UNVEILING DATA AS AN INVESTMENT IN INTERNATIONAL INVESTMENT LAW: CHINA'S QUEST TOWARDS HARMONIOUS ADAPTATION AND DEVELOPMENTAL PARADIGMS

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ABSTRACT

In the context of international investment law, the question of whether data should be classified as investment has sparked intense debate. China plays a significant role in the digital economy wave, both as an active investor and an important recipient of digital investment, and its influence cannot be underestimated. At the same time, data-related regulatory measures have a profound impact on the direction of data-driven investment. In light of this, this article focuses on China's relentless efforts to build cross-border data investment rules. The article details the continuous work process that China has

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promoted to align its own concept of investment with international norms. It delves into the framework system of China's international investment agreements and conducts an in-depth theoretical analysis and exploration of data as a unique form of investment. It also comprehensively examines the pioneering operational methods and crucial strategic steps that China has taken in the process of formulating data-driven investment rules. These efforts cover several key aspects, such as vigorously strengthening the domestic institutional framework for cross-border data investment, meticulously improving the structure and content of the international investment agreement system, and actively promoting international cooperation and exchanges in related fields.

KEYWORDS: *China, data-driven investment, data regulatory measures, definition of investment, ICSID, international investment agreements, Salini test*

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I. INTRODUCTION

In the digital age, countries are placing great emphasis on the development of the digital economy, leading to exponential growth in the volume of data and its widespread use.[1] Multinational companies have become the primary drivers of the global digital economy, and their data assets have become invaluable. Companies such as Google, Amazon and Siemens are using data as a catalyst to create new competitive advantages. With increased investment in the digital domain, a growing number of countries have also begun to place greater emphasis on data security,

[1] *See generally* VIKTOR M. SCHÖNBERGER & KENNETH CUKIER, BIG DATA: A REVOLUTION THAT WILL TRANSFORM HOW WE LIVE, WORK, AND THINK (2013); ERIK BRYNJOLFSSON & ANDREW MCAFEE, THE SECOND MACHINE AGE: WORK, PROGRESS, AND PROSPERITY IN A TIME OF BRILLIANT TECHNOLOGIES (2014).

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cybersecurity, personal privacy and data sovereignty. As a result, many countries have implemented data regulatory measures, including data localisation requirements, data export restrictions, privacy risk assessments, and mandatory business-to-government data sharing mandates.[2] These measures inevitably restrict or impede the cross-border flow of data for multinational enterprises. When an action or measure imposed by a host country undermines the legitimate interests of a foreign investor, the investor may submit the dispute to investment arbitration under the Investor-State Dispute Settlement (hereinafter "ISDS") mechanism provided for in the relevant investment agreement. The Convention on the Settlement of Investment Disputes between States and Nationals of Other States (hereinafter "ICSID Convention"),[3] as one of the few remaining multilateral treaties in international investment, serves as the basis for the establishment of the International Centre for the Settlement of Investment Disputes (hereinafter "ICSID"). Article 25 of the ICSID Convention defines ICSID's jurisdiction, stating that it "extend[s] to all disputes arising directly out of an investment".[4] The resolution of such disputes inevitably involves the interpretation by arbitral tribunals of whether data can be classified as a qualifying investment. To date, there have been no globally significant international investment arbitration disputes directly involving data. However, scholars believe that investment disputes involving data assets will inevitably emerge in the future, and it is only a matter of time before such cases arise.[5]

After years of remarkable growth, China's digital economy has become a dominant force in the global economic landscape. By April 2024, the value

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[2] Svetlana Yakovleva & Kristina Irion, *Pitching Trade Against Privacy: Reconciling EU Governance of Personal Data Flows with External Trade*, 10(3) INT'L DATA PRIV. L. 201, 201 (2020); Philip A. Weber et. al, *A Comparative Analysis of Personal Data Protection Regulations Between the EU and China*, 20(3) ELEC. COM. RSCH. 565, 567 (2020); Jinhe Liu, *China's Data Localisation*, 13(1) CHINESE J. COMMC'N 84, 87 (2023); *see generally* EUR. COMM' N, TOWARDS A EUROPEAN STRATEGY ON BUSINESS-TO-GOVERNMENT DATA SHARING FOR THE PUBLIC INTEREST (2020).

[3] Convention on the Settlement of Investment Disputes Between States and Nationals of Other States, Oct. 14, 1966, 575 U.N.T.S 159 [hereinafter ICISD Convention].

[4]

> "The jurisdiction of the Centre shall extend to any legal dispute arising directly out of an investment, between a Contracting State (or any constituent subdivision or agency of a Contracting State designated to the Centre by that State) and a national of another Contracting State, which the parties to the dispute consent in writing to submit to the Centre. When the parties have given their consent, no party may withdraw its consent unilaterally."

Id. art. 25(1).

[5] *See* Bian Cheng, *Data as Assets in Foreign Direct Investment: Is China's National Data Governance Compatible with Its International Investment Agreements?*, 13(2) ASIAN J. INT'L L. 342, 346 (2022); Sheng Zhang, *Protection of Cross-Border Data Flows Under International Investment Law: Scope and Boundaries*, *in* HANDBOOK OF INTERNATIONAL INVESTMENT LAW AND POLICY 209, 221-22 (Julien Chaisse et al. eds., 2021).

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of China's digital economy exceeded 53.9 trillion yuan, consistently securing its second position globally and contributing 42.8% to the country's GDP.[6] Recognising its strategic significance, China has prioritised the digital economy as a critical component of its national development strategy, as highlighted in the 14th Five-Year Plan for the Development of the Digital Economy. To support and strengthen this sector, China has established a comprehensive roadmap and implemented incentive measures.[7] The development of this sector relies heavily on cutting-edge technologies such as big data, blockchain, artificial intelligence, and 5th-Generation Mobile Communication Technology (hereinafter "5G") communications. As a result, China is accelerating the integration of big data, cloud computing, and artificial intelligence, and by 2025, China will have about 30% of the world's total data volume with the widest range of data types.[8] Similarly, the 2023 World Investment Report shows that China is the world's second-largest recipient of foreign direct investment (hereinafter "FDI"), confirming its status as an attractive destination for global investors.[9] China's unwavering commitment to openness and favourable policies continue to fuel its steady FDI inflows. At the same time, although Chinese outward FDI flows fell by 18% to $147 billion, the country still ranks third in the world, even as global FDI outflows fell by 13.8%.[10]

Amid the rapid expansion of overseas investment in the digital economy, certain countries, led by the United States, have imposed restrictions or bans on Chinese digital companies' overseas investment. In recent years, the United States, India and the European Union (hereinafter "EU") have banned the operation of the Chinese-owned social media platform TikTok. In particular, the United States alleges that TikTok collects sensitive information such as personal data and location data during user interactions, posing a serious threat to national security. Concerns have been raised that TikTok acts as a "spy balloon in your phone".[11] In June 2020, the Indian

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[6] ZHONGGUO XINXI TONGXIN YANJIU YUAN (中国信息通信研究院) [CHINA ACAD. OF INFO. COMMC'N & TECH.], ZHONGGUO CHENGSHI SHUZI JINGJI FAZHAN YANJIU BAOGAO (2024 NIAN) (中国城市数字经济发展研究报告(2024 年)) [REPORT ON THE DEVELOPMENT OF CHINA'S URBAN DIGITAL ECONOMY (2024)] 2-3 (2024), http://www.caict.ac.cn/kxyj/qwfb/bps/202408/P020240830315324580655.pdf.

[7] *Plan Focuses on Digital Economy Development During 14th Five-Year Plan Period*, XINHUA (Jan. 12, 2022, 5:06 PM), https://english.www.gov.cn/policies/latestreleases/202201/12/content WS61de9a35c6d09c94e48a385f.html.

[8] Yi Wu, *Understanding China's Digital Economy: Policies, Opportunities, and Challenges*, CHINA BRIEFING (Aug. 11, 2022), https://www.china-briefing.com/news/understanding-chinas-digital-economy-policies-opportunities-and-challenges/.

[9] U.N. CONF. ON TRADE & DEV, WORLD INVESTMENT REPORT 2023: INVESTING IN SUSTAINABLE ENERGY FOR ALL 8-12 (2023). ("In East Asia, although FDI decreased by 3 per cent to $324 billion in 2022. Flows to China rose by 5 per cent, to a record $189 billion. The increase was concentrated in manufacturing and high-tech industries[.]")

[10] *Id.* at 17.

[11] Jamie Johnson, *US Republicans Pushing to Ban TikTok Across America*, THE TEL. (Mar. 4, 2023,

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government permanently banned TikTok, citing data and privacy concerns and claiming that it violated India's sovereignty and integrity.[12] Meanwhile, the President of the European Commission has confirmed several ongoing investigations into TikTok, focusing on the transfer of EU citizens' data to China and targeted advertising to minors. These investigations are aimed at ensuring that TikTok complies with the guidelines of the General Data Protection Regulation (hereinafter "GDPR"). As of February 2023, TikTok has been banned from official devices by the European Commission.[13] Furthermore, Sweden's 5G network tender in October 2020 excluded Huawei on national security grounds. As a result, Huawei filed an arbitration case with ICSID, claiming that Sweden's ban violated fair treatment, most-favoured-nation treatment and expropriation clauses in the 1982 China-Sweden Bilateral Investment Treaty (hereinafter "BIT").[14] This case is Huawei's first investment arbitration over a 5G ban, and centres on the perceived risks that digital economy companies pose to host countries' data security. The potential inclusion of data asset claims in future cases remains uncertain and will evolve in parallel with new developments in ongoing litigation. Taken together, these events illustrate that, against a backdrop of sluggish global economic development and the tightening of foreign investment review systems in various countries, digital economy companies face significant political and legal risks in their overseas investment endeavours.

To date, global data governance has focused primarily on regulating cross-border data flows under international trade law,[15] but has not considered the role of international investment law, which has not kept pace with the growing importance of cross-border data investment.[16] As of October 2024, there are a total of 2,615 active international investment agreements (hereinafter "IIAs") and comprehensive economic and trade agreements that include investment chapters worldwide.[17] Numerous

3:00 PM), https://www.telegraph.co.uk/world-news/2023/03/04/us-republicans-pushing-ban-tiktok-across-america/.

[12] Anilesh Kumar & Daya Thussu, *Media, Digital Sovereignty and Geopolitics: The Case of the TikTok Ban in India*, 45(8) MEDIA, CULTURE & SOC'Y 1583, 1583 (2023).

[13] Brian Fung & Hanna Ziady, *European Commission Bans TikTok from Official Devices*, CNN BUS. (Feb. 23, 2023, 9:19 AM), https://edition.cnn.com/2023/02/23/tech/tiktok-ban-european-commission/index.html.

[14] Huawei Tech. Co., Ltd. v. The Kingdom of Sweden, ICSID Case No. ARB/22/2, Request for Arbitration, ¶¶ 93-99, https://www.italaw.com/sites/default/files/case-documents/italaw171322.pdf.

[15] *See generally* NEHA MISHRA, INTERNATIONAL TRADE LAW AND GLOBAL DATA GOVERNANCE (2024); *See generally* Andrew D. Mitchell & Jarrod Hepburn, *Don't Fence Me in: Reforming Trade and Investment Law to Better Facilitate Cross-border Data Transfer*, 19 YALE J.L. & TECH. 182 (2017); *See generally* Yakovleva & Irion, *supra* note 2.

[16] Enikő Horváth & Severin Klinkmüller, *The Concept of 'Investment' in the Digital Economy: the Case of Social Media Companies*, 20(4) J. WORLD INV. & TRADE 577, 580 (2019).

[17] *International Investment Agreements Navigator*, U.N. CONF. ON TRADE & DEV, https://investmentpolicy.unctad.org/international-investment-agreements (last visited Jan. 26, 2025).

