

THE CHINESE MODEL OF ANTI-MONOPOLY LAW REGULATION ON DATA MONOPOLY BY SUPER PLATFORMS

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Novel competitive patterns of super platforms have posed challenges to anti-monopoly law, which necessitate both theoretical innovation and practical institutional development. Academia has articulated theories such as the right to data portability, data essential facilities doctrine, data public utility, and data sharing as jurisprudential foundations for super platform data anti-monopoly. However, given the precision required in anti-monopoly regulation, the appropriate theory must be selected based on the specific type of super platform data monopoly conduct. In developing a Chinese solution, the principle of active, inclusive and prudent regulation should be established first, followed by rationalizing the relationship among ex-ante regulation, in-process regulation, and ex-post regulation. Second, regarding the typology of data monopoly, the classification model distinguishing element-type data monopoly conduct from market-type data monopoly conduct offers both factual rationality and normative effectiveness, and should serve as the foundation for China's typology of data monopoly conduct. Third, anti-monopoly rules for market-type data monopoly conduct should be constructed, the adaptability and effectiveness of typological relief measures should be enhanced, and opportunities for applying data anti-monopoly remedies to address data monopoly conduct should be increased.

I. INTRODUCTION

Super platforms¹ utilize characteristics such as multi-sided markets, network effects, economies of scale and lock-in effects to gain competitive

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1 On October 29, 2021, the State Administration for Market Regulation published the *Guidelines for the Classification and Grading of Internet Platforms (Draft for Comment)*, which divide platforms into super platforms, large platforms and small and medium-sized platforms. A super platform is defined as one that simultaneously possesses ultra-large user scale, ultra-wide business categories, ultra-high economic size and ultra-strong restriction capacity. Ultra-large user scale means that the platform's annual active users in China in the preceding year are no less than 500 million; ultra-wide business categories mean that the platform's core business involves at least two types of platform businesses, covering six areas including online sales, life services, social entertainment, information and news, financial services and computing applications; ultra-high economic size means that the platform's market value (or estimated value) at the end of the preceding year is no less than 1 trillion yuan; ultra-strong restriction capacity means that the platform has an exceptionally strong ability to restrict merchants from reaching consumers (users).

advantages in the market and form a new competition pattern centered on ‘data’,² making it an urgent need to address the theoretical innovation and institutional improvement of anti-monopoly law. In terms of theoretical innovation, although academia has elaborated on the anti-monopoly values of the theory of the right to data portability, the data essential facilities doctrine, the data public utility theory and the data sharing theory, in-depth research is still required on the data monopoly conducts to which these theories apply. In terms of institutional improvement, the anti-monopoly regulation of data monopoly by super platforms was once a controversial issue.³ China has intensified anti-monopoly supervision over data monopoly conducts in the platform economy sector since 2021. Landmark cases represented by *Tencent Holdings Limited’s Acquisition of China Music Corporation*⁴ and *CNKI’s Abuse of Dominant Market Position*⁵ have sent a clear anti-monopoly signal, aiming to protect the order of fair competition.

The typologization of data monopoly conducts by super platforms is the key to constructing an anti-monopoly regulatory system.⁶ Academic views vary on the typologization of platform data monopoly conducts. Some argue that platform anti-monopoly urgently needs to address the issue of concretization rather than typologization, and should focus on solving the problem of ‘proper categorization’ of platform monopoly.⁷ Some propose dividing data monopoly into two types: ‘data monopoly’ and ‘monopoly based on data’.⁸ The former refers to monopoly conducts that form exclusive control or dominance over data itself, while the latter emphasizes that operators, though not directly monopolizing data, exclude or restrict competition in the relevant market by virtue of the data resources they hold. Some propose dividing data competition conducts into two types: ‘direct data competition conducts’ and ‘indirect data competition conducts’.⁹ For ‘direct data competition conducts’, the legality of data ownership and market dominance should be combined, and relevant theories are applied to judge competitive harm. For ‘indirect data competition conducts’, focus should be placed on the enabling effect of data conducts on competitive outcomes, and

2 See Wang Xianlin, *International Observation and Domestic Consideration of Digital Platform Anti-Monopoly*, 5 *Journal of University of Chinese Academy of Social Sciences* 50 (2022).

3 See Ye Weiping, *China’s Choice of Analytical Models for Its Anti-Monopoly Law*, 3 *Social Sciences in China* 97 (2017).

4 See No. 67 Administrative Penalty Decision of the State Administration for Market Regulation of 2021.

5 See No. 87 Administrative Penalty Decision of the State Administration for Market Regulation of 2022.

6 See Jiang Shan, *On the Structured Categorization of Monopolistic Conducts*, 2 *Business and Economic Law Review* 49 (2021).

7 See Kong Xiangjun, *The Orientation of the Anti-Monopoly Law Concerning Internet Platform from a Macro-Perspective: An Analysis Based on Politics, Policy and Legislation*, 2 *Journal of Comparative Law* 103 (2021).

8 See Mei Xiaying & Wang Jian, *The Theoretical Response to the Dispute over the Falseness and Truth of the Proposition of ‘Data Monopoly’*, 5 *Legal Forum* 96 (2021).

9 See Ma Xianru, *Typological Reconstruction and Legal Regulation of Data Competition*, 3 *Studies in Law and Business* 47-48 (2024).

data elements are brought into the scope of review for statutory monopoly types.

Based on the rational foundation and methodological function of the typologization of data monopoly conducts, drawing on the typologization experience of the Internet clause in the *Anti-Unfair Competition Law of the People's Republic of China*, and taking into account the possibility of combination and concurrence among data monopoly conducts by super platforms, or between such conducts and traditional monopoly conducts, this paper divides data monopoly conducts into element-type data monopoly conducts and market-type data monopoly conducts. Element-type data monopoly conducts refer to those that play a key role in the implementation of traditional monopoly conducts, manifested as excluding or restricting competition in the traditional market through data control. Articles 9 and 22(2) of the *Anti-Monopoly Law of the People's Republic of China* (hereinafter referred to as the Anti-Monopoly Law) have both incorporated element-type data monopoly conducts. Market-type data monopoly conducts are those that, as key elements of the data market, exclude or restrict competition in the data market. The anti-monopoly application of market-type data monopoly conducts follows the anti-monopoly rules for element-type data monopoly conducts.

II. CHARACTERISTICS OF SUPER PLATFORM DATA MONOPOLY

Element-type data monopoly conducts empower traditional monopolies through data and intensify data's dominant role in traditional markets, requiring due consideration of the weight of the data element. In contrast, market-type data monopoly conducts have broken through the traditional analytical framework and posed a challenge to the current anti-monopoly law.

Super platform data monopoly is a new form of monopoly implemented by virtue of digital technologies, which excludes and restricts competition through such conducts as link blocking, data locking, data incompatibility, traffic restriction and search demotion. On the one hand, super platforms leverage their data advantages to create closed ecosystems for user control, weakening users' right to choose and the boundaries of market competition; on the other hand, super platforms use digital technologies to exclude and restrict potential competitors, undermining the interoperability of data and distorting the effective allocation of data elements.¹⁰ Super platforms are characterized by dynamic competition, cross-boundary competition and ecosystem competition, all driven by data, which have transformed the paradigm of market

10 See Yang Dong & Li Zishuo, *On the Reconstruction of Anti-Unfair Competition Law: Taking the Data Element Regulation System as the Core*, 11 *Journal of Law Application* 22 (2022).

competition. Analyzing the characteristics of their data monopoly aims to provide a jurisprudential foundation and institutional framework for effectively identifying, assessing and curbing various types of data monopoly conducts.

