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SUPPORTING THE INTERNET AS A PLATFORM FOR INTERNATIONAL TRADE

OPPORTUNITIES FOR SMALL AND MEDIUM-SIZED ENTERPRISES AND DEVELOPING COUNTRIES

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Global Economy
and Development
at BROOKINGS

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EXECUTIVE SUMMARY

This paper is about the potential of the Internet as a platform for international trade. A traditional understanding of the impact of the Internet on commerce is derived from the dot.com experience of the 1990s, where Internet companies such as Pets.com and Amazon sold goods online. Since then, the impact of the Internet on commerce has grown and changed. Certainly, the ability to sell goods online remains important. However, the key development is that the Internet is no longer only a digital storefront. Instead, the Internet as described in this working paper is a platform for businesses to sell to customers domestically and overseas, and is a business input that increases productivity and the ability of businesses to compete. Understanding the Internet as a platform for trade highlights its broad economic potential. It emphasizes how the commercial opportunities are no longer limited to Internet companies, but are now available for businesses in all sectors of the economy, from manufacturing to services. Moreover, the global nature of the Internet means that these opportunities are no longer limited to domestic markets, but are embraced wherever Internet access is available.

Significantly, the Internet is creating new opportunities for small and medium-sized enterprises (SMEs) and for businesses in developing countries to engage in international trade and become part of the global economy. By providing opportunities to access business inputs such as cheaper telecommunications, strategic information on overseas markets, legal and consulting services, and cloud computing, SMEs and developing country firms are now more than ever able to become globally competitive. With a website, these firms can now engage internationally, reaching customers and communicating with suppliers all across the world.

It is this potential that the Internet holds for SMEs and developing country firms that is most important. However, changing the locus of opportunity that the Internet provides from being mainly limited to big U.S. companies to include firms of all sizes, across all economic sectors, and in all countries is what is critically needed.

At the same time, there are a range of restrictions that are hindering the Internet's ability from fully serving as a platform for international trade. These barriers stretch across the entire Internet-enabled commerce chain. They include limits on Internet access, particularly in developing countries, where digital access is 30 percent compared with approximately 80 percent in the developed world. Barriers to cross-border data flows are critical to the operation of the Internet as a platform for international trade, whether this is downloading music or movies, accessing services online, or enabling businesses to use data internally to manage global production networks, conduct analytics or perform secure international payments. Market access restrictions on selling goods and services online and delivering goods purchased online are traditional trade barriers and the rising costs of these barriers hinder new opportunities for SMEs and developing country firms in particular. Risks to consumers from using the Internet also act as trade barriers. These consumer risks include different consumer protection laws across jurisdictions and a lack of cost effective and timely dispute settlement options. Finally, access to least cost transportation services is especially important as the type of international trade being enabled by the Internet is increasingly in low value, high volume products. This makes low cost and timely delivery of goods a key ingredient for Internet-enabled international trade.

This paper also proposes how international trade laws and policies can be reformed to respond to these

barriers. Despite the difficulties in concluding the World Trade Organization Doha Round, the WTO remains a place where some progress on trade and Internet issues can be made. For instance, at the 2013 Bali ministerial meeting, WTO member countries agreed to further the work program on the interaction between e-commerce and trade. This is an important opportunity to clarify how the Internet can benefit the entire WTO membership. WTO members also concluded a trade facilitation agreement at this meeting, which should reduce some of the costs of moving goods across borders and help Internet-enabled trade once the agreement is implemented. Existing WTO rules can address some of the market access barriers to digital trade and this paper analyzes how these rules should be reformed and updated. Finally, updating the WTO Information Technology Agreement would also reduce the costs of developing Internet networks and the devices used to access the Internet.

At the same time, new rules are needed to respond to the new international trade opportunities created by the Internet. Here the focus should be on getting the rules right in the large trade negotiations that are currently underway, in particular, the Trans Pacific Partnership, the Transatlantic Trade and Investment Partnership, and the Trade in Services Agreement. This includes rules that promote competition in the telecommunications sector to reduce the costs of Internet access, developing an intellectual property framework that offers a balance between the enforcement of IP rights and appropriate limitations and exceptions for Internet service providers, rules that facilitate international payment options, and a dispute settlement system that responds to the needs of SMEs engaging in international trade in low value goods. Lastly, while progress on trade facilitation moved forward in the WTO, further trade liberalization and reform of the transportation sector would deliver important gains, and should incorporate agreement on *de minimis* levels and provide a level playing field when competing with monopolist postal operators.

The following table provides an overview of the key barriers and recommendations in this paper.

Summary of Trade Barriers and Key Recommendations

Barriers to Internet-Enabled Trade	Proposed Trade Policy Reform
Limited Internet Access	• Increase competition in the telecommunications market • Eliminate barriers to trade in IT • Ensure interoperability of IT devices and content
Barriers to Cross-Border Data Flows	• Agree to allow cross-border data flows
Market Access Restrictions	• Eliminate barriers to trade in goods and services • Update classification of services in GATS schedules • Define digital products • Clarify which GATS mode applies to Internet trade • Use a negative list for scheduling services commitments
Lack of a Balanced IP Framework	• Improve enforcement of IP rights • Get the balance right between enforcing IP rights and the appropriate limitations and exceptions
Different Consumer Protection Laws across Jurisdictions	• Mutual recognition of domestic laws governing the formation of online contracts • Improve international cooperation to enforce consumer protection laws
Inadequate Dispute Settlement Options	• Develop dispute settlement procedures for disputes arising for Internet-enabled international trade
Access to International Payment Systems	• Remove restrictions on cross-border financial flows • Allow for the free flow of data and information across borders • Increase competition in the banking sector • Address concerns about data privacy • Increase transparency to reduce fraud
Trade Logistics	• Reform customs procedures • New commitment on de minimis levels • Increase interoperability among transportation networks and postal services • Ensure a level playing field for competitive delivery services
Lack of Trust in Online Vendors	• Mutual recognition of trust marks

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INTRODUCTION

Over 2.3 billion people have access to the Internet and this figure is expected to grow to 5 billion by 2020.[1] The growing global reach of the Internet provides new opportunities for businesses and consumers to engage in international trade.[2] The Internet has created new business models that bring users and information together and it has underpinned the development of some of the world's most innovative companies that are providing goods and services to consumers in entirely new ways. Social networking sites such as Facebook and Twitter host user-generated content and promote social and commercial connections. Companies like Amazon, Apple, and eBay have successfully used the Internet to generate commerce and mobile application platforms that connect buyers and sellers across the United States and around the world. In addition to being businesses of their own, these companies are creating new platforms for businesses in other sectors of the economy. As a result, the health care, education, manufacturing and financial services sectors are all using the Internet to reduce costs, to deliver products and services more efficiently and effectively, and to create new business opportunities.

The Internet also serves as a key driver of innovation and productivity growth because it reduces transaction costs and enables businesses to better utilize existing resources. Individuals can also acquire new skills via the Internet, thus improving human capital. This in turn is increasing the competitiveness of businesses and helping them compete in overseas markets. The economic benefits of the Internet are not limited to large multinational corporations with the resources and knowhow to penetrate markets overseas. Indeed, small and medium-sized enterprises (SMEs) are also using the Internet to take part in international trade. The Internet is providing access to essential inputs at lower costs, thereby enhancing the ability of SMEs to compete globally. At the same time, the Internet is helping firms in developing countries overcome traditional trade barriers such as tariffs and inefficient customs procedures to reach new customers in industrialized markets by selling services online. For example, in 1995, American IT services imports from India accounted for just 1 percent of bilateral services imports to the United States. By 2012, this figure increased to 35 percent.[3] For developing countries, this is significant because SMEs are typically the main source of employment as exemplified in African countries where SMEs employ about 50 percent of the population.[4]

While the Internet provides major opportunities for SMEs and developing country firms to engage in global trade, there are still many barriers preventing these opportunities from being fully realized. One such barrier is poor access or no access to broadband Internet services. There also continue to be traditional trade barriers that are limiting the growth of technology-enabled commerce .

This paper will demonstrate how the Internet can help grow economies and provide opportunities for developing countries and SMEs to engage in international business and trade. The paper will describe the existing barriers to Internet-enabled international commerce and propose new trade policies and laws that can help enhance the Internet's role as a driver of global trade.

A SMARTER INTERNET

The Evolution of Web 2.0

The importance of the Internet for economic growth and international trade needs to be understood in light of more recent developments that emphasize and build on the Internet's openness, capacity for collaboration and increasing intelligence. These developments are often referred to as Web 2.0, which refers to an Internet based on open innovation, collaboration, networking, and creative use of existing technologies to develop new offerings.[5] Under Web 2.0, the Internet has become a platform that enables a whole new range of economic activity that includes big data, social networking and cloud computing.

Much of this is also being made possible by the growing participation and contribution by users and consumers, which underscore the idea that the intelligence of the Internet resides in the edges. Web 2.0 is about harnessing the collective intelligence generated by Internet users and includes trusting and taking advantage of users as co-developers.[6] Take the example of Wikipedia, an open-source encyclopedia contributed to and edited by its users.

Another essential dimension of Web 2.0 is the importance of big data, and its analysis and management. This is becoming increasingly important as the data collected from social networks, searches, individual websites and mobile applications allow companies and entrepreneurs to categorize, analyze and extract information about consumers and potential customers. For example, Amazon collects data from its customers and then refines, annotates and categorizes the data in ways that build and enhance the commerce experience for its customers.

HOW THE INTERNET DRIVES ECONOMIC GROWTH AND INTERNATIONAL TRADE

The Internet has a direct impact on economic growth and international trade, but unfortunately there is limited data available. In part, this reflects the wide-ranging effects of the Internet on growth and trade, which makes quantifying its total impact rather difficult.[7] In addition, there are limits with the available data. For instance, the data on international services trade does not reveal whether the service was delivered online or through traditional platforms. The U.S. International Trade Commission is looking to quantify the economic effects of digital trade on specific sectors of the U.S. economy and the U.S. economy in general, including how it impacts consumer welfare. This will include a discussion of how to quantify the impacts of trade barriers in digital goods and services. So far, however, available statistics only provide information on e-commerce transactions and on broad categories of international services trade identified as digitally enabled.[8]

There have been some attempts to quantify the Internet's impact on growth and international trade using economic models. For example, a study of OECD countries from 1996-2007 finds that a 10 percentage point increase in broadband penetration (during the first decade of broadband diffusion) raised annual per capita growth by 0.9-1.5 percent.[9] A study using more recent data from 1996-2011 finds similar results: a 10 percent increase in broadband penetration is correlated with a 1.35 percent increase in GDP for developing countries and a 1.19 percent increase for developed countries.[10] This is consistent with World Bank research which also finds the impact on GDP is higher for developing countries. The World Bank study finds that a 10 percent increase in broadband penetration resulted in a 1.38 percent increase in growth in developing countries and a 1.21 percent increase in growth in developed countries.[11] According to the McKinsey Global Institute, from 2004-2009, the Internet contributed up to 21 percent in GDP growth in the developed world and 11 percent in the BRIC countries (Brazil, Russia, India, China).[12] A Boston Consulting Group (BCG) report expects Internet economies in the developed world to grow at 8 percent annually over the next five years.[13]

The Internet's impact on economic growth as described above reflects the role that it has in productivity growth. The productivity of an economy refers to how much of a given input is required to produce a given output. Therefore, the ability to increase productivity is key to driving economic growth.[14]

The Internet can increase productivity growth in a number of ways. For one, it can improve the efficiency of business processes, allowing for more effective management of production across business units. For example, by using the Internet, firms can often communicate with suppliers and with local and international customers at much lower costs.[15] The Internet also enables cloud computing, which can help reduce IT infrastructure costs and improve supply chain management since all parts of the production chain are able to be accessed and updated in real time and production schedules can be tweaked in response to location specific challenges.[16] Cloud computing also reduces the costs of services, such as software updates and assistance. It can also be used to strengthen internal networks and external communications with suppliers and customers. Other Internet-enabled tools such as social networking help businesses respond to consumer needs and gather data that can be used to more accurately respond to new market trends, achieving a more efficient and functioning market and improving resource allocation.

