

Determination of Indirect Expropriation by Host Country IP Measures in ICSID Arbitration

Lijing Wu*, Shuo Wang

School of Humanities and Law, North China University of Technology, Beijing, China

**Corresponding Author*

Abstract: In the context of the dispute over the adaptation of indirect expropriation theory of international investment law to the special attributes of intellectual property, this study focuses on the determination of indirect expropriation of intellectual property measures in the host country in ICSID arbitration, in view of the limitations of traditional standards that do not fully pay attention to the "legal creation" and "public interest carrier" of intellectual property. Through conceptual deconstruction, proposition deduction and theoretical dialogue, this paper constructs a four-dimensional identification framework of "core value destruction - reasonable expectation failure - proportional balance - logical boundary". It is found that the premise of indirect expropriation of intellectual property rights is the substantial destruction of the realization of core value, and the core is the failure of investors' reasonable expectation of the stability of the legal framework. It is necessary to balance public interests and losses through the principle of "true, necessary and balanced" proportion, and the measures should meet the boundary between pertinence and urgency of public interests. **Conclusion** This paper revises the applicable boundary of traditional indirect expropriation theory, integrates effect-oriented and purposive-oriented disputes, and provides an operational identification tool for ICSID arbitration practice.

Keywords: ICSID Arbitration; Host Country's Intellectual Property Measures; Indirect Expropriation; Reasonable Expectation; Principle of Proportionality

1. Introduction

The theory of indirect expropriation in international investment law originates from the

logic of balance between state sovereignty and investors' property rights. Since the establishment of modern investment dispute arbitration mechanism by the Convention on the Settlement of Investment Disputes between States and Other States and between Private Parties (ICSID Convention), its connotation has extended from "direct deprivation of tangible property" to "substantial erosion of investment value by regulatory measures". It has gradually formed three theoretical branches: "effect-oriented", "purpose-oriented" and "proportionality principle". As IPR is incorporated into the definition of "investment" in more and more bilateral investment treaties (BITs), whether the host country's IPR control measures -- such as compulsory licensing for public health purposes, or adjusted IPR protection duration for technological innovation -- constitute indirect expropriation has become the focus of the intersection of international investment law and IPR law: How to adapt the traditional criteria of indirect expropriation to the intangible, public and creative characteristics of intellectual property has not yet formed a systematic response in the academia.

At present, there are three core disputes on the determination of indirect expropriation of intellectual property measures in host country in ICSID arbitration. First, some studies continue the "effect theory" of traditional property, and argue that the "substantial reduction" of intellectual property value is the core of the determination, but do not pay attention to the special category [1] of intellectual property "value dependent on market and innovation"; Second, the other school emphasizes the "purpose theory" that measures do not constitute expropriation as long as they serve the public interest, but ignores the damage [2] of the "generalization" of public interest to the reasonable expectation of investors; Thirdly, in ICSID arbitration practice, the application of proportionality principle is fragmented -- some

arbitral tribunals focus on the "necessity of measures", that is, whether there are less restrictive alternatives, and some focus on the "balance between loss and public interest", resulting in a disconnect [3] between theoretical interpretation and practical application. Existing studies either focus on the indirect expropriation of traditional property, or discuss the international protection of intellectual property in isolation, but fail to respond to the key issue in the cross-field of the two: how the dual attributes of intellectual property, namely "private nature" and "carrier of public interest", affect the identification logic of indirect expropriation? This issue is the core issue of this study.

The theoretical value of this study is that, based on the cross-vision of international investment law and intellectual property law, it integrates the three theoretical branches of indirect expropriation, and reconstructs the recognition standard according to the special attributes of intellectual property, which not only fills the gap in the interpretation of indirect expropriation of intangible property in traditional theory, but also provides more specific theoretical guidance for ICSID arbitration practice. The practical significance of this study is to provide a risk prediction tool for Chinese enterprises' overseas intellectual property investment, and to provide theoretical support for the design of intellectual property and indirect expropriation clauses for China's participation in BITs negotiations.

2. Deconstruction of Concept and Clarification of Connotation

The core dispute of "indirect expropriation" in international investment law is essentially the boundary issue between state control power and investors' property rights -- how to distinguish "reasonable control" from "excessive intervention" when the host country implements control measures based on public interests? This problem becomes more complicated after intellectual property is included in BITs protection as an investment type. The intangible, public and creative characteristics of intellectual property make the applicability of traditional indirect expropriation standards questionable. In order to answer the question of "Determination of indirect expropriation of IP measures in the host country in ICSID arbitration", it is necessary to deconstruct and clarify the core concepts from four dimensions: concept essence,

historical evolution, boundary discrimination and context adaptation.

