

On the Limits of Application of the Modesty Principle of Antitrust Law in the SEP Area

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ABSTRACT

This article focuses on the limits of the application of the modesty principle of antitrust law in the field of standard-essential patents (SEPs), and reveals the dilemmas of its application in the scenario of technology standardisation. The traditional principle of modesty faces the double paradox of "excessive modesty condoning patent hijacking" and "excessive intervention inhibiting innovation" in the field of SEPs. Through theoretical and empirical analyses, the study systematically refutes the theoretical claims of market autonomy, contractual substitution and technological neutrality, and argues for the legitimacy of antitrust law intervention. The study finds that normative ambiguity, market structure alienation and interest imbalance are the core causes of the unclear boundary of modesty. Accordingly, the study proposes countermeasures to construct a reasonable intervention framework from the perspective of legislative theory by introducing the "safe harbour rule" and targeted legislation; improve the multi-dimensional analysis method from the perspective of interpretative theory by determining monopolistic behaviours through progressive analysis, clarifying the calculation criteria of the FRAND rate, and finally achieving a dynamic balance between innovation incentives and competition protection.

KEYWORDS

Antitrust law; Principle of modesty; Standard-essential patents

1 Introduction: the paradox of the application of the principle of modesty in SEP regulation

In the deep evolution of the digital economy, the integration of technical standards and patents is constantly reshaping the competitive landscape of the market. As a typical carrier of "publicisation of private rights", the anti-monopoly regulation of standard essential patents (SEPs) has always been facing institutional conflicts: patent law emphasises the protection of exclusive rights, while anti-monopoly law takes the maintenance of free competition as its mission, and the conflict of values between the two usually erupts in the ambiguous zone of the FRAND principle. In this particular context, the contradiction between strengthening intellectual property protection to stimulate innovation and applying anti-monopoly law to maintain the order of market competition has become more and more acute. From the perspective of innovation protection, the exclusive right granted to SEP right holders for a certain period of time in the intellectual property law aims to compensate for their huge investment in the R&D process and encourage more enterprises and researchers to devote themselves to technological innovation activities. However, the antitrust law is more concerned with the fairness and effectiveness of market competition, preventing enterprises from disrupting the order of competition by virtue of their dominant position in the market or by abusing intellectual property rights, to the detriment of the interests of consumers and the overall welfare of society.

1.1 The original meaning of the principle of modesty

The principle of modesty in antitrust law stems from the legal system's respect for the market's ability to self-regulate, and its central tenet is that "antitrust enforcement should exercise the necessary restraint and intervene only when the market mechanism has failed significantly". This principle is crystallised in traditional antitrust practice through the "principle of reasonableness", which requires enforcement agencies to weigh the complex economic effects of suspected monopolistic conduct. This principle is mainly reflected in the fact that in general commodity markets, when the competitive behaviour of enterprises does not cause substantial damage to the market structure, the antitrust law usually chooses to "stand by", and it should try to allow market players to develop independently in a free competitive environment. This approach of restrained intervention aims to avoid excessive legal regulation that inhibits market dynamics and thus hinders the incentives of enterprises to innovate and develop.

1.2 Focal points of conflict under the SEP domain

This principle in the field of standard essential patents (SEP) presents a very different institutional logic: first of all, the patent standardisation process to give private rights to the de facto public goods attribute, SEP holders by virtue of the "technological lock-inEffect" can easily obtain ultra-market dominance ; on the other hand, the FRAND commitment to balance the interests of the right holders and the implementers, but its fuzzy On the other hand, although the FRAND

commitment tries to balance the interests of the right holder and the implementer, its vague contractual attributes are difficult to effectively restrain opportunistic behaviour. This tension has evolved into a dilemma for the application of the principle of modesty in judicial practice - when the antitrust law is overly modest to intellectual property rights, patent hijacking will erode the dividends of technological diffusion; and over-intervention may inhibit the innovation momentum of standard-setting organisations, which is in order to an urgent need to clarify the boundaries of the application of the principle of modesty .solve this problem.

2 Responding to Criticisms: Theoretical Discernment of the Modest Application of Antitrust Laws

The current controversy over the intervention of antitrust law in SEP regulation is mainly based on the theoretical presuppositions of systemic substitutability and self-healing power of the market which ,advocate that antitrust law should maintain absolute modesty. As this claim is under the surface logic of self-consistencydeeply flawed , this part of the paper typologises the core challenges, and combines legal economics theoretical analysis of and transnational judicial practice to provide a justification for the necessary intervention of the antitrust law.