A. Data Monopoly Characteristics in Super Platform Dynamic Competition

In the digital era, data is both a key factor of production and a core element of competition. Competition among digital platforms can be divided into two forms: static competition and dynamic competition. Static competition centers on price and output and is based on the market's Structure-Conduct-Performance (SCP) paradigm, while dynamic competition is a form of competition driven by innovative technologies.¹¹ Traditional anti-monopoly law is built on the theory of static competition, focusing on preventing the net loss of social welfare caused by the entrenchment of market power.¹² By contrast, data-driven dynamic competition emphasizes the criteria of market structure and competitive process, with a focus on innovation efficiency and long-term dynamic benefits. The Anti-Monopoly Law has positively responded to element-type data monopoly conducts, yet has not fully addressed market-type ones.

1. Data Monopoly Characteristics at the Strategic Level of Dynamic Competition. — Dynamic competition is the fundamental form of competition for super platforms, directly determining their survival and development. Centered on big data, it provides an informational foundation for economic activities. Super platforms must secure competitive advantages through strategic adjustments, which is embodied specifically in their capacity to acquire, process and control big data. Big data empowers super platforms to adapt agilely to the rapidly changing market environment and optimize their organizational structures and business processes. The high intensity and high risks of dynamic competition compel super platforms to lean toward data locking in order to safeguard their competitive security and avoid the loss of advantages arising from the outflow of data resources. They typically erect data barriers through such means as link blocking, data incompatibility, the 'choose-one-of-two' practice and killer acquisitions. This not only reflects a self-protection logic of evading the 'law of the jungle in the data sphere', but also exposes the inherent tendency of super platforms to distort the digital market in their effort to consolidate competitive positions in the absence of effective regulation.

11 See J. Gregory Sidak & David J. Teece, *Dynamic Competition in Antitrust Law*, 5 *Journal of Competition Law & Economics* 605 (2009).

12 See Sheng Jiemin & Yuan Zhujie, *The Dynamic Competition Perspective and the Orientation of China's Competition Legislation*, 2 *China Legal Science* 21 (2002).

2. Data Monopoly Characteristics at the Risk Level of Dynamic Competition. — At the risk level, data monopoly by super platforms presents the characteristics of ‘replacing price with data and uncertainty with prediction’. Super platforms internalize data resources as exclusive essential facilities and continuously raise the marginal costs for new entrants, rendering them unable to meet the standards required for effective competition. In this way, they convert the temporary competitive advantages in dynamic competition into enduring market dominance through data self-reinforcement, shift market uncertainty onto competitors and consumers, and achieve the effect of ‘reducing their own operational risks through data monopoly and consolidating market positions by externalizing competitive risks’.¹³ Such conduct satisfies the substantive elements of ‘excluding or restricting competition’ under the Anti-Monopoly Law.

3. Data Monopoly Characteristics at the Intensity Level of Dynamic Competition. — At the intensity level, data monopoly by super platforms is no longer the entrenchment of static market shares, but rather the compression of the ‘discovery-decision-iteration’ cycle to a threshold unattainable for competitors by virtue of real-time data: algorithms update demand curves on a second-by-second basis, capital reallocates resources instantly in light of such data, and while potential competitors have yet to complete customer validation, super platforms have locked future demand into their own ecosystems through predictive pricing. Once such a three-dimensional advantage of ‘time-data-algorithm’ accumulates intertemporally, a lock-in effect is formed. Therefore, anti-monopoly law should incorporate the ‘difference in data acquisition speed’ into the Hypothetical Monopolist Test (SSNIP). Once a super platform is found to have obtained market dominance by virtue of such dynamic advantages and the data in its possession constitutes an essential facility, the platform may be compelled to open its raw or derived data on fair, reasonable and non-discriminatory terms, breaking the shackles of data enclosure and safeguarding the order of fair competition.

B. Data Monopoly Characteristics in Super Platform Cross-Boundary Competition

In the evolution of digital platform ecosystems, cross-boundary competition is a dynamic competition paradigm that takes data as the key input, network externality as the transmission mechanism, and multi-market

¹³ See Maurice E. Stucke, *Addressing Personal Data Collection as Unfair Methods of Competition*, 38 Berkeley Technology Law Journal 737 (2023).

leverage as the strategic tool.¹⁴ By virtue of their exclusive control over large-scale, high-dimensional and real-time data, super platforms form a cross-market and cross-industry closed loop of ‘data-algorithm-computing power’, converting their data advantages into market-dominant power. Through transmission effects, they achieve market foreclosure, user lock-in and competitor exclusion across different market tiers, thus weakening competition. This paradigm places traditional relevant market definition tools focused on price and centered on supply-side substitution analysis in a dilemma. It is therefore necessary to introduce a demand-side and multi-sided market analytical framework centered on data acquisition capability, competition for user attention, and the intensity of platform ecosystem control to accurately assess market dominance and competitive constraints.

1. Data Monopoly Characteristics at the Level of Diversified Cross-Boundary Competition. — Diversified competition means that super platforms enhance their overall competitiveness by entering new markets while maintaining competitive advantages in their core businesses. As a special form of diversified competition, cross-boundary competition forges direct competitive relations among digital platforms that originally had no substitutive ties. In the process of cross-boundary competition, super platforms may form business ecosystem networks through cooperation, which complicates the data-driven definition of relevant markets and poses challenges to traditional definition methods centered on substitution analysis. There is an urgent need for theoretical and practical innovation to respond to the new situation of blurred market boundaries and multi-dimensional competition under cross-boundary competition.

2. Data Monopoly Characteristics at the Level of Cross-Boundary Competition Transmission. — Cross-boundary competition is a form of transmissive competition. On the one hand, by expanding into new fields across boundaries, super platforms transfer their advantages in competitive strategies, technological innovation, user data, data processing capabilities and network effects to these new areas, forming cross-boundary advantages and market dominance.¹⁵ On the other hand, data transmission acts as a leverage. By collecting, integrating and analyzing user data, super platforms gain an in-depth grasp of user demands, behavioral patterns and consumption habits. In transmissive competition, super platforms may provide data support only to specific partners, creating data barriers. They may also abuse

14 See Lu Yan & Qu Chuang, *A Study on Cross-Border Competition of Internet Platforms and Its Regulatory Countermeasures*, 6 Shandong Social Sciences 112 (2019).

15 See Hou Liyang, *Variation of and Response to Monopoly Conduct from the Perspective of the Development of Platform Model*, 1 Chinese Journal of Law 191 (2024).

their data advantages to form a transmissive monopoly pattern characterized by ‘data enclosure’ and ‘winner-take-all’.

3. *Data Monopoly Characteristics at the Level of Externalities of Cross-Boundary Competition.* — The externality of super platforms’ cross-boundary competition is a type of network externality, also known as network effect, referring to the phenomenon that the value of a product or service increases with the growth in the number of users who use it. It can be divided into direct network externality and indirect network externality.¹⁶ Direct network externality means that the value a user derives from a product or service depends directly on the number of other users of the same product or service. This increase in user value created directly by the participation of other users gives super platforms an oligopolistic tendency of ‘winner-take-all’.¹⁷ Indirect network externality means that the value a user obtains from a product or service depends indirectly on the behaviors or outcomes generated by other users of the same product or service. Super platforms can leverage indirect network externality to build a unique user value experience, enhance user stickiness and gain competitive advantages.

C. Data Monopoly Characteristics in Super Platform Ecosystem Competition

A platform ecosystem is a structural arrangement where platform enterprises set interface rules and open architectures to attract participants, who jointly provide products and services for users.¹⁸ By virtue of their inherent advantages, super platforms feed back into their own development through the analysis of massive user data, achieve substantive control over intra-industry and cross-industry combinations or concentrations, strengthen the multi-sided construction of market power, and maintain the competitive advantages of their ecosystems. Ecosystem competition centered on data is a form of multi-sided, value-oriented and integrative competition.

