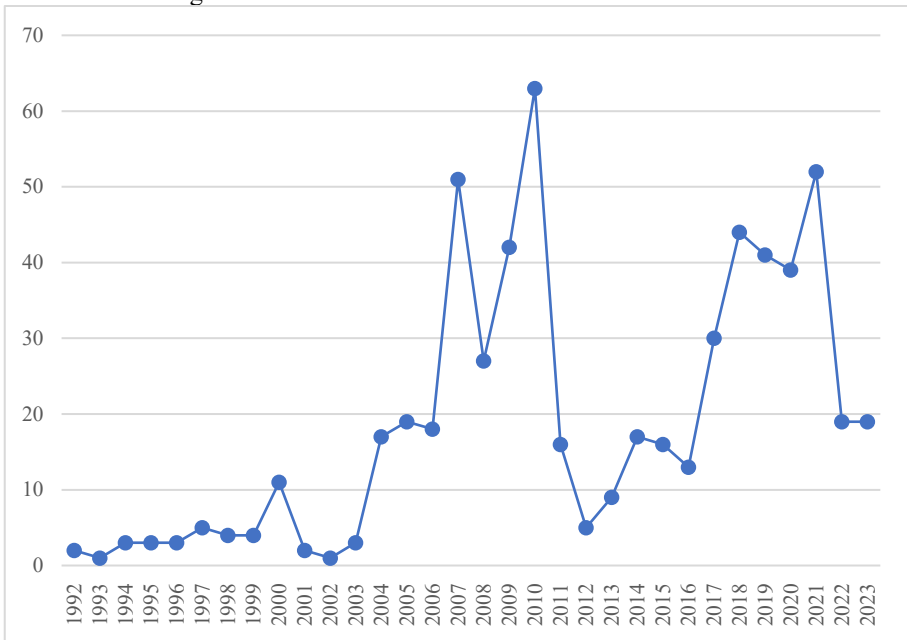
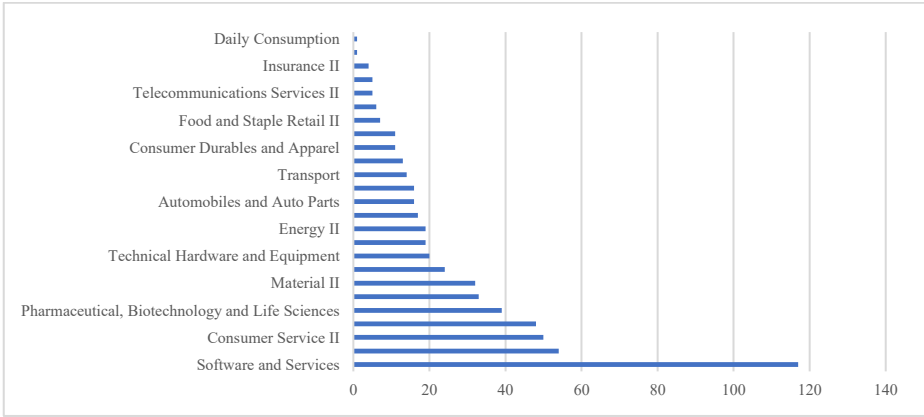


Fig. 1. 1992-2023 Chart of the number of domestic enterprises listed in the United States



**Fig. 2.** Statistics of domestic enterprises listed in the United States by industry from 1992 to 2023

**Table 1.** Domestic automobile and auto parts industry companies listed in the United States statistics

Serial number	Securities code	Securities abbreviation	Listing year	Industry
1	CJET.O	Chi Jie Automobile	2022	Automobiles and auto parts
2	EZGO.O	Ceb Holdings Limited	2021	Automobiles and auto parts
3	XPEV.N	Xiao peng Automobile	2020	Automobiles and auto parts
4	LIO	Ideal car	2020	Automobiles and auto parts
5	NWTN.O	NWTN	2020	Automobiles and auto parts
6	NIU.O	Maverick Electric	2018	Automobiles and auto parts
7	NIO.N	U lai	2018	Automobiles and auto parts
8	CENN.O	Heng yuan electric Vehicle	2015	Automobiles and auto parts
9	ZXAIY.O O	Zheng xing Group (delisted)	2011	Automobiles and auto parts
10	CXDC.O O	Xin da Group (delisted)	2009	Automobiles and auto parts
11	KNDI.O	Kandy Cars	2008	Automobiles and auto parts
12	WATG.O O	Wind Motor (delisted)	2007	Automobiles and auto parts
13	TXIC.OO	Concentric International	2006	Automobiles and auto parts
14	SORL.O	Rayleigh Group (delisted)	2006	Automobiles and auto parts
15	CAAS.O	Intermediate steam system	2004	Automobiles and auto parts
16	BCAHY. OO	Brilliance Auto (delisted)	1992	Automobiles and auto parts

