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DATA SOVEREIGNTY VS INVESTOR RIGHTS ANALYSING DATA LOCALIZATION MEASURES AS INDIRECT EXPROPRIATION UNDER THE INDIAN MODEL BIT

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ABSTRACT

The collision between digital sovereignty and international investment law has emerged as one of the most consequential tensions in contemporary legal thought. Due to India's evolving data localisation architecture, which is basically based on the Reserve Bank of India's 2018 payment data directive and operationalised through the Digital Personal Data Protection Act 2023, foreign technology investors face significant compliance challenges. In the light of the white Industries and Vodafone arbitral disputes, India's investment treaty strategy underwent a significant recalibration. This paper analyses whether these actions meet the legal threshold of indirect expropriation under the Indian Model BIT 2016. The study makes the case that, although India's data localization policies are generally defensible as lawful general regulatory action within the police power tradition, certain structural aspects of these mandates create distinct shortcomings that could be tested in investor-state arbitration. It does this by drawing on international arbitral jurisprudence, doctrinal analysis of treaty text, and comparative regulatory assessment. Targeted legislative and treaty-drafting reforms are proposed to insulate India's digital sovereignty project from arbitral challenge.

Keywords: Data Localization; Indirect Expropriation; Indian Model BIT 2016; Digital Personal Data Protection Act 2023; Investment Treaty Arbitration; Police Powers Doctrine; Investor-State Dispute Settlement; Regulatory Sovereignty

INTRODUCTION

The idea that data constitutes a form of sovereign resource has migrated rapidly from political rhetoric into operational legal reality. India, home to over 850 million internet users and a digital economy projected to exceed USD 1 trillion by 2030, has substantial and legitimate interests in determining how data generated within its territory is stored, processed, and transferred across borders.¹⁰⁸⁷

Data localization, broadly understood as the legal requirement that defined categories of data be stored and processed on servers physically situated within a State's territorial jurisdiction, has become the primary regulatory instrument through which these sovereign interests are given concrete legal form. The appeal of localization mandates to governments is not difficult to understand. They promise to enhance state capacity for law enforcement and regulatory oversight, reduce vulnerability to foreign surveillance, and, in the eyes of their proponents, stimulate domestic technology infrastructure investment. However, it is still the matter to acknowledge where legitimate regulatory ambition ends and compensable interference with foreign investment begins.¹⁰⁸⁸

¹⁰⁸⁷ U.N. Conference on Trade and Development (UNCTAD), *Digital Economy Report 2021: Cross-Border Data Flows and Development* 87–91 (2021), <https://unctad.org/webflyer/digital-economy-report-2021>.

¹⁰⁸⁸ Pranav M.B., Vipul Kharbanda & Amber Sinha eds., *The Localisation Gambit: Unpacking Policy Moves for the Sovereign Control of Data in India* (Ctr. for Internet & Soc'y 2019), <https://cis-india.org/internet-governance/blog/the-localisation-gambit-unpacking-policy-moves-for-the-sovereign-control-of-data-in-india>.

This is not merely an academic question. Foreign technology companies, from global payment processors and cloud computing providers to cross-border data analytics firms, constitute qualifying investors under India's bilateral investment treaties (BITs), and their data infrastructure investments carry substantive legal protection against arbitrary state action, including expropriation without compensation.¹⁰⁸⁹ When a state measure substantially impairs the economic value, operational utility, or commercial viability of such an investment, international investment law may characterise that impairment as indirect expropriation, triggering the host State's obligation to pay prompt, adequate, and effective compensation.¹⁰⁹⁰

India knows this lesson well. The adverse award in *White Industries Australia Limited v Republic of India*¹⁰⁹¹ demonstrated, sometimes uncomfortably, that vague treaty language and imprecisely delimited standards of protection can generate unexpected treaty liability in domains far removed from those originally contemplated by treaty negotiators. The subsequent controversy over the *Vodafone tax arbitration*¹⁰⁹² reinforced what policymakers already suspected, that India's legacy BIT architecture needed urgent structural reform.¹⁰⁹³ The Indian Model BIT 2016¹⁰⁹⁴ was crafted directly in the shadow of these experiences and represents India's most sophisticated attempt yet to reclaim regulatory space while remaining a credible participant in the international investment law system.¹⁰⁹⁵

The present paper proceeds by first mapping India's data localization regulatory landscape, then examining the relevant provisions of the Model BIT 2016, before applying the established doctrinal frameworks of indirect expropriation to assess whether India's measures are legally vulnerable, and concluding with targeted reform analyses.

DATA LOCALIZATION IN INDIA: REGULATORY LANDSCAPE

The concept of Data Localization referred to any legal requirement that constrains the cross-border movement of data or mandates its domestic retention. The literature usefully distinguishes between strict or hard localization, which requires exclusive in-country storage and conditional or soft data localization, which permits cross-border transfer subject to safeguards while requiring a domestic copy. India has deployed both variants across different regulatory contexts.

➤ RBI Payment Data Localisation Directive (2018)

The Reserve Bank of India, by circular dated 6 April 2018, directed all payment system operators (PSOs) to store data related to payment systems including full end-to-end transaction details and information collected, carried, or processed as part of a payment instruction exclusively within India.¹⁰⁹⁶ This was among the strictest localization mandates globally, prohibiting cross-border mirroring entirely. The directive was justified on grounds of systemic risk management, monetary policy oversight, and law enforcement access.

