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THE DYNAMIC GAINS FROM FREE DIGITAL TRADE FOR THE U.S. ECONOMY

HEARING

BEFORE THE

JOINT ECONOMIC COMMITTEE
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THE DYNAMIC GAINS FROM FREE DIGITAL TRADE FOR THE U.S. ECONOMY

TUESDAY, SEPTEMBER 12, 2017

UNITED STATES CONGRESS,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The Committee met, pursuant to call, 10:00 a.m. in Room 216 of the Hart Senate Office Building, the Honorable Mike Lee, Vice Chairman, presiding.

Representatives present: Paulsen, Comstock, Beyer, and Delaney.

Senators present: Lee, Klobuchar, Heinrich, Peters, and Hassan.

Staff present: Theodore Boll, Daniel Bunn, Kim Corbin, Whitney Daffner, Connie Foster, Dori Friedberg, Colleen Healy, Matt Kaido, Christina King, A.J. McKeown, Allie Neill, Victoria Park, Rohan Shetty, and Joy Zieh.

OPENING STATEMENT OF HON. MIKE LEE, VICE CHAIRMAN, A U.S. SENATOR FROM UTAH

Vice Chairman Lee. Good morning, and welcome to the Joint Economic Committee's hearing on digital trade.

Chairman Tiberi could not be here today and has asked me to chair the hearing. I want to welcome my colleague, Ranking Member Heinrich, and other members of this Committee and the panel of expert witnesses who are appearing before the Committee today.

What, you might ask, is "digital trade"? It covers a wide variety of economic activity, including international orders transmitted through websites, global connectivity enabled by email and voice-over internet protocol, international banking, and data transmissions to manage global supply chains.

Advancements in technology mean that digital trade is capable of delivering ongoing improvements in production, in distribution, and value for the American people. U.S. firms have been pioneers and global leaders on the digital technology frontier. American consumers and businesses benefit tremendously from the ability to buy and sell across borders and gain access to products and to customers.

We are swiftly approaching the point at which the word "digital" will be an unnecessary adjective for trade. It will just be "trade," although I am sure trade lawyers will want to maintain the extra level of specificity just for billing purposes. It makes their billing statements perhaps more interesting for them and lucrative.

But we need to work both domestically and internationally to facilitate trade and innovation. We should seek to ensure that sensible regulations and standards are put in place for the protection of intellectual property and private information.

Congress has set clear priorities for negotiating trade agreements that can lower trade barriers for digital goods and services, and the Trump administration is pursuing those priorities in current NAFTA discussions.

It is critical for future U.S. economic success to ensure a regulatory setting in which innovators, entrepreneurs, and businesses can experiment with new technology and succeed in a global market.

I will now yield to Representative Paulsen who earlier this year launched the Bipartisan Digital Trade Caucus in the House of Representatives.

[The prepared statement of Vice Chairman Lee appears in the Submissions for the Record on page 30.]

OPENING STATEMENT OF HON. ERIK PAULSEN, A U.S. REPRESENTATIVE FROM MINNESOTA

Representative Paulsen. Thank you, Vice Chairman Lee, for holding this hearing on an issue that is becoming increasingly important to the American and global economies. As a strong advocate for a robust trade agenda, I believe we need to be engaged, we need to be educated, and on the forefront of this latest frontier in the global 21st Century economy.

We cannot fall behind in digital trade, because we have so much to offer and so much at stake. There are hundreds of thousands of U.S. small businesses in nearly every sector, from manufacturing, to financial services, to mining, to agriculture, and food, in every single state and every Congressional District across the country that are harnessing the power of the internet and technology to reach new customers around the world. This is no small niche or part of our economy.

Just look at all the facts: Digital trade accounts for more than half of all U.S. service exports. Digital trade is responsible for nearly 6.7 million American jobs. Nearly half of all U.S. companies have an online trading relationship with the EU, and the U.S. runs a $159 billion trade surplus in digitally deliverable services.

Earlier this year in the House, as Senator Lee mentioned, I launched the Bipartisan Digital Trade Caucus, along with my colleague Suzan DelBene from Washington State. Our goal is to work with government, with industry, and with other stakeholders to ensure that the world follows our lead, the United States' lead, in promoting the free flow of digital commerce.

I am very thankful that Chairman Tiberi and Vice Chairman Lee have taken it upon themselves to use our Committee for that purpose, as well.

I want to thank our witnesses for participating in today's hearing to share their perspectives on a very important issue, and thank you, Vice Chairman Lee, and I yield back.

Vice Chairman Lee. Senator Heinrich.

OPENING STATEMENT OF HON. MARTIN HEINRICH, RANKING MEMBER, A U.S. SENATOR FROM NEW MEXICO

Senator Heinrich. Thank you, Vice Chairman Lee, and thanks to our panel for joining us here today. E-commerce touches industries across all sectors of the economy, and Americans across the country. It is a key source of American jobs in the 21st Century, and its importance will likely only grow with time.

We know that the internet enables U.S. companies big and small to more efficiently reach markets around the world. Manufacturers, banks, retailers, airlines, farmers, and a range of other businesses rely on the internet to seamlessly access and move data across borders.

The internet has fundamentally transformed our lives and the way that we purchase goods. The benefits of international trade used to be concentrated among big business. The internet changed that, opening doors to small and mid-sized businesses, and even one-person shops.

Now an individual with a broadband connection can sell his or her goods and services all over the world, from an artisan, from Acoma Pueblo, to a game designer from Albuquerque, or a chili farmer from Hatch. They can all now enter the global market.

A recent study found that 95 percent of U.S. small and medium businesses on eBay export, and 190,000 of those firms export to four or more continents.

The United States is an E-commerce leader today. The International Trade Commission estimates that digital trade contributed more to gross domestic product than all but four states in 2011, and has lifted wages by as much as 5 percent, while adding up to 2.4 million more full-time jobs.

In New Mexico we are working hard to ensure that the opportunities of the digital economy reach into every corner of the State. I am excited to welcome Facebook, which is scheduled to open a multi-building data center next year in Los Lunas that will generate more than 100 permanent jobs at the data center, and up to 1,000 construction jobs.

With 2 billion monthly active users, Facebook is literally built on cross-border data flows. To fully realize the gains from digital trade we need to ensure that global policies enable companies to harness the power of the internet to reach new customers around the world.

For this to happen, it is vital that we have a free and open internet with privacy protections. And that starts right here at home. Your personal information should not be shared or sold without your consent. Your health, financial, and other personal and sensitive information must be protected. While internet providers must be prevented from selling users' personal information without user consent, companies should be able to choose where to store data.

When U.S. companies cannot store data in the U.S., they lose out on jobs and the ability to use the data to improve their products and services.

As far as we've come with the number of internet users worldwide tripling in the past decade, we are still in the early stages. And the opportunities for E-commerce domestically and internationally are unlimited.

But to realize the potential the internet provides, we need to accelerate the deployment of broadband and ensure that rural America and tribal communities in our country have greater access.

Right now 4 in 10 rural residents lack broadband access. And among rural tribes, that number climbs to 7 in 10 without access. To help bring more Native American students online, I will soon introduce legislation that promotes broadband access for students and tribal community centers.

During a meeting I convened at the Santa Fe Indian School recently, the Tribal Administrator of Santa Domingo Pueblo in New Mexico, Everett Chavez, put it this way:

"Access to the internet is new, but it is an equally essential infrastructural need to our tribal communities, equal as water, power, telecommunications, or roads."

It doesn't matter if you are a student, a rancher, a manufacturer, a teacher, a doctor, or a small business, high-speed internet is now critical to thriving in the economy of today, much less the future.

Finally, as we focus on digital trade today we should be clear that this is just one piece of a bigger issue. We need to be vigilant to evolve the rules of the road when new technologies are developed and deployed, and to protect our workers from countries seeking advantages through unfair trade practices.

Mr. Chairman, I look forward to hearing from our panel, and I want to especially thank Former Ambassador Daniel Sepulveda, the witness that I invited, for being here today.

[The prepared statement of Senator Heinrich appears in the Submissions for the Record on page 30.]

Vice Chairman Lee. Thank you very much, Senator Heinrich, and thanks to each of you for being here. I am now going to go through and introduce our witnesses.

We will start with Mr. Daniel Griswold, who is a Mercatus Center Senior Research Fellow, and Co-Director of the Program on The American Economy and Globalization. Mr. Griswold is a nationally recognized expert on trade policy. Prior to his position with Mercatus, he served as president of the National Association of Foreign Trade Zones, and before that as the Director of Trade and Immigration Studies for the Cato Institute. He holds a Bachelor's Degree from the University of Wisconsin at Madison, and a Masters in Politics of the World Economy from the London School of Economics and Political Science.

Mr. Griswold, thank you for your work and welcome.

Sean Heather is Vice President of the U.S. Chamber's Center for Global Regulatory Cooperation. He also serves as Executive Director for both International Policy and Antitrust Policy.

During his 17-year career at the Chamber, he has worked on a number of diverse issues such as international trade and investment, taxes, standards, technology, and corporate governance. Before joining the Chamber, he worked for the Illinois Comptroller and with several political campaigns across the State. He holds an undergraduate degree and an MBA from the University of Illinois.

Mr. Heather, thank you for joining us today.

And now I will pass it off to Representative Paulsen from the Great State of Minnesota to introduce our next witness.

Representative Paulsen. Thank you, Vice Chairman Lee. It is my pleasure to introduce fellow Minnesotan Nick Quade. Nick is the General Manager of Lino Lakes-based Relay Networks. It is a provider of network, wireless, and telecom equipment.

In his role, Mr. Quade oversees the day-to-day operations of the business, and he deals first-hand with digital trade on a daily basis. As a result of his hard work, as well as that of his co-workers, Relay Networks currently holds a 100 percent positive feedback rating on its eBay store. This is another excellent example of how American entrepreneurs leverage the digital economy.

Mr. Quade, thank you for taking time out of your busy schedule to join us here today. I know Senator Klobuchar, who is also a member of this Committee, and I often welcome Minnesotans who are at the forefront on leading issues.

Thank you again, Vice Chairman Lee. I yield back.

Vice Chairman Lee. Thank you. Finally, we will introduce Ambassador Daniel Sepulveda, who served as Deputy Assistant Secretary of State and U.S. Coordinator for International Communications and Information Policy under the Obama administration.

Prior to joining the State Department in 2012, Ambassador Sepulveda served as a senior advisor and a member of Senator John Kerry's senior management team. Before joining Senator Kerry's office in 2009, Ambassador Sepulveda served as an Assistant U.S. Trade Representative, leading a team that managed Congressional affairs for the U.S. Trade Representative Ron Kirk.

He has dealt first-hand with the negotiations we are about to discuss. Ambassador Sepulveda, thank you very much for joining us.

Okay, we are now going to hear from each of our witnesses, and we will start with you, Mr. Griswold.

STATEMENT OF MR. DANIEL GRISWOLD, SENIOR RESEARCH FELLOW AND CO-DIRECTOR OF THE PROGRAM ON THE AMERICAN ECONOMY AND GLOBALIZATION, MERCATUS CENTER AT GEORGE MASON UNIVERSITY, ARLINGTON, VA

Mr. Griswold. Chairman Lee, Ranking Member Heinrich, and members of the Committee, thank you for inviting me to testify today on the important topic of digital trade,.

Digital trade is transforming the way Americans do business with the world. It is already delivering more choice and value to consumers, more opportunities to American companies of all sizes, higher wages for American workers, and faster, more dynamic growth for the U.S. economy.

World-wide cross-border internet traffic has soared 500-fold since the year 2000. That's according to the McKinsey Global Institute, and it will expand another 8-fold in the next decade.

In my remarks this morning, I plan to briefly describe the scope of digital trade, its growing impact on the U.S. economy, and what policies we should pursue to realize its full benefits.

Digital trade can range from video streaming, to ordering merchandise through online platforms, to organizing complex global supply chains. The growth of digital trade plays to America's comparative advantage. The U.S. remains the global leader in creating digital products and online platforms, and exporting digital services.

In fact, more than half of the services we export are now digitally delivered. Digital trade is empowering small- and medium-sized enterprises to sell and source in global markets.

On eBay, 97 percent of the commercial sellers are selling to international markets. Almost 300,000 U.S. companies are now exporting to foreign markets, according to the U.S. Census Bureau, and that's a 50 percent increase since 1997.

Global supply chains are becoming even more efficient, thanks to digital trade. Such technologies as radio frequency identification and block chain are facilitating just-in-time inventory and reducing delays at ports. The U.S. International Trade Commission estimates that the internet has reduced the cost both of exporting and importing in digitally intensive sectors by an average of 26 percent.

This phenomenon is having a measurable and positive effect on the U.S. economy. As has been noted, the USITC estimates the enhanced productivity and lower cost because of cross-border digital trade has boosted U.S. real GDP by as much as 4.8 percent; real wages by as much as 5 percent, with no net job losses to the overall U.S. economy.

Reaping much of the benefit of digital trade has been small- and medium-sized U.S. enterprises. These so-called micro multinationals are reaching global customers through their websites and common online platforms such as eBay and Amazon. They can process payments digitally and ship products directly to individual customers around the world through private and postal package delivery services. Digital trade has allowed SMEs to source components and business-to-business services in global markets, empowering them to better control costs and enhance the competitiveness of their exports.

The impact of digital trade is not a one-time shift, but an ongoing process that enhances the dynamic long-term growth potential of the U.S. economy. By reducing costs, spurring competition, and expanding markets, digital trade creates ongoing gains in efficiency that fuel productivity. By facilitating the spread of ideas and collaboration, digital trade contributes to product innovation. And by playing to America's competitive strengths, digital trade allows us as a Nation to use our physical, intellectual, and human capital in ways that permanently boost our gross domestic product and general living standards.

Now despite the dynamic growth and benefits of digital trade, significant barriers remain to prevent Americans from reaping its full advantages. To realize those gains, Congress, in your trade promotion authority legislation from a couple of years ago, has directed the Administration to seek trade agreements with other nations that would, among other objectives—and I think these are very good objectives—ensure nondiscriminatory treatment of physical goods in the digital trade environment; prohibit forced localization of servers; prohibit restrictions to digital trade and data flows; prohibit duties on electronic transmissions; and ensure that legitimate regulations affecting digital trade are the least trade restrictive as possible.

And I think you will be hearing a lot about this today, but let me just add my endorsement of it: Congress should also seek high-

er, more economically and commercially realistic de minimis thresholds for E-commerce shipments to other countries.

Removing these last remaining barriers to digital trade at home and in other countries will allow more American consumers and companies to realize the full benefits of a more digitalized economy and global trading system.

Thank you, and I look forward to your questions.

[The prepared statement of Mr. Griswold appears in the Submissions for the Record on page 32.]

Vice Chairman Lee. Thank you, Mr. Griswold.

Mr. Heather.

STATEMENT OF MR. SEAN HEATHER, VICE PRESIDENT, CENTER FOR GLOBAL REGULATORY COOPERATION, U.S. CHAMBER OF COMMERCE, WASHINGTON, DC

Mr. Heather. Good morning. It's a pleasure to be here. And the Chamber thanks you all for holding today's hearing.

The United States has positioned itself as a leader in digital trade. However, our leading position is not assured, as foreign governments are trying to create their own Silicon Valleys by implementing policies that often serve as regulatory barriers.

The ability for data to flow through the global economy is as important as the ability to move goods, services, or capital. However, data flows are increasingly threatened by data localization requirements. For example, the government of Indonesia currently has 10 different pending regulations that would require data localization.

In Europe, France and Germany are increasingly promoting the use of sovereign clouds to limit the market access opportunities for American companies. China and Russia have encouraged indigenous innovation through local content requirements. For instance, Russia grants preferential treatment for domestic ICT companies when considering government procurement contracts. And in China last year alone more than 30 measures were introduced across various industries, including many ICT specific standards.

Turning to data protection, more than 95 jurisdictions currently have data protection legislation. Sixty-eight of these jurisdictions are currently revising their data protection rules. While privacy standards are necessary in order to ensure consumer protection, consumers also demand the mobility of data to bring them the best products and services.

Too frequently privacy regimes can create difficulties for companies conducting business in-country and across border. A good example is the EU's General Data Protection Regulation.

GDPR represents an immense regulatory challenge that has consequences for EU competitiveness and for American firms doing business in the European Union. GDPR's impact extends to Latin America where it serves as a template.

For example, Brazil, Argentina, and Chile currently have draft data protection bills pending which holds elements in common with GDPR. And other measures across Latin America include data transfer language that could serve as a significant barrier to digital trade. Some bills provide a list of countries whereby data transfers are permitted. Unfortunately, the United States is often not included on those lists.

While regulatory challenges can impede digital trade, the motives aren't always easily discernible to label and clear attempts to obfuscate trade commitments. That said, many countries have cited privacy concerns as a basis for requiring foreign companies to store data within national borders. In these instances, privacy regulation becomes a forced localization requirement.

Like privacy, we now see a growing patchwork of cybersecurity regulations that present compliance challenges and also hold the potential to mask protectionist motives.

And finally, intellectual property protection. Too often, forced localization measures require tech transfers as the price to gain entry in a local market, and piracy, too, represents a well-documented drain on our competitiveness and it adversely impacts digital trade.

In closing, let me offer the following recommendations:

First, we need to prioritize digital issues as central to our trade and investment policy agenda. It is our understanding that Ambassador Lighthizer and USTR are doing this as part of the NAFTA Modernization efforts.

We believe any agreements should, at a minimum, one, prohibit discrimination and secure market access for U.S. technology companies, products, and services.

Two, ensure the ability to move data across all borders for all sectors.

Three, combat national policies that require the use of local technology infrastructure or requirements to transfer source code or compel access to algorithms.

Four, facilitate regulatory environments that encourage innovation through smart and effective approaches to privacy and cybersecurity, data collection and analysis. Finally, even traditional issues like Customs play an important role in digital trade given the E-commerce boom previously discussed and the need to modernize de minimis.

Secondly, we need to look on the enforcement side of the ledger. We should consider what trade tools are appropriate to address digital barriers. KORUS offers us a success story on enforcement. In 2015 through a consultative mechanism created under the agreement, the U.S. and South Korea were able to discuss and resolve regulatory concerns that restricted data flows. Today while some data flow challenges remain, South Korea has one of the more open data flow regimes in the world.