As can be seen from the data released by Wind, at present, some new energy vehicle enterprises in China have achieved cross-border listing. According to public reported information, Xiao peng Automobile, NIO Automobile, Ideal Automobile and other new energy leading enterprises have also begun to build the VIE model structure.

There is an obvious periodicity for domestic enterprises to go overseas for listing, and behind each cycle there is the background of The Times. As can be seen from Fig. 1, taking the listing in the United States as an example, the first cycle was from 1993 to 2000, characterized by state-owned enterprises after the stock reform, and the background of the end of the cycle was the "Asian financial storm". The second cycle was

from 2000 to 2012, which was characterized by a large number of Internet companies adopting the VIE model structure in the United States, and the background of the end of the cycle was the general trust crisis in the market caused by "financial fraud". The third cycle is from 2013 to the present, which is characterized by the Internet, healthcare, education and other industries. The background of the end of the cycle is the introduction of the Foreign Company Accountability Act, the differences between China and the United States in the field of cross-border audit supervision, and the risk of delisting of the listed stocks in the United States.

The industry distribution of domestic enterprises to list overseas is relatively wide, and in recent years, enterprises in the field of new energy are gradually becoming rookies. As can be seen from Fig.2, the top five listed industries are traditional software and services, diversified finance, consumer services II, retail, and pharmaceuticals, biotechnology and life sciences, accounting for about 53%. The automotive and auto parts industry in the field of new energy accounts for about 3%, but the future potential is greater. As can be seen from Table 1, eight new energy companies have been listed since 2015.

The development of new energy enterprises cannot be separated from the support of funds, and their financing channels mainly include domestic direct listing, overseas direct listing, foreign direct investment, and overseas indirect listing (represented by VIE model). As an important way of overseas indirect listing<sup>[2]</sup>, the VIE model is the key direction for new energy companies to go overseas to list in the future, and appears as a "China concept stock" in the overseas market.

### **3 Analysis of VIE model structure of new energy enterprises going overseas for listing**

The VIE model is a product of U.S. accounting standards' response to the Enron Incident (2001). In the past accounting standards of the United States, if there is a shareholding control relationship between two companies, then the financial statements need to be consolidated. In order to avoid the regulatory requirements, some enterprises in practice to find a non-equity way to the actual control of another company, and transfer the business risk to another company. After the Enron incident, American regulators strengthened the definition of actual control. On the basis of "variable interest entity", it was clearly proposed that if a company could actually control another company, it must combine the statements, and the original loophole was blocked<sup>[3]</sup>. The emergence of VIE model provides an accounting basis for Chinese new energy enterprises to achieve overseas indirect listing.