The practical consequences of non-compliance were illustrated decisively in July 2021, when the RBI barred Mastercard Asia/Pacific Pte Ltd from onboarding new domestic customers onto its card network for failure to comply with the localization requirements.¹⁰⁹⁷ Similar restrictions were imposed

¹⁰⁸⁹ Prabhash Ranjan, *India and Bilateral Investment Treaties: Refusal, Acceptance, and Backlash* 15–22 (2019), <https://academic.oup.com/book/32248?login=false>.

¹⁰⁹⁰ Rudolf Dolzer & Christoph Schreuer, *Principles of International Investment Law* 91–94 (2d ed. 2012).

¹⁰⁹¹ *White Indus. Austl. Ltd. v. Republic of India*, UNCITRAL, Final Award ¶¶ 11.2–11.4 (Nov. 30, 2011), <https://www.italaw.com/sites/default/files/case-documents/ita0906.pdf>.

¹⁰⁹² *Vodafone Int'l Holdings BV v. Union of India*, UNCITRAL, PCA Case No. 2016-35, Award (Sept. 25, 2020), <https://www.italaw.com/cases/2544>.

¹⁰⁹³ Prabhash Ranjan & Pushkar Anand, *The 2016 Model Indian Bilateral Investment Treaty: A Critical Deconstruction*, 38 Nw. J. Int'l L. & Bus. 1 (2017), <https://scholarlycommons.law.northwestern.edu/njilb/vol38/iss1/1/>.

¹⁰⁹⁴ Indian Model Bilateral Investment Treaty 2016 (Ministry of External Affairs, Government of India), <https://www.iisd.org/toolkits/sustainability-toolkit-for-trade-negotiators/wp-content/uploads/2016/06/Model-Text-for-the-Indian-Bilateral-Investment-Treaty.pdf>.

¹⁰⁹⁵ Ranjan, supra note 3, at 20–25; Ranjan & Anand, supra note 7, at 9–14.

¹⁰⁹⁶ Reserve Bank of India, Storage of Payment System Data, Circular No. DPSS.CO.OD.No.2785/06.08.005/2017-18 (Apr. 6, 2018), <https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=11244&Mode=0>.

¹⁰⁹⁷ Reserve Bank of India, RBI Imposes Restrictions on Mastercard Asia/Pacific Pte. Ltd., Press Release No. 2021-2022/340 (Jul. 14, 2021), https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=51771.

on American Express Banking Corp and Diners Club international. These enforcement actions transformed a regulatory compliance obligation into an immediate, quantifiable commercial impairment, causing the suspension of a company's ability to expand its customer base in payment markets. From the standpoint of investment law, this change from compliance cost to market access restriction makes a legally significant turning point since it moves the measure closer to the level of substantial deprivation considered in indirect expropriation doctrine.

➤ **Digital Personal Data Protection Act, 2023**

The Digital Personal Data Protection Act, 2023 (DPDPA) represents India's most comprehensive legislative intervention in data governance to date, replacing the fragmented sectoral approach with a unified statutory framework for personal data protection.¹⁰⁹⁸

Section 16 of the DPDPA instead adopts an allowlist negative model where the Central Government may notify countries to which personal data may not be transferred, rather than specifying permitted destinations.¹⁰⁹⁹ Critically, the DPDPA operates alongside, not as a replacement for the existing sectoral localization mandates. The RBI payment data directive remains in full effect. The combined regulatory burden on a foreign company operating across payment services and consumer-facing digital services is therefore substantially greater than any single instrument would suggest, and it is this cumulative effect of overlapping mandates that intensifies the uncertainty that may itself affect investment decision.

➤ **Sectoral Mandates (SEBI and the NDGFP)**

Beyond payments and personal data, India's localization logic has expanded into capital markets. SEBI's 2023 circular requires regulated entities adopting cloud services to store market-sensitive data. It includes investor records, trading data, and surveillance information on servers located within India, with access to any foreign-held copies subject to prior regulatory approval.¹¹⁰⁰

At the policy level, the Ministry of Electronics and Information Technology's draft National Data Governance Framework Policy (2022) signals a broader regulatory ambition, framing all data generated within Indian territory as a national resource, if translated into binding obligations, would significantly deepen the compliance burden on foreign technology investors.¹¹⁰¹

When considered together, the result is a consistent and intentional territorialisation of data across industries. The overall impact is a fundamental restructuring of the operating conditions under which the initial investment was made for a foreign investor operating at scale in India, navigating the DPDPA's notification-based transfer restrictions, the RBI's absolute payment data prohibition, and SEBI's cloud storage requirements.¹¹⁰² The indirect expropriation concern is conceptually problematic because of this total burden rather than any one instrument alone.

INDIA'S DATA LOCALIZATION REGIME: PROGRESSIVE TERRITORIALISATION (2018-PRESENT)

STEP 1 | 2018 | RBI Payment Data Directive

HARD localization: exclusive in-country storage, no exceptions, no cross-border mirroring of live data → [Foundational mandate](#)

¹⁰⁹⁸ Digital Personal Data Protection Act, 2023 (India), <https://www.meity.gov.in/static/uploads/2024/06/2bf1f0e9f04e6fb4f8fef35e82c42aa5.pdf>.

¹⁰⁹⁹ Id. § 16.

¹¹⁰⁰ Securities and Exchange Board of India, Framework for Adoption of Cloud Services by SEBI Regulated Entities, Circular No. SEBI/HO/ITD/ITD_VAPT/P/CIR/2023/135 (2023), <https://www.sebi.gov.in/legal/circulars/mar-2023/framework-for-adoption-of-cloud-services-by-sebi-regulated-entities-res-68740.html>.