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countries have concluded IIAs with their economic and trade partners, assuming responsibility for the protection and promotion of investments. However, it must be acknowledged that the legal attributes of data, which distinguish it from traditional forms of international investment, present a challenge for the extant international investment law in effectively addressing the novel challenges that have emerged in the digital economy. These attributes include data's intangibility, ease of reproduction and low cost, non-consumptive use, difficulty in assessing its value, rapid changes in value, and the fact that it can be shared and used by multiple owners.[18] If data is regarded as a form of investment, the regulatory measures introduced by host countries to oversee data may have the effect of impinging upon the pertinent obligations set forth in investment treaties, thus giving rise to investment disputes.[19] As a result, the task of ensuring robust data protection under existing IIAs remains a notable challenge.

This article presents the findings of a research project that addresses a controversial issue in the international community: whether data can be classified as an investment under international investment law. First, given China's significant position in the digital economy, any regulatory measures relating to data will have an impact on data-driven investment. Accordingly, the article first examines China's comprehensive approach to regulating cross-border data investment. It then outlines the process by which China seeks to align its approach to the definition of investment with international standards. This serves as a conceptual cornerstone for the construction of a reasonable system of cross-border data investment rules. The article then moves to the theoretical level by conducting an in-depth analysis of the feasibility of data as a form of investment under China's IIAs. This serves to provide a sound basis for the subsequent practical strategies. This is followed by an in-depth exploration of China's frontier operational strategies and key steps in formulating the rules of data-driven investment. This includes a comprehensive analysis of measures to improve the domestic framework for cross-border data investment, with the aim of creating a favourable domestic investment environment; an extended discussion of methods to optimise the international investment agreement system, thereby taking the initiative in the international rules game; and vigorous promotion of the practice of international cooperation and exchange, with the aim of facilitating the coordinated development of cross-border data investment on a global scale.

[18] SHUJU FAXUE (数据法学) [DATA LAW] 93 (Min Zhang (張敏) ed., 2023).
[19] Horváth & Klinkmüller, *supra* note 16, at 589.

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II. CHINA'S ENDEAVOR IN DEFINING INVESTMENT: TOWARD CONTINUOUS CONVERGENCE WITH INTERNATIONAL STANDARDS

The issue of whether data can be deemed an investment is highly dependent on the specific particulars and context of the dispute, as well as the meticulous and exact phrasing within the relevant IIA. In practice, IIAs can be generally categorized into two major classifications: BITs and treaties with investment provisions (hereinafter "TIPs"). Specifically, TIPs can be further subdivided into three distinguishable types. The first type consists of free trade agreements (hereinafter "FTAs") that include an investment chapter. The second type encompasses FTAs with somewhat limited investment stipulations, and the third type contains FTAs that merely possess framework clauses, such as those highlighting cooperation in the investment realm or proffering a guideline for future investment negotiations.[20] When endeavoring to determine the meaning of the term investment, an arbitral tribunal will commonly refer to and consult multilateral agreements like the ICSID Convention. In addition, the IIA that has been inked between the host country and the investor's home country will also be factored into consideration.[21]

A. ICSID's Continual Clarification of the Definition of Investment Through Relevant Test Standards

Article 25 of the ICSID Convention merely mentions investment without a specific definition, which has led to intense and complex debates regarding the exact boundaries of an investment.[22] Following a period of considerable reflection, Christoph H. Schreuer came to recognise that the interpretation of the term investment could evolve over time and in response to practical circumstances. Traditionally, an investment is characterised by five key attributes. Firstly, both the investor and the host country need to bear a certain degree of risk. Secondly, the investment must have a set time limit. Thirdly, the intention is to secure expected financial gains. Fourthly, substantial contributions such as capital, technology, equipment and labour are essential. Finally, in alignment with the developmental objective of the Washington Convention, it is anticipated that investments will stimulate the economic growth of the host country.[23] The "five-factor theory" serves as a core theoretical underpinning for the definition of investment in IIAs and has been

[20] *International Investment Agreements Navigator*, *supra* note 17.
[21] Julian D. Mortenson, *The Meaning of 'Investment': ICSID's Travaux and the Domain of International Investment Law*, 51(1) HARV. INT'L L.J. 257, 262-80 (2010).
[22] Wenhua Shan & Lu Wang, *The Concept of "Investment": Treaty Definitions and Arbitration Interpretations*, *in* HANDBOOK OF INTERNATIONAL INVESTMENT LAW AND POLICY 23, 23 (Julien Chaisse et al. eds., 2021).
[23] CHRISTOPH SCHREUER ET AL., THE ICSID CONVENTION: A COMMENTARY 122 (2009).

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corroborated in two well-known cases, *Fedax N.V. v. Republic of Venezuela* and *Consortium RFCC v. Royaume du Maroc*.[24] Drawing on Schreuer's theoretical scaffold, Emmanuel Gaillard advanced four key benchmarks that have added value to the ongoing conversation. These consist of a substantial amount of investment, an extended period of time, vulnerability to various uncertainties, and a beneficial impact on the economic development of the host country.[25] In the face of disputes, the tribunals have been striving to work out a practical yardstick to determine if an investment can meet the requisite standards. It is remarkable that a large quantity of arbitral tribunals have taken on these benchmarks. Among them, the case of *Salini v. Morocco*[26] has been particularly conspicuous and has played a significant role in this context.[27]

The distinct and well-defined four-pronged Salini test, as it is commonly known, provides a meticulous delineation of the essential characteristics that an investment must exhibit. Following a comprehensive analysis of the preceding rulings concerning international investment, the tribunal reached a noteworthy conclusion. The initial three elements of the test employed to categorise intangible assets as investments were derived from the implicit tenets of international law evident in preceding rulings. In particular, the three prerequisites are as follows: firstly, that an investment should entail a contribution in the form of money or assets; secondly, that it should possess a defined and specific duration; and thirdly, that it should incorporate an element of risk. The fourth aspect was derived from the preamble of the ICSID Convention, which emphasises the necessity for international cooperation for economic development and the role of private international investment therein.[28] The fourth aspect, which explicitly acknowledges the pivotal role of FDI in the economic advancement of host countries, was duly incorporated by the tribunal.[29] Notwithstanding the lack of binding force of ICSID awards, the tribunals in subsequent cases, such as *Joy Mining Machinery Limited v. Arab Republic of Egypt* and *Jan de Nul N.V. and*

[24] Fedax N.V. v. The Republic of Venezuela, ICSID Case No. ARB/96/3, Decision of the Tribunal on Objections to Jurisdiction, ¶ 43 (July 11, 1997), https://www.italaw.com/sites/default/files/case-documents/ita0315_0.pdf; Consortium RFCC v. Royaume du Maroc, ICSID Case No. ARB/00/6, Decision on Jurisdiction 1, ¶¶ 28-31 (July 16, 2001), https://www.italaw.com/sites/default /files/case-documents/ita0225.pdf.

[25] *See generally* Emmanuel Gaillard & Yas Banifatemi, *The Long March Towards a Jurisprudence Constante on the Notion of Investment*, *in* BUILDING INTERNATIONAL INVESTMENT LAW: THE FIRST 50 YEARS OF ICSID (Meg Kinnear et al. eds., 2015).

[26] Salini Costruttori S.p.A. & Italstrade S.p.A. v. Kingdom of Morocco, ICSID Case No. ARB/00/4, Decision on Jurisdiction (July 31, 2001), 6 ICSID Rep. 400 (2004).

[27] Alex Grabowski, *The Definition of Investment Under the ICSID Convention: A Defense of Salini*, 15(1) CHI. J. INT'L L. 288, 297 (2014).

[28] Salini Costruttori S.p.A. & Italstrade S.p.A. v. Kingdom of Morocco, *supra* note 26, ¶ 52.

[29] ICISD Convention, *supra* note 3, Preamble, para. 1.

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Dredging International N.V. v. Arab Republic of Egypt,[30] have nevertheless elected to employ the Salini test to delineate the concept of investment.[31]

From a critical standpoint, some scholars and practitioners regard the Salini test as somewhat inflexible. In light of the advent of novel forms of investment and intricate business innovations, the test may appear to be inadequate.[32] For instance, the Salini test may not fully capture the extent and value of investments in intellectual property, data assets, and other assets that are hallmarks of the knowledge economy. Furthermore, the definition of risk and the quantification of the contribution to economic development are subject to debate in different economic environments and industry contexts, which may result in varying interpretations and judgments in the application of the test. In the case of *Biwater Gauff v. Tanzania*, the arbitral tribunal advanced the position that the Salini test should not be applied in a manner that is unduly inflexible and excessively exacting. The tribunal put forth an alternative test, contending that a more flexible and pragmatic interpretation of the investment would be the most appropriate. In order to gain a comprehensive understanding of the investment in question, it would be beneficial to consider all the relevant elements and indications collectively, given that they typically depend on the specific circumstances of each individual case.[33]

Nevertheless, the Salini test is of paramount importance. First, it has established a pioneering framework for defining the term investment in the context of international investment arbitration. Prior to its emergence, the

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[30] Joy Mining Machinery Limited v. Arab Republic of Egypt, ICSID Case No. ARB/03/11, Award on Jurisdiction, ¶¶ 41-63 (Aug. 6, 2004), https://www.italaw.com/sites/default/files/case-documents/ita0441.pdf; Jan de Nul N.V. & Dredging International N.V. v. Arab Republic of Egypt, ICSID Case No. ARB/04/13, Decision on Jurisdiction, ¶¶ 28-30 (June 16, 2006), https://www.italaw.com/sites/default/files/case-documents/ita0439.pdf.

[31] Grabowski, *supra* note 27, at 297-98.

[32] *See generally* Laurence Burger, *The Trouble with Salini: Criticism of and Alternatives to the Famous Test*, 31(3) ASA BULL. 145 (2013); Valentina Vladimirovna et al., *Application of the Salini Test in Determining Investments in the Practice of the International Center for Settlement of Investment Disputes*, INT'L L. & INT'L ORGS. 13 (2021).

[33]

> "[T]he Salini Test itself is problematic if, as some tribunals have found, the 'typical characteristics' of an investment as identified in that decision are elevated into a fixed and inflexible test, and if transactions are to be presumed excluded from the ICSID Convention unless each of the five criteria is satisfied. This risks the arbitrary exclusion of certain types of transaction from the scope of the Convention. It also leads to a definition that may contradict individual agreements (as here), as well as a developing consensus in parts of the world as to the meaning of 'investment' (as expressed, e.g., in bilateral investment treaties). If very substantial numbers of BITs across the world express the definition of 'investment' more broadly than the Salini Test, and if this constitutes any type of international consensus, it is difficult to see why the ICSID Convention ought to be read more narrowly."

Biwater Gauff (Tanzania) Ltd. v. United Republic of Tanzania, ICSID Case No. ARB/05/22, Award, ¶ 314 (July 27, 2008), https://www.italaw.com/sites/default/files/case-documents/ita0095.pdf.

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concept of investment was relatively vague and lacked a unified standard for judgment, which often presented challenges for arbitration tribunals in the handling of cases. The advent of the Salini test has provided tribunals with a relatively clear direction, thereby greatly enhancing the efficiency and operability of arbitration.[34] To illustrate, in numerous instances pertaining to conventional investment domains, such as infrastructure construction and resource development, this test serves to distinguish the investment relationships and ascertain the rights and obligations of all parties. Some arbitral tribunals have augmented the Salini test with additional criteria. In the case of *Phoenix Action, Ltd. v. The Czech Republic*, the tribunal determined that the initial Salini standards were insufficient. Consequently, two additional standards were introduced, stipulating that an investment must be made in *bona fide* and that the laws of the host state must be adhered to.[35] This has furthered the development of international investment arbitration theory and practice. The extensive application of the Salini test has served to enhance the predictability of outcomes in international investment arbitration. For investors and host countries, the Salini test provides a useful framework for assessing the legality and arbitrability of investment activities prior to their commencement. This enables a reduction in investment risks and facilitates the orderly development of international investment activities.[36]

B. Characteristics of Investment Definition Under China's IIAs and Its Convergence with International Standards

In the evolution of IIAs, the initial versions of these agreements offered a rather vague definition of investment. The agreements of that era made only cursory and general references to the concept of investment, eschewing any detailed or precise delineation. This lack of clarity resulted in a paucity of distinct and consistent benchmarks for evaluation within the context of international investment activities and related disputes. The rights and entitlements of both investors and host states remained ill-defined, thereby creating a fertile ground for numerous uncertainties and contentions.[37]

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[34] Zhao Jun (赵骏), *Guoji Touzi Zhongcai Zhong "Touzi" Dingyi de Zhangli he Yingxiang (国际投资仲裁中"投资"定义的张力和影响) [Tensions and Implications of the Definition of "Investment" in International Investment Arbitration]*, 36(3) XIANDAI FAXUE (现代法学) [MOD. L. SCI.] 161, 166 (2014).

