

SYMPOSIUM ON DIGITAL TRADE AND INTERNATIONAL LAW

DETERRING DIGITAL TRADE WITHOUT DISCRIMINATION

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Commercial activity and regulatory oversight of the digital economy are growing apace. This essay argues that regulatory heterogeneity can deter digital trade without discrimination. Domestic policies that are not discriminatory can still result in fragmentation of the global digital economy, if sufficiently heterogeneous. We find that rules at the World Trade Organization (WTO) and in digital trade agreements offer important directions but insufficiently mitigate heterogeneity. We suggest that heterogeneity should be addressed through the progressive expansion of international trade law. We emphasize the importance of encouraging regulatory coherence and pre-empting the formation of digital blocks.

Digital Trade and Its Regulation Are of Increasing Importance

For the purposes of this essay, digital trade is viewed comprehensively to include the cross-border provision of digital goods and services, electronic commerce as well as associated data flows including advertisements, app use, and payments.¹ Paperless trade and related means of electronically facilitating physical trade in goods are beyond the scope of this essay.

Observed regulatory activity reflects the significance of the digital economy. The size of the global digital economy is estimated to reach 23 trillion U.S. Dollars (24.3 percent of global gross domestic product) by 2025.² Beyond its economic importance, the digital economy has ramifications for privacy, national (cyber)security, public morals, and human rights.³ This has led to a mushrooming of digital policy initiatives as governments have exercised their right to regulate, in particular concerning data governance, competition, content, and taxation. The Digital Policy Alert, a public record of policy changes that affect the digital economy, has documented over 2,500 pertinent policy developments between 2020 and 2022.⁴ The challenge lies in balancing domestic policy objectives with an open internet and a global digital economy.

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¹ Mira Burri & Anupam Chander, *What Are Digital Trade and Digital Trade Law?*, 117 AJIL UNBOUND 99 (2023).

² Huawei & Oxford Economics, *Digital Spillover, Measuring the True Impact of the Digital Economy* (2017).

³ Mira Burri, *Digital Trade Law and Human Rights*, 117 AJIL UNBOUND 110 (2023).

⁴ See Digital Policy Alert, *Activity Tracker*.

Fragmentation, Regulatory Heterogeneity, and the Need for Regulatory Coherence

Fragmentation refers to the global digital economy splitting into parts because of technical, governmental, or commercial factors.⁵ Digital policy is a governmental cause of fragmentation and the focus of this essay.

Some domestic policies cause fragmentation by design, often—but not always—discriminating against foreign providers. Prominent examples of fragmentary-by-design policies include data localization obligations, local content requirements, and requirements of local sourcing or participation in government procurement. Evidence points to a growing number of such policies.⁶ However, the principles, language, and tools to address them are familiar ground for international trade law, as we explain below. Without diminishing the significance of fragmentary-by-design policies, we turn our attention to regulatory heterogeneity (hereinafter referred to as “heterogeneity”).

We posit that heterogeneity can deter digital trade even when domestic policies are neither fragmentary-by-design nor discriminatory. Our primary concern is that fragmentation occurs because uncoordinated regulatory action results in multiple, distinct regulatory approaches to attaining the same regulatory objective. For example, as regulatory requirements for personal data protection differ across countries, digital providers that service multiple regulatory jurisdictions must be aware that lawful data collection practices in one place may violate the regulatory regime in another. Even policies with shared goals can create heterogeneity, such as data breach notification requirements with differing timelines or illegal content moderation requirements with differing definitions of illegality. Heterogeneity tends to influence the conditions of international competition, potentially causing fragmentation.

Two clarifications are due before we explain the economic consequences of heterogeneity. First, we do not suggest that different types of heterogeneity have the same effect on digital trade. Second, the opposite of heterogeneity is not regulatory homogeneity, which would be an overly ambitious goal for international cooperation. Instead, we suggest two possible intermediate positions. Regulatory coherence seeks to avoid inconsistent or even conflicting regulatory requirements across markets. Going one step further, regulatory interoperability requires some kind of mutual recognition mechanism between coherent regulatory approaches so that firms can operate seamlessly.

Regulatory Heterogeneity Deters Both Digital and Traditional Trade

In the absence of alignment between governments, unilateral policy choices can lead to suboptimal outcomes for innovation and international competition between private sector actors, who may devote excessive resources to compliance. In digital policy, this resource misallocation is exacerbated by legal and economic factors. Legally, the implementation of domestic digital policy spills across various national borders, potentially misallocating resources at home and abroad. Economically, many digital business models require economies of scale to be profitable, subjecting successful businesses to numerous domestic regimes.