¹¹⁰¹ Ministry of Elecs. & Info. Tech., National Data Governance Framework Policy (Draft 2022), <https://www.meity.gov.in/content/draft-national-data-governance-framework-policy-0>.

¹¹⁰² Pranav M.B. et al., supra note 2, at 28–31; Dolzer & Schreuer, supra note 4, at 99–105.

STEP 2 | 2023 | DPDPA Section 16

SOFT localization: executive notification to restrict transfers; allowlist-negative model; regulatory uncertainty → [Statutory expansion](#)

STEP 3 | 2023 | SEBI Cloud Services Circular

SECTORAL localization: market-sensitive capital markets data on Indian servers; foreign access by approval only → [Sectoral deepening](#)

STEP 4 | 2022 | NDGFP (Draft Policy)

FRAMEWORK localization: all public and private data as national resource; signals universal territorialisation → [Future trajectory](#)

Cumulative effect for foreign investors: each layer independently imposes compliance obligations; together they represent a fundamental restructuring of operating conditions

Instrument	Year	Sector	Type	Core Obligation
RBI Payment Data Circular ¹¹⁰³	2018	Payment Systems	Hard / Exclusive	All payment transaction data must be stored exclusively in India; cross-border mirroring prohibited
Personal Data Protection Bill 2019 ¹¹⁰⁴	2019	Personal Data (General)	Hard (critical); Conditional (sensitive)	'Critical personal data' must be stored exclusively in India 'Sensitive data' requires a local copy
Digital Personal Data Protection Act 2023 ¹¹⁰⁵	2023	Personal Data (General)	Soft / Discretionary	Central Government may notify countries to which transfer is restricted (s 16); allowlist-negative model
SEBI Cloud Circular ¹¹⁰⁶	2023	Capital Markets Data	Sector-specific	Market sensitive data on Indian Servers, prior regulatory approval required for foreign access
NDGFP (Draft) ¹¹⁰⁷	2022	All Public and Private Data	Policy Framework	Frames India's data as a national resource, signals further mandatory territorialisation across sectors.

¹¹⁰³ Reserve Bank of India, supra note 10.

¹¹⁰⁴ Personal Data Protection Bill, 2019 (India) cls. https://prsindia.org/files/bills_acts/bills_parliament/2019/Personal%20Data%20Protection%20Bill,%202019.pdf.

¹¹⁰⁵ Digital Personal Data Protection Act, 2023 (India), supra note 12.

¹¹⁰⁶ Securities and Exchange Board of India, supra note 14.

¹¹⁰⁷ Ministry of Elecs. & Info. Tech., supra note 15.

THE INDIAN MODEL BIT 2016: RELEVANT PROVISIONS

Investment treaty practice in India underwent a fundamental transformation following the *White Industries Australia Ltd v Republic of India* award in 2011, which held India liable under the Australia-India BIT for systemic delays in the Indian judicial system.¹¹⁰⁸ This, combined with a clutch of pending investor-state arbitrations, prompted India to terminate or renegotiate approximately 58 BITs and develop the Model BIT 2016 as the template for a new generation of investment agreements.¹¹⁰⁹ The Model BIT is explicitly designed to balance investor protection against the state's right to regulate in the public interest.¹¹¹⁰

➤ Investment (Article 1.4)

Article 1.4 of the Model BIT adopts an enterprise-based definition of investment, limiting treaty protection to an enterprise constituted or organized under domestic law. The characteristics includes commitment of capital or other resources, certain duration, expectation of gain or profit, and assumption of risk.¹¹¹¹ This narrower definition, compared to the traditional asset-based approach, has important consequences for data localization disputes. A foreign technology company operating through an Indian subsidiary with physical data infrastructure would likely qualify. However, whether data itself, absent an embedded enterprise structure, qualifies as a protected investment or remains conceptually open under the Model BIT framework, given data's non-exclusive and easily replicable character.¹¹¹²

➤ Expropriation Prohibition (Article 5)

Article 5.1 of the Indian Model BIT prohibits the expropriation of a covered investment, whether direct or indirect, without:

- (a) a public purpose;
- (b) non-discrimination;
- (c) due process of law; and
- (d) prompt, adequate, and effective compensation.¹¹¹³

Whereas Article 5.2 extends the prohibition to Indirect Expropriation, defined as a measure or series of measures by a party having an effect equivalent to direct expropriation without formal transfer of title or outright seizure.¹¹¹⁴

➤ The Tripartite Annex Text

The Annex on Expropriation is critical as it specifies that a non-discriminatory measure of general application, designed and applied in good faith to achieve a legitimate public welfare objective, shall not constitute indirect expropriation except in rare circumstances¹¹¹⁵. It established three factors in the analysis include the economic impact on the investor, the duration of the measure, the extent of interference with reasonable investment-backed expectations, and the character of the governmental action.¹¹¹⁶

¹¹⁰⁸ *White Indus. Austl. Ltd. v. Republic of India*, supra note 5, ¶¶ 11.2–11.4.

¹¹⁰⁹ Ranjan, supra note 3, at 20–25.

¹¹¹⁰ Ranjan & Anand, supra note 7, at 9–14.