Three, we need to advance more workable arrangements that bridge national privacy regimes between the United States and our key trading partners. The United States should continue to support the U.S.-EU privacy shield framework and APEC Cross-Border Privacy Rules.

Four, it is important that the Department of Commerce and State Department's Digital Office's program continue.

These programs should be used to drive U.S. competitiveness by promoting U.S. digital exports and advocating for the adoption of friendly digital regulatory frameworks in foreign markets.

And five, we need to do a better job of actively engaging in shaping foreign laws and regulations. U.S. regulators, not trade negotiators, play an important role outside of trade agreements in seek-

ing opportunities to influence foreign regulators. Involving them to help prevent and combat regulatory barriers is going to be crucial going forward.

In conclusion, I thank the Committee for the opportunity to testify and look forward to answering your questions.

[The prepared statement of Mr. Heather appears in the Submissions for the Record on page 37.]

Vice Chairman Lee. Thank you, Mr. Heather.

Mr. Quade.

STATEMENT OF NICK QUADE, GENERAL MANAGER, ECOMMERCE DIVISION OF RELAY NETWORKS, INC., DEEPHAVEN, MN

Mr. Quade. Thank you, Members of the Committee, for holding this important hearing today.

I am the General Manager of Ecommerce Division for Relay Networks Minnesota. We provide domestic and international customers with access to functional and affordable indoor/outdoor wireless networking equipment. We leverage relationships with major universities, school districts, industry leaders to source and sell our products when their IT equipment comes out of service. By refurbishing this equipment, we are extending the life of these items that would otherwise end up as e-waste or could possibly end up in a landfill.

Our business is expanding quickly, and demand, especially internationally, is currently outpacing supply. In this volatile retail environment, small businesses like us must have an E-commerce presence to survive and compete. I have worked in the E-commerce field for nearly 10 years now and know that E-commerce is the future of commerce.

Our product reaches the entire globe through platforms of eBay and Amazon. These platforms further expand the multi-billion dollar networking business to a customer base that even five years ago wasn't possible.

Twenty percent of our sales are exports to customers in over 50 countries, which expands from Switzerland all the way to Australia. The education field internationally is one of the largest in terms of demand. Relay Networks is an example of the many thousands of small American businesses that are benefitting from and growing on top of the global digital economy.

We are using digital tools to reach customers that again were previously inaccessible for a business of our size. I believe that much of that economic benefit is being realized by small businesses that are in turn creating jobs in their local communities.

Unfortunately, there are critical barriers to further driving this growth, and governments are slow to catch up with an industry that has grown 45-fold from 2005 to 2014. While the U.S. has withdrawn from the Trans Pacific Partnership Agreement, the digital trade provisions that sought to remove barriers to digital trade were positive for my business. But TPP fell short in one critical way. It did not compel countries to increase their Customs de minimis thresholds which are the country-by-country thresholds below which international buyers can import items duty and tax free.

Congress took the right steps to increase the U.S. de minimis threshold to $800 in the Trade Facilitation and Trade Enforcement Act, but now we need to encourage our trading partners to do the same.

Now that we are post-TPP, we should look to use trade policy making to both advance the positive digital trade provisions that were in the TPP, as well as the Sense of Congress that were included in the Customs Reauthorization Bill, and the current NAFTA negotiations are a perfect place to start.

Our neighbors to the north in Canada have a $20 de minimis threshold, which means that Canadian Customs officials can intercept, open, delay, and assign levies to my sales. Needless to say, this does not promote a good buyer experience and compromises my relationship with that buyer.

Furthermore, Canada's threshold was set in 1985 when I was three years old. And according to the neo-MacDonald of the CBC News, Ottawa spends $166 million a year to collect $39 million in taxes and duties. It's quite astonishing.

On the Canadian side, this policy amounts to a protectionist move that puts every consumer at a disadvantage. And on the U.S. side, this is a trade barrier that hurts small businesses the most.

The demand for electronics and networking equipment no longer needed in our market is in high demand overseas. We need to bring these dollars back into the U.S. as fast as possible to maximize value. While 20 percent of my sales today are to international customers, I know they would grow if digital trade barriers like the de minimis thresholds were taken down.

Just recently, deals were lost because of fees involved. This included a resort in Canada that we were working with that wanted to upgrade their network, several schools in Latin America, and a teacher in the UK that wanted to replace her broken laptop, but because of a 20 percent plus increase in the fee, she couldn't afford the unit. These are just several of numerous examples. Thank you again for the opportunity to share my views with the Committee, and I look forward to answering all your questions.

[The prepared statement of Mr. Quade appears in the Submissions for the Record on page 50.]

Vice Chairman Lee. Thank you.

Ambassador Sepulveda.

STATEMENT OF HON. DANIEL ALEJANDRO SEPULVEDA, FORMER AMBASSADOR AND DEPUTY ASSISTANT SECRETARY, U.S. COORDINATOR FOR INTERNATIONAL COMMUNICATIONS AND INFORMATION POLICY, U.S. DEPARTMENT OF STATE, WASHINGTON, DC

Mr. Sepulveda. Mr. Vice Chairman Lee, Ranking Member Heinrich, Members of the Committee, thank you very much for the opportunity to testify here today.

The digital economy and the preservation of the open global internet may feel like an issue that is somewhat removed from the daily lives of your constituents, but it is not. It is central to their success in today's economy, and it is central to our ability as America to lead the world going into the 21st Century.

Our responsibility at home is to invest in making world-class broadband and digital skills accessible to all Americans, and work abroad to protect and preserve the global internet as a force for the democratization of opportunity and commerce.

Farmers, ranchers, small manufacturers throughout America, are using digital platforms and services to engage in international trade. They are also leveraging digital information management tools as springboards for innovation, increased efficiency, and improved productivity, which is making them more competitive globally.

Tourism operators are using Airbnb, Expedia, and other platforms to attract international visitors to cities and venues that are not as well known as New York City or Disneyland.

As a result, places like Santa Fe, or the Rock & Roll Hall of Fame from the Chairman's home State, in Cleveland, are now attracting more international visitors, creating opportunities for working families.

In the digital space, the United States is leading the world. But to stay there, we need three things:

We need a clear digital trade strategy—and I fully endorse the arguments made by my fellow panelists. We need to make the right investments at home. And we need to ensure that every American can participate in the global digital economy.

The Congressional Research Service has released an excellent report in June that lists the policy venues where these sorts of issues are being debated, many of which I've participated in, from the WTO to the G–7 and G–20 gatherings, which are issuing annual digital ministerials, to the OECD and the United Nations, and in our bilateral engagements, digital trade and the open internet need to be a high priority.

Having appointed Senate-confirmed officials representing America's digital interests abroad is going to be critical to our success. As Commerce former Deputy Secretary of Commerce General Counsel Cameron Carey wrote recently, many of the key posts in this Administration for successful advocacy abroad are still unfilled.

That is understandable in the first year of an Administration, but we do need to make that a priority going forward.

In addition to our work abroad, we do have to do a better job at home creating constructive solutions the challenges of the digital economy create, even as we celebrate its success.

The reason that many of the risks abroad that are being created are due to—are rooted in fear. They are rooted in fear of cybersecurity threats. They're rooted in fear of privacy. They're rooted in fear of disruptions to local labor markets, to the relationship between government and the market.

To instill trust in digital trade and the sense that it is working for all, we need to team with our technology community to bridge the digital divide at home and help bridge it abroad, and address new challenges that the digital economy is creating.

The United States needs to lead the way with workable solutions to these challenges or we will end up dealing with a global patchwork of laws and regulations that end up doing more harm than good, and splintering the global internet.

In some countries, the sharing economy, artificial intelligence, and robotics will face impossible restrictions due to fear of labor disruption, and if we do not show them how to transition the displaced due to technology at home, they will not have the proper roadmap for how to deal with displacement in their own communities.

And as Europe has indicated, without mutual recognition for our respective structures for protecting consumer privacy, there will be calls to close off data from transfer abroad. In fact, I think the most pressing and immediate challenge to the health of digital trade is the preservation of the EU–U.S. privacy shield to ensure that transatlantic data flows are not hindered.

The EU is by far our largest digital trade partner, and our systems for governing the digital economy need to remain interoperable.

In closing, it is also critical that we protect network neutrality at home to send the message abroad that services and applications delivered over the global internet must remain free from discriminatory treatment by local and national broadband internet service providers.

Repealing network neutrality regulation at home without a legislative replacement will not help us to argue abroad that the pipes entering homes and businesses in China, India, and Brazil should remain open to our services on a nondiscriminatory untariffed basis.

Our kids take the global internet for granted and everything it makes possible. As leaders, we cannot. It is up to us to make sure that they can benefit from digital trade and a digital economy that works for them and remains a force for progress for decades to come. I thank the Committee and my fellow panelists, and I welcome your questions.

[The prepared statement of Mr. Sepulveda appears in the Submissions for the Record on page 52.]

Vice Chairman Lee. Thank you very much to each of you for your remarks.

I will begin the round of questioning, and then we will go in order of—in the following order. I will raise questions, then Senator Heinrich, Representative Paulsen, Senator Peters, Senator Klobuchar, Representative Delaney, and Representative Beyer.

At the outset of my questions, I would like to ask each of you to identify a couple or three policies that you would adopt if you were king for a day. Let's say if you were in Congress for a day. A couple or three policies that you would put in place if you could make that change, to prioritize, advance, and protect digital trade.

And we'll start in the opposite order from last time. So we'll start with Ambassador Sepulveda and then move to the other end of the table.

Mr. Sepulveda. I think you're going to get a fair amount of agreement on the panel in terms of international policies specifically.

First of all, we would advocate at every international gathering to ensure that data localization wasn't used in an anticompetitive manner.

Second, I think that we would all work to bridge the digital divide abroad. That would mean, there are 3.2 billion people connected to the internet today. That means there are close to 4 billion people who are not. And that's a market that we could be reaching in this particular space where we are such a leader.

And then at home I would do everything we could to bridge the digital divide. I think the move towards making significant investments in infrastructure at home should include an effort to connect the 23 million Americans in rural communities that are not yet connected at broadband speed.

So those would be my three.

Vice Chairman Lee. Thank you.

Mr. Quade.

Mr. Quade. King for a day? That sounds excellent.

Well, an $800 minimum threshold universally would be incredible. Not only would we be able to reach consumers, but we would have a business-to-business number there, too. As our average is about $180, but $800 is where we're at. I'd love to see that universal. That would be incredible to break all of those barriers to make transactions seamless.

In America we're used to seamless transactions where you're able to order something. It gets there, and we don't think twice about it. But all of a sudden you cross borders, and it's a whole other process. But again, since most individual consumers don't buy products overseas, they're not necessarily that familiar with it. So $800 is great.

And to the Ambassador's point, the 23 million people that don't have high-speed access, let's get everybody access. Because it will allow them the opportunity to again open up small businesses like ours in Minnesota. Or, for that matter, an individual who has an idea, that has a product, now using platforms like eBay or Amazon they can show that product to the entire world and change their life.

So those would be the two.

Vice Chairman Lee. Mr. Heather.

Mr. Heather. I will agree with what everybody else says, I'm sure, but let me give you a nontraditional answer. I think, while this hearing is on trade, I think what my answer is: What can we do to address regulation around the world? And a committee like this that has a horizontal responsibility to think about economics and policy, these challenges we see facing—take vehicles. Who is responsible for going out and pushing good regulatory frameworks in foreign markets to ensure that the vehicles that have rolled out in those countries are set up in a way in which we can compete?

There's a huge role here that goes beyond commerce and state and USTR, that goes to NHTSA, that goes to the mainline regulatory agencies that this Congress created in many cases a hundred years ago before there were international markets.

And these regulatory agencies all have offices of international affairs, but they aren't central to the policymaking function of these agencies. They are not equipped to go out and engage with a mandate to advance U.S. commercial interests. Not to say they should go out and advance U.S. commercial interests above their mandate for health and safety and environmental protection. Those things

are obviously paramount. But once we've decided on a regulatory model we think works here, why aren't we out there advocating it to the rest of the world?

So one of the things I would do is I would take the silo approach to the way we think about issues here in Washington and try to bring about a more consolidated approach within particularly the Executive Branch with the support of the Congress in bringing our regulators to advance some of these concerns abroad.

Vice Chairman Lee. Mr. Griswold.

Mr. Griswold. Mr. Chairman, thank you. That's a great question. First, I think a universal $800 de minimis would be great. How do you get there? You know, we had a successful trade facilitation agreement in the World Trade Organization. That seems to me maybe one approach. Maybe amending that agreement.

We have a World Customs Organization. Maybe discussions there. Most countries in the world have a de minimis standard under $200, so there's some heavy lifting there, and I think negotiations are the way to do that.

The Trade Promotion Authority bill that Congress passed in 2015, all those negotiating objectives are important. We basically have our digital policies down correctly in this country. I don't always say that about U.S. policy, but I can say that here.

The problem is largely in other countries. How do you get them to address that? It's through negotiated agreements. Chapter 14 of the Trans Pacific Partnership remains the best template we have available. And I think maybe in the renegotiations of NAFTA that should be an objective, along with talking to our Canadian friends about their de minimis standard.

The Korean Free Trade Agreements, according to a survey by the Congressional Research Service, has the most robust digital trade provisions of any agreement we've signed. Currently, I think for many reasons, walking away from the Korea Agreement would be a huge mistake, but digital trade would be one of them.

So that's my wish list, if I were king for a day.

Vice Chairman Lee. Thank you.

Senator Heinrich.

Senator Heinrich. Any trade agreement that the Trump administration enters into should help strengthen export opportunities for U.S. businesses, level the playing field, and ensure that trade agreements are fair for everyone, particularly American consumers, businesses, workers, farmers, and ranchers. I'll ask this in particular to Ambassador Sepulveda and Mr. Griswold, but any of you are welcome to chime in afterwards.

As we embark on a renegotiation of the NAFTA Agreement, or should I say as the Administration does, what are some of the U.S. offensive interests in the digital trade space for our small businesses and manufacturers? Where should U.S. negotiators focus their attention?

Mr. Griswold. Would you like me to go first?

Senator Heinrich. Sure. You bet.

Mr. Griswold. First, Senator, thanks for mentioning consumers. You know, that list gets mentioned a lot, ranchers, farmers, small businesses; consumers are sometimes forgotten. So my compliments

to you for mentioning that, because consumers have an interest in digital trade, in trade generally but also in digital trade.

And I have to say—I am complimenting Congress a lot today when you raised, the de minimis standard to $800, that is probably one of the best things you have done for your constituents in the trade front in a long time.

And I think on NAFTA——

Senator Heinrich. Mr. Quade is nodding, for the record.

[Laughter.]

Mr. Griswold. In NAFTA, that should be part of the discussions. And they are going beyond just the strict guidelines of TPA. By the way, Mexico has a de minimis threshold of $300, but that is still significantly below where it should be. So I think that is what we should do in those negotiations.

Senator Heinrich. Ambassador, do you want to jump in there?

Mr. Sepulveda. I would endorse all of Mr. Griswold's negotiations. And I think it is also important to think about consumers in Mexico as well as consumers in the United States, the degree to which a product like the one from Relay that can be sold de minimis to a teacher to be able to teach his or her kids in Mexico.

Senator Heinrich. Clearly that was the intention of the de minimis standard in the first place.

Mr. Sepulveda. Right, right. That's very useful to everyone involved. And as was pointed out, it is highly inefficient to have a de minimis significantly lower than that. And it is a good signaling thing for us as the United States to have elevated our de minimis.

Senator Heinrich. We have an incredibly open internet in the United States. I mean obviously the Russians can play on our internet, but there are a lot of countries that control content, very closely control who can have a website, what is on that website, what can be offered.

What should our response be—and some of these countries are quite large trading partners of ours—what should our response be generally in terms of negotiations to that very different playing field domestically and abroad?

Mr. Griswold, do you have a——

Mr. Griswold. You know, you are getting into some sensitive areas about censorship and that sort of thing, and that is really beyond the scope of trade agreements. I think the biggest losers when countries adopt those policies are their own citizens. They are being deprived of information, both important political and other information, but commercial information. They are less educated shoppers in the global arena.

So, one, we can set a good example. And I think we have, in this area. But also, negotiate as well as we can—that is where the language is important—that regulations be adopted in other countries regarding national security, cybersecurity, privacy, that are the least trade restrictive as possible. So maybe that is the pressure point that we should bring in negotiations.

Senator Heinrich. Ambassador.

Mr. Sepulveda. One of the things that we saw abroad was an effort by many countries to create import substitution strategies for the building up of their own digital economy.

So everybody wants to have a Google App, a Facebook, and an Amazon, right? So what we advocated abroad was to say, do what you do well and make sure that your people can use the platforms to continue what they're doing to do it better. And import substitution strategy in this space is deeply destructive for them.

The Boston Consulting Group, the World Bank, and others have shown that more open, better connected countries are doing better than those that are not. But there is to some degree abroad this feeling that the United States has first-comer advantage and that they're responding to that first-comer advantage by creating barriers to our firms being able to do well in their markets, to which we have argued and believe the evidence exists to say that actually having and using the platforms that the American economy has been able to create is useful for you.

Senator Heinrich. Thank you all.

Vice Chairman Lee. Representative Paulsen.

Representative Paulsen. Thank you, Vice Chairman Lee.

Mr. Quade, you and the other witnesses here today have presented some very valuable testimony about the importance of digital trade to American businesses and our economy.

As I mentioned earlier in my opening statement, both Senator Klobuchar and I can attest to the numerous small businesses in particular in Minnesota that have shared that type of success story in engaging in the digital economy, and it is great to have you here.

I am curious, as Members of Congress consider future legislation in this area, as we watch the Administration negotiate future trade agreements that include digital trade provisions, I think it would be helpful for this Committee to hear about some of the specific barriers you face.

You outlined the de minimis component to digital trade that companies like Relay Networks face. What are some of the challenges that your company has come across as you try to reach customers abroad? And how can we help you in overcoming these barriers? Does anything come to mind?

