Congressional Research Service
Informing the legislative debate since 1914

IN FOCUS

Updated December 3, 2020

Digital Trade

Background

The rapid growth of digital technologies in recent years has facilitated economic activity and created new opportunities for U.S. consumers and businesses. For example, consumers today access e-commerce, social media, telemedicine, and other offerings not imagined 30 years ago. Firms of all sizes and in every industry use digital services and technologies to drive internal efficiencies and better compete globally. For example, businesses use advanced technology to reach new markets, track global supply chains, analyze big data, and create new products and services. At the same time, new technologies raise new trade policy issues, including the lack of common disciplines to help govern such trade, the emergence of diverging standards and new trade barriers, and broader public policy questions about online information, all issues of active congressional interest.

Data and data flows form a pillar of innovation and economic growth. Trade in manufactured goods and agricultural products often depends on cross-border data flows. For example, manufacturers may communicate with global customers and suppliers via the internet. Farmers may use real-time satellite data to optimize the productivity of crops and soil. Digitally-delivered service exports also rely on cross-border data flows.

According to the Bureau of Economic Analysis, in 2018, U.S. exports of information and communication technology (ICT) goods and services were $148 billion and $80 billion, respectively. In addition, exports of potential digitally-enabled services were $499 billion, comprising over half of U.S. services exports. The volume of global data flows is growing faster than trade or financial flows, and its positive gross domestic product (GDP) contribution offsets the lower growth rates of trade and foreign direct investment (FDI). The Coronavirus Disease 2019 (COVID-19) pandemic has highlighted the importance of digital trade in the global economy (see **Text Box**).

Digital Trade and COVID-19

The COVID-19 pandemic, with social distancing enforcement, lockdowns, and other measures, has led to spikes in digital trade, both business-to-consumers and business-to-business. The increases reflected a surge in online shopping, social media use, internet telephony, teleconferencing and teleservices (such as education and medicine), and streaming of videos and films. The World Trade Organization (WTO) noted that the pandemic has underscored the importance of digital technologies in general, but also vulnerabilities, including the digital divide, and trade barriers across the globe.

In general, the United States supports an open, secure, interoperable, and reliable internet, including the free flow of online information. However, some Members of Congress and industry stakeholders raise growing concerns about the rise of digital trade barriers, divergent rules, and national standards around the globe that could impair U.S. digital sales or undermine U.S. technological leadership.

Selected Digital Trade Issues

Protectionist policies may erect barriers to digital trade, or damage trust in the underlying digital economy, and can result in the fragmentation of the internet or discriminatory trade treatment. As with traditional trade barriers, digital trade constraints can be classified as tariff or nontariff barriers and take many forms (see **Text Box**). What some policymakers see as protectionist, however, others may view as necessary to safeguard certain domestic policy interests. Prominent trade issues include

Internet Sovereignty. In some nations, the government seeks strict control over digital data within its borders, such as what information people can access online, and how information is shared inside and outside its borders, creating digital trade barriers. For example, firms operating in China experience a variety of barriers, such as censorship (the so-called "Great Firewall"), requirements to use local standards, and national security reviews; Russian laws ban virtual private networks and require providers of encrypted messaging services to potentially share users' chats.

Localization and Cross-Border Data Flow Limits. Organizations seek efficiency and market access by freely moving data across national borders or by using cloud services. Regulators seeking to promote security and personal data privacy, or support domestic firms, may enact mandates for local data storage or use of local partners or inputs, raising costs for foreign firms. A 2017 survey by the U.S. International Trade Commission (USITC) found that data localization was the most-cited policy measure seen to impede digital trade. For example, the European Union's data protection regulation places limits on the use and cross-border transfer of individuals' personal data while China's Cybersecurity Law restricts cross-border data transfers and broad-based data localization mandates.

Cybertheft or Forced Technology Transfer. Infringement of intellectual property rights (IPR) or lack of IPR enforcement may limit a company's ability to benefit fully from its innovations and investments, such as trade secrets, proprietary algorithms, or source code. The costs associated with IPR infringement in the digital environment are difficult to quantify but are considered to be significant, potentially exceeding the volume of sales through traditional physical markets or legitimate downloads.

Regulatory Issues. Governments may impose requirements deemed overly burdensome by firms and which increase costs, or that favor local firms. Regulations may be applied, for example, in a discriminatory or overly trade-restrictive manner, creating a trade barrier for foreign firms. For example, India has compulsory registration of all ICT goods imports with the national standards agency.

Digital Trade in Trade Agreements

The United States has sought to combat barriers to digital trade through negotiation of rules and disciplines in free trade agreements (FTAs) and in multilateral fora. Congress established U.S. trade negotiating objectives on digital trade in the 2015 Trade Promotion Authority (P.L. 114-26). The objectives seek to remove barriers to trade in digital goods and services, ensure cross-border data flows, and eliminate and prevent localization measures, among other objectives.