Second, the Internet can also be a basis for innovation in the processes of doing business, which is another source of productivity growth. The Internet has helped create more efficient and cost effective ways to deliver goods and services to customers. This includes transportation management systems that connect supply chains with logistics networks, and track and trace the movement of goods from suppliers to customers in real time.

Third, there is significant potential for productivity growth in the services sector as a result of increased Internet utilization. In the United States, digital inputs in many services-based industries remain low, suggesting that there is scope for growth. Specifically, in the U.S. banking, retail and insurance sectors, digital inputs represent only a small percentage—in the range of 3 to 5 percent—of total intermediate inputs.[17] The Internet has created the potential for a growing range of services—such as legal, accounting and engineering—to be traded, thereby exposing these sectors to international competition, which should lead to productivity growth.[18] However, trade barriers in these services need to be removed in order to fully realize the potential here.

Fourth, consumers can greatly benefit from the Internet. According to a study by the Boston Consulting Group, the consumer surplus from the Internet—the amount of value that consumers believe they receive over and above the costs of the Internet (such as purchasing a computer and Internet access)— averages $1,430 per person across the G-20 countries.[19] For consumers, the Internet provides an opportunity to learn about goods and services being sold domestically as well as overseas, to compare price and quality, and to purchase goods or services online.

Finally, the Internet can also benefit employment. Research shows that for every job destroyed by the Internet, it creates 2.6 jobs.[20] Indeed, the Internet has a critical role in improving the labor market by streamlining job search capabilities to more effectively match employers and employees. This is certainly the case in developed countries where most job searches and recruitments have moved online. Even in developing countries, employment growth from the Internet has been positive and is being driven by the proliferation of mobile phones.

The Impact of the Internet on Small and Medium-Sized Enterprises

Industries and companies are becoming more digitally oriented in ways that are having significant impacts on small and medium-sized enterprises around the world.[21] This is important because SMEs are the main drivers of employment and job creation, especially in developing countries. According to a recent World Bank study conducted across 99 countries, SMEs are the biggest contributors to employment, on average being responsible for over 66 percent of permanent full-time employment and 86 percent of new jobs created.[22]

In fact, SMEs that use the Internet at high levels have revenue growth of up to 22 percent higher than those that do not or only use the Internet at low levels.[23] These so-called "high-Web" SMEs also tend to create more jobs than those companies that do not use the Internet at all. A survey of 4,800 SMEs in 12 countries finds that SMEs utilizing the Internet for business functions grew at twice the rate of those that did not.[24] Significantly, these findings are true not only for SMEs in the IT sector but also for SMEs across several different sectors, including retail and manufacturing. And in cases where the Internet supports business

innovation, the associated job creation tends to be inclusive in that it leads to greater employment gains among businesses with larger proportions of low-skilled workers.[25]

SMEs that can adapt to this new digital environment are better able to create new business and trade opportunities. For example, many SMEs are now utilizing crowdfunding—the collective effort of individuals and groups to raise money via the Internet to support new ventures or initiatives. For many SMEs, crowdfunding has become an easy way to raise critical seed money at the early development stages of starting a business or creating a concept, when access to traditional sources of capital is often difficult to secure.[26] In addition, more and more businesses are using websites and mobile applications to interact with customers and sell goods and services online.

Having a website plus the use of trusted online services gives SMEs an instant international presence and provides firms with legitimacy in the eyes of potential customers and suppliers.[27] It also gives SMEs access to a consumer base that was once limited to large global companies.

The Internet also provides businesses with access to those inputs that are needed to become internationally competitive and to engage in international trade. This includes using the Internet to advertise globally, access best-practice services, and communicate with overseas customers and suppliers. As a business input, cloud computing enables SMEs to compete in overseas markets because it gives SMEs access to IT services with little upfront investment and allows them to quickly scale up their IT use in response to changes in demand. As a result, cloud computing helps level the playing field for SMEs by helping them to compete both domestically and in overseas markets.[28]

The Internet also provides SMEs access to critical knowledge and information that can help them expand their business globally. The difficulty and costs of gathering information on foreign markets has been a major barrier inhibiting SMEs from engaging in international trade.[29] In fact, the ability of firms to use the Internet to gain knowledge and information may be one of the most important elements in determining whether SMEs are able to fully take part in global trade.[30] In many respects, the Internet now gives small firms access to the type of information that previously was limited to big multinational corporations.[31]

The Internet also gives SMEs the ability to deliver services online, avoiding the need to establish a physical presence in the country of export, something that requires considerable capital and is often not an option for SMEs. The Internet is also helping services such as business processing to be traded like goods, and disaggregated and developed along a global supply chain.[32] This allows SMEs to specialize in specific tasks and services, and use the Internet to deliver these services to a particular part of the global value chain. Take the example of telemedicine, where health care professionals can engage in mode 1 form of the health care services trade by providing diagnostic or remote monitoring. For instance, NightHawk Radiology Services, which is located in the U.S., relies on broadband technology to employ radiologists in India and Australia to provide immediate diagnostic interpretation of CT images taken in American hospitals.[33] The growth potential is significant for the health care services industry in developing countries where improved Internet access and utilization could help entrepreneurs and SMEs capitalize on such opportunities.[34]

The employment impacts are also even greater when the Internet can be leveraged for international trade.

In fact, SMEs that export earn almost four times the revenues of non-exporting SMEs, have higher productivity and pay higher wages.[35] Thus, the potential for leveraging the Internet for SME growth and to create jobs is substantial.

The Impact of the Internet on Developing Countries

Since the early 1980s, organizations such as the International Telecommunication Union (ITU) and the Organization for Economic Cooperation and Development (OECD) have been analyzing the link between access to telecommunications and economic development. In the so-called 1985 Maitland Report, much of the research on telecommunications and economic growth was drawn together to highlight the importance of developing robust telecommunications infrastructure and promoting access to telecommunications services for economic development.[36] As the report notes, "Since telecommunications enables information to be made instantly available at a multitude of points on the other side of the globe—or just over the next hill—its relevance to human activity in various forms and to the prospects for human progress is obvious."[37]

Today, connectivity remains key to bringing the developing world into the global economy. But now it is the Internet that is the crucial platform—at times provided over traditional telecommunication networks, but increasingly in developing countries over mobile devices using wireless networks. And the impact of the Internet on growth in developing countries is already evident.[38]

Growth in the use of mobile phones with access to the Internet has already generated employment in many developing regions. This includes jobs from mobile networks and telecommunications operators. More significant is the growth in jobs from satisfying demand for services delivered over mobiles.[39] In India alone it is estimated that growth in mobile use has created 7 million jobs.[40] This includes the development of apps for smart phones that provide access to financial services, health care information, and data about the latest agricultural prices. The development of mobile apps has low barriers to entry, requiring only an Internet connection and can be done remotely for consumption in developed and developing countries, highlighting the importance of the services trade as a key component of Internet-enabled international trade and economic growth.[41]

Employment opportunities from Internet-enabled trade is not only isolated to work in highly-skilled labor but also in so-called microwork—small digital tasks such as transcription or determining whether two photos show the same building—which is relatively low-skilled work that cannot be easily automated.[42] In fact, microwork accounts for over 100,000 jobs and more than $3 billion per year in economic value with substantial growth potential.[43]

Internet access thus creates benefits, new business, and trade opportunities for companies in developing countries. By providing access to crucial business inputs, such as capital, legal, financial and accounting services, these developing country firms are able to better compete globally; and similar to SMEs, the Internet helps developing country firms sell goods and services to consumers overseas by bypassing traditional trade barriers, such as inefficient customs procedures and poor transportation infrastructure.[44]

Again similar to SMES, a lack of information about overseas markets and what needs to be done in order to successfully do business in these markets is a major

barrier for developing country firms trying to expand overseas. These firms often have limited budgets and capabilities to gather market information and analysis. In these cases, the Internet can serve as a tool for conducting market research, strategic analytics, and putting developing country businesses in touch with customers globally.[45] Access to technical expertise and information can help improve the agricultural sector, which employs about 40 percent of the workforce in many developing countries.[46] For example, Coopeumo is a Chilean farming cooperative that provides farmers with information on market prices for crops and weather patterns through their Internet-enabled mobile phones. The potential here is huge given that timely information regarding crop prices can increase a farmer's income by up to 24 percent.[47]

The Internet can also be a source of finance, helping overcome the limited financing options from domestic capital markets. M-Pesa, for example, is a financial service provider in Kenya that helps customers access financial services using mobile devices.[48] As with SMEs, developing country firms face similar problems in accessing seed money and capital for startup ventures, and here the Internet can help solve this problem through crowdfunding. In fact, crowdfunding platforms already exist in emerging markets such as Brazil and Colombia, and countries in sub-Saharan Africa.[49] There is a lot of potential for crowdfunding to support untapped entrepreneurial talent in developing regions. According to the World Bank, developing country businesses could use crowdfunding to mobilize up to $96 billion by 2025.[50] Expanding crowdfunding platforms in the developing world will require an enabling regulatory environment that promotes further Internet access and penetration. Internet access is important here not only as a way of accessing crowdfunding sites but also as a means of social networking, which in the crowdfunding space is critical for developing trust, awareness and outreach.[51] Governments in developing countries are also using the Internet to improve the business environment. This includes allowing tax returns to be filed online, providing online information about laws, regulations and requirements, and creating a single customs window for exchanging all documents related to the import and export of a good or service.[52]

BARRIERS TO THE INTERNET AS A PLATFORM FOR INTERNATIONAL TRADE

There are many barriers hindering the Internet from fully becoming a platform for international trade. Many of these barriers also apply to domestic commerce and include issues of Internet access, and having a secure payments system as well as efficient and cost effective delivery services. Others barriers are specific to Internet-enabled international trade, such as tariffs on imports, market access barriers to services imports, differences in consumer protection laws, mechanisms for settling disputes and costly customs procedures.

