

KEEPING GOODS MOVING

HEARING

BEFORE THE

SUBCOMMITTEE ON SURFACE TRANSPORTATION
AND MERCHANT MARINE INFRASTRUCTURE,
SAFETY AND SECURITY

OF THE

COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE

ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

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ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

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¹On March 3, 2015 the Committee finalized Member assignments for its subcommittees. The list below reflects March 3, 2015 assignments. When this hearing was held, on February 10, 2015, formal assignments had not yet been made.

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KEEPING GOODS MOVING

TUESDAY, FEBRUARY 10, 2015

U.S. SENATE,
SUBCOMMITTEE ON SURFACE TRANSPORTATION AND
MERCHANT MARINE INFRASTRUCTURE, SAFETY, AND SECURITY,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10:01 a.m. in room SR-253, Russell Senate Office Building, Hon. Deb Fischer, Chairman of the Subcommittee, presiding.

Present: Senators Fischer [presiding], Thune, Blunt, Daines, Blumenthal, Cantwell, and Klobuchar.

OPENING STATEMENT OF HON. DEB FISCHER, U.S. SENATOR FROM NEBRASKA

Senator FISCHER. The hearing will come to order. Good morning. I am pleased to convene the Senate Subcommittee on Surface Transportation and Merchant Marine Infrastructure, Safety, and Security for our second hearing, which is entitled “Keeping Goods Moving.”

To grow the economy and create new jobs, we need an efficient and reliable intermodal transportation network. Today’s hearing allows us to explore this issue with a particular focus on infrastructure and maintaining operations at our Nation’s ports.

America’s intermodal transportation network is the foundation upon which U.S. businesses along all segments of the supply chain produce goods and get them to market.

At our last hearing, Cabela’s outlined how disruptions or inefficiencies along our Nation’s just-in-time shipping network cost companies through lost sales, increased costs, and poor customer service.

Deepwater ports represent a key element of the U.S. transportation network, and are vital to our economic growth. In fact, America’s seaports often serve as the key connection point for all modes of transportation.

Our West Coast ports alone move 12.5 percent of U.S. GDP per year. A shutdown of America’s West Coast ports even for a short period of time would have devastating economic consequences. According to a recent report by the National Retail Federation and the National Association of Manufacturers, in the most severe case, a 20 day West Coast ports’ closure would disrupt 405,000 jobs, reduce U.S. GDP by almost \$50 billion, and cost the U.S. economy \$2.5 billion per day.

I have heard from businesses and consumers in my state expressing grave concerns about service disruptions at West Coast ports. Just last week, my office heard from an Omaha based company that manufactures electric conductors with inputs from Asia. This company is seeing its import time frame double and costs triple because of current slowdowns.

For many businesses, changing shipping routes or modes is cost prohibitive. Unfortunately, whether they export agricultural goods or import retail, businesses are being forced to opt for air freight or are re-routing products to avoid losing market share due to missed shipments. Port congestion also impacts truckers and freight rail, as well as the competitiveness of the ports themselves.

Everyone has a stake in seeing the ongoing negotiations between PMA and ILWU resolved quickly. Members of Congress and the Administration must pay close attention to these ongoing negotiations and the economic impact of service disruption at our ports.

This is particularly important as we face the potential for ports on both coasts to be negotiating simultaneously in 2018, which is when the current East Coast labor contract expires.

I am pleased that today's panel will represent a wide array of perspectives on the effect of recent disruptions in our Nation's supply chain. I am eager to hear further details from our panelists on the challenges that slowdowns at our Nation's West Coast ports have posed to their industries and their consumers.

I am also looking forward to hearing about opportunities for Congress, state and local governments, and the private sector to work toward modernizing and enhancing our Nation's ports' infrastructure for businesses, workers, and consumers.

We need to explore the policy options to support port growth and future volumes of freight to keep goods moving.

I would like to now invite my colleague, Senator Blumenthal, to make any opening remarks. Senator?

**STATEMENT OF HON. RICHARD BLUMENTHAL,
U.S. SENATOR FROM CONNECTICUT**

Senator BLUMENTHAL. Thank you, Madam Chairwoman, Senator Fischer. Thanks to our witnesses for being here today, coming long distances, and contributing your insights to one of the critical challenges that our country faces, not always the most glamorous or noticed, but one of the most profoundly important to our economy, to jobs, and to our quality of life. We thank you for being here.

In the remainder of this decade, the Department of Transportation estimates that freight will grow at least 10 percent in volume, not to mention the value of that volume to our economy.

Far from diminishing the importance of moving goods, the topic which brings us here today will only increase dramatically, and that estimate in my view is a conservative one.

No individual part of the country, no city or town and certainly no region is an island. All depend on transportation working together to move goods. We tend to focus on passengers as we did last week in a tragic collision in Valhalla, New York, a tragedy that was preventable and avoidable with proper safety procedures.

The same is true in moving goods and moving freight. Safety has to be made the number one priority, but we are all dependent on

freight transportation just as we are on moving people, moving goods is equally important. We all depend on all of the modes of transportation, all the types of transit, whether it is roads and bridges, rail, water, all working together and all fulfilling their vital functions.

I join in the hope that the parties to the West Coast ports' dispute can find a reasonable, mutually agreeable solution as fast as possible, time is not on our side, and that the businesses impacted by the slowdown, including many in Connecticut, are able to weather this and the impact economically.

Looking beyond this immediate issue are the broader challenges of investing and making sure that we build the infrastructure that is vital to moving goods and people.

As one example, Connecticut has a freight infrastructure that is very much in need of that investment, upgrading certain sections of our freight rail network, so they can accommodate 286,000 pound weights in moving goods and services by rail, which is the North American Rail Network standard, very, very important.

Most freight railroads in the country are able to sustain freight cars weighing 286,000 pounds, and this weight limit includes the weight of the car plus about 110 tons of cargo or 220,000 pounds.

If Connecticut does not upgrade its weight limits, then our state could become a freight island, but of course, if we are a freight island, the rest of America cannot reach us moving goods. That is just one example of how clogged arteries can stymie economic progress and job creation.

I am very much looking forward to the testimony that we are going to hear today and to hopefully the initiatives that it will enable us to take in the interest for all America.

Thank you again for being here.

Senator FISCHER. Thank you, Senator Blumenthal. Welcome to the panel today. I appreciate you taking time out of your schedules to be here at this hearing and to provide the Senators with more information on this very important topic.

I would like to get right to it. Our first witness is Mr. Norman Bessac. Mr. Bessac is the Vice President of International Sales of Cargill. Welcome.

**STATEMENT OF NORMAN BESSAC, VICE PRESIDENT,
INTERNATIONAL SALES, CARGILL PORK**

Mr. BESSAC. Thank you, Chairman Fischer and members of the Committee, the Subcommittee, for inviting me to testify.

Trade maximizes the value of products U.S. farmers and ranchers produce and our employees process because we are able to sell them to the domestic and international markets where they have the most value. This creates the best opportunities for Cargill, our customers, our farmer and rancher suppliers, our hard working employees, and the communities where we operate.

Ports are an integral part of a dependable supply chain. Let me outline the beef and pork supply chain I work with every day and detail the challenges that occur when there are problems with product flow through the ports.

Cargill procures livestock from farmers and ranchers to be processed into fresh beef and pork in our plants located predominately

in Nebraska, Kansas, Texas, Iowa, Pennsylvania, Illinois, Colorado, and California. Customers from around the world depend on high quality fresh U.S. beef and pork to sell in supermarkets, restaurants, and food processing plants.

Fresh meat has a relatively short shelf life. It must be quickly packaged and shipped in temperature controlled trucks, rail cars or containers to ensure product integrity and safety, and to allow enough shelf life to sell or process once the product arrives.

Under normal circumstances, a container of fresh pork destined for Asia usually arrives with more than 25 days shelf life. The industry is currently experiencing delays of two to 3 weeks on chilled product due to the congestion in West Coast ports.

With this delay, our Asian customers cannot count on a dependable supply of U.S. beef and pork, so they are canceling orders and are looking to suppliers in Chile, Australia, and the European Union to meet their needs.

Yesterday, Japanese customers canceled next week's chilled pork shipments. I assume many of our competitors are facing similar cancellations.

Needless to say, the current situation has created a tremendous amount of uncertainty. Today, the industry is faced with three choices. First, continue to ship product despite the current uncertainty. This can result in shorter shelf life and increased risk of potential spoilage and even complete product loss.

Second, we can air freight the product at a tremendous expense, often three to five times the normal cost. Third, do not manufacture export products and adjust operations and procurement accordingly.

If you take nothing else away from my testimony today, understand that any of these choices result in negative effects to everyone in the chain, in particular, farmers, ranchers, customers, and plant employees.

Today, about 10 percent of U.S. beef and 25 percent of U.S. pork is exported. The U.S. Meat Export Federation estimates that the global demand for U.S. beef and pork will reach 17.6 billion pounds in 2024.

That is up 50 percent for beef and 42 percent for pork, with most of that growth coming from the Pacific Rim. Future growth to serve these markets depends on an effective, efficient, and reliable supply chain capable of moving 162,000 incremental containers per year.

For reference, this is enough to provide 29.2 billion more four ounce servings of beef or pork.

Our nation's advantage has always been having a fair, robust, competitive transportation system that ensures we can compete in the global market. We must look at our situation not simply as manufacturers, shippers, labor, and capital, but through the lens of global competition. We ignore it at our collective peril.

Ports where the goods we make are loaded and exported for the world's consumers—functioning ports are imperative from both a labor and operational perspective. When ports do not operate, the supply chain backs up causing long term problems for us, our industry, our farmer and rancher suppliers, our customers, and our employees.

We ask you to take the steps needed to address the challenges I have outlined today so that we can continue helping the world thrive by meeting the needs of consumers around the globe.

I look forward to your questions. Thank you.

[The prepared statement of Mr. Bessac follows:]

PREPARED STATEMENT OF NORMAN BESSAC, VICE PRESIDENT, INTERNATIONAL SALES,
CARGILL PORK

Thank you, Senator Fischer and Members of the Committee and Subcommittee, for inviting me to testify.

Cargill provides food, agriculture, financial and industrial products and services to the world. Together with farmers, customers, governments and communities, we help people thrive by applying our insights and 150 years of experience. We have 143,000 employees in 67 countries committed to feeding the world in a responsible way, reducing environmental impact and improving the communities where we live and work.

At Cargill, we believe the world will always raise the most food the most economically if farmers plant the right crop for their soil and climate, and then engages in trade with others. In essence, grow and produce what you are good at and export the surplus. Honoring comparative advantage and trade is fundamental to ensuring abundant and secure food for the growing world's consumers.

This is also the way to maximize value for the products U.S. farmers and ranchers produce and our employees make. We sell the food and food ingredients that we produce to the domestic and international markets where they are most valued. This creates the best long-term opportunities for Cargill, our customers, our farmer and rancher suppliers, our hard working employees, and the communities where we operate.

It takes infrastructure and a complex supply chain to achieve this. Ports are an integral part of this supply chain. Let me outline the beef and pork supply chain I work with every day and detail the challenges that occur when there are problems with port operations.

Cargill procures livestock from farmers and ranchers to be processed into fresh beef and pork in our plants located predominately in Nebraska, Kansas, Texas, Iowa, Pennsylvania, Illinois, Colorado and California. Customers from around the world depend on high quality fresh U.S. beef and pork to sell in supermarkets, restaurants, and food processing plants. Fresh beef and pork have a relatively short shelf life (60 days for fresh beef and 45 days for fresh pork) and must be quickly packaged and shipped in temperature controlled trucks, railcars and/or containers to ensure product integrity and safety and to allow enough shelf life to sell or process the product once it arrives. Under normal circumstances, a container of fresh pork destined for Asia is usually trucked to the west coast (2–3 days), loaded onto a container ship (3–6 days), in transit on the water (15–18 days), unloaded/clears customs (1–2 days) and then delivered to customer's warehouse for distribution. In this case, our customer would have approximately 25 days shelf life left on the product.

Recently, the industry has been experiencing delays of 2–3 weeks on chilled product as ships and product have backed up in the West Coast Ports. With this delay, our Asian customers cannot count on a dependable supply of U.S. beef and pork, so they have started to cancel orders and are looking to suppliers in Chile, Australia and the European Union to meet their needs.

Customers usually have a month's supply of product in inventory and another month's supply in the distribution pipeline. Delays or temperature changes in the distribution chain devalue the product and can easily make it worthless to customers. A timely supply chain is critical to our business.

Today, about 10 percent of U.S. Beef is exported and 25 percent of U.S. Pork is exported. These exports increase the market value of U.S. farmers' and ranchers' products. Additionally, the revenue added by many exported items—such as hides and skins which are processed abroad and some variety meats which do not have a high-valued market in the US—increases the value to farmers and ranchers while helping hold down the cost of beef and pork to U.S. consumers.