[35] Phoenix Action, Ltd. v. The Czech Republic, ICSID Case No. ARB/06/5, Award, ¶¶ 101-13 (Apr. 15, 2009), https://www.italaw.com/sites/default/files/case-documents/ita0668.pdf.

[36] He Fang (何芳), *Lun ICSID Zhongcai Zhong de Touzi Dingyi (论 ICSID 仲裁中的投资定义) [The Definition of Investment in ICSID Arbitration]*, 36(10) HEBEI FAXUE (河北法学) [HEBEI L. SCI.] 99, 107 (2018).

[37] *See generally* Barton Legum, *Defining Investment and Investor: Who Is Entitled to Claim?*, 22(4) ARB. INT'L 521 (2006).

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Nonetheless, the landscape has been significantly altered as a result of the progression and adjudication of cases handled by the ICSID. The adjudication of various cases has resulted in the emergence of a constellation of investment assessment criteria, which have subsequently become the focus of extensive attention and deliberation. While certain nuances and supplementary elements may emerge in different cases, these criteria have, on the whole, provided a more tangible and structured framework for delineating investment.[38] In light of this paradigm shift, contemporary IIAs have begun to assimilate the pertinent standards enshrined in ICSID cases into their own formulations regarding the definition and scope of investment. A number of recently concluded IIAs have explicitly referenced these benchmarks, thus facilitating a more refined classification and definition of investments.

The current IIAs tend to have an expansive and open-ended characterisation of the concept of investment. Such provisions are frequently accompanied by a non-exhaustive inventory of specific investment types, which serve more as guiding indicators than as rigid and conclusive benchmarks. For example, one might consider the 2012 U.S. Model Bilateral Investment Treaty. The definition of investment adopted in this context is as follows: investment encompasses "every asset that an investor owns or controls, directly or indirectly, that has the characteristics of an investment, including such characteristics as the commitment of capital or other resources, the expectation of gain or profit, or the assumption of risk."[39] The model treaty also provides an indicative list of assets.[40] Similarly, the investment chapter of the United States–Mexico–Canada Agreement (hereinafter "USMCA"), which is based on the model treaty, employs a comparable methodology. An investment is defined as any asset that is owned or controlled, directly or indirectly, by an investor and that exhibits the characteristics typically associated with an investment. These characteristics include, but are not limited to, the commitment of capital or

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[38] Zhang Qianwen (张倩雯), *Guoji Touzi Zhong Shuju de Xingzhi Panduan ji Baohu (国际投资中数据的性质判断及保护) [Judgment of the Nature and Protection of Data in International Investments]*, 512(7) FAXUE (法学) [L. SCI.] 173, 176 (2024).

[39] OFFICE OF U.S. TRADE REP., THE U.S. MODEL BILATERAL INVESTMENT TREATY, 3 (2012), https://investmentpolicy.unctad.org/internationalinvestment-agreements/treaty-files/2870/download.

[40]

> "Forms that an investment may take include: (a) an enterprise; (b) shares, stock, and other forms of equity participation in an enterprise; (c) bonds, debentures, other debt instruments, and loans; (d) futures, options, and other derivatives; (e) turnkey, construction, management, production, concession, revenue-sharing, and other similar contracts; (f) intellectual property rights; (g) licenses, authorizations, permits, and similar rights conferred pursuant to domestic law, and (h) other tangible or intangible, movable or immovable property, and related property rights, such as leases, mortgages, liens, and pledges."

Id. at 3-4.

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other resources, the expectation of gain or profit, and the assumption of risk.[41] In the preceding decade, members of the WTO have demonstrated a sustained commitment to the negotiation of new regional trade agreements.[42] The Comprehensive Economic and Trade Agreement (hereinafter "CETA") between the European Union and Canada, inked in October 2016,[43] the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (hereinafter "CPTPP"), which entered into force in December 2018,[44] and the Regional Comprehensive Economic Partnership (hereinafter "RCEP"), which became effective in January 2022,[45] are among the most prominent and impactful agreements. A comparative analysis of the investment chapters of CETA, CPTPP, and RCEP reveals that they adhere to a comparable paradigm. This paradigm combines an "asset-based definition of investment" with an exposition of the characteristics of investment, a roster of specific manifestations of investment, and a demarcation of what does not fall within the purview of an investment. Furthermore, these agreements show a remarkable degree of consistency in the range of investment types they cover. The definition of investment in these agreements is primarily concerned with the characteristics of the assets and the relationship between the investor and the assets in question. The lists of investment forms may vary in their comprehensiveness, but they generally include certain classifications.[46]

Now, China has constructed a substantial IIA network, comprising 124 BITs and 30 TIPs, which places it second globally in terms of network size.[47] Prior to 2010, the Chinese approach was aligned with the European BIT model. Following the China–Canada BIT, there was a notable shift towards the American style, yet the majority of IIAs continue to adhere to the European model.[48] A review of the IIAs that have entered into force in China

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[41] Agreement between the United States of America, the United Mexican States, and Canada art. 14.1, Nov. 30, 2018, 134 Stat. 11, 57 I.L.M. 1152.

[42] GREGORY SHAFFER, EMERGING POWERS AND THE WORLD TRADING SYSTEM: THE PAST AND FUTURE OF INTERNATIONAL ECONOMIC LAW 19 (Richard B. Bilder ed., 2021).

[43] Comprehensive Economic and Trade Agreement art. 8.1, Can.-EU, Oct. 30, 2016, 2017 O.J. (L 11) 23.

[44] Comprehensive and Progressive Agreement for Trans-Pacific Partnership art. 9.1, Mar. 8, 2018, 3346 U.N.T.S.

[45] Regional Comprehensive Economic Partnership art. 10.1(c), Nov. 15, 2020, https://www.dfat.gov.au/sites/default/files/rcep-chapter-10.pdf.

[46] For instance, enterprises; participation in enterprises through stocks, shares, and other means; various forms of debt instruments such as corporate bonds, unsecured bonds, and loans; derivatives such as futures and options; rights under contracts, including turnkey, construction, management, production, franchise, revenue-sharing, or similar contracts; intellectual property and goodwill; permits and similar rights granted under host country laws or contracts; as well as tangible and intangible property, movable or immovable, along with associated property rights such as lease rights, mortgages, liens, and pledges.

[47] *IIAs by Economy, China, International Investment Agreements Navigator*, U.N. CONF. ON TRADE & DEV., https:/investmentpolicy.unctad.org/international-investment-agreements/countries/42/china (last visited Jan. 26, 2025).

[48] Manjiao Chi, *From Europeanization Toward Americanization: the Shift of China's Dichotomic*

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suggests the presence of specific characteristics within the definition of investment clauses of the aforementioned IIAs.[49] It is notable that in the majority of IIAs, the definitions of "investment" and "covered investment" are combined within a single clause. However, the five agreements define these two concepts independently.[50] For instance, the China–Canada Bilateral Investment Agreement (2012) defines a "covered investment" in Article 1.4 as an investment made by an investor from the other Contracting Party and existing in its territory at the time the Agreement takes effect, or an investment made subsequently by an investor who has been admitted in accordance with the host country's laws and regulations. Such a definition implies the necessity of a commitment of capital or other resources, the anticipation of gain or profit, or the undertaking of risk. Conversely, the "investment" definition clause in the agreement enumerates the various forms, which include, but are not limited to, an enterprise; shares, stocks, and other equity interests in an enterprise; bonds, debentures, and other debt instruments issued by an enterprise; and loans to an enterprise. Furthermore, the Agreement elucidates that investment does not encompass claims to monetary compensation that originate exclusively from: (i) commercial contracts for the sale of goods or services, or the extension of credit associated with commercial transactions such as trade financing; or (ii) any other claims to monetary compensation.

To now, China's IIAs demonstrate a multitude of linkages and congruencies with the investment definition benchmarks established by the ICSID tribunal, as well as other pertinent investment agreements. To begin with, with regard to the configuration of the investment definition, the definition of investment within the majority of China's IIAs typically encompasses two constituents: a general exposition and an enumeration of investment modalities. An open-ended enumeration approach is frequently adopted, as evidenced by the use of expressions such as "including but not limited to". This is consistent with the evolution of certain international investment agreements influenced by ICSID-related cases. For example, in some agreements that have been updated in response to the impetus of ICSID cases, the definition of investment forms has become increasingly expansive and flexible in order to accommodate evolving investment practices. This definitional approach adopted by China serves to embrace a more

Investment Treaty-Making Strategy, 23(2) CAN. FOREIGN POL'Y J. 158, 164 (2017).

[49] Song Junrong (宋俊荣), *Guoji Touzi Xieding Dui Shuju Guizhi Cuoshi de Keshiyongxing: Yi Shige Touzi Wei Zhongxin (国际投资协定对数据规制措施的可适用性：以适格投资为中心) [The Applicability of Data Regulation Measures in International Agreements: Focusing on Eligible Investments]*, 39(2) HUANQIU FALÜ PINGLUN (环球法律评论) [GLOB. L. REV.] 39, 49-50 (2023).

[50] These five agreements are the Regional Comprehensive Economic Partnership Agreement (2020), China–Mauritius Free Trade Agreement (2019), China–Australia Free Trade Agreement (2015), China–South Korea Free Trade Agreement (2015), and China–Canada Bilateral Investment Agreement (2012).

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heterogeneous array of investment varieties, corresponding to the ever-widening comprehension of the investment scope at the international level.[51]

Secondly, with regard to the characteristics that an investment should possess, nine of China's IIAs explicitly stipulate that an investment should entail the commitment of capital or other resources, the expectation of gain or profit, and the assumption of risk.[52] This bears resemblance to the investment adjudication criteria probed by the ICSID tribunal in specific cases. The standards set forth in cases such as Salini, which require the contribution of funds or assets and involve a certain degree of risk, exhibit a certain degree of overlap in essence with the characteristics emphasized by China's IIAs. This suggests that in defining investment, China has drawn upon the definition of the core elements of investment in international arbitration practice, thereby ensuring a shared discursive foundation in international investment exchanges and collaborations.[53]

Moreover, the scope of investment as defined by China's IIAs is broad, encompassing a wide range of assets owned or controlled by foreign investors. While only five IIAs explicitly identify enterprises as an investment classification, this does not preclude the potential for data and other assets of foreign investors to be included.[54] This is consistent with the approach of the ICSID tribunal, which has consistently sought to refine the definition of investment in light of evolving investment practices, including the growing investment in intangible assets such as data and intellectual property.[55] The ascendance of the digital economy has resulted in a

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[51] Lü Jihai (吕吉海) & Hu Xiaohong (胡晓紅), *Guoji Touzi Xieding Zhong "Touzi" Dingyi Tiaokuan de Chonggou——Yi Zhongguo Yu "Yidai Yilu" Yanxian Guojia BITs Wei Shijiao (国际投资协定中"投资"定义条款的重构——以中国与"一带一路"沿线国家 BITs 为视角) [Reconstruction of the Definition Clause of "Investment" in IIAs: A Perspective of BITs from China and the Countries Along the Belt and Road]*, KEXUE JUECE (科学决策) [SCI. DECISION MAKING], no. 8, 2021, at 132, 134.

[52] These nine agreements are the Regional Comprehensive Economic Partnership Agreement (2020), China–Mauritius Free Trade Agreement (2019), China–Australia Free Trade Agreement (2015), China–South Korea Free Trade Agreement (2015), China–Tanzania Bilateral Investment Agreement (2013), China–Japan–Korea Investment Agreement (2012), China–Chile Supplementary Agreement on Investment (2012), China–Canada Bilateral Investment Agreement (2012) and China–Uzbekistan Bilateral Investment Agreement (2011).