1. *Data Monopoly Characteristics at the Multi-Sided Level of Ecosystem Competition.* — Ecosystem competition among super platforms represents a form of multi-sided competition, and multi-sided markets are an extension of two-sided markets.¹⁹ In terms of participants, numerous players in the

16 See Wu Xuliang & Liu Yatian, *Platform Competition with Inter-Platform Network Externalities*, 1 *Research on Economics and Management* 72 (2017).

17 See Li Xiliang, *The Antitrust Paradox of Platform Predatory Acquisitions*, 1 *Chinese Journal of Law* 207-208 (2024).

18 See Wang Jiexiang, Chen Weiru & Jiang Shisong et al., *Strategies for Complementors in Platform-Based Ecosystem: The Decoupling of Complementarity and Dependence*, 2 *Journal of Management World* 126 (2021).

19 See Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-Sided Markets*, 1 *Journal of the European Economic Association* 990 (2003).

ecosystem competition of super platforms assume distinct roles, yet super platforms are able to exert substantive control by virtue of their competitive edge. In terms of the scope of competition, ecosystem competition among super platforms involves multi-dimensional competition, forming a composite competitive pattern across relevant product markets and relevant geographic markets. In terms of competitive methods, there exist complex interactive relationships among participants in the ecosystem competition of super platforms, with super platforms occupying a dominant position and governing the rules of competition. In terms of competitive structure, ecosystem competition among super platforms forms a multi-tiered network structure, whose underlying logic is controlled by super platforms through data, the core tool for such underlying control. By virtue of their massive data reserves and data-driven advantages, super platforms erect data barriers that exert a long-term impact on the competitive landscape.

2. Data Monopoly Characteristics at the Value Level of Ecosystem Competition. — Ecosystem competition among super platforms is a competitive form aimed at controlling the ecosystem. The object of its competition is no longer isolated products or services, but the exclusive domination of the ecosystem as a whole. The target of competition is no longer limited to price or output. Instead, super platforms internalize user attention, merchant traffic and third-party innovation achievements into a pool of data assets, which are then rapidly transformed into market entry barriers. In terms of quantity, super platforms exchange users' full lifecycle data at a 'zero price', forming an insurmountable 'data scale threshold' for potential competitors. In terms of quality, through vertical integration of high-stickiness scenarios, they refine data granularity to ultra-dimensional domains such as real-time emotions, location trajectories and biometric identification, weakening rivals' data capabilities. In terms of strategy, by virtue of privacy policies, application programming interfaces (APIs) and most-favored-nation clauses, they distort data circulation from 'horizontal sharing' to 'vertical enclosure', transmit their data advantages to adjacent markets, and achieve a closed-loop lock-in of 'data-traffic-transactions'. This degenerates ecosystem competition into a composite of 'data monopoly' and 'algorithmic monopoly', constituting a new form of abusing dominant market position in the data market.

3. Data Monopoly Characteristics at the Integration Level of Ecosystem Competition. — Super platforms achieve in-depth integration among multiple participants within the ecosystem by constructing dependence-complementarity relationships. On the one hand, super platforms create value for participants, fostering participants' dependence and forming a symbiotic relationship with the platform. Super platforms

act as resource integrators and organizers,²⁰ realizing the efficient allocation and optimal utilization of resources within the platform. On the other hand, each participant has its own advantages, and they achieve value co-creation through complementary relationships. Super platforms hold advantages in basic elements such as technology, data and user base, while participants excel in professional knowledge, innovative applications and high-quality content, forming a complementary effect that enhances the value creation capacity of the ecosystem. In this process, super platforms often restrict participants' data usage rights, leading to the one-way concentration of data resources toward the platform and undermining the free flow of data elements, which falls within the scope of using data to exclude or restrict market competition.

III. RATIONALE FOR ANTI-MONOPOLY REGULATION OF SUPER PLATFORM DATA MONOPOLY

Super platforms have gradually formed a data-centered monopoly pattern. This means that the focus of competition has shifted from 'price' to 'data', which increases the difficulty of regulation. It is imperative to reform the traditional anti-monopoly analytical framework: on the one hand, we should improve the practice of over-reliance on price in defining relevant markets by the SSNIP test, and supplement the consideration of the non-price attributes of data. On the other hand, we should construct an analytical framework centered on 'identification of data element attributes and substantive assessment of data competition impact', incorporate data into the market power assessment system, and introduce the Small but Significant and Non-transitory Decrease in Quality (SSNDQ) and the Small but Significant and Non-transitory Increase in Cost (SSNIC)²¹ to reshape the market competition order under anti-monopoly law in the digital era.

A. Rationale of the Data Monopoly Proposition for Super Platforms

To establish the proposition of data monopoly, the monopolizability of data must first be addressed. The negative view holds that data has non-monopolizable characteristics, and its use does not affect the inherent value of data itself. Even if data is processed by others, the data owner or

20 See Fan Ruguo, *Platform Technology Enabling, Public Gaming and Complex Adaptive Governance*, 12 *Social Sciences in China* 132 (2021).

21 See Ding Maozhong, *Preservation and Reform of Definition of 'Relevant Market' in the Field of Digital Economy*, 7 *Law Science* 188 (2023).

holder can still develop and utilize the data,²² so data cannot be the object of anti-monopoly regulation. The affirmative view argues that super platforms' control over data constitutes a market entry barrier, hinders fair competition, and should therefore be incorporated into the scope of anti-monopoly regulation.²³ Super platforms' control over data has become a major issue affecting the order of market competition. First, they erect market entry barriers, denying potential competitors access to data and squeezing the space for market competition. Second, they directly interfere with users' right to choose and impose mandatory binding on user behavior, weakening the market's self-regulatory capacity. Third, they indirectly harm the legitimate rights and interests of other parties and undermine the fair competition environment.

The views in favor of the monopolizability of data are argued from three aspects: first, it is advocated that big data be separated from general data to construct a typological framework distinguishing between data and big data, with a focus on the monopolizability of big data.²⁴ Second, it is proposed to define the scope of data monopoly by means of typological methods. Some views hold that the impact of big data on market power or monopoly status is complex and cannot be generalized.²⁵ Third, it is suggested to define the types of data monopoly using typological methods. This view argues that anti-monopoly law should fully consider the differences in the types of data monopoly and construct targeted anti-monopoly rules.²⁶

The judgment of whether data is monopolizable does not depend on the inherent attributes or technical characteristics of data itself, but on whether the data controller's conduct in processing data produces effects that exclude or restrict competition. Even if data is characterized by large scale, scarcity or non-substitutability, it does not constitute a monopoly if its acquisition, use or sharing does not substantially harm market competition. Conversely, if a data controller hinders other operators from entering the market and entrenches its dominant market position through refusal to deal, imposition of unreasonable licensing conditions, tying, differential treatment or the exercise of exclusive conduct by virtue of data advantages, such conduct has anti-competitive attributes and shall be subject to anti-monopoly regulation.

22 See Carol M. Rose, *Romans, Roads and Romantic Creators: Traditions of Public Property in the Information Age*, 66 *Law and Contemporary Problems* 90 (2003).

23 See Lina M. Khan, *Amazon's Antitrust Paradox*, 126 *Yale Law Journal* 786 (2017).

24 See Yin Jiguo, *The Internal Logics and External Values of Anti-Trust Regulation in Big Data Market*, 10 *Political Science and Law* 134 (2019).

25 See Ding Xiaodong, *On Data Monopoly: The Jurisprudential Analyzing of Anti-Monopoly from the Perspective of Big Data*, 3 *Oriental Law* 108 (2021).

