



ORIGINAL ARTICLE

Data Localization and the National Treatment Obligation in International Investment Treaties*

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Abstract

Data localization hurts foreign investment and brings potential economic advantages to domestic corporations relative to foreign corporations. This leads to the argument that data localization violates the national treatment principle in international investment treaties. By applying the ‘three-step’ approach to assess the legality of data localization with respect to the national treatment principle, this article finds that the legality of data localization depends on certain circumstances, including the domestic catalogues of foreign investment, the definition of data localization in domestic legislation, and whether international investment treaties explicitly or implicitly incorporate data protection through exceptions for the protection of the state’s essential security interests, public order, or public morals. China’s acceleration of its legislation processes to regulate cross-border data transfer has significant implications for the negotiations and modifications of Chinese international investment treaties.

Keywords: Data localization; data protection; national treatment; international investment treaties; China

1. Introduction

The fourth industrial revolution, characterized by technologies that blur the lines between the physical, digital, and biological spheres, marks the commencement of the era of the digital economy.¹ However, using technologies to connect the physical world with the digital world also creates significant new challenges for policymakers in the global economy. In foreign investment law, states are seeking to promote digital economic development while strengthening their ‘right to regulate’ the digital economy, especially data. One way in which states impose regulation is through data localization, whereby specific categories of data are required to be collected, processed, or stored inside a country, thus precluding cross-border data transfer. Given modern life relies heavily on digital trade in a number of sectors including telecommunications, computer services, and internet publishing services, the issue of how data localization influences digital trade has been receiving increasing attention.² However, scholars have paid less attention to

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¹Schwab, K. (2016) ‘The Fourth Industrial Revolution: What It Means, How to Respond’, www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/.

²Regarding the relationship between data localization and international trade law, see Mitchell, A.D. and J. Hepburn (2017) ‘Don’t Fence Me In: Reforming Trade and Investment Law to Better Facilitate Cross-Border Data Transfer’, *The Yale Journal of Law and Technology* 19, 185–236; Mishra, N. (2017) ‘The Role of the Trans-Pacific Partnership Agreement in the Internet Ecosystem: Uneasy Liaison or Synergistic Alliance?’, *Journal of International Economic Law* 20(1), 31–60; Gao, H. (2018)

the relationship between data localization and investment. With increasing cross-border digital investment, data are likely to be recognized as property, a typical category of ‘asset’, and thus an investment for international investment law.³ Based on the assumption that data localization measures may cause additional costs for foreign corporations, some states and scholars have argued that data localization measures violate principles of national treatment,⁴ which prohibits negative differentiation between foreign and national investors.⁵ This article will examine whether data localization violates national treatment in international investment treaties.

This article proceeds as follows. Section 2 starts by asking whether data localization measures may violate national treatment in international investment treaties. That is, do data qualify as ‘investment’ in international investment treaties? Section 3 applies the ‘three-step’ approach to assessing the legality of data localization in international investment treaties, asking: whether foreign investors and domestic investors are in ‘like circumstances’; whether foreign investors are treated less favorably by data localization measures; and whether there are either explicit or implicit exceptions in international investment treaties for states to justify the differential treatments. Based on jurisprudence from international investment arbitrations, this article proposes that whether or not data localization legislation violates national treatment in international investment treaties will depend on several factors, including the state’s regulatory purpose, the state’s classification of economic sectors, and the state’s technological capability to prevent surveillance and attack. Section 4 considers data localization in domestic legislation and international treaties from a Chinese perspective. From a study of the decisions of cases before Chinese domestic courts and Chinese international investment treaties, this article finds that data should qualify as an ‘investment’ under Chinese international investment treaties. As China adopts the pre-establishment national treatment provision in its Foreign Investment Law and the China–EU Comprehensive Investment Agreement, China needs to carefully set out the legal bases for limiting the cross-border transfer of data to ensure that they are not violating its national treatment obligations in international investment treaties.

2 Data and Investment in International Investment Treaties

2.1 Data Localization in Domestic Legislation Regarding Investment

There are various data localization laws in different states, which fall into three categories. The first category is that data should be physically stored within a country’s jurisdiction, regardless of whether the data could also be transferred abroad.⁶ For example, the *Federal Law No. 242-FZ of Russia* requires that the processing of personal data of Russian citizens be conducted with the use of servers located in Russia.⁷ The second category requires that the use of computing

¹Digital or Trade? The Contrasting Approaches of China and US to Digital Trade’, *Journal of International Economic Law* 21, 297–321; Kuner, C. 2011. ‘The Regulation of Transborder Data Flows under Data Protection and Privacy Law: Past, Present and Future’, OECD Digital Economy Papers, no. 187; Tian, Y.-J. (2016) ‘Current Issues of Cross-Border Personal Data Protection in the Context of Cloud Computing and Trans-Pacific Partnership Agreement: Join or Withdraw’, *Wisconsin International Law Journal* 34(2), 367–408; UNCTAD (2016) *Data Protection Regulations and International Data Flows: Implications for Trade and Development*. Switzerland: United Nations Publication.

³See Ritter, J. and A. Mayer (2018) ‘Regulating Data as Property: A New Construct for Moving Forward’, *Duke Law & Technology Review* 16(1), 220; Zhang, S. (2019) ‘Cross-Border Data Flows in the Framework of International Investment Law: Protection, Exceptions and Challenges’, *Contemporary Law Review* (5), 151–152.

⁴See Creach, M.A. (2019) ‘Assessing the Legality of Data-Localization Requirements: Before the Tribunals or at the Negotiating Table?’, *Columbia FDI Perspectives* 254 (June). See also Ramesh, V. (2018) ‘Data Protection Principles around the World. Do They Violate International Investment Law?’, *Völkerrechtsblog*, 8 October 2018, <https://doi.org/10.17176/20181008-111554-0>.

⁵Rudolf, D. and C. Schreuer (2012) *Principles of International Investment Law*, 2nd edn. Oxford: Oxford University Press.

⁶Chander, A. and U.P. Lê (2015) ‘Data Nationalism’, *Emory Law Journal* 64(3), 680.

⁷Federal Law No. 242-FZ of Russia, Article 2. An English version is available at <http://wko.at/ooe/Branchen/Industrie/Zusendungen/FEDERAL%20LAW2.pdf>.

facilities remain within a state. Through a decree amending the *Code of Electronic Communications*, France made a ‘territorial’ restriction that requires that the interception systems of electronic communications be established in France.⁸ The third category is localization of service. For example, Canada requires 80 percent of the members on the board of directors of facilities-based telecommunication services suppliers to be Canadian citizens.⁹ Although there are other ways to cause additional burdens on free data transfer, such as a levy of ‘data tax’ to data derived from users’ activities in a state,¹⁰ such measures are generally different to direct and explicit data localization. In this regard, this article focuses on the above three categories.

Among the three requirements, the requirement of where data are stored/processed applies to both national citizens and foreign investors. Meanwhile, infrastructure and service localization are likely to affect foreign investors more than domestic investors. Therefore, data localization, especially the requirement of local storage, is likely to raise concerns that national treatment, which is primarily concerned with preventing discrimination based on nationality,¹¹ has been violated. A preliminary question is whether data are ‘investment’ in international investment treaties.

2.2 The Definition of ‘Investment’ in International Investment Law

There is no uniform definition of ‘investment’. In international investment law, the definitions of ‘investment’ vary from domestic regimes to international regimes. And the definitions also differ among different countries. From a comparative study of these different definitions,¹² some patterns of development can be observed. Currently, most BITs adopt a rather broad and open-ended approach by defining ‘investment’ as including ‘every kind of asset’, and the definition clause is usually accompanied by an illustrative list of assets that fall within the definition,¹³ while many multilateral investment agreements and free trade agreements define ‘investment’ with a closed list. In these BITs, the term ‘every kind’ provides an open-ended avenue to include a variety of assets. In fact, this broad approach is more often endorsed by developed countries than developing countries because developed countries are more likely to be capital-exporting countries in cross-border trade and investment. In these circumstances, the developed countries are inclined to enlarge the scope of protection for the exported capital.

The second observation of this comparative study is that there are generally six categories of assets that fall within the definition of ‘investment’, but just five of them are covered by most BITs. These five categories are movable and immovable property, companies and interests in companies, intellectual property rights, claims, and concessions, although the relevant language in each BIT varies slightly. Additional types of asset are licenses and permits, which are contained in only a few BITs.¹⁴ The first five categories basically refer to the transfer of rights between private parties in accordance with laws of general application, while the sixth category concerns

⁸Decree No. 2012-436 of 30 March 2012 amending the Code of Electronic Communications.

⁹The Telecommunications Act (S.C. 1993, c. 38), Section 16, <https://laws-lois.justice.gc.ca/PDF/T-3.4.pdf>.

¹⁰There is proposals of such ‘data tax’ in France, see Collin, P. and N. Colin (2013) ‘Task Force on Taxation of the Digital Economy’, Report to the Minister for the Economy and Finance, the Minister for Industrial Recovery, the Minister Delegate for the Budget, and the Minister Delegate for Small and Medium Size Enterprises, Innovation and the Digital Economy 122, www.21stcenturytaxation.com/uploads/Taxation_Digital_Economy_Jan2013_France.pdf.

¹¹*Corn Products International Inc. v. United Mexican States*, ICSID Case No. ARB(AF)/04/1, Decision on Responsibility, 15 January 2008, para. 109.