The North American Meat Institute estimates that the current West Coast Port situation has had the following impact upon the meat and poultry industry as a whole:

- The cost to meat and poultry companies losing sales or facing unanticipated port charges is in excess of \$40 million per week on top of initial losses which exceeded \$50 million.
 - These estimates are on the low side because of limited industry-wide data.
 - Also, lost hides and skins export sales alone are estimated at an additional \$40–45 million per week.
- Increase in transportation and port-related charges include:
 - Removing chilled product containers from terminals and sending by air increases shipping costs dramatically and reduces profit margins.
 - Cold storage while the backlog continues also adds costs.
 - Exporters are facing container plug in charges, truck waiting time, truck dry runs, truck detention, and chassis usage charges.
 - Exporters are additionally charged “demurrage” or rent for every day a container sits, unshipped, at the terminal.
 - Steamship line costs are at a premium due to “congestion surcharges” imposed at the present time.
- Chilled meat/poultry is most at risk. More than 10,000 MT of U.S. beef and 16,000 MT of U.S. pork is exported as chilled to Asia each month. Product sales are stalling under the current situation.
 - Some U.S. exporters report they have containers held up that were there at Christmas. The short shelf life of chilled beef and pork make timely delivery critical.

Unfortunately, despite strong and growing export demand for U.S. meat protein, the long-term negative impact of these delays falls on the producers who supply the livestock and the employees who process the livestock into meat.

The U.S. Meat Export Federation (USMEF) estimates that the global demand for U.S. beef and pork will reach 17.6 billion pounds in 2024, up 50 percent for beef and 42 percent for pork, with most of that growth coming from the Pacific Rim. Future growth to serve these markets depends on an effective, efficient and reliable supply chain capable of moving an incremental 162,000 containers per year (3,115/week).

Cargill exports many other products that have also been recently delayed. These products include cotton, canola meal, soybean meal, whole grains, syrups, sweeteners, distillers dried grain, food ingredients and others. The impact has been significant. We ship in excess of 1,000 containers per month through the West Coast depending on the season, market conditions and other factors.

It is important for policymakers to understand the decisions and decision making process that a firm confronts during disruptions to a supply chain. The more protracted a transportation disruption, for any reason, the more prolonged and extensive the damage may be. Commerce does not automatically go back to normal as soon as the disruption ends. That is because the disruption likely caused impacts throughout the domestic and international supply chain during its duration. Individuals likely changed their behavior to account for the disruption. Truckers that had hauled goods to the port may have changed their routes to avoid long wait times and to ensure a more reliable income. Railroads may have adjusted their schedules to keep their cars from getting stuck in port. Companies that manufacture goods may have changed how they ship and to whom they sell. Most importantly, buyers may have changed to suppliers with more predictable logistics. Ship owners may avoid certain ports altogether. The longer the disruption lasts, the more behavior and patterns of shipments change and the longer it takes for normalcy to return. This makes it hard for one to be a long-term reliable supplier to customers when confronted with uncertain supply chains, particularly for perishable products.

This has severe implications for companies desiring to make long-term sales to customers whose contracts are normally predicated on shipping in the most efficient means possible but now are facing expensive and extensive congestion and disruption. Consider the following: When will the ports return to normal? Will the situation get worse before it gets better? Can the buyer count on the product arriving on time? In the case of uncertainty, the customer may choose to purchase from a competitor or a supplier in a competing country who has a more reliable supply chain.

Shipping through alternative ports may not be a viable option either. A Washington state supplier cannot easily nor cost effectively ship product to the Gulf Coast of Texas for shipping through the Panama Canal when the normal best option is direct from Washington to Asia. In this case, the business may simply be lost. Addi-

tionally, there are not enough days to allow perishable product like meat to be shipped to Asia via East Coast or Gulf Coast ports. These are simply not options. For all these reasons, we urge Congress to do what it can to resolve the current dispute affecting West Coast Ports.

It takes infrastructure to get our nations' goods to market. If we want to continue moving the bounty of America from the cornfields of Nebraska or Iowa, from the ranches of South Dakota, or the manufacturing plants of the Northeast, we need to continue focusing on infrastructure. If we do not, our international competitors will serve our global consumers faster and more efficiently.

The U.S. has challenges when it comes to the quality and longevity of our infrastructure. We are appreciative of the bold step taken by Congress last year to pass the Water Resources Development Act and the user fee for the Inland Waterways Trust fund. Nonetheless, the inland waterways system is living on borrowed time. It needs investment to ensure it can serve the needs of our country for the rest of this century. With the now completed expansion of the Panama Canal, ports must be dredged so that the larger ships that transit the canal can dock at many of our Gulf Coast and Atlantic ports. The impact of the Panama Canal is not the only challenge at our ports. Maersk has a new ship called the "Triple-E" that routinely travels between China and Europe, but because of its draft reportedly cannot dock at a single U.S. port. This is a huge advantage to Asia and Europe who have access to such efficient transportation. Efficient highways are also critical and some countries have addressed these in unique ways. For example, Changdong province in China is building interstate quality truck-only lanes that have weight limits of 200,000 pounds.

Our nation's advantage has always been having a fair, robust, competitive transportation system with access to truck, rail, waterways, air, and inter-modal options with a connection to well-functioning ports. This ensures we can compete in global markets. We must look at our situation not simply as manufacturers, shippers, labor and capital, but through the lens of global competition. We ignore it at our collective peril.

Ports are where the goods we make are loaded and exported for the world's consumers. Functioning ports are imperative from both a labor and operational perspective. When ports don't operate, the supply chain backs up causing long-term problems for us, our industry, our farmer and rancher suppliers, our customers, and our employees. We ask you to take the steps needed to address the challenges I have outlined today so that we can continue helping the world thrive by meeting the needs of consumers around the globe. I look forward to your questions.

Senator FISCHER. Thank you, Mr. Bessac. Ms. Katie Farmer. Ms. Farmer is the Vice President of Consumer Products at BNSF. Welcome.

**STATEMENT OF KATIE FARMER, GROUP VICE PRESIDENT,
CONSUMER PRODUCTS, BNSF RAILWAY COMPANY**

Ms. FARMER. Thank you. Good morning, Chairman Fischer and members of the Subcommittee. Thank you for the opportunity to be here to discuss BNSF's perspective on the importance of our Nation's ports to the U.S. supply chain.

I would like to begin by explaining rail's role in the international supply chain. Intermodal is the movement of shipping containers and trucks by rail, combined with the shorter truck movement at one or both ends. Growth over the last decade is attributable to a number of factors, including fuel efficiency, highway congestion, trade growth, and truck driver shortages.

There are two kinds of intermodal movements on a freight railroad. The first is domestic intermodal, which is the movement of 53 foot long containers or trailers within the U.S. The second is international intermodal, in which goods manufactured overseas are shipped in 20 and 40 foot long containers.

These containers arrive on a container ship at a port and those that are not distributed locally are loaded onto trains on dock or trucked a short distance to an off dock or near dock intermodal

yard, where they are sorted and loaded for movement to markets in the interior of the country.

The containers are owned by the steamship lines and we work together to balance the flows of eastbound traffic and match back the empties with full loads of U.S. goods westbound to a ship destined for Asia or other international markets.

Last year on our railroad, we handled post-recession record volume levels of freight. Our service was challenged and we did not deliver the service that customers have come to expect from BNSF.

We have moved quickly to add capacity and implemented a record \$4 billion capital program in 2013, followed by a \$5.5 billion program in 2014, and we have announced a \$6 billion capital budget this year.

With this investment, we have permanently expanded the capacity of our network, which we believe will continue to maintain the U.S. supply chain advantage.

The San Pedro Bay port complex, comprised of the ports of Los Angeles and Long Beach, is the busiest container port complex in the western hemisphere and a top gateway for U.S. trade with Asia.

BNSF transports more than half the international shipments that go by rail out of these ports, and about 75 percent of these units carried by BNSF are loaded on dock. The remaining are handled off dock at BNSF's Hobart Yard in East Los Angeles. The facility is 24 miles by highway from the ports.

BNSF has been working for well over a decade to build a near dock facility only four miles from the ports called the Southern California International Gateway or SCIG, which would be the greenest intermodal rail facility ever constructed and eliminate millions of truck miles on the I-710 Freeway between the ports and downtown Los Angeles.

Our efforts to permit and build this facility have been challenged for years by local opposition groups and the permit is currently tied up in the courts.

We think this project will create operational efficiencies for the ports. West Coast ports are facing challenges due to congestion. Growing freight volumes are not the whole story, however, since overall freight levels to the West Coast ports have not returned to levels seen before the recession.

There are several factors that are contributing to growing congestion at these ports including inadequate port infrastructure needed to handle the larger ships, limited infrastructure adjacent to the ports, operating restrictions from local communities, as well as operating inefficiencies.

By far and away, the most disruptive aspect to the supply chain over the last several months has been the reduction in port productivity as a result of the ongoing negotiations between the PMA and the ILWU. Port productivity has declined by as much as 50 percent during this period. The result is year over year reductions in BNSF's eastbound weekly train counts of as much as 20 to 30 trains per week carrying a minimum of 250 containers that are not being processed through the supply chain.

This also impacts the return movement of freight westbound for exports. This is causing significant delays and increased costs for

our customers. BNSF has taken numerous actions to serve its customers and ensure the fluidity of our network in the face of these challenges, including establishing controls at our intermodal facilities and equipment management.

During the 11 day shutdown of port operations that occurred in 2002, freight permanently migrated away from the West Coast. This is certainly a potential long-term consequence from the current situation.

Congress can play a role in keeping goods moving through sound infrastructure policy and permitting reform. My written testimony details BNSF's thoughts on those areas.

Thank you, and I look forward to your questions.
[The prepared statement of Ms. Farmer follows:]

PREPARED STATEMENT OF KATIE FARMER, GROUP VICE PRESIDENT,
CONSUMER PRODUCTS, BNSF RAILWAY COMPANY

Introduction

Good Morning Senator Fischer and members of the Subcommittee. My name is Katie Farmer and I am Group Vice President for the Consumer Products business unit of BNSF Railway Company (BNSF). I want to thank you for inviting me to be here with you today to discuss BNSF's perspective on the importance of our Nation's ports to the U.S. supply chain.

BNSF is a wholly-owned subsidiary of Berkshire Hathaway, Inc. BNSF serves 28 states in the western two-thirds of the United States and employs approximately 48,000 people. In 2014, BNSF handled more than 10 million units, each representing one carload. BNSF moves more freight, and carries more rail shipments in international trade, than any other railroad.

BNSF's role in the international supply chain spans all our business sectors—coal, agricultural products, industrial products and consumer products, encompassing both imports and exports. My remarks on port operations will be from the company's perspective on intermodal. And since the largest share of the Nation's and BNSF's trade-related intermodal business comes from the West Coast ports, my focus today is there and on the challenges they face. I would like to explain rail's role in the international intermodal supply chain and emphasize the nationwide economic impact of port operations and infrastructure. Finally, I will offer some suggestions on ways that policy makers can support the port growth that will be necessary to handle future volumes and keep freight moving.

Overview of the International Intermodal Freight Supply Chain

In my role at BNSF, I have responsibility for leading all of BNSF's sales and marketing efforts for consumer products—the domestic and international intermodal segments as well as our automotive business. Consumer Products is the largest market segment within BNSF. In 2014, it accounted for about half of BNSF's 10.3 million total annual units.

What is commonly referred to as “intermodal” is the movement of shipping containers and truck trailers by rail, often combined with a shorter truck movement at one or both ends (a “dray”). Intermodal movements capture the inherent efficiency of freight rail and are ideal for containerized freight moving several hundred miles or more between markets with large concentrated volumes and delivers service equivalent to or better than single-driver all truck transportation. Intermodal has been growing rapidly for more than 25 years, and demonstrates a strong partnership with the trucking industry. The U.S. rail industry originated a record 12.3 million intermodal units in 2006 but volumes fell sharply during the recession, rebounding to 13.5 million units in 2014. Intermodal is the railroad industry's largest business segment. Its growth is attributable to a number of factors, including fuel efficiency, highway congestion and truck driver shortages.

There are two kinds of intermodal movements on a freight railroad. The first market segment is “domestic intermodal,” which is the movement of 53 foot long containers or trailers within the U.S. It may surprise you to know that domestic intermodal, which is BNSF's largest volume growth area since 2006. The second is “international intermodal,” in which goods manufactured overseas are shipped in 20 and 40 foot long containers and move from ports to inland destinations. It is international intermodal which we are discussing here today.

Inbound international container shipments arrive on a container ship at a port and those that are not distributed locally are loaded onto a train headed for the interior of the country. Containers may be loaded onto trains “on dock” or trucked a short distance to an “off-dock” or “near-dock” intermodal yard where they are sorted and loaded onto trains. The containers are owned by the steamship lines and every effort is made to balance the flows of east and west bound traffic to “match back” the empties with full loads of U.S. goods headed back to a ship destined for Asia or another international market. U.S. industries from agriculture to manufacturing take advantage of the full cycle of intermodal containers in the intermodal supply chain.