Mr. Quade. Congressman, it is not just the de minimis but it is also the Customs process as a whole. It is amazing how many times we have an international customer and the transaction seems seamless. I do not hear anything, you know, days later. And all of a sudden two, three weeks later an international customer will call me up and say, well, where is my product?

Well now all of a sudden I have to get on the phone and call multiple different areas. It could be the shipping provider. It could be Customs. And spend hours trying to track down this product that is stuck somewhere in this process, and that includes countries like the UK.

I can cite a specific example just recently where, you know, I must have spent two, three hours on the phone tracking down product, trying to find where it is. And this is, again, our partner in the UK.

So in terms of barriers, it seems as though the whole processes just are slow. Products get lost. There are whole countries where we would just as soon not ship product to because we know that we are rolling the dice. One of those would be Russia, for example.

But it seems as though these processes are just a nightmare. And I know specifically businesses that are involved in digital trade that simply do not offer their products internationally because they simply do not want to deal with it.

And that, quite frankly, I think hurts those companies because if they open these products up, and we could simplify these, we can get this product that no longer has a market in the United States out of the United States and bring money back in.

Representative Paulsen. So just pause for a minute. Essentially, you are emphasizing that we need to be proactive in combating some of these existing barriers that exist to digital trade. So just really quick, highlight what it has meant to Relay Networks. Digital trade has meant a lot to the success of your company and where you are going as a small business, the people you employ, but what has it meant to you?

Mr. Quade. Since I have come aboard, we have nearly doubled the size of our employees. We have doubled our warehouse space. We have completely redone our processes in the back room so we can be more efficient, because we need to start handling the volume based on the demand.

My phone blows up every single day with international customers wanting the stuff that no longer has a need here in our market. And that includes student-issued tablets. You know, Americans, we do not necessarily—not a lot of us need an iPad2. We want the latest and greatest. We want the iPadair, right?

But an iPad2 in a Latin American country? This changes their life. Or network equipment that has come out of use at a major company. You put that in play in a school that has not had internet access before? It changes lives. And the demand is there.

The supply is our challenge. So we need more equipment that has been sitting around in IT closets because of this international demand so we can bring that money, again, back into the United States. And so that I can keep hiring more people, so we can keep expanding our warehouse. It is extremely exciting. Every day I come to work I talk to the owner of our company, Darren Ashcroft, who is here with me today, and we are just so excited every day to come in and speak to new customers, the Netherlands, Chile, et cetera.

So it is a very exciting time, Congressman.

Representative Paulsen. Thank you, Mr. Chairman.

Vice Chairman Lee. Senator Klobuchar.

Senator Klobuchar. Thank you very much. I also welcome you, Mr. Quade. Not everyone has a Senator and a Congressman, so you are going to get all the questions now. But thank you for employing people in our State.

I guess I will just ask you one question. And that is, that in July I joined my colleagues in calling on the USTR Ambassador to make small businesses a priority in trade negotiations by seeking to raise the de minimis threshold for goods and services that U.S. businesses can sell overseas.

And as noted, right now up to $800 can be imported into the U.S. with no duties or tax, but a U.S. company would face a much lower threshold when exporting goods and services to another country.

When we have 95 percent of the world's customers in foreign countries, there is a world of opportunity out there, as you point out. Can you talk about, expand on how making sure that increasing the de minimis level for developed countries can benefit small businesses?

Mr. Quade. Sure. Again, when, Senator, you take down these barriers, it creates that seamless transaction that we are all used to here in the United States. And it also makes businesses like ours run more efficiently.

So if these transactions can be more seamless, I do not necessarily have to spend all of my time, again, tracking down these products. Because I want to take care of these customers, but I also do not want to upset these customers. Congressman Paulsen talked about our 100 percent feedback rating on eBay. It is a lot of work to maintain that feedback. It is a lot of work to take care of these customers. But I am more than willing to do the hard work. But again, I can speak to numerous small businesses in Minnesota that are doing a large amount of volume that, again, do not have their products internationally because they do not want to deal with it.

Senator Klobuchar. They do not want to deal with the threshold.

Mr. Quade. Yes. You take those barriers down, all of a sudden these companies can start offering these products internationally and experience the same boom that we are experiencing at Relay Networks.

Senator Klobuchar. Very good. Thank you.

Mr. Heather, you talked about the Digital Attaché Program in your testimony at the Commerce and the State Departments, and I have always been a big booster of the Foreign Service and the people that can help us provide help to companies both in our own country and what markets they can go into, and then of course in the Foreign Commercial Service. And then also the staff in the embassies. But the Digital Attaché Program is relatively new. As you know, it helps U.S. businesses increase exports by helping them manage digital policy and regulatory issues.

The digital attaché programs were established in 2016. We have seen some proposed budget cuts of course from the Administration. How do you think these programs could be helpful if we kept them in place?

Mr. Heather. Well, given the fact that most of the challenges we are talking about today are in foreign markets, if you do not have eyes and ears on the ground in real time to know what is happening either legislatively or regulatorily in these countries, there is not an ability to feed that information back into the broader U.S. Government in order to then come up with a response to what we see happening.

And in our experience, even though this program is relatively new, we have done a significant effort to have regular conference calls with these folks who are on the ground, and have participation on many of these calls of over 100 companies who are very eager to hear what is being seen by these Digital Attaché officers. And also oftentimes it is our members who are able to tell the Digital Attachés things that they are not seeing, necessarily.

So we have found the program, even in its infancy, to be very important and highly successful, and something we think there is the ability to leverage.

I think that there are, on the Commerce side, somewhere—and Danny may need to help me here; I know you were at State—but I think we expanded it from 12 to 16, or from 9 to 12, or something like that. But we are in the most important and key markets, and State has amplified that effort by doing a lot of training and programming for their commercial officers, and many more embassies to be on the lookout for things like data localization, force tech transfer issues. So this is a program that is valuable.

Senator Klobuchar. Thank you. One last question, Mr. Ambassador, very briefly. The importance of broadband deployment to the issues that we are talking about. We have the Broadband Caucus in the Senate. We have been working really hard to try to get infrastructure built to get more investment.

Mr. Sepulveda. Thank you, Senator Klobuchar. And I want to echo the good work of the Digital Attachés, and we also created a Digital Economic Officers Program at the State Department. So every post has an economic officer. They are trained and knowledgeable on traditional economic issues, trade issues, customs issues, those sorts of things. But in the digital space, we needed to create a new curriculum and educational mechanism by which to ensure that our economic officers abroad are well versed in these issues, and we have done that through the State Department's Economic Bureau.

And there has been some call for reducing the number of people at the State Department, and that is a real issue. To your broadband issue, the excitement that you see out of Relay Networks, the ability that they have had to succeed as a small business using their digital connectivity, needs to be extended to every small business in America.

And there are far too many rural communities in particular, because of the cost of building networks out to those communities, that are not connected. Having something in the infrastructure build to help with those initial capital costs would be critical to making sure that the Universal Service Fund can then help, once it is built, those long-term costs. Blair Levine, who used to be with the FCC, has written a paper for Brookings making a specific recommendation for the infrastructure, whatever infrastructure stimulus is proposed, that I would strongly endorse and recommend to you.

Senator Klobuchar. Thank you, very much.

Vice Chairman Lee. Representative Comstock.

Representative Comstock. Good morning. It is great to be with you here this morning. Sorry I was a little late, but, Mr. Griswold, I appreciate George Mason represented here, and Mercatus, and we appreciate your great work there. So with the widening use of digital technology, and with the internet lowering the cost of international trade, it helps our productivity, the kinds of things you have highlighted. Could you explain why this is not a threat? Why this is not a threat to other jobs? And why this is something that will really have a ripple effect for all kinds of industries? And maybe just paint a few pictures of some of the small- and medium-

sized enterprises that will be able to expand and benefit in a way that is growing new markets, not in any way cutting into anybody's existing?

Mr. Griswold. Yes. Thank you for that question.

Yes, there is a lot of anxiety about jobs connected with trade, and I make the point in my testimony that this is not something radically new about the "why" of trade, it is about the "how." So the same principles apply: International trade allows us to do more of what we are better at as a Nation, that plays to our strengths in terms of our high technology industries, and digital, and information technology.

So in that sense, the internet is enabling trade to happen in ways it was not able to happen before, with all the benefits that it brings to our country.

The U.S. International Trade Commission study is important in this respect. They talked about up to 4.8 percent larger gross domestic product, up to 5 percent higher real wages——

Representative Comstock. What was the larger amount, the study?

Mr. Griswold. Yes, that was the 2014 U.S. International Trade Commission Study on Digital Trade. And they estimated our GDP is larger by 3.4 to 4.8 percent, real wages of American workers in Northern Virginia and around the country are 4.5 to 5 percent higher. They were more cautious on jobs. They said it is either 0 to 2.4 million, but I think the zero is an important factor, because trade is not about more jobs or fewer jobs; it is about better jobs. About jobs in areas that are growing, that play to our strengths.

And I think digital trade plays to that. You mentioned small- and medium-size enterprises. The barrier to companies like Relay Networks getting into global markets in the past has been how to reach foreign customers, how to make foreign customers aware. Also, how to overcome something called "Information Asymmetries." And that is, if you are a branded multinational, people can know your reputation, and they know where to complain. If you are a small- and medium-sized company, people do not know your reputation, and they are hesitant to take that plunge. But on the internet you can have things like customer reviews, which raise confidence. You have platforms like Amazon and eBay, and that has enabled small- and medium-sized companies to create jobs.

So trade is like technology. You know, 200,000 to 300,000 Americans line up for unemployment insurance every week in a low-unemployment economy, not primarily because of trade but because of technology and changing consumer taste. So jobs are created and jobs are eliminated through trade, through technology, but the bottom line is, it raises our productivity. It is creating opportunities for our children and workers in the future economy. And that is the important thing, and that is what digital trade is contributing to our economy.

Representative Comstock. Okay, and what are some of the biggest regulatory threats that you see that would stymie the growth, or limit that entry level?

Mr. Griswold. Yes, there are barriers to cross-border trade, and we have talked about a lot of them today in terms of force localization of servers, which by the way interferes with the cloud. For

small- and medium-sized companies, the cloud computing is more important to them than it is to large companies that can have their own IT departments. But the cloud allows small- and medium-sized companies to buy those services. And that is why a forced localization of servers is something we need to resist and get into trade agreements.

Domestically we need to have a flexible economy. We need to sort out our corporate tax system, which everybody agrees is a drag on growth. We need to invest in education in a way that prepares our workers to fill these jobs.

I know it is beyond the scope today, but we need immigration reform so that high-skilled workers can come into the country and help us grow these high-tech companies, and create the innovative digital products that we can then export to the rest of the world.

So it is a broad package, but you are exactly right. It is all part of a package of making our economy more flexible and opening up markets for opportunities.

Representative Comstock. Okay. Thank you. And thank you so much for your work.

Vice Chairman Lee. Representative Beyer.

Representative Beyer. Thank you, Mr. Chairman, very much.

I want to begin by saying, as an automobile dealer in my real life, 99 percent of our sales start online. So it is very, very out there.

Mr. Heather, I want to thank you right off the top for pages 8 and 9. You have a very clear multi-page strategy for where our digital stuff should go. So thanks for putting that together.

Ambassador Sepulveda, you say very eloquently that there is critically protected network neutrality at home. To send the signal to others that services and applications delivered over the global internet must remain free from discriminatory treatment by local and national broadband internet service providers. This is said eloquently.

Can you expand on that? And the recently announced FCC plan to roll back the Title II designation on that neutrality, is that a step in the wrong direction for our digital trade?

Mr. Sepulveda. Thank you, sir. I hesitated to mention that due to the fact that it is an issue that is being heavily debated in the Congress. The reason I mention it is because internet services are global in nature. That is to say that if you build—if Relay Networks puts up a website, it can reach any consumer anywhere in the world, as well as anyone else, right? Broadband internet service is provided locally. So that last mile, if your service or your speech is discriminated against in that last mile, it will hurt you. And that is the point of control that could be leveraged abroad against our providers. Now the signal that we sent, when we say that network neutrality is not going to be the rule of the land in the United States, sends that signal to other countries that it is okay for their broadband service providers to discriminate against content that isn't local or isn't originated in their country.

So that is the biggest challenge. I think it sends a bad signal, particularly to repeal the rule without having a replacement in law. You can have an honest, and you will have a very strong debate and deliberation on what that should look like in law versus

in rule, but I strongly support Chairman Wheeler's work. And I think it has sent the right signal abroad, and I know that you have done work with Chairman Wheeler on this in your own District and we appreciate that work.

Representative Beyer. Thank you. Ambassador, the Korea-U.S. Free Trade Agreement was hailed as having the most modern and robust digital trade chapter in history. How would you assess the success of this a few years in? And aside from the obvious strategic and commercial impacts, can you discuss the impact of a course withdrawal on digital trade, both with Korea and internationally?

Mr. Sepulveda. I think I would echo what my fellow panelist has said, that the Korea Agreement was very, very strong, as was the language in the TPP, which was not pursued.

I think at the end of the day it would send a very poor signal to a very strong ally and a key commercial partner to withdraw from the Korea-U.S. Free Trade Agreement.

Representative Beyer. Thanks. Mr. Heather, a similar question on NAFTA. So the original NAFTA obviously predated the centrality of the internet and digital goods. But NAFTA still governs North American trade and telecoms and digital goods and services of some status quo. So how important is the digital piece of the modernization negotiation that the President is talking about?

Mr. Heather. Well we have every indication that the digital issues in the NAFTA modernization are a priority for Ambassador Lighthizer and the negotiations. I think when you look at the relationship the United States has with Canada and Mexico, save maybe de minimis, and maybe a couple other issues, we don't have a lot of the kinds of barriers I outlined in my testimony with either trading partner.

But what NAFTA modernization represents is an opportunity to get the rules right. Yes, KORUS was a good start in the digital age. TPP built on that. But there are always new questions that are emerging in the policy space. For example, cyber and how cyber regulations are being promulgated around the world.

We do not have a cyber challenge in terms of the regulatory environment in Mexico or Canada, but Canada and Mexico because they are good trading partners and good partners on strong policy represent an opportunity to get the rules right.

So NAFTA, more so than sorting out challenges that we face, save de minimis, maybe a couple of other minor issues, Mexico and Canada and the United States have an opportunity in the NAFTA modernization to create a very high set of rules and standards that we would like to see pushed in other trade agreements around the world.

And I would just say, since we have a lot of home cooking going on between Mercatus and the Congresswoman and my friend from Minnesota, I happen to be your constituent, sir.

Representative Beyer. Thank you, Mr. Heather.

So a quick follow-on. Canada has got the cultural exemption in NAFTA. Is that likely? Can we modify that? What can we achieve in the NAFTA renew issues?

Mr. Heather. I am aware of it. I am not following that issue quite closely. The cultural exemptions are challenges in many cases

for all kinds of content issues in Europe and elsewhere. They all are something USTR pushes back on from a market access standpoint. But I would have to follow up with you in terms of, with folks who are following that specifically as to what we might be able to achieve.

Representative Beyer. Thank you. And thank all of you very much.

Representative Paulsen [presiding]. Senator Lee had to leave, but we have time for another round of questions from Members who would like to ask. So, maybe I will just start with Mr. Heather, to follow up a little bit on that conversation.

There are multiple avenues in which to pursue free trade with appropriately facilitating rules, and the WTO is one. Free trade agreements with individual or group countries is another, obviously. Each has its pros and its cons.

Digital trade is also discussed at G–7 meetings and G–20 meetings. Can you explain some of the pros and the cons of the various forums? Can you suggest which path or paths toward appropriate regulation are more promising and how the United States should prioritize them?

Mr. Heather. It is a very good question, and I suspect you would get a lot of different answers to that. Let me say this. We have found conversations in the G–7 and the G–20 to be immensely challenging. And China's year of hosting the G–20, I think that was the first year that G–20 took on digital policy type issues.

It was amazing, looking behind the curtain to the degree I had the ability to look behind the curtain, to see the kinds of efforts that were made not just by the Chinese but the Russians, as well as our European friends and allies. To not have what I would say to be very basic statements about having an open digital economy and free flow of data. That did not get any better this past year when Germany chaired the G–20.

And so I think the G–20 and G–7 are very tough forums and represent tough sledding ahead for establishing consensus and good rules. I think we play a lot of defense, quite frankly, in both of those fora.

When you look at the WTO, I think the WTO has a significant ministerial meeting coming up this fall. There have been some voices who have called for the WTO to get into the digital game, as being an area of expansion.

I do not expect that the WTO will ultimately receive that mandate this fall. I think there is a view that the WTO has enough on its plate that it needs to work on before it tries to venture into new areas. But I think that is an area worth watching.

And I think one agreement that we have not mentioned that has not had much attention in the transition from one Administration to the other, is TISA, which is a plurilateral agreement with a number of countries that is a real opportunity to set rules in the digital space, particularly for the Services environment.

So I would put as a priority getting our act together and figuring out what we want to do with TISA, and pushing that in terms of the concept of establishing digital rules.

Representative Paulsen. Ambassador Sepulveda, can you share some thoughts along those lines, too?

Mr. Sepulveda. Sure. I thought that was an excellent presentation of where we are. I would say that the G–20 in particular is a challenging environment, and the G–7 creates some challenges as well, but we need to be there. We need to be making our arguments.

And they also serve to telegraph to us what countries are thinking about doing domestically, and then we can engage on that level as well.

I think it is critically important that some of the private, larger international organizations like the World Economic Forum and others, are entering this space. The Chamber has made this a priority. The International Chamber of Commerce has made it a priority as well.

So there are various venues. When I was working at State, you could be traveling every week somewhere in the world to talk about this stuff. And we need to be engaged in all of them.

Representative Paulsen. Mr. Griswold, I am going to follow up with one other question, because I know countries like France and Germany that are technologically advanced are heavily engaged in international trade, and at the same time they are adopting policies that are not necessarily trade friendly.

Maybe you could give a couple of examples and their reasons. On the other hand, there are countries that seem very strongly oriented towards free trade, Singapore, for instance. Could you share that perspective and what examples we should be following?

Mr. Griswold. Yes. First just a quick comment on how to achieve liberalization of digital trade. There are trade-offs. If you have an agreement at the WTO that benefits 160 countries but there is a lower common denominator of what you can achieve. So I continue to think bilateral and regional agreements have the most promise, and Chapter 14 of TPP remains the template.