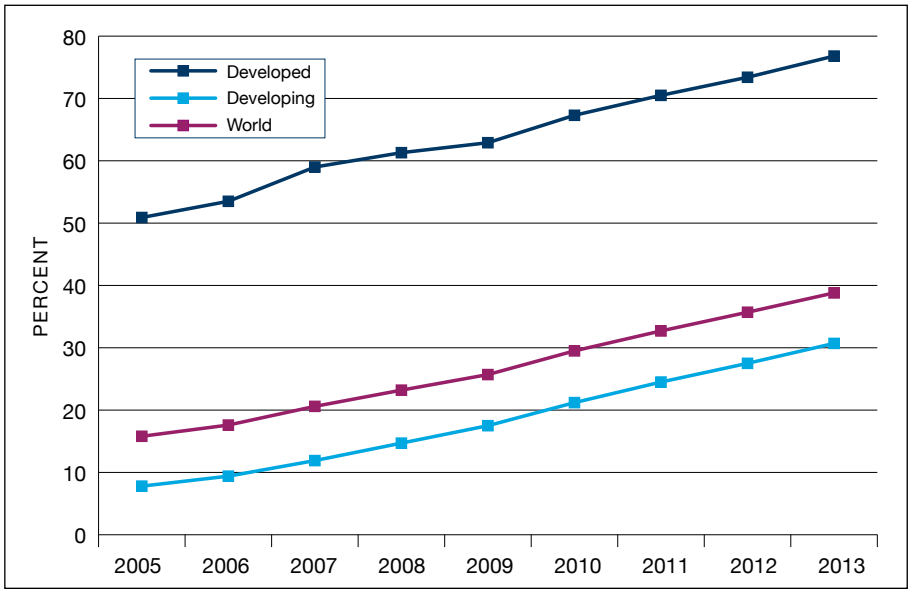
These barriers need to be understood in light of the fact that Internet-enabled international trade features the engagement of small businesses and is increasingly comprised of selling larger quantities of smaller value goods.[53] This means that transaction costs can quickly overwhelm the economics of the transaction. As a consequence, trade frictions such as delays in customs, while costly for all forms of international trade, can become complete barriers to online trade.

These new dynamics require rethinking how trade rules and policies should be designed and reformed to support and respond to the growth of online international trade in order to help SMEs and developing country businesses become part of the global economy.

Internet Access

For the Internet to be a platform for international trade, Internet access is required. Internet access is growing globally but significant gaps remain, particularly in the developing world. While access to the Internet has grown tremendously in the developing world (from around 8 percent in 2005 to over 30 percent in 2013), there remains a large digital divide between the developing and developed world, where Internet penetration is at almost 80 percent (see Figure 1).

Figure 1: Internet Access in the Developed and Developing World



Source: ITU World Telecommunication/ICT Indicator Database

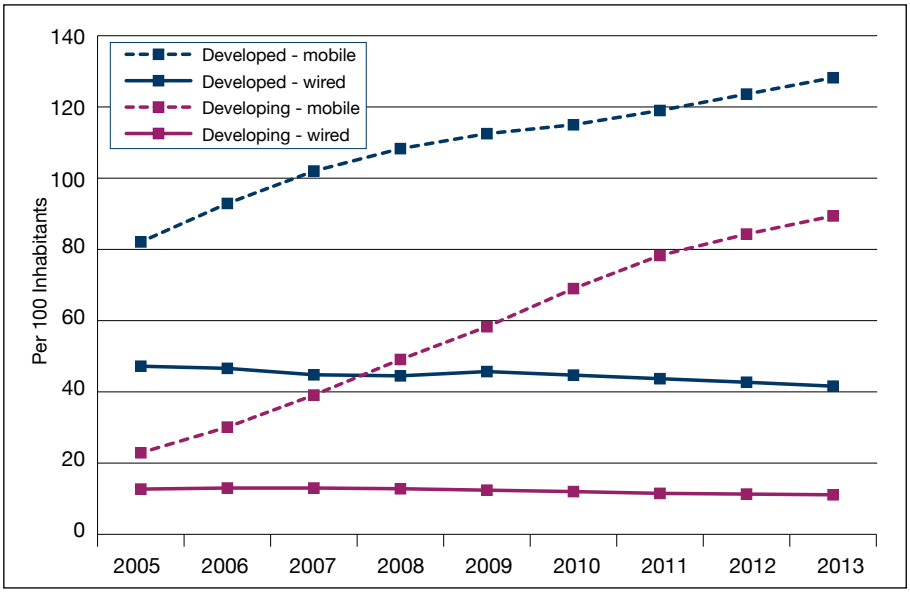
There is also a wide variation of Internet access within the developing world. For instance, in Africa only 7 percent of households have Internet access at home compared with almost 33 percent of households in Asia.[54]

Access to mobile phones and networks is also now inseparable from the challenge of increasing Internet access, particularly in the developing world. Currently 53 percent of the world's population lives in rural areas, creating significant IT infrastructure challenges and highlighting the importance of wireless deployment.[55] In fact, mobile devices are becoming the most important means of accessing the Internet.[56] And this is also increasingly true for people at the so-called base of the pyramid—commonly understood as covering people living in poverty on $2.50 per day.[57] Between 2000-2010 mobile phone subscriptions in developing countries rose more than 1,500 percent.[58] Figure 2 shows the growth in mobile phones in the developing world, rising from just over 20 phones per 100 inhabitants in 2005 to around 90 phones per 100 inhabitants in 2013.

One of the major drivers of the move toward mobile phones for Internet access has been the decreasing cost of mobile devices. Additionally, building telecommunications networks for mobile devices has proven to be cheaper and quicker to build than fixed line networks.[59]

The use of mobile phones to access the Internet is opening a range of new economic opportunities for businesses and entrepreneurs in developing countries. In addition to contacting customers and accessing the Internet, entrepreneurs in developing countries are using mobile devices to make financial transactions, establish client databases, and coordinate just-in-time supply-chain deliveries.[60] For example, China's Taobao.com provides a mobile platform that coordinates all online commerce needs along a value chain.[61] The Kenya Agricultural Commodity exchange provides

Figure 2: Wired-Telephone and Mobile-Cellular Subscriptions by Country Group, per 100 Inhabitants, 2005-2013



Source: Source: ITU World Telecommunication/ICT Indicator Database

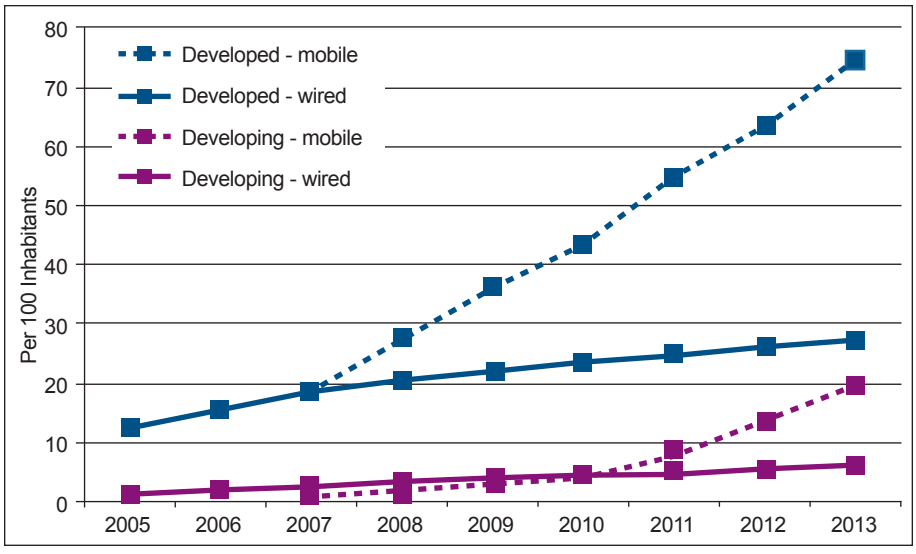
market information and an e-marketplace straight to farmers via mobile phones.[62] Cell Bazaar in Bangladesh provides online marketplace services to the poor.[63]

However, like with access to the Internet in developing countries, there are also barriers to mobile phone access. The main barrier is the cost of mobile devices and interconnection charges.[64] And as noted, not all mobile phones are able to access the Internet. This means that increasing Internet access in the developing world will require a focus on driving down the costs of smart phones and building mobile telecommunications infrastructure.

Increasingly, access to broadband is necessary if businesses want to use the Internet to engage in international trade.[65] For example, broadband access is often required for businesses to be integrated into global supply chains.[66] Businesses need broadband technology to fully take advantage of other important Internet services such as cloud computing. However as Figure 3 shows, broadband access in developing countries remains extremely low, particularly when compared to its uptake in developed countries. One of the reasons for this is that broadband costs are higher in developing countries.[67] Moreover, these costs are often the highest in countries where there is a monopoly or duopoly in the telecommunications market.[68] This highlights the need for greater competition in the telecommunications sector, as exemplified in Tanzania, where the introduction of competition in the country's telecommunications industry has led to significant reductions in costs for consumers and higher rates of mobile penetration.[69]

Fully tackling the global digital divide will require overcoming other barriers to Internet access and use. One major barrier in developing countries is a reliable power supply. In fact, one in five people in the developing world still do not have access to electricity.[70] Another critical

Figure 3: Wired and Mobile Broadband Subscriptions by country group, per 100 inhabitants, 2005-2013



Source: ITU World Telecommunication/ICT Indicator Database

barrier is the fact that the majority of online content is in English and consequently those who lack English proficiency have serious problems using and benefiting from the Internet.[71]

Trust in Conducting International Trade Online

As a general matter, trust in technology-enabled commerce is key to developing the Internet's capacity to serve as a driver of international trade. Consumer trust in an online business is derived from the entirety of the online experience, from the ease of purchase to the quality of the good, to the speed and cost of delivery, and any after sales services that are required.[72] Failure in any one step in the commerce chain can undermine trust in the entire business.

Whether consumers are prepared to purchase goods and services online will depend on whether they are prepared to overlook risks that are not associated with the brick and mortar experience. For instance, the inability to inspect the merchandise, see the physical store, and meet the vendor raises the risk that the good might be defective, not work or not meet the requirements of the customer. The inability to inspect the good also means that consumers need confidence that they can return the good and receive a refund with minimal hassle.[73] To complete an online transaction might also involve the transmission of sensitive financial information which can raise concerns about the security of the transaction and the privacy of the data.

The challenges with Internet-enabled international trade become more acute once the transaction is happening with businesses located in another country. One reason is that the further away a business is from its customer, the lower the levels of trust.[74] Different consumer protection and contract laws between the country where the business is located and the country where the customer is purchasing the good also increase the level of uncertainty for the consumer. Legal uncertainly over how to settle disputes over online exchanges is another critical challenge.

