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# Crafting an Innovation-Enabling Trade in Services Agreement

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*A Trade in Services Agreement can update the rules governing services trade for the digital age, and in doing so, provide economy-wide improvements in productivity and innovation.*

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Liberalization of trade in services has long taken a backseat to trade in goods, despite the fact that services account for around 70 percent of the global economy. While not all services are tradable, technological innovation has allowed more services to be traded by small and large firms alike. However, barriers to service trade are most clearly visible when leading firms—often large and on the cutting edge of technology and business practices—enter service sectors that have traditionally been heavily protected from competition, a protection that results in large numbers of small and inefficient firms. In response to this disruptive competition, many countries are using regulations as a protectionist tool. By not fully addressing trade barriers faced by technology-based service firms, the international trading system limits gains from efficiency and innovation that have the potential to significantly benefit most consumers globally. To update rules governing the global trade in services for the digital age, 23 economies have joined together to negotiate a Trade in Services Agreement (TiSA). Provided the agreement effectively supports trade in innovation-based services, it has the potential to create a trade environment that would significantly spur global innovation and associated productivity.

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## INTRODUCTION

By upgrading international trade rules for services, which were largely set in the mid-1990s by the General Agreement on Trade in Services (GATS), the Trade in Services Agreement (TiSA) can open markets to greater global trade in services, and in the process, facilitate the innovation that leads to economic growth. As World Trade Organization (WTO) Director General Roberto Azevedo aptly noted, “current WTO rules were conceived in a world with no Internet connection” and the “multilateral trading system is in urgent need of update if it is to be relevant; if it is to stimulate innovation and development.”<sup>1</sup>

The Trade in Services Agreement is important because:

- The information and communications technology (ICT) revolution means that many more services can now, with the right trade rules, be traded across borders. The economies of scale provided by ICTs means that expanded services trade will enable higher productivity, lower costs for consumers, and spur further investments in innovation.
- While ICT is enabling more services to be traded—such as retail, professional, information, finance and insurance, and entertainment services—many of these markets are not (or only partially) open to foreign competition and are subject to “behind-the-border” regulations that limit trade. Too many policymakers are willing to accept a future with too many small, inefficient local service firms and accompanying slow productivity and income growth, rather than opening up domestic markets to global services trade.
- Current trade rules do not reflect modern services trade. There is no effective mechanism to address the discriminatory use of “behind the border” regulatory barriers that restrict foreign services trade. Moreover, outdated classifications of services (stuck in the 1980 and 90s) create growing uncertainty for many new services firms. These shortfalls create opportunities for countries to pursue protectionist policies that in turn limit innovation and productivity.

This report first shows how digital technologies and the rise of global value chains are driving the services trade and articulates the benefits that greater services trade can bring in terms of productivity and innovation. It then examines how barriers to services trade remain significant and how these non-tariff barriers, in the form of rules and regulations and poor regulatory transparency, discriminate against foreign technology-enabled firms. A high-standard TiSA is needed because current international rules for services trade are not providing competitive and transparent access to service markets, for either cross-border e-commerce sales or direct investment. Part of the challenge for negotiators is the need to update GATS, which reflects the nature of trade in the 1990s, to address contemporary trade issues.

The report also examines how TiSA needs to create rules that support cross-border e-commerce and the free flow of data. ITIF has shown that for most industries, even

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traditional ones, information and data are becoming key factors of production; to maximize innovation and productivity, firms need to be able to move data around the world without barriers. Any TiSA agreement that does not enact strong and enforceable measures against “data protectionism”, even one motivated by social policy goals like privacy, will not be a truly forward looking agreement.

Finally, the report offers several recommendations. A high-standard TiSA should:

1. Provide non-discriminatory and open-market and investment access to a broad range of service sectors.
2. Clarify how countries treat modern services in their market access commitments, as current trade rules use outdated definitions and classifications of service categories. To prevent this happening again, TiSA should include a “future proofing” mechanism that addresses how members treat new types of services.
3. Require members to extend any market-access concessions made in future bilateral and regional trade deals to members of TiSA.
4. Contain new rules to support and protect e-commerce and the free flow of data. Central to this are rules to prohibit barriers to the free flow of data by all service sectors in the agreement and improved access for firms to provide services through whichever process is required (via the Internet, investment, or personnel).
5. Have rules and a process that reduce members’ ability to use discriminatory regulations to target ICT-based service firms.
6. Improve the governance and transparency of regulations that affect services trade.

## **THE IMPORTANCE OF MODERN SERVICES TRADE**

Digital technologies have changed the nature of global services trade in recent decades and an agreement to support and expand services trade would drive further investments in innovation, lower prices, and higher productivity.

### **Digital Technologies Are Driving Growth in Services Trade**

Digital technologies are driving a rising share of services trade in the global economy. Many services that previously required face-to-face contact between the firm and consumer can now be provided remotely, with the additional transaction costs for some of these Internet-based services close to zero. The ICT revolution has reduced the transaction costs and information asymmetries associated with international trade through platforms and support services that make it easier for firms to access international markets. Digital innovations such as mobile money, online marketplaces, and the sharing economy, overcome many of the traditional constraints to international trade in services.<sup>2</sup> Services that once could be offered only or largely locally (such as retail, travel services, newspaper publishing, radio

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broadcasting, higher education, banking, and even some health care services) can now be accessed remotely because of ICT.

Some value can now be provided remotely even for services that still must be consumed face-to-face, like lodging, for-hire driving, and real estate. For example, Redfin, an Internet-based realtor company still relies on local agents, but more of the work is done remotely. Likewise, with Uber, the driver still has to drive someone, but a lot of the work (routing, payments, matching, etc.) is performed remotely.

Indeed, technology-enabled business platforms play an instrumental role in facilitating services trade as these services are able to quickly and cheaply connect suppliers and sellers based on their collection and analysis of user data.<sup>3</sup> ICTs enable the accumulation of data on a centralized platform that simultaneously aggregates supply and demand from two sides of a marketplace, giving rise to “multi-sided” or “bi-directional” business models that have transformed a number of services markets, such as Airbnb in hospitality, Uber in transportation, and Google in Internet search.

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*Current international rules for services trade need to be updated to enable competitive and transparent access to service markets.*

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For example, companies like Airbnb, Etsy, eBay, and Uber allow buyers and sellers of goods and services to find each other easily, agree on mutually acceptable terms for completing a transaction, and efficiently deal with the difficult issues of payment, quality, and reputation. Social networks like Facebook and Twitter and search engines like Google and Bing give large and small businesses alike new platforms for advertising their services to people around the world. These platforms make possible an enormous volume of economic activity and allow such businesses to grow to global scale. It’s why Jeff Bezos founded Amazon with a goal of serving the world’s 7-plus billion people.

Moreover, purely digital services, while always tradeable, have grown significantly. For example, the offshoring of computer and related services is an important part of the growth in services trade. Per the World Trade Organization, this service category covers consultancy services related to the installation of computer hardware and software, data processing and database services, and other related services. Exports of computer and related services accounted for 6.8 percent of all services exports in 2010, up from 4.9 percent in 2005.<sup>4</sup> For Organization for Economic Co-operation and Development (OECD) countries, computer and information service imports increased 3.6-fold from 1996 to 2005, while exports increased 5.2-fold.<sup>5</sup> Trade in computer services largely uses technology to conduct remote cross-border work, but often in combination with a local presence in the foreign market and the movement of staff. As parts of the ICT sector have matured, the relationship between customer and client has become increasingly two-way and higher value-added as the service supplier needs to be in constant contact with the customer for specialized services, such as the resolution of technical issues.<sup>6</sup>

ICT also enables small and medium-sized companies to become micro-multinationals and allows start-ups to be “born global” instead of following the traditional linear path from local provider to exporter. Small and medium-sized companies are using online platforms to scale up rapidly and connect with customers and suppliers anywhere in the world.

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Facebook estimates that its platform includes more than 50 million such firms, up from 25 million in 2013. Amazon now hosts some two million third-party sellers. The share of small and medium-sized companies that export is over seven times higher on eBay than among offline businesses of comparable size.<sup>7</sup> This growing ability of small businesses to reach global customers supports economic growth everywhere.

All of this increase in ICT-enabled business and trade is leading to a significant expansion of cross-border data flows; this has occurred despite the fact that the current rules governing services trade, embodied in GATS, came into force in 1995, when the Internet and the ICT revolutions were in their infancy. Internet traffic has since exploded: worldwide Internet traffic totaled one terabyte (TB) per month in 1994; by 2015, Internet traffic totaled around 75 million TB per month.<sup>8</sup> One reason is that in 2011, 20 households with average broadband usage generated as much traffic as the entire Internet carried in 1995.<sup>9</sup>

Another reason why ICT-based services trade has grown so quickly is that service tasks are increasingly splintered into discreet components that can be performed and sourced remotely. This is considered the “second unbundling” of international trade, following the geographic separation of consumption and production of physical goods that occurred after the reduction in transportation costs in the 1800s.<sup>10</sup> This unbundling has made services an increasingly important component of economic activity both as tradable “products” in and of themselves, and as intermediate goods in the network of production and trade in goods and services. For example, the value-added by foreign service firms accounts for about one-third of the content of services exports in developed countries.<sup>11</sup>

This is one reason why design, delivery, marketing, sales, support, and other business-support services are now core components of modern manufacturing processes.<sup>12</sup> Services value-added accounts for an estimated one-third of manufacturing inputs in developed countries and 26 percent in developing countries.<sup>13</sup> Services value-added already accounts for around one-third of gross exports for manufacturing industries in developed economies.<sup>14</sup> In addition to this, the rise of 3D printing (e.g., additive manufacturing) further shifts the focus of production from intermediate goods to data and services.<sup>15</sup> These processes mean that the traditional dividing lines between goods and services are now blurred.

These trends in technology and business processes have reshaped how firms piece together goods and services from around the world as parts of Global Value Chains (GVCs).<sup>16</sup> GVCs represent a more fragmented production network as modern technology and business practices allow a finer degree of specialization, as these networks capitalize on countries’ specific comparative advantages to a greater extent than in the past. These modern production networks directly and indirectly rely on many services as part of the production process, such as communications, insurance, logistics, finance, computer and information services, and other business services. Over 70 percent of global trade is now in intermediate goods and services and in capital goods.<sup>17</sup>

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*The growing ability of small businesses to reach global audiences supports economic growth everywhere.*

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The two interrelated trends—increased digitalization and increased unbundling of services—have created a global market for services tasks that has contributed to the tripling of services trade over the past 15 years, particularly for business services such as legal, advertising, consulting, and accounting services.<sup>18</sup> When the measurement of services includes services traded indirectly as part of goods (i.e., as part of value-added exports), services exports account for 40 percent of world trade. The services content is significantly higher for developed countries (46 percent) than developing countries (33 percent).<sup>19</sup> The actual share may even be higher as statistical measures fail to account for the role that services play in the international movement of labor and capital.<sup>20</sup>

According to the OECD, 53 percent of its member exports and 47 percent of their imports were in ICT-enabled services in 2008, compared to 47 percent and 43 percent, respectively, in 2003.<sup>21</sup> The average services content of exports for the diverse range of countries that make up the G20 was 42 percent in 2009, while it was 50 percent or more for individual countries such as the United States, the United Kingdom, India, France, and the European Union.<sup>22</sup>

The 23 members negotiating TiSA represent 75 percent of the world's \$44 trillion services market.<sup>23</sup> In 2012, international trade in services totaled \$3.35 trillion, of which 68.7 percent occurred among TiSA-member countries. In the United States, a trade surplus of \$116 billion in ICT-enabled services in 2010 shows the important role that ICT plays in U.S. trade. (For a detailed analysis of the U.S. services economy see Appendix A.)<sup>24</sup> In 2010, ICT-enabled services accounted for 61 percent of U.S. service exports and 56 percent of service imports. With the growth of ICT deployment and adoption, the role of ICT-enabled services has grown as a portion of total services exports, increasing from 45 percent in 1998 to 61 percent in 2010.<sup>25</sup> For Europe, services account for about 40 percent of the value add in exports, while about one-third of the jobs generated by exports of manufactured goods are actually located in companies that supply the exporter with auxiliary services.<sup>26</sup>

Services trade still has plenty of room to grow given the gaps in ICT deployment and adoption. While most companies in OECD countries have a broadband connection (95 percent of all firms with more than 10 employees in 2014), few use enterprise-resource-planning software (31 percent), cloud-computing services (22 percent), or receive electronic orders (21 percent). Consumers still account for only a small portion of e-commerce, up to 90 percent of which is business-to-business. Yet e-commerce sales still only account for an average 16 percent of total turnover.<sup>27</sup> In the financial sector, usually a fast adopter of technology, only 15 percent of global consumer transactions are conducted digitally.<sup>28</sup> The continuing decline in computing and communications costs, coupled with better connectivity, including the growth of smart phones and the emergence of 5G networks, along with increased digital literacy, will likely lead to an increase in ICT-enabled commerce. And, of course, reduction of barriers within nations to services imports would enable the growth of more innovative and efficient services exporters.