¹¹¹¹ Indian Model Bilateral Investment Treaty 2016, art. 1.4 (Ministry of Fin., Dep't of Econ. Affairs, Government of India), <https://www.iisd.org/toolkits/sustainability-toolkit-for-trade-negotiators/wp-content/uploads/2016/06/Model-Text-for-the-Indian-Bilateral-Investment-Treaty.pdf>.

¹¹¹² Jeswald W. Salacuse, *The Law of Investment Treaties* 207–12 (3d ed. 2021); Dolzer & Schreuer, supra note 4, at 61–65.

¹¹¹³ Indian Model Bilateral Investment Treaty 2016, supra note 25, art. 5.1.

¹¹¹⁴ Id. art. 5.2.

¹¹¹⁵ Id. annex to art. 5; Ranjan & Anand, supra note 7, at 25–30.

¹¹¹⁶ Id. annex to art. 5, ¶¶ (b)(i)–(iii).

ANNEX TO ARTICLE 5: THREE-FACTOR TEST FOR INDIRECT EXPROPRIATION		
FACTOR I – Economic Impact	FACTOR II – Investment-Backed Expectations	FACTOR III – Character of the Measure
<p>Economic impact alone is insufficient</p> <p>Must show near-total deprivation of investment value</p> <p>Reduced profits or compliance costs do not qualify</p> <p>Threshold: substantial deprivation (LG&E standard)</p>	<p>Investor must hold specific, reasonable expectations</p> <p>Expectations must arise from specific commitments, not general promotion rhetoric</p> <p>Sector regulation history is relevant</p> <p>RBI authority pre-exists most investments in India</p>	<p>Nature, purpose, and context of state action</p> <p>Is the measure neutral in application?</p> <p>Is the stated objective genuine and proportionate?</p> <p>Good faith is presumed absent clear contrary evidence</p>

Key departure from sole effects doctrine: Economic impact alone does not establish indirect expropriation. All three factors must be assessed together.

➤ **The Regulatory Carve-out (Article 5.5)**

Article 5.5 provides the primary mechanism for treaty to preserve the regulatory space in India. It states that non-discriminatory measures intended and implemented to safeguard justifiable public welfare objectives shall not be considered indirect expropriation. Except in circumstances where the measures are so severe that it is not reasonable to assume that they were adopted in good faith.¹¹¹⁷ Data Localisation is significantly impacted by three features which are textual lacuna, rare circumstances qualifier, non-discrimination requirement.¹¹¹⁸

➤ **General Exceptions and Security Carve-outs (Articles 2.4 and 32)**

Article 2.4 excludes from the treaty's scope certain measures relating to taxation, law enforcement, and defined public welfare objectives. Article 32 allows parties to take measures necessary for the protection of essential security interests and public order.¹¹¹⁹ These provisions collectively create substantial regulatory space for data governance measures, particularly those grounded in national security considerations that are well-documented in the legislative history of localization framework in India.¹¹²⁰

➤ **Absence of Fair and Equitable Treatment**

A structural feature of the Model BIT with important implications for data localization disputes is the deliberate omission of an open-ended fair and equitable treatment clause, replaced by a narrower minimum standard of treatment under customary international law.¹¹²¹ As a practical result, investors are forced to focus their claims on the expropriation provision, which theoretically narrows the legal

¹¹¹⁷ Id. art. 5.5.

¹¹¹⁸ Ranjan & Anand, supra note 7, at 34–38.

¹¹¹⁹ Indian Model Bilateral Investment Treaty 2016, supra note 25, arts. 2.4, 32.

¹¹²⁰ Pranav M.B. et al., supra note 2, at 18–22; Ranjan, supra note 3, at 25–30.

¹¹²¹ Ranjan & Anand, supra note 7, at 34–38; UNCTAD, *Investment Policy Framework for Sustainable Development* (2015), <https://unctad.org/publication/investment-policy-framework-sustainable-development-2015-edition>.

fight in India's favour, rather than relying on the more flexible legitimate expectations strand of FET jurisprudence.¹¹²²

➤ Exhaustion of Local Remedies (Article 15)

Perhaps the most distinctive feature of the Model BIT is its requirement that investors exhaust domestic judicial remedies for a minimum of five years before accessing international arbitration.¹¹²³ For a data localization challenge, this means litigating through High Courts and potentially the Supreme Court of India. Given the Indian judiciary's general deference to executive regulatory decisions in the economic sphere, this is a meaningful procedural safeguard that substantially raises the cost and uncertainty of investor-state claims.¹¹²⁴

INDIRECT EXPROPRIATION IN INTERNATIONAL INVESTMENT LAW

Indirect expropriation occurs when a state measure, without formally transferring title or possession, substantially deprives a foreign investor of the value, use, or enjoyment of their investment.¹¹²⁵ The central challenge in any indirect expropriation analysis and the fault line in investment arbitration jurisprudence is distinguishing between a compensable regulatory taking and a lawful exercise of sovereign regulatory authority.¹¹²⁶ Three analytical approaches have emerged, each carrying distinct implications for the data localization context.

A. The Sole Effects Doctrine

The foundational articulation appears in *Starrett Housing Corp v Government of Iran*,¹¹²⁷ where the Iran-United States Claims Tribunal held that States may not take measures 'tantamount to expropriation' without compensation, even absent formal seizure. This principle was sharpened in *Metalclad Corporation v United Mexican States*,¹¹²⁸ where the tribunal extended expropriation to encompass any 'covert or incidental interference' that deprives the owner in whole or in significant part' of the reasonably expected economic benefit of their investment.

