

General Exceptions in the Digital Trade Environment: Challenges and Reforms under Article 20 of GATT and Article 14 of GATS

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Abstract. With the rapid development trend of digital trade today, this article introduces the legal interpretation of Article 20 of GATT and Article 14 of GATS. Firstly, it explains the application standards of this provision in the WTO. Secondly, it combines existing judgments and digital trade laws issued by international organizations to explain the current situation and shortcomings of the application of digital trade in the provision. The article also discusses how digital trade dynamics such as data flow, privacy concerns, and cross-border service delivery complicate the application of these established trade rules. Finally, the article proposes a series of recommendations aimed at refining the interpretation and development of trade laws to better accommodate the unique demands of the digital economy. These suggestions include the need for clearer definitions of key terms within the GATT articles, the establishment of a more robust framework for digital trade within the WTO, and the promotion of international cooperation to create harmonized standards that facilitate digital trade while protecting consumer and national interests. Through these measures, the article advocates for a more adaptive and forward-looking approach by the WTO to ensure that global trade regulations keep pace with technological advancements and market transformations.

Keywords: General exceptions; digital trade; Article 20 of GATT; Article 14 of GATS.

1. Introduction

The relentless advancement of information technology coupled with the expanding demands of global trade has profoundly transformed the world economy. In 1996, the first WTO Ministerial Conference was held in Singapore, officially including "e-commerce" as a topic of discussion. At present, the WTO has made substantial progress in ten areas, including paperless transactions and electronic contracts.

In March 2022, the WTO and the International Chamber of Commerce jointly launched the Cross Border Paperless Trade Standard Toolkit, and in June, they jointly released the Cross Border Paperless Trade Toolkit with ESCAP and the United Nations, aiming to increase awareness of the adoption of cross-border paperless trade systems and national single windows, as well as the required technology and legal tools. This action provides, for the first time, a comprehensive overview of technology implementation and standard tools for the digitization of international trade, identifying nearly 100 available standards or initiatives, and establishing a complete technology implementation ecosystem for paperless trade. Consequently, a comprehensive international rules and standards system has been established, covering multiple scenarios from the basic framework to various trade processes and cross-border supervision.

Therefore, the WTO has paid attention to this international issue and has basically established a system of e-commerce rules and standards. However, while formulating standards, attention should also be paid to how other countries can defend themselves. Article 20 of GATT and Article 14 of GATS are similar to the right of defense, but there is no clear provision on how to interpret this rule in the field of digital trade. What are the standards for discrimination in the second article, whether discrimination is arbitrary and fair? The trade goals and demands of developing countries and developed countries are different. The former holds the view of free cross-border data flow, while the latter tends to focus on localization and national security. Questions arise on how to define discrimination in digital trade and balance the demand standards for digital trade among countries.

Article 14 of GATS only considers the protection of privacy as an exception and does not address the digital trade barriers caused by differences in privacy frameworks among countries. Should we include explanations or allow the establishment of self-authentication mechanisms for data transmission and adopt more flexible and accurate mechanisms such as self-supervision frameworks? Therefore, there are still many unclear issues with the general exception rules in this field. Promoting the free flow of cross-border data is the most crucial demand of American style digital trade rules, and relevant TPP organizations have discussed the relevant digital trade rules CPTPP, which can be used for reference.

This paper will discuss Article 20 and Article 14 of GATT through the context of digital trade. It is structured into three main sections: the first explores the interconnection and limitations between general exceptions and digital trade; the second analyzes the legal principles and judicial practices of general exception clauses in digital trade; and the third proposes reform suggestions and implementation strategies for these clauses. The paper concludes with a summary that encapsulates the findings and recommendations, aiming to contribute to the ongoing discourse on refining digital trade regulations.

2. Theoretical Basis and Application Dilemma of General Exception Clauses in Digital Trade

2.1. Definition and Scope of Digital Trade

Digital trade refers to an innovative business model based on the Internet and digital exchange technology, which provides digital electronic information for interaction between supply and demand parties, and realizes digital information as the trade target. Through a joint operation model, it advocates for enterprises to build a global public digital trade platform with unified technical standards.

Within this framework, digital products are categorized into two main types based on their characteristics and usage. The first category is defined by the form and content of the products, including content-based products like digital books, exchange tools such as digital credit cards and electronic securities, and digital processes and service-oriented products like online museums and electronic shopping platforms. The second category focuses on the interaction between users and products, differentiating products based on aspects such as the immediacy of the product's use (product timeliness) and the delivery method (transportation mode) [1].