2.1 Typological sorting of questioned views

Current challenges to antitrust intervention in SEP regulation can be attributed to three types of theoretical propositions: the absolute modesty theory, the functional substitution theory, and the technology-neutral theory. Although these three types of arguments have different perspectives, they share the same underlying logic - that is, the market autonomy mechanism and the existing legal tools are sufficient to deal with the competition risks arising from SEP, and the intervention of antitrust law may disrupt the dynamic balance between technological innovation and standardisation. In order to identify the essence of the dispute, it is necessary to systematically deconstruct their core propositions and argumentation systems.

2.1.1 Market regulation theory

The main connotation of this view is that the market mechanism has the ability of self-correction, and antitrust intervention should be strictly limited. Its core logic lies in the fact that the compulsory licensing system and reasonable use rules in patent law can effectively prevent SEP right holders from abusing their rights; at the same time, the FRAND commitment of standard essential patents, as a contractual obligation, is sufficient to constrain the licensing behaviour of the right holders. This view over-idealises the regulatory function of intellectual property law and ignores the inherent defects of the market mechanism in the SEP field.

2.1.2 Functional substitution theory

This view holds that the FRAND commitment, i.e., the contract law perspective, is sufficient to solve the problem of SEP abuse and that the intervention of antitrust law is purely superfluous. Its main arguments include: FRAND commitment, as the core principle of standard essential patent licensing, has been widely recognised through the rule system of standard-setting organisations (SSOs) and industry practices; under the contractual framework, SEP licensing disputes can be properly resolved through private remedies such as negotiation and arbitration. This view underestimates the complexity and market impact of SEP abusive behaviour and ignores the limitations of contractual remedies in the face of structural market failures.

2.1.3 Technological Neutrality

The theory stresses that antitrust intervention would distort the normal operation of standard-setting organisations, and advocates maintaining "legal neutrality" in the technical field. The core of the theory is that the standard-setting process is highly professional and technical, and the intervention of antitrust law may interfere with the selection and promotion of technical standards; technological innovation in the SEP field needs a stable legal environment, and excessive antitrust intervention will inhibit the enthusiasm of enterprises to participate in standard-setting.

2.2 The unfolding of systematic rebuttals

2.2.1 Theoretical analysis of legal economics

According to the economic theory - Coase's Theorem: In the case of zero transaction cost, market players can achieve optimal allocation of resources through voluntary negotiation. However, the reality is that SEP licensing involves complex

technology evaluation, rate negotiation, etc., which requires a lot of time and money for negotiation, which also leads to the assumption of Coase's Theorem cannot be satisfied. In addition, standard implementers may face a "patent jungle" of licensing demands from multiple SEP rights holders, which further increases the complexity and cost of the transaction. In this case, the market mechanism is difficult to achieve the optimal allocation of resources spontaneously, and the intervention of antitrust laws is necessary to correct the market failure.

2.2.2 Extraterritorial evidence of judicial practice

With regard to in the SEP area antitrust regulation, extra-territorial judicial practice has profoundly confirmed the necessity of dynamic application of the principle of modesty of antitrust law. For example, the 2017 case of the US Federal Trade Commission (FTC) v. Qualcomm Incorporated fully demonstrated the necessary complementary function of the antitrust law in the field of SEP. Qualcomm's seemingly reasonable "no licence, no chip" business model was by found to be an abuse of market dominance the FTC under the Sherman Act, which demonstrates the necessity of antitrust intervention in this area. In addition, Germany has added a "SEP injunction review" provision in Article 19 of the Anti-Restriction of Competition Act amended in 2021, which requires the court to assess whether the right holder has complied with the FRAND obligation when reviewing the application for injunction and to consider the economic impact of the injunction on the licensee. For example, in *Deutsche Telekom v. Huawei*, the court rejected Deutsche Telekom's request for an injunction on the basis of the new provision, on the grounds that it had failed to prove that the licence conditions complied with the FRAND principle. This legislative orientation not only safeguards the legitimate rights and interests of SEP right holders, but also prevents the abuse of rights through procedural control, reflecting the refined application of the principle of modesty in antitrust law.