The Critical Economic Impact of Ports in the Supply Chain

In 2014, nearly a third of the U.S. economy was tied to international trade. The consumer economy, which is about 70 percent of Gross Domestic Product (GDP), is heavily dependent on the international trade-based intermodal supply chain. So while many of the products U.S. consumers rely upon depend on the international intermodal supply chain, the biggest impact of this trade-based activity is on the overall health of the Nation’s economy. The international supply chain is also an important element of U.S. competitiveness. The U.S. has historically had the lowest relative supply chain costs versus our global competitors. Along with low energy prices, our supply chain provides U.S. manufacturers, agricultural producers and miners with a competitive advantage in world markets.

We at BNSF know first-hand the importance of efficiently meeting growing freight demand. Although last year we carried record levels of freight since the recession, our service was challenged and we did not deliver the level of service that our customers have come to expect from BNSF. We have moved quickly to add capacity and efficiency, and implemented a record \$4 billion capital budget in 2013, followed by \$5.5 billion in 2014, and an announced \$6 billion capital budget this year. With this investment, we have permanently expanded the capacity of our network, which we believe will contribute to maintaining the U.S.’s supply chain advantage.

Ensuring that U.S. ports also are able to meet growing freight demand is a national economic imperative. BNSF serves 40 U.S. ports—which includes every major port along both the West Coast and Gulf of Mexico—however, the West Coast ports are our largest port partners. From the West Coast, BNSF has key transcontinental routes between Southern California (PSW) and Chicago, the PNW and Chicago and beyond. More than 15 million loaded Twenty foot Equivalent Units or TEUs move through West Coast ports each year. West Coast ports support more than 9 million U.S. jobs, with a domestic business impact of \$2.1 trillion. Almost 13 percent of U.S. GDP is tied to goods moving through West Coast ports. The success of these ports is critical to the Nation’s economy; they need to be able to meet demand and remain competitive.

The Pacific Southwest (PSW) and Pacific Northwest (PNW) ports each serve different market segments and geographies and have different challenges, but fundamentally each port region is subject to competition from their NAFTA neighbors to the north and south. They are also subject to competition from East and Gulf coast ports through the Panama and Suez canals as shippers and retailers continually seek less expensive and more efficient access to key markets in the U.S. To the extent that West Coast freight is displaced to NAFTA ports, the regional and national economic value that goes with that traffic is permanently lost. And to the extent that West Coast port traffic is diverted from these ports to ports in other domestic geographies that require expansion or mitigation, public and private sector costs increase.

The San Pedro Bay port complex—comprised of the ports of Los Angeles and Long Beach—is the busiest container port complex in the western hemisphere and the top gateway for U.S. trade with Asia. BNSF is a key part of the logistics network in the San Pedro Bay ports—we transport more than half the international shipments that go by rail out of these San Pedro ports. At the San Pedro Bay ports, about 75 percent of the units carried by BNSF are loaded on-dock. The remaining are handled off-dock at BNSF’s Hobart Yard in East Los Angeles. Hobart Yard is the largest inland intermodal facility in the world capable of handling over 1 million units in 2014. The facility is 24 miles by highway from the ports.

BNSF has been working for well over a decade to build a “near-dock” facility only four miles from the ports, called the Southern California International Gateway, or SCIG, which would be the greenest intermodal rail facility ever constructed and eliminate millions of truck miles annually on the freeway between the ports and downtown Los Angeles, the I-710. Our efforts to permit and build this facility have been challenged for years by local opposition groups and the permit is currently tied up in Court.

Our PNW port service is divided among a number of ports in Washington and Oregon, including Seattle, Tacoma, Vancouver, Portland and a number of smaller ports, and facilitates bulk imports and exports, automotive imports and container traffic.

Collectively, PNW ports face strong competition from Canada which is exacerbated by some policy challenges. For PNW container ports competing with Canada, the U.S. Harbor Maintenance Tax creates a competitive disadvantage. Not only are PNW ports disadvantaged because of the added cost of the tax, they receive little or no benefit from the authorized use of the tax. In addition, Canada has a long-standing successful national port infrastructure and corridor program that not only assists with port development but funds projects in the corridors connecting to the ports. At BNSF, we stand ready to work with Federal, State and local public policy makers to similarly support our PNW port partners.

Nationwide Impact of Port Challenges

I would like to now turn to the challenges faced by our ports and the impact of those challenges on our supply chain.

In many ways, BNSF believes that in 2015, the biggest challenge facing ports in general, and West Coast ports in particular, is congestion. Growing freight volumes are an obvious source of congestion at ports but volume alone is not the whole story since overall freight levels through the West Coast ports have not returned to levels seen before the recession. There are several factors that are contributing to growing congestion at these ports, including the effect of inadequate port infrastructure needed to handle larger ships, growing commercial and residential development around the ports, limited infrastructure adjacent to the ports, port operating restrictions from local communities and operating inefficiencies. All of these factors, if they continue into the future, will cause congestion as West Coast ports grow faster than actual volumes.

As you and other policy makers appropriately consider how to facilitate and pay for port growth and for ways to mitigate the impact of port operations, consideration must also be given to how ports can become more efficient as well.

West Coast Port Situation and Port Productivity

Modern port activity remains fundamentally dependent on skilled workers. And as you are aware, in recent months there has been an unprecedented decline in productivity at West Coast ports resulting from the negotiations between the Pacific Maritime Association (PMA) and the International Longshore and Warehouse Union (ILWU). Port productivity has declined by as much as 50 percent. And as you are also aware, this situation—which BNSF and its customers hopes is resolved soon—is having a significant economic impact across the country.

Intermodal shippers are highly dependent on efficient movement of their cargo through the supply chain. Many of our customers in this market segment use “just-in-time” inventory methods that require timely and dependable delivery of retail products and manufacturing parts to stock their stores and keep their manufacturing operations running efficiently. The congestion has resulted in a major disruption of goods movement from the West Coast causing significant delays and increased costs.

As the largest intermodal carrier from the West Coast ports, BNSF’s operations have been negatively impacted by the port congestion. BNSF has taken numerous actions to serve its customers and ensure the fluidity of our network in the face of these challenges including establishing controls at our intermodal facilities and equipment management. We have had to restrict the flow of westbound containers to the ports. In some places, empty container availability for westbound shipments, once in oversupply, have become difficult to find and match back. As you can understand, this congestion is impacting many of BNSF’s intermodal customers.

BNSF stands with the thousands of customers we serve through these ports in voicing our concern about the severe impact of the current situation. Shippers and rail carriers are directly impacted by the lack of productivity but it has the potential for longer-term negative economic consequences to the U.S. West Coast and the broader economy, and to the competitiveness of the ports themselves. More fundamentally, this strife related to collective bargaining at the ports is a recurring problem; history tells us that the current PMA–ILWU structure of negotiating labor contracts is disruptive and negatively impacts the U.S. economy. The 11-day shutdown of port operations in 2002 had a cumulative effect on the entire supply chain of the U.S. with an estimated cost of \$15.6 billion. Freight permanently migrated away from the West Coast after this incident, a potential ongoing consequence from this vulnerability.

We are hopeful that the labor issues at the West Coast ports will be resolved in the short term, however in the long run, the issue of U.S. port efficiency remains to be addressed. Improving efficiency will be as important as infrastructure expansion, and certainly less costly, in achieving the throughput that the Nation requires from its ports. U.S. port efficiency is among the lowest of world trading powers. While the efficiency issues at each port are slightly different, in general the most significant operational factors contributing to inefficiency include chassis shortages, limited gate hours, and truck capacity. New alliances between ocean carriers have added complexity to port operations. For example, at the San Pedro Bay ports, these new partnerships are spreading out vessel calls over multiple terminals, adding complexity for truckers, marine terminals and the railroad's operations.

Surface Transportation Policy Discussion and Recommendations

Infrastructure Policy

Expected freight growth and congestion at the ports must be met with facility expansion, just as on the railroads. At BNSF, freight volumes continue to recover and by some measures, BNSF is already back to pre-recession levels of freight. If there is one thing that we are sure of at BNSF, it is that the demand for freight movements is only going to increase. At the ports, capacity expansion will be necessary to handle increased volume, bigger ships, and the trucks and trains that are essential to expedite that freight. The largest of these port projects have a national impact and in BNSF's view will have to be permitted, financed and funded with the help of federal, state and port resources. Over the past few years, BNSF has supported its port partners in a variety of Federal TIGER Grant applications; however, as we look to the future, a more robust and sustainable program with port eligibility should be considered.

Congress is currently considering how to assure the long-term solvency of the Highway Trust Fund. If Congress takes the Highway Trust Fund farther afield from the "user pays" paradigm and continues to fund it with revenues not generated by users, the call on Highway Trust Fund budget authority for a broader range of projects is unavoidable. BNSF supports strengthening the user pays concept because of its fairness; it allows users to pay more of their costs on the highway network.

Whatever transportation funding framework Congress establishes in the next transportation bill, a Federal share of funding for nationally or regionally significant high-cost infrastructure projects, like port projects which facilitate international trade and relieve congestion, must be considered.

We have developed strong public-private partnerships across our network—as have other railroads. The Alameda Corridor in Southern California, FAST Corridor in Washington State, Connect Oregon, Tower 55 in Texas and the CREATE program in Chicago have freight mobility benefits to which the railroad contributed its share, and publicly funded mitigation to address the impacts of freight movements, such as grade separations. We regularly work with communities across our network on grade separations. However, resources within U.S. DOT, State DOTs, local governments and railroad capital budgets are scarce for projects like these. We coordinate with states and local governments to ensure that road crossings at rail lines are safe.

Permitting Reform

Federal permitting reform is an important priority not just for BNSF, but the Nation as a whole. While we understand a permitting process is necessary, we have encountered increased costs associated with extended permitting timeframes for facility and track projects across our network. Our experience with the \$500 million Southern California International Gateway project, in addition to roadblocks encountered with bulk export facilities elsewhere, tells us that Federal permitting challenges are only part of the problem. Organized local opposition, whether to increased freight traffic or to the content of the shipments, has had veto power on projects that serve important national objectives. We believe at BNSF that, through good faith discussion and mitigation negotiation, the reasonable concerns of citizens who are impacted by increasing freight volumes usually can be addressed. However, as the permitting process operates today, there is significant delay and cost which, multiplied throughout freight rail networks, quickly become noneconomic. We support efforts to improve the project permitting process.

Railroad Investment

This Subcommittee is very familiar with the important role of private capital investment in the freight rail network. I want to re-emphasize that the private capital being reinvested into the Nation's freight rail network should not be taken for granted. Today's rational regulatory model has allowed us not only to reinvest, but

also to expand our network so we can move the products our economy needs, while reducing the environmental impact of freight transportation. Our capital investment strategy depends upon reasonable earnings and a constructive regulatory environment that acknowledges the costs and capital intensity of our business and the ongoing need to maintain and expand our infrastructure.

Conclusion

In the short term, we believe that if the West Coast port situation can be resolved quickly, we can help the ports clear the backlogs and reset their operations. We urge Congress to adopt policies that support the growth and efficiency of U.S. ports, which are a critical part of the supply chain, the economy and our Nation's long-term competitiveness.

Senator FISCHER. Thank you, Ms. Farmer. Next we have Dr. Walter Kemmsies. Dr. Kemmsies is the Chief Economist at Moffatt & Nichol. Welcome.

STATEMENT OF DR. WALTER KEMMSIES, CHIEF ECONOMIST, MOFFATT & NICHOL

Dr. KEMMSIES. Good morning. It is well recognized that international trade is increasingly important to the U.S. economy and that this trade mostly utilizes ocean going vessels, particularly container vessels, due to the versatility of containers for handling a range of cargo, from dry goods to refrigerated goods, refrigerated perishables, to liquids and gases.

Ports have an important role in the movement of overseas freight because they are major intermodal exchange points transferring cargo between ships, trucks, and rail. They are essentially the very embodiment of intermodalism.

Ocean liners are adapting to growing trade volumes, and I would agree with Senator Blumenthal that the estimates for trade volume growth are probably low, and we should likely see much higher growth rates, provided that the infrastructure is there.

The ocean liners are responding to this, to not only the larger trade volumes but also to rising fuel costs and to stricter environmental impact regulations by investing in larger vessels. The larger vessels mean more cargo on fewer ships and in fewer ports because the time it takes to load and unload the ships is time vessels do not earn revenues, and given the cost of these very large ships, it is important they minimize the time they spend stationary, particularly sitting in ports.

The ports are adapting to this change in the global ocean vessel fleet. They are investing in dredging the access channels, investing in dredging the berths and removing air draft restrictions. They have been acquiring larger ship to shore cranes that have greater reach and much greater lift capacity. They are densifying their terminals so you can stack the containers higher, and also by automation.