26 See Su Yu, *The Limits of Administrative Supervision of Platform Data Monopolies*, 6 *Journal of National Prosecutors College* 128 (2022).

The importance of data in anti-monopoly regulation is reflected in three aspects: first, by virtue of big data analysis, super platforms can accurately identify user preferences, develop innovative products and services, and spawn new markets. This requires anti-monopoly law to adopt more complex and dynamic analytical methods when defining relevant markets. Second, super platforms may leverage their data advantages to construct data barriers, exclude or restrict competition, and consolidate their dominant market position. Third, as data replaces price as a key transaction medium, the price-centered harm theory also needs to shift to a data-centered harm theory.²⁷ Therefore, when discussing the fundamental issues of data anti-monopoly, we should formulate corresponding anti-monopoly rules for different types²⁸ to achieve the goal of effective regulation.

B. Theoretical Resources for Anti-Monopoly Regulation of Super Platform Data Monopoly

To address the needs of data anti-monopoly regulation, academia has successively elaborated on the theory of the right to data portability, the data essential facilities doctrine, the data public utility theory and the data sharing theory. Each of these theories has a corresponding scope of application,²⁹ and anti-monopoly law shall select the theory adapted to the specific type of data monopoly conduct, market characteristics and mechanism of competitive harm.

1. Theory of the Right to Data Portability. — Right to data portability refers to the right of individuals to request data processors to transfer their personal information to a designated processor, with the original processor obligated to provide the necessary technical means and assistance to ensure the free transfer of personal information data. Article 45 of the *Personal Information Protection Law of the People's Republic of China* stipulates the right to data portability. It is a new type of right intended to highlight the principal status of individuals, support the free flow of personal information and foster healthy competition among personal information processors.³⁰ The right to data portability not only safeguards individuals' right to self-determination regarding data transfer, but also provides an institutional guarantee for fair competition in the digital domain.

27 See INGE GRAEF, *EU COMPETITION LAW, DATA PROTECTION AND ONLINE PLATFORMS: DATA AS ESSENTIAL FACILITY*, at 290 (Kluwer Law International B.V., 2016).

28 See Wang Tianfan, *The 'Laddered' Model of Digital Platform Regulation: With the EU's 'Digital Services Act' as a Lesson*, 2 *Chinese Journal of European Studies* 50 (2023).

29 See Elettra Bietti, *A Genealogy of Digital Platform Regulation*, 7 *Georgetown Law Technology Review* 1 (2023).

30 See Wang Xixin, *Right to Data Portability and Distributive Justice of Data Governance*, 6 *Global Law Review* 9 (2021).

The right to data portability has unique institutional value in addressing data monopoly by super platforms, opening up a new path for anti-monopoly law. Confronted with the market power formed by super platforms through data locking, traditional anti-monopoly law has fallen into a dilemma, while the right to data portability endows users with the legal right to transfer their personal information across platforms, breaking the existing closed state of data.

Theoretically, users can exercise the right to data portability to freely migrate their personal information across different platforms, which objectively serves to dissolve the data lock-in effect and has an indirect data anti-monopoly function.³¹ In practice, however, the massive number of users of super platforms cannot exercise this right simultaneously, making it impossible to substantially break data locking conducts. Therefore, the right to data portability alone is insufficient to achieve anti-monopoly objectives; potential competitors should obtain access to necessary personal data through direct authorization under competition law to promote fair competition and curb data monopoly conducts.³²

2. Data Essential Facilities Doctrine. — The essential facilities doctrine is an important institution of anti-monopoly law,³³ applicable to the conduct where undertakings with a dominant market position refuse to provide essential facilities to their competitors. The doctrine requires undertakings with a dominant market position not to reject other market participants' reasonable requests for the use of essential facilities without justifiable grounds. In the digital era, certain data resources of super platforms have attained the status similar to 'critical infrastructure'.³⁴ The EU has adopted the data essential facilities doctrine in its legislation, and combined it with the digital gatekeeper system to form an effective legal regime. The *Guidelines of the Anti-Monopoly Commission of the State Council on Anti-Monopoly in the Platform Economy Sector* (hereinafter referred to as the Anti-Monopoly Guidelines) have drawn on the data essential facilities doctrine,³⁵ explicitly incorporating the theory into the anti-monopoly analytical framework and providing a new tool for regulating the data monopoly conducts of super platforms in China.

31 See Li Boxuan, *The Antitrust Effectiveness of the Right to Data Portability: Mechanism, Reflection and Strategy*, 12 *Journal of Social Sciences* 105 (2021).

32 See INGE GRAEF, *supra* note 27, 138.

33 See *United States v. Terminal Railroad Association of St. Louis*, 224 U.S. 383 (U.S. 1912).

34 See Wang Shuai, *Super Platform as Essential Facility and Its Governance of Anti-Monopoly Access*, 5 *Northern Legal Science* 148 (2021).

35 See articles 14 (Refusal-to-Deal Provisions), 20 (Relevant Market Considerations, including the term 'essential facilities'), and 21 (Remedial Measures, including the term 'infrastructure') of the *Guidelines of the Anti-Monopoly Commission of the State Council on Anti-Monopoly in the Platform Economy Sector*.

In the process of anti-monopoly regulation of super platform data monopoly, to characterize data as ‘an essential facility’, four conditions must be met simultaneously: first, the non-substitutability of data is a key factor in judging whether it constitutes an essential facility. When specific data becomes an indispensable key element for undertakings to engage in production and business activities, it may trigger the legal provisions on the mandatory opening of essential data.³⁶ Second, the non-reproducibility of data acquisition means that once an undertaking has exclusive control over relevant data, other competitors can hardly obtain data resources of the same quality or scale through their own development efforts or market transactions, thus forming substantive market barriers.³⁷ Third, if an undertaking refuses to allow others to use the data under its control without reasonable grounds, such conduct may constitute an abuse of dominant market position, in violation of the provisions of anti-monopoly law prohibiting exclusionary conducts. Fourth, whether the opening of data is technically feasible and economically reasonable is also a practical factor for judging its characterization as an essential facility.³⁸ Therefore, in applying the essential facilities doctrine, a comprehensive examination of the relevant market, behavioral effects and reasonable defenses shall be conducted in light of the circumstances of individual cases, so as to avoid unnecessary intervention in the data-driven competitive ecosystem.

3. *Data Public Utility Theory*. — The data public utility theory regards super platforms as public utilities and introduces the regulatory principles of public utilities into the anti-monopoly regulation of super platforms to protect the public interest.³⁹ This theory reflects the positive response of anti-monopoly law to market power in the emerging digital ecosystem,⁴⁰ emphasizing that super platforms not only dominate economically but also exert a profound influence on shaping the public interest, and thus should be regulated as new public utilities⁴¹ to safeguard the public interest.

Traditional anti-monopoly law is price-centered, focusing on the impact of market conducts on price and economic efficiency, whereas super platforms are data-centered, and their monopoly conducts exert a profound impact on

36 See Yuan Bo, *Justification and Approach to Compulsory Sharing of ‘Essential Data’ Under the Anti-Monopoly Law*, 3 *Oriental Law* 147 (2023).

37 See Li Shijia, *On Standard That Data Constitute Essential Facilities: Also Reviewing Amendment to Article 14 of the Guide to Anti-Monopoly in the Field of Platform Economy*, 5 *Journal of Henan University of Economics and Law* 75 (2021).

38 See Sun Yiwu, *On the Data Factor in Anti-Monopoly Law Enforcement of Platform Economy*, 2 *Research on Rule of Law* 118 (2021).

39 See K. Sabeel Rahman, *The New Utilities: Private Power, Social Infrastructure, and the Revival of the Public Utility Concept*, 39 *Cardozo Law Review* 1668 (2018).