¹²Bischoff, J.A. and R. Happ (2015) ‘The Notion of Investment’, in M. Bungenberg et al. (eds.), *International Investment Law: A Handbook*. Nomos/Hart, Bloomsbury Publishing, at 495, 501, para. 11.

¹³See, e.g., ‘Agreement between the Government of the Republic of Indonesia and the Government of the People’s Democratic Republic of Algeria Concerning the Promotion and Protection of Investments, Indonesia and Algeria’, 21 March 2000, Article I.

¹⁴See, e.g., ‘Agreement for the Promotion and Protection of Investments between the Arab Republic of Egypt and the Republic of Zambia, Egypt and Zambia’, 28 April 2000, Article 1(1)(E), www.unctad.org/sections/dite/ia/docs/bits/egypt_zambia.pdf.

rights that the state grants to private parties through special legislation or administrative action.¹⁵

Currently states generally intend to adopt a broad approach when interpreting investment so as to encourage free investment, but the breadth of recognized investment still varies among states. According to the above mainstream definitions of investment, current international investment treaties have not explicitly listed ‘data’ as a category of investment. Though many international investment treaties include intellectual property rights as a category of investment, ‘raw’ user data not creatively processed are not regarded as an intellectual property right.¹⁶

Article 25(1) of the ICSID Convention intentionally leaves investment undefined to preserve flexibility and to allow for ‘future progressive development of international law on the topic of investment’.¹⁷ The approaches to interpreting investment in international investment arbitrations are not unanimous and consistent.¹⁸ In the existing case law, a widely, yet not universally, accepted approach to define investment is the *Salini* test. It states an investment must have four essential elements: (i) a contribution of capital or other resources; (ii) a certain duration; (iii) the assumption of risk; and (iv) a contribution to the development of the host state.¹⁹

As for the requirements of ‘a contribution of capital or other resources’, the *Salini* test can be financial, cultural, or environmental.²⁰ According to arbitral practice, the contribution of resources is not limited to financial capital, but also includes ‘know how, equipment and personnel’, and ‘financial terms’.²¹ The contribution requirement calls for a consideration of the nature and the type of data. The economic and social value of data varies in different types of data. According to an approach taken by the Organization for Economic Cooperation and Development (OECD) based on the distinction of the parties involved in data flows, data can be classified into four types: Business to Business (B2B), Business to Consumer (B2C), Government to Citizen (G2C), and Citizen to Citizen (C2C).²² B2B data, such as financial resources, and B2C data, such as health and financial services, are likely to meet ‘a contribution of capital or other resources’ requirement. G2C data, such as citizens’ health and tax data, are produced by the government. C2C data, such as emails and messages, are produced by citizens. Both G2C and C2C do not, when conceptualized narrowly, involve a foreign corporation’s expenditure of resources. However, it should be noted that the practical reality is much more complicated than the theoretical classification, namely there are numerous mixed-data circumstances. For example, when a foreign social media such as Facebook is operating in the host state, it carries C2C data produced by Facebook users. Facebook may claim that it carries B2C data processed based on the C2C data. In this way, Facebook has made a significant ‘contribution of capital and other resources’ in producing and operating its B2C data so that these data are protected as ‘investment’ in the International Investments Agreements (IIAs).

In building a database, data are consistently created, collected, and processed, which takes a certain duration and updates the database substantially, meeting the *Salini* test requirement of

¹⁵Vandeveldel, K.J. (2010) *Bilateral Investment Treaties: History, Policy, and Interpretation*. New York: Oxford University Press, 128.

¹⁶Horváth, E. and S. Klinkmüller. (2019) ‘The Concept of “Investment” in the Digital Economy: The Case of Social Media Companies’, *Journal of World Investment and Trade* 20, 607.

¹⁷*Mihaly International Corporation v. Democratic Socialist Republic of Sri Lanka*, ICSID Case No. ARB/00/2, Award of 15 March 2002, para. 31.

¹⁸*Saha Fakes v. Turkey*, ICSID Case No. ARB/07/20, Award of 14 July 2010, para. 97.

¹⁹See *Salini Costruttori SpA and Italstrade SpA v. Kingdom of Morocco*, ICSID Case No. ARB/00/4, Decision on Jurisdiction (31 July 2001), para. 52.

²⁰See Williams, D.A.R. and S. Foote (2012) ‘Recent Developments in the Approach to Identifying an “Investment” Pursuant to Article 25(1) of the ICSID Convention’, in C. Brown and K. Miles (eds.), *Evolution in Investment Treaty Law and Arbitration*. Cambridge and New York: Cambridge University Press.

²¹See *Bayindir Insaat Turizm Ticaret Ve Sanayi AŞ v. Islamic Republic of Pakistan*, ICSID Case No. ARB/03/29, Decision on Jurisdiction (14 November 2005), para. 131.

²²OECD (2019) ‘Data in the Digital Age’, OECD Going Digital Policy Note, March 201, www.oecd.org/going-digital/data-in-the-digital-age.pdf.

‘a certain duration’. With respect to the requirement of ‘the assumption of risk’, given the importance of data, many states regulate free cross-border data transfer through domestic regulations. In this sense, data are at risk of being regulated. Regulation such as data localization is likely to increase costs to foreign investors.²³ Namely, foreign investors are at risk of suffering economic loss given the regulation.

Another key to applying the *Salini* test to data is to consider whether the requirement ‘a contribution to the development of the host state’ is met. Whether data can contribute to the development of the host state depends on specific facts. In a broad sense, data can bring economic and social benefits to the host state in many ways, including giving rise to new business opportunities and increasing competition and co-operation within and across sectors.²⁴ Data can also underpin the host state’s many new business models that transform markets and sectors and drive productivity growth.²⁵ In many cases, foreign corporations’ data can contribute to the development of the host state by promoting its digital economy. Based on the above analysis, B2B and B2C data with economic value are likely to satisfy the definition of investment either in international investment treaties or by virtue of the *Salini* test. However, this does not mean that other categories of data do not definitely contribute to the development of the host state. The understanding of the nature of data is related to the element in the discussion. In the Facebook example above, Facebook users provide their data for free to Facebook, which monetizes the data. Considering that the contribution is not limited to financial capital but includes personnel, according to the *Salini* test if we take data as labor in the Industrial Revolution,²⁶ data provided to Facebook can also contribute to the development of the host state similarly to the contribution of labor, no matter whether the enterprises have paid for collecting these data or not. Assuming that data are regarded as an investment in an international investment treaty, the next question is whether data localization violates the national treatment principle in international investment treaties.

3 Data Localization and National Treatment in International Investment Treaties

3.1 Economic Impact of Data Localization on Investment

According to a 2018 OECD study, a 10% increase in bilateral digital connectivity raises goods trade by nearly 2 percent.²⁷ Cross-border data transfer is essential for micro, small, and medium-sized enterprises, creating a new breed of ‘micro multinationals’ which are ‘born global’.²⁸ Data transfer enables small and medium sized enterprises (SMEs) to access information technology services and therefore to reduce their cost for upfront investment in digital infrastructure. With better access to critical knowledge and information, SMEs can overcome their information

²³See e.g., Swedish Board of Commerce (2015) ‘No Transfer, No Production – A Report On Cross-Border Data Transfers, Global Value Chains and the Production of Goods’, European Commission, 28 April 2015, <https://ec.europa.eu/futurium/en/system/files/ged/publ-no-transfer-no-production.pdf>.

²⁴OECD (2019) *Enhancing Access To and Sharing of Data Reconciling Risks and Benefits for Data Re-use Across Societies*. Paris: OECD Publishing, 26 November 2019, www.oecd.org/going-digital/enhancing-access-to-and-sharing-of-data.pdf.

²⁵OECD (2015) *Data-Driven Innovation: Big Data for Growth and Well-Being*. Paris: OECD Publishing, https://read.oecd-ilibrary.org/science-and-technology/data-driven-innovation_9789264229358-en#page4.

²⁶Different analogies of data can be found at in Aaronson, S.A. (2018) ‘Data Is Different, and That’s Why the World Needs a New Approach to Governing Cross-Border Data Flows’, CIGI Paper No. 197, Centre for International Governance and Innovation, p.6.

²⁷López González, J. and J. Ferencz (2018) ‘Digital Trade and Market Openness’, OECD Trade Policy Papers, No. 217, 24, <http://dx.doi.org/10.1787/1bd89c9a-en>.

²⁸Manyika, J. et al. (2016) ‘Digital Globalisation: The New Era of Global Flows’, *McKinsey Global Institute*, March 2016, 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.

disadvantages and compete with larger enterprises.²⁹ Conversely, there are a number of studies that indicate that data localization gives rise to an increase in costs for corporations.³⁰ In the past, corporations choose data centers with cheap electricity, low taxes, and a large number of qualified IT specialists.³¹ Data localization measures usually entail additional costs for enterprises, including investment in storage capacity, duplication of servers, and data management.³² Specifically, data localization legislation is likely to have a greater impact SMEs than large transnational enterprises.³³

Considering the possible economic costs for foreign corporations, some scholars argue that data localization measures violate principles of international investment law, including national treatment, fair and equitable treatment, and non-expropriation.³⁴ However, some other scholars do not agree. They claim that states can maintain their 'right to regulate', to pursue public welfare, and other interests.³⁵ The intentions to balance interests of data regulation and other public welfare can also be found in recent digital trade agreements.³⁶ So far, there is extensive scholarship addressing whether data localization violates national treatment in international trade law and how WTO law can contribute to the regulation of cross-border data transfer.³⁷ So far, no dispute before the WTO has clarified the relationship between data localization and states' national treatment obligation. Though there have been two WTO cases with respect to the applicability of the GATS to internet services,³⁸ neither of them specifically addressed data localization measures. Furthermore, given that national treatment in international investment treaties and in the WTO has certain historical links, notwithstanding some differences in language,³⁹ GATT/WTO jurisprudence has noticeably influenced investor–state arbitral jurisprudence. This influence has been manifest in many cases before the International Centre for Settlement of

²⁹Casalini, F. and J. López González (2019) 'Trade and Cross-Border Data Flows', OECD Trade Policy Papers, 220, 14, <https://doi.org/10.1787/b2023a47-en>.