But, yes, our European friends are advanced in a lot of ways, but in some ways I think they have a little envy that they do not have an Amazon and an eBay and an Apple. And, frankly, you see some protections disguised as concerns over privacy and security. And I think we need to challenge them on that.

So we need to continue to push them. It is in their interest to not require the localization of servers and things like that. It really enhances your own efforts at security if information can be located in multiple sources, not only in your own country but elsewhere, and in countries like the United States where we have very high security and technological standards. We need to make that case to them, that it is not only in our interest to open up your market, but it is in their interest to have a more diverse means of distributing information.

Yes, Singapore is a good example, and we do have a bilateral trade agreement with Singapore that has some digital components. But they are a first-world country in that respect. You are finding that countries that understand the benefits of digital trade, as we do in the United States, are very willing partners to sign on with us.

Canada and Mexico were ready to sign on to the Trans Pacific Partnership, so they embrace all the negotiating objectives of the

U.S. Congress. So I think we have willing partners out there. We have some work to do with others.

Representative Paulsen. Senator Heinrich, you are recognized.

Senator Heinrich. Central to the U.S. leadership in E-commerce is our highly skilled workforce. To ensure that we build on our current strength there, we obviously need to invest in that workforce through quality education, things that work, job training, apprenticeships, other programs that equip our workers with skills needed to compete in that global economy electronically and otherwise.

Last week the Administration announced its decision to end the Deferred Action for Childhood Arrivals Program, DACA. Starting with you, Ambassador, and I will just go across and get all of your thoughts, what is your assessment of how ending that program will potentially affect the U.S. economy and our ability to compete in coming years?

Mr. Sepulveda. Thank, you very much, Senator, for that question. The technology community, and I think the corporate community, has spoken fairly uniformly on this. The estimates are that it will cost hundreds of billions of dollars to end the DACA program.

And for the technology community, where so many in that community are either immigrants or the children of immigrants, this issue has hit very, very close to home. In fact, I think Brad Smith has said that this Congress should take up DACA legislation even before they move to tax reform, which is obviously something critically important to Microsoft.

So as we move forward, being open to the world's talent, being respectful of all our children, and making sure that the corporate community has all the talent it needs available, because this is not a zero sum game. For us to succeed in the global economy, and for them to continue to innovate and grow, is incredibly critically important.

Senator Heinrich. Does anyone want to add to that?

Mr. Griswold. Senator, thanks for bringing that up. Free digital trade is necessary, but it is not sufficient. We have to have the educated workforce, the flexible domestic economy to take advantage and create the new products, and immigration is part of that.

I know it is controversial, but we are facing a demographic issue in this country where the workforce is going to start shrinking without immigration because of declining birth rates, but we also have a challenge in terms of a trained workforce in the STEM subjects.

You hear anecdotally and otherwise of U.S. companies that cannot hire the high-skilled workers they need. These are manufacturing companies as well as IT companies.

As far as DACA goes, to me these young people are about as close to a sure bet as you can get. This is basically the only country they have known. They are fully Americanized in every sense in terms of the language and the culture.

By definition they have graduated from high school. The older ones over 25, two-thirds of them are either in college or have graduated from college. Hundreds of them are working in high-tech-

nology companies. They have been fully vetted in a security point of view.

I disagree with some of the economic statements that Attorney General Sessions made, but I think Constitutionally he is probably right. It is up to Congress to fix this problem. And I would just—you asked about my wish list. If I were king for a day, I would legalize the DACA young people.

Senator Heinrich. It sounds like we should get on that.

Mr. Griswold. I believe you should.

Senator Heinrich. Mr. Heather, do you want to add to that?

Mr. Heather. No, I couldn't improve on the Ambassador's statement.

Senator Heinrich. Thank you.

Representative Paulsen. Representative Comstock, you are recognized for five minutes.

Representative Comstock. Mr. Quade, you had said in your testimony, and we talked about here, the TPP agreement did provide positive things there. Given we do not have that, how can we take the positive things there now and utilize them to help businesses—and actually for any of you who might have some thoughts on what we might do in an environment where unfortunately you have opposition from both sides on trade. And I think the testimony you are providing today shows why this is something that really can help both of those sides advance, and so the fear of it, how do we overcome that? And what are some of the ways that we could help advance the digital trade in a way that is inclusive and engages everybody?

Mr. Quade. Absolutely. Mr. Griswold said that we could use that part of TPP as a template, you know, and carry that out in the future negotiations, including the current NAFTA ones.

So if we use that as a template, and then we also bring it on an individual level like I was talking about earlier, the small businesses including our neighbors in Canada over here that I deal with, or the education field internationally that is looking to get connected. But that barrier from—because they are limited in capital, you know? So they are on tight budgets.

Representative Comstock. So this is really like a micro enterprise assistance, if we were able to——

Mr. Quade. Exactly.

Representative Comstock [continuing]. Help here, and it would change sort of the whole dynamic of aid versus trade. This is another——

Mr. Quade. Yes. That is a perfect way to think about it. Think about it as the easiest way that we can touch an individual and allow them the free flow of goods, like we are used to in the United States.

The teacher I referenced, the teacher in the UK who was just looking to replace a laptop. Why is it that somebody has to show up on her door with the laptop and say give me another $60 for a $225 laptop? That is a perfect way to humanize a trade agreement. How does this affect individuals?

And I see it all the time. You know, the resort in Canada that I was working with. You know, they just wanted to upgrade their network, but we could not do it. The customer said, well, alright,

maybe we will visit it next year. You know, like geeze, if we could just get this done now.

Representative Comstock. So it ends up depressing their business.

Mr. Quade. Exactly.

Representative Comstock. There is nobody there who is necessarily engaged in this, but there is no reason they couldn't be. I mean the U.S. is the leader in this area of digital trade at this point, so there is nothing to fear from us in terms of—I mean, who would be our nearest competitor in the digital trade area?

Mr. Quade. I think perhaps one of the other members of the panel could answer that, but with—I think I referred to the, what was the phrase that I used, we're the United States of Stuff. We've got lots of stuff in this country, and a lot of stuff that we do not need anymore, you know, but other countries do.

And we have got a whole bunch of it, and it is just sitting around. And companies like us, we can get extra life out of it, and we can provide it to people that need it. But I think in terms of other countries like us, I don't know——

Representative Comstock. Like maybe, what about various countries in Africa, developing countries where they have an increasingly educated workforce, but they are seeing all kinds of trade barriers. How would this help say Uganda, or Kenya, if anyone has any thoughts on that?

Mr. Griswold. Well, I think it is a great opportunity for them and for us. As Nick points out, there is a great demand over there for stuff that we've got that we no longer need. So I think it is a great opportunity to export this used stuff here in America to great benefit over there, and they are getting online.

They have access to cellular networks over there, and it is transforming the way business is being done in Africa. So there is a great opportunity there. We can earn more through our exports.

But again, the issues are largely over there, and we need to work with them. The African Growth and Opportunity Act is a good thing Congress has done to encourage trade there, but you're right. It is both good business, and also the U.S. by being a good citizen in the world encourages trade with those countries.

Representative Comstock. Thank you.

Mr. Sepulveda. I'm sorry, if I could just add quickly. In traveling around the world I spent a significant amount of time in the developing world, particularly in Latin America but in Africa as well. And where you see—it is fascinating to see people who want to be connected so badly.

I mean, you will see kids without shoes but they will have a cellphone. There is a hunger for this type of connectivity. The challenge is that in too many countries governments see it as a revenue grab, essentially, to tax digital goods, to tax high technology products, because they feel it is a luxury.

But the fact of the matter is that connectivity and these sources are no longer a luxury; they are a necessity to compete in the modern economy.

So one of the things we did is we created the Global Connect Program, and we teamed up with the World Bank to try to send the

message to finance ministers around the world to focus not on taxation but on connectivity.

And we have seen examples of success. So in Colombia, for example, they had a program called Viva Digital, and the idea was to not tax computers and tablets. And they did a reverse auction system by which to connect their rural communities. And they connected 90 percent of rural Colombia, and a computer was actually cheaper in Colombia than anywhere else in Latin America because of these programs to incentivize consumption of these goods and get people connected.

Representative Comstock. They are changing the taxation. With a focus on education, they see it as education rather than a luxury good. It is not watching movies; it is educating the kids. And having these kids, you know, if you are in a rural area in a Third World country, you still can get access to the best education if you would just get these tablets that we can take our used ones and get to them, right, and be a dynamic change for them.

Mr. Sepulveda. And these tools will make them better at whatever they are good at. So if you are really good at agriculture, be really good at agriculture. And use the connectivity and the tools of the internet and the information services to be better at it.

You can't tax your farmers, your ranchers, from getting these tools that are necessary to succeed in a modern economy. It won't work.

Representative Comstock. So it's sort of a modern day machine and tool tax, which I know still in the U.S. we are always trying to get rid of in various places because it is taxing the tools to get things done. We need to get rid of these taxes internationally.

Representative Paulsen. We are going to wrap up. I would like to thank the witnesses again for being here today. The record will be open for five business days for any Member that would like to submit questions for the record. And this hearing is adjourned.

[Whereupon, at 11:26 a.m., Tuesday, September 12, 2017, the hearing of the United States Joint Economic Committee was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF HON. MICHAEL S. LEE, VICE CHAIRMAN, JOINT ECONOMIC COMMITTEE

Good morning and welcome to the Joint Economic Committee's hearing on digital trade. Chairman Tiberi could not be here today and has asked me to chair the hearing. I want to welcome my colleague Ranking Member Heinrich, the other Members of this Committee, and the panel of expert witnesses who are appearing before us today.

What is digital trade? It covers a wide variety of economic activity, including: international orders transmitted through websites; global connectivity enabled by email and voice-over internet protocol; international banking; and data transmissions to manage global supply chains.

Advancements in technology mean that digital trade is capable of delivering ongoing improvements in production, distribution, and value for Americans. U.S. firms have been pioneers and global leaders on the digital technology frontier. American consumers and businesses greatly benefit from the ability to buy and sell across borders and gain access to new products and customers.

We are swiftly approaching the point where the word "digital" will be an unnecessary adjective for trade. Although, I'm sure trade lawyers will want to maintain the extra level of specificity for billing purposes.

But we need to work both domestically and internationally to facilitate trade and innovation. We should seek to ensure that sensible regulations and standards are put in place for the protection of intellectual property and private information.

Congress has set clear priorities for negotiating trade agreements that can lower trade barriers for digital goods and services, and the Trump administration is pursuing those priorities in the current NAFTA discussions.

It is critical for future U.S. economic success to ensure a regulatory setting in which innovators, entrepreneurs, and businesses can experiment with new technology and succeed in a global market.

I will now yield to Representative Paulsen, who earlier this year launched the Bipartisan Digital Trade Caucus in the House of Representatives.

OPENING STATEMENT OF HON. MARTIN HEINRICH, RANKING DEMOCRAT, JOINT ECONOMIC COMMITTEE

Thank you, Vice Chairman Lee, and thank you to our panel for being here today.

E-commerce touches industries across all sectors of the economy and Americans across the country. It is a key source of American jobs and 21st century economic growth and its importance will only grow.

We know that the internet enables U.S. companies, big and small, to efficiently reach markets around the world. Manufacturers, banks, retailers, airlines, farmers and a range of other businesses rely on the internet to seamlessly access and move data across borders.

The internet has fundamentally transformed our lives—and the way we buy goods.

The benefits of international trade used to be concentrated among big business. The internet changed all that, opening doors to small and mid-sized businesses and even one-person shops.

Now, an individual with a broadband connection can sell his or her goods and services all over the world—from an artisan from Acoma Pueblo, to a game designer from Albuquerque or a Hatch Chile farmer in Cruces, they can all now enter the global market place.

A recent study found that 95 percent of U.S. small and medium businesses on eBay export and 190,000 of these firms export to four or more continents.

The United States is an e-commerce leader today. The International Trade Commission estimates that digital trade contributed more to gross domestic product than all but four states in 2011, and has lifted wages by as much as 5 percent, while adding up to 2.4 million more full-time jobs.

In New Mexico, we are working hard to ensure that the opportunities of the digital economy reach every corner of the State. I'm excited to welcome Facebook, which is scheduled to open a multi-building data center next year in Los Lunas that will generate more than 100 jobs at the data center and up to 1,000 construction jobs.

With 2 billion monthly active users, Facebook is literally built on cross-border data flows.

To fully realize the gains from digital trade, we need to ensure global policies enable companies to harness the power of the internet to reach new customers around the world.

For this to happen, it's vital we have a free and open internet, with privacy protections. And that starts right here at home. Your personal information should not be shared or sold without your consent. Your health, financial and other personal and sensitive information must be protected.

While internet providers must be prevented from selling users' personal information without user consent, companies should be able to choose where to store data.

When U.S. companies can't store data in the U.S., they lose out on jobs and the ability to use the data to improve their products and services.

As far as we've come, with the number of internet users worldwide tripling in the past decade, we are still in the early stages. And the opportunities for e-commerce, domestically and internationally, are unlimited.

But, to realize the potential the internet provides, we need to accelerate the roll out of broadband and ensure that rural areas and tribal communities have greater access. Right now, four in ten rural residents lack broadband access, and among rural tribes, that number climbs to seven in ten without access.

To help bring more Native American students online, I will soon introduce legislation that promotes broadband access for students and tribal community members.

During a meeting I convened at the Santa Fe Indian School recently, the Tribal Administrator of Santo Domingo Pueblo in New Mexico Everett Chavez put it this way: "Access to the internet is new, but it is an equally essential infrastructural need to our tribal communities as water, power, telecommunications, or roads."

It doesn't matter if you are a student, rancher, manufacturer, teacher, doctor or small business—high-speed internet is critical to thriving in the economy of the future.

Finally, as we focus on digital trade today, we should be clear that this is just one piece of a bigger issue.

We need to be vigilant, to evolve the rules of the road when new technologies are developed, and to protect our workers from countries seeking advantages through unfair trade practices.

Mr. Chairman, I look forward to hearing from our panel, and I'd like to thank former Ambassador Daniel Sepulveda, the witness I invited, for being here today.

MERCATUS CENTER
George Mason University

TESTIMONY

THE DYNAMIC GAINS FROM FREE DIGITAL TRADE FOR THE U.S. ECONOMY

Daniel Griswold
Codirector, Program on the American Economy and Globalization
Mercatus Center at George Mason University

US Congress Joint Economic Committee
Public Hearing

September 12, 2017

Thank you, Chairman Tiberi, Ranking Member Heinrich, the members of the Committee for holding this hearing on the important topic of digital trade.

The Mercatus Center at George Mason University is the world's premier university source for market-oriented ideas—bridging the gap between academic ideas and real-world problems. The Mercatus Center conducts research of consequence that advances public understanding of the institutions that affect the freedom to prosper, and offers public policy solutions to overcome the barriers that prevent individuals from living free, prosperous, and peaceful lives. I am a senior research fellow at the Mercatus Center, where I am the codirector of the Program on the American Economy and Globalization.

More and more each year, Americans are using the World Wide Web to exchange data across borders; import and export goods, services, and digital products on internet platforms; and manage global supply chains. The boom in digital trade across international borders, along with exponential growth in cross-border data flows, has important implications for the US economy and trade policy. With the right policies in place, digital trade can boost US economic growth, benefiting the vast majority of Americans. On the topic of digital trade, I wish to make three main points:

1. Digital trade is transforming the "how" of international trade, lowering costs and increasing volume.
2. The expansion in digital trade fuels economic growth, both globally and at home. Small and medium-sized enterprises in particular stand to benefit from this boom in digital trade.
3. Removing existing barriers to trade would be beneficial in enhancing these gains—particularly those, like the *de minimis* threshold for customs paperwork, that disproportionately burden smaller businesses and new entrepreneurs.

For more information or to meet with the scholar, contact
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BY ANY DEFINITION, DIGITAL TRADE IS BOOMING WORLDWIDE

Digital trade is defined as the digitally enabled exchange of goods and services across borders that can be either digitally or physically delivered. The great enabler is the internet and internet-based technologies that allow the transmission of vast amounts of data around the world at almost zero marginal cost. A recent study by the McKinsey Global Institute calculates that global cross-border internet traffic has soared 500-fold since 2000, and will expand another 8-fold by 2025.[1]

Digital trade can take many forms, ranging from video streaming to ordering merchandise through online platforms. Delivery of purely digital products such as e-books, movies, music, software, and video games is a component of digital trade. For example, one-third of Netflix customers who stream videos are located outside the United States.[2] The internet can facilitate the delivery of traditional services, such as the sending of architectural plans to a foreign customer or the online booking of a hotel or an Airbnb rental overseas. More than half of US services exports are now delivered digitally.[3] Digital trade can mean the transmission of a computer-aided design file to a 3D printer, where the product, say a spare part or a pair of designer shoes, is made on location for the final customer. It can be digital communication through social media or through voice-over-internet protocols, such as Skype.