The investments made by the ocean liners at ports are often not matched by the land site investments outside the ports' gates. Larger vessels and increasing cargo handling capacity at ports has created congestion problems in port gateways around the world and in some parts of the U.S., in locations where land site planning and investing is not exactly in line with what is happening on the water sites, being the ports, and what is happening in the access channels and the global fleet of vessels.

The shorter term issues such as the severe weather last year and the transition of ocean carriers moving away from providing chassis' to their customers and allowing the financial sector to step in and lease these, has not been very smooth. To some extent, this has impacted the effect of the larger vessels on congestion issues.

To that, we would include the productivity losses that have occurred at the ports during the contract negotiations, but from my perspective, we see the shorter term issues as masking some of these longer term trends driven by the larger vessels, and therefore, causing concern about the long-term congestion problems that we would expect to see in the U.S. supply chain.

It is likely that foreign ports in locations where intermodalism characterizes freight movement and planning will be gaining at the expense of U.S. ports, and therefore, the U.S. logistics industry.

To sum up, I believe that failure to cut costs across U.S. ports, by which I do not mean just cutting costs in ways that create competition between U.S. ports, but rather cutting costs for the entire port system is required. Otherwise, U.S. ports will not be the winners in competition with the foreign ports.

The spotlight on this is on the inland segment of the product flow path, on railroad lines in order to improve service to markets close to the port, and truck freightways to improve access to markets further away.

To defend our exports and imports, we need to focus our attention on the inland segments of the product flow path. On the railroad lines, the grade crossings, the container transfer facilities, and for trucks, we need to start thinking about dedicated freightways. These types of investments will make U.S. exports more competitive.

Thank you.

[The prepared statement of Dr. Kemmsies follows:]

PREPARED STATEMENT OF DR. WALTER KEMMSIES, CHIEF ECONOMIST,
MOFFATT & NICHOL

Author's Background

Dr. Walter Kemmsies is the Chief Economist at Moffatt & Nichol, a marine infrastructure engineering and advisory company founded in 1945 that currently has over 650 employees in offices located near major ports throughout the Americas, Europe and the Pacific Rim. Dr. Kemmsies directs market assessment studies, financial analyses and global trade forecasts for projects ranging from strategic development and capital improvement plans for ports through financial transactions involving leases and sales of marine terminals. He is an advisor to executives at various port authorities and major transportation and manufacturing companies. Prior to joining Moffatt & Nichol, he was the Head of European Strategy at JP Morgan and before that the Head of Global Strategy at UBS.

1. Key Issues Related to "Keeping Goods Moving"

The hearing is focused on the importance of a reliable and efficient supply chain, particularly shipments to and from U.S. ports, including opportunities and challenges in decreasing delays and congestion throughout the supply chain. To that end my focus is on four points described in the following subsections of this written testimony.

1.1. Supply Chains or Product Flow Paths

Supply chains are characterized by intermodalism in that they consist of the combination of highway and railway segments, as well as ports and marine trade lanes which are the routes and services operated by ocean carriers. For cargo that is traded internationally a flow path consists of truck drayage from manufacturing/processing/refining locations to ports or to railheads for intermodal transportation to

ports, transfer to ships at the ports, the ocean carrier routing to the foreign destination port and transfer to truck, barge or rail for delivery at the final destination.

Although the same roadways, railways, barges and ports are used to handle a range of different cargo types, the equipment and infrastructure needed to handle types of cargo is varied. The infrastructure includes facilities such as warehouses, crossdock facilities for repackaging freight and storage facilities. Dry goods can be moved in variety of container types and sizes or in large bulk vessels as well as rail hopper cars. Liquid goods such as petroleum, gases, and chemicals are carried in different types of vessels, barges, rail cars and trucks.

Since the type of products that the U.S. tends to import is different than the type of products it exports, different types of infrastructure are needed to support imports and exports. At or near ports the imported freight infrastructure is generally oriented towards deconsolidating cargo that arrives on tightly packed ships and airplanes while that for exports supports consolidation in order to be loaded on to ships and airplanes.

It appears that most of the investment in infrastructure and equipment for freight movement in the U.S. in the last few decades has been more oriented towards imports than exports. Evidence to support this hypothesis includes the substantial goods trade deficit that the U.S. has developed as well as the nature of large scale freight movement projects that have been executed and those that have suffered from under-investment such as the Mississippi Inland River System.

The types of equipment and consolidation/deconsolidation infrastructure are important elements of their respective supply chain(s). For example, the availability of empty international containers for U.S. agricultural exports is such a significant issue that the U.S. Department of Agriculture publishes a weekly report called Ocean Shipping Container Availability Report (OSCAR) based on its polling of ocean carriers. The report provides details of the types of containers that ocean borne freight and their locations.

In 2014, for example, The U.S. imported an estimated 16.7 million TEU, mostly containing consumer goods and finished products. To keep the containers in circulation, the U.S. exported an estimated 11.5 million TEUs, mostly containing waste paper, agricultural products in both dry and refrigerated containers, and industrial goods. The U.S. exports empty dry containers but tends to import refrigerated containers so as to support agricultural exports.

The containers are owned by the ocean carriers and cost \$5,000 for a new dry container and \$18,000 for a refrigerated container. Ocean carriers track their containers very carefully in an attempt to minimize the amount of time they are empty and therefore not generating revenue. These containers are generally not interchangeable between ocean carriers as they need to make sure that they can provide their customers with the needed equipment to ship their goods.

Analysis of the OSCAR data indicates that the Midwest suffers from a consistent shortage of available containers to support containerized grain shipments. Most international containers imported into the U.S. carry consumer and industrial goods which are destined to urban locations. Therefore there is a mismatch between where containers are available and where they are needed for exports. *Therefore, exporters have to pay a higher cost for containers that need to be repositioned.*

For example, a major exporter of non-genetically modified soybeans to Asia commands a price premium since they are most suitable for human consumption but need to be packaged in a way that preserves the ability to trace the product back to its geographical production location, which is referred to as identity preservation or more commonly referred to as "IP". To do this the product is packaged close to the farm and containerized. An upper Midwest producer has to pay *trucking costs* that exceed \$900 for a single container to be brought to its packaging operations. In addition to the cost, the producer often has to wait, sometimes months, for containers to be delivered.¹

The time delay is a serious issue because agricultural goods are traded *sometimes* under quota systems set up in free trade agreements. If a shipment does not arrive and clear customs in the foreign location during the current calendar year then it accrues to the following calendar year. Foreign importers are allowed to grow their import quantities at a set rate based on the previous year's import levels. Therefore delayed shipments reduce their imports in the current calendar year and can *ultimately* reduce them in the following calendar year as well. *More importantly, global food companies rely on "just-in-time" service and in the current environment soy producers can lose customers due to shipment delays.*

Almost all countries can produce agricultural commodities but only those that have efficient production and transportation can compete in the global market place.

¹Based on information provided by Bob Sinner, CEO of SB&B Foods in Casselton, ND

Exporters have to allocate significant time, expense, and energy to manage these logistics issues which reduces the resources they need to consistently produce a high-quality product that is competitive in the global market.

Import container rates are higher than export container rates, often by a factor of 3 or 4. Therefore ocean carriers prefer their containers to be emptied near the ports and immediately put on a ship to be returned to foreign import locations so as to minimize the time they spend empty and therefore not generating revenue. Recent congestion at U.S. ports is likely to have negatively impacted container yield management and exporters' ability to obtain the containers they need to export their product.

There do not appear to be the same level of congestion issues at port gateways that handle non-containerized cargoes such as grains shipped on bulk vessels, petroleum and refined products, and vehicles. However there are issues concerning the rail movement of those goods, as others will testify today.

1.2. U.S. and International Port Gateway Congestion Issues

To some extent the stevedore contract negotiations which began in 2014 on the West Coast have resulted in container handling delays that are masking some of the longer term issues that underlie the worsening congestion problems at ports. The underlying cause *is increasing concentration of cargo on fewer but larger vessels and in fewer ports*. However other short term factors have exacerbated the difficulties of adjusting to the industry's shift towards larger and more concentrated freight shipments.

It is worth reviewing the short term factors before considering the longer term issues. Short term factors include chassis supply issues, severe weather impacts and stevedore contract negotiations.

Ocean carriers began announcing in 2009 that they would no longer include a chassis for the shipper to use when their container was delivered at a U.S. port. This was motivated by financial necessity but also brought industry practices in the U.S. in line with those in the rest of the world. The U.S. was the only market where ocean carriers provided chassis as part of the service they provided their customers.

The process of disengaging from provision of chassis by ocean carriers is ongoing. In some regions ports have been able to organize "grey" chassis pools operated by the private sector. The term "grey" refers to the concept of any chassis being used at any port or terminal covered by the chassis pool operator. In some areas, Southern California and New York, in particular, there were various chassis pool operators that supplied equipment to carry containers only for specific carriers or carrier alliances. (A carrier alliance is technically called a vessel sharing agreement, which comes about when some carriers agree to supply vessels to cover a trade route and that any carrier receiving a customer order can send the container on an alliance carrier's ship.)

The problem with non-grey pools is that a trucker may bring an empty container to a terminal for a certain carrier or alliance and have a request to pick up a container from another terminal for another carrier. Upon entering the port authority area, the trucker has to drop off the empty container at the terminal, then drop off the chassis, then pick up a chassis assigned to the other ocean carrier or alliance and finally pick up the loaded import container. Each of these steps takes time and can create congestion in the port area.

Besides the grey chassis issue, some ports had to contend with a shortage of suitable chassis. In 2009 the Roadability rule was enacted by the Federal Motor Carrier Safety Administration. Each chassis had to be checked for safety issues such as working brake lights. During the economic downturn in 2009 container volumes declined by 12 percent and chassis that were not in working order were mostly cast aside. In 2014 container volumes handled at U.S. ports exceeded the 2007 peak level and many of the neglected chassis required either extensive repair or replacement. This contributed to the problems resulting from the transition from containers provided by ocean carriers to independent chassis providers.

The severe winter weather that impacted the Northeast and Midwest created significant problems for the U.S. freight movement industry. Unusual cold weather and frequent snow storms made it difficult for the industry to recover. Inventories piled up in warehouses and in manufacturer facilities. On the West Coast the stevedore union contract negotiations are adding to the chassis issues and the slowing the recovery from the severe winter weather.

As international and domestic freight movement continue to grow, the capacity of the system is challenged in two ways. The first is that a higher average daily volume of traffic on the roadways and railways will require more capacity. The second effect is a result of ocean carriers operating larger vessels.

It is worth noting that once the Panama Canal expansion is completed (recently announced for the first half of 2016), it will be able to handle vessels about 13,200 to eventually 14,000 TEUs.

In 2007 the largest container vessel was the Emma Maersk, which can carry approximately 13,500 TEUs. In 2013 Maersk began using the first of its EEE class vessels, Maersk McKinney Møller, which can carry 18,000 TEUs. The EEE designation stood for “Economy of scale, Energy efficient and Environmentally improved”. In the last few months other large ocean carriers have announced deliveries of 19,000 TEU vessels and orders have been placed for even larger vessels.

According to Alphaliner 19 percent of the global vessel fleet consists of vessels of 10,000 or greater TEU capacity and 56 percent of the global vessel order book is for vessels of 10,000 or greater TEUs. At the end of 2012, 12 percent of the global vessel fleet consisted of vessels with 10,000 TEU or greater capacity. The larger vessels are really designed for the Asia to Europe trade which is substantially larger than Asia to North America trade. However, as larger vessels are deployed on Asia to Europe routes, the displaced vessels tend to cascade into the Asia to North America trades, which displaces smaller vessels.

An 18,000 TEU vessel operating at an average annual rate of 90 percent container slot capacity utilization with six vessels on a string, each of which require a week in port for a full discharge and load, would require a terminal in the U.S. to handle 1.6 million TEUs per year. Assuming that 30 percent of the containers move by rail to or from inland destinations and adjusting for the TEU to container ratio, this would mean that a single service using an 18,000 TEU vessel would generate about 12,000 truck trips per week. It is likely that these truck trips would not be evenly distributed throughout the work week which could create severe congestion in some of our densest urban areas.

It should also be noted that according to American Association of Port Authority data, the 12 largest gateway container ports in the U.S. handle between 80 percent and 85 percent of all containers (measured in TEUs), about 10 percent higher than during the 1980s and 1990s. Thus not only are container volumes concentrating on fewer vessels they are concentrating in fewer ports.

Port congestion is a long term global issue. As the larger vessels were deployed on routes from Asia to Northern Europe last year, congestion problems flared up. Larger vessels also began calling at U.S. ports, likely displaced from Asia to Europe services, and this coincided with increased congestion in the U.S. Ports in Asia already suffer from well-known congestion problems in their gateway regions. Congestion in port areas is an old problem in Latin America, with trucks in Southern Brazil often waiting in lines over 100 kilometers long during the three soy harvest export seasons. The largest port in South America, Santos, has been trying to solve this issue for decades.