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## Benefits of ICT-Driven Services Trade: Productivity, Innovation, and Economic Growth

As the OECD has noted, the sheer size of the services sector makes it evident that any significant improvements in a nation's economic productivity and income must come from that sector.<sup>29</sup> But as ITIF has noted, global productivity growth has slowed in the last decade.<sup>30</sup> Opening service markets to greater foreign competition, especially by firms using ICTs, can not only enable more innovative and productive firms to gain global market share, it can also provide the competitive pressures that spur innovation and productivity among all service providers.

Greater services trade is important in that it can enable higher levels of productivity, which is the central driver of long-term and sustainable increases in living standards and economic growth. In its simplest form, productivity is a measure of economic output per unit of inputs (i.e., it is an efficiency measure). ICT-driven services trade can drive productivity in two major ways: spurring competition that forces all or most firms in a new service to improve; and enabling more productive larger firms to take market share from smaller, less productive local firms.

For the first dynamic, competitive pressures, more services trade spurs competitive forces.<sup>31</sup> Firms can respond to foreign competitors in a number of ways. Some firms turn to digital technologies, such as for the automation of data-intensive production processes. Some invest more in their workers or rethink their business models in order to increase their productive use of capital and labor.<sup>32</sup> Schumpeterian growth models illustrate the mechanism whereby firms invest in technologies new to the firm to reduce costs and to respond to competition—albeit temporarily, as the competition also reacts to change. This process typically plays out in fast-growing sectors with many firms using new technologies. A high level of firm-churn, as well as neck-and-neck competition market structures, force firms to enhance their efficiency by investing in more productive technology. This link between competition, technology, and productivity is well studied as it is crucial to economic growth and competitiveness.<sup>33</sup> The added benefit is that exposure to foreign competition flows to all firms in an economy, whether traded or non-traded, and whether in services or goods industries.

For the second dynamic, scale, increased services trade enables larger traded firms to take market share from smaller non-traded firms. One of the reasons why manufacturing productivity has grown more rapidly than services is that for many manufacturing industries, the technology (and global trading rules) enable firms to gain needed economies of scale, which translates into lower costs and prices. This is why, on average, in most if not all industries and nations larger firms are more productive than smaller firms; and it is why in many economies small, inefficient service firms dominate the economy and keep it locked into a path of stagnant or low productivity. For example, in Europe, the economies with the highest productivity—Germany, Switzerland, and the United Kingdom—have the smallest proportion of workers in small firms.<sup>34</sup> On the other hand, those with the lowest productivity, such as Greece, have the highest percentage of small firms in Europe.<sup>35</sup>



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It's time to enable the firm-size transformation of services, as we did for manufacturing, with the productivity gains to follow.

Finally, liberalizing services trade will directly spur innovation. Companies are able to use technology to tap into and collaborate with centers of expertise around the world, whether in-house or with commercial partners or universities. For example, Procter & Gamble (P&G) uses a global “open innovation” crowdsourcing platform to facilitate collaboration with small and medium-sized enterprises, universities, and other research institutions to drive its own innovation.<sup>36</sup> But to fully leverage the benefits of technology, modern firms need help removing barriers to market access and the flow of data that support such innovative processes and platforms.

## **POLICY BARRIERS TO ICT-ENABLED SERVICES TRADE**

The goal of trade protectionism is to protect and support domestic firms at the expense of foreign firms, even if the outcome is usually lower productivity, reduced innovation, higher prices, and lower GDP. This is why non-discrimination is a pillar of the global trading system at the World Trade Organization—it is needed to promote an open trading system.<sup>37</sup> This section describes how protectionism restricts modern services trade through discriminatory “behind-the-border” regulatory measures. It also details both the types of barriers faced in services trade and the costs of these barriers, especially for data-intensive firms.

### **Non-Tariff Barriers to ICT-Driven Services Trade**

The non-tariff barriers (NTBs) faced by service firms are markedly different from those associated with tariffs—taxes imposed at the border—that represent the traditional barrier for trade in goods, such as manufactures and agriculture. NTBs comprise any policy measure other than tariffs imposed by governments that act as a barrier to trade.

NTBs can be applied at the border on imports and exports or “behind-the-border” in the domestic economy. At the border, non-tariff barriers include export taxes, subsidies, quotas, prohibitions, licensing, customs procedures, and administration fees. Behind the border NTBs cover a wide range of differential health, technical, product, labor, and environmental standards, internal taxes and charges, and licensing and qualification recognition and other administrative processes. NTB measures can be further differentiated by whether they apply to the establishment of a firm versus the provision of services after establishment; and between measures that are discriminatory against foreign firms (to the advantage of local firms) versus non-discriminatory (meaning the regulation affects domestic and foreign firms alike). The term regulation is often used in the debates around NTBs as regulations, broadly defined, cover the full range of NTB-related rules that governments impose to modify the behavior of individuals and firms in the private sector.<sup>38</sup>

Examples of trade-distorting regulations affecting services include:

- Foreign equity limitations (these disallow or limit foreign participation by restricting foreign capital investment). Such restrictions remain a significant barrier

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to ICT-based services trade as many ICT firms need to establish a local presence to better serve clients. Examples include measures for foreign firms that restrict direct equity stakes, requirements for foreign investment only through joint ventures, and limitations on mergers and acquisitions activity.

- Market access limitations through requirements of citizenship or residency.
- Quantitative restrictions/limitations (number of service firms permitted to operate in a market). Such restrictions have been used as part of “infant industry” strategies to protect new and incumbent firms by stifling competition.
- Specification on mode of supply (such as a joint venture with a local partner or a minimum number of local employees or local directors).
- Non-recognition of qualifications and licenses (often through opaque or arbitrary mutual recognition processes for professional qualifications).
- Restrictions on the temporary entry and movement of business persons. This is a significant barrier for established computer services companies, such as those involved in outsourcing or consultancy work, as it restricts their ability to move human capital, often their most valuable asset, from the country of the service firm to the country of the customer and vice versa.<sup>39</sup> Countries often restrict the number of foreign workers permitted to practice by labor-market needs tests or quotas, or through limited duration visas.
- General lack of transparency and regulatory uncertainty that essentially act as a barrier to foreign firms. For example, when application procedures are cumbersome, costly, and complex, processing times may be lengthy, rejection rates high, and the costs of reapplying onerous.<sup>40</sup>

Regulatory restrictions on services trade should be limited to measures needed for legitimate public-interest purposes—such as for health, education, consumer protection, environmental, or national security concerns. However, all too often these rationales are used as smokescreens to justify what are fundamentally protectionist restrictions on services trade.

Regulations undertaken in pursuit of such public-policy goals target perceived market failures (such as monopoly, negative externalities, such as environmental impacts, or service provision regulation, as in industries like health care and finance) or a particular social equity objective (such as privacy and Internet security). In many cases, these regulations are focused on non-trade-related issues—meaning such requirements cannot be eliminated through trade agreements; they can only be designed to be more economically efficient so as to minimize the negative effect on trade. Furthermore, regulators are still adapting to the challenge of efficiently regulating foreign service firms that may deliver services via the Internet.

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However, regulations are becoming the protectionist tool of choice as new technology and business practices change the nature of competition in many service sectors.<sup>41</sup> Local incumbent firms often cloak their appeals for regulatory protection in the guise of protecting some needed value (e.g., privacy, competition, labor rights, consumer rights, etc.) and all too often local regulators are more than happy to oblige. In a worst case scenario, regulations are applied arbitrarily, with little or no warning or chance for comment, discussion, and cost-benefit analysis, and with disproportionate and unfair impacts on a firm's competitive position.

Services sector firms rely on regulations for protection from competition for a number of reasons. First, the most transparent form of trade policy intervention—a tariff—is usually not available. Second, there is often a lack of clear evidence on which services regulations might be biased or truly needed. The diverse and intangible nature of services makes regulation complex, which provides camouflage for protectionist intentions. Third, the complexity of services regulation implies that less experienced or resourced regulators might more easily be influenced by special interest groups, even if they intended to act in “the public interest.” Fourth, given the social concerns attached to many services, consumers are more prone to misguided fears about foreign providers and the notion that if domestic providers are not protected, then service quality will suffer and/or prices will increase.<sup>42</sup>

For example:

- The ride-sharing app Uber has faced limits and outright bans (including in Spain, France, Germany, Belgium, the Netherlands, and Italy), the arrest of its executives, and civil and criminal lawsuits in multiple countries.<sup>43</sup>
- France has banned Internet booksellers, such as Amazon, from offering free delivery—one French minister called this a “strategy of dumping”—to customers in order to protect traditional bookshops.<sup>44</sup>
- While countries have not yet used privacy protections to target 3D printing (the main data file for which can contain personal information), it is not hard to see countries using such requirements to stop the relevant files from being transferred in order to keep manufacturing based at home.<sup>45</sup>
- India has imposed a complex and restrictive set of rules, including on foreign direct investment (FDI), on retailers, such as Walmart, and e-commerce firms. For example, Walmart operates only two wholesale stores in India because local laws are designed to protect owners of smaller shops against foreign competition with a number of operating restrictions, including the requirement that firms operate single-brand stores or wholesale outlets.<sup>46</sup> Furthermore, India in September 2012 explicitly prohibited FDI in single-brand and multi-brand retail by means of electronic commerce.<sup>47</sup>

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- Many countries require companies to store data locally under the misguided notion that this protects privacy (e.g., Australia and Canada), or due to vaguely defined economic and national security reasons (e.g., China, Russia, India, Nigeria, Indonesia, and Vietnam).

Efforts to address tariff barriers have outpaced efforts to address NTBs to services trade partly due to the fact that it is relatively easy to identify, compare, and exchange tariff cuts—country A agrees to cut tariff X in exchange for country B cutting tariff Z. Non-tariff barriers to services trade are not easy to quantify and compare. It is relatively difficult to identify, measure, and reform a regulation that may be aimed at addressing a specific public policy objective, such as for public health or safety, but that also acts as a barrier to services trade.

Countries need to address the use of regulations as a protectionist tool with TiSA as there has been little or no progress at the WTO. GATS members committed to develop disciplines for regulations that affect services trade, but discussions on the issue have led nowhere. GATS did include provisions covering disciplines on domestic regulations, such as licensing, qualifications, and technical standards.<sup>48</sup> But GATS commitments on regulations have proven mostly ineffectual.

GATS states that members should ensure that regulations are: based on objective and transparent criteria, such as competence and the ability to supply the service; not more burdensome than necessary to ensure the quality of the service; and, in the case of licensing procedures, not in themselves restrictive to the supply of the service. GATS members are also supposed to maintain an objective and impartial regulatory review mechanism, such as an administrative tribunal.

### **Lack of Regulatory Transparency Restricts Market Access**

As is true of discriminatory regulation, an opaque and inaccessible regulatory and rule making system can act as a barrier to services trade by foreign firms. A lack of information (for example, regarding necessary authorizations, qualification requirements, and employment law) can act as a barrier for trade for foreign firms due to their lack of local knowledge. How can a firm enter a market if it does not know how or what it needs to do? Once again, similar to regulation, a lack of transparency can help governments mask protectionist objectives.

There is considerable room for TiSA to improve upon GATS' transparency rules which have also proven weak and ineffectual.<sup>49</sup> GATS members are supposed to notify the WTO's Council for Trade in Services of new laws and regulations that "significantly affect" trade in sectors subject to specific commitments and of changes concerning foreign standards, educational degrees, or certificates.<sup>50</sup>

While this sounds good in theory, in practice, WTO members have a poor record of providing notifications. The Secretariat to the Council for Trade in Services in May 2014 reported that 514 notifications had been received since GATS entered into force (1995) to

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*Market access commitments may matter little if regulatory issues restrict competition by foreign service firms.*

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2013, which is an average of about 27 per year.<sup>51</sup> Albania, China, and Switzerland accounted for almost half of these notifications. Breaking this down further, between 2000 and 2009 fewer than 20 WTO members submitted notifications. China's large showing is primarily due to the fact that the country is not only subject to the WTO Trade Policy Review (which is a review process that all members periodically go through), but also to a specific Transition Review Mechanism under its WTO Protocol of Accession.

TiSA needs to improve transparency for rules and regulations for another simple reason—many current international service trade commitments are difficult to interpret. Such “foggy commitments” cannot be clearly associated with specific GATS provisions, thereby allowing governments to arbitrarily apply restrictions. A study shows that close to 100 countries have submitted poorly defined commitments at GATS. The study shows that the most common weakness in these commitments relates to vague licensing and qualification requirements and vague references to the titles of laws and regulations rather than to actual regulatory measures.<sup>52</sup> The lack of transparency and clarity makes compliance difficult.