Digital trade also occurs when customers around the world order products for direct delivery through such platforms as Amazon, Alibaba, and eBay. Amazon now generates 40 percent of its net revenues from sales abroad. This phenomenon is also empowering small and medium-sized enterprises to sell and source in global markets. On eBay, 97 percent of commercial sellers are exporting goods to foreign customers.[4] The number of US companies that are exporting their goods and services to customers abroad has increased by more than 50 percent since 1997, according to the US Census Bureau.[5]

Digital trade is also transforming global supply chains. Because of the vastly enhanced ability to communicate, global companies are able to coordinate delivery times, track inventory, and reduce losses in shipment. The use of "digital wrappers" such as radio-frequency identification (RFID) tags allows companies to track the time and location of goods throughout the supply chain. Adoption of blockchain technology is reducing the cost of financing trade while facilitating "just in time" inventory and reducing customs delays at ports. The US International Trade Commission estimates that the internet reduces trade costs of US exports and imports in digitally intensive sectors by 26 percent on average.[6]

Digital trade is not changing the "why" of trade, which is still driven by comparative advantage and other factors that economists have studied for decades, but it is transforming the "how." As the Organisation for Economic Co-operation and Development notes in a recent study, "The age of digitally enabled trade is not just about digitally delivered trade, it is also about more physical, traditional or GVC [global value chain], trade enabled by growing digital connectivity increasing access to foreign markets for firms in a way that would previously have been unimaginable."[7]

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[1] Susan Lund and James Manyika, *How Digital Trade Is Transforming Globalization* (Geneva: International Centre for Trade and Sustainable Development and World Economic Forum, January 2016), 1.
[2] Lund and Manyika, *How Digital Trade Is Transforming Globalization*, 3.
[3] Rachel F. Fefer, Shayerah Ilias Akhtar, and Wayne M. Morrison, *Digital Trade and U.S. Trade Policy*, Congressional Research Service, June 6, 2017, 6.
[4] Lund and Manyika, *How Digital Trade Is Transforming Globalization*, 6.
[5] US Census Bureau, "Profile of U.S. Importing and Exporting Companies, 2014-2015," accessed September 6, 2017, https://www.census.gov/foreign-trade/Press-Release/edb/2015/index.html; US Census Bureau, *A Profile of U.S. Exporting Companies, 1996-1997*, April 28, 1999.
[6] US International Trade Commission (USITC), *Digital Trade in the U.S. and Global Economies, Part 2*, August 2014, 65.
[7] Javier López González and Marie-Agnes Jouanjean, "Digital Trade: Developing a Framework for Analysis," *OECD Trade Policy Papers*, no. 205 (2017): 4.

HOW DIGITAL TRADE IS BOOSTING US ECONOMIC OUTPUT

The explosion of digital trade in the past two decades has expanded US and global output and promises to fuel more growth at home and abroad for decades to come. The efficiencies that the digital revolution has brought to trade are exposing more markets to global competition, forcing producers to become more efficient and innovative. They are also reducing the costs of trade, allowing businesses and consumers to redirect resources to more rewarding uses.

Digital trade is having a measurable and positive effect on the US economy. According to a comprehensive 2014 study by the US International Trade Commission (USITC), "The combined economy-wide effects of enhanced productivity and lower costs of trading goods across borders that result from digital trade in certain digitally intensive industries resulted in an estimated 3.4 to 4.8 percent increase in U.S. GDP ($517.1–$710.7 billion in 2011)." The USITC estimates that, because of the advance of digital trade in the past two decades, US real wages in 2011 were higher by 4.5 to 5.0 percent, with no net job losses in the overall economy. The USITC notes that the impact could be even more positive if the estimates were able to quantify the spillover effects of the digital technologies in non-digitally-intensive sectors.[8]

Digital trade encourages the exchange of information and ideas and rewards the creation of new products, enhancing innovation in the United States and worldwide. As a 2016 report for the World Economic Forum concludes, "Beyond this economic impact, the free flow of data is, itself, a significant driver of innovation. It allows the sharing of ideas and information and the dissemination of knowledge as well as collaboration and cross-pollination among individuals and companies."[9]

The McKinsey Global Institute's analysis finds that, in 2014 alone, cross-border data flows accounted for a $2.8 trillion increase in global GDP.[10] "Both inflows and outflows matter for growth," the report notes, "as they expose economies to ideas, research, technologies, talent, and best practices from around the world."[11]

The growth of digital trade plays to America's comparative advantage. The United States remains the global leader in creating digital products and online platforms and exporting digital services. According to a June 2017 report from the Congressional Research Service (CRS), 10 to 15 percent of global e-commerce is now cross-border, with the United States and the European Union leading the trend. In 2014, according to the CRS report, "the United States exported $399.7 billion in digitally deliverable services, and imported $240.8 billion, creating a surplus of $158.9 billion. Digitally delivered services accounted for more than half of all U.S. services trade, according to the Department of Commerce."[12]

Reaping much of the benefit of digital trade have been small and medium-sized US enterprises (SMEs). The internet has allowed a growing number of American-based SMEs to reach a global customer base while also sourcing intermediate goods and services abroad. Unlike Fortune 500 companies, SMEs cannot easily establish a physical presence overseas or invest in the systems necessary to manage a global enterprise. Instead, the internet has allowed these so-called micro-multinationals to reach global customers through their websites and common online platforms such as eBay and Amazon. They can process payments digitally and ship products directly to individual customers around the world through private and postal package delivery services.

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[8] USITC, *Digital Trade in the U.S. and Global Economies, Part 2*, 17–18.
[9] Robert Pepper, John Garrity, and Connie LaSalle, "1.2 Cross-Border Data Flows, Digital Innovation, and Economic Growth," World Economic Forum, accessed September 6, 2017, reports.weforum.org/global-information-technology-report-2016/1-2-cross-border-data-flows-digital-innovation-and-economic-growth/.
[10] James Manyika et al., *Digital Globalization: The New Era of Global Flows* (McKinsey Global Institute, March 2016), 10.
[11] Manyika et al., *Digital Globalization*, Preface.
[12] Fefer, Akhtar, and Morrison, *Digital Trade and U.S. Trade Policy*, 6.

The internet has also helped SMEs to overcome search costs and informational asymmetries that can inhibit transactions across international borders. Global customers can now compare prices, not just among top-brand producers but among smaller, niche providers. Online reviews posted on such platforms as TripAdvisor, Amazon, and Google Maps facilitate cross-border trade by reducing uncertainties and protecting customers from inferior products and services or outright fraud. And the benefits are not just on the export side. Digital trade has allowed SMEs to source components and business-to-business services in global markets, allowing them to better control costs and enhance the competitiveness of their exports.

As a result, SMEs are engaging in global trade as never before. In its annual profile of US exporting and importing companies, the US Census Bureau has tracked a significant rise in US firms buying and selling in global markets. From 1997 to 2015, the number of US companies that were exporting their products to at least one foreign market increased from 189,670 to 294,834, with 97.6 percent of the identified exporters being SMEs. In fact, more than 100,000 of the exporting companies employed fewer than 20 workers.[13] A survey by the McKinsey Global Institute found, "Even the smallest enterprises can be born global: 86 percent of tech-based startups we surveyed report some type of cross-border activity. The ability of small businesses to reach new markets supports economic growth everywhere."[14]

The impact of digital trade on the US economy is not a one-time shift but an ongoing process that enhances the dynamic, long-term growth potential of the US economy. By reducing costs, spurring competition, and expanding markets, digital trade creates ongoing gains in efficiency that fuel productivity gains. By facilitating the spread of ideas and collaboration, digital trade contributes to product innovation. By playing to America's competitive strengths, digital trade allows us as a nation to use our physical, intellectual, and human capital in ways that permanently boost our gross domestic product and general living standards.

REMOVING BARRIERS TO DIGITAL TRADE

Despite the dramatic growth and beneficial impact of digital trade, a number of barriers remain that prevent Americans from reaping its full advantages. The US International Trade Commission, in its 2014 analysis of digital trade, concludes that the elimination of remaining foreign barriers to digital trade in digitally intensive industries would likely generate an additional $16.7 billion to $41.4 billion in annual US economic output (a 0.1 percent to 0.3 percent increase in US GDP). Real wages for US workers would likely be 0.7 percent to 1.4 percent higher, with the creation of as many as 400,000 full-time equivalent jobs.[15]

Addressing Barriers to Digital Trade in Multilateral Trade Agreements

Those gains can be best realized by addressing barriers to digital trade in trade agreements with other nations. In the Bipartisan Congressional Trade Priorities and Accountability Act of 2015 (Pub. L. No. 114-26), Congress directed the administration to seek the removal of barriers to digital trade in future free trade agreements. Specifically, the administration was directed to seek agreements that would, among other objectives, ensure nondiscriminatory treatment of physical goods in the digital trade environment; prohibit forced localization requirements for servers; prohibit restrictions to digital trade and data flows; keep electronic transmissions duty-free; and ensure that legitimate regulations affecting digital trade are as nonrestrictive as possible.

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[13] US Census Bureau, "Profile of U.S. Importing and Exporting Companies: 2014-2015."
[14] Manyika et al., *Digital Globalization*, In Brief.
[15] USITC, *Digital Trade in the U.S. and Global Economies, Part 2*, 19.

Those remain worthy objectives, and they were in fact contained in Chapter 14 of the Trans-Pacific Partnership (TPP) that the previous administration negotiated with 11 other Pacific-Rim trading partners. Specifically, Article 14.13 of TPP stipulated that "no Party shall require a covered person to use or locate computing facilities in that Party's territory as a condition for conducting business in that territory." Article 14.17 went the additional step of protecting source code: "No Party shall require the transfer of, or access to, source code of software owned by a person of another Party, as a condition for the import, distribution, sale or use of such software, or of products containing such software, in its territory."[16] Whatever the ultimate fate of TPP, its provisions on digital trade remain the best available template for future or renegotiated free trade agreements.

Raising the *De Minimis* Threshold for Customs Duties

To those objectives, let me add another important policy initiative that would enhance the favorable effects of digital trade. That would be to seek an increase in *de minimis* thresholds for customs now imposed by our trading partners. One of the best policy changes Congress has made recently for digital trade was Section 901 the Trade Facilitation and Trade Enforcement Act of 2015, which increased the US *de minimis* threshold from $200 to $800. The threshold means that individual shipments into the United States that are valued at less than $800 are exempt from customs and taxes and from entry documentation requirements when appropriate.

That increase in the *de minimis* level has invigorated digital trade for millions of American consumers. Much of digital trade is conducted via small packages delivered directly from the business to the customer. If set too low, a *de minimis* level can impose disproportional costs on small-scale importers and exporters, cause delays in delivery times, and overburden customs authorities forced to clear a larger number of packages. For US Customs and Border Patrol (CBP), this can mean additional administrative costs that outweigh potential revenue collected and the diversion of resources away from risk-based management systems. The higher *de minimis* standard for customs is a win-win, providing American consumers and businesses with more affordable products through digital trade, while freeing CBP from unnecessary administrative burdens.

Unfinished business is the still-too-low thresholds in other countries. According to an analysis by the OECD, a large majority of our major trading partners enforce a threshold of $200 or less. In Mexico, the threshold is the equivalent of $300, in the European Union $170, and in Canada an absurdly low $20.[17] Those thresholds inhibit the shipment of smaller packages from US suppliers to customers in those countries by subjecting them to unnecessary inspection and customs duties. As Congress stated in the 2015 customs reauthorization bill, it should be a goal of the US Trade Representative to "encourage other countries, through bilateral, regional, and multilateral fora, to establish commercially meaningful *de minimis* values for express and postal shipments."[18]

Removing these last remaining barriers to digital trade, at home and in other countries, will allow more American consumers and companies to realize the full benefits of a more digitalized economy and global trading system.

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[16] Office of US Trade Representative, "TPP Final Table of Contents," Chapter 14, Electronic Commerce, accessed September 6, 2017, ustr.gov/trade-agreements/free-trade-agreements/trans-pacific-partnership/tpp-full-text.
[17] López González and Jouanjean, "Digital Trade," 21.
[18] Trade Facilitation and Trade Enforcement Act of 2015, Pub. L. No. 114-125, 130 Stat. 122 (2016).

Statement of the U.S. Chamber of Commerce

ON: The Dynamic Gains from Free Digital Trade for the U.S. Economy

TO: U.S. Congress Joint Economic Committee

BY: Sean Heather
Vice President
Center for Global Regulatory Cooperation
U.S. Chamber of Commerce

DATE: September 12, 2017

1615 H Street NW | Washington, DC | 20062

The U.S. Chamber of Commerce is the world's largest business federation representing the interests of more than 3 million businesses of all sizes, sectors, and regions, as well as state and local chambers and industry associations. The Chamber is dedicated to promoting, protecting, and defending America's free enterprise system.

More than 96% of Chamber member companies have fewer than 100 employees, and many of the nation's largest companies are also active members. We are therefore cognizant not only of the challenges facing smaller businesses, but also those facing the business community at large.

Besides representing a cross section of the American business community with respect to the number of employees, major classifications of American business—e.g., manufacturing, retailing, services, construction, wholesalers, and finance—are represented. The Chamber has membership in all 50 states.

The Chamber's international reach is substantial as well. We believe that global interdependence provides opportunities, not threats. In addition to the American Chambers of Commerce abroad, an increasing number of our members engage in the export and import of both goods and services and have ongoing investment activities. The Chamber favors strengthened international competitiveness and opposes artificial U.S. and foreign barriers to international business.

Thank you for this opportunity to testify on behalf of the U.S. Chamber of Commerce in order to address the dynamic gains from digital trade for U.S. economy as well as the barriers American companies are facing abroad. I am Sean Heather, vice president of the Chamber's Center for Global Regulatory Cooperation (GRC).

Digital trade has proven to be transformative and will continue to impact how Americans interact with one another, work, and do business. The global economic impact of the Internet was estimated to be $4.2 trillion in 2016, making it the equivalent of the fifth-largest national economy.[1] The benefits of the digital economy are not limited to "technology" companies but are experienced by companies across all industries from agriculture to manufacturing. In fact, three quarters of the value created by digital trade accrues to more traditional firms utilizing digitalization, such as manufacturers, retailers, and banks. U.S. businesses of all sizes rely on the Internet to manage their relationships with customers and supply chains; digital commerce has spread widely and is even creating completely new industries. Across all sectors, digital trade has increased US employment by up to 2.4 million jobs.[2]

The United States has positioned itself as the leader of the global digital economy. As a result the United States stands as the world's leading producer of digital services and content. American companies innovate faster and generally out-compete foreign firms. In 2015, exports of information and communications technology (ICT) services accounted for $65 billion of total U.S. exports while potentially ICT-enabled services exports made up $399 billion, driving a significant digital trade surplus.[3]

However, our leading position is not assured as certain governments actively seek to disadvantage American technological innovation. In order to enable continued economic growth at home, we must develop a common agenda to maintain and strengthen America's role in the global digital economy. This hearing is an important step in setting that agenda.

The digital economy is dependent on the movement of data. Foreign governments are endeavoring to forcibly create their own "Silicon Valleys" by implementing policies on the movement of digital goods and services that serve as regulatory barriers that limit digital trade, cross-border data flows, and market access. Such a flawed approach to economic development, rooted in protectionism, not only obstructs American companies' ability to do business in foreign markets, but it also fails to deliver the promises of the digital economy to economic growth in foreign markets.

In contrast, a liberalized approach to digital trade adopted globally benefits American and

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[1] Paul Zwillenberg, Dominic Field, and David Dean, Greasing the Wheels of the Internet Economy, Boston Consulting Group, February 2014, https://www.bcgperspectives.com/content/articles/digital_economy_telecommunications_greasing_wheels_internet_economy/ .

[2] United States International Trade Commission, Digital Trade in the U.S. and Global Economies, Part 2, https://www.usitc.gov/publications/332/pub4485.pdf

[3] Alexis N. Grimm, Trends in U.S. Trade in Information and Communications Technology (ICT) Services and in ICT Enabled Services, BEA, May 2016,http://www.bea.gov/scb/pdf/2016/05%20May/0516_trends_%20in_us_trade_in_ict_serivces2.pdf

foreign business alike by allowing the increased uptake of technology and the ability to safely and seamlessly move data. In fact, a study commissioned by the U.S. Chamber of Commerce found that reducing market and regulatory barriers to cross-border ICT services could produce $1.72 trillion in global GDP gains.[4] Such actions could also generate billions of dollars in potential new government revenues, millions of new jobs, and hundreds of thousands of new businesses.[5]

Cross-border data flows

Cross-border data flows are 45 times higher than they were in 2015, now outpacing global flows of trade and/or finance. The dramatic increase in cross-border data flows is enabling goods and services to be traded more easily, by more people. This is encouraging as global flows of information and data of all types support economic growth. By some estimates, over the course of a decade, global flows acting together have raised global GDP by 10.1%, with the value amounting to some $7.8 trillion in 2014 alone. Digital flows – which were barely in existence 15 years ago – accounted for $2.8 trillion of that impact,[6] and digital flows now have a larger impact on GDP growth than the global trade in goods.[7]

Data localization requirements are becoming more prominent and problematic, limiting the ability of companies to move data. The movement of data through the global economy is becoming just as important as the ability to move goods, services, or capital. Further benefits will not be realized if data does not have the ability to cross borders. Data localization requirements directly limit the movement of data. Some common requirements U.S. companies are facing include mandatory establishment of a data center or physical presence within a jurisdiction in order to operate as well as restrictions on how data can be transferred internationally.

The Chamber has been actively working to eliminate and prevent forced localization requirements. Over 36 countries currently have data localization policies limiting the movement of different types of data ranging from financial to telecommunications data. Such requirements severely hinder the ability of U.S. companies to operate in these jurisdictions, while limiting choices and driving up costs for their consumers, and ultimately reducing their competitiveness.

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[4] The U.S. Chamber of Commerce commissioned Spire Research and Consulting to create a model in order to quantify the economic impact of full liberalization of cross-border ICT services and rules globally by creating an open, competitive marketplace. In order to better demonstrate that both end users and providers are winners in an open ICT services environment, the study examines a group of eight globally important markets from a diverse range of economic development, including Brazil, the European Union, Indonesia, Japan, Korea, Nigeria, Turkey, and Vietnam. Our findings demonstrate across the board benefits. Access report here: https://www.uschamber.com/report/globally-connected-locally-delivered-the-economic-impact-cross-border-ict-services

[5] Ibid.

[6] James Manyika, Susan Lund, Jacques Bughin, Jonathan Woetzel, Kalin Stamenov, and Dhruv Dhingra, Digital Globalization: The New Era of Global Flows, McKinsey Global Institute, March 2016, http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows

[7] Ibid.

The government of Indonesia has ten different pending regulations that would require data to be stored locally or restrict its movement. For example, Kominfo/MICT Regulation No. 82/2012 requires U.S. companies to establish both data centers and disaster centers within Indonesia. Indonesia also has a draft regulation on "over-the-top" (OTT) services, services provided over the Internet, which requires companies to establish data centers within Indonesia and maintain a local presence in Indonesia.

Russia's data localization laws are severely limiting the ability of U.S. companies to operate within its borders as well. Federal Law 242-FZ requires data collected on Russian citizens to be stored in data centers located in Russia. This has forced both U.S. firms operating in Russia or providing services from the U.S. to rewire their operations, consider exiting the market, or buying server space in Russia to provide the same services at a higher cost.