According to the World Trade Organization, global trade in manufactured goods has grown at an average rate of 7.2 percent per year between 1950 and 2013. In recent years this has been slowing. It is likely that this is due to the weak global economic environment. As the global economy recovers it is likely that demand for freight services will increase and ocean carriers will turn in better financial performance, allowing them to continue to upgrade their vessel fleets. Considering that the substantial increase in large vessels operated by carriers during the last several years was achieved during a period of financial and economic weakness, one can only worry how strong the shift to larger vessels will be during better times.

It is not clear that departments of transportation in most states and metropolitan planning organizations have factored in the impact of larger vessels calling at fewer ports. However they will have to adapt to this soon. The industry is reacting with container terminal operators and ports getting access channels and berths dredged, ordering larger cranes to handle the larger vessels, railroads have experimented with unit trains as long as four miles and the trucking industry is lobbying for heavier and longer trucks.

There is still time to avoid the worst possible outcome but the planning for this has to begin now.

1.3. Increasing U.S. Port and Economic Competitiveness

At the national level, we worry about the balance of payments and we promote exports and export-related infrastructure, in part because these support “our” base industries. This is not as simple to figure out when it comes to infrastructure that would serve an economy with many base industries. Different types of commodities may not be compatible and investments in infrastructure to support one base industry may come at the expense of another base industry. Recent North American experience perfectly illustrates this conflict: supply chain providers have been unable to properly serve at least three base industries—energy, agriculture and chemicals. All

three industries serve global markets and meet the definition of a “base” industry. Yet transportation infrastructure cannot properly serve all three industries in the short term.

Foreign ports and intermodal supply chains are stepping up where the U.S. is leaving off. U.S. closest trading partners have been very focused on freight movement infrastructure. Canadian ports on the Pacific coast have been gaining share of North American container volumes while ports in the U.S. Pacific Northwest have been losing share. Canada has had a coherent national transportation policy that relates to its economic policy since at least the early 1990s and updates its transportation policy on a somewhat regular basis. Mexico has increased its investments in ports, railways and highways over the last 10 years. Mexican ports did not see their volumes decline during the recent severe recession and are also gaining share of North American volumes. Brazil which as a recent USDA report pointed out has surpassed the U.S. in soy exports for the first time in 2013 is also investing in freight movement infrastructure both on the waterside and the inland side.

Failure to cut costs across U.S. ports—not cost cutting actions that simply build competition between U.S. ports—means the loser is U.S. ports versus foreign ports serving alternative sources of exports and imports. If U.S. ports are losing then so is the U.S. economy.

1.4. The Focus Must Be On Port Gateway Regions and Defending Import and Export Markets

Ports, even large ones, do not individually serve all regions of the U.S. but rather geographies that include population and economic activity centers to which they are connected via roads, railways and inland waterways. These regions are the ones for which ports serve as a gateway to international and domestic trade.

Ports have been proactive about getting their access channels and berths dredged, raising bridges where air draft is an issue, ordering larger cranes to service the larger vessels, improving intermodal container facilities so as to increase rail service capacity and to add more truck gates. When chassis have been a problem, port authorities have sponsored the development of grey pools and have been prepared to purchase chassis to make sure enough would be available during the peak seasons. Furthermore they have adjusted their properties to allow empty containers and chassis to be dropped off in lots near the entrance of the port in order to reduce congestion within its gates and allow truck drivers to do more turns per day. As the discussion above has indicated, *larger problems lie outside the gate, and these are generally beyond the reach or resources of an individual port.*

Thus the policy spotlight should be on the inland segment of the product flow path:

- On railroad lines in order to improve service to markets close to the port or extend service to more distant markets. Grade separations, major sidings to allow for longer unit trains, and leadership to resolve the tangle of rail operational issues surrounding every major port in the US, as well as major regional rail hubs such as Chicago or Atlanta.
- On highways and bridges to increase capacity, reduce community conflicts, introduce innovations such as truck freight-ways to improve access to distant markets and allow the safe trucking of heavier goods to more distant markets. The introduction of LNG fuel to long-haul trucking routes could allow for a more robust domestic supply chain, allowing new industries to flourish in new locations.
- On inland and intracoastal waterways that allow for the most efficient movement of the liquid and solid bulk building blocks of the U.S. economy. Whether supporting the movement of rock salt to the Northeast or highly refined petroleum products along the Gulf Coast, the economic value of inland and intracoastal waterway improvements can be fairly immediate and quickly amplified throughout the U.S. economy.



Senator FISCHER. Thank you, Dr. Kemmsies. Next, we have Mr. John Greuling. Mr. Greuling is a Board member of the Coalition for America's Gateways and Trade Corridors. Welcome, sir.

STATEMENT OF JOHN E. GREULING, PRESIDENT AND CEO, WILL COUNTY CENTER FOR ECONOMIC DEVELOPMENT, AND BOARD MEMBER, COALITION FOR AMERICA'S GATEWAYS AND TRADE CORRIDORS

Mr. GREULING. Thank you, Madam Chairwoman, members of the Subcommittee. Thank you for this opportunity. Today, I am representing both the Will County Center for Economic Development and the Coalition for America's Gateways and Trade Corridors, which is a diverse group of 60 public and private organizations dedicated to increasing Federal investment in America's multimodal freight infrastructure.

I am also here as the CEO of the Will County Center for Economic Development. Our responsibility today is marketing the largest inland international container port in North America. Will County is crossed by six Class I railroads, five interstate highways, and several commercial water ports on our Nation's largest inland waterway.

Last year, we processed over three million containers containing \$65 billion worth of goods that are grown, manufactured, assembled, and delivered throughout the United States and the world.

Our first and last mile infrastructure requirements today total \$3.6 billion of new investment just in our county, and that does not include bringing our existing road infrastructure up to a state of good repair.

Our needs extend far beyond roads. Increased utilization of freight by rail as we have heard is resulting in more at grade rail crossings and it is impacting commerce and public safety.

We need at the local level more grade separation structures and first and last mile interstate connectors to accommodate the freight of the future. The growth of freight has been stated. We believe by 2045 that increase will be about 45 percent, putting more pressure on both existing and future infrastructure for freight.

Meanwhile, 95 percent of the international consumers are now outside of the United States, so being at the beginning and the end of a major global supply chain, U.S. companies have to understand and the Government needs to understand that we need good infrastructure to reach those markets.

U.S. Government infrastructure investment as a percentage of GDP is currently less than 2 percent. Our trade partners, our biggest ones, Canada, China, Mexico, are spending two to five times more than that on their infrastructure, and it cannot be just one mode that we are focused on when we are talking about funding infrastructure. We have to look at all modes, and we need to make those modes work better together—rail, truck, air, and water are today the key components of the global supply chain.

The global situation is getting worse in a lot of respects, but we have the opportunity to take advantage of what is going on internationally in the economy.

The Coalition for America's Gateways and Trade Corridors asks Congress to take the following steps in the upcoming surface trans-

portation authorization. First, we would like you to establish a freight program containing dedicated and flexible funding.

Freight should not compete with other mobility needs. It is integral to other mobility needs. Freight movement occupies a special place in our transportation system as the element supporting commerce, competitiveness, and that all important word, "jobs."

We should have a dedicated funding such as a Freight Trust Fund, that is committed to stoking our economic engine by improving efficiency, safety, reliability, and speed at which goods are moved.

Second, fund at a minimum level of \$2 billion a year a competitive multimodal freight infrastructure grant program. Projects of national or regional significance or a similar freight specific competitive grant program is needed to prioritize Federal funding of projects that meet certain performance criteria to advance economic goals of this country.

By prioritizing projects, we can identify important public benefits as well as non-Federal support. A \$2 billion grant program could leverage many times that amount in private investment in infrastructure.

Third, ensure robust public investment in all modes. Where public benefit is derived, public investment must be made. It is often when modes come together that public assistance is needed to close the funding gaps.

Examples include highway rail grade crossings, rail spurs to access cargo, logistics or transfer facilities, tunnels and bridges for port access, and border crossing capacity enhancements.

Finally, modify the national freight transportation policy to make it multimodal. Create an Office of Intermodalism in the USDOT Secretary's Office, and give freight the significant attention it needs in this country to keep our economy healthy.

Thank you.

[The prepared statement of Mr. Greuling follows:]

PREPARED STATEMENT OF JOHN E. GREULING, PRESIDENT AND CEO, WILL COUNTY CENTER FOR ECONOMIC DEVELOPMENT AND BOARD MEMBER, COALITION FOR AMERICA'S GATEWAYS AND TRADE CORRIDORS

It is my pleasure and honor to testify before the Senate Committee on Commerce, Science and Transportation's Subcommittee on Surface Transportation and Merchant Marine Infrastructure, Safety, and Security. Today I am representing both Will County Center for Economic Development and the Coalition for America's Gateways and Trade Corridors (the Coalition), a diverse coalition of more than 60 public and private organizations dedicated to increasing Federal investment in America's multimodal freight infrastructure. I thank the Chairwoman, Ranking Member and Members of this Subcommittee for the opportunity to share my views with you. Our nation's ability to move goods is tied to the success of our economy and I thank the Committee for holding a hearing on this critically important topic.

The organization I work for, the Will County Center for Economic Development, is a private economic development corporation that today is responsible for marketing the largest inland international container port in North America. Located 30 miles southwest of Chicago, Will County is crossed by six Class I railroads, five interstate highways, including I-80 and I-55, and several commercial ports served by our Nation's largest inland waterway. You might say we are at Main and Main of the transportation, distribution and logistics hub of the country. Last year over three million twenty-foot equivalent containers moved through our port system carrying international and domestic products that are grown, manufactured, processed, assembled and delivered throughout the United States and the world. Over \$65 billion in imports and exports utilize this intermodal transportation hub annually, ar-

living by way of truck, train, plane, ship, and barge. To support this regionally and nationally significant freight movement, Will County Center for Economic Development has a state and Federal project list that adds up to over \$3.6 billion—and that's just road projects.

As a nation, we're rebounding from a recession that will remain in our minds for years to come. The economy is trying to grow—the North American manufacturing base is growing, folks are beginning to buy new cars and clothes, and our farmers are producing record-volume crops. As a result, U.S. freight volumes are expected to increase 45 percent by 2045.¹ Meanwhile, 95 percent of the market for goods lies outside of U.S. boundaries.² As demand grows, both within and outside of the United States, the pressure on our goods movement network significantly increases, this growth and the economic value it brings to our economy will be stunted if investment in our freight system is left to wither. Consumers' ability to buy goods at a competitive cost is directly linked to a producer's ability to move those goods across the country in a manner that is safe, efficient, reliable, and expedient. Supply chains will keep growing regardless of what we do as a nation—but they will not grow comparably within our country unless we maintain a world class infrastructure network to move commerce and attract business.

Currently, U.S. government infrastructure investment as a percentage of GDP is less than 2 percent,³ the lowest level of infrastructure investment at any point since World War II⁴. Our trading partners are doing much more: Canada invests 4 percent,⁵ Mexico 4.5 percent,⁶ Europe 5 percent,⁷ India 8 percent,⁸ and China 9 percent.⁹ Simply put, our largest trading partners and competitors are investing at twice to five times the rate we are.

It's not just a matter of investment, though. The investment needs to be strategic and it needs to cut across traditional modal barriers. Some of freight infrastructure's largest, most complex, and most desperately needed improvements occur where multiple modes come together. These instances often require a partnership at the Federal level to help unsnarl a chokepoint that clogs our communities and commerce. An increase in targeted infrastructure investment from public and private sources over 15 years would pay dividends by growing jobs by almost 1.3 million at the onset and it would grow real GDP 1.3 percent by 2020 and 2.9 percent by 2030.¹⁰

Freight congestion is more than a hindrance to economic growth—it is also a threat to public health and safety. Congestion from any mode of transport diminishes air quality and impacts essential community services such as police and EMS response times. In so many instances, local communities are bearing the environmental and social burden of nationally-significant freight movement, but they are unable to foot the bill on large-scale infrastructure projects that would alleviate negative impacts. The benefits of freight movement accrue nationally, and as such, there is a Federal responsibility to be a partner in making improvements, and in many instances, there is an opportunity for private sector contributions. State and local governments cannot shoulder the burden alone, nor can this lift be expected entirely by the private sector.