3 Causal analysis: a multidimensional deconstruction of the blurred boundaries of modesty

3.1 Institutional deficiencies at the normative level

The dilemma of applying the principle of modesty of the Antimonopoly Law in the field of SEP stems from the in the first place vagueness of norms the legal . of the Antimonopoly Law The ambiguity of Article has posed a hidden danger for the abuse of the principle of modesty⁶⁸, which only stipulates in general terms that "this Law shall be applied to the abuse of intellectual property rights to exclude or restrict competition" without clearly defining the specific forms of "abuse". This legislative gap is particularly fatal in the SEP area - when the right holder exercises the right of exclusion in accordance with the patent law, the boundary of the antitrust law's intervention becomes elusive. For example, in *Huawei v. IDC*, the court, faced with IDC's licence fee rate of 50 times that of the industry benchmark, rejected the antitrust claim on the basis of insufficient evidence due to the lack of specific determination criteria. The result of this judgement exposes the arbitrariness of the application of law, and reduces the principle of modesty to a tool to avoid the responsibility of judgement. In addition, the dispute over the legal characterisation of the FRAND principle further aggravates the normative conflict. When the standard-essential patents are incorporated into technical standards, whether the FRAND commitment made by the right holder belongs to contractual obligations or statutory obligations also directly affects the application space of the antitrust law. The divergent positions of Chinese courts on this issue can be seen: the Shenzhen Intermediate Court followed the principle of contractual relativity in *OPPO v. Sharp* and required the settlement of FRAND disputes through arbitration; whereas the Beijing Intellectual Property Court broke through the contractual framework in *Huawei v. IDC* and directly applied the Anti-Monopoly Law to conduct a tariff review.

3.2 Structural alienation at the market level

The unique market structure of the SEP sector has fundamentally changed the environment in which the principle of modesty applies, and the "must-pass facility" nature of SEPs has restructured the competitive landscape of the market. In the field of 5G communications, Qualcomm, Ericsson and other enterprises have formed de facto market dominance by virtue of their core SEPs, forming a "bottleneck monopoly" similar to that of public utility operators. This monopoly pattern makes the principle of modesty of traditional antitrust law face a serious challenge - when the market entry is completely dependent on specific patents, the pure market mechanism can no longer achieve the effective allocation of resources. 5G multi-mode technology has spawned the phenomenon of "patent stacking" to exacerbate the market imbalance. 5G equipment needs to be integrated with a combination of multiple sets of SEPs, resulting in a total of 15 per cent of the cost of the whole machine in licensing fees. 5G devices need to integrate multiple SEP portfolios, resulting in licence fees accounting for 15-20 per cent of the overall cost of the device, forcing small and medium-sized manufacturers out of the market. This Matthew effect of "the strongest being the strongest" requires antitrust laws to break away from the traditional modest stance and intervene where necessary.

3.3 Imbalance of interests at the value level

The distortion of the benefit distribution mechanism is the deep-seated cause of the blurring of the boundary of modesty, SEP right holders by virtue of the patent portfolio of the "essential patent pool" advantage in the licensing negotiation to dominate, in contrast to the standard implementers are often faced with the dilemma of "take it or leave it", especially in the mature market where the technical standards are already widespread, it is difficult for implementers to circumvent the licensing obligations through technological substitutions. This disparity of power makes the FRAND principle in practice often reduced to "formal fairness, substantive unfairness" cover. The "patent thicket" effect in the innovation ecosystem is likely to form a vicious circle: in order to cope with the licensing pressure of SEP right holders, standard implementers are forced to carry out defensive patent layout, resulting in a sharp increase in patent density in the technology field. This "patent arms race" not only consumes a lot of innovation resources, but also makes technology research and development fall into the alienation state of "innovation for patent". According to the statistics of the World Intellectual Property Organisation (WIPO), the annual number of applications for 5G standard essential patents has exceeded 100,000, but less than of them are truly technologically innovative 30%. The existence of this phenomenon makes the antitrust law in considering whether to intervene, had to fall into the "protection of innovation" and "inhibit innovation" value paradox.

4 Specific responses: a dynamic calibration mechanism for the limits of the application of modesty

4.1 Legislative theory: building a rational framework for intervention

In response to the problems of normative ambiguity and imbalance of interests revealed earlier, a differentiated intervention system needs to be constructed at the legislative level. Such a system should maintain the elasticity of the law while providing clear behavioural guidelines for market players.

4.1.1 Institutional design of safe harbour rules

Safe harbour rules transform the principle of modesty into an operational legal standard by presetting behavioural boundaries. Specifically, the EU's Regulation on Block Exemption for Technology Transfer Agreements can be used as a reference to establish a "two-track safe harbour": antitrust exemptions for typical licensing behaviours (e.g., transparent rate negotiations) that comply with the FRAND principle; and direct presumptions of illegality for behaviours such as patent hijacking, which seriously harms competition (e.g., unilaterally raising prices by more than 30 per cent over industry benchmarks). This rule design not only avoids excessive intervention in innovation, but also effectively curbs unfair market behaviour.