40 See Gao Wei, *New Public Utility Theory of Platform Regulation*, 3 *Chinese Journal of Law* 84 (2021).

41 See Sun Qingbai, *On Compulsory Contracting Obligations of Large Platform Enterprises in Data Transactions*, 1 *Peking University Law Journal* 250-251 (2024).

the public interest. Data monopoly by super platforms is not only related to market control but also bears on public welfare, requiring the construction of an adapted anti-monopoly law system. This means anti-monopoly law should shift from mere price regulation to a comprehensive assessment of the overall impact of data monopoly on the market competition ecosystem.

The purpose of introducing the public utility regime is to address the imbalance of power structure arising from super platforms' control of data essential facilities.⁴² Some argue that treating super platforms as common carriers yields better anti-monopoly effects than regarding them as public utilities.⁴³ This is because common carriers, in addition to assuming common carrier obligations, also enjoy legitimate rights to contract. Such institutional design can impose necessary behavioral constraints while avoiding the publicization of data resources caused by excessive intervention, thereby preserving the decisive role of the market mechanism in resource allocation and protecting the legitimate rights and interests of enterprises.

4. *Data Sharing Theory.* — The data sharing theory aims to clarify how to promote fair market competition by establishing an effective data sharing mechanism. The core concern of this theory is to prevent super platforms from forming a data monopoly by virtue of their data resource advantages through data sharing rules, while facilitating the rational flow of data elements and maintaining the order of fair market competition. The data sharing theory advocates the introduction of mandatory data sharing obligations or reasonable transaction obligations to prevent data monopoly conducts by super platforms. Anti-monopoly law enforcement authorities may adopt data remedy measures to require super platforms to fulfill data sharing obligations,⁴⁴ open necessary data interfaces, or directly share part of the essential data.

As a new remedy under anti-monopoly law, the data sharing obligation is gradually becoming a global legislative focus. The EU took the lead in establishing the 'digital gatekeeper' regime in the *Digital Markets Act*.⁴⁵ This regime requires super platforms to ensure data interoperability and break data monopoly. The U.S. has followed suit: not only have the Federal Trade Commission and the Department of Justice intensified anti-monopoly enforcement against data monopoly conducts by super platforms, but Congress has also put forward multiple legislative proposals exploring how

42 See Zhang Chenying, *Anti-Monopoly Regulation of Internet Platforms from the Perspective of Publicness*, 4 Chinese Journal of Law 149 (2021).

43 See Lina M. Khan, *supra* note 23, 710.

44 See Feng Xiaoqing, *Theoretical Interpretation and Construction of Data Propertyization and Its Legal Regulation*, 4 Journal of Political Science and Law 95 (2021).

45 See Xie Zhengshan, *Regulating Digital Gatekeepers: Enhanced Duties for Mega Digital Platforms*, 4 Journal of Comparative Law 178 (2023).

to curb the data monopoly of super platforms through data sharing. China has also recognized the importance of data elements,⁴⁶ and reserved legal space for data sharing obligations in the latest amendment to the Anti-Monopoly Law, aiming to promote the rational flow of data through data remedy measures.

C. Rationale for Choosing the Anti-Monopoly Regulation Model for Super Platform Data Monopoly

Anti-monopoly models for data monopoly are showing a trend of diversification: adaptive fine-tuning of traditional anti-monopoly law, promotion of the industry self-regulation model, and implementation of a stringent regulation model that strengthens constraints by establishing specialized agencies and introducing *ex-ante* regulation.⁴⁷ Each model has its own advantages and disadvantages, and institutional design should be carried out in light of a country's market characteristics and rule-of-law environment.

1. Fine-Tuning Model of Anti-Monopoly Law. — The view supporting the fine-tuning model holds that although the platform economy has brought many challenges, it has not fundamentally shaken the basic institutions of anti-monopoly law. In the face of data monopoly conducts, they can be fully addressed through internal adjustment and adaptive optimization of existing legislation, without the need to reconstruct the basic system of anti-monopoly law.⁴⁸ In fact, the Anti-Monopoly Guidelines have already made institutional arrangements for element-type data monopoly conducts. Although they do not directly stipulate market-type data monopoly conducts, such conducts have been incorporated into the scope of regulation through legal interpretation and case-by-case discretion in practice. In *Tencent Holdings Limited's Acquisition of China Music Corporation* and *CNKI's Abuse of Dominant Market Position*, anti-monopoly authorities all handled market-type data monopoly conducts as element-type data monopoly conducts, reflecting a practical approach to achieving effective regulation through fine-tuning.

2. Industry Regulation Model. — The view supporting the industry regulation model argues that super platforms act as digital gatekeepers and exert a decisive influence on the entry of other undertakings into the sector. Although the Anti-Monopoly Law can regulate the data monopoly conducts

46 See Liu Canhua, *China's Model and Improvement Approaches of the Digital Gatekeeper System*, 13 China Legal Science 96 (2025).

47 See Hou Liyang, *How Should China Make a Choice in the Regulation of Platform Monopoly: Strengthening Anti-Monopoly or Introducing Sector-Specific Regulation?*, 1 Journal of Comparative Law 33-34 (2023).

48 See Zhang Shouwen, *Digital Economy and Theoretical Expansion of Economic Law*, 1 Local Legislation Journal 31 (2021).

of super platforms to a certain extent, it is difficult to fundamentally resolve structural competitive imbalances. Therefore, industry regulation should be introduced as an effective approach.⁴⁹ This proposition originates from the idea that ‘code is law’.⁵⁰ From the perspective of anti-monopoly legislation, the theory of industry regulation essentially falls into the category of *ex-ante* anti-monopoly, focusing on imposing special enhanced obligations on super platforms such as data sharing or opening,⁵¹ rather than *ex-post* anti-monopoly regulation.

3. *Stringent Anti-Monopoly Regulation Model*. — The view supporting the stringent regulation model maintains that anti-monopoly regulation should not be limited to competitive effects; competitive processes and market structure also play important roles.⁵² Super platforms have gradually evolved into essential data facilities and should be brought within the scope of anti-monopoly regulation. In the U.S., the New Brandeis School has replaced the Chicago School as the current theory guiding U.S. data anti-monopoly. With representatives of the New Brandeis School holding key positions in the U.S. anti-monopoly agencies, the school has gained widespread attention in U.S. anti-monopoly legislation, law enforcement and judiciary.

The selection of an anti-monopoly regulation model for super platform data monopoly should be based on the particularity of data monopoly as well as other factors, so as to construct a comprehensive regulation system that attaches equal importance to prevention and remedies. In terms of legislation, efforts should focus on setting data access obligations and interoperability obligations, draw on the digital gatekeeper regime, and improve the anti-monopoly law system. In terms of law enforcement, a coordination mechanism between anti-monopoly law enforcement authorities and data regulators should be established to enforce mandatory information disclosure and algorithm audits against data monopoly conducts, supplemented by measures such as data divestiture and temporary data opening. In judicial practice, the public interest litigation system may be adopted, alongside the reversal of the burden of proof and the punitive damages system, to improve the effectiveness of remedies for victims.

49 See Zhang Meigui, *The Paradigm Transition of Legal Regulation on the Monopoly of Internet Platforms: The Construction of Ex-Ante Intervention Paradigm of Anti-Monopoly Law*, 4 Political Science and Law 174 (2023).

50 See Joel R. Reidenberg, *Lex Informatica: The Formulation of Information Policy Rules Through Technology*, 76 Texas Law Review 555 (1998).

51 See Li Jian & Yin Yuhan, *The Digital Gatekeeper Theory: Retrospect, Misunderstanding and Construction*, 3 Social Science Research 15 (2024).