Digital businesses have lower market exit costs than traditional firms. We argue that heterogeneity deters trade when it causes internationally active digital firms to exit a market or curbs their market entry plans. In practical terms, this can arise due to compliance costs, business model risks, and compliance risks.

⁵ William J. Drake, Vinton G. Cerf & Wolfgang Kleinwächter, *Internet Fragmentation: An Overview*, WORLD ECON. F. (2016).

⁶ Johannes Fritz, *Regulatory Activity in Cross-Border Data Transfer and Data Localisation Is Ticking Up*, DIGITAL POL'Y ALERT 1 (Aug. 24, 2022); Javier López González, Francesca Casalini & Juan Porras, *A Preliminary Mapping of Data Localisation Measures* 262 (OECD Trade Policy Paper, June 13, 2022).

Digital policy compliance costs are substantial and multiply with heterogeneity. Most of the digital economy engages in cross-border data transfers and must respect the rules in each country of operation. User-content platforms must moderate different types of content in different countries. Official estimates regarding the incremental cost of new regulation of content moderation in the proposed United Kingdom's Online Safety Bill comprise 7.5 percent of turnover for companies with the highest reach and risk exposure and 1.9 percent of turnover for other platforms.⁷ What happens if several jurisdictions follow the United Kingdom's example? Compliance costs constitute market entry barriers that only large firms may afford.

Certain regulatory choices pose a threat to digital business models, leaving firms with the choice between first-order changes to their business model or selective market exit. App store providers' commissions on in-app payments have been capped by competition law. Targeted advertising is hindered by both competition policy limiting cross-service data sharing and data protection policy. A recent European Union (EU) case endangers Meta's use of personal data in advertising.⁸ In India, Virtual Private Network (VPN) services have announced they will shut down their servers due to new cybersecurity rules.⁹ Hence, business model risks elevate the stakes of heterogeneity and the risk of market exit.

Finally, heterogeneity results in compliance risk when firms are unsure about the scope and interpretation of policy. Data transfer between the EU and the United States is in limbo since the Court of Justice of the EU's *Schrems II* decision. It has led to a market exit threat by Meta,¹⁰ the creation of an "EU Data Boundary" by Microsoft,¹¹ and even caused uncertainty to traditional firms, leading to profit warnings.¹² Adding to the uncertainty, the reach of the EU General Data Protection Regulation is being expanded via enforcement action targeting seemingly unrelated web hosting components, including popular fonts and analytics tools.¹³ In the recently settled dispute over the U.S. Public Company Accounting Oversight Board's access to the records of Chinese auditors of U.S.-listed firms, confusion over the proper security classification of requested data and the responsible oversight body contributed to the discord. This dispute threatened all Chinese firms listed in the United States—including those operating in the traditional economy.

Heterogeneity can thus be a deterrent to both digital and traditional trade, making it imperative to explore possibilities for international collaboration that reduce the associated resource misallocation. The following two sections analyze the provisions available to address heterogeneity in multilateral trade accords and regional agreements and discuss options for the progressive expansion of international trade law.

Extant WTO Provisions Are Unable to Limit Regulatory Heterogeneity

The WTO Work Programme on E-commerce was launched in 1998 to examine the relationship between e-commerce and existing WTO agreements. WTO members have not agreed on new binding text specific to digital

⁷ See United Kingdom Government, [Online Safety Bill: Impact Assessment](#) 39 et seq. (Jan. 27, 2022).

⁸ See Irish Data Protection Commission, [Data Protection Commission Announces Conclusion of Two Inquiries into Meta Ireland](#) (Jan. 4, 2023).

⁹ See Subhrojit Mallick, [ExpressVPN Logs Out, Rejects Government Demand](#), ECON. TIMES (June 18, 2022).

¹⁰ Meta Platforms, Inc., [Annual Report to the Securities and Exchange Commission](#), Form 10-K, 9 (2022).

¹¹ Julie Brill & Erin Chapple, [Microsoft Announces the Phased Rollout of the EU Data Boundary for the Microsoft Cloud Begins January 1, 2023](#), MICROSOFT EU POL'Y BLOG (Dec. 15, 2022).

¹² Sam Sabin, [As Officials Hash Out Deal to Replace Privacy Shield, More Companies—Beyond Tech—Warn Investors About the Risk](#), MORNING CONSULT (Apr. 20, 2021).