³⁰See e.g., Swedish Board of Commerce (2015) 'No Transfer, No Production – A Report on Cross-Border Data Transfers, Global Value Chains and the Production of Goods', European Commission, 28 April 2015, <https://ec.europa.eu/futurium/en/system/files/ged/publ-no-transfer-no-production.pdf>.

³¹OECD (2016) 'Economic and Social Benefits of Internet Openness', OECD Digital Economy Papers, 257, 29.

³²Gestrin, M.V. and J. Staudt (2018) 'The Digital Economy, Multinational Enterprises and International Investment Policy', OECD, 24 April 2018, www.oecd.org/investment/the-digital-economy-mnes-and-international-investment-policy.htm.

³³See Chander, A. and U.P. Lê (2015) 'Data Nationalism', *Emory Law Journal* 64(3), 722.

³⁴See Creach, M.A. (2019) 'Assessing the Legality of Data-Localization Requirements: Before the Tribunals or at the Negotiating Table?', *Columbia FDI Perspectives*, no. 254. See also Ramesh, V. (2018) 'Data Protection Principles around the World: Do They Violate International Investment Law?', *Völkerrechtsblog*, <https://doi.org/10.17176/20181008-111554-0>.

³⁵For example, Tuchtfield, and Borchardt argue that the GDPR, though with data localizations requirements, do not violate international investment law, see Tuchtfield, E. and L. Borchardt (2018) 'Why International Investment Law Is Not Violated by the GDPR', *Völkerrechtsblog*, <https://doi.org/10.17176/20181106-100851-0>.

³⁶A list of recent digital trade agreements say digital protectionism can be found at Aaronson, S.A. (2021) 'The Difficult Past and Troubled Future of Digital Protectionism', in I. Borchert and L. Alan Winters (eds.), *Addressing Impediments to Digital Trade*, London: CEPR Press, 153.

³⁷See e.g., Mitchell, A.D. and N. Mishra (2019) 'Regulating Cross-Border Data Flows in a Data-Driven World: How WTO Law Can Contribute', *The Journal of International Economic Law* 22(3), 389–416; Mitchell, A.D. and J. Hepburn (2017) 'Don't Fence Me In: Reforming Trade and Investment Law to Better Facilitate Cross-Border Data Transfer', *The Yale Journal of Law and Technology* 19, 201; Tuthill, L.L. (2016) 'Cross-Border Data Flows: What Role for Trade Rules?', in P. Sauvé and M. Roy (eds.), *Research Handbook on Trade in Services*. Cheltenham: Edward Elgar, 371. Crosby, D. 'E15 Initiatives: Analysis of Data Localization Measures under WTO Service Trade Rules and Commitments', *International Centre for Trade and Sustainable Development and World Economic Forum*, March 2016. www.e15initiative.org/.

³⁸See Panel Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services (US–Gambling)*, WT/DS285/R, 10 November 2004, para. 6.287; Panel Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products (China–Publications and Audiovisual Products)*, WT/DS363/R, 12 August 2009, para. 412.

³⁹Diebold, N.F. (2011) 'Standards of Non-discrimination in International Economic Law', *International and Comparative Law Quarterly* 60(4), 832, <https://doi.org/10.1017/S0020589311000418>.

Investment Disputes (ICSID), which has drawn upon WTO jurisprudence when interpreting national treatment in investment dispute settlement. WTO jurisprudence on national treatment, such as the *Japan–Taxes on Alcoholic Beverages* case,⁴⁰ plays a guiding role in the interpretation of ‘like circumstances’, one key element of national treatment in international investment treaties. This interpretative influence has guided the ICSID despite WTO law differing from international investment treaties in various respects, including the scope of application, legislative body, and justifiable exceptions. In this regard, even though data localization may violate national treatment in international trade law, the assessment of the legality of data localization in international investment treaties will be different. This article applies the ‘three-step’ approach to assess the legality of data localization in international investment treaties in the next sections.

3.2 An Assessment of the Legality of Data Localizations by Applying the ‘Three-Step’ Approach

An evaluation of the legality of data localization in international investment treaties requires consideration of cases before international arbitral tribunals. It is well-acknowledged that the concrete application of a national treatment clause is fact-specific.⁴¹ In terms of the interpretation of ‘like circumstances’, each tribunal adopts its own rules of interpretation. The differing thresholds employed by different tribunals and the inconsistency of outcomes have contributed to the ‘legitimacy crisis’ in international investment treaty arbitration.⁴² This inconsistency is exacerbated by the fact that the common principle of precedent is not applicable in international investment arbitration; prior decisions have no binding force. Unlike the WTO, which has an Appellate Body with a centralized interpretation authority,⁴³ there is no organ in the international investment regime that can give ultimate authoritative interpretations and reconcile conflicting decisions.⁴⁴ Therefore, it is challenging to draw universal principles from the cases concerning the interpretation of national treatment.

Many international arbitral tribunals refer to a ‘three-step’ process in applying the national treatment clause.⁴⁵ First, the foreign investor and domestic investor should be in ‘like’ circumstances. Second, the treatment accorded to the foreign investor should be at least as favorable as the treatment accorded to domestic investors.⁴⁶ Third, consideration is given to any legitimate, non-protectionist rationales to justify the differential treatment.⁴⁷ In this context, whether data-localization violates a national treatment obligation is never a simple question, but should be

⁴⁰Appellate Body Report, *Japan – Taxes on Alcoholic Beverages (complaint by the European Communities)* (1997), WTO Doc WT/DS8, 10, 11/AB/R, www.wto.org/english/tratop_e/dispu_e/cases_e/ds8_e.htm.

⁴¹A typical national treatment clause in IIAs is to require the host state to accord foreign investors and their investments a treatment no less favorable than that which the host state accords, in like circumstances, to its own investors.

⁴²Frank, S.D. (2005) ‘The Legitimacy Crisis in Investment Treaty Arbitration: Privatizing Public International Law through Inconsistent Decisions’, *Forhan Law Review* (73), 1521–1522.

⁴³However, the WTO Appellate Body stopped functioning on 30 November 2020 because the United States has blocked the appointment of new judges to replace retiring ones.

⁴⁴In this concern, the EU proposed to design the Multilateral Investment Court which has an appeal tribunal, see <http://trade.ec.europa.eu/doclib/press/index.cfm?id=1608>.

⁴⁵Dolzer, R. (2005) ‘Symposium Co-organized by ICSID, OECD, & UNCTAD-Making the Most of International Investment Agreements: A Common Agenda 2. National Treatment: New Developments’, OECD, 12 December 2005, www.oecd.org/dataoecd/5/53/36055356.pdf. See Dolzer R. and M. Stevens (1995) *Bilateral Investment Treaties*. The Hague, Boston, London: Martinus Nijhoff Publishers.

⁴⁶*United Parcel Service of America v. Government of Canada*, NAFTA (UNCITRAL), Award on the Merits, 24 May 2007, at para. 83.

⁴⁷For more details of the ‘three-step’ approach, see Mitchell, A.D., D. Heaton, and C. Henckels (2016) *Non-Discrimination and the Role of Regulatory Purpose in International Trade and Investment law*. Cheltenham: Edward Elgar. For commentary on and elaboration of the NAFTA approach, see Weiler, T. (2004) ‘Prohibitions against Discrimination in NAFTA Chapter 11’, in T. Weiler (ed.), *NAFTA Investment Law and Arbitration: Past Issues, Current Practice, Future Prospects*. Ardsley: Transnational Publishers.

determined according to the circumstances of each case. This article conducts this analysis sequentially following the ‘three-step’ approach.

3.2.1 Like Circumstances

To apply national treatment in international investment treaties, it must first be established that the foreign investment and domestic investment are in like circumstances. Determining whether foreign investment and domestic investment are in like circumstances requires the investment tribunal to make ‘an evaluation of the entire fact setting’ and think of ‘all the relevant circumstances’.⁴⁸

3.2.1.1 Comparators. *Occidental v. Ecuador* and *Methanex v. US* demonstrates the two divergent approaches that tribunals are now adopting concerning comparable subjects with consideration of ‘the entire fact setting’. In the *Occidental Exploration & Production Corporation v. Ecuador* case, the tribunal compared all foreign investors with domestic investors. It implied that foreign investors in different economic sectors might be in like circumstances with domestic investors.⁴⁹ However, the NAFTA tribunal favored a contrary approach in *Pope & Talbot v. Canada*, where the tribunal only compared foreign investors that were in the most ‘like circumstances’ and not comparators that were in less ‘like circumstances’.⁵⁰ In most cases, such as the *SD Myers v. Canada*,⁵¹ tribunals reconcile the two approaches by comparing foreign investors with domestic investors in the same economic sectors to find out whether they are in similar circumstances. In *Olin v. Lybia*, the tribunal also upheld this approach by stating that the fact that two factories operated in the same business sector indicates the existence of a similar location.⁵²

‘The same economic sector’ approach seems more reasonable. Under this approach, foreign investors who claim that a host state’s data localization legislation violates national treatment in international investment treaties must first prove that they are in the same economic sectors as the relevant domestic investors. There is no worldwide uniform standard to classify economic sectors. Every state has its own criteria to classify the state’s economic sectors concerning information and technology industries. For example, currently, China adopts the *Catalogue of Industries for Encouraging Foreign Investment* (Revision 2020), while the United States, Canada, and Mexico apply *The North American Industry Classification System* (NAICS). Therefore, whether or not a foreign investor is in the same business sector as a domestic investor involves examining the host state’s industry catalogue.