52 See Meng Yanbei, *What Is the Anti-Monopoly Law ‘Against’ in the Digital Economy: From the Perspective of ‘Legislative Objectives’*, 7 Exploration and Free Views 49 (2022).

IV. CHINA'S APPROACH TO ANTI-MONOPOLY REGULATION OF SUPER PLATFORM DATA MONOPOLY

The anti-monopoly regulation of data monopoly by super platforms aims to dismantle their closed control over critical data resources. The regulatory approach shall adhere to the principle of inclusiveness and prudence, establish a supervision model based on the Anti-Monopoly Law while taking industry characteristics into account, integrate the anti-monopoly regulatory experience of element-type data monopoly conducts, and formulate anti-monopoly rules for market-type data monopoly conducts. A categorized, graded and scenario-based typified regulation system shall be constructed to strengthen the adaptability of typified remedies and increase the application of data anti-monopoly remedies in addressing data monopoly conducts.

A. Following the Principle of Inclusive and Prudent Regulation

China has adopted different regulatory policies at different stages of digital platform development: in the initial stage, it upheld the philosophy of inclusive development to leave sufficient room for innovation. It then shifted to inclusive regulation, embedding necessary norms while encouraging development, further progressed to inclusive and prudent regulation with strengthened risk prevention and control and finally achieved the transition from passive inclusive and prudent regulation to active inclusive and prudent regulation, proactively resolving potential risks.

1. From Inclusive Development to Inclusive Regulation. — In the early stage, both technology and market were immature, and the impact of digital platforms on the economy and society was relatively limited. The government maintained a high degree of tolerance for emerging entities, allowing trial and error, exploration, and innovation.⁵³ Regulatory priorities were focused on promoting the platform economy, with less attention paid to issues such as the market status of platforms, competitive conducts and consumer rights protection, calling for timely adjustments to anti-monopoly regulatory policies.

As the scale of digital platforms continued to expand, regulatory policies shifted toward inclusive regulation. Faced with challenges brought by new business forms, technologies, and models, traditional regulatory principles could hardly meet the needs, while the direct introduction of the prudential regulation principle might stifle innovation, making the establishment of the

53 See Liao Fan, *On the Inclusive and Prudential Regulation of FinTech*, 3 Peking University Law Journal 809 (2019).

inclusive regulation principle an inevitable choice. This principle aims to balance the relationship between innovation and risks: while continuing to support the development of the platform economy, the government has also strengthened regulation.⁵⁴

2. *From Inclusive Regulation to Inclusive and Prudent Regulation.* — Inclusive and prudent regulation refers to the regulatory philosophy, principles and methods that are both inclusive and prudent when governing new technologies, business forms and models.⁵⁵ It not only affords new technologies, new business forms and new models necessary development space and trial-and-error opportunities, but also upholds the safety bottom line and regulates serious illegal acts in accordance with the law.

When the principle of inclusive and prudent regulation was first established, its essence was to attach greater importance to risk prevention, emphasize the accurate identification of various risks and formulate scientific regulatory measures. Meanwhile, it prioritized safeguarding the order of fair competition by strictly enforcing the anti-monopoly law and implementing the fair competition review system to promptly curb data monopoly conducts of platforms. It also emphasized the protection of consumer rights and strengthened the regulation of acts by platforms that infringe upon consumers' rights and interests.

3. *From Passive Inclusive and Prudent Regulation to Active Inclusive and Prudent Regulation.* — China first put forward the 'principle of inclusive and prudent regulation' in the *2017 Report on the Work of the Government*.⁵⁶ On August 1, 2019, the General Office of the State Council issued the *Guiding Opinions of the General Office of the State Council on Promoting the Regulated and Healthy Development of the Platform Economy*, which operationalized the principle and put forward requirements for inclusive and prudent regulation.⁵⁷ The principle of inclusive and prudent regulation can be decomposed into three sub-forms: inclusive regulation, prudent regulation, and inclusive and prudent regulation.

From 2017 to 2020, China mainly implemented an inclusive and prudent regulation policy with an emphasis on inclusiveness in the platform economy sector, which promoted the rapid development of digital platforms. However,

54 See Liu Quan, *The Rule-of-Law Logic of Inclusive and Prudential Regulation from the Perspective of the Digital Economy*, 4 Chinese Journal of Law 48 (2022).

55 See Sun Jin, *Digital Economy and the Adaptive Amendment of the Anti-Monopoly Law*, 4 Science of Law (Journal of Northwest University of Political Science and Law) 75 (2021).

56 See Li Keqiang, *Report on the Work of the Government: Delivered at the Fifth Session of the 12th National People's Congress on March 5, 2017*, People's Daily, March 17, 2017, at 1.

57 See GUIDING OPINIONS OF THE GENERAL OFFICE OF THE STATE COUNCIL ON PROMOTING THE REGULATED AND HEALTHY DEVELOPMENT OF THE PLATFORM ECONOMY, at https://www.gov.cn/zhengce/content/2019-08/08/content_5419761.htm (Last visited on March 26, 2026).

it also gave rise to problems such as the concentration of market resources toward super platforms, monopolistic conducts including ‘choose-one-of-two’ and ‘big-data-enabled price discrimination’, as well as the disorderly expansion of capital. Faced with new challenges, China’s anti-monopoly logic underwent an important shift at the end of 2020, marking the transition of regulatory focus from ‘inclusiveness-oriented’ to ‘prudence-oriented’. On February 7, 2021, the Anti-Monopoly Guidelines provided a clear basis for law enforcement. On November 18, 2021, the Anti-Monopoly Bureau was established, demonstrating China’s determination in anti-monopoly regulation.

4. Interpretation of the Principle of Active Inclusive and Prudent Regulation. — Since 2021, there have been divergent views on whether China should continue to adhere to the principle of inclusive and prudent regulation or adjust its regulatory principles for the platform economy. One view holds that since 2020, China’s anti-monopoly regulation in the platform economy has shifted from the stage of ‘inclusive and prudent regulation’ to the stage of ‘strengthened anti-monopoly’.⁵⁸ Another view argues that China has experienced several stages: from loose regulation to inclusive and prudent regulation, then to intensified special regulation, and finally to normalized regulation.⁵⁹ Some scholars also point out that China should neither relax anti-monopoly regulation nor impose excessive regulation. For advanced technologies and emerging industries, the regulatory principle of ‘everything is permissible unless prohibited by law’ should be upheld,⁶⁰ leaving sufficient room for innovation.

Article 3 of the Anti-Monopoly Guidelines stipulates that anti-monopoly law enforcement authorities shall adhere to the principle of conducting regulation in accordance with the law in a scientific and efficient manner. Some scholars summarize the principle as the ‘principle of active, inclusive and prudent regulation’,⁶¹ which reveals the core logic of China’s anti-monopoly enforcement. Although article 55 of the *Regulation on Optimizing the Business Environment*, as a higher-level law, provides that ‘inclusive and prudent regulation shall be applied to new technologies, new industries, new business forms and new models’, the Anti-Monopoly Guidelines are only a guiding document, and their proposed ‘principle of conducting regulation in accordance with the law in a scientific and efficient manner’ is merely

58 See Ma Pingchuan, *Regulatory Reform of Platform Antitrust and Its Response*, 4 *Law Review* 174 (2022).

59 See Chen Bing, *From Accommodative and Prudential Regulation to Normalized Regulation: Improvement of Regulation on Digital Economy*, 5 *Social Science Journal* 57 (2023).

60 See Wang Xiaoye, *Criticism Against EU Model Antitrust Regulation of Platform Economy*, 3 *Law Review* 24 (2024).

61 See Sun Jin, *Antitrust Regulation of Digital Platforms*, 5 *Social Sciences in China* 115 (2021).

an interpretation of the principle of ‘inclusive and prudent regulation’. Theoretically, the principle of inclusive and prudent regulation is a structural regulatory principle that embodies dialectics, with ample room for interpretation and environmental adaptability.