¹³ See the rulings by the [Austrian Data Protection Authority on Google Analytics](#), D155.027 (Dec. 22, 2021) and the [District Court Munich I on Google Fonts](#), Az. 3 O 17493/20 (Jan. 19, 2022).

trade.¹⁴ Instead, existing obligations have, in some instances, been applied to digital services. WTO case law¹⁵ emphasizes technological neutrality and clarifies that the General Agreement on Trade in Services (GATS) obligations as well as member states' explicit liberalization commitments extend to the electronic delivery of services.¹⁶ Without prejudice to the extent of its applicability to digital services, we focus on the GATS since the digital economy consists mainly of services.

Four GATS principles could bear upon heterogeneity.¹⁷ First, the “most favoured-nation” principle (GATS Article II) requires non-discrimination between “like” services from different trading partners. Second, the “national treatment” principle (GATS Article XVII) requires non-discrimination between domestic and like foreign services listed in countries' Schedule of Commitments. Third, rules on domestic regulation (GATS Article VI) require the reasonable, objective, and impartial administration of measures of general application. Fourth, market access commitments (GATS Article XVI) require treatment no less favorable than in the Schedule of Commitments, prohibiting measures that are tantamount to six types of market access barriers.¹⁸

These principles outlaw specific discriminatory fragmentary-by-design policies but cannot comprehensively address heterogeneity. First, the most favoured-nation and national treatment principles can only be invoked for equal treatment under consistent regulatory approaches. The principles are unsuited, however, to mediate between heterogeneous domestic regulatory approaches. Second, a digital policy violating these principles may be justified through the “general exceptions” mechanism in GATS Article XIV, including for the protection of privacy. Since heterogeneity encompasses digital policies that are not fragmentary-by-design, justification appears realistic.¹⁹

Heterogeneity calls for the progressive expansion of WTO rules. The Technical Barriers to Trade agreement (TBT) contains principles that could mitigate heterogeneity even though regulations relating to digital services are beyond the scope of that agreement.²⁰ The TBT addresses legitimate regulatory autonomy through shared principles, including harmonization, mutual recognition, transparency, technical assistance, and dispute settlement.

TBT-like principles concerning trade in services could ease heterogeneity by disciplining domestic standards and policies.²¹ Such standards would need to be consistent with internationally recognized models (TBT Article 2.4). Unreasonable standards constituting excessive barriers to trade could be prohibited. In formulating standards, policymakers would have to consider scientific and technical information, related processing

¹⁴ Mira Burri, *Privacy and Data Protection*, in *THE OXFORD HANDBOOK OF INTERNATIONAL TRADE LAW* 752 (Daniel Bethlehem, Donald McRae, Rodney Neufeld & Isabelle Van Damme eds., 2d ed. 2022).

¹⁵ See Shin-yi Peng, *Digital Trade*, in *THE OXFORD HANDBOOK OF INTERNATIONAL TRADE LAW*, *supra* note 14, at 775 (with reference to Appellate Body Report, *US – Gambling*, WT/DS285/AB/R (adopted Apr. 7, 2005) and Appellate Body Report, *China – Publications and Audiovisual Products*, WT/DS363/AB/R (adopted Dec. 21, 2009)).

¹⁶ See Burri & Chander, *supra* note 1; Council for the Trade in Services, *Work Programme on Electronic Commerce, Progress Report to the General Council*, S/L/74 (July 27, 1999).

¹⁷ See Burri, *supra* note 14, at 9 (with reference to previous scholarship analyzing the conformity of domestic (data) policy with GATS).

¹⁸ GATS Article III on transparency and GATS Article VII on mutual recognition might appear to ease the burden of heterogeneity. See, on their deficiencies: Andrew D. Mitchell & Neha Mishra, *WTO Law and Cross-Border Data Flows: An Unfinished Agenda*, in *BIG DATA AND GLOBAL TRADE LAW*, *supra* note 14, at 99.

¹⁹ There is no WTO precedent on the justification of data protection measures. Previous scholarship found mixed results: Kristina Irion, Svetlana Yakovleva & Marija Bartl, *Trade and Privacy: Complicated Bedfellows?*, INST. FOR INFO. L. AMSTERDAM (July 13, 2016) (pages 28 and 34 for further references).

²⁰ The applicability of the TBT requires a nexus between the regulation and a product, a product-related process, or a production method.