If foreign firms have regulatory or administrative issues, they need to know which government agency to address. Operating a “single window” government reference point is a best practice used by many countries in trying to make regulatory processes as easy as possible for foreign firms. However, current trade rules on such regulatory contact points have also proven ineffectual. GATS requires members to establish contact points for other governments to request further information on policy changes and relevant commercial and technical information.<sup>53</sup> As of 2012, only around 90 members had notified the WTO of the establishment of relevant contact points. In addition to this poor level of reporting, the WTO and its members know very little about the effectiveness of these contact points in terms of their usefulness for foreign firms seeking further information about rules and regulations.<sup>54</sup>

### **The High Cost of Barriers to Services Trade**

Non-tariff barriers to services trade in many economies remain significant, but efforts to address these barriers suffer from a relative lack of focus, measurement, and analysis. Both the OECD and WTO have increased their focus and research into services trade restrictions in recent years, as a lack of information about these barriers has limited policymakers' consideration of how to make services trade easier.<sup>55</sup>

A major step in rectifying this shortfall in services trade information was the 2015 OECD study “The Impact of Service Trade Restrictiveness on Trade Flows.” Covering 40 countries and eighteen sectors, it showed that while some sectors may have a low-average level of restrictiveness there can still be large variance in regulatory restrictiveness both within and between different service sectors. The key outcomes from the economic model used in this study are that services trade restrictions have a negative impact on both the import and export of services; and that services trade restrictions have a negative impact on exports, imports, and intra-industry trade in manufactured goods.<sup>56</sup> This indicates how services are critical not only as a sector, but also as an input in other sectors.

Table 1 shows a Peterson Institute for International Economics report that estimated the tariff equivalent of services barriers in many countries.<sup>57</sup> It shows that services trade remains relatively restricted through high non-tariff barriers. It also highlights the potential gains that could come from reducing the overall level of trade restrictions facing services trade.

**Table 1: The Estimated Tariff Equivalent of Services Barriers<sup>58</sup>**

Country	Tariff Equivalents of Service Barriers (percent)
India	68.1
Pakistan	68.1
Indonesia	67.9
China	67.9
Brazil	55.5
Philippines	55.4
Russia	51.3
Mexico	44.3
Colombia	40.9
South Africa	39.7
Argentina	33.1
Malaysia	28.8
South Korea	25.0
Japan	16.8
Australia	16.2
Canada	15.4
European Union	6.7
United States	6.0
New Zealand	4.4

### The Costly Barriers to Cross-Border Data Flows

More countries are using non-tariff barriers as a form of digital protectionism to support domestic companies. Barriers to data flows are one of the most common of these. More and more firms and industries are realizing they need to move data across national borders in order to serve consumers effectively. Yet more and more countries are enacting barriers to data flows. Some are supposedly to serve valid public policy reasons, such as to protect privacy, financial oversight, and national security, but in almost all cases the actual motivation, and certainly the effect, is protectionism. These measures restrict the overseas transfer of all or certain types of data, such as personal health data, thereby forcing companies to store data locally within the borders of a country. From a trade-policy

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perspective, these policies are discriminatory, as foreign firms are being treated less fairly than domestic firms. As ITIF has shown, in virtually all cases such policies are not necessary to achieve stated policy goals, but do have a substantial impact on firm competitiveness and economic efficiency.<sup>59</sup>

A recent survey conducted for the U.S. International Trade Commission report *Digital Trade in the U.S. and Global Economies* identified localization requirements as the most oft-cited digital trade barrier, creating obstacles for 82 percent of large firms and 52 percent of small and medium-sized companies in the digital communications sector.<sup>60</sup> These barriers manifest themselves as requirements to store data or to set up computing facilities within the geographic borders of a country (e.g., “localization”); or as data privacy and protection requirements. The impact these barriers have on firms varied by industry and firm size: large digital communications firms and small-to-medium-sized finance firms viewed localization, data privacy and protection, and uncertain legal liability as substantial obstacles to trade, while large firms in digital content viewed intellectual property infringement as a substantial obstacle.<sup>61</sup>

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*A study assessing the impact of Europe's data localization policies shows an estimated economic loss of -0.8 to -1.3 percent of GDP.*

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As the Information Technology and Innovation Foundation (ITIF) has written in “The False Promise of Data Nationalism,” it is the technological and procedural method of storing and transferring data that determines how safe data are, not the geographical location of data storage.<sup>62</sup> Just as consumer safety and other laws apply to tangible goods that flow in and out of a country as part of international trade, cybersecurity and other rules apply to data and the companies that move data overseas. For example, if countries pass laws that impose minimum security standards, then those standards follow the data wherever a company might decide to transfer or store them; companies are not able to escape their obligations to abide by the security standards any more than they can escape their obligations to abide by other laws. The same is true for privacy. Organizations cannot escape a nation’s privacy regulations simply by moving data to another nation. With privacy and cybersecurity laws in place, what then becomes important is effective enforcement to ensure that both domestic and international companies are following the rules for how a country wishes to manage and protect the data of its citizens, businesses, and government agencies.

This is why the defining objective of data-related policies should be the outcome—whether this is better cybersecurity or privacy—rather than one based on geography; the former rightly focuses on the actual policy objective, without being trade-distorting or discriminatory against foreign firms. When this approach is not the basis for data-related policies, it indicates that a policy may be masking a protectionist intent.

Such barriers to cross-border data flows result in considerable costs for individual firms, both financially and in terms of competitiveness. Barriers to cross-border data transfer for cloud computing generate significant costs for local companies. Studies show that local companies would need to pay 30 percent to 60 percent more for their computing needs if data localization laws were enacted in a range of countries.<sup>63</sup> For example, if a ‘European

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Cloud<sup>7</sup> forces companies to move data storage to the European Union, their costs could increase by as much as 36 percent. Moreover, by adopting data localization, some countries, such as Russia and Indonesia, cut themselves off from access to leading cloud service providers.<sup>64</sup>

Data protectionism also undermines cost competitiveness as businesses must absorb compliance costs, which are primarily administrative (e.g., new processes and routines) and operational (e.g., local storage).<sup>65</sup> The European Union's Data Protection Directive encourages data localization, as companies are pressured to store and process personal information within the EU so as to avoid the need to meet the Directive's prerequisites for extraterritorial data transfers. But compliance costs can be significant for smaller companies. A study assessing compliance costs for small and medium-sized companies not in the ICT sector found that the European Data Protection Directive can add up to 40 percent to IT budgets.<sup>66</sup> The Denver-based Analysis Group estimated that if the data protection officer provisions of the EU regulation are implemented as written, it would cost each affected European small and medium-sized company as much as \$7,700 in additional compliance costs per year.<sup>67</sup> Other studies also show that smaller companies incur substantially higher costs than larger ones in trying to comply with Europe's data protection rules.<sup>68</sup>

Barriers to cross-border data flows also undermine innovation as they hinder the ability to analyze data to generate new insights, services or processes.<sup>69</sup> For example, companies may not be able to use cloud computing to connect different research and development teams. These barriers may force multinational companies to use second-best research partners. These policies delay innovation while adding to its costs. While the focus of this debate is often on large, high-tech firms, studies show that the effects on innovation are just as problematic for small and medium-sized firms as for large companies; and as negative for low-tech industries as for high-tech.<sup>70</sup>

These costs add up and end up having a significant negative impact on sectoral productivity, as shown in a recent study by the Global Commission on Internet Governance at Chatham House. The only TiSA members covered by this study are South Korea and the European Union, while it covers many other emerging economies, such as India, China, Brazil, and Vietnam. Barriers to data cause a significant drop in productivity in tech-intensive service sectors. The study estimates that barriers to data flows in South Korea, China, and the European Union decrease productivity by 2 percent in the communications sector. Likewise, the study estimates a 0.3 percent decrease in productivity in financial services in China and South Korea. The study estimates that barriers to data flow decrease productivity across the entire European Union economy by 0.29 percent.<sup>71</sup>

In summary, such digital protectionism policies are particularly shortsighted because they exact a significant negative impact on an overall economy. As Table 2 shows, a 2013 report by the European Center for International Political Economy estimated that if cross-border data flows were seriously disrupted, the negative impact on European GDP would range



from -0.8 to -1.3 percent and EU manufacturing exports to the United States could decrease by approximately 11 percent.<sup>72</sup> The study further demonstrated that the economic impact of data restrictions on GDP is substantial.

**Table 2: Projected Impact of Data Localization Policies on GDP, Investment, and Exports<sup>73</sup>**

	Impact on GDP growth—if only applied to specific sector (%)	Impact on GDP growth—if applied economy wide (%)	Impact on investment (%)	Impact on total exports (%)
<b>Brazil</b>	-0.2	-0.8	-4.2	-0.5
<b>China</b>	-1.1	-1.1	-1.8	-1.7
<b>European Union</b>	-0.4	-1.1	-3.9	-0.4
<b>India</b>	-0.1	-0.8	-1.4	N/A
<b>Indonesia</b>	-0.5	-0.7	-2.3	-1.7
<b>South Korea</b>	-0.4	-1.1	-0.5	-0.3
<b>Vietnam</b>	-1.7	-1.7	-3.1	-0.5

## THE TROUBLED ROAD FROM GATS TO TISA

In June 2013, the United States, Australia, the European Union, and 20 other economies, including Hong Kong, Columbia, Costa Rica, Mexico, Pakistan, and South Korea, decided that they wanted to pursue a new services trade agreement.<sup>74</sup> The step to launch negotiations outside the WTO was bold, but likely the easiest part of the process. The troubled road from the General Agreement on Trade in Services (GATS) to TiSA illustrates the challenges that lie ahead in achieving a high-standard agreement in TiSA.

TiSA is a potentially significant change to global trade governance, as its precursor, GATS, is a foundational part of the international rules-based trading system. When GATS was launched in 1995, it established the first set of legally enforceable rules at the multilateral level to cover services trade. GATS' influence has spread as key provisions have been incorporated into many countries' bilateral and regional trade agreements. In a similar fashion, many provisions in TiSA will be based on GATS.

GATS was only partly successful in opening service markets to foreign competition as countries agreed to open only a narrow range of sectors. The level of market access provided was also narrow.<sup>75</sup> Countries that signed onto GATS largely limited their commitments to the “locking in” of market access and related trade policies that had already been enacted on a unilateral basis. While GATS did not provide a significant amount of new market access, it did lock in an upper limit on potential restrictive trade measures.<sup>76</sup> However, a key reason why GATS is used in TiSA and other trade agreements is that it created a set of widely-agreed upon norms and core rules to govern services trade.<sup>77</sup>

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*The fact that GATS does not mention the Internet is indicative of the need to update the global framework for services trade.*

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TiSA can make easy gains as many countries provide more open access to their service markets than they are obliged to under GATS. With the exception of the European Union and those countries that acceded to GATS after it came into force (and were therefore forced to make more concessions as a part of accession), the majority of service sector openings have been achieved by countries outside of formal trade agreements (i.e., autonomously).<sup>78</sup> Studies also show that many countries have moved beyond their GATS commitments as part of bilateral and regional trade agreements. This signals that TiSA members are willing to make commitments above and beyond GATS in the right setting, such as TiSA.<sup>79</sup>

Despite the limited success in opening services markets with GATS, countries did achieve some important outcomes that supported the emergence of a global digital economy and modern services trade. In telecommunications, countries negotiated specific agreements that ensured WTO members provide open access to and use of public telecommunications networks on a reasonable and non-discriminatory basis.<sup>80</sup> These laid the platform for easier, better, and cheaper global telecommunication services. On e-commerce, WTO members agreed to a moratorium on the application of tariffs to “online transmissions” that would otherwise impact the online delivery of services and other e-commerce activities.<sup>81</sup> For ICT products, countries agreed to cut tariffs on a large number of high-tech products under the Information Technology Agreement (ITA). Since 17 countries signed onto this agreement in 1996, it has grown to 81 WTO members, which account for approximately 97 percent of world trade in IT products.<sup>82</sup>

A key reason for TiSA’s creation is that services trade negotiations have languished at the WTO, despite lofty ambitions to build on commitments made at GATS through successive rounds of new negotiations. In 2001, services trade negotiations were rolled into the last round of multilateral trade negotiations, the Doha Development, that covered around 20 trade issues, including agriculture and manufactured goods. In many cases, the offers that countries made at the Doha Round were limited to further (yet still incomplete) lock-ins of existing market access.<sup>83</sup> At the time of the WTO ministerial meeting in 2008, 71 countries had submitted initial offers on services under Doha negotiations, and only 30 of those countries had submitted revised second-round offers. These offers were primarily focused on a few sectors—notably, business and financial services and to a lesser extent on telecommunications and tourism services—with little progress on other key sectors such as professional services, maritime transport, construction, health, and environmental services.<sup>84</sup>

After 10 years of little progress in the Doha Development Round, some countries decided to change course.<sup>85</sup> Many countries at the 2011 WTO Ministerial Conference recognized that further progress on a “single undertaking” for the Doha Round—meaning that countries agreed on nothing in trade negotiations until they agreed on all trade issues—was unrealistic and therefore a better plan would be to allow negotiators to split the agenda by allowing negotiations on individual sectors. This meant that progress on services trade issues, and other individual issues, would no longer be tied to progress or trade-offs in

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other areas. This allowed an “early harvest” of individual areas where progress could more likely be achieved, such as the Trade Facilitation Agreement (agreed in 2013), an expanded Information Technology Agreement, and TiSA.

This revised approach to trade negotiations has already proven successful in helping ICT-driven services trade. In 2015, a range of countries agreed to build on the initial Information Technology Agreement with a second agreement that eliminated tariffs on a greater range of electronic and IT goods, eliminating tariffs on an additional 201 products with a global trade value of \$1.3 trillion per year.<sup>86</sup> The Trade Facilitation Agreement and ITA have been instrumental in facilitating ICT-based services trade given that they’ve helped grow the global production, dissemination, and trade in ICT goods.