Its most uncompromising expression came in *Compañía del Desarrollo de Santa Elena SA v Costa Rica*,¹¹²⁹ where the tribunal held that a State's environmental purpose could not diminish the obligation to pay compensation, reasoning that the public rationale behind the taking does not alter its legal character. Due to its propensity to protect foreign investors from common regulatory risks, subsequent tribunals have mainly moved away from this theory, even if localisation rules that result in market access restrictions might theoretically fulfil the sole impacts criteria.

B. The Police Powers Doctrine

A competing and increasingly favoured approach holds that States retain inherent regulatory authority, commonly referred to as police powers, to govern in the public interest without incurring compensation liability. according to tribunal ruling in *Methanex Corp v United States*, a non-discriminatory regulation for a public purpose is implemented in accordance with due process, is not

¹¹²² Ranjan & Anand, supra note 7, at 36–38; Jeswald W. Salacuse, *The Law of Investment Treaties* 213–15 (3d ed. 2021).

¹¹²³ Indian Model Bilateral Investment Treaty 2016, supra note 25, art. 15.

¹¹²⁴ Ranjan, supra note 3, at 30–34; *Vodafone Int'l Holdings BV v. Union of India*, supra note 6.

¹¹²⁵ Dolzer & Schreuer, supra note 4, at 100–02.

¹¹²⁶ Salacuse, supra note 26, at 207–12.

¹¹²⁷ *Starrett Hous. Corp. v. Gov't of the Islamic Republic of Iran*, 4 Iran-U.S. Cl. Trib. Rep. 122, 154 (1983), https://www.trans-lex.org/232100/_/iran-us-claims-tribunal-starrett-housing-corp-v-iran-16-iran-us-ctr-at-112-et-seq/.

¹¹²⁸ *Metalclad Corp. v. United Mexican States*, ICSID Case No. ARB(AF)/97/1, Award ¶ 103 (Aug. 30, 2000), <https://www.italaw.com/sites/default/files/case-documents/ita0510.pdf>.

¹¹²⁹ *Compañía del Desarrollo de Santa Elena, S.A. v. Republic of Costa Rica*, ICSID Case No. ARB/96/1, Final Award ¶ 72 (Feb. 17, 2000), <https://www.italaw.com/sites/default/files/case-documents/italaw6340.pdf>.

deemed expropriatory and does not require compensation unless specific commitments had been given to the investor.¹¹³⁰

*Saluka Investments v Czech Republic*¹¹³¹ similarly upheld that bona fide regulatory action, particularly in areas of health, environment, security, and finance, does not constitute expropriation even where the investor suffers significant economic loss. *Philip Morris Asia v Australia*¹¹³² reinforced this position, upholding plain packaging laws as a legitimate exercise of police powers. Under this context, India's localisation policies perform significantly better like the DPDPA transfer limitations and the RBI order are facially non-discriminatory, implemented through established procedures, and aimed at goals that are clearly within the purview of sovereign regulatory authority.

C. The Proportionality Test (Balancing Approach)

The primary existing case, *Philip Morris Brands Sarl v Uruguay*¹¹³³, upholds plain-packaging requirements as non-compensable after determining the proportionality of investor impact and a rational relationship to a valid legislative policy. *Tecmed v. Mexico*¹¹³⁴, added the doctrine of legitimate expectation which mandates that the host state not violate reasonable expectations resulting from particular pledges made at the time of investment.

*SD Myers Inc v Canada*¹¹³⁵ drew a critical distinction between measures that bring an investor's business to an end and those merely imposing new regulatory conditions, separating operational prohibition from operational restructuring. Finally, *LG&E Energy LLC v Argentina*¹¹³⁶ established "substantial deprivation" as the operative threshold, requiring loss of the fundamental attributes of the investment rather than merely anticipated profits, a standard that would demand evidence of near-total commercial impairment in any data localization challenge.

Approach	Core Test	Effect on Data Localization Claims
Sole Effects Doctrine	Focuses on economic impact on investor; state purpose is irrelevant	Higher risk: substantial destruction of value = expropriation, regardless of public purpose
Police Powers Doctrine	Non-discriminatory, good-faith, public-purpose regulation is non-compensable	Lower risk: localization grounded in security, privacy, or monetary policy is protected
Proportionality Test	Balances severity of investment interference against the public interest served	Context-dependent: proportionate localization = non-compensable; overbroad mandates = vulnerable

¹¹³⁰ *Methanex Corp. v. United States of America*, UNCITRAL, Final Award, pt. IV, ch. D, ¶ 7 (Aug. 3, 2005), <https://www.italaw.com/sites/default/files/case-documents/ita0529.pdf>.

¹¹³¹ *Saluka Invs. BV v. Czech Republic*, UNCITRAL, Partial Award ¶¶ 255–62 (Mar. 17, 2006), <https://www.italaw.com/sites/default/files/case-documents/ita0740.pdf>.

¹¹³² *Philip Morris Asia Ltd. v. Commonwealth of Australia*, UNCITRAL, PCA Case No. 2012-12, Award on Jurisdiction and Admissibility ¶ 536 (Dec. 17, 2015), https://www.italaw.com/sites/default/files/case-documents/italaw7303_0.pdf.

¹¹³³ *Philip Morris Brands Sarl v. Oriental Republic of Uruguay*, ICSID Case No. ARB/10/7, Award ¶¶ 299–306 (Jul. 8, 2016), <https://www.italaw.com/sites/default/files/case-documents/italaw7417.pdf>.