Cross-Border Data Flows

The ability to transfer data freely across borders is critical for the Internet to fully work as a platform for international trade. Some forms of cross-border data flows are themselves international trade. These include the purchasing of movies or music online or the provision of a service over the Internet. Other cross-border data flows, such as sharing information online, might not itself be a form of international trade but serve to enable economic activity that can lead to international trade. For example, big data often requires aggregation and analysis across national borders, and businesses using big data analytics could increase their operating margin by 60 percent.[75]

From a development perspective, access to information via the Internet can inform people in developing countries of opportunities that are available to them and how to take advantage of them. This is one application of Amartya Sen's understanding of poverty as being about a lack of opportunity.[76] From this perspective, the openness of information flows over the Internet can help people in poverty decide how to take advantage of available resources to improve their living conditions.[77]

However, governments are increasingly intervening in the free flow of data across borders at the expense of promoting Internet-enabled trade. Some of these restrictions are legitimate and are needed in order to maintain the privacy of the data and users, protect intellectual property, ensure cybersecurity, and regulate

access to harmful content such as child pornography. In other cases, restrictions on cross-border data flows are being done to provide domestic companies with a competitive advantage by redirecting Internet searches or blocking access to foreign sites.

Market Access Restrictions on Trade in Goods and Services

Access to online services is crucial for businesses providing these services and for businesses that use these services as inputs to grow, expand and new find customers. Services that are a business input include legal and accounting advice, transportation, logistics and other supply chain functions, and advertising and marketing. Access to IT services via cloud technology and online telecommunications services such as Skype reduce the costs of international trade, enabling communication with consumers and suppliers in different countries and scalable IT services at very low costs. Moreover, the use of websites and other online tools for reaching customers such as social networking sites require access to skilled software engineers. Here, access to least-cost, best-practice services can help businesses reduce their costs and become more competitive both domestically and overseas.

Barriers to the services trade include domestic regulations in the importing country that prohibit the sale of the service or do so in ways that raise the costs. For instance, some countries require a local presence to provide a service, which can make supplying the service too costly. This is particularly true for SMEs. Restrictions on online advertising and Internet access more broadly due to censorship, measures to divert searches for online goods and services from competitors, and onerous licensing procedures for foreign service providers are all discriminatory. Transportation services are also protected globally and include restrictions on foreign investment and national preferences for post offices, airlines and freight forwarders. Costly and inefficient customs procedures are another barrier.

There are also barriers to trade in goods purchased online. These include traditional ones such as tariff rates and non-tariff barriers, slow and costly customs procedures, and poor access to efficient international delivery services.

A Balanced Intellectual Property Framework

There are a number of intellectual property issues raised by technology-enabled trade. One concerns the limitations and exception to IP liability for Internet service providers (ISPs) and Internet platforms that enable international trade. IP protection for products in the Internet economy is another issue. Additionally, cybersquatting—the bad faith, abusive use of trademarks of others as an Internet domain name—also raises IP issues for online commerce.

Regarding the liability of ISPs, an appropriate balance needs to be struck that provides IP rights holders with the ability to enforce their rights and prevent the sale of counterfeits and in both cases not overburdening ISPs and other Internet platforms by requiring them to monitor for copyright infringement on all hosted content.

Selling counterfeit goods online also undermines consumer trust in the use of the Internet as a platform for international trade. And as discussed, these risks are heightened online where consumers are unable to inspect the goods they want to purchase. Additionally, businesses selling online need confidence that their IPRs will be protected. These concerns about IPR protection exist for international

trade broadly, but the nature of digital products—their non-physical nature that makes replication almost costless combined with the ability to use the Internet to deliver digital goods rapidly and globally—makes IP piracy particularly prevalent.

However, while the Internet has reduced copyright protection by enabling the illegal downloading of music, movies and books, the impact on industry revenues and incentives for artists to create are less clear. For instance, a recent paper by the Joint Research Centre of the European Commission found that most illegally downloaded music would not have been purchased if the illegal music download was not available in the first place. In fact, illegal downloads can stimulate sales of digital music and lead to increased consumption of music through avenues such as concerts.[78] A paper from Felix Oberholzer-Gee of the Harvard Business School reached a similar conclusion, emphasizing that weaker copyright protection has not had a negative impact on artists' incentives to create.[79]

The unwilling purchase of counterfeit goods, however, remains a risk for consumers with online commerce. There are also issues of enforcement and the legal costs and challenges associated with pursuing IP claims against a business located in another country. Moreover, protection of IP is particularly challenging for SMEs since they often lack the capacity and resources to identify an infringement and to enforce a copyright breach in a foreign court.[80] However, feedback mechanisms, rating systems, and trust marks can be used to reduce the online sale of pirated goods.

Different Regulatory and Legal Systems

International trade conducted online raises questions of how the legal relation between the business and consumer or supplier was formed and in the event of a dispute, which laws apply and what dispute settlement mechanisms are available. All of this creates legal uncertainty, which increases risk in Internet-enabled international trade. In fact, even in a developed market such as the European Union, differences in contract law among jurisdictions are a key barrier to technology-enabled commerce between EU member countries.[81]

The need for a dispute resolution mechanism to address the types of disputes arising from online commerce is demonstrated by the fact that eBay alone resolves more than 60 million online disputes annually.[82] There remains a need for a widely available, efficient, timely, and economical mechanism for resolving international trade disputes that arise from low value online transactions. This is particularly acute for SMEs, which are more likely to be making transactions in smaller value goods and services. Moreover, for developing country businesses facing a range of challenges to gaining the trust of consumers in other countries, the ability to settle disputes using an online and globally acceptable dispute resolution mechanism is particularly important.

Such legal uncertainty also creates specific risks for SMEs and developing country businesses that have less financial capacity to hire lawyers to navigate these issues and less scope to absorb the costs should a transaction go wrong. These costs increase exponentially as a business decides to sell to consumers in more and more countries.

The absence of mechanisms for resolving online transaction disputes is also a risk for consumers. Different consumer protection laws across jurisdictions are another concern for customers of online goods and services.

International Payment Systems

The ability to pay for goods and services purchased online is required to complete a transaction. In many respects, consumers are increasingly looking for a seamless commerce experience where the purchase can be completed online using the same vendor website or Internet platform. There are a variety of ways to pay for online transactions. Using a credit card to pay is one option. Another is using an intermediary payment system, such as PayPal or Dwolla, but this requires navigating away from the website to complete the transaction, creating delays and reducing the appeal of online commerce. Checks, money orders and cash on delivery are also used but are subject to even further delays.

Credit cards and e-wallet services offer the most convenient, cost effective ways of paying for online transactions. Unlike bank transfers or cash, consumers using credit cards and e-wallet services can usually stop payment in the case of fraud or non-receipt of the good or service. For vendors, the ability to receive payment almost immediately can expedite the delivery process and helps manage cash flows.

There are, however, barriers to online international payment mechanisms.[83] For consumers, access to a bank account is the minimum requirement for technology-enabled commerce, but poverty combined with undeveloped financial markets limit access to these products.[84] In fact, up to 2.5 billion people do not have access to banks.[85] This limits access to finance, which 35 percent of small businesses in developing countries consider a major obstacle.[86] And for consumers in developing countries, not having a bank account means that purchases need to paid using money transfers or cash on delivery.

Paying online for international transactions also heightens existing concerns about data security and privacy. These concerns are only magnified for mobile commerce, which uses wireless networks.

For vendors, barriers include the ability to link credit cards with websites, particularly when the payment is coming from another country. Ceilings on the maximum amount that can be purchased online is yet another obstacle for vendors.

The viability of payment systems can also depend on whether the transaction is time sensitive. In cases where timing matters, such as with purchasing airline tickets, delays in payment which can occur with money transfers are not suitable. In addition, making payments to vendors located in another country using cash on delivery becomes increasingly complicated, costly and subject to fraud and theft. Verification of who is making the transaction and avoiding being complicit in illegal activities, such as fraud, money laundering and terrorist financing, are also obstacles for developing safe and secure online payment systems.

Trade Logistics

Trade logistics covers all processes and services required to move goods from one country to another.[87] This includes physical transportation infrastructure such as ports, roads and airports, as well as ICT infrastructure and logistics services such as express delivery services, freight forwarding and traditional postal services.[88] For technology-enabled international commerce, trade logistics also includes delivering the good within the country as failure at this end can undermine even the most efficient inter-country logistics operation irrelevant. According to the World Economic Forum, improving customs administration and transport services could increase global GDP by up to $2.6 trillion and this compares to the global GDP gain of $0.4 trillion from the complete elimination of tariffs.[89]

As a general matter, in order to maximize the opportunities of the Internet for international trade, an efficient and cost effective logistics network is key. As the World Bank observes, for many countries, high trade costs arising from transport and logistics affect their competitiveness.[90] In fact, maritime connectivity and logistics performance can be as significant a determinant of trade costs as more traditional tariff barriers.[91] These trade costs are up to 2.5 times higher for developing country businesses than for their developed country counterparts.[92]

Inefficient and costly transportation systems and the administrative costs associated with customs are particularly significant barriers to SME exports.[93] An efficient and cost effective logistics network is critical to the movement of intermediate goods and the ability of SMEs to become part of global supply chains. According to the World Bank, the flows of goods among developing countries participating in regional supply chains are particularly sensitive to logistics costs.[94] In cases where companies are unable to guarantee the delivery or receipt of an intermediate good, this undermines opportunities for just-in-time manufacturing which relies on coordinated movements of goods and services across a number of countries before final assembly and export. Poor trade logistics also excludes businesses from supplying products that are perishable, such as fresh fruits, vegetables and flowers.[95] Companies that cannot rely on timely delivery have to compensate by holding greater amounts of inventory, creating additional warehousing costs that reduce their competitiveness.

Additionally, the type of international trade enabled by the Internet—high quantities of small value goods—makes efficient customs processes and seamless linking between international and domestic delivery services especially important as these costs can quickly make trade in low value goods uneconomical. A further challenge here is for trade logistics systems to be capable of handling returns—a distinguishing feature of the domestic experience with online commerce that will need to be replicated internationally if consumers are to fully engage in Internet-enabled international trade.

ADDRESSING BARRIERS TO THE INTERNET AS A PLATFORM FOR INTERNATIONAL TRADE

Many of the barriers preventing the realization of the Internet as a driver of international trade can be addressed using appropriately designed international trade rules and norms. As the overview in the previous chapter demonstrates, trade law and policy alone cannot address all the hindrances to realizing the full potential of the Internet to drive international trade. As a result, cooperation is needed between the international trade community and those working in development—where assistance to infrastructure development can improve trade logistics—and U.N. efforts to promote energy access for the poor. That said trade policy and law can make a substantial contribution by reducing the cost of Internet access, liberalizing the movement of goods and services, improving customs processes and access to express delivery services, reducing risks from different approaches to consumer protection and privacy, and access to dispute settlement.

The World Trade Organization is the key multilateral institution governing international trade. Its rules are central to supporting all types of international trade including online trade. There has been recent progress at the WTO on developing new rules to further promote Internet-enabled international trade. Specifically, in December 2013, WTO members agreed to a new trade facilitation outcome that will streamline customs procedures, increase transparency and reduce costs, all of which will benefit online trade in goods. However, the remaining WTO rules have not been updated since the establishment of the organization in 1995. They do not consider the rapid advancements in the Internet and the proliferation of new Internet services such as cloud computing. As a consequence, these developments have made existing WTO rules in drastic need of updating.