For TiSA to have similar success, negotiators need to adapt and update GATS so that it reflects and addresses modern services trade issues. While it may have been easier in some ways to start anew, basing TiSA on GATS makes it potentially easier for others to join if it is successfully completed as the core components of GATS are widely accepted. If enough countries were to join TiSA it would effectively “multilateralize” it into a WTO-managed agreement.<sup>87</sup> In terms of how commitments are made, as per GATS, countries will outline which commitments (either in the form of a market opening or limitation) apply to all service sectors. Following this, countries will specify which commitments apply to services trade in particular sectors and sub-sectors.<sup>88</sup> The ensuring section will focus on the most pressing issues that negotiators need to address to ensure that TiSA becomes a high-standard agreement.

## **HOW TO OPEN AND SUPPORT SERVICE MARKETS—BOTH NOW AND FOR THE FUTURE**

Countries need to apply the lessons from GATS and design an agreement that will remain relevant and ambitious to services trade both now and in the future, avoiding GATS’s gradual slide toward irrelevance. Achieving a high-standard TiSA is important as it will likely form the new international benchmark for services trade rules. The following seven recommendations will ensure that TiSA supports and protects modern services trade.

### **Recommendation 1: Ensure Strong Core Commitments On Openness for Both Trade and Investment**

The foundations for a strong TiSA are built on rules that ensure competition. For goods and services, TiSA should include rules that members cannot discriminate against other TiSA members (known as Most Favored Nation (MFN) treatment); that local and foreign goods and services are to be treated the same (known as “national treatment”); that prohibit market access restrictions; and that prohibit measures that require service firms to maintain a local presence as a condition for supplying a service. These measures are a core part of the WTO and other agreements, but need to be constantly reinforced.

For investment, TiSA needs to create an open, protected, and predictable environment as investment is a critical enabler of ICT-based services trade. Foreign direct investment in the services sectors accounted for 63 percent of global FDI in 2012, more than twice the share

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*TiSA should be seen as the services complement to the Information Technology Agreement, which has eliminated tariffs on hundreds of ICT products.*

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of manufacturing.<sup>89</sup> TiSA needs to include commitments similar to the Trans-Pacific Partnership (TPP) trade agreement, in that investment from TiSA members should be accorded MFN and national treatment status; protected against expropriation; entitled to transfer funds related to an investment; and protected against performance requirements for related investments (such as export requirements, local content requirements, or forced technology transfers).

## **Recommendation 2: Ensure Broad Sector Coverage**

How market access commitments are made will affect both current types of services and innovative new services. Countries make commitments in one of two ways: a ‘positive list’ (a commitment has to be specifically listed to be covered by the agreement) or a ‘negative list’ (everything is covered unless it is specifically listed as an exception to the agreement).

Unfortunately, TiSA reportedly is using a hybrid approach: a positive list for service market access commitments and a negative list for “national treatment” (measures on whether or how foreign firms can be discriminated against).<sup>90</sup> A ‘negative list’ is more thorough as all sectors and sub-sectors not listed are, by default, open to competition by foreign service firms. Countries have to conduct a comprehensive audit of market-access conditions and regulations as part of negotiations using a negative list, which forces countries to reevaluate the validity of regulations that govern market access and whether the underlying policy goal (such as for consumer safety and public health) can be achieved in a way that is not (or at least is less) trade distorting, including for foreign firms. The United States has often used a negative list approach in its trade agreements. The services chapter of the TPP trade agreement was negotiated on a negative-list basis. Studies of countries that have used both negative and positive approaches, such as Singapore and Australia, show that they have undertaken greater commitments in agreements in which they used a negative list approach.<sup>91</sup>

A positive list approach to market access commitments is a potential problem as it potentially discriminates against new and innovative services. It raises uncertainty about how (or whether) new services are classified and therefore treated under existing trade commitments. A negative list approach avoids this as it automatically extends a country’s commitments to that new service. The danger of the positive list approach was illustrated when the EU tried to levy tariffs on new high-tech products in the 2000s. Europe attempted to place levies on cable and satellite boxes that could access the Internet, flat-panel computer monitors, and certain multi-function printers, as it considered them new products that were not covered by its prior commitments on related tech products.<sup>92</sup>

A negative list approach provides the certainty for innovative service firms about how their services, especially if new, will be treated.

Given the positive list approach, the benchmark for whether TiSA is an ambitious agreement or not will therefore depend on how many sectoral and topic-specific negotiations are included in a final agreement and whether new and meaningful access is provided in these service sectors. Thus far, reports state that there are sectoral negotiations

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on energy-related services, environmental services, road freight transport, maritime services, electronic commerce, financial services, telecommunication services, air transport, competitive-delivery services, domestic regulation, professional services, and movement of natural persons. It is not guaranteed that all these sectoral negotiations will be included in a final agreement, but how many are included will determine how ambitious and effective TiSA will be in supporting services trade. From this, TiSA then needs to provide new and meaningful market access within each sector and subsector, across all service delivery modes (see Appendix B). For example, there is no reason why there should not be complete openness to foreign direct investment in most of these sectors, including retail, telecommunications, and air transport.

### **Recommendation 3: Clarify the Classification of Services**

TiSA can address issues created by a positive list by getting member countries to clarify how modern types of services apply under each country's market-access commitments and by having a mechanism to cover new types of services. The United States has rightly made it a priority for TiSA to include a mechanism that covers services "that have yet to be conceived."<sup>93</sup> GATS lost relevance after it was established because it used a positive list approach and WTO members failed to make up for this by covering new services in successive negotiations or to include a mechanism to add new service categories. Indicative of the need for an update is that GATS does not even directly mention the Internet. GATS' outdated provisions therefore create considerable uncertainty over how new services that are central to the global digital economy, such as cloud computing, are covered (or not). This highlights the risk to any agreement that does not have a way to clarify how new services are covered.

These problems are compounded by the fact that members' commitments at GATS are based on a list of service types—the WTO's Services Sectoral Classification List—that was drafted in 1989-91 when the focus was on traditional telecommunications, and when the Internet (as we know it) barely existed.<sup>94</sup> This outdated list of service types creates significant uncertainty as there is plenty of room for speculation or arbitrary application of different trade restrictions depending on how each country categorizes new services.<sup>95</sup> For example, is cloud computing a telecommunications service and/or a computer service? Also, different cloud-computing trade issues fit under different trade issues, as cloud computing's use of the Internet is a telecommunications network access issue, while its data-processing services could fall under value-added service categories.<sup>96</sup> Related to this is the fact that WTO members have not been able to agree on how to clarify some fundamental issues pertaining to ICT-driven trade, such as whether digitally delivered content is a good or a service; and how to classify current computer and related services, such as search engines, audio-visual services, and social networks.<sup>97</sup>

TiSA needs to remove the uncertainty around how new services are treated in the international trading system. The lack of progress on these issues at the WTO means that there is a lot of variation in how countries classify and treat new modern types of services. Only countries that recently acceded to the WTO have had to update their commitments

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*TiSA needs a mechanism to cover new services. Otherwise it loses relevance as soon as it is signed.*

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as countries that were already members could negotiate concessions from new countries in exchange for their approval to enter the WTO. For example, Vietnam made commitments on Internet-specific services when it acceded to GATS in 2006.<sup>98</sup> The WTO's dispute settlement mechanism—where countries go to resolve trade disputes—has tried to limit the damage caused by this uncertainty by addressing key issues as part of its rulings on disputes involved ICT-based services. For example, it decided that traditional services delivered electronically over the Internet are covered by GATS (this meant that GATS commitments are not tied to the technology that existed at the date of the commitment) and that a good and service can be intangible.<sup>99</sup>

#### **Recommendation 4: Automatically Add Future Commitments**

For TiSA to remain both relevant and the most ambitious services agreement it can be, it should include a provision that would automatically extend to TiSA members the market-access commitments they give to third countries in future bilateral or regional trade deals.<sup>100</sup> Such a commitment—called an “MFN forward”—would ensure that TiSA would remain the most comprehensive and ambitious of any services trade commitments. Many countries have made more ambitious commitments outside of GATS since its introduction. As of February 1, 2016, the WTO reported that there were 524 regional trade agreements (RTAs) in force. Many modern RTAs include service-market commitments that have created a gap between the international benchmark—GATS—and the most ambitious service-market commitments.

#### **Recommendation 5: Support E-commerce and Open Data Flows**

To be considered a high-standard agreement, TiSA will need to ensure open-market access for e-commerce firms in TiSA's service sectors, new rules to support and protect ICT-driven services, and rules to remove modern barriers to digital trade. Getting a high-standard agreement is critical as TiSA will likely form a new global norm for these digital trade issues.

A high-standard outcome on e-commerce and data should include the following:

- The e-commerce chapter should make it such that the market access coverage for any service sector also covers that service when it is delivered or performed digitally. For example, commitments on telecommunication services would cover cloud-storage based emails and commitments on banking services would also cover online banking.
- Building on the above, TiSA should include a cross-cutting commitment that countries make the free-flow of data across borders an automatic part of any new service sector openings in TiSA and significantly constrain the ability of nations to create exceptions to this.<sup>101</sup>

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- Parties should agree to not discriminate against digital products (as compared to physical products). On a related issue, TiSA should not include language that would prohibit geo-blocking.<sup>102</sup>
  - Cross-border service providers should not need to establish a physical presence to supply services in a market.
  - Further to the above, TiSA should prohibit measures that require a company to store data or to set up computing facilities within the geographic boundaries of a country (e.g., prohibit forced localization policies). This provision should apply to all services, including financial services.<sup>103</sup> The language of this provision should explicitly cut the link between geography and data protection, which some countries, especially the European Union, have been reluctant to do.
  - Provide improved market access within each market-access commitment for the four different modes of service delivery. To properly support ICT-driven services trade, TiSA needs to address issues relating to each of the delivery modes as they are often complementary. (See Appendix B for details.)
  - Digital products (software, e-books, audio, video, and other digitally encoded content) should be permanently duty-free if transmitted online. This would make permanent the temporary moratorium on custom duties agreed to by members at the WTO.<sup>104</sup>
  - TiSA should also include commitments similar to those in the Trans-Pacific Partnership for countries to agree on the key principles and approaches to address issues relating to consumer protection, electronic authentication, prohibitions against spam, and open-network access and use.

#### TiSA Needs to Provide Better Access Across All Service Delivery Modes

Of the above, it is especially important that TiSA provide open access across all four modes of delivery as all are relevant for ICT-driven services trade (see Appendix B).

Complementarities between modes of service supply means that it does not make sense to impose restrictions in one area, but not another. For example, studies show that while cross-border trade in computer services has been growing rapidly, it is still critical for many modern service companies to establish a commercial presence in a foreign market in order to provide services there.

Furthermore, countries would remove uncertainty about what service-trade commitments apply to which online services by making extensive commitments to both cross-border trade and services supplied abroad (modes 1 and 2, see Appendix B). Countries have raised concerns at the WTO about whether a website transaction (such as online banking) is classified as cross-border trade under Mode 1 or as supply abroad under Mode 2. When online services can be accessed and supplied from anywhere in the world via the Internet, it

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becomes impossible for governments to know which commitment such trade falls under. TiSA members should follow the WTO Secretariat's advice to rectify this problem by ensuring that their commitments on services cover both Mode 1 and Mode 2.<sup>105</sup>

TiSA needs to enable ICT-based firms to temporarily move their staff—often the firm's most valuable asset—to where they are most needed. However, the temporary movement of people is one of the most restricted areas of international trade and in some countries, such as the United States, it is the most politically sensitive area. This mode of delivery is not focused on migration, but on the temporary relocation of staff, such as between a service firm's headquarters and its subsidiary in another country. Another example is the temporary movement of an outside-contracted service provider to be physically closer to the client's home site.

#### TiSA Needs to Cut the Link Between Geography and Data Protection

A key litmus test for TiSA will be whether it cuts the misguided link between geography and data protection, as the global free flow of data is an essential facet of ICT-driven services trade. TiSA needs to improve on the TPP's e-commerce provisions in ensuring that the security and privacy of data is achieved through compliance with country-level privacy and security protections and not through the geographic location of data storage. The TPP included a number of positive provisions, but it is unclear whether the TPP will have any impact on localization measures currently in place in several TPP-member countries (e.g., in Australia, Canada, Malaysia, and Vietnam) or whether it will only act as a deterrent against future data-localization measures.