Localization policies are only increasing. France and Germany, in particular, have been edging toward more and more policies that force the storage of data in-country. The French government has invested in and promoted the use of a "le cloud souverain" (sovereign cloud), which is only open to French companies operating their services directly in France. While approaches to localization vary by region in Germany, at the federal level Germany passed the Telecommunications Act, which went into force July 1, and now requires telecommunications metadata to be stored locally.

Local Content Requirements

Foreign governments are mandating the use of local content in an attempt to boost the local economy, enhance skills and capabilities, and boost employment. Local content requirements are increasing worldwide with more than 146 active measures documented in 39 countries in 2015.[8] As the Chamber's *Globally Connected, Locally Delivered* study demonstrates, such requirements hinder long-term growth by lowering productivity, increasing prices, and diverting investment. The Chamber believes that open, competitive marketplaces are more likely to accelerate local economic growth.[9]

China and Russia have encouraged indigenous innovation through local content requirements, particularly linking specific requirements to government procurement contracts and standards. For instance, Russia grants preferential treatment to domestic ICT companies when considering government procurement contracts. China's standards, such as its "secure and controllable" standard, could potentially force companies to use domestic intellectual property and encryption processes. In 2016 alone, China introduced more than 30 measures across various industries, including ICT-specific standards. Over 80 jurisdictions have created new ICT-related technical standards, many of which are not consistent with global standards and

[8] Cathleen Cimino-Isaacs and Jan Zilinskey, Local Content Requirements: Backdoor Protectionism Spreading Under the Radar, Peterson Institute For International Economics, July 2016, https://piie.com/blogs/trade-investment-policy-watch/local-content-requirements-backdoor-protectionism-spreading

[9] U.S. Chamber of Commerce, Globally Connected, Locally Delivered: The Economic Impact of Cross-Border ICT Services, 2016, https://www.uschamber.com/report/globally-connected-locally-delivered-the-economic-impact-cross-border-ict-services

norms. These types of standards create a hodgepodge of sometimes conflicting and overlapping standardization requirements that disrupt global supply chains.

Data Protection

As the movement of data increases, protecting privacy has become a growing concern around the globe. More than 95 jurisdictions currently have data protection legislation passed, up from around 70 jurisdictions in 2014.[10] Around 68 of those jurisdictions with data protection regulations already in place are busy considering updates and revisions to their legal frameworks.[11] While privacy standards are necessary in order to ensure consumer protection, consumers and businesses also need to be able to move and access data. However, governments often enact data protection measures that interfere with these needs without a good regulatory justification, creating difficulties for companies conducting business in-country and worldwide. It is important to note that these challenges are not necessarily traditional "trade" type problems where trade tools are well situated to tackle concerns. More often these issues require intensive engagement on the part of U.S. regulators engaging in regulatory cooperation type activities.

A good illustration of this type of concern is over the implementation of the EU's General Data Protection Regulation (GDPR). GDPR will come into force in May 2018, and companies are expected to be in full compliance by then. Yet, guidance from data protection authorities has been slow to come out, and many U.S. and European companies still have a number of compliance questions. Consistent implementation of GDPR across all EU member states represents an immense regulatory challenge for the EU that has consequences for EU competitiveness in the digital economy in addition to American firms doing business there.

Many Latin American countries have turned to Europe and are using GDPR as a template for creating their own privacy regime. For example, Brazil currently has three draft data protection bills pending, all based on the GDPR model. Many other pending regulations across Latin America include stipulations on international data transfers that could serve as significant barriers to digital trade. Not all of these bills provide a list of countries whereby international data transfers are permitted, but those that do have not always included the United States as adequate to receive transfers. The shortcomings of the 'adequacy' approach to privacy underscore the need for new, more flexible approaches to protecting privacy on a cross-border basis - including through the APEC Cross Border Privacy Rules, as discussed in more detail below.

While privacy regimes can create regulatory challenges that impede digital trade, the motives aren't always easily discernable to label them clear attempts to obfuscate trade commitments. Many countries have cited privacy concerns as the basis for requiring foreign companies to store data within national borders. Yet, as studies have shown, forcing data to be

[10] Kate Lucente and James Clark, Data Protection Laws of the World, DLA Piper Global Law Firm, January 2017, http://blogs.dlapiper.com/privacymatters?s=handbook.

[11] International Conference of Data Protection and Privacy Commissioners, Census 2017, September 2017, https://icdppc.org/.

stored locally does not have any incremental impact on increasing privacy.[12] Instead, such policies increase risks to privacy and security by requiring storage of data in a single centralized location that is more vulnerable to outside intrusion.[13] In these instances, privacy regulations become forced localization requirements and a traditional "trade" type problem.

Cybersecurity

Digital trade also raises new challenges and opportunities related to cybersecurity. Many countries are already reviewing existing cybersecurity regimes. Like new data protection regulations, U.S. companies face the challenge of differing regulations throughout the world as well as new security policies that hold the potential to masquerade protectionist motives. The Chamber believes the best way to address cybersecurity concerns are through voluntary risk-management, investment, and information sharing. Collaboration between government and industry is critical. While the Chamber recognizes that there is no one-size-fits-all approach, there are a growing number of cybersecurity policy concerns in the international arena.

Specifically, China's recent cybersecurity law requires review processes for a broad but unclear scope of industries that could potentially to be used to impede market access, extract concessions, and advance industrial policy. The uncertainty and overlapping requirements created by this new law will hinder the ability for U.S. companies to do business in China. China's emerging legal and regulatory frameworks governing information technology pose serious challenges for global connectivity. Cloud computing and other digital technologies that require a seamless flow of data are already changing the nature of numerous industries, including manufacturing. Yet, Chinese efforts to exert greater control over where commercial data is stored and how it is transferred are skewing the decision-making process for companies that must decide where products are made and innovation takes place.

In the EU, the recently finalized Network Information Security (NIS) Directive will come into effect in May 2018. Under the NIS Directive, Member States will introduce new laws and adapt existing requirements. It is important that these new regulations are implemented in a reasonably consistent and efficient manner. In particular, U.S. companies could benefit from Member State consideration of how to incorporate existing foreign cybersecurity frameworks, such as the National Institute of Standards and Technology (NIST) Cybersecurity Framework, into implementation of the NIS Directive. This understanding is particularly important as the NIS Directive, similar to GDPR and data protection law, could become a template for future cybersecurity legislation around the world.

Intellectual Property Protection

The innovation and technology that drives U.S. competitiveness and makes American companies leaders relies upon intellectual property protection and the legal frameworks that

[12] Stephen J. Ezell, Robert D. Atkinson, and Michelle A. Wein, Localization Barriers to Trade: Threat to the Global Innovation Economy, The Information Technology & Innovation Foundation, September 2013 http://www2.itif.org/2013-localization-barriers-to-trade.pdf?_ga=1.126836941.1580072294.1483722057

[13] Leviathan Security Group, Value of Cloud Security, 2015, http://www.leviathansecurity.com/cloudsecurity

govern such rights. Effective protection of patents, trademarks, copyrighted works, and trade secrets (to include proprietary algorithms) optimizes the availability of, and access to, creative and innovative products and services in digital trade. Moreover, IP-intensive industries account for 45.5 million American jobs, $6.6 trillion in GDP, and 52 percent of all U.S. exports, according to the U.S. Department of Commerce.[14]

Too often forced localization measures are designed to require tech transfers as the price to gain entry to a foreign market. When this occurs, American companies' competitive advantages are reduced as strategic "know how" is handed over to cultivate and aid domestic competitors. Further, countries are increasingly restricting intellectual property rights by introducing new requirements around local production, procurement and creation of digital content.

Copyright piracy and trademark infringement, too, represent well-documented drains on the competitiveness of American companies that produce propriety software, entertainment content, and branded products enjoyed around the world.

The U.S. Chamber's International IP Index (the "Index") illustrates the wide divergences among countries in the quality of protection afforded copyrightable works and trademarks in global digital trade.[15] For example, of the 45 economies benchmarked in the latest edition of the Index, only 5 received full scores for the availability of frameworks that promote cooperative action against online piracy, and only two — not including the United States — were recognized for having adequate availability of frameworks that promote action against the online sale of counterfeit goods. In addition, as illustrated in the Index, the majority of economies lack rules to promote cooperative action against online piracy, such as limitations on liability for Internet service providers that cooperate with copyright owners to remove infringing content.

Having a sound legal framework that protects intellectual property and includes enforceable sanctions is critical to consumer confidence and safety. Additionally, it is important for the development of high quality digital products and services as well as supporting the delivery of such products and services through sophisticated, accessible platforms.

Emerging Technology

Finally, as more traditional products and services connect and depend on data to function, it is important that a holistic view is adopted around the policies impacting emerging technologies. Blockchain, wearables, drones, and autonomous vehicles are just the beginning of the possibilities that these relationships could forge. Emerging technologies are creating new interdependencies between developers, providers and users. In fact, 68 percent of American

[14] Intellectual Property and the U.S. Economy: 2016 Update, U.S. Patent and Trademark Office, accessed March 29, 2017, https://www.uspto.gov/sites/default/files/documents/IPandtheUSEconomySept2016.pdf

[15] The U.S. Chamber International IP Index is a comparative intellectual property law study and an industry standard for benchmarking intellectual property rules and practices. The current edition, "The Roots of Innovation," published in February 2017, benchmarks IP rules in 45 economies against 35 indicators in six categories: Patents; Copyrights; Trademarks; Trade Secrets and Market Access; Enforcement; and International Treaties. Access the full index here: www.uschamber.com/ipindex

voters say technology will make their communities operate better.[16]

However, foreign regulators and policymakers are increasingly pushing to regulate emerging technology by attempting to anticipate potential worst-case scenarios. This type of approach, in a modern economy dependent on the ability to quickly access data and digital products and services, will forestall innovation and fail to fully meet societal goals. Furthermore, these new technologies require coordination on existing issues, such as infrastructure, skills, privacy, security and liability, in order to reach the marketplace.

The Internet of Things (IoT) is rapidly expanding, connecting humans with technology to improve their lives and increase the efficiency of industrial operations. It is estimated that there will be more than 50 billion connected devices by 2020, over 30 times the number in 2009.[17] Employing one-size-fits-all standards for connected devices does not seem the right match to confront face-paced commercial demands and risks that companies face online. Yet, the European Union is expected to recommend "measures on cyber security standards, certification and labelling, to make ICT-based systems, including connected objects, more cyber secure"[18] this month. Premature regulations will place unnecessary burdens on industry, especially small and midsize enterprises, driving up the cost of devices while offering no greater security. Different sets of flexible cybersecurity best practices will be necessary for different IoT audiences, ranging from producers and network operators to users.

Many countries as well as the International Telecommunication Union (ITU) are also looking to push further burdensome and outdated regulations on OTT services and applications. When a foreign government indicates their intent to regulate OTTs, they are often seeking to apply legacy regulations, such as requiring partnership agreements between American OTT players and local operators. These regulations threaten technologies that have become a key driver of growth in the global economy including texting; video sharing; cloud and IoT services; money transfers; and mobile payments. The proposed regulations in countries such as Indonesia and Vietnam, will weaken the global innovation ecosystem, inhibit investment in entrepreneurs, slow job creation, constrain this new source of overall economic growth, and erect unnecessary obstacles to international trade.

Instead of focusing on regulation, policymakers and regulators should seek to enable innovation and investment to ensure users are able to benefit from increased use of emerging technologies. Therefore, an appropriate and successful regulatory approach should focus on balancing critical societal objectives with the benefits to consumers. Unnecessary and unproven regulation only serves to stifle innovation and investment, dampen competition, and harm consumers.

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[16] U.S. Chamber of Commerce Technology Engagement Center (C_TEC) http://ctecintelligence.com/

[17] Dave Evans, Cisco, April 2011, The Internet of Things: How the Next Evolution of the Internet is Changing Everything. http://bit.ly/1LgfMSb

[18] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee on the Regions on the Mid-Term Review on the implementation of the Digital Single Market Strategy, May 10, 2017. http://bit.ly/2pvCoUG

Recommendations

Given the economic importance of digital trade to the United States, it is crucial that the U.S. government create a policy agenda that maintains and strengthens U.S. leadership of the digital economy. To ensure this, we recommend the follow actions:

Prioritize digital issues in active trade and investment policy agenda – The Chamber supports a U.S. policy agenda that seeks commitments from our trading partners to foster the cross-border movement of digital goods, services, and information. The U.S. government should prioritize digital issues in its trade agenda and ensure they receive sustained, high-level attention by the Office of the United States Trade Representative and other relevant agencies.

Secure strong digital trade commitments from other countries to:

- Ensure the ability for U.S. businesses in all sectors to move data across borders by prohibiting the forced localization of data;
- Prohibit measures that link market access and other commercial benefits to local technology infrastructure;
- Prohibit customs duties on electronic transmissions, including information being transmitted electronically;
- Prohibit discrimination against U.S. technology companies, products, and/or services;
- Prohibit burdensome OTT regulations that extend legacy regulatory and licensing requirements to online services and applications;
- Prohibit the transfer or access to software source code or algorithms as a condition for market access;
- Facilitate a regulatory environment that allows companies to utilize data collection and analysis;
- Streamline and expedite customs processes, through the use of electronic customs forms, electronic signature and authentication, electronic labeling, and secure on-line payment;
- Modernize de minimis rules, which allow low-value goods to enter into a country duty free under a simplified entry process;
- Include appropriate and effective safe harbor mechanisms for intermediary liability; and,
- Champion smart and effective approaches to encryption that do not require companies to undermine product security.

Develop an enforcement agenda – It is important that we not only advocate for digital trade in our agreements but also create and utilize enforcement mechanisms to ensure compliance. For example, South Korea was required to change its regulatory approach of restricting data flows and outsourcing of financial data as a result of the U.S.-Korea (KORUS) Free Trade Agreement. South Korea's implementing regulation fell short of removing these barriers. Through consultative and enforcement mechanisms created under KORUS, the U.S. government and South Korea were able to discuss these issues resulting in a revision of the South Korean system in 2015. Today, South Korea has one of the most open data flows regimes in the world, though some unjustified restrictions remain in such areas as maps data. The

Chamber supports statements made by Commerce Secretary Wilbur Ross that the United States should consider which tools are appropriate to address digital trade barriers such as intellectual property theft and forced technology transfers.

Continue supporting international privacy frameworks – The United States should continue to support vehicles such as the EU-U.S. Privacy Shield Framework and APEC Cross Border Privacy Rules (CBPRs) that promote the movement of data between borders and bridge national privacy regimes. Workable arrangements are increasingly needed between the U.S. and key trading partners. The U.S. government should also look for opportunities to promote adoption of the APEC CBPRs and develop similar privacy frameworks with other interested partners. These frameworks allow U.S. companies to reliably transfer data and signal the United States' and its partners' commitment to strong, interoperable privacy protections. They create cost effective and dependable means for data transfer, allowing U.S. companies to channel resources into creating new jobs, innovation, and better serving their customers.

Ensure trade-facilitating approaches to cybersecurity across the world – It is important that the rise of cyber regulation does not undermine trade, but instead safeguards the data flows that underpin it. The NIST Framework for Improving Critical Infrastructure Cybersecurity is an innovation-friendly framework encouraging technology-neutral approaches to managing cyber risks. The United States should work with international policymakers to align IoT security programs with industry-backed approaches to risk management, such as the NIST framework. The United States should also work with partners to create common cyber incident reporting structures and forums through which public and private stakeholders can voluntarily share cyber threat information.

Utilize Department of Commerce and State Department digital attaché programs – These programs should be used to drive U.S. competitiveness internationally by promoting U.S. digital exports and advocating for the adoption of U.S.-friendly digital regulatory frameworks. As the eyes and ears on the ground, these attachés can provide U.S. companies with on-the-ground expertise and assistance while also proactively working with local governments to prevent policies that may harm digital trade.

Actively engage in shaping foreign regulation – U.S. regulators play an important role in outside trade agreements by seeking opportunities to coordinate with foreign regulators. They should continue to work with our trading partners through new and existing dialogues to collaborate with foreign regulators enabling U.S. companies to compete on a more level playing field internationally.

This includes engagement in international forums such as the Organization for Economic Co-operation and Development, the World Trade Organization, and ITU, who are endeavoring to increase their influence in creating international digital trade norms and rules. Many countries are using these forums as an opportunity to push burdensome and harmful regulations on American companies that will harm their operations abroad.

Conclusion

I thank the Committee for the opportunity to testify today, and I look forward to a robust discussion on opportunities and barriers to digital trade. Digital connectivity has allowed American companies to experience faster revenue growth, productivity, and innovation. Technology has been an underutilized tool that can help U.S. government increase competitiveness, drive economic growth, and create jobs. The Chamber and its members look forward to engaging with you further to advance the benefits of digital trade for all Americans.

Attachments to Testimony

I would like to submit the following along with my statement:

1. *Business Without Borders: The Importance of Cross-Border Data Transfers to Global Prosperity*
   https://www.uschamber.com/sites/default/files/021384_BusinessWOBorders_final.pdf
2. *China's Drive for 'Indigenous Innovation': A Web of Industrial Policies*
   https://www.uschamber.com/sites/default/files/documents/files/100728chinareport_0_0.pdf
3. *Globally Connected, Locally Delivered: The Economic Impact of Cross-Border ICT Services*
   https://www.uschamber.com/report/globally-connected-locally-delivered-the-economic-impact-cross-border-ict-services
4. *IoT Innovation and Deployment: A Blueprint for U.S. and Korean Leadership*
   https://www.uschamber.com/sites/default/files/uskbc_iot_2016_paper_final.pdf
5. *International IP Index*
   http://www.theglobalipcenter.com/ipindex2017/
6. Letter to European Commission on EU NIS Directive
   https://www.uschamber.com/sites/default/files/documents/files/industry_comment_ltr_to_european_commission_on_future_of_public_private_partnerships.pdf
7. Letter to National Institute of Standards and Technology on Information on Current and Future States of Cybersecurity in the Digital Economy
   https://www.uschamber.com/sites/default/files/u.s._chamber_letter_nist-wh_cyber_commission_rfi_sept._9_final_v2.1.pdf
8. *Made in China 2025: Global Ambitions Build on Local Protections*
   https://www.uschamber.com/sites/default/files/final_made_in_china_2025_report_full.pdf
9. *Preventing Deglobalization: An Economic and Security Argument for Free Trade and Investment in ICT*
   https://www.uschamber.com/sites/default/files/documents/files/preventing_deglobalization_1.pdf
10. *Seeking Solutions: Attributes of Effective Data Protection Authorities*
    https://www.uschamber.com/report/seeking-solutions-attributes-effective-data-protection-authorities
11. *Transatlantic Cybersecurity: Forgin a United Response to Universal Threats*
    https://www.uschamber.com/TransatlanticCybersecurityReport
12. *Vital & Growing: Adding up the US-Indonesia Economic Relationship*
    https://www.uschamber.com/sites/default/files/documents/files/vital_and_growing_-_adding_up_the_us-indonesia_economic_relationship.pdf

"The Dynamic Gains from Free Digital Trade for the U.S. Economy"

Testimony before the Joint Economic Committee of the United States Congress

Nick Quade
September 12, 2017

Chairman Tiberi, Vice Chariman Lee, Ranking Member Heinrich and Members of the Committee –

Thank you for holding this important hearing and for inviting me here to participate. My name is Nick Quade, and I am the general manager of the ecommerce division of Relay Networks Inc. Relay Networks provides domestic and international customers with access to functional & affordable indoor/outdoor wireless networking equipment.