2.1 Nature of Indirect Expropriation: a Balancing Tool between Regulatory Power and Property Rights

Indirect expropriation in international investment law is not a legal act of "direct deprivation of property", but a substantial erosion of "reasonable expectation" and "value realization" of investment by the state through regulatory measures. In essence, indirect expropriation is "non-ownership transfer regulatory damage": it does not change the legal ownership of investors to property, but through administrative licensing restrictions, legal framework adjustment and other ways, so that the investment "use, income or disposal right" can not be realized [4].

2.2 Historical Evolution of Indirect Expropriation: from "Effect-Oriented" to "Proportional Balance"

The concept of indirect expropriation originated from the "nationalization wave" in the mid-20th century. Expropriation in early international investment law referred only to "direct nationalisation" and focused on "the issue of compensation for direct expropriation". But as globalization has advanced, state regulation has shifted from "direct expropriation" to "indirect intervention" -- such as tax adjustments, environmental standards, and restrictions on intellectual property licensing -- which can significantly reduce the value of investments without transferring ownership. In this context, the concept of "indirect expropriation" first appeared in the ICSID arbitration practice in the 1980s. For example, in the case of *Salini Costruttori S.p.A. v. Kingdom of Morocco*, the arbitral Tribunal for the first time adopted "material value derogation" as the core criterion for determining indirect takings. After 2000, with the increasing weight of "public interest" in international investment law, the arbitral Tribunal began to introduce the "purpose-oriented" standard. If the measure is for "public interest", such as environmental protection and public health, it does not constitute indirect expropriation even if it causes losses to investors [5]. In recent years, the "proportionality principle" has gradually become the mainstream: the arbitral tribunal needs to comprehensively examine the "reasonability of the purpose of the

measure", the "substantiality of the loss" and the "balance of the public interest" [6]. In *Philip Morris v. Uruguay*, the Arbitral Tribunal held that although Uruguay's tobacco packaging control measures had damaged the value of Philip Morris's trademark, they did not constitute indirect collection because they served public health and the "necessity" and "balance" of the measures were satisfied. The evolution of indirect expropriation is clear: the determination of indirect expropriation has changed from "single effect judgment" to "multi-dimensional balance", and its core is always "the dynamic balance between state control and investor protection".

2.3 Adaptation of Research Context: The Reconstruction of Indirect Expropriation Standards by Intellectual Property Attributes

To determine the indirect expropriation of IP measures in the host country in ICSID arbitration, it is necessary to incorporate the special attributes of IP into the adjustment of traditional standards. The core of the reconstruction is two aspects: first, the expansion of "reasonable expectation". For IPR investment, the "reasonable expectation" of investors not only includes the economic expectation of "return on investment", but also includes the institutional expectation of "stability of IPR legal protection". For example, if an investor invests USD 1 billion to develop a cancer drug based on the host country's legal framework of "patent protection period of 20 years", if the host country suddenly shortens the patent term to 10 years, this measure directly destroys the investor's reasonable expectation of "legal framework stability" -- even if there is no direct deprivation of property, it may also form the premise of indirect expropriation.

Second, the refinement of the "proportionality principle". Since intellectual property rights bear public interests, the arbitral tribunal needs to examine "necessity of measures" and "balance of interests" more strictly: first, "authenticity of public interests" -- it needs to prove that measures really serve urgent public interests; Second, "necessity of the measure", which requires proof that there are no less restrictive alternatives; And third, "balance of interests" -- demonstrating that the gains to the public interest outweigh the losses to investors. For example, in the case of *Bayer v. Canada*, Canada imposed a compulsory license on a drug from

Bayer on the grounds of "public health". After review, the arbitral tribunal held that Canada had not tried to negotiate a voluntary license with Bayer, and the scope of the compulsory license was far beyond the needs of public health, so it was found to constitute an indirect levy [7].

To sum up, the essence of indirect expropriation is "the balance between the power of regulation and property rights", and its historical evolution is the upgrading of the judgment standard from "single to multi-dimensional". However, the special nature of intellectual property requires ICSID arbitration to "contextualize the reconstruction" of the traditional standard -- this concept is deconstructed, which is the subsequent "determination standard of indirect expropriation of intellectual property measures in ICSID arbitration". Which laid the core theoretical foundation.