Divergent domestic regulations (discussed more broadly below) are at the heart of data-localization policies. Many countries defend data localization by referring to exceptions in GATS that allow countries to enact policies that contravene other parts of the agreement (such as on the cross-border supply of services, e.g., for cloud computing) as long as it is for certain public-policy reasons, including to protect public morals, to maintain public order, or to protect privacy.<sup>106</sup> However, as explained above, where the data is stored is not important, but rather how it is stored. Part of the problem is that these exceptions are very broad. For a variety of reasons, such as unclear rules under GATS, these data-localization policies have never been formally challenged at the WTO, even though there are alternative policies—such as higher minimum standards for companies managing data—that achieve the stated goal without discriminating against foreign firms or distorting services trade. This is why TiSA needs both clear rules that prohibit forced data localization and a better framework (discussed below) to transparently and systematically address and overturn discriminatory regulatory issues such as those involved in data localization.<sup>107</sup>

#### **Recommendation 6: Reduce the Use of Regulations to Close Markets**

Commitments made by TiSA members to open markets to foreign competition will not be worth much if these commitments are not accompanied by rules for better regulatory cooperation and governance.<sup>108</sup> The key problem for TiSA is establishing a process that identifies which regulations are motivated by legitimate public-policy goals and which are



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purely rent-creating and protectionist.<sup>109</sup> Key to this is a benchmark for regulations that is based on best practices, a mechanism to apply this benchmark to test regulations, and an institutional framework to manage this process and foster broader regulatory cooperation.

It is important to make clear that nobody denies that governments have the right to use regulations to achieve legitimate public-policy objectives. This is an undisputed responsibility for government and why TiSA members, such as the United States and European Union, have made clear public statements as part of trade negotiations regarding governments' right to regulate and assuring that TiSA will not lead to the privatization of public services.<sup>110</sup> This was done to reassure their respective publics about the intent of TiSA and other trade agreements, especially given the misinformation being spread by opponents of trade agreements. The narrow focus for TiSA negotiations is on the cases where countries grossly misuse regulations for protectionist purposes to discriminate against foreign firms, thereby contravening their commitments to provide market access for foreign firms.

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*TiSA should be the next step in coming up with rules for 21st century trade, including measures that prohibit digital protectionism, especially with regard to barriers to cross-border data flows.*

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TiSA should establish a normative benchmark of good practices to use as part of a test to see if a regulation is potentially protectionist. A benchmark based on the OECD's work is one potential avenue. The OECD's approach to transparent, effective, and competitive regulations are widely known and accepted—the OECD has been developing, testing, refining, and advocating principles and specific steps for quality regulations for nearly 20 years.<sup>111</sup>

TiSA should use this benchmark to test whether regulations are based on objective and transparent criteria, are no more burdensome than necessary, and are not discriminatory against foreign firms. Such a mechanism would act as a protectionist safety valve. TiSA members would have to be willing to put regulations that other countries consider discriminatory to a test overseen by an expert panel (similar to that used in trade disputes under trade agreements). This process could use international best practices on regulatory design to assess whether a potentially discriminatory regulation is truly necessary or whether there is an alternative approach that achieves the policy objective without limiting services trade. Such a process could be based around toolkits developed by the OECD, the Asia Pacific Economic Cooperation (APEC), and World Bank. These involve a regulatory impact analysis, the consideration of regulatory alternatives, administrative simplification, and ex-post evaluation of existing regulation. These could be applied to see whether regulatory changes are protectionist and thereby breach trade commitments.

While the political and cultural values tied up in domestic regulation make such a mechanism tricky, WTO members have already proven that this approach can work in other international trade issues, such as international trade agreements on Technical Barriers to Trade (TBT), which aims to ensure that technical regulations, standards, and testing do not create unnecessary obstacles to trade, and on Sanitary and Phytosanitary measures (SPS), the international treaty that aims to protect human, animal, and plant life from certain risks. The TBT and SPS agreements have a mechanism whereby countries and

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expert panels use scientific processes to assess whether regulatory requirements are necessary to achieve the relevant policy objective (e.g., health and safety) or whether they constitute an unnecessary barrier to trade.

To be a true improvement on GATS, TiSA needs to build an institutional framework for effective cooperation on trade-distorting regulations, something akin to the United States' proposal for a 'Trans-Atlantic Regulator Dialogue' within a Trans-Atlantic Trade and Investment Partnership or similar bodies under the Trans-Pacific Partnership.<sup>112</sup> Using the benefits of its small, ambitious membership, TiSA should create a clear and enforceable mechanism for cooperation on regulatory issues. As part of this, it should be mandatory for countries to report changes in regulations that affect service-market commitments. TiSA members could also establish service-sector-specific areas for discussions and cooperation between regulatory authorities. In line with this, TiSA should promote the development, convergence, and/or mutual recognition of technical standards, licensing, and certification requirements.<sup>113</sup>

### **Recommendation 7: Improve Regulatory Transparency**

Transparency promotes greater liberalization as it effectively audits regulatory settings at the time of a final agreement and then for subsequent regulatory changes. It would provide a clearer picture as to whether the market access granted was being implemented as agreed or not, *de jure* and *de facto*.<sup>114</sup> A transparency chapter in TiSA should not only build upon GATS but go further in ensuring that trade-related rules and regulations are made through a clear, accessible, and participatory process that aims to remove or limit unnecessary regulations that act as a barrier to services trade.

First, TiSA members should be required to give advance notice of and an opportunity for the public and private sectors to comment on new regulations affecting trade in services, similar to mechanisms in the Trans-Pacific Partnership trade agreement.<sup>115</sup> This mirrors the approach already in place in the United States. Creating a mechanism that is open to a response in advance of implementation can reduce the potential for conflict between states by improving transparency and allowing time for the consideration of alternative, non-trade distorting measures.

Second, TiSA needs to include a mechanism that records and details changes in a country's regulatory environment relating to commitments taken under TiSA. Ideally, this should be done through an electronic notification system, which has been discussed (but never implemented) at the WTO. Such transparency and accountability mechanisms for regulations can benefit governments by sharing technical know-how and experiences of other governments' efforts to promote efficient and transparent policy. Documenting and understanding non-tariff measures and their effects is the first stage in an effort to make regulations more efficient, particularly in countries struggling with legacies of complicated and penalizing regulations. Governments may pursue sub-optimal policies because they are not fully aware of their effects and of the existence of better alternatives.<sup>116</sup>

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Third, TiSA members should provide a fair, accessible, and independent administrative and/or legal mechanism for firms to submit complaints about inconsistent or irregular implementation of regulations. Such a mechanism may be triggered after countries use the formal reporting mechanism outlined above. This ensures that firms have due-process rights in case they are targeted by arbitrary and discriminatory rule changes that essentially contravene commitments made under TiSA.

Fourth, TiSA members should institute other principles for good transparency practices, such as a confirmed and responsive contact point for inquiries on rules and regulations, practices that publish relevant rules online, regulations, and licensing requirements for foreign service firms.

## CONCLUSION

A high-standard TiSA could be transformative for global services trade given that ICT is enabling many more services to be traded. The heightened political debate around trade makes achieving an agreement particularly challenging, but now is the best shot that the global economy has had for over 20 years. Political leaders and policymakers chose to start negotiations not because it was going to be easy, but because it was seen as the right thing to do. The trend toward greater ICT-driven services trade and the use of services as part of global value chains is only going to continue; thus, policymakers should remain committed to an ambitious outcome in TiSA.

The TPP was a step in the right direction in setting rules for digital trade. TiSA should be the next step, including establishing measures that restrict barriers to cross-border data flows and achieve agreement on better regulatory governance. However, the latter will not be easy, as agreeing on regulatory disciplines is probably the most difficult aspect of trade negotiations, as admitted by Jean-Luc Demarty, the European Commissioner's director general for trade.<sup>117</sup> However, the TPP chapter on regulatory coherence (a first for a U.S. free trade agreement) shows it can be done. Furthermore, the pressing need to upgrade the WTO's current approach to trade-related regulation has been clear to trade negotiators from TiSA members for a long time and no doubt played a role in getting them to sign up to TiSA in the first place.

While the nature of trade has changed and many lessons have been learnt since GATS, whether they are applied in TiSA ultimately depends on political will. In this regard, there are ominous signals that should temper expectations. Europe has already lowered its standards for TiSA, instead reserving its ambitious goals for the Trans-Atlantic Trade and Investment Partnership agreement with the United States, which in itself is not going to be easy to conclude. Another indicator of Europe's troubling lack of ambition is its unwillingness to use its most recent trade agreement (with Canada) as the basis of its position at TiSA.<sup>118</sup> The issue of trans-Atlantic data flows has also already caused considerable complications for both sides with the negotiation and adoption of the new 'Privacy Shield'. The European Union simultaneously makes the argument that data flows are a key part of TiSA, but yet makes it clear that data protection is a non-negotiable part of TiSA.<sup>119</sup> This unwillingness

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to prohibit forced localization measures undermines the future of the European digital economy and points toward an apparent underlying predisposition to localization measures.

Further tempering expectations, TiSA members are reportedly already contemplating which sensitive sectors should be jettisoned from negotiations in the name of expediency to allow a deal by the end of 2016.<sup>120</sup> Claims that these abandoned sectors and other topics could be relegated to a “built-in” future agenda for TiSA is wishful thinking given the loss of broader negotiating leverage. If outcomes in sensitive sectors can’t be achieved when negotiations involve a broader range of issues that can be used as tradeoffs, it is hard to see how an ambitious outcome could be achieved if sensitive sectors are negotiated individually.

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*Market access commitments may matter little if regulatory issues restrict competition by foreign service firms.*

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TiSA is an opportunity for the world’s most ambitious trading nations to set the direction for global trade, as the failure of the Doha Development round has left the World Trade Organization without a clear mandate. TiSA is the latest test of the move from multilateral to plurilateral trade negotiations. While recent success, including with the Information Technology Agreement, shows this can work, the risk is that if the ambitious group of countries behind TiSA cannot come to a high-standard agreement with TiSA, then it will become easier for countries to erect more barriers to modern services trade. Members of TiSA need to remember this alternative as they focus on making the tough choices to achieve an ambitious agreement. In the scenario that less ambitious members are undermining these key provisions that make up this ambition, it would be preferable to have a stronger agreement with fewer members than a weaker agreement with more members, as TiSA is likely to become the global norm if completed.

Just as current members of TiSA should not lower the level of ambition to finalize an agreement, nor should these countries lower the bar for other countries to join in the future. Any country that wishes to join TiSA in the future should be forced to make similarly ambitious commitments as a condition to start negotiations, especially in regards to e-commerce and data flows. In this regard, China would need to make a wide range of substantive changes to join TiSA as its current approach—best described as digital mercantilism—involves the widespread blocking of major foreign e-commerce websites (such as Google, Facebook, and Twitter), data localization policies, local content requirements, forced technology and intellectual property transfers, and other policies that contravene the basic goals for TiSA. It is no surprise that other countries that join China outside TiSA, such as India, Indonesia, and Russia, use similarly protectionist policies. But even these commitments, should they be made, should not be enough to allow some of these nations to join TiSA, for we have seen clearly how some, especially China, agree to trade commitments in order to get inside the tent of a deal, but completely fail to honor the agreement in practice.<sup>121</sup> If these countries are to be allowed to join an existing TiSA agreement they must offer a track record over a number of years of real change in real practices.

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## APPENDIX A: SERVICES IN THE UNITED STATES

The United States retains its position as the world's leader in the exports and imports of services. In contrast to the persistent U.S. deficit on trade in goods, which was \$741.5 billion in 2014, the United States recorded another year with a surplus in trade in services, which grew 4 percent to \$233 billion in 2014, after increasing 10 percent in 2013. The surplus was largest for charges for the use of intellectual property (\$88.2 billion) and in financial services (\$67.8 billion).<sup>122</sup> This reflects the basis of U.S. competitive advantage, especially when it comes to research and development-intensive activities.

Statistics on services delivered via the Internet are covered by the trade in computer services, information services, and the computer software component of charges for the use of intellectual property.<sup>123</sup> U.S. exports of telecommunications, computer and information services were \$35.8 billion in 2014, up 10 percent from 2012. From 2013, exports to Germany increased 11.1 percent to \$1.3 billion, while exports to Japan increased 4.8 percent to \$1.56 billion. Exports to countries outside the top five (United Kingdom, Brazil, Japan, Switzerland, and Germany), increased 3.1 percent, with particularly large increases to Canada, Singapore, and China. While the overall level of exports for the use of intellectual property increased in 2014, the export of computer software decreased 6.9 percent to \$39.5 billion in 2014, mostly reflecting a decrease in exports to Asia-Pacific markets. Exports of other business services, such as research and development services and professional and management consulting services, increased 6.3 percent to \$129.5 billion in 2014.<sup>124</sup> Within this category, exports of business and management consulting and public relations services increased 6.2 percent to \$39.1 billion, reflecting a large increase in exports to Europe.

Services supplied abroad through foreign affiliates of U.S. companies grew 3 percent to \$1,320 billion in 2013, after growing 2 percent in 2012. Besides Singapore, the top 10 countries where U.S. companies supply services through a foreign affiliate are all TiSA negotiating countries. As an example, service exports by U.S. companies through foreign affiliates in these leading markets include: \$190 billion to the United Kingdom; \$127 billion to Canada; \$86 billion to Ireland; \$71 billion to Japan; \$67 billion to Germany; \$64 billion to Switzerland; \$59 billion to Singapore; and \$52 billion to Australia. In terms of growth markets, services provided by U.S. affiliates in India grew 24.8 percent to \$21 billion. More than half of this increase was in professional, scientific and technical services, particularly computer systems design and related services. By sector, information services provided to foreign markets by the foreign affiliates of U.S. companies represented 13 percent of all such services. In 2013, these information services increased 4.6 percent to \$180 billion.<sup>125</sup>

The statistics also show the rise in global services trade and value chains for U.S. firms. A profile on U.S. service exporters in 2008 shows that manufacturing was among the largest of sectors that exported and imported services.<sup>126</sup> This trade largely consisted of transactions related to the use or creation of intellectual property, management and consulting services, research and development, and headquarters and support services.