World Trade Organization (WTO)

The WTO was established in 1995, before the current reach of the internet and the explosive growth of global data flows. Since then, no comprehensive agreement has been reached on digital trade. Some existing WTO agreements cover aspects of digital trade. To date, WTO members have agreed to a temporary moratorium on customs duties on electronic transmissions. Separately, some countries, like France, have imposed unilateral digital services taxes on digital economy firms; negotiations to update the global tax system and create a new digital tax framework are ongoing.

The WTO General Agreement on Trade in Services (GATS) contains obligations on nondiscrimination and transparency on covered service sectors and modes of supply. Digital trade, data flows, and other trade barriers are not specifically included.

The WTO Information Technology Agreement (ITA) eliminates tariffs on a specific list of ICT goods. In 2015, the United States and over 50 other participants agreed to expand the ITA to include newer technologies that power digital trade, such as multi-component semiconductors. The benefits of the agreement are extended on a most-favored nation (MFN) basis to all WTO members.

The WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) provides minimum standards of IPR protection and enforcement, including online, for copyrights and related rights, trademarks, patents, trade secrets, and other forms of IP.

Examples of Barriers to Digital Trade

- High tariffs and/or low *de minimis* threshold
- Discrimination against digital products/services
- Localization requirements (e.g., data or computing facilities)
- Cross-border data flow limitations
- Mandated use of local technology, content, or supplier
- Discriminatory, unique standards or burdensome testing
- Filtering or blocking
- IPR infringement
- Cybertheft of trade secrets
- Requirements for source code disclosure, transfer of technology, or proprietary cryptography information
- Cross-border electronic card payment limitations

WTO E-Commerce Plurilateral. A group of more than 80 WTO members are negotiating a plurilateral agreement on digital trade, aiming to set new international trade rules. The U.S. government seeks a high-standard agreement that includes enforceable obligations. Though developed and developing countries, including China, are participating, others, such as India, have opted out. Some parties propose addressing digital trade facilitation barriers (e.g., use of technology for customs documentation and inspection) to further promote e-commerce, building on existing WTO commitments. The parties have reportedly made progress on some issues, like spam and e-signatures, while disagreements continue in more contentious areas, such as privacy and removing discriminatory barriers to cross-border data flows.

U.S. FTA Negotiations

In FTA negotiations, the United States has set new digital trade rules and market openings, balancing innovation and an open internet with national security and privacy goals.

U.S.-Mexico-Canada Agreement (USMCA). The renegotiated North American Free Trade Agreement (NAFTA) includes provisions on digital trade and the free flow of information in multiple chapters of the agreement, and it addresses a wide variety of digital trade barriers. Provisions prohibit customs duties on digital products; commit to nondiscrimination; and restrict cross-border data flow limitations, localization requirements, forced disclosure of source code or algorithms, technology transfer, or access to proprietary cryptography information. It also contains measures related to electronic signatures, consumer choice, authentication, and combatting IPR theft. Other provisions allow for some public policy exceptions.

USMCA requires parties to establish civil and criminal procedures and penalties for trade secret theft, including cybertheft, the establishment of consumer protection laws, and a legal privacy framework to protect personal information that reflects international guidelines. To balance privacy and open data flows, the parties agree to further develop and promote interoperability systems between privacy regimes. USMCA also recognizes risk-based approaches and the need for strengthened cooperation between governments on cybersecurity. Provisions encourage the use of open government data. In 2019, USITC estimated the agreement may result in ad valorem equivalent tariff declines of 0.6% to 4.5% for U.S. exports.

U.S.-Japan Digital Trade Agreement. In October 2019, the United States and Japan signed two agreements, including one on digital trade that parallels the USMCA. The USTR has called it the "most comprehensive and high-standard trade agreement" negotiated on digital trade barriers and could set precedents for other ongoing talks.

Issues for Congress

Digital trade presents many possible issues, including:

- Do USMCA and U.S.-Japan Digital Trade Agreement provisions effectively achieve U.S. negotiating objectives, and should they be used as a template for future U.S. FTAs?
- How should FTAs be structured to strike the right balance among digital trade liberalization, privacy, and broader national security considerations?
- How can the United States use the WTO e-commerce negotiations to set international rules and standards for cross-border data flows, or emerging technologies?

Also see CRS Report R44565, *Digital Trade and U.S. Trade Policy*.

This In Focus was originally authored by Rachel F. Fefer, former CRS Analyst in International Trade and Finance.

Shayerah I. Akhtar, Coordinator, Specialist in International Trade and Finance

IF10770

Disclaimer