### 3.1 New energy enterprise VIE model structure design

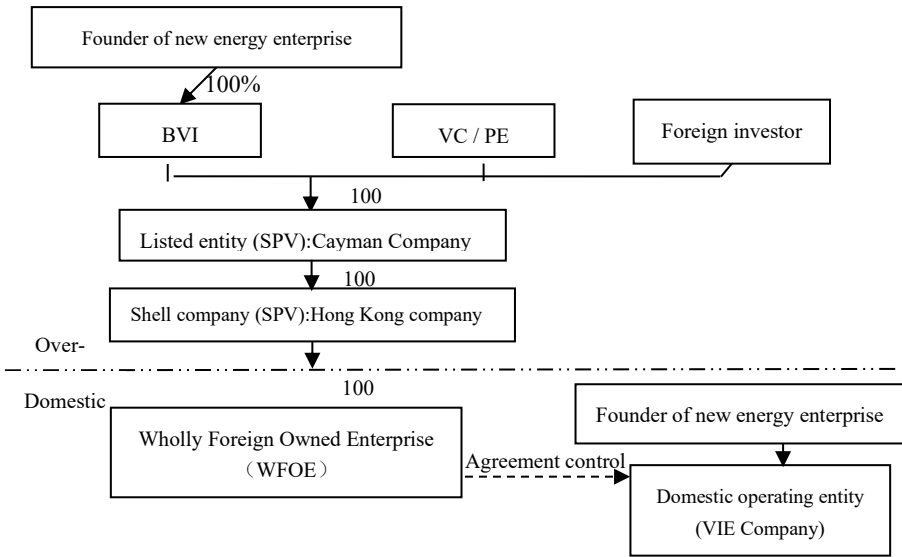


Fig. 3. New energy enterprise VIE model structure design

As can be seen from Fig.3, the VIE model structure design of new energy enterprises to list overseas mainly includes the following aspects:

(1). The founder of the new energy enterprise company shall register and establish a domestic operating entity in China and obtain the required license for operation. All its shareholders are domestic natural persons or institutions.

(2). The founder of the New Energy Enterprise Company establishes an offshore company in The British Virgin Islands (B.V.I.). The advantages of BVI companies are low tax burden on equity transfers, only annual management fees, well-developed financial services, and no foreign exchange controls.

(3). The offshore BVI company, together with VC, PE and other shareholders, establishes a Cayman company in the Cayman Islands as a listed entity.

(4). The listed entity (Cayman Company) establishes a shell company (Hong Kong company) in Hong Kong. The main purpose of setting up a subsidiary of a listed company in Hong Kong is to avoid tax reasonably and legally. According to the relevant provisions of the Mainland and Hong Kong, the dividend withholding tax is 5%, while China's bilateral tax treaty generally provides for 10%. In addition, as a well-known international financial center, Hong Kong applies to the common law system and has a convenient financing and financial service system.

(5). A Hong Kong company establishes a wholly foreign-owned enterprise (WFOE) in China, which is a channel for the overseas listed subject to extend to the mainland. Although there is no actual operation, it controls the domestic operation entity;

(6). A wholly foreign-owned enterprise (WFOE) enters into a basket of agreements with a domestic operating entity to achieve full control over that entity.

### 3.2 Protocol type in VIE mode

As can be seen from Table 2, the agreements under the VIE model of new energy enterprises mainly include the following six types from the perspective of equity control, pledge, and capital flow.

**Table 2.** The type of agreement under the VIE model of new energy enterprises

Serial Number	Protocol Type	Specific Content
1	Loan contract	The WFOE lends money to the VIE shareholders, who inject the funds into the VIE.
2	Equity pledge agreement	The VIE pledge their equity in the VIE to the WFOE.
3	Exclusive consulting service agreement	The wholly foreign-owned enterprise provides intellectual property rights, technical consulting services, etc., to the VIE, and the VIE pays the service fee (royalty) with its net profit before tax.
4	Asset operation control protocol	It is stipulated that major transactions of VIE assets shall be decided by WFOE.
5	Voting rights agency agreement	VIE shareholders entrust their voting rights to the WFOE, which can actually appoint directors or make shareholder resolutions.
6	Stock option agreement	When laws and policies allow foreign capital to enter the VIE field, the WFOE has the right to subscribe for the VIE equity first.

Through the above agreement arrangements, the VIE model structure of new energy enterprises is conducive to the achievement of the following objectives<sup>[4]</sup>. First of all, by agreeing on the treatment of equity, the overseas listed entity can achieve actual control over the domestic operating entity. Secondly, after obtaining funds from overseas markets, overseas listed entities directly support the financing needs and business development of domestic operating entities. Finally, domestic operating entities achieve the goal of transferring profits or losses to overseas listed entities by means of "service fees", which also greatly enhances the anti-risk ability of domestic operating entities.