¹ U.S. Department of Transportation, *Beyond Traffic*, February 2015. <http://www.dot.gov/sites/dot.gov/files/docs/Draft_Beyond_Traffic_Framework.pdf>

² U.S. Department of Commerce, *Build it Here, Sell it Everywhere: Why Exports Matter*, May 2012. <<http://www.commerce.gov/news/fact-sheets/2012/05/17/fact-sheet-build-it-here-sell-it-everywhere-why-exports-matter>>

³ The White House, *An Economic Analysis of Transportation Infrastructure Investment*, July 2014. <http://www.whitehouse.gov/sites/default/files/docs/economic_analysis_of_transportation_investments.pdf>

⁴ Financial Times, *US public investment falls to lowest level since war*, November 2013. <<http://www.ft.com/intl/cms/s/0/f0e71a16-4487-11e3-a751-00144feabdc0.html#slide0>>

⁵ Canadian Chamber of Commerce, *The Foundations of a Competitive Canada; The Need for Strategic Infrastructure Investment*. December 2013. <<http://www.chamber.ca/media/blog/131218-The-Foundations-of-a-Competitive-Canada/131218-The-Foundations-of-a-Competitive-Canada.pdf>>

⁶ Bloomberg, *ICA CEO Sees Mexico Infrastructure Spending Rising 56 percent*, September 2012. <<http://www.bloomberg.com/news/articles/2012-09-17/ica-ceo-sees-mexico-infrastructure-spending-rising-by-56>>

⁷ The Economist, *Life in the Slow Lane*, April 2011. <<http://www.economist.com/node/18620944>>

⁸ The Economist, *The Half-Finished Revolution*, July 2011. <<http://www.economist.com/node/18986387>>

⁹ The Economist, *Life in the Slow Lane*, April 2011. <<http://www.economist.com/node/18620944>>

¹⁰ National Association of Manufacturers, *Catching Up: Greater Focus Needed to Achieve a More Competitive Infrastructure*, September 2014. <<http://www.nam.org/Newsroom/Press-Releases/2014/09/New-Report-Shows-Status-Quo-on-Infrastructure-Hampers-Competitiveness/>>

Will County holds the largest inland container port in North America, and while our residents contribute through traditional state and local taxes as well as through an additional Regional Transportation Authority sales tax, the state of Illinois and county residents cannot be the sole financial contributors for this nationally significant freight movement.

The current condition of highways in Illinois is 82 percent acceptable; assuming the Federal contribution remains stagnant through 2020, conditions are expected to deteriorate making highways 61 percent acceptable.¹¹ The Interstate System was designed to accommodate fleets of the 1950s, not the much larger trucks that occupy our highways today. Increased truck size paired with the growth in truck volume produces congestion at first and last mile connectors, where trucks have difficulty merging with traffic on under-sized ramps, resulting in freight bottlenecks and safety concerns. These intermodal connectors are critical in Will County—not only are they a necessity for truck freight movement, but they are also critical for rail intermodal operations.

Continued growth of both passenger and freight traffic frequently combined on congested, old urban rail corridors will continue to produce chokepoints and problems for throughput of freight movement. While the Chicago CREATE program is working to deal with that in the Chicago area, there are many urban areas that are not able to develop mega-project approaches to alleviate this problem.

As I mentioned, six Class I railroads move through Will County. There is an increased utilization of freight by rail, which means more at-grade rail closings, hurting road commerce and public safety. We need new grade separation structures to meet this demand.

Most of the locks and dams along the Illinois, Mississippi and Ohio rivers were built in the 1930s with a 50-year design life. These locks and dams are now in desperate need of rehabilitation and repair. An analysis by the Illinois Farm Bureau contends that delays at navigation locks cost Midwestern farmers \$500 an hour. Average delays at locks are estimated to be six hours, with some as long as 12 hours or more. In many places along our inland waterway system, modern fifteen barge 1,200-foot long tows must split loads to pass through outdated 600-foot locks.¹² This procedure requires uncoupling barges at midpoint, which triples the time needed to lock the 15-barge tow and increases accident rates among deckhands.

Will County is a key intermodal logistical area for transfer of rail, port, and truck freight between modes, which adds substantial trucking demand throughout the region. As regional highway traffic volumes have increased, the associated congestion has resulted in travel delays with substantial economic impacts to industries that depend on the ability to efficiently move freight within and through the region. To alleviate this congestion, the Illinois and Indiana Departments of Transportation are working in concert to develop the Illiana Corridor, a new 50-mile access controlled highway that would allow traffic to bypass Chicago, thus taking 46 million miles of truck traffic off local roads. We are exploring public-private partnership (P3) opportunities, detailed project design, environmental permitting and land acquisition. The project will improve regional mobility and create thousands of short-term and long-term jobs, amounting to over a billion dollars in wages over a 30-year period. It will serve as a major trucking corridor and boost the region's long-term economic output by \$4 billion. Given the national significance of this project, we need a partner at the Federal level to help our states, local governments, and private partners make this improvement.

The upcoming surface transportation authorization presents an opportunity to begin making the type of strategic investments we urgently need. The Coalition for America's Gateways and Trade Corridors asks Congress to take the following steps in the upcoming reauthorization:

- *Establish a freight program containing dedicated and flexible funding:* Freight should no longer compete against other mobility needs and programs such as traffic and pedestrian safety. Freight movement occupies a special place in our transportation system as the element that supports and enables national commerce and global competitiveness. In recognition of this critical role, it should receive dedicated funding such as a Freight Trust Fund that is committed to stoking our economic engine by improving the efficiency, safety, reliability, and speed at which goods move. Recognizing that freight needs vary by state and

¹¹ Transportation for Illinois Coalition, *State of Illinois' Transportation and State Funding Challenges*, January 2015. < <http://www.transportation-for-illinois-coalition.com/publications/other-transportation-reports/> >

¹² Illinois Section ASCE, *2014 Report Card for Illinois Infrastructure*, April 2014. <<http://www.isasce.org/wp-content/uploads/2014/04/2014-Illinois-Navigable-Waterways-Final-Report.pdf>>

metro region, and there is no one-size-fits all approach to freight planning and investment, states and localities should be engaged and afforded flexibility in applying a certain amount of these funds on a regional basis.

- *Authorize dedicated funding at a minimum level of \$2 billion per year for a multimodal competitive Federal freight infrastructure grant program with broad applicant and project eligibility:* Dedicated, sustainable funding for a multimodal freight-specific Projects of National and Regional Significance (PNRS), or a similar freight-specific competitive grant program is needed to prioritize and fund projects that meet clear measurable criteria to advance economic goals. By prioritizing projects with demonstrably important public benefits and supported by non-federal funding, a \$2 billion merit-based, competitive grant program could leverage many times itself in economic value. Established under SAFETEA-LU, PNRS assists in funding large-scale infrastructure projects, spanning modes and jurisdictional borders, which are difficult, if not impossible, to fund through traditional distribution methods such as Highway Trust Fund formula programs.
- *Ensure robust public investment in all modes:* Freight does not move on highways alone—where public benefit is derived, public investment must be made. In the case of highways, increased investment is necessary, particularly for National Highway System intermodal connectors, which bridge highway freight to ports, distribution centers and other modes and are the conduits for the “synergistic” use of combined modes. Intermodal freight is one of the fastest growing sectors of the freight market¹³, and it is often in the places where various modes come together that need public assistance to close the funding and infrastructure gaps, which result in capacity inefficiencies and bottlenecks. Examples include highway-rail grade crossings, rail spurs to access cargo, logistics or transfer facilities, tunnels and bridges for port access, border crossing capacity enhancements, and air-freight connectors.
- *Modify the national freight transportation policy to make it multimodal and designate a national, multimodal freight network:* Freight policy and planning should incorporate the many modes of transportation that move goods. Freight is a national priority and it is the Federal role to take a holistic look at our multimodal network when determining where public investment can yield the greatest return. A national “vision” and investment strategy that shapes and guides the Nation’s freight infrastructure system with active coordination among states, regions and localities is needed. The Office of Intermodalism, or a new office for multimodal freight should be reestablished within USDOT’s Office of the Secretary to administer the new freight mobility program with a particular focus on projects of national significance. Planning horizons should endeavor to anticipate freight needs extending over multiple decades and seek to smooth the path for economic growth, both domestically and internationally.

We are not alone in making these recommendations; other transportation interest groups and even the House Transportation & Infrastructure Committee’s Special Panel on 21st Century Freight Transportation have come to the same conclusion: freight transportation needs dedicated funding. The planning groundwork for highway freight introduced in MAP-21 pointed us in the right direction, but it addresses only one slice of a much larger system. We follow this path at our peril—ignoring our complementary modes of transport is ignoring the essential services offered by multimodal and intermodal transportation. In so doing, we will fail our citizens’ needs both in terms of quality-of-life and economic competitiveness.

I thank the Committee for its time and look forward to working with you on the surface transportation authorization.

Senator FISCHER. Thank you very much. We will begin with a first round of questions, 5 minutes. I will start.

Mr. Bessac, you talked about competing in a global market and the effect that has. Being with Cargill and the emphasis you have with pork, can you tell me what percentage of pork in this country goes for exports?

¹³U.S. Department of Transportation, *Beyond Traffic*, February 2015. <http://www.dot.gov/sites/dot.gov/files/docs/Draft_Beyond_Traffic_Framework.pdf>

Mr. BESSAC. Certainly, Senator. Pork is much larger than beef, between 20 and 25 percent depending upon the year, and about 10 percent of beef is exported.

Senator FISCHER. When you are looking at delays at our ports and you see other countries stepping forward and being able to fulfill some of those orders, do you know what share of the market your company has lost and how you see that rippling effect throughout the industry?

Mr. BESSAC. Well, I guess going to Cargill's share gets to be a bit difficult, but if you look at the U.S. pork industry or the U.S. beef industry, we certainly have been the largest exporter around the globe.

As we have dealt with the congestion in the ports, also issues like currency and other forces in play in the market, we have seen a substantial increase just in the past year to countries, the EU, Chile, and I think certainly in the last couple of months have seen a substantial decline in our volumes.

Senator FISCHER. Do you think that will be a permanent decline? Will we be able to get that market back once these customers are used to having new trading partners?

Mr. BESSAC. I think any time you disappoint a customer, it takes time to build trust back. As I referred to in my testimony, there is a tremendous amount of potential for both beef and port exports on the global scale. We have a product that the world is looking for in values.

I certainly believe that growth potential remains, but there is no doubt that we have disappointed our customer base, primarily Japan, Korea, and China, over the last couple of months, and that will take some time to rebuild trust.

Senator FISCHER. In disappointing our customer base, what has been the loss in dollars to pork producers and the economy here in this country?

Mr. BESSAC. Well, I do not know that I would be the best one. I think the North American Meat Institute estimated \$40 million to \$50 million per week. I could probably give you a better example.

Just this morning, we have about 15 containers of chilled pork product in route to Japan that our customers are either asking can you guarantee us it will arrive in an useful form with shelf life or not. For me, that is about \$1 million, I have to decide whether I am going to put that into a port system and either slow down or potentially close, closing being a complete loss. I hope that gives you some perspective.

Senator FISCHER. Yes, thank you. Ms. Farmer, with BNSF, I am sure you have to look at the possibilities of a shutdown, and a shutdown that would last for possibly an extended period of time. How does that affect the railroad in planning, and what impact does that have on your customers and the thousands of employees you have?

Ms. FARMER. Sure. An example of this would be this weekend we were notified by the PMA that vessel gangs would not be working. The effect that has on our railroad is that in an average week during this period of year, we would be moving somewhere in the

neighborhood of 60 trains off our docks in Southern California. That number has been reduced to 30 trains per week.

The impact that has is that we cannot move the freight that wants to move off the West Coast, so we will move a limited amount of that freight off the West Coast into the interior of the U.S. It will then limit the ability for us to accept freight at our inland hubs, so we will have to turn freight away at those inland hubs that wants to move back to the West Coast.

In addition to this, I talked about our capital expenditures that we have made, we are now having to store locomotives and equipment that we have added to our fleet to be able to handle this country's supply chain growth, store that across our railroad, because we can no longer continue to send this volume out to the port.

When we do that, it sits on the main line and it causes ripple effects across our network which impacts other customers in addition to our intermodal customers.

The impact for us really, Senator Fischer, is that we cannot move the freight through and we are not using the valuable resources that we have.

Senator FISCHER. That impact when you see the freight migrate from the West Coast, what impact does that have on a local community?

Ms. FARMER. Absolutely. I think when we look back at history and we know during 2002, freight has permanently migrated away from that, to Canada, to Mexico. We know that because of that, the local freight is not ending up in those communities, and additional expenditures need to be made somewhere else when a port is there that could be used for that freight to be moved through the country.

Senator FISCHER. Thank you very much. Senator Blumenthal?

Senator BLUMENTHAL. Thank you, Madam Chair. There seems to be no doubt among any of our panel members that solving this threatened impasse or crisis on the West Coast is necessary to America's near term and longer term competitiveness; is that correct?

Moving on to the broader issue. Let me go to Mr. Greuling's really excellent testimony about our ongoing failure, and it is kind of a slow motion implosion of American competitiveness, the ongoing failure to spend more than 2 percent of our GDP on infrastructure investment, which is compared to 9 percent by China, 8 percent in India, 5 percent in Europe, even in Mexico, four percent.