We have leverage relationships with major universities, school districts, and industry leaders to source and sell our products when their IT equipment comes out of service. By refurbishing this equipment, we are extending the life of these items that would otherwise end up as e-waste which could end up in a landfill.

Our business is expanding quickly and demand, especially internationally is currently outpacing supply. In this volatile retail environment, small businesses like us must have an ecommerce presence to survive and compete. I have worked in the ecommerce field for nearly 10 years now and know that ecommerce is the future of commerce. Our product reaches the entire globe through the platforms of eBay and Amazon. These platforms further expand the multi-billion dollar networking business to a customer base that even 5 years ago wasn't possible. Twenty percent of our sales are exports to customers in over 50 countries from Switzerland to Australia. The education field internationally is one of the largest in terms of demand.

Relay Networks is an example of the many thousands of small American businesses that are benefiting from and growing on top of the global digital economy. We are using digital tools to reach customers that were previously inaccessible for a business of our size. In a March 2006 McKinsey Global study found almost 22% of global international trade can be directed to the digital economy in 2015 and will increase a further $2 trillion in global GDP by 2020. I believe that much of that economic benefit is being realized by small businesses that are in turn creating jobs in their local communities.

Unfortunately, there are critical barriers to further driving this growth and governments are slow to catch up with an industry that has grown 45-fold from 2005 to 2014. While the US has withdrawn from the Trans-Pacific Partnership agreement, the digital trade provisions that sought to remove barriers to digital trade were positive for my business.

But the TPP fell short in one critical way – it did not compel countries to increase their customs *de minimis* thresholds, which are country-by-country thresholds below which my international buyers can import items duty and tax free. Congress took the right step to increase the US *de minimis* threshold to $800 in the Trade Facilitation and Trade Enforcement Act. But now we need to encourage our trading partners to do the same.

The 2016 Customs bill included a Sense of the Congress that our government "should encourage other countries through bilateral, regional, and multilateral fora to establish commercially meaningful *de minimis* values for express and postal shipments that are exempt from customs duties and taxes and from certain entry documentation requirements." Now that we are post-TPP, we should look to use trade policy making to both advance the positive digital trade provisions that were in the TPP as well as the Sense of the Congress that was included in the Customs Reauthorization bill. The current NAFTA negotiation is the perfect place to start here.

Our neighbors to the north in Canada have a $20 CAD *de minimis* threshold, which means that Canadian Customs officials can intercept, open, delay, and assign levies to my sales. Needless to say, this does not promote a good buyer experience and compromises my relationships with my buyer. Furthermore, Canada's threshold was set in 1985 when I was 3 years old. And according to Neil MacDonald of the CBC News, "Ottawa spends about $166 million to collect $39 million in additional taxes and duties." On the Canadian side, this policy amounts to a protectionist move that puts everyday consumers at a disadvantage. And on the US side, this is a trade barrier that hurts small businesses the most.

The demand for electronics and networking equipment no longer needed in our market is in high demand overseas. We need to bring these dollars back into the US as fast as possible to maximize value. While 20% of my sales today are to international customers, I know my sales would grow if digital trade barriers – like low foreign *de minimis* thresholds -were taken down. Just recently deals were lost because of the fees involved. This included at resort in Canada that wanted to upgrade their network, several schools in Latin America, and a teacher in the UK that wanted to buy a laptop to replace her broken one but with a near 25% increase the cost; she could not afford the unit.

Thank you for the opportunity to share my views with the Committee. I look forward to answering your questions

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Testimony before the Joint Economic Committee
Hearing on Dynamic Gains from Free Digital Trade
Former Ambassador Daniel A. Sepulveda
September 12, 2017

Thank you Chairman Tiberi, Ranking Member Heinrich, and members of the Committee for the opportunity to testify.

The digital economy and the preservation of the internet as a global open platform may seem somewhat removed from the daily lives of your constituents. But it isn't. It is central to whether or not they succeed today and whether or not America will continue to lead in the 21st century.

Our responsibility is to invest at home to make world-class broadband and digital skills accessible to all and work abroad to protect and preserve the global internet as a force for the democratization of opportunity and commerce.

Farmers, ranchers, and small manufacturers throughout America are using digital platforms and services to engage in digital trade. They are also leveraging digital information management tools as springboards for innovation, increased efficiency, and improved productivity, which is making them more globally competitive.

Tourism operators are using Airbnb, Expedia, and other platforms to attract international visitors to cities and venues that are not as well known as New York City or Disneyland. As a result, places like Santa Fe and the Rock and Roll Hall of Fame in Cleveland are now attracting more international visitors, creating opportunity for working families.

In the digital space, the United States is leading the world, but to stay there, we need a clear digital trade strategy; the right people in place to advocate for us abroad; and the right investments at home in our people, our infrastructure, and skill development to ensure that every American can succeed.

The Congressional Research Service released an excellent report in June that lists the policy venues where global digital trade policy is being debated, from the WTO to the G-7 and G-20 gatherings, to the OECD, the United Nations, and in bilateral engagements.[1] Having appointed, Senate confirmed officials representing America's digital interests abroad is critical to our success. But as former Department of Commerce General Counsel Cameron Kerry wrote recently, many of the key posts in the Administration for successful advocacy abroad on digital trade remain unfilled today and our strategy and commitment on the issue is unclear.[2]

In addition to our work abroad, we have to do a better job at home creating constructive solutions to the challenges the digital economy as we celebrate its success. The reason is that many of the risks abroad and at home to the digital economy are rooted in fear.

To instill trust in digital trade and the sense that it will work for all, we need to team up with the technology community to bridge the digital divide and address new challenges that the digital economy is creating.

The United States needs to lead the way with workable solutions to these challenges, or we will end up dealing with a global patchwork of laws and regulations that end up doing more harm than good. In some countries, the sharing economy, artificial

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[1] https://fas.org/sgp/crs/misc/R44565.pdf

[2] https://www.brookings.edu/blog/techtank/2017/08/25/trump-administration-overlooks-critical-digital-policy-posts/

intelligence, and robotics will face impossible restrictions due to fear of labor disruption if we do not show them how to transition the displaced. And as Europe has indicated, without mutual recognition for our respective structures for protecting consumer privacy, there will be calls to close off data from transfer abroad.

In fact, most pressing and immediate for the health of digital trade is the preservation of the EU-US Privacy Shield to ensure that transatlantic data flows are not hindered. The EU is by far our largest digital trade partner, and our systems for governing the digital economy need to remain interoperable.

In closing, it is critical that we protect network neutrality at home to send the signal to others that services and applications delivered over the global internet must remain free from discriminatory treatment by local and national broadband internet service providers. Repealing network neutrality regulations without a legislative replacement will not help us argue abroad that the pipes entering homes and businesses in China, India, and Brazil should remain open to our services on a nondiscriminatory, untariffed basis.

Our kids take the global internet and everything it makes possible for granted. We can't. It is up to us to make sure that they can benefit from digital trade and a digital economy that works for them and remains a force for progress for decades to come.

I thank the committee and my fellow panelists, and I welcome your questions.

QUESTIONS FOR THE RECORD FOR MR. DANIEL GRISWOLD SUBMITTED BY CHAIRMAN PAT TIBERI

Since World War II, the United States has been a world leader in path breaking technologies that have spread around the world.

- *Why do you think the United States leads the world in technical innovations and why many U.S. companies are leaders in the world markets?*
- *Do you think our traditionally free domestic market economy abets this development?*
- *What are the biggest obstacles domestically to the digital economy and to the growth of U.S. digital trade?*

ANSWER FOR THE RECORD FOR MR. DANIEL GRISWOLD

Chairman Tiberi,

Thank you for the questions on digital trade. Here are my thoughts:
The United States is a technology leader for a number of reasons:

- Our world-leading higher education system, which is a mixture of public and private institutions that must compete with each other for students and tuition dollars;
- Our open economy that exposes producers to import competition for goods and services. This spurs domestic technology companies to control costs, innovate, and provide the best possible products and services to their customers;
- Our relative openness to immigration. High-skilled immigrants allow U.S.-based companies to expand and to create new, innovative products. According to a June 2017 report from the Massachusetts Technology Leadership Council, 40 percent of America's Fortune 500 companies were founded by immigrants or the children of immigrants. A 2016 study by the National Foundation for American Policy found that more than half of the start-up companies in the United States today that are valued at more than $1 billion, so-called "unicorns," were started by immigrants.[1] In Silicon Valley today, more than half of the high-skilled IT workers and entrepreneurs are foreign-born;[2]
- Our venture capital markets that allow start-up companies to access the seed money they need to grow;
- Strong intellectual property protection within the U.S. market;
- An entrepreneurial culture in which risk-taking is not only accepted but encouraged;
- And finally, as you note, our relatively free domestic market economy that allows resources, including workers and capital, to flow to sectors and regions of the economy where demand is highest. Among the most import freedoms is labor market flexibility.

As for the biggest obstacles to digital trade, my view is that they lie primarily outside the United States. My best advice to Congress would be to encourage the Trump administration to pursue the sound negotiating objectives on digital trade that Congress approved in the Bipartisan Congressional Trade Priorities and Accountability Act of 2015. Through bilateral, regional, and multilateral trade negotiations the United States should pursue agreements that:

- ensure non-discriminatory treatment of physical goods in the digital trade environment;
- prohibit forced localization of servers;
- prohibit restrictions to digital trade and data flows;
- prohibit duties on electronic transmissions; and
- ensure that legitimate regulations affecting digital trade are the least trade restrictive as possible.
- Congress should also seek higher, more commercially realistic de minimis thresholds for e-commerce shipments to other countries, which as you know remains a huge obstacle to small and medium-sized U.S. companies seeking to export directly to customers abroad.

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[1] Stuart Anderson, "Immigrants and Billion Dollar Startups," Policy Brief, National Foundation for American Policy, March 2016.

[2] Sari Pekkala Kerr, William Kerr, Caglar Ozden, and Christopher Parsons, "Global Talent Flows," Journal of Economic Perspectives, Vol. 30, No. 4, Fall 2016, p. 84.

QUESTIONS FOR THE RECORD FOR MR. DANIEL GRISWOLD SUBMITTED BY REPRESENTATIVE CAROLYN B. MALONEY

I represent a district that is one of the financial service and publishing capitals of the world—and so New Yorkers are very interested in measures that could help to strengthen and expand digital export opportunities for U.S. based businesses.

I also agree with our witnesses that the world could be a more prosperous and more enlightened place if there were fewer barriers to the swift movement of data, goods, people and information.

Placing arbitrary limits on how and where big data moves and is analyzed can slow the pace of innovation and just makes things more expensive. It's inefficient and can act like a hidden tariff.

And I find it to be unfortunate and short sighted of the government of China to block the site for The New York Times.

But I also think that making the world of digital trade better—is not only a matter of knocking down barriers and regulations.

Because—in some areas—the problem seems to be that regulations and agreements in place now are not being adequately enforced—Digital piracy overseas is hurting many U.S. businesses.

And in other areas—needed regulation is either currently insufficient or lacking altogether.

Take for instance—the protection of sensitive private information—like Social Security numbers.

I am very concerned about the recent Equifax hack—which may become the most economically damaging hack in U.S. history. The hack involved the personal data of as many as 143 million Americans—including their names, addresses, birth dates, Social Security numbers, and in some cases their driver's license and credit card numbers.

That is nearly half of all the people in the country.

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If a bad actor has all that personal data about you—he can apply for credit cards in your name, take out loans, file tax refunds, even apply for government benefits.

Or he can sell it on the dark web—over and over again—not just now—but for years to come. And he can sell it to people who will use it to commit cybercrimes that haven't even been invented yet.

The Equifax hack is the Irma of cyber hacks—and to make it even worse—it's the third major hack of Equifax in less than two years.

Unfortunately—failures like this by U.S. based companies can have a negative spillover on the reputational standing of other U.S. data exporters in the global market. In the past—the EU has expressed concerns about the sometimes-inadequate measures taken by U.S. companies to protect data privacy.

The Europeans have claimed—and not without reason—that the U.S. does not guarantee a sufficient level of protection for European citizens' personal data.

Even before the Equifax affair—European concerns threatened to disrupt data flows between the U.S. and the EU.

In 2015, the Court of Justice of the European Union invalidated a Safe Harbor Agreement that allowed personal data to be transferred with the U.S.

Basically—the failures of some have hurt other innocent actors as well.

The U.S. invented the internet—and this is an area where we should be the unquestioned leader.

So—in light of the recent Equifax breach—my question to our witnesses is: What regulations, if any, should the Federal Government consider putting in place to protect consumer privacy—so that data sent to—or stored in the U.S. will be secure. What should our exporters do so that they are viewed as setting the standard? Where should our country set the bar—so that we are viewed around the globe as the leaders—not the leakers of the world's sensitive private data?

ANSWER BY MR. DANIEL GRISWOLD

Representative Maloney,

Thank you for your important question. As I confessed at the Sept. 12 hearing, I am not an expert in cybersecurity. I do agree with your general point that ensuring that data is secure is an important step to promoting digital trade and maintaining the attractiveness of the United States as an innovative hub for technology.

As a trade policy analyst, my primary interest is to promote the greatest freedom possible for your constituents to engage in digital trade around the world, both as importers and exporters. To that end, I fully endorse the negotiating objectives on

digital trade that Congress approved in the Bipartisan Congressional Trade Priorities and Accountability Act of 2015.

Among the negotiating objectives that impact cybersecurity is the recommendation that we seek agreements that would prohibit other governments from requiring local storage or processing of data. Despite recent breaches, the United States can offer some of the best cybersecurity systems in the world. Allowing data to be stored in the United States as well as in other countries will allow companies to maximize their ability to keep data secure.

Another relevant trade negotiating objective is to obtain commitments from our trading partners that "domestic regulations that affect digital trade in goods and services or cross-border data flows . . . are the least restrictive on trade, nondiscriminatory, and transparent, and promote an open market environment." Such commitments will help foreign governments guard against the temptation to use legitimate concerns about cybersecurity as a cloak to protect their domestic digital service providers at the expense of more competitive American companies.

QUESTIONS FOR THE RECORD FOR MR. DANIEL GRISWOLD SUBMITTED BY REPRESENTATIVE DAVID SCHWEIKERT

With blockchain and distributive ledger technology in its infancy, how important is it to prevent a tax or border fee for the exchange of data secured through this technology? Furthermore, if a "data tax" was imposed by a country, how do you see that impacting the blockchain ecosystem?

ANSWER SUBMITTED BY MR. DANIEL GRISWOLD

Representative Schweikert,

Thank you for your very important question about the emerging issue of a data tax and distributive ledger technology.

I approach this issue as a trade policy expert, not a technology expert, but I can confirm that blockchain technology holds tremendous promise for enhancing the economic benefits of international trade. Around the world, companies and governments are realizing that blockchain technology can enhance security, speed efficiency, and reduce costs for international trade. The technology is already having a positive impact on digitizing and automating global supply chain management and the payments process for trade financing.

My concern with a data tax is that it could slow the development of the technology and at the same time prove to be difficult to implement. A data tax would act as a kind of global tariff on trade, depriving consumers and producers alike from realizing the full benefits of international competition. It could also have the unintended consequence of pushing more transactions "underground" into a global black market.

Finally, a global data tax would go against the sound trade negotiating objective that Congress endorsed in its 2015 Trade Promotion Authority legislation that the United States should seek agreements "to extend the moratorium of the World Trade Organization on duties on electronic transmissions." This should continue to be a goal of U.S. trade policy.

RESPONSE FROM MR. SEAN HEATHER TO QUESTIONS FOR THE RECORD SUBMITTED BY CHAIRMAN PAT TIBERI

Since World War II, the United States has been a world leader in path breaking technologies that have spread around the world. Why do you think the United States leads the world in technical innovations and why many U.S. companies are leaders in the world markets? Do you think our traditionally free domestic market economy abets this development? What are the biggest obstacles domestically to the digital economy and to the growth of U.S. digital trade?

The United States has led the world in technical innovation that, in turn, has produced many leading U.S. companies for a host of reasons. Chief among them has been an open, market-based economy that rewards risk taking, which is necessary for innovation. The U.S. economy is open and connected to global markets and encourages investment in human capital.

Further, while many countries reflexively regulate in response to new technology, the United States typically has taken a more thoughtful approach.

U.S. competitiveness in the global economy is the biggest challenge we face as a country. In response, we need a range of policy solutions that include tax reform,

a highly trained workforce to meet the jobs of tomorrow, and trade agreements with new trading partners to open foreign markets to U.S. products and services.

RESPONSE FROM MR. SEAN HEATHER TO QUESTIONS FOR THE RECORD SUBMITTED BY REPRESENTATIVE CAROLYN B. MALONEY

So—in light of the recent Equifax breach—my question to our witnesses is: What regulations, if any, should the Federal Government consider putting in place to protect consumer privacy—so that data sent to—or stored in the U.S. will be secure. What should our exporters do so that they are viewed as setting the standard? Where should our country set the bar—so that we are viewed around the globe as the leaders—not the leakers of the world's sensitive private data?