B. Establishing the Basic Model for Anti-Monopoly Regulation of Super Platform Data Monopoly

Since 2017, law enforcement practices targeting data monopoly conducts have been launched worldwide, yet relevant theoretical construction, typological differentiation, institutional design and regulatory clarity remain insufficient. It was not until the enactment of the *EU Digital Markets Act* that the ‘digital gatekeeper’ regime was innovatively established, imposing strict obligations on super platforms meeting specified criteria, including obligations to promote data competition. Against this backdrop, the State Administration for Market Regulation of China issued the *Guidelines for the Classification and Grading of Internet Platforms (Draft for Comment)* and the *Guidelines for Internet Platforms to Fulfill Primary Responsibilities (Draft for Comment)* in October 2021, requiring ultra-large platforms to undertake special enhanced obligations, reflecting the emphasis on anti-monopoly regulation in the platform economy sector.

Some hold that the inherent *ex-post* regulatory nature of anti-monopoly law rules, the lag of case-by-case implementation and the weakening of deterrent effects will undermine the substantive effectiveness of platform anti-monopoly regulation. It is therefore necessary to draw on the digital gatekeeper regime and integrate *ex-ante* and in-process regulation with case-by-case regulation.⁶² Others argue that since 2020, China’s platform regulation has shifted from inclusive and prudent regulation to intensified regulation, forming a full-chain regulatory model featuring *ex-ante* ‘prevention’, in-process ‘supervision’ and *ex-post* ‘suppression’.⁶³ Another view maintains that it is necessary to distinguish data regulation from data anti-monopoly enforcement and establish a dual governance system focusing on data regulation supplemented by data anti-monopoly enforcement.⁶⁴ Some suggest that, given the EU’s tendency to treat non-anti-competitive conducts as *per se* illegal in digital anti-monopoly enforcement, and taking

62 See Yang Dong & Zhou Xin, *The Enlightenment of Digital Markets Act (Draft) from EU*, 2 Research on China Market Regulation 23 (2021).

63 See Li Xiliang, *Antitrust and Ex Ante Regulation: The Dual Construction of Regulation Pattern of Digital Platform*, 2 SJTU Law Review 103 (2023).

64 See Zhou Hanhua, *On the Dual Governance of Antitrust and Regulation of the Platform Economy*, 1 China Legal Science 223 (2023).

into account the basic landscape of international competition in the digital economy, the development stage of China's digital economy and the tradition of case-by-case assessment under anti-monopoly law, parties should be afforded opportunities for efficiency defenses and legal remedies, and China does not need to introduce the digital gatekeeper regime.⁶⁵

The question of whether a dual governance system applies to super platform data governance essentially reflects the core considerations of anti-monopoly regulatory philosophy and law enforcement practices. The application of anti-monopoly law to super platform data monopoly should still adhere to the principle of restraint⁶⁶ and the concept of 'non-intervention unless necessary for public interest'. In selecting an anti-monopoly regulatory model for super platform data monopoly, a comprehensive judgment shall be made based on the specific types of data monopoly conducts, the actual extent of competitive harm and clear criteria for classification and grading.

C. Distilling Experience in Anti-Monopoly Regulation of Element-Type Data Monopoly

In response to the particularity of monopolistic conducts in the platform economy, China has amended the Anti-Monopoly Law and added anti-monopoly provisions regulating element-type data monopoly in supporting documents. The above documents incorporate platform data as a key factor of traditional monopolistic conducts into the existing anti-monopoly framework, enhancing the adaptability of anti-monopoly enforcement.

To maintain the stability and adaptability of anti-monopoly law, on the premise of abiding by the basic framework of the current anti-monopoly law, various types of data monopoly can be studied through normative interpretation methods. Relevant studies cover several key topics in data-driven business scenarios: data-driven definition of relevant markets, identification of data-driven monopoly agreements, identification of data-driven abuse of dominant market position, and identification of data-driven concentration of undertakings, including the specific types of element-type data monopoly conducts.

Given the complexity of dynamic competition, cross-boundary competition and ecosystem competition formed by data markets and data-driven markets, analytical tools such as demand substitution

⁶⁵ See Wang Xiaoye, *supra* note 60.

⁶⁶ See LIU JIFENG, *COMPETITION LAW (THIRD EDITION)*, at 371 (Peking University Press, 2018).

analysis, supply substitution analysis and hypothetical monopolist test are adopted to examine the impact of data as a new production factor on multi-sided markets or other competitors, in an effort to accurately delineate the boundaries of market competition with the participation of data. Such studies not only reveal how data reshapes products and services, but also provide theoretical support for judging whether super platforms have a dominant position in specific markets. On the other hand, detailed analyses have been conducted on data-driven monopoly agreements, abuse of dominant market position and concentration of undertakings. Studies have explored monopolistic conducts in data exchange agreements, data sharing agreements, data licensing agreements, data processing agreements and other arrangements, revealed how super platforms abuse their dominant market position through data locking, data bundling, data discrimination, exploitative abuse of data, data self-preferencing and other means, and examined concentrations of undertakings arising from data mergers, data alliances, data cooperation and other practices, uncovering the intrinsic relationship between data and traditional monopolistic conducts.

D. Reconstructing the Typological Model of Anti-Monopoly Regulation of Super Platform Data Monopoly

1. Rationale for Reconstructing the Typological Model of Anti-Monopoly Regulation of Super Platform Data Monopoly. — Although the revised Anti-Monopoly Law of 2022 added two anti-monopoly provisions on data monopoly, both articles 9 and 22(2) define data monopoly conducts from the perspective of data as a key factor in traditional monopolistic conducts. In practice, platform data conducts are diverse, and any market-oriented data processing conduct may evolve into a data monopoly conduct.

In improving the theory of anti-monopoly regulation of data conducts, the first step is to categorize data monopoly conducts. Some scholars advocate a typology based on the dichotomy of data and big data.⁶⁷ Others propose classifying data as ‘essential facility data’ and ‘non-essential facility data’.⁶⁸ Still others suggest categorization under the analytical framework of personal information data, enterprise data and public data.⁶⁹ Another view proposes categorization based on the purposiveness and instrumentality of data monopoly, dividing it into ‘data monopoly in the narrow sense’ and

67 See Cheng Xiao, *Personal Data Rights in the Era of Big Data*, 3 Social Sciences in China 107 (2018).

68 See Wang Jian & Wu Zongze, *Research on Data as an Essential Facility Under the Antitrust Law*, 2 Research on Rule of Law 102 (2021).

69 See Zhang Shouwen, *Regulation of Data Behavior by Economic Law*, 6 China Law Review 115 (2023).

‘monopoly based on data’.⁷⁰ Some also advocate classifying data conducts as ‘direct data competition conducts’ and ‘indirect data competition conducts’ according to the role of data in competitive practices.⁷¹

The construction of a typological model must meet the requirements of both scientificity and effectiveness. Scientificity requires the model to accurately reveal the position and role of data monopoly in the system of monopolistic conducts, ensuring that it is grounded in scientific rationality and avoiding regulatory deviation caused by cognitive bias. Effectiveness relates to anti-monopoly remedies and demands the practical curtailment of data monopoly conducts. To achieve this goal, the typological model must incorporate data anti-monopoly remedies as an indispensable component. The classification paradigm of market-type data monopoly conducts and element-type data monopoly conducts not only meets the scientific requirement of accurately defining conduct characteristics but also satisfies the effectiveness requirement of targeted remedies.