[53] Shen Wei (沈伟), *Guoji Touzi Xieding de Jiegouxing Zhuanxiang Yu Zhongguo Jinlu (国际投资协定的结构性转向与中国进路) [International Investment Agreements' Structural Re-orientation and China's Responsive Approach]*, BIJIAOFA YANJIU (比较法研究) [J. COMPAR. L.], no. 2, 2024, at 191, 196.

[54] These five agreements are China–Mauritius Free Trade Agreement (2019), China–Australia Free Trade Agreement (2015), China–South Korea Free Trade Agreement (2015), China–Japan–Korea Investment Agreement (2012), China–Canada Bilateral Investment Agreement (2012).

[55] Wang Mengying (王梦颖), *Guoji Touzi Xieding Zhong Shuju Baohu de Lujing Yanjiu——Yi "Einarsson v. Canada" An Wei Shijiao (国际投资协定中数据保护的路径研究——以"Einarsson v. Canada"案为视角) [Research on the Path of Data Protection in International Investment Agreements—From the Perspective of "Einarsson v. Canada"]*, GUOJI JINGJIFA XUEKAN (国际经济法学刊) [J. INT'L ECON. L.], no. 3, 2024, at 47, 51.

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transformation of the international investment paradigm. The ICSID tribunal has also initiated a reassessment of the continued applicability of the traditional investment definition to emerging asset types. The comprehensive definition of China's IIAs demonstrates a forward-thinking approach to anticipating potential investment trends and aligns with the evolving requirements of international economic integration.[56]

With respect to the stipulation that an investment must comply with the laws and regulations of the host country, it can be observed that the majority of China's IIAs incorporate such a provision, with only four agreements exhibiting a deviation therefrom.[57] This is consistent with the principles set forth in international investment conventions and the approach taken by the ICSID tribunal in adjudicating investment disputes, which entails a deference to the sovereignty and legal order of the host country. In ICSID cases, the tribunal has historically considered whether the investment in question complies with the legal framework of the host country when addressing disputes concerning the legality of the investment. The relevant provisions of China's IIAs guarantee that the rights and obligations between investors and the host country are balanced under the aegis and protection of the host country's laws in international investment activities.[58] Additionally, with regard to the territorial prerequisite of an investment, the majority of China's IIAs stipulate that a qualifying investment must be made within the territorial boundaries of the host country. Nevertheless, there are a few exceptions where this stipulation is not present.[59] This is consistent with the prevailing practice of international investment agreements in delineating the territorial scope of investment, which provides clarity on the spatial extent of investment activities and facilitates the specific application of regulations and the ascertainment of responsibilities in investment dispute resolution and the protection of investment rights and interests.[60]

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[56] Liu Fang (刘芳), *Touzizhe—Guojia Zhongcai Jizhi Zhong "Touzi" Gainian de Jiedin Ji Zhongguo de Xuanze (投资者—国家仲裁机制中"投资"概念的界定及中国的选择) [The Definition of "Investment" in Investor-State Arbitration Mechanism and China's Choices]*, GUOJI SHANGWU YANJIU (国际商务研究) [INT'L BUS. RSCH.], no. 1, 2020, at 63, 66.

[57] These five agreements are China–South Korea Free Trade Agreement (2015), China–Japan–Korea Investment Agreement (2012), China–Switzerland Bilateral Investment Agreement (2009), and China–New Zealand Free Trade Agreement (2008).

[58] Yu Wenjie (于文婕), *Shuangbian Touzi Tiaoyue Touzi Dingyi Tiaokuan Zhong "Fuhe Dongdaoguo Falü" Yaoqiu Dui ICSID Zhongcai Guanxia de Yingxiang Ji Qi Qishi (双边投资条约投资定义条款中"符合东道国法律"要求对 ICSID 仲裁管辖的影响及其启示) [The Effect of "in Accordance with the Laws of the Host State" Requirement in Investment Definition Clause of BIT upon the Jurisdiction of ICSID and Its Implication]*, 16(4) GUOJI JINGJIFA XUEKAN (国际经济法学刊) [J. INT'L ECON. L.] 325, 341-43 (2009).

[59] These five agreements are China–Japan–South Korea Investment Agreement (2012), China–Switzerland Bilateral Investment Agreement (2009), China–Papua New Guinea Bilateral Investment Agreement (1991), China–Australia Bilateral Investment Agreement (1988), and China–New Zealand Bilateral Investment Agreement (1988).

[60] Wang, *supra* note 55, at 52-53.

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Finally, eight IIAs necessitate that investors obtain permission, approval, or acceptance from the host country prior to making an investment.[61] For example, Article 10.1 of the RCEP stipulates that "where a notification or approval process is required for making an investment, an investor that 'seeks to make' an investment refers to an investor that has initiated such notification or approval process." This figure aligns with the findings of ICSID tribunals and analogous investment agreements. From the perspective of maintaining national sovereignty, this provision is consistent with the recognition by ICSID of the right of the host country to regulate investment. This includes the ability to regulate matters such as national security or investment in key industries, thereby ensuring that the host country's right to reasonable review is upheld and that the balance between national sovereignty and the freedom of investment is maintained.[62] In terms of risk prevention and control, the concept is similar to that of ICSID, which prompts investors to consider investment compliance in advance. This reduces the risk of disputes arising from failure to comply with the host country's policies and regulations and ensures investment stability. From the perspective of international investment trends, changes in the global investment environment have resulted in adjustments to investment access rules. In this context, China's eight agreements are required to comply with this trend, just as the ICSID tribunals dynamically update their investment definition standards based on new circumstances. This approach guarantees the orderliness of investment while reserving space for adapting to the new challenges of investment in emerging industries and facilitates the coordinated development of international investment rules.[63]

III. THEORETICAL SCRUTINY: THE FEASIBILITY OF DATA AS AN INVESTMENT FORM WITHIN THE FRAMEWORK OF CHINA'S IIAS

As IIAs are continually modified to reflect the changing economic context, the question of whether data can be considered a valid investment

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[61] These eight agreements are the Regional Comprehensive Economic Partnership Agreement (2020), China–Syria Bilateral Investment Agreement (1996), China–Malaysia Bilateral Investment Agreement (1988), China–Norway Bilateral Investment Agreement (1984), China–Italy Bilateral Investment Agreement (1985), China–Denmark Bilateral Investment Agreement (1985), China–Austria Bilateral Investment Agreement (1985), and China–Thailand Bilateral Investment Agreement (1985).

[62] *See generally* Benedict Kingsbury & Stephan W. Schill, *Public Law Concepts to Balance Investors' Rights with State Regulatory Actions in the Public Interest-the Concept of Proportionality*, *in* INTERNATIONAL INVESTMENT LAW AND COMPARATIVE PUBLIC LAW 75 (Stephan W. Schill ed., 2010).

[63] Zhu Wenlong (朱文龙), *Guoji Touzi Lingyu Touzi Dingyi de Fazhan Ji Dui Zhongguo de Qishi (国际投资领域投资定义的发展及对中国的启示) [The Development of Investment Definition in International Investment Field and Its Enlightenment to China]*, DONGFANG FAXUE (东方法学) [ORIENTAL L.], no. 2, 2014, at 152, 160.

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within the framework of China's IIAs has emerged as a topic of significant academic and practical discussion. In light of the growing significance of data-driven enterprises and cross-border data transfers, it is crucial for both investors and host countries to comprehend the potential status of data as an investment. This has implications not only for the scope of protection and rights accorded to investors but also for regulatory sovereignty and the balance of interests in international investment relations.[64] The theoretical scrutiny thus aims to identify and examine the multiple dimensions and conditions that need to be considered to determine the feasibility of data being recognised as an investment form under China's IIAs, thereby providing a foundation for a comprehensive and in-depth exploration. To this end, an in-depth exploration will be conducted from the following dimensions. Firstly, in the capital or resource commitment dimension, is it clear that resources such as labour and technology are being invested in the collection, storage and analysis of data, thus showing clear characteristics of a cost input? Second, in the dimension of expected benefits, is the goal of data commercialisation to generate economic benefits, thus demonstrating an expectation of profit? Thirdly, in the dimension of risk taking, does data-related investment inevitably involve risks such as security, privacy and market volatility? Fourth, in terms of the contribution that data can make to the economic development of the host country, does it have the potential, if used rationally, to significantly accelerate economic growth? Fifth, must data-related activities comply with the legal and regulatory framework of the host country, in accordance with the principle of national law? Sixth, in terms of geographical scope, is the use of data usually limited to a specific territorial boundary? This section provides a detailed analysis of these dimensions.

A. The Commitment of Capital or Other Resources

It could be argued that the characteristics of data as an asset do not wholly align with the conventional definition of assets. There are, it seems, notable differences. For instance, data assets are intangible and rely on digital storage, whereas traditional assets are often in a physical form. The replication and dissemination of data assets can be achieved rapidly and at a low marginal cost, whereas traditional assets are frequently constrained in their replication and costly to reproduce. The valuation of data assets is influenced by a multitude of factors, including the quality and scale of the data in question. In contrast, traditional assets are typically evaluated using

[64] *See generally* Thomas Streinz, *International Economic Law's Regulation of Data as a Resource for the Artificial Intelligence Economy*, *in* ARTIFICIAL INTELLIGENCE AND INTERNATIONAL ECONOMIC LAW: DISRUPTION, REGULATION, AND RECONFIGURATION 175 (Shin-Yi Peng et al. eds., 2021).

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a relatively fixed and intuitive framework.[65] From the initial stages of data collection onwards, enterprises are required to invest significant resources, comprising human, material and technological capital, throughout the entire life cycle of the data. For instance, the formation of professional data collection teams and the procurement of advanced data collection equipment and technical means are typical requirements for enterprises seeking to collect large-scale and accurate data. These endeavours inevitably entail capital expenditures, including labour costs and equipment procurement costs. In the data processing stage, enterprises must invest in professional data processing software, hire data analysts and carry out complex tasks such as data cleaning, sorting, analysis and mining in order to transform the original data into valuable data resources that can be analysed and utilised. This also requires a significant amount of capital and resource investment. Furthermore, in the data storage stage, enterprises must invest in constructing stable and secure data storage facilities and applying data encryption and protection technologies in order to ensure the continuous security of their data.[66]

In practice, prior to their explicit inclusion in the forms of investment delineated by the IIA, data may be interpreted as a variety of other forms of investment, including the object of commercial contracts, the equity of enterprises, or other forms of investment within the broader definition of the term.[67] For instance, the investment forms delineated in Article 10.1 of the RCEP encompass "claims to money or to any contractual performance related to a business and having financial value". Consequently, if data can be allocated in accordance with the law, it can be recognised as the subject of commercial contracts. It can be argued that commercial contracts involving data as the subject of transactions may therefore fall within the scope of the definition of "investment". Furthermore, the judicial practice acknowledges data as a competitive property right of enterprises and a means of obtaining commercial benefits. In *Taobao v. Meijing* Unfair Competition, the courts of first and second instance did not accept Taobao's argument that the data products in question constituted Taobao's intangible assets. Instead, the courts recognised that the data products in question had property rights relevant to competition law, constituted Taobao's competitive advantage and should be protected under the Anti-Unfair Competition Law.[68] It appears

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[65] Zhang, *supra* note 18, at 93.

[66] *See generally* Tao Xu et al., *From Data to Data Asset: Conceptual Evolution and Strategic Imperatives in the Digital Economy Era*, 18(1) ASIA PAC. J. INNOVATION & ENTREPRENEURSHIP 2 (2023).

[67] Zhao Dan (赵丹) & Lou Weiyang (娄卫阳), *Shuju de Touzi Shigexing Ji Zhongguo Yinying (数据的投资适格性及中国因应) [The Eligibility of Data as Investment and China's Response]*, 306 SHEHUI KEXUEJIA (社会科学家) [SOC. SCIENTIST] 122, 123-24 (2022).

[68] Zhu Jingjie (朱静洁), *Woguo Shouli Dashuju Chanpin Buzhengdang Jingzheng Jiufenan de Falü Qishi (我国首例大数据产品不正当竞争纠纷案的法律启示) [The Legal Implications of China's*

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that this case acknowledges the potential for data to be regarded as a form of property. One might argue that if data are legally acknowledged as assets, it would be reasonable to incorporate investments made with data assets into the definition of investment as inputs of capital or other resources.