2.2. General Exceptions in Digital Trade

Following the definition and scope of digital trade, it is crucial to understand how international regulations, specifically general exception clauses, apply within this rapidly evolving sector. Both Article 20 and Article 14 of GATT belong to the WTO type exceptions, which are characterized by a comprehensive list of policy objectives, causal qualifiers, and a preface prohibiting discriminatory or arbitrary application [2]. Article 20 is notable for its breadth, encompassing environmental protection, a critical concern for many countries. In contrast, Article 14, while similarly structured, is often more relevant in the context of services and investment law, reflecting its adaptation to the complexities of international investment regulations.

Article 20 of GATT has a preface and ten rules, including necessary measures to maintain public morality, measures necessary to safeguard the life or health of people, animals and plants, and other necessary measures. Similar to the right of defense, therefore only when one party obstructs the exercise of the other party's substantive rights, can one party refer to this clause for defense. This clause also has a certain degree of negativity, that is, one party cannot sue the other party for violating this clause, but can only exercise the "right of defense" based on this clause when one party is sued by the other party for violating the rights of other entities. At this time, the WTO dispute settlement agency will accept the dispute case and start the review process of this clause.

Article 14 of GATS is a derivative of Article 20 of GATT in the field of trade in services. Article 14 of GATS differs in wording from Article 20 of GATT, but their structure, function, and language are similar and can be considered together in most cases. To balance economic and non-economic interests, the general exception clause not only lists important policy objectives that nation states seek protection from, but also sets out a series of legal testing requirements aimed at preventing the use of trade protectionism to achieve these objectives. WTO dispute practice has shown that the preferred exceptions for members under GATT 1994 and GATS are significantly different. The most commonly cited exceptions in GATT 1994 are those for protecting public health and the environment, while the most commonly cited exceptions in GATS are those for public morality. In the "American Gambling Case" and the "Chinese Audio Visual Products Case" related to digital trade, the defendant has cited public morality as an external defense [3].

2.3. The Application Dilemma of General Exception Clauses in Digital Trade

2.3.1. Inadequate adaptation to digital trade

The general exception clause of Article 20 of GATT has been largely rejected internationally. The data from 2021 shows that the failure rate of citing Article 20 of GATT was 97%, and in different cases in the past, it was rejected due to reasons such as "subject matter, scope" and not meeting the threshold of "necessary or relevant". Similarly, the interpretation of Article 14 of GATS remains vague, particularly around the term "public order", which the annotations specify can only be invoked when a society's fundamental interests are seriously and genuinely threatened. However, the connotation of the concept of public order itself has not been determined, and the connotation of "social fundamental interest" in the annotation is also more ambiguous than the policy objectives under other general exceptions under Article 14 of GATS. There may be sensitivity in explaining the terms "public morality" and "public order" under Article 14 of GATS. For members, the content of these concepts may vary over time and space, depending on a range of factors, including mainstream social, cultural, ethical, and religious values. In the field of digital trade, countries have different standards, and how to define "public order" for different developing countries. Moreover, it is evident that in many developing countries, the development of digital trade is not perfect and may face difficulties in providing evidence.

2.3.2. Conflict between digital commodity trade protection and non-discrimination principles

Due to the lack of clear provisions by the WTO organization, various countries are constantly discussing. Based on member negotiations and proposal submissions, developed countries are more proactive, which is highly related to economic development. Developed members focus on creating an open digital trade environment, advocating for free cross-border data flow and emphasizing the protection of intellectual property rights and technological innovation. In contrast, developing members prioritize enhancing e-commerce capabilities and stress the importance of network and national security, often advocating for more restrictive measures on data flows to protect domestic interests. The dichotomy underscores a fundamental challenge in international trade: balancing the free exchange of digital goods with the imperative to protect national interests under the principles of non-discrimination and fairness.

2.3.3. Public ethics and data security challenges in digital goods

Article 14 of GATS allows for the protection of public morality, yet defining this term within the digital trade environment, particularly when it intersects with data protection needs, poses significant challenges. The interpretation of "public morality" often varies significantly between developed and developing countries, leading to conflicts in digital trade policies. For example, the United States focuses more on the mobility and freedom of cross-border data, and prohibits localization as a key factor in eliminating barriers. The European Union and Japan, while generally supportive of open data policies, are more willing to implement restrictive measures when they align with public interest goals. Developing countries, on the other hand, place greater emphasis on information network security and national security, believing that certain cross data flow measures should be restricted.