²¹ See, for extensive reflections: Mitchell & Mishra, *supra* note 18, at 107 et seq.; Shin-yi Peng, *“Private” Cybersecurity Standards? Cyberspace Governance, Multistakeholderism, and the (Ir)relevance of the TBT Regime*, 51 CORNELL INT'L L.J. 445 (2018).

technology or intended end-uses of products (TBT Article 2.2). Furthermore, TBT disciplines could apply to domestic regulation. Internationally recognized standards could be acknowledged as a legitimate benchmark for domestic digital policy, enhancing transparency, participation, and accountability. The value of such TBT-like disciplines in the context of digital policy can be seen in discussions at the WTO relating to the conformity of technical compliance requirements with international technical standards.²²

Digital Trade Agreements Cannot Yet Tackle Regulatory Heterogeneity

States eager to advance digital trade rules have shifted toward bilateral and regional “Digital Trade Agreements” (DTAs).²³ Three models have emerged: the inclusion of digital services in regional free trade agreements (e.g., Chapter 14 of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)); the creation of “stand-alone” agreements on digital trade (e.g., Digital Economy Partnership Agreement (DEPA)); and the attachment of specific digital trade rules to existing free trade agreements (e.g., Singapore-Australia Digital Economy Agreement).

DTAs do not advance a new notion of discrimination but rather rely on established WTO principles, mainly most favoured-nation and national treatment. For instance, CPTPP Article 14.4 (Non-Discriminatory Treatment of Digital Products) restates the obligation to grant foreign digital products most favoured-nation and national treatment status. Accordingly, the abovementioned limitations arise again. The principles are unsuited to mediate between heterogeneous regulatory approaches and can only address discriminatory policies.

DTAs to date are unable to address heterogeneity for two further reasons. First, the formulations in existing DTAs leave ample room for differing notions of domestic implementation—originally, to ease negotiation. The primary achievement of DTAs is to spread regulatory norms rather than enhance market access. These shared norms are helpful, but the room for differing implementation limits their enforceability.

Second, provisions on data transfers and data localization imitate the “general exceptions” mechanism of GATS Article XIV.²⁴ CPTPP Articles 14.11 and 14.13 follow a similar approach but expand the exceptions to any “legitimate public policy objective” specified by the signatory. DEPA restates the GATS text with a pledge to apply it *mutatis mutandis*. The limitations of the GATS exceptions mechanism thus recur. Signatories have room for regulatory autonomy both in their interpretation of implementation and in their justification of violations. This limits the pressure to decrease heterogeneity, which applies only to overtly non-compliant and unjustifiable policies.

Going beyond the multilateral context, DTA negotiators have given attention to relevant policy obstacles to digital trade, especially regarding data, and launched a new form of regulatory coherence that occasionally references international standards (e.g., CPTPP Article 14.8.2). Furthermore, DTA negotiators have aligned national regulators with international negotiations.

To address heterogeneity, there is room for improvement both among DTA signatories and beyond. Among signatories, the reliance on WTO principles and open formulations does not assure regulatory coherence. Signatories could negotiate narrower, binding commitments and converge on domestic implementation.

On the global stage, by their nature as regional agreements, DTAs risk creating blocs. To mitigate this risk, DTA signatories could push for inter-DTA interoperability. The absence of interoperability limits the reach of commitments to the signatories of each DTA. It is early to label this a digital “spaghetti bowl” effect, as DTA texts overlap considerably, but the demand for interoperability will inevitably rise. Accordingly, a mutual recognition mechanism is necessary to develop DTAs into a vehicle against heterogeneity.

²² Mitchell & Mishra, *supra* note 18, at 96 (with references to WTO meetings).

²³ See Mira Burri, Maria Vasquez Callo-Müller & Kholofelo Kugler, *TAPED: Trade Agreement Provisions on Electronic Commerce and Data*.

²⁴ Burri, *supra* note 14, at 15.

Second, the participation of major trading blocs is crucial to boost current efforts by smaller, trade-dependent nations and bring digital trade commitments to the global stage. Third, DTAs could be notified to the WTO in accordance with GATS Article V, in the interest of transparency. To date, signatories have not yet notified DTAs as preferential trade agreements to the WTO. The reason for this may be risk aversion (fears that a notification implies acceptance of unwanted most favoured-nation obligations), forum-specific (the WTO is not considered the right forum to advance digital trade²⁵), or obligation-related (there has been no requirement to notify DTAs).

Digital Trade Negotiators Should Tread Lightly

We have advanced an economic case that heterogeneity can be a trade deterrent that causes fragmentation without discrimination. The current approaches of the WTO and DTAs contain useful elements but are far from the finish line. The digital economy is only growing in importance and with it, the burden of heterogeneity increases. Optimistic readers may consider this urgency a catalyst for negotiations. However, there is precedent for heterogeneity persisting for decades notwithstanding the acknowledgement of economic costs. When it comes to the digital economy, too much is at stake.

²⁵ Mira Burri, [Trade Law 4.0: Are We There Yet?](#), 53 J. INT'L ECON. L. 5 (2023) (discussing the multilateralization of digital trade). The short shelf life of digital policy due to technological developments should be considered in this debate.