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Firms in the chemicals manufacturing and transportation equipment manufacturing sectors together accounted for more than half of services exported by manufacturing firms. Also showing the value of the U.S.'s open services market, in 2008 U.S. parent companies contributed nearly \$21 of value added to the U.S. economy for every \$1 of international services imported.<sup>127</sup> Europe was the top market for U.S. parent company services exports, accounting for 53 percent of service exports in 2008. Of this, 59 percent was to foreign affiliates of these U.S. parent companies. The Asia-Pacific was the next largest market, accounting for 21 percent of total U.S. service exports by parent companies. The tendency to engage in services trade and the value of services traded by U.S. firms increased with firm size as measured by employment. Of the 535 small U.S. firms (those with up to 500 employees), about 20 percent exported services and 13 percent imported services. In contrast, of the 401 very large U.S. firms (those with more than 10,000 employees), 68 percent exported services and 57 percent imported services.<sup>128</sup>

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## APPENDIX B: SERVICE DELIVERY MODES

TiSA will likely use the traditional definitions of services (see below) used in trade negotiations. For each sector and subsector in their schedule of commitments (how countries table their commitments in negotiations), a country must specify the levels of market access and national treatment accorded under these four modes of supply. The definition of these modes is based on the territorial presence of the supplier and the consumer at the time of the services transaction.<sup>129</sup>

- Mode 1 – Cross-border supply: The service is supplied from one country to another. The supplier and consumer remain in their respective countries, while the service crosses the border. Market access for this mode is about allowing non-resident firms to sell cross-border services into another country.
- Mode 2 – Consumption abroad: The consumer physically travels to another country to obtain the service. Market access is about allowing residents of one country to purchase services in the territory of another country.
- Mode 3 – Commercial presence: The supply of a service by a firm in one country via a branch, agency, or wholly owned subsidiary located in another country. Market access is about allowing foreign service firms to establish, operate or expand a commercial presence in another country.
- Mode 4 – Temporary presence of natural persons: Individual suppliers travel temporarily to another country to supply services. Market access is about the possibilities offered for the entry and temporary stay, through immigration procedures, of foreign individuals in order to supply a service.

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## ENDNOTES

1. John Curtis, “Trade and Innovation: Policy Options for a New Innovation Landscape” (The E15 Initiative, Geneva, January 2016), <http://e15initiative.org/publications/trade-innovation-policy-options-new-innovation-landscape/>.
2. As explained by the World Bank: The internet offers many benefits to individuals that are not captured by gross domestic product (GDP) statistics. Countries compute GDP based on activities measured in monetary terms and exclude activities that do not generate monetary transactions. But many online activities generate substantial benefits for the individual, such as time saved, consumer convenience, expanded choice, better quality leisure time, and access to more knowledge. These benefits can be understood as the consumer surplus: the difference between the price individuals are willing to pay and the actual price for the product or service, which is often free on the internet. See: World Bank, *Digital Dividends*, (Washington, DC: World Bank, January, 2016), [http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2016/01/13/090224b08405ea05/2\\_0/Rendered/PDF/World0developm0000digital0dividends.pdf](http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2016/01/13/090224b08405ea05/2_0/Rendered/PDF/World0developm0000digital0dividends.pdf).
3. Organization for Economic Cooperation and Development (OECD), *OECD Digital Economy Outlook 2015*, (Paris: OECD, 2015), <http://dx.doi.org/10.1787/9789264232440-en>.
4. Hildegunn Kyvik Nordås, Massimo Geloso Grosso, Frédéric Gonzales, Iza Lejárraga, Sébastien Miroudot, Asako Ueno, and Dorothée Rouzet, *Services Trade Restrictiveness Index: Computer and Related Services* (Paris, OECD, November 2014), <http://www.oecd-ilibrary.org/docserver/download/5jxt4np1pjzt.pdf?expires=1463579518&id=id&accname=guest&checksum=FD6C39BA0CAE9D71ECAB7973DB2862FF>.
5. Hildegunn Kyvik Nordås, *Trade and Regulation: Computer Services and other Business Services* (Paris, OECD, June 2008), <https://www.oecd.org/site/tadstri/40822843.pdf>.
6. Ibid., 4
7. Susan Lund and James Manyika, “Globalization for the little guy” (McKinsey and Company, January 2016), [http://www.mckinsey.com/insights/globalization/globalization\\_for\\_the\\_little\\_guy](http://www.mckinsey.com/insights/globalization/globalization_for_the_little_guy).
8. Andrew Odlyzko, “Internet growth: Myth and reality, use and abuse.” *Journal of Computer Resource Management*, 102 (2001): 23-27 and “Visual Networking Index,” accessed February 25, 2016, [www.cisco.com/c/en/us/solutions/service-provider/visual-networking-index-vni/index.html](http://www.cisco.com/c/en/us/solutions/service-provider/visual-networking-index-vni/index.html).
9. Dennis Weller and Bill Woodcock, *Internet Traffic Exchange: Market Developments and Policy Challenges*, (Paris: OECD Digital Economy Papers, No. 207), <http://dx.doi.org/10.1787/5k918gpt130q-en>.
10. The first unbundling describes the reduction of transportation costs from the late 1800s, where consumption and production can be geographically separated. As per Baldwin, Richard. 2011. “Trade and Industrialization after Globalization’s Second Unbundling: How Building and Joining a Supply Chain Are Different and Why It Matters.” See: Richard Baldwin, “Trade and Industrialisation after globalization’s end unbundling: how building and joining a supply chain are different why it matters” (National Bureau of Economic Research Working Paper 17716, December 2011), [http://siteresources.worldbank.org/INTRANETTRADE/Resources/Baldwin\\_NBER\\_Working\\_Paper\\_17716.pdf](http://siteresources.worldbank.org/INTRANETTRADE/Resources/Baldwin_NBER_Working_Paper_17716.pdf).
11. OECD, WTO and World Bank Group, *Global Value Chains: Challenges, Opportunities, and Implications for Policy* (Sydney: OECD, WTO and World Bank Group, 2014), [http://www.oecd.org/tad/gvc\\_report\\_g20\\_july\\_2014.pdf](http://www.oecd.org/tad/gvc_report_g20_july_2014.pdf).
12. Patrick Low, “The role of services in global value chains”, in Deborah Elms and Patrick Low (eds.), *Global value chains in a changing world*, (Geneva: World Trade Organization, 2013).
13. Ibid., 11.
14. Ibid., 11.
15. Sweden’s National Board of Trade, *Trade Regulation in a 3D Printed World*, (Stockholm: Sweden’s National Board of Trade), <http://www.kommers.se/In-English/Publications/2016/Trade-Regulation-in-a-3D-Printed-World/>.



16. Jeffery School, Minsoo Lee, and Julia Muir, “Prospects for Services Trade Negotiations” (Peterson Institute for International Economics, 2012), <http://www.iie.com/publications/wp/wp12-17.pdf>.
17. Ibid. 11.
18. World Bank, *Digital Dividends*, (Washington, DC: World Bank, January, 2016), [http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2016/01/13/090224b08405ea05/2\\_0/Rendered/PDF/World0developm0000digital0dividends.pdf](http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2016/01/13/090224b08405ea05/2_0/Rendered/PDF/World0developm0000digital0dividends.pdf).
19. Rainer Lanz and Andreas Maurer, *Services and Global Value Chains – Some Evidence on Servicification of Manufacturing and Services Networks* (Washington, DC: World Bank, February 2015), [https://www.wto.org/english/res\\_e/reser\\_e/ersd201503\\_e.pdf](https://www.wto.org/english/res_e/reser_e/ersd201503_e.pdf).
20. Statistical agencies continue to struggle with the distinction of products into goods or services and how best to capture and classify each.
21. The OECD countries are Australia, Austria, Belgium, Brazil, Canada, Chile, China, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Russia, the Slovak Republic, Slovenia, South Africa, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States. Also, trends in the global trade of ICT-enabled services are difficult to identify as many countries do not compile statistics at the level of detail needed.
22. Ibid., 11.
23. “Trade in Services Agreement,” Office of the United States Trade Representative, accessed on November 10, 2015, <https://ustr.gov/TiSA>.
24. As defined by the U.S. Department of Commerce. These are the services for which digital technologies are thought to play an important role in facilitating trade, but there is no way to determine the portion of trade in these services that was actually delivered digitally. There are other types of services that could be traded digitally, such as education, but these are not included because digital delivery is not generally the primary mode of delivery for these services. See: Maria Borga and Jennifer Koncz-Bruner, *Trends in Digitally-Enabled Trade in Services* (Washington DC: U.S. Department of Commerce, Bureau of Economic Analysis, 2015), <http://www.bea.gov/international/pdf/Trends%20in%20Digitally%20Enabled%20Services.pdf>.
25. Ibid. 24.
26. Ibid., 3.
27. Ibid., 3.
28. “Citi CEO Michael Corbat’s Keynote at the Mobile World Congress,” Citigroup, accessed November 10, 2015, <http://www.citigroup.com/citi/news/executive/140225Ea.htm>.
29. OECD, *OECD Services Trade Restrictiveness Index Policy Brief* Paris: OECD, May 2014), <https://www.oecd.org/mcm/MCM-2014-STRI-Policy-Brief.pdf>.
30. Robert Atkinson, “Think Like An Enterprise: Why Nations Need Comprehensive Productivity Strategies” (The Information Technology and Innovation Foundation, May 2016), <https://itif.org/publications/2016/05/04/think-enterprise-why-nations-need-comprehensive-productivity-strategies>.
31. Bloom, Nicholas, Raffaella Sadun, and John Van Reenen. 2012. “Americans Do IT Better: US Multinationals and the Productivity Miracle.” *American Economic Review* 102 (1): 167–201.
32. Cardona, M., Tobias Kretschmer, and Thomas Strobel. 2013. “ICT and Productivity: Conclusions from the Empirical Literature.” *Information Economics and Policy* 25 (3): 109–25. This paper provides a survey of recent microeconomic studies estimating the relationship between the use of digital technologies and firm productivity growth.
33. See: Phillipe Aghion, Griffith Blundell, Peter Howitt, and S. Prantl, “The Effects of Entry on Incumbent Innovation and Productivity,” *Review of Economics and Statistics* 91 no. 1, (2009): 20–32; Phillipe Aghion, Robin Burgess, Stephen J. Redding, and Fabrizio Zilibotti. “Entry Liberalization and Inequality in Industrial Performance,” *Journal of the European Economic Association*, 3 (2/3) (2006): 291–302; Phillipe Aghion Christopher Harris, Peter Howitt, and John Vickers, “Competition, Imitation and

- Growth with Step-by-Step Innovation,” *Review of Economic Studies*, 68 (3) (2001): 467–92; and Paolo Buccirossi, Lorenzo Ciari, Tomaso Duso, Giancarlo Spagnolo, and Cristiana Vitale, “Competition Policy and Productivity Growth: An Empirical Assessment,” *Review of Economics and Statistics*, 95 (4) (2013): 1324–36.
34. OECD, “Entrepreneurship at a Glance” (table 2.2; accessed April 4, 2016), accessed March 8, 2016, [http://www.oecd-ilibrary.org/industry-and-services/entrepreneurship-at-a-glance-2013\\_entrepreneur\\_aag-2013-en](http://www.oecd-ilibrary.org/industry-and-services/entrepreneurship-at-a-glance-2013_entrepreneur_aag-2013-en).
  35. Countries not included are Denmark, Ireland, France, Sweden, Portugal, Romania, Hungary, Italy, Cyprus Eurostat. Structural Business Statistics (SMEs—annual enterprise statistics by size class), accessed March 7, 2016, <http://ec.europa.eu/eurostat/web/structural-business-statistics/structural-business-statistics/sme>
  36. U.S. International Trade Commission, *Digital Trade in the U.S. and Global Economies, Part 2* (Washington, DC: U.S. International Trade Commission, August 2014), <https://www.usitc.gov/publications/332/pub4485.pdf>.
  37. Sweden’s National Board of Trade, *Protectionism in the 21st Century*, (Stockholm: Sweden’s National Board of Trade, May 2016), [http://www.kommers.se/Documents/dokumentarkiv/publikationer/2016/Protectionism%20in%20the%2021st%20Century\\_webb.pdf](http://www.kommers.se/Documents/dokumentarkiv/publikationer/2016/Protectionism%20in%20the%2021st%20Century_webb.pdf).
  38. “Glossary of Statistical Terms,” OECD, accessed May 25, 2016, <https://stats.oecd.org/glossary/detail.asp?ID=3295>.
  39. *Ibid.*, 4.
  40. World Trade Organization, *Working Party on Domestic Regulation: Regulatory Issues in Sectors and Modes of Supply: Note by the Secretariat*, (Geneva: World Trade Organization, April 30, 2013), [https://docs.wto.org/dol2fe/Pages/FE\\_Search/DDFDocuments/116468/q/S/WPDR/W48A1.pdf](https://docs.wto.org/dol2fe/Pages/FE_Search/DDFDocuments/116468/q/S/WPDR/W48A1.pdf).
  41. World Trade Organization, *World Trade Report 2012: Trade and public policies: a closer look at non-tariff measures in the 21st century* (Geneva: World Trade Organization, 2012), [https://www.wto.org/english/res\\_e/booksp\\_e/anrep\\_e/world\\_trade\\_report12\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/anrep_e/world_trade_report12_e.pdf).
  42. Bernard Hoekman, A. Mattoo, and A. Sapir, “The political economy of services trade liberalization: a case for international regulatory cooperation?,” *Oxford Review of Economic Policy*, 23(3) (2007): 367-391.
  43. Jim Brusden and Duncan Robinson, “Banning Uber like trying to stop the printing press,” *The Financial Times*, November 4, 2015, <http://www.ft.com/intl/cms/s/0/65fb6b8c-8314-11e5-8095-ed1a37d1e096.html#axzz47i74MMEz> and Adam Thomson, “France’s high court upholds uberpop ban,” *The Financial Times*, <http://www.ft.com/intl/cms/s/0/a5685552-6157-11e5-a28b-50226830d644.html#axzz3qFu7jMhi>.
  44. Hugh Carnegy, “France Targets Amazon to Protect Bookshops,” *The Financial Times*, <http://www.ft.com/intl/cms/s/0/3c173108-2c3a-11e3-acf4-001444feab7de.html#axzz47ilO6FZV>.
  45. *Ibid.*, 15
  46. Saikat Chatterjee, “Wal-Mart May Open Hundreds of India Stores if Foreign Restrictions Lifted,” Bloomberg, July 22, 2010, <http://www.bloomberg.com/news/2010-07-22/wal-mart-s-indian-partnerbharti-plans-to-open-140-retail-stores-this-year.html>.
  47. U.S. India Business Council, “Letter to Shri Saurabh Chandra Re: Proposal for Liberalization of ECommerce.”
  48. GATS article VI:4.
  49. GATS Article III:3 states that “Each Member shall promptly and at least annually inform the Council for Trade in Services of the introduction of any new, or any changes to existing laws, regulations or administrative guidelines which significantly affect trade in services covered by its specific commitments under this Agreement.”
  50. *Ibid.*, 48.