3. An In-Depth Analysis of the Legal Threshold for General Exception Clauses in Digital Trade

3.1. Legal Foundations and Operational Mechanics of General Exception Clauses

3.1.1. Operational mechanics of general exception clauses

The WTO dispute settlement body (DSB) employs a structured approach to analyzing the application of general exception clauses, following three crucial steps. Initially, it determines whether the disputed measure aligns with one of the objectives enumerated in the exception clause. Subsequently, the measure must substantively address relevant public interests, ensuring a robust connection between the measure and its intended goals. Lastly, the body reviews if the measures comply with the requirements outlined in the preamble to the exception clause [4].

Regarding the first step, WTO members have broad space in selecting the targets to be protected. The second step is more complex and triggers a "necessity" test. The degree of necessity varies, and one end of this interval can be understood as "indispensable", while the other end can be understood as "making a contribution to". For example, the appellate body in the Korean beef case noted that a necessary measure leans closer to being "indispensable" rather than simply "contributory". The significance of the interests protected by the measure and its effectiveness in achieving those goals often determines its acceptance as "necessary" [5].

3.1.2. Complexity of the necessity test

When conducting necessity testing, it is necessary to weigh a series of different elements. This process first evaluates the relative importance of the benefits and values pursued by the disputed measures, and then examines other elements, including the contribution of the measures to achieving the pursued goals and their restrictive effects on international trade, as well as a comparison between the disputed measures and possible alternative solutions [6]. In order to demonstrate that the disputed measures do not meet the requirements of the necessity test, the prosecuting party can demonstrate the existence of a reasonable and feasible alternative solution with less trade restrictions. The appellate body also stated that the requirement for measures "relevant" to the target is more flexible than the strict requirement for "necessity", and may only require a substantive or reasonable connection between the measure and the pursued target, as stated in Article 20 (g) of GATT 1994, "Measures related to the protection of exhaustible natural resources".

Measures that meet the requirements of necessity testing also need to meet the requirements of the preamble of the general exception clause, that is, the implementation of such measures does not constitute a means of arbitrary or unreasonable discrimination or a disguised restriction on trade between countries with similar circumstances. The interpretation of the preamble by the expert group and the appellate body aims to prevent the abuse or misuse of the right to invoke exception clauses by evaluating the "consistency" of the implementation of disputed measures. The political motivation underlying trade restrictions are complex, often intertwining legitimate objectives with opportunities for protectionism. The stringent requirements for invoking general exceptions maintain a high threshold, historically resulting in a low success rate for these defenses.

When GATS and GATT were established, the Internet was in its nascent stages, thus the existing provisions did not directly address digital trade. Although some countries, such as in the United States gambling case, have attempted to invoke Article 20 of GATT in digital trade contexts, numerous issues remain unclarified or lack specific, defined rules, such as data localization and its alignment with relevant obligations. Given the rapid evolution of digital trade, Articles 20 and 14 no longer fully meet current needs. Achieving global consensus on unified digital trade rules remains challenging, with regional free trade agreements actively exploring and establishing diverse regulatory frameworks.

3.2. Interpretation and Application in International Judicial Practice

3.2.1. Evolution of the "subject/scope" threshold in international jurisprudence

The "subject/scope" threshold is foundational in determining whether specific trade measures can be justified under the general exceptions of GATT and GATS. This threshold tests whether the measures in question directly relate to and are essential for achieving the objectives listed under the exceptions—such as public health, morals, or environmental protection. Over the years, WTO panels and the Appellate Body have developed a substantial body of jurisprudence that illuminates this threshold.

For example, in the well-known "US — Gambling" case, the WTO examined whether the U.S. measures to restrict online gambling services could be justified under the public morals exception. The panel concluded that the measures fell within the scope of the exception because they directly aimed to protect public morals by restricting a form of gambling considered harmful. This case highlighted the necessity of demonstrating a direct link between the measure and the policy objective, a principle that is particularly relevant in digital trade where the impacts of trade measures can be less visible and more diffuse.

Furthermore, the "China — Publications and Audiovisual Products" case explored the scope of measures affecting the importation and distribution of certain products in China. The WTO found that while China aimed to protect public morals, the broad sweep of its measures was more restrictive than necessary, thus failing to meet the specific criteria under the subject/scope threshold. This decision underscored the need for precision in aligning measures with declared policy objectives, ensuring that they do not arbitrarily or unjustifiably discriminate between countries where the same conditions prevail.