## 4 Problems of VIE model structure adopted by new energy enterprises

### 4.1 Risks of legal validity

The original intention of the VIE model is to bypass the obstacles of legal supervision, adopt a compromise method to replace equity control with agreement control, and take into account the requirements of consolidated statements of overseas listed entities, but also avoid the risk of domestic direct holding<sup>[5][6]</sup>.

However, the organizational form of the company is limited to limited liability company and joint stock limited company, and the ownership of the shareholders is based on the equity or shares held. The VIE model avoids equity control and realizes

ownership of the company through agreement control. However, from the perspective of legislation, China has not promulgated laws and regulations to clarify the legal status of VIE model. Therefore, after new energy companies adopt the VIE model, there may be a risk of being declared invalid by judicial organs and arbitration organs in specific judicial practice.

## 4.2 Risk of credit

The VIE model uses the way of agreement control to indirectly realize the control of foreign companies over domestic operating entities. In this structure, there are two shareholders and the board of directors of the company, and the agreement between the two on some important matters is a decisive factor in the stability of the structure<sup>[7]</sup>.

After the agreement control replaces the equity control, the actual controller's ability to control the enterprise is weakened. On the one hand, overseas listed entities provide funds to domestic operating entities through wholly-owned subsidiaries of two levels, bear losses and absorb profits, and indirectly achieve control and decision-making over domestic enterprises. On the other hand, equity control is essentially creditor's rights and lacks exclusivity. Therefore, agreement control is a gentleman's agreement, and whether it can be successfully implemented is also affected by many factors, including the moral level of the founder.

Therefore, after the VIE model is adopted by new energy companies, the basket of agreements signed by overseas listed entities and domestic operating entities may have credit risks, including non-performance. The specific performance is that it does not fulfill or cannot fully fulfill the obligations under the agreement, fails to pay the service fee to the overseas listed entity in time, and fails to repay the interest and principal of the debt in time.

## 4.3 The VIE model lacks regulatory rules

In February 2023, in order to support enterprises to list overseas in accordance with the law and regulations, the CSRC issued the "Trial Measures for the Management of Overseas Issuance of Securities and Listing of Domestic Enterprises" (CSRC Announcement (2023) No. 43), which is clearly applicable to direct and indirect overseas listing of enterprises. Among them, the scope of application is extended to overseas indirect listed enterprises, and "domestic enterprises" are defined as domestic operating entities including domestic joint stock limited companies that directly issue and list overseas and indirect overseas issuing and listing entities.

The accompanying document "Guidance on the Application of Regulatory Rules" (No. 2 in the category of Overseas Offering and Listing) clearly points out that the issuer may have an agreement control relationship. In accordance with the principle of "substance over form", the document has brought the VIE model into the scope of regulatory vision, which will help the standardization and development of the VIE model, but the regulatory rules of the VIE model still need to be further clarified and improved.

Therefore, the lack of regulatory rules is bound to lead to the relative ambiguity of regulatory boundaries, which is not conducive to the cultivation of market confidence, and has pushed up the risk premium required by the market for new energy enterprises.

## **5 Suggestions**

### **5.1 Promote regulatory legislation on the VIE model**

From the inclusion of the concept of "agreement control" in the Foreign Investment Law of the People's Republic of China (Draft for Comment) issued by the Ministry of Commerce in 2015, to the adoption of the Foreign Investment Law of the People's Republic of China by the National People's Congress in 2019, the use of backstop clauses to ambiguously deal with "agreement control" can be seen. The determination of the legal status of control by agreement (VIE model) may need further consensus. Until a breakthrough is made in regulatory legislation, the supervision and management of the VIE model by government departments such as the People's Bank of China, the CSRC and the Ministry of Commerce will remain at the level of departmental regulations, which is not conducive to unified supervision and coordinated supervision. Therefore, the recognition and protection of the VIE model structure from the legal level is conducive to the listing of new energy enterprises overseas for financing, enhancing the confidence of foreign investors, and reducing the risk premium of enterprises<sup>[8]</sup>.