At the WTO ministerial meeting in Bali last year, a work program on e-commerce was agreed upon and it instructs the WTO to continue working on this issue. This includes examining the relationship between e-commerce and development.[96] While agreement on the need for further work on this issue in the WTO highlights the importance of developing new rules for Internet-enabled international trade, negotiating new multilateral trade rules remains hostage to the slow-moving WTO Doha Round of trade negotiations. In parallel, new rules for Internet-enabled trade are also being developed in bilateral and regional free trade agreements (FTAs). For example, all FTAs to which either the U.S. or EU are party to include e-commerce chapters.[97] Progress is also being made in current FTA negotiations, the most prominent of which are the Trade in Services Agreement (TISA), Trans Pacific Partnership (TPP) and the U.S.-EU Transatlantic Trade and Investment Partnership (TTIP) negotiations.

Internet Access and Costs

There are various steps that need to be taken to address the global digital divide and support better Internet access in developing countries. One is to expand backhaul access via satellites and undersea cables. Indeed, it is often an absence of adequate connections between networks in the developed and developing worlds which creates bottlenecks that raise costs and slow Internet speeds in developing countries.[98] However, more undersea cables from the U.S. to Africa would not address restrictions on Internet connections within Africa. In this case, a lack of Internet exchange points means that traffic within Africa is often routed back to the EU, for instance, reducing Internet speeds and increasing costs.[99] Therefore, increasing the number of Internet exchange points is also needed.

Trade policy can drive down the costs of the Internet in developing countries, helping to expand access. Trade barriers hindering the import of ICT products, such as wireless devices and computers, can increase the costs of Internet access. Reducing these barriers to trade is being negotiated within the WTO and in other trade agreements. The WTO International Technology Agreement (ITA)—a plurilateral agreement involving 75 WTO members representing 97 percent of global trade in ICT products—has reduced tariffs to zero on a range of ICT goods. Growth in IT exports has been at around 10 percent since the ITA came into effect in 1997, faster than for other manufactured goods. Additionally, developing countries now represent over 40 percent of the ITA membership and account for over one third of global exports of ITA goods.

The ITA was finalized in 1996 and needs to be updated to include IT goods developed over the last 15 years. However, progress toward agreeing on an expanded list of goods in the ITA has been slow. There is a range of goods being proposed for inclusion in a new international technology agreement that would reduce the costs of providing Internet access in developing countries. Some of these goods include coded key cards used to access Internet content, machines for making optical fiber for cables that provide the Internet, and machines used to make semiconductors, which can help bring down the costs of computers and Internet-enabled mobile devices.[100]

It is also the case that tariffs on many IT goods are higher in the developing world. Given the broad economic benefits from access to cheaper IT products, countries should unilaterally reduce tariffs on these goods. Governments could use access to cheaper IT goods to support policies aimed at expanding and reducing the costs of Internet access.

Another factor influencing the cost of Internet access is whether countries have a pro-competitive regulatory environment in the telecommunications market.[101] Greater competition creates incentives for companies to lower costs, increase Internet access and expand broadband availability. This is particularly relevant for the telecommunications sector given its legacy of monopolies (often state run). And while there have been significant steps in many countries to liberalize the telecommunications industry in order to introduce competition, many still remain characterized by dominant players exercising monopolistic market power.

Other factors that can undermine competition include access to spectrum, particularly given the increasing use of mobile devices to access the Internet. To increase broadband penetration, developing countries need to allocate appropriate spectrum and increase competition to reduce prices.[102] This means licensing operators to encourage competition and reserving spectrum for new operators.

In addition, the rapid move toward mobile, the convergence of telecommunications services and the Internet, and new issues such as network neutrality are creating new challenges for pro-competitive regulatory frameworks.[103]

Addressing these issues requires regulating telecommunications markets to encourage competition by reducing barriers to foreign Internet and mobile service providers and pro-competitive regulation that overcomes the ability of incumbents to use their market power to stifle new players from competing. This means dealing with issues such as new entrant access to telecommunications facilities that would be too costly to build and economically inefficient to duplicate, interconnection rules that prevent overcharging for access to these facilities, and how frequencies are allocated.[104]

Trade agreements can promote competition by reducing barriers to investment by telecommunications operators, allowing for the establishment of foreign providers. Nevertheless, there remain significant challenges for foreign investment in the telecommunications sector.[105]

The WTO Telecoms Reference Paper includes pro-competitive regulatory principles for the telecommunications sector, which are designed to ensure that former monopoly operators do not use their market dominance to undermine competitive opportunities for new market entrants.[106] For example, the reference paper requires WTO members to prevent major suppliers from engaging in anti-competitive practices, including cross-subsidization. The paper also includes commitments to allow for interconnection with a major supplier on non-discriminatory terms, in a timely fashion and with cost-orientated rates. It also requires WTO members to allocate scarce resources such as spectrum in an objective, timely, transparent and non-discriminatory manner.

The reference paper has been an important tool underpinning the move toward greater competition in the telecommunications industry, but there are limits to the paper. Unfortunately, it provides only a non-exhaustive list of what constitutes anti-competitive practices, and this issue of what constitutes anti-competitive practices was at the center of a WTO panel in the Telmex Case.[107] The panel found that anti-competitive practices also include a range of other activities, such as price fixing and market-sharing agreements.[108] Certainly WTO panels can be left to elaborate on what constitutes an anti-competitive practice. However until this happens more fully, uncertainty as to the scope of this commitment exists. It would therefore be useful for the WTO to more clearly define what constitutes anti-competitive practices in the telecommunications industry.

The reference paper also fails to address other issues that are crucial to competitive opportunities in the telecommunications market, such as the ability for consumers to use the same phone number when transferring to another provider.

Unfortunately, the paper also only applies to basic telecommunications. What is a basic telecommunications service is not defined. Rather, it is a distinction based on U.S. regulatory categories that distinguish between basic and value-added—a distinction which the U.S. has carried over into its free trade agreements. According to the WTO, basic telecommunications services include, in addition to voice, the transmission of video but not the provision of email. Yet as many of these services, such as voice via Skype, are now being provided over the Internet, this blurs the distinction between basic and value-added services. This distinction should be avoided in trade agreements going forward.

This points to another issue, namely convergence between telecommunications, broadcasting and audiovisual services, and their delivery.[109] As telecommunications is becoming more like media and information technology, this is making trade rules and commitments that distinguish between these services increasingly difficult to apply. For example, is video or music delivered over the Internet subject to the EU exception in its GATS schedule for "content provisions, which requires telecom services for its transport?"[110] Accordingly, governments need to update their commitments to reflect convergence.

In some areas this is already happening. In fact, the U.S. offer in the WTO Doha Round for "information services" reflects convergence. Some FTAs have also started to seek to address this development. The U.S.-Korea Free Trade Agreement (KORUS), for example,

extends commitments in the telecommunications space, such as the right of access and national treatment, to include e-commerce providers.

Trade rules also support competition by including commitments that give foreign enterprises equal rights to bid for spectrum. The reference paper does include a commitment that "the allocation and use of scarce resources, including frequencies…will be carried out in an objective, timely, transparent and non-discriminatory manner." In KORUS, the parties agree to allocate and assign spectrum "in a manner that encourages economically efficient use of the spectrum and competition among suppliers of telecommunications services."[111] Similar aims are expressed in the EU-U.S. Trade Principles for Information and Communication Technology Services. Expanding these types of commitments should be a major goal in the TPP, TTIP and TISA negotiations.

Trade policy can also support an open Internet and reduce Internet access costs by developing global standards that encourage the interoperability of devices and content across networks. Here, the technical aspect of these standards should be developing an appropriate standard setting forum, such as the Internet Corporation for Assigned Names and Numbers (ICANN), the nonprofit private organization which oversees a number of Internet-related tasks such as coordinating Internet Protocol space and assigning address blocks to regional Internet registries. Trade agreements can draw on these standards to further encourage global interoperability. In this regard, the WTO Technical Barriers to Trade (TBT) Agreement requires members to use international standards as a basis for their own regulations unless the international standard would be ineffective and inappropriate for achieving the legitimate objective pursued.[112] The TBT Agreement also creates a legal presumption that domestic technical standards are consistent with the agreement where they are based on international standards,[113] creating a further incentive to use them.

FTAs provide another opportunity to develop rules for ensuring that technical standards are not used to restrict trade in Internet-enabled services. For instance, KORUS includes commitments that any limit on the technologies or standards that can be used by providers of telecommunications and Internet services are designed to achieve a legitimate public policy objective.[114] Similar disciplines should be included in the TPP, TTIP and TISA.

The OECD has also developed recommendations on Internet policymaking that include "consensus driven technical standards that support global product markets and communications."[115] There are also a range of bilateral statements of Internet principles between the U.S. and Japan, the U.S. and South Korea, and the U.S. and the EU that reflect each governments support for developing an open and interoperable Internet that can support and drive technology-enabled international trade. This includes principles such as non-discriminatory allocation of spectrum and the free flow of information across borders.

Ensure the Free Flow of Data across Borders

So far, trade rules have yet to adequately develop commitments that ensure cross-border data flows. The WTO Understanding on Commitments in Financial Services includes an agreement that members will not "prevent transfers of information or the processing of financial information, including transfers of data by electronic means." This commitment, however, is balanced against the right of a WTO member to protect personal data and personal privacy so long as such

right is not used to circumvent the provisions of this agreement.

In KORUS, the U.S. and South Korea upgraded the commitment and agreed to allow financial institutions to transfer information across borders for data processing where such processing is required in the ordinary course of business. Unlike the WTO commitment, KORUS does not balance this right to transfer data with the right to protect personal data.[116]

Yet, these commitments are limited to the financial sector and need to be expanded. KORUS has taken a step in this direction and includes a commitment by the parties to "endeavor to refrain from imposing or maintaining unnecessary barriers to electronic information flows across borders."[117] However, the hortatory nature of this commitment limits its effectiveness. This commitment is also subject to the GATS Article XIV exceptions, which includes measures necessary for protecting the privacy of individuals.[118] More binding commitments are needed to ensure the free flow of data across borders.

Improve Market Access for Goods and Services Traded Online

The rules of the World Trade Organization govern most trade in goods and services, including international trade over the Internet.[119] The most pertinent WTO agreements are the General Agreement on Tariffs and Trade (GATT), which regulates trade in goods, and the General Agreement on Trade in Services (GATS), which covers the services trade. Under the GATT, WTO members have agreed to bind their tariff rates. Additionally, WTO members have agreed to provide all other members with most favored nation (MFN) treatment, which requires members to not treat imports of goods from one member country any less favorably than imports of similar goods from any other member country. The national treatment commitment is another central rule that requires WTO members to not treat imports of goods from a member any less favorably than similar domestic goods.