To date, it is beyond question that data has become an asset, supported by robust practical and theoretical foundations.[69] It would seem that Chinese laws are also exploring the theoretical feasibility of data as an asset. On 10 March 2023, the Second Plenary Session of the 20th Central Committee of the Communist Party of China adopted the Plan for the Reform of Party and State Institutions. The plan put forth the establishment of the National Data Bureau, which would be responsible for coordinating the construction of data infrastructure, facilitating the integration, sharing, development, and utilisation of data resources, and comprehensively promoting the planning and construction of "Digital China", the digital economy, and the digital society.[70] However, it is notable that Chinese legislation does not explicitly address the issue of data ownership. It is not evident whether data rights are to be regarded as property rights or as a discrete category of rights. Article 127 of the Civil Code stipulates that in instances where the law contains provisions pertaining to the protection of data and network virtual property, such provisions shall be applicable.[71] This can be interpreted as an indication that data is being regarded as having similar property attributes to virtual property, thus representing a precedent for the recognition of data as civil property rights. Similarly, the Data Security Law emphasises that "the state shall protect the data-related rights and interests of individuals and organizations, encourage the lawful, reasonable and effective utilization of data, safeguard the orderly and free flow of data in accordance with the law, and promote the development of a digital economy with data as a key factor."[72] It can thus be concluded that data has become a fundamental production factor in the digital economy, with significant economic value.

Furthermore, the Opinions on Building a Better Data Basic System to Enhance the Role of Data Elements, issued by the State Council in December 2022, proposes exploring a structured system of data property rights with

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First Case of Unfair Competition Dispute Involving Big Data Products], RENMIN FAYUAN BAO (人民法院报) [PEOPLE'S CT. DAILY], Sept. 26, 2018, at 7.

[69] U.N. CONF. ON TRADE & DEV., DIGITAL ECONOMY REPORT 2021: CROSS-BORDER DATA FLOWS AND DEVELOPMENT: FOR WHOM THE DATA FLOW iv (2021).

[70] *Zujian Guojia Shuju Ju (组建国家数据局) [Establishment of the National Data Bureau]*, XINHUA WANG (新华网) [NEWS.CN] (Mar. 7, 2023, 04:49:29 PM), http://www.news.cn/politics/2023lh/2023-03/07/c_1129419141.htm.

[71] Zhonghua Renmin Gongheguo Minfadian (中华人民共和国民法典) [Civil Code of P.R.C.] (promulgated by the Standing Comm. Nat'l People's Cong., May 28, 2020, effective Jan. 1, 2021), art. 127, 2020 CIV. CODE SPEC. ISSUES STANDING COMM. NAT'L PEOPLE'S CONG. GAZ. 2, 24.

[72] Zhonghua Renmin Gongheguo Shuju Anquan Fa (中华人民共和国数据安全法) [Data Security Law of P.R.C], (promulgated by the Standing Comm. Nat'l People's Cong., June 10, 2021, effective Sept. 1, 2021), art. 7, 2021(5) STANDING COMM. NAT'L PEOPLE'S CONG. GAZ. 951, 952.

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Chinese characteristics. The framework establishes three distinct rights: data resource ownership, data processing and utilisation rights, and data product operation rights.[73] The National Development and Reform Commission has put forth a proposal for the creation of a data registration system that would encompass the entire value chain of data elements, including both on-exchange and off-exchange markets, as well as multi-level markets.[74] In July 2022, the Supreme People's Court, in the Opinions on Providing Judicial Services and Safeguards for Accelerating the Construction of a Unified National Market, placed significant emphasis on the importance of protecting the property rights of data products developed by market entities through lawful data collection and self-generation. A number of provinces and cities in China are accelerating the legislative process concerning data rights. For instance, Article 12 of the Shanghai Data Regulations (2022) stipulates that market entities are entitled to legal property rights over data products and services resulting from their lawful data processing, in accordance with the stipulations set forth in the pertinent legislation, administrative regulations, and the provisions of these regulations. Furthermore, Article 15 stipulates that market entities are entitled to engage in data trading activities in accordance with the relevant legislation.[75] In light of the prevailing trend of data assetisation under Chinese law, data-related investment can be effectively conducted in the form of investment assets or other asset forms, thereby aligning with the stipulation of "the Commitment of Capital or other Resources" for investment.

B. The Expectation of Gain or Profit

The utilisation and disposal of data can result in direct or indirect economic benefits for enterprises. These may include improvements in production efficiency, enhancements to product or service quality, and increases in sales, which collectively generate economic returns. Furthermore, the sale of data or data products can provide additional revenue

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[73] *Zhonggong Zhongyang Guowuyuan Guanyu Goujian Shuju Jichu Zhidu Genghao Fahui Shuju Yaosu Zuoyong de Yijian (中共中央国务院关于构建数据基础制度更好发挥数据要素作用的意见) [Opinions on Building a Better Data Basic System to Enhance the Role of Data Elements]*, XINHUA SHE (新华社) [XINHUA NEWS AGENCY] (Dec. 2, 2022), https://www.gov.cn/zhengce/2022-12/19/content5732695.htm.

[74] *Zuigao Renmin Fayuan Guanyu Wei Jiakuai Jianshe Quanguo Tongyi Dashichang Tigong Sifa Fuwu he Baozhang de Yijian (最高人民法院关于为加快建设全国统一大市场提供司法服务和保障的意见) [Opinions on Building a Better Data Basic System to Enhance the Role of Data Elements]*, ZHONGHUA RENMIN GONGHEGUO ZUIGAO RENMIN FAYUAN GONGBAO (中华人民共和国最高人民法院公报) [SUP. PEOPLE'S CT. GAZ.] (July 14, 2022), http://gongbao.court.gov.cn/Details/58dedb008774ac4b7e14b47842c805.html.

[75] Shanghaishi Shuju Tiaoli (上海市数据条例) [Shanghai Data Regulations], (promulgated by the Standing Comm. of the People's Cong. of Shanghai Mun., Nov. 25, 2021, effective Jan. 1, 2022), art. 12, 2021(10) STANDING COMM. OF THE PEOPLE'S CONG. OF SHANGHAI MUN. GAZ. 22, 25.

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streams for enterprises. In practice, the value of data can be monetised through the direct conversion of its worth into shares or ownership stakes. This can serve to increase the capital of an enterprise or alternatively be deployed for external investments.[76] It is erroneous to assume that all transactions involving data are sales activities. In some cases, data asset transactions may be classified as one-off sales. For instance, in accordance with pertinent legislation, a Chinese foreign-owned enterprise routinely furnishes its proprietary customer data to a Chinese business partner for the precise targeting of advertising. In lieu of immediate remuneration for the data, the business partner disburses dividends to the foreign-owned enterprise on a periodic basis. In such a scenario, the data asset transaction is not merely a sales activity; rather, it assumes the form of an investment.

Furthermore, the consolidation of multinational corporations has also demonstrated an appreciation for the intrinsic value of data. The aggregation of data by a company can confer significant advantages upon the acquiring party. The presence of a foreign-funded enterprise with a substantial and valuable data asset in the host country has the potential to enhance the company's valuation, attract a larger pool of investors, and create greater opportunities for financing and value appreciation. For instance, in 2016 Microsoft acquired the global professional social networking company LinkedIn for the sum of $26.2 billion.[77] The premium paid, which was as high as 50%, was considered to adequately reflect the estimated value of LinkedIn's data assets that were not included in the balance sheet. This is because, at the time of the acquisition, LinkedIn had a user base of 400 million and held a significant amount of personal user information and other data assets.[78] As a result, LinkedIn's data generated significant revenues and profits after the acquisition. In conclusion, the market value of data can be realised through the internal optimisation of data-driven companies, the external commercialisation of data businesses and the industrial development of data transactions.[79]

C. The Assumption of Risk

While overseas investment in data presents a multitude of opportunities, it is also associated with a number of inherent risks. Such risks include those

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[76] Song, *supra* note 49, at 44.

[77] *See generally* Rajesh B. Kumar, *Microsoft's Acquisition of LinkedIn*, *in* WEALTH CREATION IN THE WORLD'S LARGEST MERGERS AND ACQUISITIONS 235 (Springer Nature Swaz. AG ed., 2019).

[78] *Shuju Zichanhua Zhi Lu Shuju Zichan de Guzhi Yu Hangye Shijian (数据资产化之路—数据资产的估值与行业实践) [The Road to Data Assetization: Valuation and Industry Practices of Data Assets]*, DELOITTE & ALIBABA RSCH., 17 (2019), http://blog.kurokoz.com/wp-content/uploads/2021/11/1636720863-389-valuation-of-data-assets-and-industry-practices.pdf.

[79] *See generally* Bingwan Xiong et al., *Unpacking Data: China's 'Bundle of Rights' Approach to the Commercialization of Data*, 13(2) INT'L DATA PRIV. L. 93 (2023).

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pertaining to data security, market and business operations, geopolitical factors, and legal compliance. First, the accuracy, consistency, and credibility of data are of paramount importance for determining the value of data assets. In the event that an enterprise in which an investment is made lacks robust data collection capabilities, resulting in poor data quality, the enterprise may fail to realise the anticipated business benefits, leading to financial losses. In practice, ensuring the security and privacy protection of data assets is of the utmost importance. Data breaches, network attacks, and unauthorised data access can have severe consequences, including reputational damage and legal liabilities.[80] For instance, In July 2024, a technology company sued an IT company for illegally obtaining data on software delays. The Beijing Chaoyang Court ruled that the plaintiff's data was a form of competitive advantage and therefore protected. The defendant's actions were considered unethical and illegal. The court ordered the defendant to stop, implement a remediation plan and pay 12.5 million.[81]

Besides, the value of data assets can be influenced by a number of factors, including foreign market demand and technological advances, which can result in fluctuations in value. When multinational companies invest in data assets, they frequently consider their future expectations as part of the valuation assessment. However, if these expectations fail to materialise into tangible business benefits, this can result in significant losses and pose business risks. Furthermore, the market for data assets is highly competitive, and the emergence of new competitors or technological innovations may reduce the competitive advantage of investors' data assets.[82] Furthermore, political and civil unrest, in addition to war and other forms of instability in the target country, may present a threat to the security of data centres and other critical infrastructure, with the potential to disrupt the normal storage, processing and transmission of data. For example, in regions experiencing armed conflict, data centres may be vulnerable to acts of sabotage or illegal occupation, resulting in data loss or damage.[83]

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[80] *Shuju Zichanhua Zhi Lu Shuju Zichan de Guzhi Yu Hangye Shijian (数据资产化之路—数据资产的估值与行业实践) [The Road to Data Assetization: Valuation and Industry Practices of Data Assets]*, *supra* note 78, at 21.

[81] Sun Mantao (孙满桃), *Yi Gongsi Zhuaqu Bing Shiyong Daohang Dianzi Ditu Shuju Yingli, Fayuan Ishen Rending Goucheng Buzhengdang Jingzheng (一公司抓取并使用导航电子地图数据盈利，法院一审认定构成不正当竞争) [A Company Was Found to Have Engaged in Unfair Competition by Capturing and Using Navigation Electronic Map Data for Profit in the First Instance of the Court Trial]*, JINRI TOUTIAO (今日头条) [TODAY'S HEADLINES] (July 4, 2024, 2:06 PM), https://www.toutiao.com/article/7387658115115713076/?upstreambiz=doubao&source=mredirect.

[82] *Shuju Zichanhua Zhi Lu Shuju Zichan de Guzhi Yu Hangye Shijian (数据资产化之路—数据资产的估值与行业实践) [The Road to Data Assetization: Valuation and Industry Practices of Data Assets]*, *supra* note 78, at 35.

[83] Liliya Khasanova, *International Shocks and Regional Responses in Data Governance*, LAWFARE (Oct. 22, 2024), https://www.lawfaremedia.org/article/international-shocks-and-regional-responses-in-data-governance.