3.2.2. Application of "necessity" in international dispute resolution

The application of the "necessity" test is another critical area in the assessment of general exceptions. This test requires that measures not only aim to achieve a recognized objective under the general exceptions but also that there are no alternative measures available that could achieve the same objective with less trade restrictiveness. Necessity has always been a difficult point of proof in trade.

In the "EC — Seal Products" case, the necessity test was rigorously applied. The European Communities had imposed measures restricting the import and sale of seal products, justifying them on public moral grounds concerning animal welfare. The WTO panel and Appellate Body examined various alternative measures and concluded that the EU measures were more trade-restrictive than necessary since there were other less restrictive ways to address the public moral concerns regarding the humane treatment of seals.

As digital technologies evolve, so too do the types of measures that governments implement. For example, protecting privacy is a common goal among countries, but there is currently no set of international standards. Protecting privacy can to some extent protect trade security, but data localization inevitably destroys the inherent technology of the digital sector and reduces international trade with other countries. Therefore, dispute resolution bodies need to consider whether there is a legitimate and feasible alternative to trade restrictions.

3.3. Evolution and Future Trajectories in Digital Trade Regulation

3.3.1. The role of free trade agreements in digital trade regulation

At present, more and more free trade agreements (FTA) are beginning to make special regulations on cross-border data flow, opening a separate chapter on "e-commerce". Free trade agreements represented by Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the United States-Mexico-Canada Agreement (USMCA), the Digital Economy Partnership Agreement (DEPA), and the Regional Comprehensive Economic Partnership (RCEP) are becoming primary sources for international data governance rules, setting specific provisions that cater to the digital economy. For example, the CPTPP includes groundbreaking rules on data localization and the

prohibition of data transfer restrictions, aiming to facilitate a seamless digital environment for trade and commerce. Similarly, the USMCA includes robust protections for personal data, digital trade, and the minimization of data localization requirements, reflecting a concerted effort to foster an open yet secure digital trade landscape.

3.3.2. Addressing economic disparities and regulatory challenges

Due to the objective differences in economic development among countries, the basic trend of data flow is from "weak countries" to "strong countries" [7]. The drafters of economic and trade agreements also recognize that setting exception clauses can balance the gap between different countries due to the differences in the development strength, regulatory concepts, and goals of digital industries in different countries. Different FTA have adopted different goals and standards for the specific rules of cross-border data flow, making it easier for countries and regions with similar levels of protection and value goals to achieve free cross-border transfer of personal data. RCEP, for instance, demonstrates a supportive stance towards cross-border data flows but also grants substantial autonomy to member states, acknowledging the diverse regulatory environments across Asia. Therefore, the WTO should also draft special regulations or provide more in-depth explanations on the application of general exception clauses in the field of digital trade. This would not only aid in harmonizing global digital trade practices but also in ensuring that such practices are fair and equitable, respecting the diverse economic and regulatory landscapes of its member countries.

4. Reform Suggestions and Implementation Strategies for General Exception Clauses in Digital Trade

4.1. Strategies for Reforming General Exception Clauses

4.1.1. Necessity and direction of legal revision

It has become increasingly clear that cross-border data flow is integral to the resilience and growth of global digital trade, especially evident since the COVID-19 pandemic began in 2019. Ensuring the unimpeded flow of data across borders is critical not only for the sustainability of international service trade but also for fostering global economic recovery and growth. Conversely, restrictive measures on data flow, often implemented under the guise of protecting public policy objectives, can inadvertently stifle the development of digital trade by imposing unnecessary costs. For instance, data localization requirements can lead to increased operational costs and potentially suppress innovation and market competition. Moreover, such measures can deter international investment by creating isolated data silos, thereby reducing overall economic productivity.

Given these challenges, there is a pressing need for the WTO to undertake comprehensive legal revisions that address the complexities of digital trade. The relevant rules and standards of digital trade cases are difficult to unify among countries. If the burden of proof and the degree of necessity are based on the case analysis of the appellate body and expert organizations, uniformity and fairness cannot be guaranteed.

At the same time, dispute organization bodies should also consider provisions for alternative solutions. A widely discussed alternative is to hold service providers accountable for evading data protection regulations, without considering their location, also known as "accountability." General Data Protection Regulation (GDPR) has already adopted this approach, which also has drawbacks, such as the requirement for digital service providers to take responsibility may be difficult to enforce. But the flexibility of its approach is that it can freely adopt practices that comply with the basic principles of domestic privacy regulations of member states. Therefore, it is worth referring to.