According to the WTO, services trade is the fastest growing component of global trade, with average growth of 10 percent since the mid-1990s. International trade in services is where the Internet has had the most significant impact, whether it is online music, video or software, access to professional services, or as a result of outsourcing of back office services such as call centers and payroll processing.

The potential for the Internet to drive services trade makes services commitments such as those in the GATS particularly important. Many FTA services commitments are also based on the GATS. The GATS defines services as the supply of a service: 1) from the territory of one member into the territory of any other member; 2) in the territory of one member to the service consumer of any other member; 3) by a service supplier of one member through commercial presence in the territory of any other member; and 4) by a service supplier of one member through the presence of natural persons of a member in the territory of any other member.[120]

The GATS includes two sets of rules. The first set of rules is the MFN commitment and is the most important as it applies to all services trade unless subject to reservations. The second set of rules includes the national treatment commitment and a set of market access commitments that prohibit WTO members from adopting various quantitative limits on service suppliers such as limits on the number and total value of services. However, these commitments only apply to those services sectors where WTO members have

specifically scheduled in the GATS a commitment to liberalize their services market.

Reducing trade barriers in goods and services is an important goal of any trade policy. The importance of reducing tariffs for IT goods under the WTO International Technology Agreement (ITA) has already been discussed. Reducing tariffs on goods more broadly that are purchased online but delivered offline will increase the competitiveness of these goods in overseas markets and lead to increased international trade.

Barriers to services trade affect the potential for companies to access services to improve their own competitiveness. Some of the most significant barriers are on professional services—such as accounting, law and consulting—as well as transportation and logistics services which can be key inputs for businesses.[121] These include requirements for a local presence to provide the service and membership or licensing by local professional bodies. At the same time, the Internet is providing opportunities for businesses to access these services, thereby overcoming domestic barriers that limit choice and increase costs. However, there are risks here, including uncertainty about the quality of unlicensed professional services.

Reducing barriers to services is part of the WTO Doha Round but progress remains slow. In the meantime, services liberalization is being pursued in many free trade agreements, the most important being the Trade in Services Agreement, the TPP and the TTIP. Under these agreements, the focus should be on expanding market access commitments for services trade.

Existing WTO GATS commitments do support Internet-enabled international trade. However, as these rules were developed before the impact of the Internet on international trade was understood, clarifying how these commitments apply to Internet-enabled trade is needed. In doing so, this also reveals where FTAs can make progress in developing new services commitments for Internet-enabled international trade.

Update the Classification of Services in WTO Members Schedules

There is significant uncertainty as to the extent that current GATS commitments cover a range of Internet-enabled services. WTO members' services commitments are based on commonly accepted systems for classifying services, being either the U.N. Central Product Classification (CPC) system or the Services Sectoral Classification System, often using a combination of both systems.[122] Nevertheless, there is no legal obligation to use these services classifications and the U.S. is one country that does not do so. Moreover, for those services commitments that are based on the CPC, this system was finalized in 1991 when the Internet largely did not exist.[123] As a result, the classifications no longer reflect the enormous technical developments that have occurred since then. Services such as search, cloud computing and mobile applications did not exist and there is no obvious CPC classification for them. For instance, the most relevant CPC classification for search engines appears to be computer-related services CPC 843, which includes "online processing services". Though, it is unclear the extent to which this applies. Additionally, services enabled by computer and related services are covered under other GATS schedules.[124] This would include professional services such as finance and accounting, consulting and architecture, and back office services. For these services enabled by the Internet and many more such as mobile apps and cloud computing, CPC categories are ill-suited to these developments, creating significant uncertainty and ambiguity as to the application of WTO GATS commitments to these rapidly growing areas of international services trade. Consequently, it is

unclear the extent to which existing trade liberalization commitments apply to these services.

Convergence between telecommunications and other services such as video and television, where these are streamed online, also renders previous GATS classifications unclear. For instance, it is uncertain whether GATS commitments to liberalize telecommunications services include access to movies streamed over fixed lines.

Convergence has also increasingly rendered artificial the division between basic and value-added telecommunications services. The WTO uses categories of basic telecommunications services based on four groups: 1) geographic distance; 2) means of technology—fixed or wireless; 3) means of delivery—facilities or non-facilities based; 4) clientele—for public or non-public. These categories are used to define the scope of a commitment and in a fully liberalized telecommunications regime the absence of a category would mean the commitment includes all the categories.[125] While useful for clarifying the scope of commitments, almost all WTO members have made separate GATS commitments for telecommunications services and audiovisual services, making it unclear whether the supply of video over telecommunications lines is covered.[126] Similarly, the online provision of database and data processing could be covered by the CPC classification for computer services in 844 or as a value-added telecommunications service. The result is a lack of clarity as to whether a scheduled services commitment applies to these activities.[127]

Define Digital Trade – Is It a Good or a Service?

Currently there it is not clear whether items downloaded over the Internet such as software, music and video are goods or services.[128] For instance, is a sound recording downloaded over the Internet onto a disk a good or a service or both?[129] Cloud computing, which enables infrastructure such as servers and storage to reside in the cloud and can be provided as a service, raises further definitional questions.

Whether an online transaction is the supply of a good or service will determine whether GATT or GATS applies. As previously outlined, most GATS rules only apply to sectors where WTO members have made commitments and there is uncertainty about the application of these commitments to new businesses and modes of trade such as search engines and mobile software downloads. In contrast, the GATT rules apply to all goods irrespective of their tariff bindings. The greater rigor and certainty of the GATT makes it the more effective agreement for regulating online trade.

The WTO Appellate Body has gone some way to maintaining a central role for the GATT in regulating Internet-enabled international trade. In the *China-Audiovisuals* case, the Appellate Body found that a measure which conditioned the import and distribution of films to review and approval of their content affected trade in goods.[130] The Appellate Body reasoned that "the mere fact that the import transaction involving hard-copy cinematographic films may not be the 'essential feature' of the exploitation of the relevant film does not preclude the application of China's trading rights commitments to the film regulation."[131]

However, the Appellate Body also implied that the mode of delivery on hard-copy cinematographic film was what raised GATT issues, which implies that delivering the film online would have excluded application of the GATT.[132] In contrast, the Appellate Body did clarify that GATS commitments are neutral as to their delivery, observing that once a member has scheduled a commitment:

"a member undertakes to liberalize 'the production, distribution, marketing, sale and delivery' of the service(s) falling within that sector or subsector and mode(s) of supply, unless it has specified otherwise by inserting conditions, limitations, or qualifications in the schedule. This implies that, in the absence of specific limitations, conditions, or qualifications, the meaning of 'sound recording distribution services' is not limited to the physical delivery of sound recordings. Rather, this entry would encompass distribution in electronic form."[133]

If this is the case then the GATT, unlike the GATS, is not technologically neutral as to the means of delivery. And as the GATT currently contains more rigorous rules than the GATS, this could create an incentive for countries to shift trade increasingly online. To the extent this occurs, it re-emphasizes the significance of the GATS and the need to develop new and more comprehensive trade rules to address the challenges and opportunities of the Internet for international trade.

Clarify Whether Providing a Service Online is a Mode 1 or Mode 2 Form of Delivery

The WTO GATS defines four modes of delivering a service. When it comes to services delivered online it is unclear whether this constitutes delivery under Mode 1—consumption at home—or Mode 2—consumption abroad. This also means that it is unclear to what extent commitments under Mode 2 cover the electronic delivery of services. For instance, does the consumption by a U.S. citizen of travel services provided online by an Indian company occur in India or the United States? Resolving this issue would clarify the relevance of GATS Mode 2 commitments for the delivery of services over the Internet. This is especially relevant because current GATS commitments tend to be more liberal for Mode 2 services.[134] However, classifying the provision of a service online as a Mode 2 delivery of service would also mean that the legal system of the supplier applies to the transaction.[135] This could increase consumer risk if there is uncertainty over whether the transaction is covered by domestic consumer protection laws.

Use a Negative List for Scheduling Services Commitments

The rapidly changing effects of the Internet on international trade presents particular challenges to the so-called positive list of scheduling services commitments such as those used in the GATS. Under a positive list approach, WTO members have made market-liberalizing commitments only in those sectors listed in their GATS schedules. Under the alternative negative list approach for scheduling services commitments that have been used in various FTAs, all services sectors are covered unless specifically excluded.[136] For a dynamic and fast changing sector like the Internet economy, over time a negative list approach leads to greater trade liberalization as it automatically captures further liberalizing changes to laws and regulations, whereas a positive list approach freezes the level of commitments at the time they were negotiated and updating these rules requires further negotiations with transaction costs.

Furthermore, because updating a positive list requires further negotiations, the transaction costs can lead to a positive list of services commitments becoming increasingly commercially irrelevant. For instance, the GATS was concluded in 1995 and the current difficulties in concluding the WTO Doha Round means that growth of international trade in services and the role of the Internet in their delivery have yet to be adequately reflected in WTO rules. Similarly for the ITA

where countries reduced to zero tariffs on a select range of IT products, the failure to update this list since 1997 has meant that the ITA does not cover an increasing amount of trade in IT goods.

A negative list approach also provides greater transparency and reduces transactions costs, which are more burdensome for SMEs. A negative list schedule provides information on what laws and regulations are not bound by the GATS commitments, so everything not in the list must be WTO consistent. In contrast, a positive list is only of those laws consistent with the GATS. This requires companies to determine what laws and regulations may restrict market access and to what extent.

Develop a Balanced Intellectual Property Framework

The WTO Agreement on Trade Related Intellectual Property Rights (TRIPS) provides minimum IP standards that all WTO members have agreed to apply and enforce domestically. For example, the TRIPS agreement provides copyright protection based on the life of the author and the copyright protection should not last less than 50 years.[137] In the case of trademarks, TRIPS requires WTO members to have a system for registering trademarks for terms of seven years renewable indefinitely.[138] These IP rights have been extended in FTAs. For instance, KORUS creates copyright protection for the life of the author plus 70 years.

While TRIPS was an important development in terms of extending minimum IP protections globally, these commitments have been limited by a lack of implementation. The USTR S301 Report annually lists countries not complying with their TRIPs and other IP commitments. In 2013, 1,010 countries, including China, India, Indonesia and Argentina, were designated as the most serious IPR offenders.

These IP enforcement issues are being addressed in FTAs. Under KORUS, the parties have agreed to set "pre-established" damages that are high enough to deter counterfeiting and piracy, and to compensate IP holders for loss. The U.S. and South Korea have also agreed to provide for criminal penalties for willful copyright infringement and trademark counterfeiting.