3.2.1.2 The State’s Regulatory Purpose⁵³. Some tribunals also take the regulatory purpose of the host state into account in examining whether the foreign and domestic investors were in like circumstances or not.⁵⁴ This approach was taken in *UPS v. Canada*, where the tribunal held that only Canada Post could fulfill Canada’s universal service obligation to attain the Publications Assistance Program’s objective (PAP).⁵⁵ Given the objectives and operations of the PAP, UPS

⁴⁸*United Parcel Service of America v. Government of Canada*, NAFTA (UNCITRAL), Award on the Merits, 24 May 2007.

⁴⁹*Occidental Exploration & Prod. Co. v. Republic of Ecuador* (2004), Case No. Un 3647 (London Court of International Arbitration), at para. 173.

⁵⁰See *Pope & Talbot, Inc. v. Government of Canada*, NAFTA (UNCITRAL), Award on the Merits of Phase 2, 10 April 2001, paras. 87–88.

⁵¹See *S.D. Myers v. The Government of Canada*, UNCITRAL, NAFTA Partial Award, 13 November 2000, para. 251.

⁵²*Olin Holdings Ltd v. Libya*, ICC Case No. 20355/MCP, Final Award, 25 May 2018, para. 207.

⁵³See generally Mitchell, A.D., D. Heaton, and C. Henckels (2016) *Non-Discrimination and the Role of Regulatory Purpose in International Trade and Investment law*. Cheltenham: Edward Elgar.

⁵⁴*United Parcel Service of America v. Government of Canada*, NAFTA (UNCITRAL), Award on the Merits, 24 May 2007, at paras. 173–174.

⁵⁵*United Parcel Service of America v. Government of Canada*, NAFTA (UNCITRAL), Award on the Merits, 24 May 2007, at para. 175.

was not in like circumstances with Canada Post, and the differential treatment was therefore justified.⁵⁶

As promoting the digital economy becomes part of many states' national strategy, some digital corporations are becoming increasingly important to the fulfillment of their home states' digital economic regulatory purposes. Article 1 of the *Bipartisan Congressional Trade Priorities and Accountability Act of 2015* refers to promoting 'more open, equitable, and reciprocal market access' in extensive fields, including trade, investment, and intellectual property.⁵⁷ If the US corporations submit that only the US corporations can fulfill the objectives and operations of the *Bipartisan Congressional Trade Priorities and Accountability Act of 2015*, they will be considered not to be in like circumstances with foreign investors in the same economic sectors. In such circumstances, the *UPS v. Canada* approach is very likely to be abused and would render the national treatment clause useless. Therefore, it would be better to restrict the *UPS v. Canada* approach's application or at least interpret it strictly. For example, there should be an explicit link between the state's regulatory program and the specific domestic investor.

3.2.2 Less Favorable Treatment

As an essential element of national treatment, 'no less favorable treatment' requires the host state to ensure equality of competitive opportunities between domestic and foreign investors.⁵⁸ In many cases, it has been confirmed that only when a claim of having received less favorable treatment is based on nationality would the discrimination be considered by an arbitral tribunal to be a violation of national treatment.⁵⁹ As explained in Section 1 of this article, the requirements of data localization restoration, infrastructure localization, and service localization apply equally to domestic and foreign investors. Therefore, there is usually no *de jure* discrimination. Rather, the core issue is whether data localization legislation results in *de facto* discrimination towards foreign investors.

3.2.2.1 The Level of Treatment. It is not reasonable that differential treatment alone should give rise to a conclusion of nationality-based discrimination. Indeed, completely identical treatment is almost impossible to implement. The US Restatement describes the principle of non-discrimination in section 712 (3) as an unreasonable distinction.⁶⁰ Cases such as *Marvin Feldman v. Mexico* also hold that differential treatment could be taken as less favorable treatment to establish a denial of national treatment insofar as the difference amounts to *de facto* discrimination.⁶¹

Concerning the extent of differential treatment that constitutes *de facto* discrimination, there are generally three approaches taken by international tribunals. The first approach is in the *S.D Myers v. Canada* case, where the tribunal held that the key to determine whether the foreign investor received less favorable treatment lies in 'whether the practical effect of the measure is to create a disproportionate benefit for nationals over non-nationals'.⁶² The second approach assesses whether the measures lead to an unreasonable distinction between foreign and domestic investors. This approach was upheld in the three cases of *Feldman v. Mexico*, *Archer & Lyle*

⁵⁶*United Parcel Service of America v. Government of Canada*, NAFTA (UNCITRAL), Award on the Merits, 24 May 2007, at paras. 173–181.

⁵⁷Hatch, S. (2015) 'Bipartisan Congressional Trade Priorities and Accountability Act of 2015, Section 2(a)', Reported by 11 May 2015, www.congress.gov/bill/114th-congress/senate-bill/995/text.

⁵⁸See Weiler, T. (2005) 'Methanex Corp. v. USA.: Turning the Page on NAFTA Chapter Eleven?', *Journal of World Investment & Trade* 6, 915. See also Newcombe, A. and L. Paradell (2009) *Law and Practice of Investment Treaties: Standards of Treatment*. Frederick: Kluwer Law International.

⁵⁹*Consortium R.F.C.C v. Kingdom of Morocco* (2003), ICSID Case No. ARB/00/6, at para. 75.

⁶⁰See Sabahi, B. (2008) 'National Treatment – Is Discriminatory Intent Relevant?', in G. Weiler (ed.), *Investment Treaty Arbitration and International Law*, Vol. 270. New York: JurisNet, LLC.

⁶¹*Marvin Feldman v. Mexico* (2000), ICSID Case No. ARB (AF)88/1, at para. 169.

⁶²*S.D. Myers, Inc. v. Canada* (2002), 40 ILM 1408, NAFTA (UNCITRAL), at para. 252.

v. Mexico, and *Clayton/Bilcon v. Canada*.⁶³ For example, in *Clayton/Bilcon v. Canada*, the tribunal found that Canada made an unreasonable distinction by applying different modes of review and evaluative standards to Bilcon and domestic investors.⁶⁴ The recent approach taken in *Apotex v. the United States* revealed a tendency to lower the threshold for host states' measures to violate national treatment. In *Apotex v. the United States*, the tribunal held that the treatment must have some not-insignificant practical negative impact on foreign investors.⁶⁵

These different approaches may lead to different answers to whether data localization legislation results in less favorable treatment to foreign investors than domestic investors. Following the *S.D Myers v. Canada* approach, the critical issue is whether data localization legislation would create a disproportionate benefit for nationals over non-nationals. Admittedly, data localization results in negative economic consequences for both domestic and foreign investors, but there are no data showing that domestic entities will thereby be granted considerable advantages over foreign corporations.

The *Apotex v. the United States* approach renders a comparison of the impact of data localization measures on domestic investors as compared to foreign investors unnecessary. Instead, measures must merely have some not-insignificant practical negative impact on foreign investors.⁶⁶ In this case, without a comparison of the impact on foreign investors and on domestic investors, data localization legislation is easily regarded as 'less favorable treatment' with reference to this approach for having negative economic impact on foreign investors.

The *Feldman v. Mexico* approach requires the tribunal to determine whether the measures lead to unreasonable distinctions between the treatment of foreign investors and domestic investors. The key to assess whether there are 'unreasonable distinctions' is to examine whether there are rational bases to justify differential treatment of the host states.

3.2.2.2 Rational Bases to Justify Differential Treatment. If there is differential treatment, some tribunals assess whether there are rational bases for the host states to treat foreign investors differently. This approach was adopted in *Feldman v. Mexico* and *Pope & Talbot v. Canada*.⁶⁷ Suppose the host states can provide rational explanations which prove that their treatment does not bring about unreasonable distinctions between foreign investors and domestic investors. In such a case, there is no 'less favorable treatment' for foreign investors.

Not all data bear the same importance and sensitivity to states. In the case of data localization, many pieces of legislation focus on the nature and categories of data rather than the nationality of the data owners. As indicated in [Table 1](#), personal data are used and generated throughout all production processes, including control and coordination, pre-production, supply chain management, production, and post-sales. The sensitivity of personal data in each process varies.⁶⁸

Therefore, many states treat different categories of data differently in their domestic legislation. For example, Nigeria requires all information and communication technology companies to host all subscriber and consumer data locally within the country, and data and information

⁶³*Marvin Roy Feldman Karpa v. United Mexican States*, ICSID Case No. ARB(AF)/99/1, Award, 16 December 2002, para.170. *Archer Daniels Midland Company and Tate & Lyle Ingredients Americas, Inc. v. United Mexican States*, ICSID Case No. ARB(AF)/04/5, Award, 21 November 2007, para. 205.