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51. Martin Roy, *Charting the evolving landscape of services trade policies: recent patterns of protection and liberalization* (Geneva: World Trade Organization Staff Working paper ERSD-2015-08, 2015), [https://www.wto.org/english/res\\_e/reser\\_e/ersd201508\\_e.pdf](https://www.wto.org/english/res_e/reser_e/ersd201508_e.pdf).
  52. Rudolf Adlung, Peter Morrison, Martin Roy and Weiwei Zhang, 'Fog in GATS Commitments - Why WTO Members Should Care', *World Trade Review*, 2012, as referenced in Rudolf Adlung and Marta Soprana, *SMEs in Service Trade* (Geneva: World Trade Organization Staff Working paper ERSD-2012-09, 2012), [https://www.wto.org/english/res\\_e/reser\\_e/ersd201209\\_e.pdf](https://www.wto.org/english/res_e/reser_e/ersd201209_e.pdf).
  53. GATS Article III:4 and Article IV:2. GATS Article IV:2 - Developed country Members, and to the extent possible other Members, shall establish contact points within two years from the date of entry into force of the WTO Agreement to facilitate the access of developing country Members' service suppliers to information, related to their respective markets, concerning: commercial and technical aspects of the supply of services; registration, recognition and obtaining of professional qualifications; and the availability of services technology.
  54. Rudolf Adlung and Marta Soprana, *SMEs in Service Trade* (Geneva: World Trade Organization Staff Working paper ERSD-2012-09, 2012), [https://www.wto.org/english/res\\_e/reser\\_e/ersd201209\\_e.pdf](https://www.wto.org/english/res_e/reser_e/ersd201209_e.pdf) - Their report states that available evidence, though limited in scope, is not particularly encouraging on the usefulness of contact points. Furthermore, in the context of a research project on mutual recognition agreements under GATS Article VII, Marchetti and Mavroidis sought to obtain copies of such agreements from the contact points of 18 WTO Members. However, their repeated emails remained without reply in all cases. Juan Marchetti and Petros Mavroidis, 'I now recognize you (and only you) as equal: an anatomy of (mutual) recognition agreements in the GATS', in Lianos, Ioannis and Okeoghene Odudu (eds.), *Regulating Trade in Services in the EU and the WTO*, Cambridge University Press, 2012:428.
  55. The OECD's Services Trade Restrictiveness Index (STRI) started building a regulatory database of measures affecting trade in 18 service sectors in 40 countries, based off an initial assessment in 2013. These studies on the impact of services trade restrictiveness show the value in removing barriers and in improving regulatory transparency and coherence. The World Bank's Services Trade Restrictions Database measures the prevalence of regulatory impediments to international trade and foreign investment in services sectors for 2008 to 2011. It covers five major service sectors, along with 19 sub-sectors, in 103 countries.
  56. Hildegunn Kyvik Nordås and Dorothée Rouzet, *The Impact of Services Trade Restrictiveness on Trade Flows*, (Paris: OECD, February 2015)
  57. The authors of the Peterson Institute applied a tariff equivalent approach after considering the various methods that other authors had used for this task, which is difficult as the academic literature reported no agreed method for calculating the tariff equivalent of assorted regulatory impediments. See: Gary Clyde Hufbauer, J. Bradford Jensen, and Sherry Stephenson, "Framework for the International Services Agreement" (Peterson Institute for International Economics, April 2012), <http://www.iie.com/publications/pb/pb12-10.pdf>.
  58. Gary Clyde Hufbauer, J. Bradford Jensen, and Sherry Stephenson, "Framework for the International Services Agreement" (Peterson Institute for International Economics, April 2012), <http://www.iie.com/publications/pb/pb12-10.pdf>.
  59. Daniel Castro, "The False Promise of Data Nationalism" (Information Technology and Innovation Foundation, December 2013), <http://www2.itif.org/2013-false-promise-data-nationalism.pdf>.
  60. Ibid., 35
  61. Ibid., 35
  62. Ibid., 58
  63. Leviathan Security Group, "Quantifying the Cost of Forced Localization," accessed October 29, 2015, <https://static1.squarespace.com/static/556340e4b0869396f21099/t/559dad76e4b0899d97726a8b/1436396918881/Quantifying+the+Cost+of+Forced+Localization.pdf>.
  64. The Leviathan Security Group study focused on Amazon Web Services, DigitalOcean, Google Compute Engine, HP Helion Public Cloud, Linode, Microsoft Azure, and Rackspace Cloud Services. Each of these leading cloud service providers do not have any datacenters in Indonesia or Russia.

65. Stephen Ezell, Robert D. Atkinson and Michelle A. Wein, “Localization Barriers to Trade: Threat to the Global Innovation Economy” (Information Technology and Innovation Foundation, September 2013), <http://www2.itif.org/2013-localization-barriers-to-trade.pdf>.
66. Laurits Christensen, Andrea Colciago, Federico Etro, and Greg Rafert, “The Impact of the Data Protection Regulation in the EU” (Intertec Policy Paper, June 2013), <http://www.europeanfinancialreview.com/?p=1192>.
67. Ibid., 57 and European Commission, “Impact Assessment (SEC(2012) 72 final)” (Brussels: European Commission, January 1, 2012)
68. Ponemon Institute, “The True Cost of Compliance” (Ponemon Institute, January 2011), [http://www.ponemon.org/local/upload/file/True\\_Cost\\_of\\_Compliance\\_Report\\_copy.pdf](http://www.ponemon.org/local/upload/file/True_Cost_of_Compliance_Report_copy.pdf) and European Commission, “Impact Assessment (SEC(2012) 72 final)” (Brussels: European Commission, January 1, 2012), [http://ec.europa.eu/justice/data-protection/document/review2012/sec\\_2012\\_72\\_en.pdf](http://ec.europa.eu/justice/data-protection/document/review2012/sec_2012_72_en.pdf).
69. Sweden’s National Board of Trade, *No Transfer, No Trade* (Stockholm: Sweden’s National Board of Trade, January 2014).  
[http://www.kommers.se/Documents/dokumentarkiv/publikationer/2014/No\\_Transfer\\_No\\_Trade\\_webb.pdf](http://www.kommers.se/Documents/dokumentarkiv/publikationer/2014/No_Transfer_No_Trade_webb.pdf) and Stephen Ezell, Robert D. Atkinson and Michelle A. Wein, “Localization Barriers to Trade: Threat to the Global Innovation Economy” (Information Technology and Innovation Foundation, September 2013), <http://www2.itif.org/2013-localization-barriers-to-trade.pdf>.
70. European Commission, “Impact Assessment (SEC(2012) 72 final)” (Brussels: European Commission, January 1, 2012), [http://ec.europa.eu/justice/data-protection/document/review2012/sec\\_2012\\_72\\_en.pdf](http://ec.europa.eu/justice/data-protection/document/review2012/sec_2012_72_en.pdf) and David Jacobson, Hartmut Hirsch-Kreinsen, and Staffan Leastadius, “Low-tech Innovation in the Knowledge Economy” (Center for Innovation Research, September 29, 2003), <http://www.nifu.no/files/2012/11/STEPrapport2003-16.pdf>.  
Also: David Jacobson, Hartmut Hirsch-Kreinsen, and Staffan Leastadius, “Low-tech Innovation in the Knowledge Economy” (Center for Innovation Research, September 29, 2003), <http://www.nifu.no/files/2012/11/STEPrapport2003-16.pdf>.
71. Matthias Bauer, Martina Ferracane, and Erik can der Marel, “Tracing the Economic Impact of Regulations on the Free Flow of Data and Data Localization” (Chatham House and the Center for International Governance Innovation, May 2016), [https://www.cigionline.org/sites/default/files/gcig\\_no30web\\_2.pdf](https://www.cigionline.org/sites/default/files/gcig_no30web_2.pdf).
72. Matthias Bauer, Hosuk Lee-Makiyama, Erik can der Marel, and Bert Verschelde, “The Costs of Data Localization: Friendly Fire on Economic Recovery” (European Centre for International Political Economy, March 2014), [http://www.ecipe.org/media/publication\\_pdfs/OCC32014\\_\\_1.pdf](http://www.ecipe.org/media/publication_pdfs/OCC32014__1.pdf).
73. Ibid., 71
74. For the sake of simplicity, we refer to TiSA members as countries in the report instead of economies. The full list of economies participating in TiSA: Australia, Canada, Chile, Columbia, Costa Rica, the European Union, Hong Kong (China), Iceland, Israel, Japan, Leichtenstein, Mauritius, Mexico, New Zealand, Norway, Pakistan, Panama, Peru, the Republic of Korea, Switzerland, Chinese Taipei, Turkey, and the United States.
75. Bernard Hoekman, “Assessing the general agreement on trade in services,” *The Uruguay Round and the developing countries*, 996.1 (1996): 89-90.
76. Ibid., 74.
77. Joseph Francois and Bernard Hoekman, “Services trade and policy,” *Journal of Economic Literature* (2010): 678.
78. Ibid., 76 and Bernard Hoekman, “The general agreement on trade in services: Doomed to fail? Does it matter?,” *Journal of Industry, Competition and Trade*, 8.3-4 (2008): 295-318.
79. Ibid., 16.
80. WTO General Agreement on Trade in Services (GATS) Annex on Telecommunication, 1994 and WTO Negotiation Group on Basic Telecommunications, Reference Paper on April 24, 1996.