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The potential for policy shifts in the country of intended investment could have a considerable impact on data-related investments. To illustrate, the country in question may introduce new data regulatory policies, reinforce restrictions on the cross-border flow of data, or impose more rigorous requirements on the collection, storage and utilisation of specific data types. In such a scenario, adjustments to the investment layouts previously adopted by enterprises may be required, resulting in increased compliance costs and, in some cases, the cessation of operations. To date, concerns persist regarding China's highly restrictive data and cybersecurity regime, which aims to protect domestic data from external influences.[84] Recently, there have been heightened requirements regarding the cross-border transfer of data. For instance, Article 37 of Cybersecurity Law stipulates that operators of critical information infrastructure must store the personal information and important data collected and generated within China's territory.[85] If there is a business need to provide such information and data to overseas entities, a security assessment must be conducted in accordance with measures formulated by the Cyberspace Administration of China and relevant departments of the State Council. Similarly, Article 36 of the Data Security Law prohibits organizations and individuals within China from providing data stored within the country's territory to foreign judicial or law enforcement agencies without the approval of the competent authorities of China. On July 7, 2022, the Cyberspace Administration of China announced the Measures for Security Assessment of Cross-Border Data Transfer (hereinafter "Measures").[86] In accordance with Article 4, if a data processor provides data to overseas entities and meets relevant conditions,[87] the processor is required to apply to the provincial-level cyberspace administration for a security assessment of cross-border data transfer. The assessment will then

[84] Shaoyan Sun, *China's Digital Economy: Development, Impacts, and Policies*, CHINA INST. UNIV. OF ALTA., 7 (2022), https://www.ualberta.ca/en/china-institute/media-library/media-gallery/research/analysis-briefs/2022/2022chinasdigitaleconomy.pdf.

[85] Zhonghua Renmin Gongheguo Wangluo Anquan Fa (中华人民共和国网络安全法) [Cybersecurity Law of P.R.C.] (promulgated by the Standing Comm. Nat'l People's Cong., Nov. 7, 2016, effective June 1, 2017), art. 37, 2016(6) STANDING COMM. NAT'L PEOPLE'S CONG. GAZ. 899, 903.

[86] Shuju Chujing Anquan Pinggu Banfa (数据出境安全评估办法) [Measures for Security Assessment of Cross-Border Data Transfer], (promulgated by the Cyberspace Admin. of China, July 7, 2022, effective Sept. 1, 2022), ST. COUNCIL. GAZ., Aug. 30, 2022, at 39, https://www.gov.cn/gongbao/content/2022/content_5707283.htm.

[87] The conditions are: (1) The data processor provides important data to overseas entities; (2) Operators of critical information infrastructure and data processors handling personal information of more than one million individuals provide personal information to overseas entities; (3) Data processors who have provided personal information to overseas entities totaling 100,000 individuals or sensitive personal information to 10,000 individuals since January 1 of the previous year provide personal information to overseas entities; (4) Other circumstances designated by the national cyberspace administration that require the application for a security assessment of cross-border data transfer. *Id.* art. 4.

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be submitted to the national cyberspace administration. Adhering to these regulations is crucial for digital enterprises to ensure compliance with legal requirements, avoid penalties, and maintain seamless business operations. Apple's experience in China demonstrates the potential risks associated with data security and regulatory compliance. As data security is of paramount importance and regulations continue to tighten, Apple's iCloud service, which stores Chinese users' sensitive data, must transition to local servers to ensure security. If Apple is unable to respond effectively to these changes, it may face significant challenges, including suspension of data business operations, increased approval issues, litigation, and financial penalties. Such challenges could negatively impact Apple's brand reputation, user trust, and market share in China, ultimately disrupting its data investment and revenue plans.[88]

D. Contribution to the Economic Development of Host Countries

In China's IIAs, there is often a view that the contribution to the host country's economy is an important factor in defining an investment. Similarly, in many cases of international investment, the construction of infrastructure serves the public interest and promotes the economic development of the host country. This is exemplified by the road sector in the Salini case.[89] Such investments are therefore of great importance in terms of their economic contribution. Nevertheless, there are a number of debates on whether this economic contribution should be used as a criterion for determining an investment. In *Victor Pey Casado and President Allende Foundation v. The Republic of Chile*[90] and *Quiborax v. Bolivia*[91], the tribunals recognised the concept of promoting economic development as mentioned in the preamble of the ICSID Convention. However, they found that economic development is the expected outcome of the investment, rather than an element that constitutes the investment itself. In evaluating the role of data as an investment component in the economic development of the host country, there is a significant discourse surrounding the characteristics and quantitative criteria associated with data as an asset. The complexity of measurement should not be interpreted as a lack of developmental

[88] Christine Hall, *Apple's iCloud in China Set to Move to State-Controlled Data Center*, DATA CTR. KNOWLEDGE (Jan. 12, 2018), https://www.datacenterknowledge.com/cloud/apple-s-icloud-in-china-set-to-move-to-state-controlled-data-center.

[89] Salini Costruttori S.p.A. & Italstrade S.p.A. v. Kingdom of Morocco, *supra* note 26, ¶ 57.

[90] Victor Pey Casado & President Allende Foundation v. Republic of Chile, ICSID Case No. ARB/98/2, Award, ¶ 232 (May 8, 2008), https://www.italaw.com/sites/default/files/case-documents/ita0638.pdf.

[91] Quiborax S.A., Non Metallic Minerals S.A. and Allan Fosk Kaplún v. Plurinational State of Bolivia, ICSID Case No. ARB/06/2, Decision on Jurisdiction, ¶ 220 (Sept. 27, 2012), https://www.italaw.com/sites/default/files/case-documents/italaw1098.pdf.

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contribution or the importance of data investment.[92] Despite the differences of opinion on this issue, it would be useful to consider whether data-driven investments have a positive effect on the economy of the host state, regardless of the degree to which this criterion is accepted by different tribunals.

From the perspective of the development of the digital economy, it could be said that the value of data lies in its flow. It might be contended that data that does not flow may not be as effective in creating value or driving economic growth as it could be.[93] As economic globalisation has developed, the world has seen an increase in international investment, as well as an increase in the frequency and capacity of cross-border data transfer, access and use. However, due to factors such as technological gaps, lack of governance and incomplete policies and regulations, the risks posed by cross-border data flows permeate the entire lifecycle of data.[94] The transfer, storage and use of data represent three main pathways through which cross-border data flows may be vulnerable to exploitation. If these risks are not effectively mitigated, they may infringe on the right to privacy of individuals, harm the legitimate interests of businesses, violate the data sovereignty of various countries, and be detrimental to the stable building of national societies and the sustainable growth of various economies.[95]

In light of the ongoing globalisation and deep digitalisation, data-driven investment has had a comprehensive and far-reaching impact on the upgrading of the host country's economy. This is due to the synergistic effects of technological innovation, expansion of market space, as well as training of talents and creation of employment.[96] Firstly, transnational data investment serves as a significant catalyst for technological innovation within the host country. For instance, Microsoft has established a research and development facility in China with the objective of conducting data investment activities. This has involved the introduction of sophisticated technologies, including cloud computing and optimised artificial intelligence algorithms, as well as the creation of a collaborative platform for local

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[92] Helena J. Engfeldt, *Should ICSID Go Gangnam Style in Light of Non-Traditional Foreign Investments Including Those Spurred on by Social Media? Applying an Industry-Specific Lens to the Salini Test to Determine Article 25 Jurisdictio*n, 32(1) BERKELEY J. INT'L L. 44, 62 (2014).

[93] *See generally* OECD, *Measuring the Value of Data and Data Flows*, (OECD Digital Econ. Papers No. 345, 2022).

[94] François LeSieur, *Regulating Cross-Border Data Flows and Privacy in the Networked Digital Environment and Global Knowledge Economy*, 2(2) INT'L DATA PRIV. L. 93, 98-100(2012).

[95] *See generally* Wang Weiling (王伟玲), *Shuju Kuajing Liudong Xitongxing Fengxian: Chengyin, Fazhan yu Jianguan (数据跨境流动系统性风险:成因,发展与监管) [Systemic Risks in Cross border Data Flow: Causes, Development, and Regulation]*, 7 INT'L TRADE 72 (2022).

[96] James Manyika et al., *Digital Globalization: The New Era of Global Flows*, MCKINSEY GLOB. INST., 75 (2016), https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20digital/our%20insights/digital%20globalization%20the%20new%20era%20of%20global%20flows/mgi-digital-globalization-full-report.pdf.

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scientific and technological professionals. These initiatives have contributed to significant advancements in software research. Furthermore, transnational data investment has facilitated the development and application of big data analysis, which has in turn given rise to innovative products and services. These include the localised optimisation of intelligent office software and special big data marketing solutions, which have assisted in the transformation and upgrading of industries to a greater degree of digitalisation and intellectualisation. It is imperative to establish a technological foundation that can facilitate sustainable economic development.[97] Secondly, cross-border data investment serves to expand the host country's market space and enhance its international competitiveness. Amazon's cross-border e-commerce investment in China has facilitated the export of products by Chinese small and medium-sized micro-enterprises.[98] This has been achieved through the use of precision marketing and efficient logistics, with the assistance of the global sales network and data mining capabilities. The revenue of these enterprises has increased, as has the export growth of related industries. Furthermore, the development of cross-border e-commerce services has been promoted, enhancing China's position in global trade and digital trade. Finally, it facilitates the cultivation of talent and the creation of employment opportunities. Multinational companies that engage in data investment in China implement a range of training initiatives to cultivate a workforce with a comprehensive understanding of the local market and an international perspective, advanced data skills, and the ability to contribute to local enterprises or start-ups. This ultimately enhances the quality of talent within the industry. Additionally, the construction and operation of data investment projects result in the creation of a significant number of jobs, spanning various sectors including data centre construction and maintenance, marketing, logistics and distribution. This has the effect of alleviating the pressure on the employment market and contributing to an overall increase in job opportunities within the industrial chain, thereby promoting the stable development of the economy. In this context, transnational data investment has become an important force in promoting global economic cooperation and development.[99]

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[97] Tingting Jiao, *Xieshou Hezuo Huoban, Gongtong Fajue Shuzihua Zhuanxing de Zhongguo Jiyu (携手合作伙伴，共同发掘数字化转型的中国机遇) [Together with Our Partners, We Will Explore the Opportunities of Digital Transformation in China]*, MICROSOFT (Aug. 25, 2016), https://news.microsoft.com/zh-cn/携手合作伙伴，共同发掘数字化转型的中国机遇/.

[98] Mpeshev, *The Power of Data: How Amazon Utilizes Big Data to Drive Sales*, CEO HANGOUT (May 16, 2023), https://ceohangout.com/the-power-of-data-how-amazon-utilizes-big-data-to-drive-sales/.

[99] *Zhongguo Shuju Fenxi Hangye Rencai Zhishu Baogao (中国数据分析行业人才指数报告) [China Data Analysis Industry Talent Index Report]*, ZHONGGUO SHANGYE LIANHEHUI SHUJU FENXI ZHUANYE WEIYUANHUI (中国商业联合会数据分析专业委员会) [CHINA DATA ANALYSIS COMM. OF CHINA GEN. CHAMBER OF COM.] 1, 15, 24 (2023), https://aigc.idigital.com.cn/djyanbao/【中国

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E. Compliance with the Legal Framework of the Host Country

As previously indicated, a number of China's IIAs include a legitimacy requirement, stipulating that investments must align with China's domestic legislation, regulations, and policies. To illustrate, the China-Congo BIT defines investment as any form of property that an investor of a Party establishes in the territory of the other Party in accordance with the laws and regulations of the other Party.[100] Given the definition of investment in the IIAs, which is aligned with the host country's laws, there are generally no significant legal barriers to data being considered as a form of qualified FDI, unless China explicitly excludes data from being considered as property rights. From the perspective of safeguarding national sovereignty and the public interest, countries implement legislative measures to regulate economic activity within their territory. These measures are designed to ensure that investments are aligned with national development strategies, industrial policy, environmental protection, and public welfare needs, while also contributing to the stability of the national and social fabric. In order to guarantee the integrity of the market and ensure fair competition, the host country's legislation establishes a set of behavioural norms.[101] Compliance with these laws by foreign investors is conducive to the maintenance of the normal order of the local market, the prevention of unfair competition, the protection of the rights and interests of local and other investors, and the promotion of a fair competitive environment and healthy economic development. For investors, compliance with the law can mitigate risks, obviate litigation, administrative penalties and asset confiscation, ensure the advancement of investment projects and the security of assets, and facilitate the establishment of constructive collaborative relationships. In the context of globalisation, the compliance of investors with the law constitutes a fundamental pillar for the sustainable development of international investment cooperation. It is only when investments in different countries are conducted within the legal framework that the international investment regime can be stabilised, investor confidence can be enhanced and investment cooperation can be continuously deepened and sustained.