⁶⁴*William Ralph Clayton, William Richard Clayton, Douglas Clayton, Daniel Clayton and Bilcon of Delaware INC v. Government of Canada*, PCA Case No. 2009-04, Award on Jurisdiction and Liability, 17 March 2015, paras. 701-705.

⁶⁵*Apotex Holdings Inc. and Apotex Inc. v. United States of America*, ICSID Case No. ARB(AF)/12/1, Award, 25 August 2014, para. 8.21.

⁶⁶See *Apotex Holdings Inc. and Apotex Inc. v. United States of America*, ICSID Case No. ARB(AF)/12/1, Award, 25 August 2014, para. 8.21.

⁶⁷*Marvin Roy Feldman Karpa v. United Mexican States*, ICSID Case No. ARB(AF)/99/1, Award, 16 December 2002, para. 170. *Pope & Talbot Inc. v. Government of Canada*, UNCITRAL, Award on the Merits of Phase 2, 10 April 2001, para. 78.

⁶⁸Swedish Board of Commerce (2015) 'No transfer, no production-a report on cross-border data transfers, global value chains and the production of goods', European Commission, 28 April 2015. <https://ec.europa.eu/futurium/en/system/files/ged/publ-no-transfer-no-production.pdf>.

Table 1. Examples of personal data in production

	Personal data used	Personal data generated
Control/coordination	Employee data, user data, social media	Employee data
Pre-production	User data, social media data	Names and CV of scientists/ researchers, test-persons' user data
Supply chain management	Customer data	Business contacts
Production	User data	Employee data
Post-sales	User-data, sensor data	User data, social media data

Source: Swedish Board of Commerce. 2015. "No transfer, no production-a report on cross-border data transfers, global value chains and the production of goods." *European Commission*, April 28, 2015. <https://ec.europa.eu/futurium/en/system/files/ged/publ-no-transfer-no-production.pdf>.

management firms to host government data locally within the country.⁶⁹ To distinguish different data, many states attempt to define the critical information infrastructure (CII) and enhance the protection of data concerning the CII.⁷⁰ The CII is essential to a state's national security and functioning of industrialized economies,⁷¹ so there is sometimes special protection of data concerning CII. An example is China. Based on the definition of the CII in Article 31, Article 37 of China's Cybersecurity Law requires the CII operators to store within mainland China all personal information and important data gathered or produced within the mainland territory. If it is necessary to transfer data across borders, a security assessment of the locally stored data is required. Rationales for differential treatment can also be found in other domestic legislations. The EU focuses on states' ability to protect data. Article 45(1) of the General Data Protection Regulation (GDPR) allows the transfer of personal data insofar as a third country or an international organization is able to provide 'an adequate level of protection'. Under this circumstance, the transfer does not need to be specifically authorized. Both the categorization of the data and the requirement of 'adequate protection' in domestic legislation can be taken as rationale bases for the host states to adopt data localization measures and therefore can justify the states' differential treatment.

3.2.3 Implicit or Explicit Exceptions

3.2.3.1 The Jurisprudence of Exceptions to Maintain the State's Sovereignty. International investment treaties are designed with a balance of different values. There is a tendency that more and more international investment treaties include exception clauses to achieve the goal of value balance,⁷² which reveals that the development of a value will call for the compromise of another value. If the foreign investors and domestic investors are in like circumstances, and the host state's regulatory measures provide less favorable treatment to foreign investors, tribunals following the 'three-step approach' will examine whether there are any exceptions which justify the differential treatment.⁷³ One typical exception includes measures to maintain the state's sovereignty.

⁶⁹Guidelines for Nigerian Content Development Information and Communications Technology, National Information Technology Development Agency(NITDA) of Nigeria, Article12.1(4), Article 14.1(3), <https://nitda.gov.ng/wp-content/uploads/2020/11/GNCFinale2211.pdf>.

⁷⁰Critical_Information_Infrastructure. A summary of Definitions of Critical Information Infrastructure', <https://publicwiki-01.fraunhofer.de/CIPedia/index.php/>.

⁷¹Dunn, M. (2005) 'The Socio-Political Dimensions of Critical Information Infrastructure Protection', *International Journal of Critical Infrastructures* 1(2/3): 259.

⁷²See Vandeveld, K.J. (2013) Rebalancing Through Exceptions', *Lewis & Clark Law Review* 17, 451.

⁷³See e.g., *Pope & Talbot, Inc. v. Government of Canada* (2002), 41 ILM 1347, NAFTA (UNCITRAL), at para. 78.

In the well-known *Island of Palmas* case, Judge Max Huber said that:

[s]overeignty in the relations between states means independence. Independence in relation to area of the globe is the right to exercise his functions within the state, excluding any other State.⁷⁴

Adopting this definition of the term, sovereignty is closely related to international relations and is both a legal and political concern. With the economic boom brought by the Scientific-Technical Revolution, states became more involved in international trade and investment. The concept of 'economic sovereignty' was proposed in the 1960s. In 1974, the United Nations General Assembly declared the establishment of a new international economic order in respect of the principle of 'full permanent sovereignty of every State over its natural resources and all economic activities.'⁷⁵ In the same year, in the *Charter of Economic Rights and Duties of States*, the United Nations General Assembly further explained the content of 'full permanent sovereignty over national resources' by declaring that 'every State has and shall freely exercise full permanent sovereignty, including possession, use and disposal, over all its wealth, natural resources and economic activities'.⁷⁶ With the economic attribute of 'state sovereignty' becoming more prominent, the term is more characteristic of states' domestic constitutional provisions than the original legal status in the international relations.⁷⁷

Admittedly, the concept of sovereignty evolves according to the demands of each era. With the digital era, scholars have become aware of the importance of 'data sovereignty' as an aspect of state sovereignty, even as early as 2000.⁷⁸ There are both broad and narrow definitions of data sovereignty. To define it broadly, data sovereignty refers to state sovereignty concerning national security and individual sovereignty concerns an individual's control over its privacy.⁷⁹ In a narrow sense, by focusing on the state's part, data sovereignty is defined as a state's authority to control its public information assets,⁸⁰ or a nation's right to collect and manage its own data.⁸¹ This article adopts the narrow definition, which discusses only a state's data sovereignty rather than individuals' rights.

From 2007, the US National Security Agency initiated a surveillance program code-named PRISM, which collected internet communications from various US internet companies. After Edward Snowden revealed the PRISM surveillance program to the public in 2013, the maintenance of states' data sovereignty became a central concern to many countries.⁸² Several states recognized the right to self-preservation in their domestic legislation;⁸³ and the right to self-preservation incorporates digital sovereignty in this digital era. France declared their intention to build a state of digital sovereignty.⁸⁴ Even the US, which declares its commitment to a digital

⁷⁴*Island of Palmas case (US. v. Netherlands)*, Reports of International Arbitral Awards, vol. 2, 1928, pp. 821, 838.

⁷⁵United Nations General Assembly, A/RES/S-6/3201, Declaration on the Establishment of a New International Economic Order, Article 4(e), www.un-documents.net/s6r3201.htm.

⁷⁶See United Nations General Assembly, A/RES/29/3281, Charter of Economic Rights and Duties of States, Article 2(1), www.un-documents.net/a29r3281.htm.

⁷⁷Jennings, R. and A. Watts (eds.) (1992) *Oppenheim's International Law*. Harlow: Longman.

⁷⁸Trachtman, J. (1998) 'Cyberspace, Sovereignty, Jurisdiction, and Modernism', *Indiana Journals of Global Legal Studies* 5(2), 566.

⁷⁹*Ibid.*

⁸⁰Irion, K. (2012) 'Government Cloud Computing and National Data Sovereignty', *Policy and Internet* 4(3–4), 40–71, 41. A similar definition is adopted in De Filippi, P. and S. McCarthy (2012) 'Cloud Computing: Centralization and Data Sovereignty', *European Journal for Law and Technology* 3(2), 15.

⁸¹Rainie, S.C., J.L. Schultz, E. Briggs et al. (2017) 'Data as a Strategic Resource: Self-determination, Governance, and the Data Challenge for Indigenous Nations in the United States', *International Indigenous Policy Journal* 8(2), 5–6.

⁸²See e.g., De Filippi, P. and S. McCarthy (2012) 'Cloud Computing: Centralization and Data Sovereignty', *European Journal of Law and Technology* 3(2), 1–21; Rauhofer, J. (2013) 'Protecting Their Own: Fundamental Rights Implications for EU Data Sovereignty in the Cloud', *University of Edinburgh School of Law Research Paper Series* (28), 1–29.

⁸³See Grotius, H. (1901) *De Jure Belli Ac Pacis, Libri Tres bk.II*. Chapter I, para. XII, Cl.3.

⁸⁴See B. Ministère Du Redressement Productif [Ministry of Econ. Regeneration], 'The New Face of Industry in France 51 (2013)', www.entreprises.gouv.fr/files/files/directions_services/secteurs-professionnels/industrie/nfi/NFI-anglais.pdf.

economy through a free and open Internet and commerce without borders in its *the Digital 2 Dozen*, is just above the average level of digital restrictiveness among 64 countries because of various restrictive policies in digital trade in the US.⁸⁵ For example, under the USA PATRIOT Act, the government can intercept any data coming inside the country for security purposes.⁸⁶

Exceptions aimed at balancing states' regulatory power regarding the protection of foreign investors are embedded in several international investment treaties. Some states require data localization in their domestic legislation and maintain their data sovereignty in exceptions in international investment treaties.