We need a balanced approach that promotes the cybersecurity of businesses and protects their consumers. Regulatory barriers are a significant challenge to digital trade, as is the lack of regulatory enforcement in foreign markets that allows piracy to go unchecked. Both undermine U.S. competitiveness and innovation.

The question with regard to regulation in the digital economy and its relationship to international trade and U.S. competitiveness is two-fold: 1) ensuring regulation or lack of enforcement is not a safe harbor for masking protectionism, tech transfer, or piracy, and 2) that regulatory design is done in the least trade restrictive manner.

With regard to any high profile data breach, when a company is hacked and sensitive information is stolen, the company is the victim of a crime. Debate around cyber incidents will raise questions about whether a company could or should have done more to safeguard itself and its customers. But, the reality is cyber-attacks are crimes, and cyber criminals are highly sophisticated

Attacks target American and foreign companies that have data deemed valuable. U.S. companies are committing enormous resources to the challenge, and today's cyber-attacks are a cycle of trying to stay one step ahead of the bad guys.

Policymakers need to recognize this and build a supportive and collaborative policy environment that focuses on private-public partnerships and emphasizes prevention. For this reason, additional regulation will not necessarily lead to increased security.

When it comes to security, attempts to regulate today will become outdated tomorrow. Flexible approaches to collaboration and cooperation to combat shared threats have significant advantages over national regulation, which can fragment the global economy and will always slow technological innovation.

Further, the United States already has in place several regulations that protect consumer data privacy. American companies are also active participants in privacy frameworks, such as the APEC Cross-Border Privacy Rules and EU–U.S. Privacy Shield, which are both global standard setting agreements.

But we also recognize that this is an evolving set of issues that runs across several policy portfolios ranging from consumer protection to national security. We believe that there should be coordination amongst different government agencies and governments and a private-public partnership that allows for a collaborative process to promote best practices to protect businesses and their customers.

RESPONSE FROM MR. SEAN HEATHER TO QUESTIONS FOR THE RECORD SUBMITTED BY SENATOR KLOBUCHAR

How could accurate, reliable data on the economic impact of broadband help make the case for investing in rural broadband?

Broadband deployment is critical to U.S. competitiveness and leadership in a global economy, and this certainly holds true for rural America as much as it does for our urban areas. Broadband deployment is a significant capital investment, and there are real challenges where return on that investment is uncertain. Better information about the economic impact broadband represents to rural America is helpful, but it is unlikely by itself to provide the needed certainty for many investors.

As we work on revising and updating our trade agreements, what alternative tools do we have, or should we develop, to address the types of trade barriers that affect digital trade across borders?

As indicated in my testimony, trade agreements are a critical tool to combating barriers in foreign markets that adversely impact digital trade. However, trade agreements take time and can only be reached with willing partners. Many of the challenges American digital products and services face in foreign markets are regulatory obstacles. Regulatory developments in foreign markets are constantly evolving, making it difficult for trade agreements to keep pace. In response, we need to

have a better "whole of government" approach to the challenge, one that brings the resources and expertise of U.S. regulators into play.

U.S. regulators have a primary mandate to protect health, safety, the environment, or advance other types of safeguards. However, U.S. regulators need a secondary mandate that as part of a larger coordinated strategy advances U.S. commercial interests. U.S. regulators can be better leveraged to address regulatory barriers abroad by advancing U.S. approached to regulation at a peer-to-peer level.

RESPONSE FROM MR. SEAN HEATHER TO QUESTIONS FOR THE RECORD SUBMITTED BY REPRESENTATIVE DAVID SCHWEIKERT

With blockchain and distributive ledger technology in its infancy, how important is it to prevent a tax or border fee for the exchange of data secured through this technology? Furthermore, if a "data tax" was imposed by a country, how do you see that impacting the blockchain ecosystem?

First, cross-border data flows are massive and growing. Cross-border data flows are 45 times higher than they were in 2015, eclipsing global flows of trade and finance. The dramatic increase in cross-border data flows has ushered in a more digital form of economic activity, enabling goods, services, financial capital and people to be moved around the world more rapidly, easily and cheaply. Attempts by policymakers to tax these flows as they cross the border would be short sighted for a host of reasons and, ultimately, severely limit the potential benefits of digitization.

Second, blockchain technology will have many applications beyond any role it plays in serving as an alternate currency. For example, some experts see it as holding the potential to revolutionize the way government collects taxes, while dramatically easing the burden of tax compliance. However, while cross-border data flows that are supported by blockchain technology may aid in better answering age old accounting questions of allocating revenues or costs, it does not solve fundamental political questions over the role of government and how to best fund it.

RESPONSE FROM MR. NICK QUADE TO QUESTIONS FOR THE RECORD SUBMITTED BY CHAIRMAN PAT TIBERI

Since World War II, the United States has been a world leader in path breaking technologies that have spread around the world.

- *Why do you think the United States leads the world in technical innovations and why many U.S. companies are leaders in the world markets?*
- *Do you think our traditionally free domestic market economy abets this development?*
- *What are the biggest obstacles domestically to the digital economy and to the growth of U.S. digital trade?*

1. The United States is a leader in innovation throughout the world because of a number of reasons. First, our standard of living is one of the best in the world. People live in our country because we have access to everything you can need or want. You can get whatever that may be in a time efficient manner as well. In the hearing I stated we are the "United States of Stuff." We have so much stuff in our country people don't know what to do with it. Likely goods sit in closets in businesses and homes across the country. Spend a Saturday in the donations bay at a local Goodwill and it will shock you the amount of quality items people no longer need. Yet in other countries, people fight over these goods or might never get access to them.

Second, we have the best schools in the world here. Harvard, MIT, John Hopkins, and we could go on with the list.

Third, we get access to the latest and greatest tech first before everyone else. Also, we as Americans expect the latest and greatest. Think of the lines that will form when the iPhone 8 and X come out. We are talking about $799 phones!!! Average monthly wages even in some European countries make this impossible to purchase yet here, again, there will be lines to get it first.

Fourth, the United States is 5th highest in the world in average monthly wages. That brings the top talent here to the U.S. and keeps them here. This talent is why we are the leaders in the world in innovation.

2. I don't believe our traditionally free domestic market economy abets this development. My question is what is the better alternative? Our economic model drives down prices on goods that are not interfered with via government or outside influences. Meaning, you can now get an iPhone 6 now for $260 or less on eBay and when it was released in fall of 2016, it retailed for $650. There is no interference

in this market and thus it drives down prices. It then makes manufactures step their game up on the new models to drive people to the latest and greatest model. Then, when there is no longer a market here for these goods, international demand is extremely high across the board in various industries. Our problem in this country is what to do when old tech is no longer needed in our market. We at Relay Networks have a solution and that is to reach out to international customers that need the equipment for their market. Our greatest challenge is supply and getting business/schools to realize that once equipment comes out of service, they need to partner with companies like Relay Networks. We can then maximize the value and we can get them to the customers oversees to bring dollars back into our country.

3. The biggest challenge domestically is that foreign customs fees/process or de minimis, prevents international customers from getting affordable access to goods from the U.S. We the U.S. are not that familiar with this as our threshold is $800 here, but in other countries this is much higher. In Canada for example, the threshold is $20. This was set in 1985! The economy of the world has changed so much since then, yet Canada stays firm on this $20 threshold. Therefore, anything over $20 coming into the country has to go thru customs process and have a fee associated with it. In fact, in my testimony I refer to a Canadian reported who dived into the numbers and in fact the country losses millions of dollars a year just collecting the fees. What a waste and Canada should be our number one foreign customer as we are a half days drive from the boarder, but sadly they are not. We have lost deals because of this ridiculous threshold and process.

RESPONSE FROM MR. NICK QUADE TO QUESTIONS FOR THE RECORD SUBMITTED BY REPRESENTATIVE CAROLYN B. MALONEY

I represent a district that is one of the financial service and publishing capitals of the world—and so New Yorkers are very interested in measures that could help to strengthen and expand digital export opportunities for U.S. based businesses.

I also agree with our witnesses that the world could be a more prosperous and more enlightened place if there were fewer barriers to the swift movement of data, goods, people and information.

Placing arbitrary limits on how and where big data moves and is analyzed can slow the pace of innovation and just makes things more expensive. It's inefficient and can act like a hidden tariff.

And I find it to be unfortunate and short sighted of the government of China to block the site for The New York Times.

But I also think that making the world of digital trade better—is not only a matter of knocking down barriers and regulations.

Because—in some areas—the problem seems to be that regulations and agreements in place now are not being adequately enforced—Digital piracy overseas is hurting many U.S. businesses.

And in other areas—needed regulation is either currently insufficient or lacking altogether.

Take for instance—the protection of sensitive private information—like Social Security numbers.

I am very concerned about the recent Equifax hack—which may become the most economically damaging hack in U.S. history. The hack involved the personal data of as many as 143 million Americans—including their names, addresses, birth dates, Social Security numbers, and in some cases their driver's license and credit card numbers.

That is nearly half of all the people in the country.

And the Equifax hack also included the personal data of up to 44 million British consumers as well.

If a bad actor has all that personal data about you—he can apply for credit cards in your name, take out loans, file tax refunds, even apply for government benefits.

Or he can sell it on the dark web—over and over again—not just now—but for years to come. And he can sell it to people who will use it to commit cybercrimes that haven't even been invented yet.

The Equifax hack is the Irma of cyber hacks—and to make it even worse—it's the third major hack of Equifax in less than two years.

Unfortunately—failures like this by U.S. based companies can have a negative spillover on the reputational standing of other U.S. data exporters in the global market. In the past—the EU has expressed concerns about the sometimes-inadequate measures taken by U.S. companies to protect data privacy.

The Europeans have claimed—and not without reason—that the U.S. does not guarantee a sufficient level of protection for European citizens' personal data.

Even before the Equifax affair—European concerns threatened to disrupt data flows between the U.S. and the EU.

In 2015, the Court of Justice of the European Union invalidated a Safe Harbor Agreement that allowed personal data to be transferred with the U.S.

Basically—the failures of some have hurt other innocent actors as well.

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The issue of data security is important in regards to digital trade. Equipment and data are traveling outside the United States every second and this will continue to grow indefinitely. In terms of equipment; in 2014 the Department of Defense adopted National Institute of Standards and Technology (NIST) standards in place of their own standards. This move helped align DOD with civilian agencies so the result would be the same risk standards for all IT systems in terms of data wiping. NIST 800–88 is the accepted guidelines for media disposal and data erasure compliance. I have included a link to the NIST 800–88 publication:

https://12382-presscdn-0–52-pagely.netdna-ssl.com/wp-content/uploads/nist-800–88.pdf

RELAY NETWORKS SUPPORTS AND PRACTICES NIST STANDARDS

In this ever expanding cyber world threats will continue to evolve. The United States Government, according to public documents, spent $28 billion on cybersecurity in 2016 according to budget watch dog Taxpayers for Common Sense. However, according to Market Research Media on Oct. 2 2017 the Federal level would have to grow at 12% a year just to hit $22 billion in 2022. The United States fiscal budget is so vast that it is hard to pin down an exact figure for how much is spent on cybersecurity per year. We do know that the U.S. Government in FY 2017 had an $89.9 billion IT budget. The question of the effectiveness of our efforts is really hard to answer because the amounts of spending for individual spy agencies are classified. Indeed Rep. Peter Welch said in 2015, "The top-line intelligence budgets for 16 Federal agencies are unknown to the American taxpayer and largely unknown to most members of Congress in spite of the strong recommendation by the 9–11 Commission that they be disclosed . . . "

We do know that in 2015 the Office of the Director of National Intelligence disclosed that the 2016 non-military intelligence spending request was $53.9 billion for FY 2016. FY 2013 individual agency budgets were reveled through the Washington Post via Edward Snowden. The Post reported that FY 2013 spy agencies, including Central Intelligence Agency and National Security Agency, were awarded $52.6 billion not including another $23 billion for military intelligence programs. How much these individual agencies are spending on cybersecurity we may never know and that includes members of Congress. We will just have to trust that these agencies are spending enough on cybersecurity as well cannot pin point a dollar amount in their budgets.

RESPONSE FROM AMBASSADOR SEPULVEDA TO QUESTIONS FOR THE RECORD SUBMITTED BY CHAIRMAN PAT TIBERI

Since World War II, the United States has been a world leader in path breaking technologies that have spread around the world.

- *Why do you think the United States leads the world in technical innovations and why many U.S. companies are leaders in the world markets?*

The U.S. has historically made the basic investments in research and development, infrastructure, and educational institutions necessary to create a platform for innovation. The internet itself came out of a DARPA project and it is no coincidence that our centers of venture capital funding and innovation surround strong institutions of higher education.

- *Do you think our traditionally free domestic market economy abets this development?*

Yes, the ability to conduct business efficiently across state lines allows for an economy of scale that helps our start ups grow quickly.

- *What are the biggest obstacles domestically to the digital economy and to the growth of U.S. digital trade?*

The digital economy is doing well domestically but it isn't reaching everyone and we aren't making the most of our domestic talent pool. Every high school should have computer science classes available for their students, every local chamber of commerce and community should encourage start ups in businesses serving the needs of working families and the sector in which their locality is competitive, and every small business should be connected to the internet and reaching consumers worldwide. The market alone will not get us there due to the difficult economics of building networks out to sparsely populated communities.

RESPONSE FROM AMBASSADOR SEPULVEDA TO QUESTIONS FOR THE RECORD SUBMITTED BY REPRESENTATIVE CAROLYN B. MALONEY

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In 2015, the Court of Justice of the European Union invalidated a Safe Harbor Agreement that allowed personal data to be transferred with the U.S.

Basically—the failures of some have hurt other innocent actors as well.

The U.S. invented the internet—and this is an area where we should be the unquestioned leader.

So—in light of the recent Equifax breach—my question to our witnesses is: What regulations, if any, should the Federal Government consider putting in place to protect consumer privacy—so that data sent to—or stored in the U.S. will be secure?

- We need comprehensive privacy protection legislation. The Clinton FTC and the Obama administration both called for improvements to our privacy laws and objections from industry kept it from happening.
- Many of our best and largest firms have strong internal data protection practices and we should codify those best practices.
- There is no reason that Equifax should have been able to hide the breach of their security for as long as they did and there is no reason that they shouldn't have had in place protections to keep the breach from happening. But none of that is illegal today. They may face some after the fact investigation and penalties from the FTC but they won't be the first and it is obviously not having a sufficient deterrent effect on future actors.

What should our exporters do so that they are viewed as setting the standard?

- Our exporters and importers of personally identifiable information should publicly report their privacy protection practices and continually upgrade those practices.
- There are numerous rights that Europeans have now when American firms collect their data and bring it to the U.S. that Americans do not enjoy. The EU-U.S. Privacy Shield protections for Europeans are a gold standard and our law should provide those same protections to Americans.

Where should our country set the bar—so that we are viewed around the globe as the leaders—not the leakers of the world's sensitive private data?

- We are clearly the world's leader in innovation and some attribute that to our flexible and relatively light privacy laws and practices. It is a balancing act and we do not want to kill the internet goose laying golden eggs. But if we do not recognize that big data and vague rules of the road are exposing everyday people to substantial harm, the American people will turn on our technology stakeholders in much the same way they turned on our open trade stakeholders.
- These are really hard issues. People much more talented and capable than I have struggled with them for two decades. What we really need is open deliberation on potential solutions and a good faith effort at bipartisan cooperation and collaboration with true and meaningful outreach and engagement with the technology community of firms, civil society, and academics.

RESPONSE FROM AMBASSADOR SEPULVEDA TO QUESTIONS FOR THE RECORD SUBMITTED BY SENATOR AMY KLOBUCHAR

ECONOMIC IMPACT OF BROADBAND

Ambassador Sepulveda, I introduced the Measuring the Economic Impact of Broadband Act (S. 645) with Senator Capito. This bill would require the Department of Commerce to conduct an analysis of the effects of broadband deployment and adoption on the U.S. economy, including how broadband deployment and adoption impacts employment, education, job creation and population growth.

- *How could accurate, reliable data on the economic impact of broadband help make the case for investing in rural broadband?*

This is an excellent and necessary idea. It would shine a light at a granular level on what the digital divide is costing America.

Broadband adoption and deployment are strong, but not strong enough. And for the millions of Americans it is failing, the immediate and long term costs are high.

You and others have been working on these issues for years. Broadband providers are sensitive to criticism of their efforts and worry about having to compete with government or having competitors leverage government against them. We have to get past those fears and work together to understand the challenge at a granular level the way you propose and then attack it with policy scalpels and significant additional funding to ensure that we are not leaving rural and lower income Americans living in digital deserts. The market is not going to reach the left behind without policy incentives, mandates, or the allowance for the public provision of service. The longer we wait to address the challenge, the more inequality we will see.

ADDRESSING BARRIERS TO INTERNATIONAL DIGITAL TRADE

Ambassador Sepulveda, you raised several points regarding barriers to digital trade across borders. The barriers you cited included data localization requirements, local content requirements, and data protection regulations. Additionally, privacy

standards are critical for protecting consumers. As noted, these types of trade barriers are not easily addressed by using traditional trade tools.

- *As we work on revising and updating our trade agreements, what alternative tools do we have, or should we develop, to address the types of trade barriers that affect digital trade across borders?*

Our strongest tools lie in structured engagement out of State, Commerce, and USTR with their counterparts overseas. The most challenging barriers to digital trade are not coming from our bilateral trade counterparts. They arise in China, Brazil, India, South Africa, Indonesia, and elsewhere. They are rooted in fear of technology and worries that their people are only consumers in the digital economy, not producers or profiting participants.

We need to work with policymakers abroad to incentivize investments in local content development to help them preserve their culture. We need to work together across security teams to ensure that data stored outside of jurisdictions is not a mechanism for avoiding law enforcement. We also need to take a hard look at our privacy laws and regulations and update them for the digital age. And lastly, we need to model a new digital social construct that allows gig economy workers to port benefits across gigs, provides some form of wage insurance in lean years, and makes training and continuous skill development accessible, affordable, and rewarding.