4.1.2 Specialised legislation Targeting around

When , it is necessary to focus enacting special legislation in this area on three core issues: firstly, to establish a quantitative presumption standard for market dominance, and when the SEP right holder's patent share in a specific standard exceeds 15 per cent, and the HHI index of the downstream market is higher than 2,500, it can be initially determined that it has market control. Secondly, to construct a two-factor model of "technical contribution + market value" for FRAND rates, and to prohibit the use of R&D costs alone as the basis for pricing. Thirdly, designing a "three-stage review system" for injunctive relief, introducing the principle of proportionality in Article 19 of the German Anti-Restriction of Competition Act, and balancing the interests of right holders and public welfare.

4.2 Interpretive theory: refining the multidimensional analysis approach

At the level of legal application, it is necessary to break through the single dimension of traditional antitrust analyses and develop a that is consistent with the characteristics of SEP multidimensional methodology . This methodology should reflect both the specialisation of technical standards and the dynamics of market competition.

4.2.1 Progressive analysis to determine monopolistic behaviour

The determination of monopolistic behaviour should first be completed by the Board of Technical Investigation Officers (BTO) to certify the necessity of the patent and exclude the interference of non-essential patents. Then, through the Herfindahl Index Quantitative Market Control, an antitrust investigation should be initiated when the HHI value exceeds 2,000. Subsequently, the "subjective-objective" standard is used to determine the culpability of the conduct, both to prove the anti-competitive effect and to examine the subjective fault (e.g., intentional concealment of patent

information). Competitive harm is ultimately determined through the "hypothetical monopolist test", and econometric modelling is used to assess the actual impact.

4.2.2 Rules for calculating FRAND rates Clarity

The "comparable agreement method" is currently the most widely accepted method of calculating tariffs, and is on basedthree criteria: the agreement was signed no more than three years ago, it involves the same field of technology, and the licensors have a comparable market position. When multiple comparable agreements exist, 80-120 per cent of the arithmetic average is taken as a reasonable range. In the absence of comparable agreements, the "top-down approach", the "bottom-up approach" and the "industry benchmarking approach" are applied in that order, and a hearing procedure for the reasonableness of the methodology is established for judicial review.

5 Conclusion: seeking a dynamic balance between moderation and intervention

The application of the principle of antitrust law modesty in the field of SEP is essentially a the two value of innovation incentives and competition protectiondynamic game between . The mechanical application of the traditional modesty principle can no longer cope with the systemic challenges in the SEP areaorientations , and the way to break it lies in the construction of the "conditional modesty" paradigm - taking the demand for technological innovation as the benchmark and the market competition situation as the guideline, so as to realise the precision and hierarchy of the antitrust intervention. Looking ahead, with the rise of new technology standards such as meta-universe and 6G, the antitrust regulation in SEP will face more complexity. China needs to seize the initiative in system innovation and international coordination, and should continuously explore new legislative models and actively participate in the rule-making of global standard organisations, so as to promote the establishment of an international soft law system that takes into account technological sovereignty and market efficiency. Only in this way can we realise the symbiosis and co-prosperity between innovation incentives and competition protection in the wave of technological revolution.

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References

- [1] Wang Xianlin. Achieving balance and coordination between intellectual property rights protection and antitrust in the field of standard-essential patents[J]. China Market Regulation Research,2024,(12):5-8.
- [2] NING Lizhi, GONG Tao. The mission of antitrust law of the times in the context of digital economy[J]. Journal of Wuhan University (Philosophy and Social Science Edition),2024,77(05):135-147.DOI:10.14086/j.cnki.wujss.2024.05.012.
- [3] Jiang Huasheng. Research on the normative interpretation and judicial decision of FRAND principle of standard essential patents[J]. Law application,2023,(07):123-137.
- [4] MA Zhongfa, ZENG Xinkun. Typology of Standard Essential Patent Licensing and China's Response[J]. Electronic Intellectual Property Rights, 2022,(12):94-107.
- [5] Jiao Haitao. The nature of the "safe harbour" system for monopoly agreements and the repair of norms[J]. Global Law Review,2023,45(06): 63-79.
- [6] NING Lizhi, GONG Tao. The FTC v. Qualcomm antitrust case from a doctrinal perspective[J]. WU International Law Review,2021,5(04):119-138. DOI:10.13871/j.cnki.whuirl.2021.04.011.
- [7] Kong Xiangjun. On the Modest Application of Antitrust Law - An Analysis Based on General Enforcement View and Specific Methodology[J]. Law Review,2022,40(01):31-42.DOI:10.13415/j.cnki.fxpl.2022.01.003.
- [8] Jiao Haitao. The nature of the "safe harbour" system for monopoly agreements and the repair of norms[J]. Global Law Review,2023,45(06): 63-79.