¹¹³⁴ *Técnicas Medioambientales Tecmed, S.A. v. United Mexican States*, ICSID Case No. ARB(AF)/00/2, Award ¶ 154 (May 29, 2003), <https://www.italaw.com/sites/default/files/case-documents/ita0854.pdf>.

¹¹³⁵ *S.D. Myers, Inc. v. Government of Canada*, UNCITRAL, First Partial Award ¶ 283 (Nov. 13, 2000), <https://www.italaw.com/sites/default/files/case-documents/ita0747.pdf>.

¹¹³⁶ *LG&E Energy LLC v. Argentine Republic*, ICSID Case No. ARB/02/1, Decision on Liability ¶ 193 (Oct. 3, 2006), <https://www.italaw.com/sites/default/files/case-documents/ita0460.pdf>.

DATA LOCALIZATION AS INDIRECT EXPROPRIATION: AN ANALYSIS

Applying the doctrinal frameworks to India's data localization measures requires structured engagement with each of the three Annex factors. The analysis reveals a broadly defensible regulatory regime that nevertheless contains identifiable pressure points.

A. Economic Impact: The Substantial Deprivation Threshold

The Annex to Article 5 is clear that economic impact alone cannot establish indirect expropriation.¹¹³⁷ What is required is near-total deprivation of investment value, not merely increased compliance costs. India's localization mandates undeniably impose significant financial burdens. The RBI's 2018 directive forced major global payment processors to build dedicated Indian data infrastructure at reported costs running into hundreds of millions of dollars, and cloud service providers faced comparable restructuring expenses.¹¹³⁸ These are real costs, and they fall disproportionately on foreign operators whose global architectures are far more disrupted than those of domestically-oriented Indian companies.

That said, cost is not the same as deprivation. Mastercard, Visa, Amazon Web Services, and Microsoft Azure remain operational in India, continue generating revenue, and retain their market presence. Under the *SD Myers* framework, this operational continuity weighs heavily against a finding of substantial deprivation.¹¹³⁹ The Mastercard onboarding ban comes closest to crossing the threshold, because barring a company from acquiring new customers in a growing market is qualitatively different from simply making compliance expensive.¹¹⁴⁰ Had that restriction been indefinite rather than remediation-contingent, the expropriation argument would have been considerably stronger.¹¹⁴¹

B. Legitimate Expectations: Did India Induce Open Data Flows?

The second factor asks what India actually promised foreign technology investors, and whether subsequent localization mandates betrayed those promises. India's Digital India Programme and National Digital Communications Policy 2018 projected an image of regulatory openness and digital ambition.¹¹⁴² But projecting an image is not the same as making a legally binding commitment. Arbitral tribunals have consistently held that general investment promotion rhetoric is insufficient to ground a legitimate expectation claim.¹¹⁴³

A more credible version of this argument focuses on the regulatory environment at the time of investment. Companies that built global data architectures in the early 2010s did so in a world where cross-border data flows were largely unregulated. The RBI's 2018 directive arrived abruptly, with a six-month compliance window, and represented a sharp departure from the prior status quo.¹¹⁴⁴ For investors who had reasonably relied on that openness, the sudden shift had the character of an unanticipated regulatory discontinuity. Even so, the Model BIT's minimum standard of treatment, tied to customary international law rather than the more generous FET standard, sets a high bar: the conduct must be egregious, not merely unexpected.

¹¹³⁷ Indian Model Bilateral Investment Treaty 2016, supra note 25, annex to art. 5; *LG&E Energy LLC v. Argentine Republic*, supra note 50, ¶ 193.

¹¹³⁸ Pranav M.B. et al., supra note 2, at 22–24.

¹¹³⁹ *S.D. Myers, Inc. v. Government of Canada*, supra note 49, ¶ 283.

¹¹⁴⁰ Reserve Bank of India, supra note 11.

¹¹⁴¹ *Metalclad Corp. v. United Mexican States*, supra note 42, ¶ 103; Dolzer & Schreuer, supra note 4.

¹¹⁴² Government of India, Digital India Programme, <https://www.digitalindia.gov.in>; Ministry of Elecs. & Info. Tech., National Digital Communications Policy 2018 (2018), https://www.telecomepc.in/assets/tepc/pdf/policies/National_Digital_Communication_Policy_2018.pdf.

¹¹⁴³ *Técnicas Medioambientales Teomed, S.A. v. United Mexican States*, supra note 48, ¶ 154; *Methanex Corp. v. United States of America*, supra note 44, pt. IV, ch. D, ¶ 7.

¹¹⁴⁴ Reserve Bank of India, supra note 10.

C. Character of the Governmental Measure: Regulation or Targeted Deprivation?

This is where India's legal position is strongest. Data localization mandates apply equally to domestic and foreign-owned operators alike. Their stated objectives, national security, data privacy, financial system integrity, and law enforcement access, are precisely the kinds of public interest purposes that investment tribunals have consistently recognised as legitimate grounds for regulation. In *Philip Morris v Uruguay*, the ICSID tribunal refused to second-guess the State's regulatory purpose, deferring to the democratically accountable sovereign's policy judgment.¹¹⁴⁵ A tribunal examining India's data governance rationale would likely extend similar deference.