It extends not only to roads and bridge, which are crumbling, decaying and decrepit, but also to areas of our infrastructure as simple as rail grade crossings.

In Valhalla, New York, just days ago, we saw the consequences of possibly—we do not know the causes yet—possibly a rail grade crossing that could have been made safer and could have prevented the deaths and injuries that occurred there.

The fact of the matter is that there are more than 2,000 crashes and collisions every year at our rail grade crossings, causing more than 230 deaths and more than 700 injuries, not to mention the economic costs of those collisions, which are very difficult or impos-

sible to calculate. That is just one example of our failure to invest in infrastructure.

Let me ask you as to the \$2 billion that you recommend as a fund for investment, would it make sense to do it through a public financing authority or infrastructure bank, such as has been proposed and advocated by myself and other members of this committee, a very bipartisan proposal, that would make available not just \$2 billion, but very possibly more?

Mr. GREULING. I think the concept of a set aside through a public infrastructure bank, broader utilization of public and private activity bonds and along with some other finance mechanisms. I think we need to bundle these together.

I think anything that costs a lot of money these days is going to take more than one source or resource to make it happen.

Back in Illinois, we do not like to talk about gas tax, but we think in Illinois to solve some of the state road and infrastructure problems, a gas tax is something we should be looking at.

I do believe in loan guarantees, broader use of some of the existing bonding programs, TIFIA and RRIF, I think both would help in meeting this demand that we have, and I do believe multiple solutions are going to be necessary.

Senator BLUMENTHAL. My understanding is that both TIFIA and RRIF are under utilized. In fact, billions of dollars have been left on the table in effect as a result of internal problems highlighted by the Inspector General of the Department of Transportation very recently. Would you agree?

Mr. GREULING. I would agree with that. I think the time it takes to process, going through the pre-application, going through that review, the uncertainty, quite frankly, that comes about when there are long delays in public financing tools, all of a sudden, a hot project becomes not so hot a project and they start looking at other infrastructure pieces to accomplish.

Expedited review, broadening of the utilization of those funds, and certainly making sure that we are using our full complement every year would go a long way to helping us.

Creating new programs is fine, but I think better utilization of existing programs makes a lot of sense.

Senator BLUMENTHAL. RRIF in fact is a multibillion opportunity that is lost literally every day to American intermodal transportation. I welcome the emphasis that all our panel has put on intermodal transportation. As you have well expressed, it is the transportation growth opportunity of the future.

Mr. GREULING. That is right.

Senator BLUMENTHAL. Do any of you have any differences with the points that Mr. Greuling has just made?

Ms. FARMER. I would say from BNSF's perspective, certainly as you well know, we are privately funded, but we certainly have a vested interest in making sure the supply chain runs efficiently.

Therefore, we fully support a Federal focus on freight. We think that is a good thing.

Senator BLUMENTHAL. Through an infrastructure bank?

Ms. FARMER. Again, we do not necessarily want to drive that decision, but we certainly want to be part of the conversation.

Senator BLUMENTHAL. Thank you. My time has expired. Thank you all.

Senator FISCHER. Thank you, Senator Blumenthal. Senator Daines?

**STATEMENT OF HON. STEVE DAINES,
U.S. SENATOR FROM MONTANA**

Senator DAINES. Thank you, Madam Chair. I represent the State of Montana, and in Montana, our number one industry is agriculture. It is about a \$5 billion industry, just last year. As we know in ag, you have to be able to export.

Like Senator Fischer, we do not have a lot of ocean front property in Montana. I do not think Nebraska does either. The supply chain becomes critically important. In fact, 80 percent of Montana's wheat is exported. Nearly a billion dollars in 2013, and primarily through the West Coast ports. We are very proud of our ranchers and our farmers who not only feed America, but feed the world now.

For Ms. Farmer, I heard concerns certainly from our producers in Montana about the backlog we had, I think, 3,400 cars past due in the region. Could you tell us what the current status of the rail backlog is now in Montana?

Ms. FARMER. As I have responsibility for intermodal, I would be happy to follow up with specific statistics around the backlogs, but what I can tell you is that like any measurement on a year over year basis, because of the capital that we have invested, because of the milder winter that we have, by any metric that you look at, we are far improved from where we were last year.

We are making significant progress toward delivering the service that your constituents in the State of Montana have come to expect from us, and we will continue to make progress along those lines.

What I would say is concerning to us is that one of the ways agricultural products get to the West Coast, as we have discussed, is through the use of containers, it can move in hopper cars or containers, and what I can say is as we limit the inbound flow of containers into the interior of the country, it makes it more difficult for me to be able to move that product for export. That is certainly of concern to us.

Senator DAINES. I can tell you, too, last summer, our Montana ag producers were not so concerned about the rail backlog, it was the issues going on at the West Coast ports.

I used to be a supply chain guy myself. I worked for Procter & Gamble for 12 years and was in the supply chain. I have an appreciation that the chain is only as good as its weakest link. If we cannot get the harvest to market, then we really cannot realize the great potential of our ag industry.

At the Port of Vancouver, the port and labor dispute we had going on there, that now we see going on in Long Beach and L.A., it is having a great impact and creating dwindling confidence, I think, on our global markets of the ability for us to deliver.

In thinking about a global opportunity, as our competitors continue to improve in their products, the differentiator for us long term to win will be in excellent customer service, the ability to en-

sure that when we say the product is going to be there, it will be there.

As has been said, and as Senator Fischer mentioned, when we lose the ability to deliver, our customers will look elsewhere to find those same products.

In fact, I just got a rather haunting e-mail from the president of an outdoor products company that manufactures in Montana, they have leading global market share, in fact, they are the only producer of some of these products that are still produce in the United States, the rest are producing over in China.

This U.S. manufacturer, the president of the company e-mailed me about his concerns of what is going on as we speak today about the West Coast port slow downs, the International Longshore and Warehouse Unions are putting their interests, he said, not on their customers, and he said if something does not happen soon, we will have no choice but to reduce our current hiring plans and potentially lay off some of our current staff.

In your view, what if anything can be done as we look at these challenges right now with these West Coast ports being virtually either slowed down or shut down?

Ms. FARMER. Certainly, we are not party to the negotiations between the PMA and the ILWU, but it is clear to us there needs to be some speedy resolution of this.

The biggest opportunity that I think is in front of us is it is going to take us several weeks to work off the backlogs that exist once some type of resolution comes to bear.

We have an opportunity in front of us, and that is that Chinese New Year is upon us, and that will give us several weeks of reduced freight inbound to the West Coast that will allow us to catch up.

I could not agree with you more that it is very concerning, we need to find a way to be able to resolve this, but again, we are not a party to those negotiations, and as such, the urgency is really where we are focused.

Senator DAINES. Thank you.

Senator FISCHER. Thank you, Senator Daines.

Senator Klobuchar?

STATEMENT OF HON. AMY KLOBUCHAR, U.S. SENATOR FROM MINNESOTA

Senator KLOBUCHAR. Thank you very much. I am losing my voice here, but I want to thank everyone for coming, and especially Mr. Bessac from Target—from Cargill, which is a great Minnesota company, biggest private company in the country. We have worked extensively with them on these transportation issues, so thank you for being here.

I am very glad that we were able to pass the user fee increase from the River Act, and I appreciate all the work that people who transport on the river did to get that bill done. As you know, it was part of the ABLE Act.

Can you talk, please, about what the increased revenue will mean for upgrading locks and dams on our nation's inland waterways system?

Mr. BESSAC. Senator, I am sorry. My area of expertise is in pork exports. I know Cargill is very interested in building a strong infrastructure so that we can compete on the global scale. I would be happy to get you a written answer from our Corporate Affairs' staff so we can answer that.

Senator KLOBUCHAR. But you are glad we passed the bill to see infrastructure improvements?

Mr. BESSAC. I am, yes.

Senator KLOBUCHAR. OK. That was supposed to be an easy question, but that is OK.

[Laughter.]

Senator KLOBUCHAR. Could you talk about how this works and why it is such a problem if you are able to get things out, as Mr. Daines points out, we are states that are not on an ocean. We are on Lake Superior, so the port matters a lot.

I was once placed on the Oceans Subcommittee of the Commerce Committee. I remember Frank Lautenberg giving me a note when I told him I was the only Senator that did not have an ocean on the Oceans Subcommittee. He came back and said, "well, next year, just come back and ask for one."

In any case, could you talk about how inland states depend more on this river traffic?

Mr. BESSAC. Absolutely. As you know, the demand for safe, wholesome food products around the world continues to increase as population increases. We need very effective, reliable modes of transportation, whether it be a river, a railroad, truck, or ocean vessel, to efficiently move those products to their best value consumer.

Our farmer and rancher suppliers depend upon us to be able to take those crops and move them efficiently and get the best value so that we can in turn pay them a strong value for the hard work they do raising those crops and livestock.

Senator KLOBUCHAR. Thank you. Dr. Kemmsies, could you talk about the interrelationship with the ports—we do have the Lake Superior Port—rail and intermodal issue?

Dr. KEMMSIES. Well, over the last 15–20 years, the number of hours of outage, unscheduled outage, at America's locks and dams, particularly on the Mississippi waterway, has increased substantially. It has made large traffic less predictable, and agricultural shippers have been finding alternative routes.

Perhaps the easiest way to see this is when you look at the Port of New Orleans' share of U.S. agricultural exports. It used to be close to 65 percent about 10–15 years ago, and today, it is about 45 percent. It is an impediment for farmers to get product down the river reliably and loaded onto the Handymax vessels.

This does create permanent damage. Rather than look at threats of job cuts or not making investments, there are actual quantitative facts that can be assessed here.

Under a free trade agreement, there are quotas for the trade of agricultural goods, corn, soy, and other grains and oil seed. If a shipment is delayed beyond the calendar year, then the quota for that year is not made. The importer on the other side of the trade is normally allowed some small growth rate, say two to 3 percent, but if they do not make their quota the year before, the two to

three percent growth rate is applied to a lower base rate. The excess amount is actually filled by other countries that do have reliable systems.

Senator KLOBUCHAR. Exactly, and it is going to hurt us competitively internationally. Mr. Greuling, one last question on public/private partnerships. Exporting of the goods to our neighbors to the north and south and bringing goods in from Mexico and Canada is really important. Canada is the biggest trading partner that we have, and people do not seem to always realize that.

We are having some huge problems at the borders with delays. In places like International Falls, Minnesota, there is an issue with a bridge that I am not going to get into, which we hope is soon solved, and the winds are from Michigan. I have been working on this as head of the Interparliamentary Group with the Canadians.

On the Mexican border, our country has started to do a lot of public/private partnerships with building up the infrastructure at the ports of entry. Do you think this is a smart way to go? I want to get it rolled out on the northern border as well.

Mr. GREULING. We definitely think it is a smart way to go. In our own case, we are looking at privately built bridges connecting modes of transportation, highway with rail, highway with water ports, knowing that the users will pay their way, their fair share, knowing that money is being invested into that specific infrastructure.

We cannot afford to build \$150 million bridges without some infusion of private equity. That is being used in North Africa. It is being used—

Senator KLOBUCHAR. Canada.

Mr. GREULING.—in Canada. In the Middle East. We have a great example down on the Ohio River of a toll bridge that was built with private equity funding, and one of the construction companies actually paid part of the bill to keep their people employed. It is a good approach.

Senator KLOBUCHAR. Thank you. Just to be clear, this project is more about the Customs, to try to speed up the back and forth between the countries with a new dawn in North America. Thank you.

Mr. GREULING. Thank you.

Senator FISCHER. Thank you, Senator Klobuchar. Senator Cantwell?

STATEMENT OF HON. MARIA CANTWELL, U.S. SENATOR FROM WASHINGTON

Senator CANTWELL. Thank you, Madam Chair, and thanks for having this important hearing on movement of freight. When I think of this issue, I think so much of Washington State and all the products that come through on their way to Asia. We have in a short period of time seen something like a doubling in the size of the ships over the last five years. Yes, we have a lot more capacity, and we obviously have a rising middle class in Asia, and they want more U.S. product.

The question is, what are we going to do to meet that demand as it relates to improving our infrastructure? One of the things that has occurred is the recommendations of the Freight Mobility Board,

which was chaired by Mort Downey, somebody you are familiar with, I think, Mr. Greuling. I think, Ms. Farmer, somebody from the railroad association at least participated in that.

The question is, how do we move forward on those recommendations and would you support a dedicated funding source to freight so we could raise the importance of why moving this product is so critical to our economy and infrastructure, and that TIGER alone just is not going to get it done?

Ms. Farmer or Mr. Greuling, or anybody else who wants to jump in on that.

Ms. FARMER. Certainly, we support anything to make our ports more competitive. We are excited about working together at Seattle and Tacoma. We will certainly stand together to work with them. We believe the TIGER grants were a good thing, but we need more funding around those kinds of issues.