81. This moratorium is not permanent and needs renewal, which has happened six times since it was initially agreed in 1998. It was most recently extended at the Tenth WTO Ministerial Conference in Nairobi in December 2015. “Briefing note: electronic commerce,” World Trade Organization, last accessed February 25, 2015, [https://www.wto.org/english/thewto\\_e/minist\\_e/mc10\\_e/briefing\\_notes\\_e/brief\\_ecommerce\\_e.htm](https://www.wto.org/english/thewto_e/minist_e/mc10_e/briefing_notes_e/brief_ecommerce_e.htm).
82. “The Information Technology Agreement- An Explanation,” the World Trade Organization, accessed May 25, 2016, [https://www.wto.org/english/tratop\\_e/inftec\\_e/itaintro\\_e.htm](https://www.wto.org/english/tratop_e/inftec_e/itaintro_e.htm).
83. Bernard Hoekman, “The general agreement on trade in services: Doomed to fail? Does it matter?,” *Journal of Industry, Competition and Trade*, 8.3-4 (2008): 295-318.
84. Juan A. Marchetti and Martin Roy, *Opening Markets for Trade in Services: Countries and Sectors in Bilateral and WTO Negotiations*, eds. Juan A. Marchetti and Martin Roy. (Geneva: World Trade Organization, 2009), [https://www.wto.org/english/res\\_e/booksp\\_e/open\\_markets\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/open_markets_e.pdf).
85. A May 2008 report indicated that the main problem was the members’ level of ambition, their reluctance to bind existing and improved levels of market access and national treatment. Doha round negotiations didn’t make much progress as many developing countries insisted that countries make commitments on agriculture and non-agricultural market access (manufactures etc.) before seriously engaging in talks on services. Essentially, progress on services would only follow once developing countries had achieved their goals in other areas. *Ibid.*, 16.
86. *Ibid.*, 81.
87. TiSA is considered a plurilateral agreement that is being negotiated outside the formal framework of the WTO, although TiSA members are providing non-member countries regular updates at the WTO as a way to build transparency and understanding about the agreement.
88. “Guide to reading the GATS schedules of specific commitments and the list of article II (MFN) exemptions,” the World Trade Organization, accessed May 25, 2016, [https://www.wto.org/english/tratop\\_e/serv\\_e/guide1\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/guide1_e.htm).
89. The prominence of services in international investment has been growing. In the period 2001-2012, the share of services in global FDI increased by 5 percent (to 63 percent of total FDI), offset by a comparable decrease in manufacturing FDI. See: United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2015: Reforming International Investment Governance* (Geneva: UNCTAD, 2015), [http://unctad.org/en/PublicationsLibrary/wir2015\\_en.pdf](http://unctad.org/en/PublicationsLibrary/wir2015_en.pdf).
90. Market access and national treatment offers are closely linked and will be determined by each country’s individual proposal. Furthermore, the fact that national treatment is being undertaken on a negative list basis does not oblige members to make any commitments when it comes to market access. It comes down to ambition and individual country approaches.
91. Martin Roy, Juan Marchetti, and Hoe Lim, Services Liberalization in the New Generation of Preferential Trade Agreements: How much Further than the GATS? *World Trade Review* 6, no. 2 (2007):155–192.
92. “U.S. Files WTO Case Challenging EU Tariffs on Certain Technology Products,” Office of the United States Trade Representative, last accessed February 25, 2016, <https://ustr.gov/us-files-wto-case-challenging-eu-tariffs-certain-technology-products>; and Toby Vogel, “EU loses hi-tech case at WTO,” *Politico*, August 17, 2010, <http://www.politico.eu/article/eu-loses-hi-tech-case-at-wto/>.
93. “USTR Says It Will Seek To Cover New Services In Plurilateral Agreement,” *Inside U.S. Trade*, January 17, 2013, <http://insidetrade.com/inside-us-trade/ustr-says-it-will-seek-cover-new-services-plurilateral-agreement>.
94. “GATS Sector-by-sector information,” the World Trade Organization, accessed May 25, 2016, [https://www.wto.org/english/tratop\\_e/serv\\_e/serv\\_sectors\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/serv_sectors_e.htm).
95. Daniela Benavente, “Measurement of Trade and Innovation: Issues and Challenges,” (E15 Initiative, July 2014), [http://www.ictsd.org/sites/default/files/research/E15\\_Innovation\\_Benavente\\_FINAL.pdf](http://www.ictsd.org/sites/default/files/research/E15_Innovation_Benavente_FINAL.pdf).
96. Renee Berry and Matthew Reisman, *Policy Challenges of Cross-Border Cloud Computing* (Washington, DC: U.S. International Trade Commission, May 2012), [https://www.usitc.gov/journals/policy\\_challenges\\_of\\_cross-border\\_cloud\\_computing.pdf](https://www.usitc.gov/journals/policy_challenges_of_cross-border_cloud_computing.pdf).

97. World Trade Organization, *Joint Statement on Understanding on the scope of coverage of CPC 84 – Computer and Related Services* (Geneva: World Trade Organization, January 2007), [http://trade.ec.europa.eu/doclib/docs/2008/september/tradoc\\_140348.pdf](http://trade.ec.europa.eu/doclib/docs/2008/september/tradoc_140348.pdf) and World Trade Organization, *Note S/CSC/M72 by the Secretariat-Report on the Meeting Held on 18 March 2015*, (Geneva: World Trade Organization, April 2, 2015).
98. Vietnam’s GATS accession schedule included commitments on “Internet Access Services” (defined as providing Internet access to end users) and cross-border “distribution of legitimate computer software for personal and commercial use.”
99. Sacha Wunsch-Vincent, “The Internet, cross-border trade in services, and the GATS: lessons from US-Gambling,” *World Trade Review*, 5:3 (2006): 319-355, <http://www.iie.com/publications/papers/wunsch1205.pdf>.
100. “Old Fault Lines Re-Emerge Ahead of TISA Deadline for Revised Offers,” *Inside U.S. Trade*, April 22, 2016, <http://insidetrade.com/daily-news/old-fault-lines-re-emerge-ahead-tisa-deadline-revised-offers>; “TISA Officials See Hurdles Ahead In Push To Conclude Deal This Year,” *Inside U.S. Trade*, January 28, 2016, <http://insidetrade.com/inside-us-trade/tisa-officials-see-hurdles-ahead-push-conclude-deal-year>.
101. “TISA Talks To Throw Spotlight On U.S. Delivery, E-Commerce Proposals,” *Inside U.S. Trade*, April 25, 2014, <http://insidetrade.com/inside-us-trade/tisa-talks-throw-spotlight-us-delivery-e-commerce-proposals>.
102. Geoblocking is the business practice of offering digital products sold online at different prices in different markets. It is called geoblocking as it involves blocking access to certain sales from certain places. Its practice often benefits consumers by increasing total supply, lowering prices to at least some customers, and encourages a competitive market in which consumers are offered an increasing range of products.
103. *International Data Flows: Promoting Digital Trade in the 21st Century, before the House Committee on the Judiciary, Subcommittee on Courts, Intellectual Property, and the Internet*, (November 3, 2015) (statement by Peter Allgeier, President, Coalition of Services Industries), [http://judiciary.house.gov/\\_cache/files/f1d90434-8049-4b63-8846-b5e394de9663/11.03.15-allgeier-testimony.pdf](http://judiciary.house.gov/_cache/files/f1d90434-8049-4b63-8846-b5e394de9663/11.03.15-allgeier-testimony.pdf).
104. *Ibid.*, 80
105. Amy Porges and Alice Enders, “Data Moving Across Borders the Future of Trade” (E15 Initiative: Geneva, April 2016), <http://e15initiative.org/publications/data-moving-across-borders-the-future-of-digital-trade-policy/>.
106. “Uruguay Round Agreement, General Agreement on Trade in Services,” World Trade Organization, accessed May 25, 2016, [https://www.wto.org/english/docs\\_e/legal\\_e/26-gats\\_01\\_e.htm](https://www.wto.org/english/docs_e/legal_e/26-gats_01_e.htm).
107. Anupam Chander and Usman Ahmed, “Information Goes Global: Protecting Privacy, Security and the New Economy in a World of Cross-border Data Flows” (E15 Initiative: Geneva, November 2015), <http://e15initiative.org/publications/information-goes-global-protecting-privacy-security-and-the-new-economy-in-a-world-of-cross-border-data-flows/>.
108. World Trade Organization, *World Trade Report 2012: Trade and public policies: a closer look at non-tariff measures in the 21st century* (Geneva: World Trade Organization, 2012), [https://www.wto.org/english/res\\_e/booksp\\_e/anrep\\_e/world\\_trade\\_report12\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/anrep_e/world_trade_report12_e.pdf).
109. Organization for Economic Cooperation and Development (OECD), *Interconnected Economies: Benefiting from Global Value Chains*, (Paris: OECD, 2013), [http://www.oecd-ilibrary.org/science-and-technology/interconnected-economies\\_9789264189560-en](http://www.oecd-ilibrary.org/science-and-technology/interconnected-economies_9789264189560-en).
110. The United States Government and European Commission, “Statement of the European Union and the United States on Shared Principles for International Investment,” joint press release, April 10, 2012, [http://trade.ec.europa.eu/doclib/docs/2012/april/tradoc\\_149331.pdf](http://trade.ec.europa.eu/doclib/docs/2012/april/tradoc_149331.pdf).
111. OECD, *OECD Guiding Principles for Regulatory Quality and Performance* (Paris: OECD, April 2005), <https://www.oecd.org/fr/reformereg/34976533.pdf>.
112. “U.S. Official Says New TTIP Text Includes Transatlantic Regulator Dialogue,” *Inside U.S. Trade*, February 26, 2016, <http://insidetrade.com/daily-news/us-official-says-new-ttip-text-includes->

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transatlantic-regulator-dialogue and <https://medium.com/the-trans-pacific-partnership/regulatory-coherence-6672076f307a#.584ifctir>.

113. G. Swann, *International Standards and Trade: A Review of the Empirical Literature*, (Paris: OECD Trade Policy Papers, No. 97, OECD Publishing, 2010), and A. Portugal-Perez, J.-D. Reyes, and J.S. Wilson, “Beyond the Information Technology Agreement: Harmonization of Standards and Trade in Electronics”, *The World Economy*, Vol. 33, Issue 12, 2010.
114. Martin Roy, Juan Marchetti, and Hoe Lim, *Services Liberalization in the New Generation of Preferential Trade Agreements (PTAs): How Much Further than the GATS?* (Geneva: World Trade Organization, Working Paper ERSD-2006-07, 2007).
115. “USTR Says It Will Seek To Cover New Services In Plurilateral Agreement,” *Inside U.S. Trade*, January 17, 2013, <http://insidetrade.com/inside-us-trade/ustr-says-it-will-seek-cover-new-services-plurilateral-agreement>.
116. Olivier Cadot, Mariem Malouche, and Sebastian Saez, *Streamlining Non-Tariff Measures: A Toolkit for Policy Makers* (Geneva: World Bank, 2012), <https://openknowledge.worldbank.org/bitstream/handle/10986/6019/683590PUB0EPI007902B009780821395103.pdf?sequence=1>.
117. “Official: EU Seeks More Ambitious Outcome On Services in TTIP Than TISA,” *Inside U.S. Trade*, November 5, 2013, <http://insidetrade.com/daily-news/official-eu-seeks-more-ambitious-outcome-services-ttip-tisa>.
118. Adam Behsudi, “The leaning tower of TISA,” *Politico*, May 27, 2016, <http://www.politico.com/tipsheets/morning-trade/2016/05/the-leaning-tower-of-tisa-treasury-pushed-out-at-1-yard-line-itc-steels-itself-for-big-decision-214531>.
119. “Official: EU Seeks More Ambitious Outcome On Services in TTIP Than TISA,” *Inside U.S. Trade*, November 5, 2013, <http://insidetrade.com/daily-news/official-eu-seeks-more-ambitious-outcome-services-ttip-tisa> and “TiSA talks: Open up new markets for EU firms but protect consumers and public services,” *eureporter*, January 19, 2016, <https://www.eureporter.co/economy/2016/01/19/tisa-talks-open-up-new-markets-for-eu-firms-but-protect-consumers-and-public-services/>.
120. “TiSA Officials See Hurdles Ahead In Push To Conclude Deal This Year,” *Inside U.S. Trade*, January 28, 2016, <http://insidetrade.com/inside-us-trade/tisa-officials-see-hurdles-ahead-push-conclude-deal-year>.
121. Stephen Ezell and Robert Atkinson, “False Promises: The Yawning Gap Between China’s WTO Commitments and Practices” (The Information Technology and Innovation Foundation), <http://www2.itif.org/2015-false-promises-china.pdf>.
122. Alexis Grimm and Charu Krishnan, *U.S. International Services, Trade in Services in 2014 and Services Supplied Through Affiliates in 2013* (Washington, DC: U.S. Department of Commerce, Bureau of Economic Analysis, October 2015), [http://www.bea.gov/scb/pdf/2015/10%20October/1015\\_international\\_services.pdf](http://www.bea.gov/scb/pdf/2015/10%20October/1015_international_services.pdf).
123. As defined by the U.S. Department of Commerce’s Bureau of Economic Analysis. Telecommunications services includes the broadcast or transmission of sound, images, data, or other information by electronic means. Computer services includes hardware- and software-related services and data processing services, such as software downloaded from the Internet, fees and subscriptions for online gaming, and licensing agreements and end-user fees associated with downloading applications. Information services includes news agency services, data-base services, and Web search portals.
124. Other business services is a category that includes research and development services, professional and management consulting services, and technical, trade-related, and other business services. Professional and management consulting services include legal services, accounting, management consulting, managerial services, public relations services, advertising, and market research.
125. Ibid.120.
126. While the U.S. Department of Commerce’s profile in U.S. service firms is from 2012, the underlying data is from an innovative survey of international services and multinational corporations conducted in 2008. This was the first time the Bureau of Economic Analysis had conducted this type of statistical collection.

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127. Kevin Barefoot and Jennifer Koncz-Bruner, *A Profile of U.S. Exporters and Importers of Services, Evidence From New Linked Data on International Trade in Services and Operations of Multinational Companies* (Washington, DC: U.S. Department of Commerce, Bureau of Economic Analysis, June 2012), [http://www.bea.gov/scb/pdf/2012/06%20June/0612\\_MNC.pdf](http://www.bea.gov/scb/pdf/2012/06%20June/0612_MNC.pdf).
  128. Ibid. 125.
  129. “GATS Training Module: Basic Purpose and Concepts,” World Trade Organization, accessed February 25, 2016, [https://www.wto.org/english/tratop\\_e/serv\\_e/cbt\\_course\\_e/c1s3p1\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/cbt_course_e/c1s3p1_e.htm).



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