3. IPR Measures in ICSID Arbitration Constitute the Determining Elements of Indirect Expropriation

In international investment law, the essence of indirect expropriation is the substantive erosion of the state control power on the "reasonable expectation" and "value realization" of investors' property, while the "legal creation" and "public interest carrier" of intellectual property. Therefore, the determination of indirect expropriation of intellectual property measures in host countries should be carried out around the logical chain of "destruction of core value -- failure of reasonable expectation -- balance of public interest". This logical chain is not an isolated theoretical derivation, but a reconstruction of traditional indirect expropriation standards based on the special attributes of intellectual property. Each step of the logical chain needs to respond to the core contradiction between "boundary of control rights" and "protection of property rights".

3.1 Destruction of Core Value is the Premise of Indirect Expropriation

The "legal creation" of intellectual property determines that its value completely depends on the "exclusivity" or "specificity" granted by the law. The core value of patent is "the right to profit from the exclusive market", trademark is "the right of brand premium to distinguish itself from competitive products", and copyright is "the exclusive right of reproduction and distribution". Different from tangible property

such as plant and equipment, the "value realization" of intellectual property does not depend on the possession of physical form, but on the protection of "exclusivity" by the legal framework. Therefore, the premise for the host country's IPR measures to constitute indirect expropriation must be the material destruction of the "core value realization" of IPR. This is because if the measures do not touch "exclusivity" and only increase the operating cost of the investment, the investor can still realize the value by adjusting the operating strategy, and it does not constitute indirect expropriation. However, if the measures directly destroy the "exclusivity", such as the compulsory licensing of a cancer drug patent, allowing other enterprises to produce for free, resulting in the loss of the core profit right of the patent, then the "value realization" of intellectual property rights will be completely blocked, and the premise of indirect expropriation will be established.

3.2 Failure of Reasonable Expectation is the Core Criterion for Indirect Expropriation

It can be further inferred from the basic proposition that the determination of indirect expropriation should take "failure of reasonable expectation of investors" as the core, because the "reasonable expectation" of intellectual property investment includes not only the expectation of "economic return", but also the expectation of "stability of legal framework". The reason why investors are willing to invest huge sums of money to develop patents and cultivate trademarks is based on their trust in the "continuous and effective legal protection" of host countries. For example, a multinational pharmaceutical company invests \$1 billion to develop a new antibiotic because the patent law of the host country stipulates that "drug patents are protected for 20 years", and investors expect to recover their costs and make profits by monopolizing the market within 20 years. If the host country suddenly implements compulsory license in the fifth year after the patent is approved, and other enterprises produce the antibiotic free of charge, the investor's expectation of "stability of legal framework" will be completely destroyed, and the investor's expectation of "economic return" will also be disappointed. In this case, even if the investor still has the legal ownership of the patent, its core value can no longer be realized -- this

"failure of reasonable expectation" is the core criterion for indirect expropriation. The ICSID case of *Monsanto v. Mexico* illustrates this logic: Monsanto invested in the development of new insect-resistant seeds based on Mexico's commitment to the protection of "genetically modified seed patents", and later Mexico banned the sale of these seeds on the grounds of "protecting indigenous agriculture". The tribunal held that Mexico's measure was not based on the urgent need of "public health" or "environmental protection", but to protect the competitive interests of local enterprises, which directly undermined Monsanto's reasonable expectation of "stability of legal protection", so it was found to constitute indirect expropriation [8]. This shows that "failure of reasonable expectation" is more explanatory than the traditional "effects-oriented" determination of indirect expropriation of intellectual property measures, because the value of intellectual property is more dependent on the stability of the legal framework than on the possession of physical form.

3.3 Public Interest Defense should be Balanced by the Principle of Proportionality

The standard of "failure of reasonable expectation" is not absolute, but should be balanced with the "public interest" defense. This seems to be a contradiction, but in fact it is two sides of the same balance logic. International investment law recognizes the state's right to regulate in the public interest, but the exercise of this power requires three conditions: the public interest is "real and urgent"; The measures are "necessary"; The "gain" in the public interest outweighs the "loss" to investors. If all three conditions are met, the "public interest" defense is established and the measure does not constitute indirect takings; If it is not, it may still be. Therefore, the Tribunal finds that it does not constitute indirect expropriation. This dialectical relationship shows that it is necessary to achieve a balance between "public interest" and "investor loss" through the principle of proportionality. When public interest is sufficiently urgent and measures are necessary, reasonable expectations of investors should give way to public interest. Otherwise, it is necessary to give priority to the protection of reasonable expectations of investors.