3.2.3.2 Explicit Exceptions in International Investment Treaties. The benefits of data localization for security and confidentiality are indeed context dependent for states. The privacy and confidentiality of information are not secured in cross-border data transfer.⁸⁷ The risk of exposure increases when data are transferred with every new intermediary. Thus, information stored locally by users may be better protected than information transferred abroad to a third party.⁸⁸ By reducing the risk of data exposure when they are transferred by a new intermediary, data localization can help protect privacy and information confidentiality for some states without a powerful data security system, i.e., for states that do not possess advanced encryption to secure data transferred abroad and that prevents remote attacks.

Data protection is a newly emerging concern for states with the coming of the digital era. Few early international investment treaties explicitly refer to data protection, either in exceptions to national treatment or general exception clauses. However, this situation is changing as more states realize the importance of data sovereignty. As the representative economic entity that emphasized protecting data as protecting fundamental human rights, the EU has explicitly included data protection as an exception in some recent EU FTAs, such as the 2016 EU–Canada Comprehensive Economic and Trade Agreement (CETA) and the 2018 EU–Singapore FTA. Probably included as a means to strengthen the influence of the GDPR, Article 8.9(1) of the CETA reaffirms the states' right to 'regulate within their territories to achieve legitimate policy objectives, such as ... social or consumer protection', and Article 28.3 explicitly refers to data protection as a general exception.⁸⁹ Further, Article 2.3(3)(e) of the EU–Singapore Investment Protection Agreement explicitly takes necessary measures for 'the protection of the privacy of individuals in relation to the processing and dissemination of personal data and the protection of confidential of individual records and accounts' as exceptions to national treatment requirements.

In future international investment treaties, more states are likely to follow the EU practice of explicitly including data protection in the exceptions, either as exceptions to national treatment or in general exceptions. There are two reasons for this. First, the legitimacy crisis of international investment arbitration arises from the treaty interpretations of international arbitral tribunals

⁸⁵Ferracane, M.F., H. Lee-Makiyama, and E. vander Marel (2018) 'Digital Trade Restrictiveness Index', *European Center for International Political Economy* 5, <https://ecipe.org/dte/dte-report/>.

⁸⁶Srinivasan, S. (2018) 'The Emerging Trend of Data Localization', *The Columbia Science and Technology LR*, <http://stlr.org/2018/03/01/the-emerging-trend-of-data-localization/>.

⁸⁷Blakley, B., E. McDermott, and D. Geer (2001) 'Information Security Is Information of Risk Management', Association for Computing Machinery Digital Library 97–104; Turner, E.C. and S. Dasgupta (2003) 'Privacy on the Web: An Examination of User Concerns, Technology, and Implications for Business Organizations and Individuals', *In Information Systems Management* 20(1), 8–18.

⁸⁸De Filippi, P. and S. McCarthy (2012) 'Cloud Computing: Centralization and Data Sovereignty', *European Journal for Law and Technology* 3(2): 10.

⁸⁹Article 28.3 of CETA states that: 'nothing in this Agreement shall be construed to prevent the adoption or enforcement by a Party of measures necessary: (c) to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement including those relating to: (ii) the protection of the privacy of individuals in relation to the processing and dissemination of personal data and the protection of confidentiality of individual records and accounts',

which tend to over-protect the foreign investors' interests. This reminds the host states of the importance of strengthening their regulatory power.⁹⁰ With the reform of the investor–state dispute settlement mechanism, there is a tendency that states place more emphasis on the exception clauses in international investment treaties than ever. This is demonstrated by the number of recent international investment treaties (2012–2014) that include general exceptions, which is about five times greater than the early international investment treaties (1962–2012).⁹¹ Hence, there appears to be a trend towards states using exceptions more frequently to maintain their state sovereignty. Second, several states show their serious concerns about data protection in domestic legislation.⁹² According to the basic principle of *pacta sunt servanda*, states should bear responsibilities if they violate their treaty obligations. Domestic legislation should not conflict with the states' commitment in international investment treaties. Therefore, states must clarify the legitimacy of data localizations in international investment treaties to make the legislation consistent with the states' treaty obligations.

3.2.3.3 Implicit Exceptions in International Investment Treaties. Even though, so far, few states have explicitly referred to data sovereignty or data protection as exceptions in international investment treaties, there are still other possibilities for the host states to invoke non-precluded measures (NPM) clauses to secure their data sovereignty. With the number of NPM clauses in modern international investment treaties increasing,⁹³ it is necessary to consider whether NPM clauses in international investment treaties implicitly encompass the host states' right to regulatory cross-border data transfer. More specifically, is it possible for the host states to invoke NPM clauses, including protecting national security, maintaining public order, or public morality to regulate cross-border data transfer?

Since World War II, the NPM clause has traditionally been embodied in US friendship, commerce, and navigation treaties. The NPM was then incorporated in the US model BITs. Two typical NPM clauses allow the states to take actions inconsistent with the treaty to protect national security or essential security and maintain 'public order' or 'public morals'.⁹⁴

Indeed, indicated below in Table 2 are the regulatory objectives that motivate some states' data localization requirements. The primary concern for states appears to be privacy regulation and cybersecurity. It is unsurprising that cybersecurity is a state's essential concern and constitutes a significant part of a state's national security. The Snowden leaks reminded most countries of the US's superior capacity for electronic surveillance.⁹⁵ In this sense, states at a comparative

⁹⁰See Brower, C.N. and S.W. Schill (2009) 'Is Arbitration a Treat to a Boon to the Legitimacy of International Investment Law?', *Chicago Journal of International Law* 9, 483–489; Kingsbury, B. and S.W. Schill (2010) 'Public Law Concepts to Balance Investors' Rights with State Regulatory Actions in the Public Interest: The Concept of Proportionality', *International Investment Law and Comparative Public Law* 89–98; Kolo, A. (2007) 'Investor Protection vs Host State Regulatory Autonomy during Economic Crisis: Treatment of Capital Transfers and Restrictions under Modern Investment Treaties', *Journal of World Investment & Trade* 8(4), 485–499.

⁹¹UNCTAD (2016) *World Investment Report 2016*. New York: United Nations.

⁹²A summary of some representative states with data localization legislations until 2021 can be viewed in Cory, N. and L. Dascoli (2021) 'How Barriers to Cross-Border Data Flows Are Spreading Globally, What They Cost, and How to Address Them', Appendix A, <https://itif.org/publications/2021/07/19/how-barriers-cross-border-data-flows-are-spreading-globally-what-they-cost>.

⁹³Bruke-White, W.W. and A. Von Staden (2008) 'Investment Protection in Extraordinary Times: The Implication and Application of Non-Preclude Measures Provisions in Bilateral Investment Treaties', *Virginia Journal of International Law* 48(2), 313.

⁹⁴Most US BITs include the protection of essential security in the NPM clauses, while German and BLEU BITs include 'public order' and 'public morality' objectives in their NPM clauses. See Bruke-White, W.W. and A. Von Staden (2008) 'Investment Protection in Extraordinary Times: The Implication and Application of Non-Preclude Measures Provisions in Bilateral Investment Treaties', *Virginia Journal of International Law* 48(2), 327, 333.

⁹⁵Healey, J. (2016) 'The Cartwright Conjecture: The Deterrent Value and Escalatory Risk of Fearsome Cyber Capabilities', SSRN, 15 June 2016, <https://ssrn.com/abstract=2836206>.

Table 2. Data localization or storage requirements of representative states

Country	Regulatory objective
Indonesia	Privacy regulation (all sectors); ICT regulation covering all online services and public services with mixed objectives.
Vietnam	Privacy regulation (all sectors); cybersecurity laws with the objective to protect both national security and personal information.
Malaysia	Privacy regulation (all sectors), but where transfers are permitted under some conditions.
Philippines	Banking regulation, with the objective of protecting personal information and banking confidentiality.
India	Privacy regulation (all sectors), but where transfers are permitted under some conditions; regulations on public and government information with “accessibility” objectives.
Canada	Privacy regulation (on data held by public bodies in some provinces).
Korea	Privacy regulation, (all sectors) but where transfers are permitted under certain conditions; banking regulation to protect personal information and financial records; national security objectives on online maps.
Mexico	Privacy regulation (all sectors), but where transfers are permitted under certain conditions.
China	Privacy regulations (all sectors) with joint objective to protect cybersecurity; also sectoral laws with the objective to protect privacy on personal information in the financial, health and taxi industries; online publication data with public order objectives; mapping data for both privacy and security objectives.
Russia	Privacy regulation (all sectors).
Turkey	Privacy regulation (all sectors), but where transfers are permitted under some conditions; e-payment regulations with mixed objectives.
Nigeria	ICT regulations with mixed objectives; card payment terminals and ATM systems with mixed objectives.