The liability of Internet intermediaries such as ISPs and Internet platforms for international trade is an issue where the rules have yet to be addressed in the WTO and are instead being developed in FTAs. For the U.S., the 1998 Digital Millennium Copyright Act balances between enforcing IP rights and limiting the liability of Internet providers by creating a safe harbor for ISPs that do not have specific knowledge of hosting IP infringing content and requires its removal upon receipt of a takedown notice. This balance is being reflected in recent U.S. FTAs. Again under KORUS, in cases where an Internet service provider does not own, initiate or control distribution of pirated material, the liability is limited as long as the service provider expeditiously removes the infringing material it is made aware of by the copyright holder. [139]

At a regional level, the European Union is also developing rules on Internet liability. The EU E-Commerce Directive creates IP liability exemptions for Internet intermediaries. However, the effectiveness of this directive in creating a uniform liability regime in the EU for Internet intermediaries has been limited as different EU member states have transposed the directive into domestic law with different liability exemptions and different interpretations are being made by domestic EU courts. For instance, French courts have decided that a video-sharing site is an intermediary that can benefit from a liability exemption,[140] while the Hamburg Court in Germany decided that video-sharing sites cannot rely on the liability exemption.[141]

Similarly, a Paris court found that eBay could benefit from the hosting liability exemption,[142] while the U.K. High Court found otherwise.[143] These variations lead to increased trade costs because companies have to comply with different and at times conflicting laws. Given the global nature of the Internet, WTO members should include in an e-commerce work program on the issue of Internet intermediary liability.

Regarding the challenge of cybersquatting, the WTO TRIPS agreements fail to address this as it was negotiated at a time when this was not an issue. Instead, countries are using FTAs to get at the problem. For instance, many U.S. FTAs include a commitment to provide access to an appropriate procedure for settling disputes arising out of trademark cyberpiracy.[144]

Improve Online Financial Payment Options

Realizing the benefits of the Internet as a platform for international trade will require an international payment system that allows customers to purchase goods and services online. An optimal outcome will result in such e-commerce being as seamless as the experience on domestic online websites such as Amazon, where the consumer with a few clicks can complete the transaction.

Trade laws can support this goal. For one, services commitments being developed in FTAs should address limits on restrictions of financial flows across borders. Additionally, the free flow of data across borders allows financial institutions to access information that can increase access to capital. For example, access to data is needed so that banks can verify and authorize payments. Improved information flows should also help financial institutions develop better risk profiles that can lead to a more efficient allocation of capital. And as opportunities for mobile banking develop, access to transaction histories can help financial institutions develop risk profiles that more accurately reflect the risk of lending to a particular business[145]—as currently the absence of risk profiles for many developing country businesses leads to higher collateral requirements or not lending to certain segments of the population.[146]

Developing greater competition in the services sector should also lead to innovation, which can expand access to financial services for the poor. For example, the M-Pesa project was developed in conjunction with Vodafone, highlighting how foreign service providers can help develop new products.

Clear rules on how companies should ensure the privacy of data would also support an international payment system by giving consumers confidence in the privacy of the data they provide when engaging in online commerce. Some steps are already being taken in this area. For instance, APEC has developed privacy standards that its members are using to guide the development of their domestic privacy laws.

Another area where trade policy can contribute is by encouraging international cooperation to address online fraud. Countries should be required to make transparent and easily accessible their requirements on banks and payment facilities for reporting suspected illegal activities such as money laundering and terrorist financing.

Increase Transparency

As discussed, the ability to obtain information online about third country markets reduces the costs and complexities of market research for SMEs. Governments can assist the information gathering exercise by using a single website to publish all laws, regulations, and guidelines applicable for online inter-

national trade. This site could be used by businesses seeking to inform themselves of the regulations and obligations in the country in which they are trying to sell their goods and services. It could also be used by consumers to inform themselves of the legal protection and exposure when purchasing from online businesses in third countries.

Improve Trade Logistics

Addressing barriers to international online trade created by poor trade logistics will require a range of reforms and improving customs processes is a critical part of this. This includes increasing the transparency of customs so that importers know what documents they need to submit and clear timelines for when permits are granted. Reforming customs should also reduce the time taken to clear goods by minimizing the need for physical inspections through the use of risk assessment processes to focus instead on high-risk goods. Digitization of customs procedures, such as requiring a single electronic form instead of multiple papers, is another important reform that can reduce border-crossing times.[147] Once an inspection has been done, it is important to avoid multiple other inspections by other border agencies. This leads to another challenge, which is to address customs reform holistically and engage other government agencies that are involved in the movement of goods across borders, such as quarantine, standards and health agencies.[148]

The recent WTO agreement on trade facilitation is an important outcome on customs reform. The agreement applies to all WTO members though there is scope for developing and least developed country members to delay implementation of parts of the agreement.[149]

The WTO trade facilitation agreement also enhances transparency and accountability of customs procedures and officials. For instance, it requires WTO members to publish information on all laws, regulations, procedures and issues affecting trade, including transit procedures, duty rates and import fees. In addition, much of this information must be made available on the Internet. WTO members have agreed to establish inquiry points for other members, and to give traders and other interested parties opportunities for comment on proposed changes affecting customs procedures.

The agreement should also increase the speed with which goods move through customs by requiring WTO members to have procedures that allow the submission of import documentation prior to arrival with the aim of expediting the release of goods upon arrival. Members also have agreed to develop procedures for the expedited release of goods through air cargo facilities.

Notwithstanding progress in the WTO, there remain outstanding issues that should still be addressed in FTAs and other trade forums. Simplified and standardized clearance procedures for low value goods (B2C as well as B2B) would facilitate Internet-enabled trade. In this regard, countries should apply customs and security procedures equally and transparently to all competing carriers, including public postal operators. Formal clearance rules that increase cost and delivery times by requiring substantial business and other commercial information can also discourage individual consumers from buying online.

There are also limits to the WTO trade facilitation agreement. For example, while WTO members agreed to adopt a risk management system for identifying goods to be inspected, this obligation is only to the extent possible providing scope for members to limit its application.[150] Additionally, there remains no WTO commitment to increase the *de minimis* level of cus-

toms duties. Though WTO members have agreed to a moratorium on imposing customs duties on electronic transmissions, this does not apply to the physical delivery of goods.[151]

Here, the *de minimis* level refers to the amount below which a good can clear customs free of taxes, duties and other charges. Currently, countries apply different *de minimis* levels, ranging from $1,000 to under a dollar. The higher the *de minimis* level the higher the value of the good before duties are charged.

A decision on the optimal *de minimis* level should reflect the point where the administrative costs to government are outweighed by revenue gained. As the Australia Productivity Commission has observed, "there are circumstances under which it is inefficient to impose administration and compliance costs on the government and the community in an attempt to collect small amounts of revenue."[152]

The costs of a low *de minimis* level are also not confined to government administration. Requiring businesses to make customs declarations for goods of small value creates significant transaction costs and slowing down the movement of goods through customs creates further trade costs.[153] According to one study, a 10 percent increase in time to move goods across borders reduces exports of time-sensitive manufacturing goods by more than 4 percent.[154] Moreover, these costs are most keenly felt by SMEs as the paperwork and regulatory requirements create resource demands less easily addressed by SMEs. For trade in goods of lower value, the costs arising from customs administration and delays stemming from low *de minimis* levels account for a relatively larger share of the good's total value, making these barriers even more challenging.

Trade agreements are a good place for countries to agree to raise the *de minimis* levels. Economic modeling concludes that most of the gains will accrue to governments from avoiding the administrative costs.[155] These gains can also be expected to rise over time as the Internet enables increasing imports of low value but high volume, further raising the administrative costs of low *de minimis* customs levels. In addition, losses in terms of government revenue are likely to be low, particularly in light of the successful reduction of tariff rates under trade agreements. These goods are business inputs so VAT not collected at the border will still be collected on the final product. This also highlights how reform of *de minimis* levels should have broader economic effects since reducing the cost of business inputs will increase competitiveness domestically and create opportunities for further exports.[156]

Another area where trade policy can support trade logistics is in increasing the interoperability between modes of transportation. While postal services have historically been government owned with monopoly powers and universal service obligations, how these entities interact with private courier and express delivery services affects competition, efficiency, cost of delivery and by extension the ability of the Internet to drive international trade.

The implications for international trade make the WTO and other trade agreements one option for pursuing liberalization and competitive opportunities. Although the GATS does not apply to services supplied in the exercise of governmental authority, this exception applies to government-owned postal services online when the services provided are neither commercial nor provided in competition with other delivery services.[157] Moreover, many industrialized countries —including all member countries of the European Union and New Zealand—have abolished

the postal monopoly law and transformed their national post offices into corporate entities. Some, such as Germany, the United Kingdom and the Netherlands, have also wholly or partially sold the post office to private investors.[158] Moreover, WTO members are able to make market access commitments in the GATS. So far, however, there has been limited progress in the WTO in liberalizing postal services—only 13 members have made commitments for postal services but significantly more commitments have been made for courier and express delivery services.[159] Yet, increased privatization of postal service providers and competition with courier services point to the need for new trade commitments that overcome these distinctions. For instance, the European Commission, the U.S. and several other WTO members have proposed a plurilateral request for liberalization of postal and express delivery services in the Doha Round, which attempts to address the weakness of the GATS classification of these services. Going forward, there should be a focus on new, pro-competitive market access commitments that underpin a global network for the efficient and cost effective provision of delivery services. This includes commitments on non-discrimination among services providers, whether they are government postal services or privately-owned express delivery services.

Another complimentary way of getting at this is by a renewed focus on introducing competition into the postal market. In this regard, some version of the EU idea of a reference paper for postal services deserves attention. Such a reference paper would include regulatory principles similar to the telecommunications reference paper and could include commitments to prevent anti-competitive conduct and to ensure a level playing field where public and private operators compete.

The United States has taken a step in this direction. For example, many of its FTAs include commitments that where monopoly suppliers of postal services are in competition with express delivery services, they will not abuse their monopoly position in ways inconsistent with the FTAs national treatment and MFN obligations.[160]

These are important steps forward and should be reflected and expanded on in other FTAs under negotiation, including the TPP and TTIP. Additionally, the APEC Supply Chain Connectivity Framework Action Plan aims to improve the free movement of goods and services in the APEC region and its focus on intermodal connectivity could underpin further integration of trade logistics in ways that can support Internet-enabled international trade.

Progress on improving interoperability with postal services is also being made in FTAs. For example, the South Africa-EU trade agreement includes obligations on each party to support postal cooperation, which includes sharing information, standards and joint projects.[161]

Interoperability of tracking systems is another area that trade agreements can address given that tracking the movement of goods from vendor to consumer has become increasingly relied upon by consumers engaging in Internet-enabled commerce. Such a service also helps businesses plan their inventory levels, thereby saving costs and minimizing warehousing needs. Here, the free flow of data across borders is critical as access to the Internet is needed to track goods globally.

Develop Legal Rules for Online Trade

Optimizing the potential of the Internet as a platform for international trade will require new rules governing online contract formation and dispute resolution.[162]

Work on providing this legal infrastructure is being pursued by international bodies, governments and businesses. Commercial contract law has become increasingly harmonized globally as countries have based these laws on the Uniform Principles of International Commercial Contracts (UPICC). However, the UPICC's significance for technology-enabled commerce has been limited as it does not apply to consumer contracts.