3.4 The Pertinence of the Measures and the Urgency of the Public Interest Limit the

Scope of Application

The application of the above proposition should be strictly limited to "the pertinence of the measures" and "the urgency of the public interest" - if the measures of the host country are "universal" and "the public interest is not urgent," it will not constitute indirect expropriation even if it causes losses to investors. This is because universal measures are "reasonably foreseeable" by investors at the time of investment. For example, the host country has adjusted the patent law to shorten the protection period of all pharmaceutical patents from 20 years to 15 years. This is a universal measure for all investors. Investors should be able to anticipate the possible adjustment of the law when investing, so their "reasonable expectations" are not disappointed; Targeted measures, such as compulsory licensing only for a foreign investor's patent, go beyond the scope of "reasonable foresight" and easily constitute indirect expropriation. At the same time, if the public interest is not urgent, such as shortening the patent term to promote "technological innovation", but there is no specific public health or environmental need, then the "necessity" of the measure is not established and does not constitute indirect expropriation. In *Pfizer v. Brazil*, Brazil reduced the protection period of a drug patent from 20 years to 15 years in order to promote the "development of the generic drug industry", but the measure was not proved to be "necessary", the development of the generic drug industry was not facing an urgent crisis, and the measure was universal, so the ICSID tribunal held that it did not constitute indirect expropriation. The significance of this boundary restriction is to avoid the "generalization" of indirect expropriation standard -- all intellectual property measures that affect the interests of investors cannot be identified as indirect expropriation, but to distinguish "reasonable regulation" from "excessive intervention" by combining "pertinence of measures" and "urgency of public interest" [9].

4. Dialogue with Existing Theories and Construction of New Perspectives

The limitation of existing theories is essentially the neglect of "the special attributes of intellectual property". The traditional theory of indirect expropriation is mostly based on tangible property, and its core is "physical form of possession or use restrictions", but the

"intangibility", "legal creation" and "public interest carrier" of intellectual property make it fundamentally different from tangible property [10]. Based on the dialogue and criticism of existing theories, this study constructs the identification framework of indirect expropriation for the adaptation of intellectual property attributes, whose core is a four-dimensional integrated perspective of "core value destruction - failure of reasonable expectations - proportion balance - logical boundary": The first dimension is "core value destruction", that is, measures need to destroy the "exclusivity" or "specificity" of intellectual property, which is the premise of indirect expropriation and responds to the "legal creation" attribute of intellectual property. The second dimension is "failure of reasonable expectation", that is, measures need to violate investors' expectation of "stability of legal framework", which is the core of indirect expropriation and responds to the property of "value dependent on legal stability" of intellectual property; The third dimension is "proportional balance", that is, the authenticity, necessity and balance of public interests need to be examined, which is the key to balance the right of control and property rights, and responds to the attribute of "public interest carrier" of intellectual property rights; The fourth dimension is "logical boundary", that is, measures should be targeted and public interests should be "urgent", such as epidemic and major environmental crisis, which is a guarantee to avoid the generalization of standards and responds to the risk that intellectual property rights are "vulnerable to discriminatory regulation".

The innovation of this framework lies in that the special attribute system of intellectual property rights is incorporated into the logic of indirect expropriation, which makes up for the blind spot of intangible property in the traditional theory. Meanwhile, it integrates the effects-oriented and purposive-oriented disputes through the principle of proportion, and provides a clear and operational identification path for ICSID arbitration practice. This "theory-practice" interaction is the core contribution of this study to the intersection of international investment law and intellectual property law.

5. Conclusion and Prospect

Focusing on the core issue of "determination of

host country's indirect expropriation of intellectual property measures in ICSID arbitration", this study clarifies the determination logic of host country's indirect expropriation of intellectual property measures in ICSID arbitration by deconstructing the nature of indirect expropriation, embedding the special attributes of intellectual property, and integrating theoretical disputes, which can be summarized as follows: Based on the premise of "destruction of core value", the core is "failure of reasonable expectation", the public interest is balanced by "proportionality principle", and the scope is limited by "pertinence and urgency". This logical chain not only responds to the special property of intellectual property rights, but also continues the essence of indirect expropriation "balancing control right and property right". It also corrects the applicable boundary of traditional theories, constructs targeted analysis tools, and provides more targeted theoretical guidance for ICSID arbitration practice.

The limitations of this study are as follows: the framework is mainly based on ICSID arbitration practice, and its applicability to other arbitration mechanisms, such as UNCITRAL, needs further verification; At the same time, the reasonable expectation of "stability of legal framework" needs to be refined according to the legal traditions of different countries -- for example, common law countries emphasize more on "stability of precedent", while civil law countries emphasize more on "clarity of statutory law", which will affect the judgment of "reasonable expectation". In the future, we can expand these directions and deepen the research on the intersection of intellectual property and international investment law.

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