### **5.2 Improve the VIE model information disclosure system**

Different from equity control, the relationship of agreement control cannot be queried through the national enterprise credit information publicity system, commercial software and other channels, and the parties to the agreement are often reluctant to fully disclose information to the outside world in order to avoid supervision, which also makes it difficult for the public to obtain all the important agreements of agreement control. In 2023, when the CSRC requires domestic enterprises to list overseas through indirect means (agreement control), a major domestic operating entity should be designated as the domestic responsible person and filed with the CSRC. However, the degree of disclosure of filing information and the ease of sharing across regulatory authorities will affect future supervision. Therefore, from the level of The State Council to formulate a sound inter-departmental information sharing mechanism, improve the VIE model information disclosure system, is conducive to reducing the "moral hazard" of new energy enterprises<sup>[9][10]</sup>.

### **5.3 Establish a unified supervision mechanism**

Strengthening and improving modern financial regulation, strengthening the financial stability guarantee system, bringing all types of financial activities under supervision in accordance with the law, and keeping the bottom line of no systemic risks are the primary goals of current financial regulation. However, subject to the lack of regulatory



legislation, the Ministry of Commerce, the CSRC, the People's Bank of China and other relevant regulatory authorities have not yet formed a unified coordination mechanism for the supervision and management of VIE mode. Therefore, on the basis of the information sharing mechanism between the departments of The State Council, the establishment of a unified regulatory mechanism and a division of labor cooperation mechanism from the perspective of administrative regulations is conducive to improving the regulatory efficiency of the VIE model and providing strong regulatory support for new energy enterprises to list overseas.

## References

1. Wang Xue, Yin Zihan, Zhang Xiaoyan. Shall share in the global field of vision development and prospect [J]. Journal of tsinghua university financial review, 2022 (7) : 44-48, DOI: 10.19409 / j.carol carroll nki THF - review. 2022.07.009.
2. Han Jinhong, Chen Rui. VIE offshore listing model and corporate debt financing: Based on empirical evidence of Chinese companies listed in the United States [J]. Modern finance and economics (journal of tianjin university of finance and economics), 2021, 9 (11) : 93-113. The DOI: 10.19559 / j.carol carroll nki. 12-1387.2021.11.006.
3. Gao Junchao. Reasons and characteristics of the establishment of protocol control and the risk of banks acting as channels [J]. Green accounting, 2021 (05) : 47-50. DOI: 10.14153 / j.carol carroll nki LSCK. 2021.05.009.
4. Deng Qizhi. VIE and Overseas Listing of Chinese Internet Companies: A case study of Alibaba [J]. China Business Theory, 2017(17):58-60. DOI:10.19699/j.cnki.issn2096-0298.2017.17.027.
5. Han Jinhong, Ren Huanyan. Motivation, effect and Risk analysis of VIE model listing: A case study of No. 9 Company [J]. An accountant registered in China, 2023 (02) : 111-118. The DOI: 10.16292 / j.carol carroll nki issn1009-6345.2023.02.018.
6. YanJinQiang. An empirical analysis of the risk of cross-border listing the VIE structure [J]. Journal of hebei enterprises, 2023 (4) : 158-160. The DOI: 10.19885 / j.carol carroll nki hbqy. 2023.04.019.
7. Han Jinhong, Xie Huan. Study on the motivation and effect of dual-class Share Structure in VIE model enterprises: A case study of Pinduoduo Enterprises [J]. An accountant registered in China, 2021 (10) : 119-122. The DOI: 10.16292 / j.carol carroll nki issn1009-6345.2021.10.029.
8. Xiong Jinwu, Yu Hao, Hou Guanyu. Research on Regulatory problems and Countermeasures of VIE model from the perspective of Sino-US game [J]. Shanghai Finance, 2022(12):41-52. DOI:10.13910/j.cnki.shjr.2022.12.004.
9. Zuo Changwu, Zhao Huimiao. Game and Regulation of agreement control model in the Context of China Concept stock Crisis [J]. Journal of Xiangtan University (Philosophy and Social Sciences Edition), 2022, 46(05):59-66. DOI:10.13715/j.cnki.jxupss.2022.05.009.
10. Xie Min. Discussion on the Significant impact of VIE structure [J]. Chinese Certified Public Accountants, 2022(08):121-123. (in Chinese) DOI:10.16292/j.cnki.issn1009-6345.2022.08.025.

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