The more contestable ground is enforcement design. The RBI's customer onboarding ban is a commercially severe measure, and a tribunal might reasonably ask whether a less disruptive instrument could have achieved the same compliance objective.¹¹⁴⁶ The DPDPA's reliance on unconstrained executive notification power similarly raises questions about whether the measure, however legitimate in purpose, was applied in the good faith that Article 5.5 requires.¹¹⁴⁷

THE REGULATORY CARVE-OUT UNDER ARTICLE 5.5: SUFFICIENCY AND GAPS

Article 5.5 is India's primary structural defence against data localization challenges. It operates as a treaty-level codification of the police powers doctrine, but its precise textual formulation introduces interpretive challenges that are consequential for India's legal position.¹¹⁴⁸

I. The Textual Gap: National Security and Digital Sovereignty

The most significant vulnerability of Article 5.5 is its enumerated list of legitimate welfare objectives related to public health, safety, and the environment. These examples are illustrative rather than exhaustive, but the absence of any explicit reference to national security, data sovereignty, or financial system integrity is striking, given that these are precisely the objectives animating India's localization mandates. An investor's counsel could invoke the *eiusdem generis* principle of treaty interpretation to argue that the carve-out should not extend to objectives of an entirely different kind, since all three enumerated examples concern protection of persons from physical harm, not the management of information flows or economic sovereignty. Ranjan and Anand have identified this silence as a significant structural ambiguity, and UNCTAD's Investment Policy Framework has recommended that States expressly enumerate security and digital economy objectives in treaty carve-outs to avoid precisely this vulnerability.

II. The Rare Circumstances Qualifier: A Double-Edged Sword

The clause allowing for rare circumstances where a measure is so severe that it cannot reasonably be viewed as adopted in good faith introduces a proportionality screen within the carve-out itself. This creates a somewhat uncomfortable paradox. The situations most likely to attract investor claims, those involving the most severe economic impact, are precisely those most likely to fall outside the carve-out through this exception. The carve-out is therefore most reliable when India needs it least, and least reliable when it needs it most.

India's localization measures appear broadly to have been adopted in good faith as they pursue publicly stated objectives, operate through established regulatory processes, and are not designed to target specific foreign investors.¹¹⁴⁹ However, the DPDPA's reliance on executive notification power, without prior impact assessment or parliamentary scrutiny, introduces a procedural dimension that

¹¹⁴⁵ *Philip Morris Brands Sàrl v. Oriental Republic of Uruguay*, supra note 47, ¶306.

¹¹⁴⁶ *S.D. Myers, Inc. v. Government of Canada*, supra note 49, ¶283; Dolzer & Schreuer, supra note 4, at 113–15.

¹¹⁴⁷ Digital Personal Data Protection Act, 2023 (India), supra note 12, § 16; Ranjan & Anand, supra note 7, at 35–38.

¹¹⁴⁸ Andrew Newcombe & Luis Paradell, *Law and Practice of Investment Treaties: Standards of Treatment* 321–25 (2009).

¹¹⁴⁹ *Methanex Corp. v. United States of America*, supra note 44, pt. IV, ch. D, ¶7; *Saluka Inv. BV v. Czech Republic*, supra note 45, ¶¶ 255–62.

investor counsel could press as evidence that the measure, however legitimate in purpose, was not applied in good faith in its operational implementation.¹¹⁵⁰

III. Non-Discrimination and De Facto Asymmetry

Article 5.5 only protects measures that are genuinely non-discriminatory. The difficulty here is structural which mandates data localisation, while facially neutral, impose significantly heavier compliance burdens on foreign technology companies with globally distributed data architectures than on domestic operators with locally concentrated infrastructure.¹¹⁵¹ A facially neutral measure that produces structurally asymmetric effects along nationality lines risks being characterised as de facto discriminatory.¹¹⁵² Whether India's localization regime meets that threshold is contestable, but it is a dimension of the analysis India should address proactively, ideally through transition periods, technical assistance, or graduated compliance standards for smaller foreign operators during the infrastructure adjustment phase.

Article 5.5 Requirement	India's Established Position	Residual Vulnerability / Risk
Non-discrimination	RBI directive and DPDPA apply on their face to all operators regardless of nationality	De facto asymmetry: foreign firms with global architectures bear disproportionate compliance costs compared to domestically-oriented Indian operators; risk of de facto discrimination argument
Good Faith	Documented legislative rationale: security, privacy, AML, law enforcement access; measures enacted through established processes	DPDPA's executive notification power permits transfer restrictions without prior impact assessment or parliamentary scrutiny; procedural opacity may invite 'not applied in good faith' argument
Legitimate Public Welfare Objective	Financial system integrity, national security, privacy protection: paradigmatic sovereign objectives in investment treaty law	Article 5.5 explicitly lists only 'health, safety, and environment' as examples; no mention of national security or digital sovereignty creates a textual lacuna exploitable by investor counsel
Rare Circumstances Exception	Measures maintain investors operational continuity; no permanent seizure; affected companies remain operational in India	RBI's customer onboarding ban is a severe sanction approximating market access restriction; if indefinite, it edges toward 'rare circumstances' severity under Article 5.5

¹¹⁵⁰ Digital Personal Data Protection Act, 2023 (India), supra note 12, § 16; Pranav M.B. et al., supra note 2, at 22–26.

¹¹⁵¹ Pranav M.B. et al., supra note 2, at 22–26.

¹¹⁵² *S.D. Myers, Inc. v. Government of Canada*, supra note 49, ¶ 283.

EMERGING CHALLENGES AND AREAS FOR LEGISLATIVE CONSIDERATION

The preceding analysis reveals that India's data localization regime, while broadly defensible under the Indian Model BIT 2016, carries identifiable structural shortcomings that could be pressed in investor-state arbitration as enforcement intensifies. The following observations identify areas that should receive more attention at the legislative and treaty levels.