The United Nations Commission on International Trade Law (UNCITRAL) has also developed a 1996 Model Law on Electronic Commerce that applies to the electronic element of the commercial sales of goods and services and this has been supplemented by the 2001 UNCITRAL Model Law on Electronic Signatures. These model laws address the legal process such as rules governing the formation of contracts online, but do not address issues of access for such goods and services into the consumer market.[163] The UNCITRAL model laws are also not legally binding but have become the basis for legislation in various countries, including in the U.S., with laws on the use and acceptance of electronic signatures.[164]

In terms of dispute settlement, online international trade will require a system that responds to the needs of SMES and consumers transacting goods and services in high volume but individually of relatively low value. The nature of such transactions means that it will almost always not be economically rational to pursue a dispute over online international trade in domestic courts.

Another option might be the dispute settlement system at the WTO. While WTO dispute settlement is available to address breaches of WTO rules that arise from online transactions, it is unlikely to be suitable for dealing with most trade disputes resulting from online transactions. One reason is that there needs to be a breach of a WTO commitment by a WTO member. In some cases, such as where a government blocks imports of a good or discriminates in favor of domestic goods over international ones, a breach of a WTO commitment might arise. However, many of the disputes that result from Internet-enabled international trade will arise out of private actions and not because of a member country's law.

Even in cases where the dispute concerns a law that can be the subject of WTO dispute settlement, the process is between governments only. This means that businesses wishing to pursue a claim at the WTO will need its government to pursue the matter on its behalf. This involves time and effort explaining to the government why the case is worth pursuing. Additionally, governments consider a range of factors when deciding whether to pursue WTO dispute settlement, some of which are unrelated to the legal strength and commercial significance of the matter, including the impact of the dispute on relations with the other country and how this might affect other foreign and trade policy priorities. Consequently, a WTO member government may choose not to pursue WTO dispute settlement irrespective of how legally and commercially compelling the case is. In the event that a government pursues WTO dispute settlement, it can take up to three years for a result, which is often too long to be meaningful for consumers and most SMEs. Even in cases where a country is successful in a WTO dispute, the decision is not retroactive so any loss and damage incurred prior to the WTO decision cannot be recovered. Instead, the primary obligation on the losing WTO member is to bring its law into compliance with WTO law.

The limitations with WTO dispute settlement to resolve international trade disputes arising from online transactions highlight the need for a dispute settlement

mechanism that is low cost, efficient and transparent.[165] Any effective online dispute resolution (ODR) system would also need to be able to respond to disputes that are often over claims worth less than $100 and to be resolved quickly (in many cases in a matter of days, a few weeks at most).[166] The fact that the buyer and seller are located in different jurisdictions also requires the dispute settlement to take place online. Traditional alternative dispute resolution with costly mediators and emphasis on face-to-face negotiations will therefore not work for Internet-enabled international trade. In fact, data on consumer use of online resolution processes reveals that the ability to resolve disputes quickly and at least cost—even when the consumer loses the dispute—is key to establishing trust in the Internet as a platform for international trade.[167]

There are efforts to establish online dispute resolution for cross-border disputes. For instance, the 2007 OECD Recommendations on Consumer Dispute Resolution and Redress addresses the need to provide consumers with access to dispute resolution for cross-border disputes. In the case of cross-border consumer disputes, the OECD recommendations emphasize the need for states to encourage businesses to establish voluntary, effective and timely mechanisms for handling complaints from consumers and settling disputes, including "private third party alternative dispute resolution services, by which businesses establish, finance, or run out-of-court consensual processes or adjudicative processes to resolve disputes between that business and consumers.[168] Additionally, UNCITRAL has established a working group to develop model rules on ODR, which are "intended for use in the context of cross-border, low-value, high-volume transactions conducted by means of electronic communication."[169]

Some online businesses such as Amazon and eBay provide online processes for resolving disputes. They have also developed mechanisms to minimize the instances of disputes by using online feedback and review to identify untrustworthy sellers in order to create a trusted community of vendors.

Trade law and policy can help address the barriers arising from differences in domestic laws regarding the formation of contracts online, consumer protection laws and mechanisms for resolving online disputes.

The U.S. in its FTAs already includes dedicated e-commerce chapters, which address some of these challenges. For instance, under KORUS, the parties have agreed not to adopt legislation that would deny a signature legal validity simply because it is in electronic form.[170] Additionally, KORUS allows authentication of online commercial transactions to have to meet certain performance standards where these standards are required to achieve a legitimate government objective.[171] While KORUS is useful in terms of preventing countries from introducing laws that would unnecessarily prevent electronic signatures to complete a contract, steps should be taken to encourage more regulatory cooperation to develop common approaches. For instance, trade agreements could also encourage mutual recognition of each country's laws on electronic signature. It could also encourage the development of such laws based on the UNCITRAL Model Law on Electronic Commerce.

Trade agreements can help reduce risks arising from different consumer protection laws. For example, KORUS requires the consumer protection agencies in South Korea and the United States to cooperate in the enforcement of each other's laws against fraudulent and deceptive practices.[172]

There are other steps that could be included in future trade agreements that would support online

international transactions, particularly with regard to establishing ODR. A maximum outcome would be to establish a multilateral process for resolving these disputes online. However, the volume of transactions and emphasis on speed and cost effectiveness point to the need for streamlined minimal processes. In this regard, the focus might best be on supporting businesses in providing forms of ODR. For disputes that are too costly or complex for online dispute resolution, domestic courts would remain available. Additionally, trade agreements could include commitments to establish an ODR system capable of handling those cases that become too costly or complex for the private sector to handle. Trade agreements could also include an agreement to cooperate on the enforcement of outcomes from ODR systems.

Develop Trust in the Internet as a Platform for International Trade

Many of the specific issues discussed in this paper will increase trust in Internet-enabled international trade. For instance, developing a coherent data privacy regime, enforcing IP laws to reduce the incidence of pirated goods sold online, creating a balanced IP framework, and building an effective settlement mechanism will increase consumer trust.

Another way that online businesses are seeking to build trust is by using various labeling mechanisms such as trust marks to inform consumers of the reliability of the vendor. For example in the EU, online businesses are able to display the "Trusted Shops" trust mark when they can demonstrate that they meet specific criteria, such as providing consumer protection against defects in goods purchased online and security for online data.[173]

Trade agreements could develop an approach that would facilitate the acceptance of trust marks across borders. One approach would be to agree upon a common mark and process for its use. Another approach that would not require harmonizing existing trust marks would be to encourage the development of third party accreditation systems in each country that could rate the trustworthiness of the seller or the reliability of the trust mark. Under the trade agreement, the parties could agree to accept each other's trust marks as equivalent to their own, allowing consumers to interpret rankings from other countries.

Summary of Trade Barriers and Key Recommendations

Barriers to Internet-Enabled Trade	Proposed Trade Policy Reform
Limited Internet Access	• Increase competition in the telecommunications market • Eliminate barriers to trade in IT • Ensure interoperability of IT devices and content
Barriers to Cross-Border Data Flows	• Agree to allow cross-border data flows
Market Access Restrictions	• Eliminate barriers to trade in goods and services • Update classification of services in GATS schedules • Define digital products • Clarify which GATS mode applies to Internet trade • Use a negative list for scheduling services commitments
Lack of a Balanced IP Framework	• Improve enforcement of IP rights • Get the balance right between enforcing IP rights and the appropriate limitations and exceptions
Different Consumer Protection Laws across Jurisdictions	• Mutual recognition of domestic laws governing the formation of online contracts • Improve international cooperation to enforce consumer protection laws
Inadequate Dispute Settlement Options	• Develop dispute settlement procedures for disputes arising for Internet-enabled international trade
Access to International Payment Systems	• Remove restrictions on cross-border financial flows • Allow for the free flow of data and information across borders • Increase competition in the banking sector • Address concerns about data privacy • Increase transparency to reduce fraud
Trade Logistics	• Reform customs procedures • New commitment on de minimis levels • Increase interoperability among transportation networks and postal services • Ensure a level playing field for competitive delivery services
Lack of Trust in Online Vendors	• Mutual recognition of trust marks

CONCLUSION

The potential for the Internet to increase international trade and support economic growth and job creation is significant. The Internet is providing an opportunity for businesses in developing countries and SMEs—entities traditionally left out of the global economy—to become international traders, whether that is by using an online marketplace like eBay or by using the Internet to specialize in specific tasks in global supply chains.

Fully realizing the Internet's potential in promoting SMEs and developing country firms to engage in international trade will require a number of trade policy reforms. Some of these reforms are not specific to Internet-enabled trade and therefore should produce broad economic gains. Such reforms include increasing competition in the telecommunications sector in order to expand Internet access and lower costs, reducing barriers to trade in goods and services, creating a balanced IP framework, and reforming customs procedures to ensure the timely and cost effective delivery of goods across borders.

Other barriers are specific to the growth of the Internet as a platform for trade. Addressing these barriers will require trade policy reforms such as ensuring the free flow of data across borders, creating mechanisms to resolve disputes arising from online transactions, resolving different levels of consumer protection across jurisdictions, and developing international payment methods for online transactions. These reforms can be understood more broadly as about creating trust in the use of the Internet as a platform for international trade.

The other key dynamic is that the Internet and related IT companies are enablers of international trade. From this perspective, the Internet should be seen as a general-purpose technology like electricity or telecommunications since it allows for a whole range of economic activity. This means that improving Internet access and opportunities for trade is about creating opportunities for all economic sectors, from manufacturing and industrial sectors, to services such as health care, education and tourism. The corollary of this is that barriers to the growth of the Internet as a platform for international trade are limits to economic growth and job creation more broadly. And for this reason, tackling these barriers should be a priority for trade policy going forward.

At the WTO ministerial meeting in Bali in December 2013, members agreed to a Work Program on Electronic Commerce, which will build on the work already done at the WTO on the interaction between e-commerce and international trade. This is certainly a positive signal. As the WTO works on this issue, other trade agreements under negotiation, in particular the TISA, TPP and TTIP, provide a timely opportunity to start making concrete progress on developing new and innovative trade rules that can support what is already becoming the new frontier for international trade.

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111. See United States-Korea Free Trade Agreement, Article 14.17.4

112. See World Trade Organization "Agreement on Technical Barriers to Trade," Article 2.4

113. See World Trade Organization "Agreement on Technical Barriers to Trade," Article 2.5

114. See KORUS, Article 14.21.2

115. See OECD, 6

116. See United States-Korea Free Trade Agreement, Annex 13-B, Section B

117. See United States-Korea Free Trade Agreement, Article 15.8

118. See United States-Korea Free Trade Agreement, Article 23.1.2

119. The GATS Annex on Air Transport Services gives priority to commitments under bilateral Open Skies agreements and the multilateral Chicago Convention. The Annex also excludes application of the GATS to measures affecting traffic rights and services directly related to the exercise of traffic rights.

120. See World Trade Organization "General Agreement on Trade and Services", Article 1.2

121. See Borchert, Gootiiz and Mattoo (2012), 34-36

122. See The Uruguay Round of Multilateral Trade Negotiations, Group of Negotiations on Services

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156. See Holloway and Rae (2012), 58

157. See WTO GATS Article 1.3(3)(b)

158. See Dieke et al. (2013)

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