End to end encryption technology can also be an alternative solution. Encryption technology enables data to be continuously transmitted by the underlying communication network, and only the ultimate receiver can unlock the data. Ensure the security and integrity of data at once. However, this plan requires the technical capabilities of both parties, and there is also some difficulty in fully implementing it.

4.1.2. Legal adjustments to specific needs of digital trade

A basic framework for data protection should be established within the WTO framework. An important disagreement faced by the coordination of international rules for cross-border data flow is in the area of personal data. To achieve free cross-border data flow, both the source and destination countries of data should have effective privacy frameworks. The push for a WTO-led international treaty on data protection began two decades ago, with proponents advocating for standardized processes to harmonize different systems initially and aim for long-term governance standardization. Integrating such a treaty into the WTO would broaden its traditional market-oriented focus to include social protection norms, thereby enhancing the global trade governance framework.

Despite the clear benefits, the WTO has not yet succeeded in forming such a treaty. Achieving a comprehensive agreement on regulating cross-border data flows requires navigating complex issues such as the allocation of power among sovereign countries across different layers of the internet (physical, logical, application, and core layers), as well as balancing interests related to sovereignty, human rights, and multi-party governance. These challenges render the short-term feasibility of such a treaty unlikely.

Meanwhile, the lack of such a treaty necessitates the creation of a basic data protection framework within the WTO, which itself presents challenges. The question of what kind of privacy framework can serve as a regulatory baseline is complex. For instance, Article 19.8.2 of the USMCA lists the APEC Privacy Framework and the OECD Guidelines on Privacy Protection and Cross Border Flow of Personal Data (2013). However, using the APEC and OECD principles as benchmarks in a multilateral system might be controversial since they are often perceived as too lenient compared to more stringent frameworks like the GDPR. Furthermore, although the EU FTA also requires compatibility with international standards in data protection, it usually does not specify any specific data protection framework. For example, Article 16.4 of the EU Canada Comprehensive Economic and Trade Agreement stipulates that each contracting party shall adopt measures to protect the personal information of e-commerce users, with appropriate consideration given to international data protection standards of relevant international organizations to which both parties are members.

4.1.3. International cooperation and legal coordination

WTO law can promote interoperability among different privacy frameworks, thereby coordinating cross-border data flow rules. Article 7.5 of the GATS stipulates: "Recognition shall be based on multilaterally agreed guidelines whenever appropriate. In appropriate cases, members shall cooperate with relevant intergovernmental and non-governmental organizations to develop and adopt common international standards and guidelines for recognition, as well as common international standards for the service industry and professional practices."

According to this provision, members may make mutual recognition dialogues (such as those in the Council for Trade in Services) more meaningful by incorporating relevant multinational institutions or multi-stakeholder institutions engaged in privacy standards and related issues. The WTO can maintain contact with institutions engaged in international cooperation to develop privacy rules or standards and cross jurisdictional privacy enforcement, such as the International Conference of Data Protection and Privacy Commissioners. The institution plays a crucial role in adopting international guidelines on best practices for data protection and can play a crucial role in further developing rules on digital privacy issues and building international consensus.

4.2. Implementation Strategy and Policy Development

4.2.1. Stages and methods of reform implementation

Both the European Union (Digital Services Act and Digital Markets Act) and other international regulations are gradually introducing laws targeting digital trade. Therefore, the WTO should adopt a phased approach in implementing reforms that bridge the gap between developing and developed nations. This involves deepening research on digital trade rules, ensuring that perspectives from

developing economies are adequately represented, and synthesizing technology, economic principles, and regulatory frameworks into actionable policies.

The first stage in the WTO's strategy should involve acting as an unbiased intermediary to establish and promote digital trade rule templates. By analyzing critical areas of contention and cooperative potential, the WTO can foster negotiations that lead to balanced digital trade protections. The formulation of these rules should aim to integrate and coordinate diverse international perspectives, creating multilateral frameworks that address the digital age's unique challenges.

Following this, the WTO should focus on gathering and incorporating global proposals that reflect a wide range of economic and regulatory environments. By leveraging insights from past cases and current research, the organization can develop more comprehensive regulations that cover data governance, digital trade, and the spatial legal aspects necessary for today's interconnected market.