The application of the clause "investment in accordance with the host country's law" in ICSID proceedings has, to date, encountered a number of

商业联合会】中国数据分析行业人才指数报告（2023）-2024-01-10.pdf.

[100] "The term "investment" means every kind of asset that has the characteristics of an investment, invested by investors of one Contracting Party in accordance with the laws and regulations of the other Contracting Party in the territory of the latter, and in particular." Agreement on the Promotion and Protection of Investments, China-Congo, art. 1.1, Aug. 11, 2011, https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/7893/download.

[101] *See generally* ANDREAS KULICK, GLOBAL PUBLIC INTEREST IN INTERNATIONAL INVESTMENT LAW (2012).

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complexities.[102] In the Salini case, a discrepancy emerged between the disputing parties regarding the categorisation of the contested investment contract as an "investment". The claimant advanced the argument that the investment contract fell within the definition of investment set forth in the Italy-Morocco BIT, which encompasses contractual benefits with economic value and rights acquired through adherence to legal or contractual provisions. However, the host country, Morocco, advanced the argument that the aforementioned provision was excessively ambiguous and should be interpreted based on the lens of Moroccan law, as stipulated in Article 1 of the BIT, which requires compliance with the host country's legal framework. After weighing the arguments presented by the parties, the arbitral tribunal determined that the pertinent provisions of the BIT were concerned with the legitimacy of the investment rather than its definition. Consequently, ascertaining whether the contract fell within the purview of investment should not be contingent upon the host country's legal framework.[103] In light of this decision, ICSID established the fundamental position of not applying the host country's law to the definition of investment. Scholars posit that data assets, even if they do not fully align with the criteria set forth by the domestic legislation of the host country, should not be immediately dismissed as potential investments. Instead, a more flexible approach should be adopted, similar to the treatment of intangible assets such as financial instruments.[104] This approach should take into account the specific factual context and the precise wording of the relevant IIA and be more in line with the trends and tendencies observed in the global digital economy.[105]

F. Territorial Nexus Between the Investment and the Host Country

In the field of international investment, there are clear basic criteria for a qualifying investment. Among these, the requirements regarding subject matter, time, and space are of particular importance.[106] The investment must be situated within the territory of the contracting party, thereby establishing a close territorial connection between the investment and the host country. In the context of the ICSID, if the IIA upon which the contracting parties rely

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[102] *See generally* Grabowski, *supra* note 27.
[103] Salini Costruttori S.p.A. & Italstrade S.p.A. v. Kingdom of Morocco, *supra* note 26, ¶¶ 42-49.
[104] *See generally* Scott J. Shackelford et al, *Using BITs to Protect Bytes: Promoting Cyber Peace by Safeguarding Trade Secrets Through Bilateral Investment Treaties*, 52(1) AM. BUS. L.J. 1 (2015).
[105] *See generally* Wei Shen & Shou Feng, *Calvo Is Back! Changing Sovereignty and Evolutionary Investment Law in a Leaving and Return of the State Paradigm*, *in* INTERNATIONAL INVESTMENT LAW AT THE JUNCTURE 57 (Wei Shen ed., 2024).
[106] Yu Zhang (张渝), *Guoji Touzi Fa Kuangjia Xia Shuju Zichan de Shigexing Yanjiu (国际投资法框架下数据资产的适格性研究) [A Study on the Eligibility of Data Assets Under the Framework of International Investment Law]*, 2 DIANZI ZHISHI CHANQUAN (電子知識產權) [ELECTRONICS INTELL. PROP.] 60, 65-68 (2023).

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explicitly states that the investment must be within the territory of one party, the responsibility falls upon the tribunal to ascertain whether the investment in question maintains a territorial connection with the host country. It is noteworthy that even in the absence of a clear definition of territorial requirements in an IIA, a tribunal may infer the necessity of a territorial connection with the host country for a qualifying investment. [107] Consequently, the territorial connection between data-driven investment and the host country has emerged as a pivotal objective criterion for assessing the qualification of an investment in data assets.[108]

It is possible to undertake investment activities that are closely related to data assets in a number of different locations. Such activities may be conducted within the host country, and in certain specific circumstances, they may also be carried out overseas. Firstly, foreign enterprises not only possess or control data resources in China but also engage in traditional investment fields, thereby establishing a substantial internal connection between the two. To illustrate, a foreign investor may opt to establish a company in China with a focus on data-related activities, such as data collection, storage, and processing, with the objective of subsequently selling the data. Secondly, a foreign national employs the potent instrument of the Internet to furnish an array of online services to Chinese users, with the storage and processing of data occurring domestically. Concurrently, this foreign national also oversees conventional investment initiatives in China that are closely linked to online services. For example, we may consider the case of a foreign national operating a social media platform for Chinese users. He precisely targets advertisements based on user information, stores and processes user data within China, and establishes an office specifically responsible for the marketing and promotion of advertising space. Thirdly, the foreign national in question owns or controls the data resources in question within China. To illustrate, a foreign national who provides remote medical services to Chinese customers utilises a cloud storage service provider in China for the storage and processing of user data. Additionally, this foreign national is engaged in the export processing industry in China. However, the two businesses are entirely distinct and have no overlap. In light of the fact that the aforementioned data assets are situated entirely within China's territory, it seems highly probable that the tribunal will acknowledge the existence of a territorial connection between data-related investments and the host country. In light of the fact that multinational companies operating in the digital sector frequently possess assets within China's regulatory purview, the tribunal may adopt a more comprehensive and integrated approach when evaluating government actions that adversely impact investors' investments.

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[107] Lucas D. Cuatrecasas, *International Investment Policy and the Coming Wave of Data-Flow Disputes*, 11(2) MICH. BUS. & ENTREPRENEURIAL L. REV. 285, 311 (2022).
[108] Song, *supra* note 49, at 44.

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It is therefore probable that should the data regulatory measures implemented by the Chinese government prove to be an unreasonable impediment to the development of data-driven businesses, the initiation of arbitration proceedings will be regarded as a legitimate and valid investment claim.[109]

The situation of data stored abroad is a complex one, comprising two main patterns. The initial pattern pertains to the question of ownership or control of conventional investment. The data generated by a foreign-funded enterprise in China is stored wholly or partially in overseas regions. To exemplify, a foreign national may establish an automotive enterprise in China, yet elect to utilise overseas cloud servers for the storage of customer data. As the enterprise constitutes a fixed business establishment within China, the situation of its data being stored abroad remains within the effective regulatory scope of the host country's data regulatory measures. The second pattern pertains to foreign nationals or enterprises that do not possess ownership or control of traditional investment within China, and the data collected by their online services is stored in overseas locations. To take an example, a foreign enterprise may provide cloud storage services to Chinese users via a data centre established in its country of origin, while also undertaking infrastructure construction projects in China. The two businesses are distinct entities with no significant interconnection. Nevertheless, as the pertinent data is derived from Chinese users, the foreign enterprise is still obliged to comply with the pertinent data regulatory regulations of China.[110]

In the rising tide of the digital economy, a new and striking trend has emerged. That is, the degree of dependence of international investment on physical assets and overseas labour is gradually decreasing. Nowadays, digital enterprises can successfully enter foreign markets with extremely streamlined resources and minimal physical scale.[111] Compared with traditional investment models, investment activities centred on data assets usually do not require the establishment of a large number of branches or physical facilities in the host country. Instead, they only need to set up representative offices, and liaison offices or even operate in the form of virtual entities without leaving any physical traces. In *SGS v. Philippines*, it was clearly recognised that the establishment of a representative office in the territory of the host country can be considered as a form of investment. However, this requires a comprehensive and in-depth assessment of the actual role played by the representative office in the overall business

[109] Wang, *supra* note 55, at 52-53.
[110] *Id.*
[111] Zeng Jianzhi (曾建知), *Kuaguo Shuzi Cunzai de Touzi Shigexing Ji Qi Baohu (跨国数字存在的投资适格性及其保护) [Investment Suitability of Transnational Digital Presence and Its Protection]*, 41(2) FASHANG YANJIU (法商研究) [STUDS. IN L. & BUS.] 87, 87-88 (2024).

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structure.[112] If data assets are defined as qualifying investments, then the offices or liaison offices established in the host country can also be defined as legal investments, as long as they can truly form a crucial and indispensable part of the business operation process.[113]

IV. CHINA'S DEVELOPMENTAL PARADIGMS AND CUTTING-EDGE OPERATIONAL STRATEGIES WITHIN THE FRAMEWORK OF DATA-DRIVEN INVESTMENT RULES

In the modern era of economic globalisation and digitisation, China's data regulatory measures, as a significant economic entity and an investment host country, have a considerable impact on activities related to the processing of commercial data, as well as on the ownership and disposal of related assets. The applicability of these measures to the concept of investment, as defined in IIAs, determines whether they are restricted. It is worth noting that in previous investment arbitration cases, data, as an indispensable asset of multinational digital companies, may have indirectly affected their market valuation and thus potentially influenced investment claims.[114] As the proportion of data in total assets increases, so too does the influence of data as a pivotal component of the digital economy on international investment arbitration. It is therefore of paramount importance from China's perspective to accurately identify whether data-related regulatory measures affect data-driven investments. However, as previously stated, the current framework of IIAs still presents uncertainties and divergences in effectively addressing these issues, thereby demonstrating the inadequacy of the drafting of investment provisions. It is evident that the concept of investment protection is undergoing a process of continuous evolution, as evidenced by the gradual recognition of intangible assets such as intellectual property and financial derivatives.[115] According to China's domestic and international investment law, the legal status and conceptual understanding of data are becoming increasingly clear. This has been further consolidated by the strengthening of China's emerging market data regulatory framework and the increasing degree of data commodification.[116] The development of data

[112] SGS Société Générale de Surveillance S.A. v. Republic of the Philippines, ICSID Case No. ARB/02/6, Decision of the Tribunal on Objections to Jurisdiction, ¶¶ 101-03 (Jan. 29, 2004), https://www.italaw.com/sites/default/files/case-documents/ita0782.pdf.

[113] Zeng, *supra* note 111, at 99.

[114] Horváth & Klinkmüller, *supra* note 16, at 582-85.

[115] *See generally* Chao Wang (王超), *Guoji Touzi Zhongcai Dui Zhishi Chanquan Diyuxing de Yingdui (国际投资仲裁对知识产权地域性的应对) [The Response of International Investment Arbitration to the Territoriality of Intellectual Property]*, 171(1) J. HENAN UNIV. ECON. & L. 136 (2019).