➤ **The DPDPA's Notification-Based Transfer Mechanism**

Section 16's delegation of transfer-restriction authority to the Central Government via executive notification creates a legal uncertainty that sits uncomfortably with investment treaty obligations.¹¹⁵³ Without legislative consideration, a prior impact study, or saving clauses for current investment structures, the localisation obligation's reach varies with each announcement.¹¹⁵⁴ A possible legislative response worth considering would be the introduction of a transparent, criteria-based framework for cross-border transfer restrictions, one that requires prior publication, a consultation period, and a regulatory impact assessment. Such procedural architecture would not restrict India's ability to limit data transfers for legitimate purposes. It would strengthen the legal justification for such limits by proving that they were adopted in good faith.¹¹⁵⁵

➤ **Enumerating Digital Sovereignty in Article 5.5**

Future BIT negotiations may benefit from an expanded Article 5.5 carve-out that explicitly enumerates national security, data sovereignty, and financial system integrity as qualifying public welfare objectives.¹¹⁵⁶ The textual gap identified in previously is a real litigation risk. One possible model worth examining is Article

14.11 of the CPTPP, which permits data localization measures necessary to achieve a legitimate public policy objective, subject to a proportionality requirement preventing their use as disguised investment barriers.¹¹⁵⁷

➤ **RBI Enforcement Design**

The customer onboarding bans imposed on Mastercard, American Express, and Diners Club translate a compliance objective into a market access restriction that edges closer to investment impairment than proportionate regulatory enforcement.¹¹⁵⁸ One option that should be taken into account is a tiered compliance framework that separates deliberate avoidance from good-faith technical non-compliance, saving the harshest penalties for the latter.

➤ **Legacy BIT Exposure**

Several pre-existing treaties retain broader Fair and Equitable Treatment (FET) clauses, Umbrella clauses, and Most Favoured Nation (MFN) provisions absent from the 2016 Model.¹¹⁵⁹ As demonstrated in *White Industries*, the MFN clause could enable investors to import more favourable standards from other treaty relationships. This could expose data localisation efforts to difficulties in a more investor-friendly framework.¹¹⁶⁰ The literature now in publication constantly highlights the importance of expediting the renegotiation of legacy BITs with significant technology exporting nations.¹¹⁶¹

CONCLUSION

The confrontation between data sovereignty and investor rights is, at its structural core, a contest over which normative framework, domestic regulatory prerogative or international investment law, shall govern the digital economy. India's Model BIT 2016 represents a genuine and sophisticated

¹¹⁵³ Digital Personal Data Protection Act, 2023 (India), supra note 12, § 16.

¹¹⁵⁴ Pranav M.B. et al., supra note 2, at 28–31.

¹¹⁵⁵ *Methanex Corp. v. United States of America*, supra note 44, pt. IV, ch. D, ¶ 7.

¹¹⁵⁶ Indian Model Bilateral Investment Treaty 2016, supra note 25, art. 5.5; Ranjan & Anand, supra note 7, at 35–38.

¹¹⁵⁷ Comprehensive and Progressive Agreement for Trans-Pacific Partnership art. 14.11, Mar. 8, 2018.

¹¹⁵⁸ Reserve Bank of India, supra note 11.

¹¹⁵⁹ Ranjan, supra note 3, at 35–40.

¹¹⁶⁰ *White Indus. Austl. Ltd. v. Republic of India*, supra note 5, ¶ 11.2.

¹¹⁶¹ UNCTAD, *World Investment Report 2022: International Tax Reforms and Sustainable Investment* (2022), <https://unctad.org/webflyer/world-investment-report-2022>.

attempt to reclaim regulatory space in the face of expansive arbitral jurisprudence, but its expropriation provisions, as applied to data localization, reveal structural ambiguities that no treaty text, however carefully drafted, can entirely resolve.

The analysis in this paper leads to the following conclusions. First, India's data localization measures, assessed under the tripartite framework in the Annex to Article 5, are broadly defensible as general regulatory action within the police powers tradition. Their facially neutral character, established regulatory purpose, and maintenance of investors fundamental operational capacity make a successful expropriation claim at the threshold stage difficult, though not impossible.

Second, three discrete structural vulnerabilities warrant serious attention which are the absolute character and punitive enforcement of the RBI's payment data directive, the unpredictable notification-based architecture of the DPDPA's transfer restrictions, and the textual gap in Article 5.5's carve-out that fails to enumerate national security and digital sovereignty as qualifying public welfare objectives. Each of these characteristics offers a possible avenue for investor claims that the existing treaty framework might not fully cover.

Third, what emerges from this analysis is that data sovereignty need not retreat, but rather calls for a more legally articulate formulation. It is still possible to match India's domestic regulatory aspirations with its treaty responsibilities through open regulatory procedures, well-calibrated enforcement mechanisms, and forward-thinking treaty drafting. Investor protection and digital sovereignty are not intrinsically incompatible ideals. Knowing when one must give way to the other is the true difficulty, as it has always been in international investment law.

As India continues to consolidate its position as both a major digital economy and an influential voice in global investment treaty reform, the choices it makes in structuring its data

governance framework will carry consequences well beyond its own treaty exposure. They will contribute, quietly but meaningfully, to the broader evolution of international legal norms at the intersection of digital sovereignty and foreign investment. That is not a burden India shoulders alone, but it is one that its legal architecture must be prepared to bear.

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