2. *Content of Reconstructing the Typological Model of Anti-Monopoly Regulation of Super Platform Data Monopoly.* — To construct an anti-monopoly regulatory framework, we should base ourselves on the rational basis and methodological functions of the typology of data monopoly conducts. Data monopoly conducts can be divided into element-type data monopoly conducts and market-type data monopoly conducts. Element-type data monopoly conducts are those that play a key role in the implementation of traditional monopolistic conducts, manifested as the use of data to exclude or restrict competition in traditional markets. Market-type data monopoly conducts, by contrast, are those that take data as the core competitive factor in the data market and exclude or restrict competition in the data market through the manipulation of data resources.

Data monopoly conducts are diverse, yet the revised Anti-Monopoly Law and the Anti-Monopoly Guidelines only regulate element-type data monopoly conducts, without establishing specialized rules for market-type data monopoly conducts. In practice, cases such as *Tencent Holdings Limited’s Acquisition of China Music Corporation* and *CNKI’s Abuse of Dominant Market Position* are all market-type data monopoly cases handled as element-type data monopoly conducts. This approach is inconsistent with the reality of competitive data markets, does not fully reflect the requirements of data-centered anti-monopoly analysis, and casts doubt on its effectiveness.

Take *CNKI’s Abuse of Dominant Market Position Case* as an example,

70 See Wu Handong, *Research on Antitrust Issues of ‘Platform Economy + Digital Intellectual Property’*, 2 Research on Rule of Law 31 (2024).

71 See Ma Xianru, *supra* note 9, 45.

which is known as the first case in China's data anti-monopoly enforcement. In this case, the anti-monopoly law enforcement authority first defined the relevant data market, then analyzed the abusive conduct committed by CNKI under the anti-monopoly norms for abuse of dominant market position, and imposed an administrative penalty on CNKI by invoking the legal provisions on abuse of dominant market position. However, throughout the case, the anti-monopoly law enforcement authority neither invoked the data monopoly provisions of the Anti-Monopoly Law for anti-monopoly law enforcement analysis nor cited them as the legal basis for the administrative penalty. The root cause lies in the fact that the Anti-Monopoly Law only regulates element-type data monopoly conducts and lacks specialized provisions for market-type data monopoly conducts. The practical dilemma demonstrates the necessity of classifying data monopoly conducts into element-type and market-type ones, whose advantages are as follows.

First, it provides a typological basis for improving anti-monopoly legislation. As data increasingly becomes a key factor of production, market-type data monopoly conducts are on the rise, requiring a response from anti-monopoly legislation. Typological construction helps clarify the legal nature, status, relationships and liabilities of different types of data monopoly conducts, offering clear and specific legal grounds and enforcement standards for anti-monopoly legislation. Adding market-type data monopoly conducts as a new category facilitates a more comprehensive and in-depth regulation of data monopoly conducts and protects the order of fair competition.

Second, it provides a typological basis for improving anti-monopoly enforcement. The core of market-type data monopoly conducts lies in the control of the data market. The definition of the relevant market directly targets the data market itself, involving relevant data products, geographic markets, demand substitution analysis, supply substitution analysis, the hypothetical monopolist test, and competitive harm determination — all centered on data, which differs fundamentally from traditional product and service markets. Analytical elements such as data monopoly agreements, data market dominance, and data-related concentrations of undertakings all revolve around data, highlighting the uniqueness of market-type data monopoly conducts. In the *Ningbo Senpu Information Technology Co., Ltd. Abuse of Dominant Market Position Case*, the anti-monopoly law enforcement authority not only defined the relevant data market from a data-centered perspective but also analyzed the two-sided data markets, following the basic analytical framework for market-type data monopoly conducts. However, due to the inadequacy of statutory provisions on market-type data monopoly

conducts, the case was ultimately regulated under the same approach as *CNKI's Abuse of Dominant Market Position Case*,⁷² making it another market-type data monopoly case handled as an element-type one.

Third, the analysis of element-type and market-type data monopoly conducts allows for the systematic identification of a series of specific conduct types, thereby forming a logically rigorous and comprehensive system of data monopoly conducts. Meanwhile, in accordance with the requirement of concretization under the typology of competitive conducts, super platform data monopoly conducts can be further subdivided into internal platform data monopoly conducts and external platform data monopoly conducts. Internal conducts focus on specific data monopoly practices arising from platform operations, including data self-preferencing, exploitative abuse of data, traffic restriction, search demotion and other practices. External conducts include link blocking, data locking, data incompatibility and other practices. Element-type data monopoly conducts can be specifically categorized into data-assisted monopoly agreements, data-assisted abuse of dominant market position, and data-assisted concentration of undertakings.

V. CONCLUSION

Super platforms possess competitive advantages in data, algorithms, technologies and rules. Relying on network characteristics such as data-driven operations, multi-sided markets, network effects, economies of scale and lock-in effects, they have formed new forms of competition, including dynamic competition, cross-boundary competition and ecosystem competition, which have spawned the problem of data monopoly. The new competitive forms of super platforms have shaped a data-centered competitive landscape, posing challenges to anti-monopoly law. Faced with the data-centered transformation of anti-monopoly law and on the basis of reflecting on the theory of deregulation, it has been found that theories such as the right to data portability, the data essential facilities doctrine, the data public utility theory and the data sharing theory can provide theoretical resources for the anti-monopoly regulation of super platform data monopoly, provided that appropriate theories and types are selected for their application.

In the shift from deregulation to strengthened regulation, the principle of active inclusive and prudent regulation shall serve as the fundamental principle. In terms of regulatory structure, since the introduction of the dual governance concept of *ex-ante* regulation and *ex-post* enforcement, the model

72 See No.202302 Administrative Penalty Decision of the Shanghai Municipal Administration for Market Regulation of 2024.

centered on *ex-post* enforcement supplemented by *ex-ante* and in-process regulation shall be adopted as the basic model. Among various typological models, the classification of data monopoly conducts into element-type and market-type ones is factually reasonable and normatively effective, and shall serve as the foundation for typology. On this basis, conducts such as data self-preferencing, exploitative abuse of data, traffic restriction and search demotion can be classified as internal data monopoly conducts; conducts such as link blocking, data locking and data incompatibility as external data monopoly conducts; and conducts including data-assisted monopoly agreements, data-assisted abuse of dominant market position and data-assisted concentration of undertakings as element-type data monopoly conducts. This typological model remedies the institutional deficiency of the Anti-Monopoly Law, which only regulates element-type data monopoly conducts without establishing specialized rules for market-type data monopoly conducts. The anti-monopoly regulation of super platform data monopoly shall comprehensively employ traditional anti-monopoly remedies as well as data anti-monopoly remedies such as interconnection technologies, data interoperability technologies, the right to data portability, the right to data access, data sharing obligations, the data essential facilities doctrine and data intermediaries, so as to achieve anti-monopoly objectives.

(Edited by Gong Li)

超级平台数据垄断反垄断法规制的中国模式

内容提要 超级平台的新型竞争形态对反垄断法提出了挑战,应当进行理论创新与实践创制。学界阐释了将个人信息可携带权理论、数据必需设施理论、数据公用事业理论、数据共享理论作为超级平台数据反垄断的法理根据,但基于反垄断法规制的精准性,应当根据超级平台数据垄断行为的类型,选择与之适配的理论。在构建中国方案时,首先应当确立积极的包容审慎监管原则,进而理顺事前规制、事中规制、事后规制的关系。其次,在数据垄断类型化方面,要素型数据垄断行为与市场型数据垄断行为的类型化模式具有事实合理性与规范有效性,应当成为中国数据垄断行为类型化的基础。再次,应构建市场型数据垄断行为的反垄断规则,强化类型化救济措施的适配性与有效性,增加运用数据反垄断救济措施处理数据垄断行为的机会。