[116] Shen Weixing (申卫星), *Lun Shuju Yongyi Quan (论数据用益权) [On Data Usufruct]*, 299(11) ZHONGGUO SHEHUI KEXUE (中国社会科学) [SOC. SCIS. IN CHINA] 110, 110 (2020); Gao Fuping (高

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commodification is still in its nascent stages, which presents certain challenges for the recognition of data assets as eligible investments. It is of great consequence for China that international investment law responds in an appropriate manner and is aligned with the advancement of the global digital economy. It is essential for China to ensure the sustainable expansion and prosperity of the digital economy while exercising regulatory sovereignty in a prudent manner to avoid excessive burdens.[117] China should actively explore playing a greater role in the formulation of international investment rules, safeguarding its own rights and development space in the field of data cross-border investment, balancing the relationship between data regulation and investment promotion, and promoting the benign interaction and coordinated development between the domestic digital economy and the international investment environment.[118]

A. Endeavoring to Upgrade the Legal, Regulatory, and Policy Framework of Cross-Border Data Investment in China

In order to facilitate the healthy and orderly development of cross-border data investment, it is imperative that China takes prompt action to enhance the relevant legislative, regulatory and policy frameworks.[119] It is essential that a specialised cross-border data investment regulation is carefully formulated in order to accurately define its definition, scope and standards. It is of particular importance to provide a comprehensive list of the types of data assets that can be classified as qualified cross-border investments, provided that they have been lawfully collected, processed and stored.[120] Such data may include, for instance, user data, business operation data, scientific research data and so forth, which possess commercial value, have the potential to generate economic benefits and comply with Chinese laws, regulations and international obligations. An alternative approach would be to incorporate the relevant aspects of cross-border data investment into existing legislation, such as the Foreign Investment Law and its associated

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富平), *Lun Shuju Chiyouzhe Quan Goujian Shuju Liutong Liyong Zhixu de Xin Fanshi (论数据持有者权构建数据流通利用秩序的新范式) [On the Rights of Data Holders A New Paradigm for Building an Order for the Circulation and Utilization of Data]*, 35(2) ZHONGWAI FAXUE (中外法学) [PEKING UNIV. L. J.] 307, 307 (2023).

[117] Zhang, *supra* note 38, at 179.

[118] *See generally* An Chen, *What Should Be China's Strategic Position in the Establishment of New International Economic Order? With Comments on Neoliberalistic Economic Order, Constitutional Order of the WTO, and Economic Nationalism's Disturbance of Globalization*, *in* THE VOICE FROM CHINA, UNDERSTANDING CHINA 167 (Springer 2013).

[119] Yu Zhang (张渝), Guoji Touzi Fa Shiyu Xia Shuju Zichan Baohu Yanjiu (国际投资法视阈下数据资产保护研究) [Research on Data Assets Protection in the Context of International Investment Law], 117-22 (2023) (LL.D. Thesis, Wuhan University).

[120] Zhang, *supra* note 106, at 72.

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regulations in China.[121] This will facilitate a high degree of unified standardisation and coordinated management between data investment and traditional forms of investment within the legal framework, thereby establishing a robust foundation for the smooth development of cross-border data investment activities under the domestic legal system and ensuring that they are conducted in accordance with the relevant laws and regulations.[122] Moreover, rigorous access conditions must be established, necessitating an evaluation of the investment subject's past performance and capability with regard to data security and compliance. Concurrently, a comprehensive data security assessment standard for investment projects should be established, and the investor should be required to develop a detailed data security guarantee plan encompassing a range of measures, including data encryption, storage security, access control and emergency response.[123] This will enable the establishment of a robust foundation for the smooth development of cross-border data investment activities under the domestic legal system, ensuring that they are conducted in accordance with the relevant laws and regulations.

In the event that an investor seeks data protection and initiates an investment arbitration, the host country may be able to raise a defence based on the absence of appropriate safeguards or provisions in its domestic legislation.[124] It is possible that such a defence may receive limited support from arbitral tribunals, given that ICSID has taken the position that host country laws should not be applied in defining "investment." In light of the above, it would be prudent for China's IIAs to adopt an inclusive stance on data-driven investment. It is crucial for future IIAs to underscore the legality of data-driven investments within the host country, thereby safeguarding the host country's regulatory authority over such investments.[125] It is therefore recommended that China conduct a thorough examination of the current shortcomings and gaps in its domestic data legal framework. Furthermore, it would be prudent for China to explicitly emphasise in the IIAs that investments must comply with Chinese legal requirements. This would help to prevent the potential abuse of investment arbitration by investors or arbitral decisions that contradict Chinese laws related to data. Furthermore, while some IIAs already require compliance with Chinese laws or

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[121] Liu, *supra* note 56, at 71.
[122] Cheng, *supra* note 5, at 342.
[123] *Zhonggong Zhongyang Guowuyuan Guanyu Goujian Shuju Jichu Zhidu Genghao Fahui Shuju Yaosu Zuoyong de Yijian (中共中央 国务院关于构建数据基础制度更好发挥数据要素作用的意见) [Opinions on Building a Better Data Basic System to Enhance the Role of Data Elements]*, *supra* note 73.
[124] *See generally* Julien Chaisse & Cristen Bauer, *Cybersecurity and the Protection of Digital Assets: Assessing the Role of International Investment Law and Arbitration*, 21(3) VANDERBILT J. ENT. & TECH. L. 549 (2019).
[125] Shen, *supra* note 53, at 204-05.

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regulations, there is a dearth of explicit stipulations concerning the legality and procedural requirements of such investments. In future IIAs, China should prioritise the establishment of precise methodologies for accepting, approving or authorising data investments, while explicitly distinguishing which data investments require registration or approval by governmental authorities.[126]

B. Optimizing the International Investment Agreement Regime for Cross-Border Data Investment

It is of the utmost importance to endeavour to facilitate the optimisation and enhancement of the bilateral or regional cross-border data investment cooperation agreement system. It is recommended that active and proactive collaboration be sought with major trading partners and developed countries in the data economy with a view to comprehensively reviewing, examining, optimising and improving bilateral or regional cross-border data investment cooperation agreements.[127] It is vital to meticulously categorise the bilateral or multilateral investment agreements that have been concluded, supplement and optimise the clauses pertaining to cross-border data investment, explicitly delineate the investor protection apparatus in data-driven investment, guarantee that investors are treated equitably and reasonably in pivotal aspects such as the ownership, utilisation and income rights of data assets, and concurrently, rigorously delineate the supervisory authority of China with respect to data supervision, thereby preventing investment disputes precipitated by excessive or ambiguous supervision.[128]

It has been proposed by scholars that by adopting a broad interpretation of the term "investment", China could view data as falling within the scope of protection afforded by IIAs, thereby encouraging the inflow of digital enterprises into the country. Conversely, adopting a narrow definition of investment would potentially exclude data from the scope of protection under IIAs, thus discouraging digital companies from investing in China.[129] In response, this article argues for China's inclination towards adopting a broad definition of investment during the process of revising or updating IIAs, enabling the accommodation of digital economy investments and exemplifying China's progressive and open-minded perspective. Furthermore, the agreement text should provide further detail on the rights and obligations of both parties in the field of data investment, thereby enriching the connotations and forms of data investment promotion measures. It should also improve the investor protection mechanism and open up

[126] Song, *supra* note 49, at 52.
[127] Zhang, *supra* note 38, at 188-89.
[128] Zeng, *supra* note 111, at 100-04.
[129] Cheng, *supra* note 5, at 365.

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diversified channels and means for investors to resolve disputes.[130] By optimising the agreement system, it should lay a more solid, specific, and stable legal guarantee foundation for cross-border data investment activities between the two countries.

C. Comprehensively Propelling International Collaboration and Exchange of Cross-Border Data Investment Rules

In the context of cross-border data investment, within international organisations such as the World Trade Organization and the G20, as well as in the process of multilateral trade negotiations, China should endeavour to demonstrate its leading role and engage comprehensively and deeply in the formulation of cross-border data investment rules.[131] A comprehensive examination of China's data strategy and core interests in the digital economy, coupled with a close alignment with the global trajectory of the data economy, should facilitate the meticulous formulation of proposals that reflect both foresight and leadership. For instance, the establishment of transparent and well-defined data classification criteria would be highly beneficial. In the case of data types pertaining to matters of national security, critical infrastructure, and personal sensitive information, it is of paramount importance to ensure the effective regulatory power of data sovereign states while simultaneously pursuing the development of secure and efficient cross-border data flow models and channels.[132]

Moreover, it is imperative to reinforce the collaborative endeavours amongst nations in the domain of cross-border data investment policies and regulatory frameworks. With regard to cross-border data investment policies and regulatory practices, it is essential to engage in comprehensive and in-depth exchanges of opinions with other countries and to establish close and active dialogue mechanisms. It is proposed that a regularised discussion and exchange platform for cross-border data investment policies be established by leveraging bilateral or multilateral cooperation frameworks. Concurrently, it is recommended that comprehensive research projects be conducted in collaboration, with a particular focus on the global difficulties and challenges encountered in the field of cross-border data investment. The core objective of these projects is to develop a unified and effective response strategy. One potential avenue for achieving this objective is the establishment of a cross-border data dispute arbitration coordination mechanism. Such a mechanism could markedly enhance the efficacy and

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[130] Zhao & Lou, *supra* note 67, at 127.
[131] Shen, *supra* note 53, at 206-07.
[132] Yanqing Hong, *Guojia Anquan Shiye Zhong de Shuju Fenlei Fenji Baohu (国家安全视野中的数据分类分级保护) [Data Classification and Hierarchical Protection in the Perspective of National Security]*, 5 CHINA L. REV. 71, 71-78 (2021).

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impartiality of dispute resolution, fostering mutual understanding, collaborative action, and comprehensive integration among countries in the domain of cross-border data investment regulation.[133]

V. CONCLUSION

In the contemporary era, countries are engaged in an ongoing process of refining and enhancing the definitional provisions of investment in IIAs. These agreements encompass a range of capital flows and their associated hierarchical structures, which are subject to protection and regulation by both capital-exporting and capital-importing countries. China occupies a distinctive position within the global economic landscape, assuming the dual and pivotal roles of both an investor's home country and a host country. China is striving to facilitate the digital transformation of its own industries and the dynamic advancement of digital industrialisation. Concurrently, it is also proactively formulating and expediting a strategic blueprint for foreign digital investment. In the frontier digital technology fields, such as big data, artificial intelligence, and 5G, which are characterised by high dynamism and significant potential, there is considerable scope for collaboration between China and other countries. Furthermore, China is pursuing an active and open approach to attract high-quality digital economy enterprises from across the globe to invest and conduct business in China.[134] It is evident that prominent multinational corporations operating within the digital economy have demonstrated a keen interest in the data investment protection landscape in China. In the absence of adequate adaptive measures and mechanisms in the relevant investment protection field, the smooth introduction of high-quality foreign capital will undoubtedly be hindered. When concluding International Investment Agreements with investment partners, China must give due consideration to the core issues of common concern among all parties, adopting a prudent and rigorous approach. This will facilitate the achievement of the country's grand strategic goal of "Digital China"[135] through comprehensive and in-depth reform measures. Furthermore, it has become imperative to actively advocate and vigorously promote Chinese enterprises operating in the digital economy to effectively utilise the ISDS mechanism. Such an approach can effectively prompt

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[133] *See generally* Yuwen Li & Bian Cheng, *China's Stance on Investor-State Dispute Settlement: Evolution, Challenges, and Reform Options*, 67 NETH. INT'L L. REV. 503 (2020).

[134] Fan Feifei, *Digital Trade Development Key to Growth*, CHINA DAILY (Nov. 30, 2024), https://www.chinadaily.com.cn/a/202411/30/WS674a52fba310f1265a1d0595.html.

[135] *Zhonggong Zhongyang Guowuyuan Yinfa 《Shuzi Zhongguo Jianshe Zhengti Buju Guihua》(中共中央 国务院印发《数字中国建设整体布局规划》) [The Central Committee of the Communist Party of China and the State Council Issued the Overall Layout Plan for the Construction of Digital China]*, XINHUA SHE (新华社) [XINHUA NEWS AGENCY] (Feb. 27, 2023), https://www.gov.cn/zhengce/2023-02/27/content_5743484.htm.

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arbitration tribunals to accelerate the work of defining and elucidating the category of data as a qualified investment and accurately include it in the protection scope set by the IIAs concluded between China and other countries. Consequently, this will significantly facilitate the advancement and operationalisation of international investment reform. It is also recommended that China assume a leading role in the inclusion of data assets within the scope of international direct investment in international investment agreements. In parallel, it is essential to employ a nuanced approach, utilising various exception clauses, to navigate the intricate interrelationships between data asset protection, personal data protection, public interest safeguarding and national security protection. This will enable the effective realisation of the core interests and legitimate rights and interests of China's overseas data investment, as enshrined in the tenets of international investment law.[136]

[136] Juan Du & Xueliang Ji, *Assessing the Outward Foreign Investment Regulatory Regime in China: A Unified Outward Foreign Investment Law on the Horizon?*, 33(1) ASIA PACIFIC L. REV. 125, 147-48 (2024).

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