4.2.2. Coordination of domestic and foreign policy formulation

Given that the cross-border flow of different types of data involves different policy objectives, some scholars propose to first classify the data, and then make commitments to market access and national treatment for different types of data [8]. For example, adopting a negative list model for the opening of company data and a positive list model for personal data could streamline negotiations in international economic and trade agreements. These negotiations might then draw parallels with discussions on opening up the service sector or reducing tariffs on goods, adjusting the freedom of data flow accordingly. This approach echoes the market opening models used in traditional service or goods trade under the WTO framework. However, in the complex arena of international economic and trade agreements—often a battleground for competing interests—countries must carefully balance digital trade liberalization with domestic policy goals. While this method helps coordinate cross-border data flow rules, implementing it can be challenging due to the inherent difficulties in defining and categorizing digital trade and data, where the boundaries between different types of data often overlap without clear distinction.

In addition to the efforts of international organizations, countries should also gradually improve their systems for regulating cross-border data flow [9]. The issue of cross-border data flow itself has foreign implications, and countries coordinate international rules based on domestic regulations. Only by continuously improving domestic systems can we accurately grasp the position of foreign negotiations. For instance, in China, domestic rules such as personal information protection certification and standard contract terms need to be gradually improved within each country. The security assessment method for data export should have clear details, objective and consistent standards, and consider compliance issues with international rules to avoid discriminatory consequences. By strengthening the coordination between domestic regulations and international economic and trade rules, and improving the level of domestic governance, we can better integrate into the global business environment for international organizations to formulate laws.

4.2.3. Challenges and countermeasures in practice

The characteristics of digital trade are high-speed, high-capacity, and low latency cross-border data flow, which greatly expands the breadth and depth of traditional economy. One practical challenge is the integration of emerging technologies such as blockchain and artificial intelligence (AI) in digital trade practices. These technologies offer potential solutions for enhancing transparency and security in digital transactions but also introduce complexities in interoperability and standardization across different jurisdictions. Developing a set of international guidelines for the application of emerging technologies in digital trade can help. These guidelines would focus on ensuring compatibility and interoperability between different technological systems, facilitating smoother international transactions. International organizations could play a pivotal role in bringing together technology experts and regulators to create these guidelines.

Another issue is monitoring compliance in real-time to effectively enforce digital trade regulations. Traditional monitoring methods may not be sufficient due to the speed and volume of transactions. Implementing advanced real-time monitoring systems that use AI and machine learning can

significantly improve the ability to track compliance at the speed required for digital trade [10]. These systems could be developed through international cooperation, ensuring they are robust enough to handle complexities in global data flows and sensitive enough to respect privacy and data protection standards.

5. Conclusion

As explored in this discussion, while digital trade continues to develop, there is a pressing need for enhanced legal regulations to address its unique challenges. The exceptions outlined in Articles 20 and 14 of the GATT under the WTO require further clarification, particularly as digital trade diverges significantly from traditional trade practices. Unregulated digital trade not only poses risks to the economy but also threatens national privacy and security.

The interpretation of Article 14 of the GATS is still ambiguous, especially in terms of the concept of "public order", which has not yet been determined. The connotation of "fundamental social interests" in the annotations is also more ambiguous than the policy objectives under other general exceptions under Article 14 of the GATS. For members, the content of these concepts may change over time and space, depending on a range of factors including mainstream social, cultural, ethical, and religious values. In the field of digital trade, different countries have different standards, and issues such as non-discrimination principles, data security challenges, and necessity interpretations are all difficult to apply in the field of digital trade.

Therefore, a more precise understanding of issues such as "national security", "relevant measures", and the balance between the goals of developing and developed countries is crucial. A basic framework for data protection should be established within the framework of the WTO. To reach a comprehensive agreement on the regulation of cross-border data flows, it is necessary to solve complex problems, such as power distribution among sovereign countries at different layers of the Internet (physical layer, logical layer, application layer and core layer), and balance the interests related to sovereignty, human rights and multi-party governance.

WTO laws can promote interoperability between different privacy frameworks, thereby coordinating cross-border data flow rules. The WTO can adopt a phased approach to implementing reforms to bridge the gap between developing and developed countries. This includes deepening research on digital trade rules, ensuring that the perspectives of developing economies are fully represented, and integrating technology, economic principles, and regulatory frameworks into actionable policies.

Although it is extremely difficult to establish global rules, it is believed that by carefully balancing digital trade liberalization with domestic policy goals, international cooperation, and global legal development, countries will better maintain the development of digital trade. This article is only for preliminary analysis, and specific rules still require in-depth discussions among international organizations and experts to achieve the goal of maintaining world trade stability and global common prosperity.

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