Source: Lee-Makiyama, Hosuk. 2018. “Briefing note: AI & Trade Policy.” *Tallin Digital Summit*. https://ecipe.org/wp-content/uploads/2018/10/TDS2018-BriefingNote_AI_Trade_Policy.pdf.

disadvantage in surveiling outside attacks and threats tend to use data localization legislation to reduce the risk to their cybersecurity.⁹⁶

Few investment arbitration cases, such as *Thunderbird v. Mexico*, have considered the meaning of ‘public morals’. An analysis of *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services (US–Gambling)*, which came before the WTO, can be of some assistance. In the *US–Gambling* case, the panel looked to the *Shorter Oxford English Dictionary*, and found that “public morals’ denotes standards of right and wrong conduct maintained by or on behalf of a community or nation.”⁹⁷ Furthermore, the Appellate Body reconfirmed on several occasions that states reserve the right to decide the level of protection of ‘public morals’.⁹⁸ Hence, the panel held that the prevention of underage gambling relates to public morals in the *US–Gambling* Case.⁹⁹ In *Brazil – Certain Measures Concerning Taxation and Charges*, the panel held that bridging the digital divide and promoting social inclusion is within

⁹⁶Selby, J. (2017) ‘Data Localization Laws: Trade Barriers or Legitimate Responses to Cybersecurity Risks, or Both?’, *International Journal of Law and Information Technology* 25(3), 232.

⁹⁷Panel Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WT/DS285/R, 10 November 2004, para. 6.465.

⁹⁸See Appellate Body Reports on *Korea–Various Measures on Beef*, para. 176 and *EC–Asbestos*, para. 168.

⁹⁹Panel Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WT/DS285/R, 10 November 2004, para. 6.469.

the scope of ‘public morals’.¹⁰⁰ In *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, the panel found that the protection of animals is a public moral concern.¹⁰¹ In *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, the panel regarded that selling prohibited types of content could negatively impact China’s ‘public morals’.¹⁰² In this case, the concept of ‘public morals’ varies between different cultures, and the term is still regarded as vague and with a too wide scope because of the lack of a specific definition.¹⁰³ In this regard, some scholars propose to review the state’s regulatory measure through the doctrine of necessity and proportionality.¹⁰⁴ Considering the functional link of the national treatment clause in WTO and international investment treaties,¹⁰⁵ similar language of ‘public morals’ in exceptions in both international investment treaties and GATT, as well as the referential significance of the WTO reports on investment arbitrations,¹⁰⁶ the interpretation of ‘public morals’ in the *US–Gambling* case can provide significant guidance. By applying the definition of ‘public morals’ in the *US–Gambling* case to international investment treaties, privacy is related to a state’s ‘public morals’ because it denotes standards of right and wrong conduct, especially when data privacy is considered as a fundamental human right from the EU perspective. In this regard, states may invoke the exception of public morals when regulating cross-border data transfer.

4 An Example of Data Regulation in China Legislation and the Relations to its National Treatment Obligation

4.1 Data and ‘Investment’ in China’s Domestic Courts and International Investment Treaties

All Chinese BITs have definitions of ‘investment’, though these definitions vary between treaties. A typical definition of ‘investment’ in Chinese BITs is ‘a claim to money or to any performance having an economic value’.¹⁰⁷ In this regard, whether China acknowledges data’s economic value is important in applying the Chinese BITs. Though it may not be clear whether data qualify as an ‘investment’ for international investment treaties,¹⁰⁸ the Beijing Intellectual Property Court has already confirmed that data are an asset, which falls into the typical definition of ‘investment’ in Chinese international investment treaties. In *Beijing Taou Tianxia Technology Development Co., Ltd. v. Beijing Weimeng Chuangke Network Technology Co., Ltd*, the Beijing Intellectual Property Court held that internet companies have property rights over data collected and stored

¹⁰⁰Panel Report, *Brazil – Certain Measures Concerning Taxation and Charges*, WT/DS472/R, WT/DS497/R, 30 August 2017, para. 7.568.

¹⁰¹Panel Report, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS401/R, 25 November 2013, para. 7.638.

¹⁰²Panel Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, WT/DS401/R, 25 November 2013, para. 7.767.

¹⁰³Weber, R.H. and R. Baisch (2018) ‘Revisiting the Public Moral/Order and the Security Exception under the Gats’, *Asian Journal of WTO and International Health Law and Policy* 13(2), 388.

¹⁰⁴*Ibid.*, 381.

¹⁰⁵Mitchell, A.D., D. Heaton, and C. Henckels (2016) *Non-Discrimination and the Role of Regulatory Purpose in International Trade and Investment law*. Cheltenham: Edward Elgar.

¹⁰⁶In some international investment arbitration cases, the tribunals affirmed the findings in WTO/GATT reports for references. See, for example, *S. D. Myers, Inc. v. Canada*, NAFTA (UNCITRAL), Partial Award, 13 November 2002, paras. 244–246. *Continental Casualty Co. v. Argentine Republic*, ICSID Case No. ARB/03/9, Award, paras. 181, 223 (5 September 2008).

¹⁰⁷All the Chinese BITs are available at the official website of Ministry of Commerce of the People’s Republic of China: *Woguo Dui Wai Qianding Shuangbian Touzi Xiding Yilanbiao* [The List of Sino-foreign Bilateral Investment Treaties, Department of Treaty and Law, Ministry of Commerce of the People’s Republic of China], <http://tfs.mofcom.gov.cn/article/Noategory/201111/20111107819474.shtml>

¹⁰⁸Discussions about whether data qualifies as an ‘investment’ in IIAs can be found at Horváth, E. and S. Klinkmüller (2019) ‘The Concept of ‘Investment’ in the Digital Economy: The Case of Social Media Companies’, *Journal of World Investment & Trade* 20, 608.

as a matter of competition law. The Court pointed out that data have become a commercial asset and an important economic contribution to an enterprise. The acquisition and use of data can become a source of competitive advantage and create more economic benefits for internet enterprises. In this way, data are an important competitive advantage and commercial resource for network operators. Therefore, the court held that *Beijing Taou* had infringed on the *Beijing Weimeng's* business resources by unlawfully using *Beijing Weimeng's* user data.

In *Meijing v. Taobao*, the Taobao Company and the Meijing Company disputed the nature of digital products. The Taobao Company submitted that the digital product 'Business Assistant' was the Taobao Company's fruits of labor, and the original data and derivative data contained in the data content are the intangible assets of the Taobao Company, so the Taobao Company enjoys property ownership and competitive property rights over 'Business Assistant'. The Meijing Company disagreed by stating that the data content used by the Taobao comes from the property rights of network users, so the Taobao Company should not have rights or interests to the data content. In this case, Hangzhou Intermediate People's Court of Zhejiang Province upheld the findings of the Court at first instance. It held that though the data contained in 'Business Assistant' are derived from the original users' information, the Taobao Company further developed the product through a specific algorithm after deep analysis filtering, refining integration, and anonymizing desensitization processing, thereby rendering it different from the unprocessed network data. The network operators should enjoy their own independent property rights for their big data products. In other words, network big data products have already become a valuable property right for network operators.¹⁰⁹

Considering the economic value confirmed in the above two cases in China's domestic courts, treaty interpretation principles indicate that data should be recognized as an investment in Chinese BITs.¹¹⁰ Alternatively, if we apply the *Salini* test, as Chinese domestic courts have and thus confirmed that data products confer property rights, data qualifies as an 'investment'.

4.2 Data Regulation and China's National Treatment Obligations in International Investment Treaties

Now that the Chinese court accepts at least commercial data as an asset, and considering that the definition of investment in Chinese BITs is based on the laws and regulations of China,¹¹¹ data are likely to fall under the definition of investment in Chinese international investment treaties. The next issue is whether data localization legislation violates China's national treatment commitments.

Approximately half of Chinese BITs include a national treatment clause.¹¹² Modern Chinese international investment treaties appear to provide greater protection for foreign investors than the older generation of Chinese international investment treaties.¹¹³ In 2013, China agreed with the US to adopt pre-establishment national treatment with a negative list in any future

¹⁰⁹*Anhui Jingmei v. Zhejiang Taobao*, Hangzhou intermediate people's court of Zhejiang Province, (2018) 浙 01民终 7312 号, p. 12.

¹¹⁰Article 42 of ICSID Convention provides that 'In the absence of such agreement, the Tribunal shall apply the law of the Contracting State party to the dispute (including its rules on the conflict of laws) and such rules of international law as may be applicable.'

¹¹¹A typical definition of investment in Chinese BITs is that 'the term 'investment' means every kind of asset 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', see e.g., 2000 China-Congo BIT, Article 1.

¹¹²A calculation can be found at Zhang, Q. (2016) 'Opening Pre-establishment National Treatment in International Investment Agreements: An Emerging 'New Normal' in China?', *Asian Journal of WTO & International Health Law and Policy* 11(2), 442.

¹¹³For more elaboration about three generations of Chinese international investment treaties, see Norah, G. and H.S. Wen (2009) *Chinese Investment Treaties: Policy and Practice*. New York: Oxford University Press. Cai, C. (2009) 'China-US BIT Negotiations and the Future of Investment Treaty Regime: A Grand Bilateral Bargain with Multilateral Implications', *Journal of International Economic Law* 12.

China–US bilateral investment treaty.¹¹⁴ In a groundbreaking move, China adopted the pre-establishment national treatment with a negative list in the new China’s Foreign Investment Law that came into force on 1 January 2020, so that national treatment would be extended to the pre-entry phase. The recent China–EU Comprehensive Investment Agreement also adopts the pre-establishment national treatment approach, which enlarges the scope of protection of foreign investors. While opening up is expanded and deepened through the adoption of the pre-establishment national treatment with a negative list, the ‘safety valves clauses’ in Chinese international investment treaties are insufficient. On the one hand, there are no clauses specifically for the cross-border data transfer in valid Chinese international investment treaties, because most valid Chinese international investment treaties were signed in the 1990s. On the other hand, though there are general exception clauses in a limited number of Chinese international investment treaties, such as the 2012 China–Canada BIT,¹¹⁵ most Chinese international investment treaties do not contain exceptions for essential security interests, public order, or public morals.

As mentioned above, exceptions in IIAs play significant roles in setting out the legal bases for limiting cross-border transfer of data for not violating the national treatment obligation in international investment treaties. China has made an effort to set out the legal bases of its domestic data regulation legislation, but future work awaits. There are data localization requirements in several Chinese laws. For example, Article 37 of *China’s Cybersecurity Law* states that ‘personal information and important data collected and produced by critical information infrastructure operators during their operations within the territory of the People’s Republic of China shall be stored within China’. According to Article 40 of *China’s Personal Information Protection Law*:

[c]ritical information infrastructure operators and the personal information processors that process the personal information reaching the threshold specified by the national cyberspace administration in terms of quantity shall store domestically the personal information collected and generated within the territory of the People’s Republic of China.

Both articles refer to the CII. There are rational bases for the Chinese government to require personal information and important data collected or generated by CII operators in China to be stored within the Chinese territory. In this regard, the establishment of a categorized and hierarchical data protection system is necessary, which is specified in Article 21 of *China’s Data Protection Law*. To clarify the definition of CII and ways to protect it, the *Regulation on the Protection of Critical Information Infrastructure* (‘the Regulation’) was published in April 2021.¹¹⁶ In Article 2, the Regulation further clarifies the scope of CII as pieces of infrastructure ‘in the event of damage, loss of function, or data leak,’ may ‘seriously endanger national security, national welfare, or the livelihoods of the people, or the public interest’. To further define CIIs, the regulators for the industries and technology fields mentioned in the above Article 2 of the CII Rules need to promulgate rules to identify CIIs in their respective industry jurisdictions.¹¹⁷ In this way, the Regulation generally sets out the legal bases for limiting the cross-border transfer of data generated by CIIs.

¹¹⁴Joint US – China Economic Track Fact Sheet of the Fifth Meeting of the US–China Strategic and Economic Dialogue, US Department of Treasury, www.treasury.gov/press-center/press-releases/Pages/jl2010.aspx.

¹¹⁵Agreement between the Government of Canada and the Government of the People’s Republic of China for the Promotion and Reciprocal Protection of Investments’, 2012, Article 33, UNCTAD, <https://investmentpolicyhub.unctad.org/>.

¹¹⁶The official text of the Regulation on the Protection of Critical Information Infrastructure can be found at www.gov.cn/xinwen/2021-08/17/content_5631710.htm.

¹¹⁷The State Council of China, The Regulation on the Protection of Critical Information Infrastructure, 2021, Article 8 and Article 9 www.gov.cn/zhengce/content/2021-08/17/content_5631671.htm.

Apart from the need to establish a categorized and hierarchical data protection system and to further define CIIs in respective industries, the integration of Chinese international investment treaties and China's domestic legislation needs improvement. Under Article 28 of the Vienna Convention on the Law of Treaties, 'a party may not invoke the provisions of its internal law as justification for its failure to perform a treaty'. In this sense, if future Chinese international investment treaties include data regulation provisions, these provisions should be consistent with the data and investment regulation rules in China's *Cybersecurity Law*, *Data Security Law*, *Personal Information Protection Law*, and *Foreign Investment Law*. In this regard, it will be important to clarify such essential definitions as 'public morals', 'public order', and 'individual privacy' in China's domestic data legislation.

The year 2021 has witnessed China's significant improvement of its data regulation legislation with *China's Data Security Law* and *China's Personal Information Protection Law* coming into force,¹¹⁸ then it is likely to see China discuss 'new issues' more frequently in the negotiations of international investment treaties. Future negotiations and modifications of Chinese international investment treaties may require the Chinese government to emphasize cross-border data transfer clauses and exception clauses.¹¹⁹ Considering that the US, the EU, and China have created three distinct data realms with different approaches to data governance,¹²⁰ it would be difficult for China to reach an agreement with the US and the EU on cross-border data transfer clauses in investment treaty negotiations. Unlike the US and the EU, China appears to have been inactive in the 'new issue' of data flows. However, after China's data regulation legal framework has preliminarily taken shape, China may be more willing to discuss the 'new issue' in future IIA negotiations. Noting that the Trump administration pressed China to loosen the implementation of the *Cybersecurity Law* in the trade war negotiation,¹²¹ the South–North conflict could become more severe when the negotiation focuses on digital clauses or exception clauses. The US is firmly pushing its digital policies represented by Digital 2-Dozens in its BIT negotiations, aiming to strengthen protections for free cross-border data flows. However, China emphasizes the protection of the data generated by CII in light of concerns about national security, national welfare or the livelihoods of the people, or the public interest, and will thus restrict cross-border data transfer. If the China–US BIT negotiation restarts, it will be difficult for the two states to reach an agreement on the digital clause.

According to the available information, the EU and China have not reached an agreement on data regulation in the recent China–EU Comprehensive Investment Agreement.¹²² Though there is data localization legislation in China and the EU, it is difficult for the China–EU BIT to conclude digital clauses. First, the IT enterprises of the EU are not as competitive as the Chinese IT corporations in the global market; thus, the EU may generally be more conservative towards cross-border data transfer. In other words, the EU may be keen to develop its IT industry and expand its internal market to replace the global IT competitors, and may therefore be less

¹¹⁸The official text of China's Data Security Law can be found at www.npc.gov.cn/npc/c30834/202106/7c9af12f51334a73-b56d7938f99a788a.shtml. And the official text of China's Personal Information Protection Law can be found at www.npc.gov.cn/npc/c30834/202108/a8c4e3672c74491a80b53a172bb753fe.shtml.

¹¹⁹The use of general exception clauses in international investment treaties can raise complex issues regarding regulatory autonomy. See generally Mitchell, A.D., J. Munro, and T. Voon (2017) 'Importing WTO General Exceptions into International Investment Agreements: Proportionality, Myths and Risks', in L. Sachs, L. Johnson, and J. Coleman (eds.), *Yearbook on International Investment Law & Policy 2017*. New York: Oxford University Press, 305–355.

¹²⁰See more in Aaronson, S.A. and P. Leblond (2018) 'Another Digital Divide: The Rise of Data Realms and its Implications for the WTO', *Journal of International Economic Law* 21, 245–272.

¹²¹*The Wall Street Journal* (2019) 'US Trade Negotiators Take Aim at China's Cybersecurity Law', 1 April 2019, www.wsj.com/articles/u-s-trade-negotiators-take-aim-at-chinas-cybersecurity-law-11553867916.

¹²²See the European Commission official website, <http://trade.ec.europa.eu/doclib/press/index.cfm?id=2115&serie=1699&langId=en>.

motivated to push for binding cross-border data transfer provisions.¹²³ Second, China is not on the list of non-EU states that are capable of providing adequate data protection recognized by the EU Parliament,¹²⁴ which reveals the differences in the understanding of data protection between China and the EU. Third, the EU already has an integrated legal system of data protection while China's data protection and regulation legislation is still in progress. Considering the disputes on cross-border data transfer, China can rely more on exception clauses to maintain its right to data regulation. The negotiation and upgrade of Chinese investment treaties should especially emphasize general exceptions and essential security interest exceptions.

5 Conclusion

Data are not only a valuable resource, but also an investment for the purposes of IIAs. With the rapid increase in cross-border data transfers, traditional IIAs need to reform in this digital era. Data localization is a new type of regulatory measure used by host states. Data localization measures may negatively impact foreign investment. However, from a legal perspective, there is no one-size-fits-all answer about whether data localization legislation violates national treatment in IIAs.

This article has sought to demonstrate that applying the 'three-step' approach concerning international investment arbitral cases establishes that a state's domestic legislation and technological capability each plays a critical role in assessing the legality of data localization measures with respect to national treatment in IIAs. Whether the foreign investor and domestic investor are in the same economic sector depends on the domestic catalogues of foreign investment, which vary between host states. In addition, how data localization is defined in domestic legislation determines whether there are rational bases for the host states to treat a foreign investor and a domestic investor differently. Furthermore, although only very few current IIAs explicitly list data protection as an exception to either national treatment or the whole treaty, some IIAs at least implicitly include data protection through exceptions relating to a state's essential security, public order, or public morals.

China is speeding up its domestic legislation to regulate cross-border data transfer through publishing regulations to the *Cybersecurity Law* and the *Data Security Law*. China needs to carefully set out the legal bases for limiting cross-border transfer of data in Chinese investment treaties and its domestic legislation. More comprehensive data regulation legislation is anticipated to ensure China's regulation complies with its IIAs.

¹²³Early in 1973, the European Community called for the development of the European Community's advanced technology industries to prevent US corporations 'from penetrating virtually every walk of life'. See the Commission of the European Communities (CEC). Community policy on data processing. Communication of the Commission to the Council. SEC (73) 4300 final, 21 November 1973, p.1.

¹²⁴The list of states can be found at: https://ec.europa.eu/info/law/law-topic/data-protection/international-dimension-data-protection/adequacy-decisions_en.