From our perspective, anything we can do to make them more competitive, we are certainly in favor of that as well.

Mr. GREULING. Senator, certainly our four points with the Coalition, number one was to establish a fully funded dedicated freight program. We believe that needs to be at least \$2 billion a year.

This is not a program that is going to pick winners and losers in the transportation field. This money should be spent on what makes the most economic sense in terms of performance for the entire system.

We believe setting priorities on a national scale for the projects of national and regional significance is one of the mechanisms to do that, and also the establishment of a separate freight office within USDOT, again, to strictly focus on these multimodal needs nationally.

Senator CANTWELL. What do you think we need to do to get people to understand this from either an economic impact or some of the things your organization has done in studying the economic development associated with this?

Mr. GREULING. A lot of what we do at the Center and through the Coalition is education. You may see this brochure that we recently produced through the Coalition, "Follow That Almond." It shows the supply chain of an almond from a California grower to the Port of Hamburg in Germany delivering almond butter. We will have more of those in the future.

I think that helps. I also think local and state jurisdictions need to understand and look at freight more on a national level and think in terms of interconnectivity, not just what is good for Elm Street or what is good for my river, but look at the whole national system, and make sure they are aware that what we do at the national level and the local level interconnect, and we really need to make sense of that when it comes to funding.

Senator CANTWELL. Mr. Bessac, did you have something you wanted to add to that?

Mr. BESSAC. I guess more of a comment, Senator. You hear lots of numbers talked about, \$2 billion for infrastructure. I go back to the number Senator Fischer mentioned in if the ports were closed today, it would be \$2.5 billion per day to the U.S. economy.

I would submit we are very close, although they are not officially closed, I think we are very close to that at this moment.

I guess my comment is simply it seems like a very wise investment and an expense that the U.S. taxpayers and consumers are paying today daily, because we do not have the free flow of goods.

Senator CANTWELL. I think we learned the lesson in Washington, because we are at the tip of the spear, so that congestion caused so many problems that we learned that if we were going to be competitive and not lose that business, that we had to make the improvements.

Now we need the improvements made all along the system, not just right there. I think we just have to prioritize for people to understand that we will actually lose the economic impact, it is not just the up side, there is a huge up side, but there is a down side if we do not act as well, and that is that people will go to other ports or start buying product somewhere else just because they can get more predictable timeframes for delivery.

We really do need to make an investment. Thank you, Madam Chair.

Senator FISCHER. Thank you, Senator Cantwell. I believe we have some more time. I know members have more questions. We are going to do a second round.

I am interested, Mr. Bessac and Ms. Farmer, when we look at freight transportation systems and we look at the Midwest and some of the challenges that we have with containers, how would you address those challenges where we have that lack of containers to move our product? Other members of the panel, if you would like to jump in on that as well.

Ms. FARMER. Certainly. I will go ahead and start, Chairman Fischer. I think what you will see is that we have proven in normal times that we had sufficient containers to be able to move the product that wants to move export. In fact, last year we moved 236,000 units of grain in a box back to the West Coast.

We work very closely with the ocean carriers and the trucking companies, and they are able to scale relatively quickly to be able to meet the demands.

What BNSF has been very focused on is improving our velocity. As you well know, when we look at the speed with which we can turn these assets, we can create more capacity for the supply chain and the market, if we invest in our infrastructure, if we have expansion in our infrastructure.

We have a very thoughtful approach to investing so that we can get the velocity that we need which will generate the capacity for the Midwest to be able to have the containers that they need.

Senator FISCHER. Anyone else?

Dr. KEMMSIES. There is a structural deficiency in that for the exports, and our exports tend to be agriculture, large scale capital goods and energy products, and these come from places where not a lot of people live, and therefore, not a lot of containers arrive full of imported goods, so there is a structural gap that has to be addressed.

From where I sit and what I have seen in the data, I do not think it will be addressed very simply by trying to match or reposition containers, because every time you have these congestion issues, things do get paralyzed.

It may be necessary to pursue an alternative solution such as using 53 foot domestic containers, and then doing cross dock operations, like we do with the imports, but in reverse so we can compress these onto the container ships.

Senator FISCHER. Thank you. Mr. Greuling?

Mr. GREULING. Senator, the demand is clearly there. Empty containers quite frankly are at a premium in certain locations. In our case, we are receiving grain, dry distillers' grain, corn, and soybean meal from six different states that are being trucked in, trans-loaded into containers and then shipped out on the BNSF and UP to the West Coast.

When you think about the cost of that transportation just to get to an empty container, it shows clearly that we have this very high demand, and really, we cannot afford to build more ports. We just need to use the existing ports as efficiently as we can. I think that applies to both inland ports and water ports.

That is going to be the solution, and tie it altogether with highways and railroads, and then we have a winning situation.

Senator FISCHER. That ties into what I want to ask Dr. Kemmsies with making our ports efficient, what role do you see for automation? Is that going to help make our ports more efficient, more competitive, and what success do you see us having in that regard?

Dr. KEMMSIES. Well, I do not think it is possible to operate the ports with the larger vessels coming without some degree of automation, if not eventually full automation.

These ships, as I mentioned in testimony earlier, they have to be on the water as much as possible, not sitting at ports. If you were to look at an 18,000 TU vessel, which is the largest size that is really currently operating, it takes four and a half days if you can do 35 gross moves an hour on a 24/7 basis.

To maintain productivity like that without some form of automation, I think, is impossible. I have yet to see it demonstrated. We seem to have to move in that direction.

If we do that, then I do see U.S. ports being able to maintain an ability to compete with foreign ports, particularly those to our north and to the south.

Senator FISCHER. Thank you, Doctor. Senator Blumenthal?

Senator BLUMENTHAL. Thank you. What is the cause of the shortage of container cars in this country? I will ask that question to whomever or all of you if you want to answer.

Mr. GREULING. Senator, I think from our perspective, I am not sure there is a net shortage. I think the real issue is where the empty containers are versus where the demand for the containers is.

Senator BLUMENTHAL. What accounts for that imbalance?

Mr. GREULING. Well, a lot of it has to do with the system that we have set up, the intermodal system today. We can handle over three million containers at our yard, a million and a half coming in and a million and a half going out. Places in down state Illinois or in Minnesota or Indiana do not have that kind of inbound capacity. Therefore, they do not have the available containers to ship out.

It is a market balance to some degree. I am not sure that is fixable in the short term. Building more containers is not necessarily the answer, and I would defer to my rail colleague here to maybe respond to that.

Senator BLUMENTHAL. Ms. Farmer?

Ms. FARMER. Senator Blumenthal, what I would say is that I do not believe there is a net shortage of containers, but what we need to challenge ourselves with is how do we efficiently get them into the interior of the country.

With that, what BNSF and the Western roads have done is that we have found ways to find the ability to load those containers, consolidate grain loading around our intermodal hubs in the interior of the country.

Where there is a surplus of empty containers that is naturally made by the goods that come off the West Coast, for example, at our Logistics Park, Kansas City facility, the majority of grain that gets loaded out or a very large percentage of the grain that gets loaded out comes from the State of Kansas.

As we can draw that closer to our Logistics Parks, we then have the empty containers there that can then be loaded out. In addition to that, we have to keep continuing to invest so that our velocity is good, so the containers are there.

I do not think in total there is a net shortage. The issue is about how do we stay competitive through the ports over the railroads into the right places to be able to get those containers into the interior of the country.

Senator BLUMENTHAL. The ports are just one key to a multimodal system?

Ms. FARMER. Absolutely.

Senator BLUMENTHAL. Where rail is obviously very important to moving a lot of those containers to the right places so they can be there at the right time.

Ms. FARMER. Absolutely.

Senator BLUMENTHAL. Let me ask you, going back to the infrastructure investment issue, Mr. Bessac mentioned this figure of \$2 billion, the possible loss of \$2 billion if this impasse or crisis continues, which would be very, very, very unfortunate, but it strikes me as an example of how possibly there are costs to lack of recognizing the importance of investment and smart policy.

What somewhat perplexes me is why the folks who run our transportation system, including your railroad and others who are here, have not been more vociferous or vehement advocates for specific solutions to these infrastructure problems in the way that maybe will move policymakers, including folks who are sitting on this panel, to take some action.

In other words, we would welcome you to be more vigorous advocates for a system that is your responsibility and trust to run and ultimately your shareholders have very significant investments in.

Ms. FARMER. Absolutely. As I mentioned earlier, Senator Blumenthal, we agree from the standpoint that we absolutely have to continue to manage our network, invest in capital expenditures that make sense going forward. We also want to—we have a vested interest in remaining engaged in that conversation. We believe that

a national transportation policy is a good thing with a focus on freight.

I think we have been very active relative to those discussions and participation in national transportation policy planning.

Senator BLUMENTHAL. Thank you. Thank you all for being here today.

Senator FISCHER. Thank you, Senator Blumenthal. Senator Daines?

Senator DAINES. Just a follow-up question, and thank you, Madam Chair, regarding infrastructure investment. Senator Blumenthal, I completely agree that we need to continue to invest if we are going to maintain our global competitiveness.

I think, Ms. Farmer, you mentioned some of the roadblocks of the proposed export facilities on the West Coast. I was out at one of those proposed facilities last summer, the Gateway Pacific Terminal. I was standing there with a member of the Rail Union from Montana. I was standing there with a Tribal member from Montana that would benefit from expanded exports.

We see both the jobs as well as the tax revenues that would be created by expanding exports, and yet, it is delay after delay after delay, trying to get this port built. It is literally right in between two existing ports, it is zoned properly. It is environmentally sound.

Yet, there is great concern of how in the world are we ever going to move forward here on infrastructure investment with these endless delays and uncertainty.

I am looking for help here around what we can do to try to—I am not suggesting there is not a thorough review process but one that provides some degree of certainty and reasonability in that process.

Ms. Farmer, any comments on those thoughts?

Ms. FARMER. I would say, Senator, we certainly agree. We are working very closely, as you know, with the State of Montana, to put together our export platform. We, like you, are anxious to have the ability to continue to grow, to be able to export.

We believe there needs to be some improvement, whether it is around permitting reform. We have talked about that multiple times in the past. We believe that extending the environmental review position of MAP-21 to the railroads would be helpful, and further expediting the process, looking at these things concurrently, basically reducing the time line that these things take.

In general, what I would say is we completely agree that we are anxious to export product to continue to grow, to improve the competitiveness of the U.S. supply chain, both through exports and what we have talked about here as well, imports as well.

Senator DAINES. I think we talked about the need for state-of-the-art productivity and automation and so forth. This proposed port would be exactly that. Mr. Greuling, what are your thoughts? I know you are somewhat of an expert on this issue.

Mr. GREULING. Senator, I think much like we suffer from multiple “jurisdictionitis” with three, four, five or six governmental units controlling roads and infrastructure, the Federal Government has the same issue for these major projects, the number of agencies

that these projects have to touch, the time it takes to go through the NEPA process, the environmental review.

In fact, I would comment that we have actually seen some improvement on that under leadership from Congress and the Administration. We applaud that.

It should not take 10–12 years to do an EIS statement on a bridge. Clearly, that is an issue.

Multiple agencies maybe working a little closer together on collaboration, and again, we think a national freight office could help sort of quarterback that initiative, especially for these major important freight projects.

Senator DAINES. I think what is highlighted today in some of the testimony is what has happened with these choke points on our West Coast ports, allowing more optionality and so forth to resolve these issues when they come up.

If we only have one way out, it is nice to have multiple choices here and so forth to ensure we protect our economic interests and are able to compete globally.

Thank you. That is all the questions I have.

Senator FISCHER. Thank you, Senator Daines. We have been joined by the Chair of the Committee, Senator Thune. Do you have questions, please?

**STATEMENT OF HON. JOHN THUNE,
U.S. SENATOR FROM SOUTH DAKOTA**

The CHAIRMAN. Thank you, Madam Chair and Senator Blumenthal, thanks for holding this hearing. It is a very important subject. I appreciate the fact that your subcommittee is focused on this.

A reliable and efficient supply chain is critical to our global competitiveness and to our economy, and the ports are an absolute vital link in that chain.

What is frustrating is that some of these things are things sometimes you cannot control. These things, I guess, I would say are self-imposed problems. They are really kind of unforced errors. If you try to quantify this, it is having a profound impact on the economy.

I know some of you on the panel have already testified to that effect, and Cargill, 40 million a week. I have talked with Tyson in my State of South Dakota, and they have shared with me that we have beef and pork sitting in freezers near the ports instead of heading to Asian markets, while we have all these large container ships sitting off the coast waiting to export our nation's products.

It affects jobs. Tyson employs 41,000 people. USDA estimates there are a million jobs associated with agricultural exports in this country. It has a profound impact on the economy, not just on the West Coast, but all across the country, workers in South Dakota and other places that are dependent upon, like I said, a reliable supply chain.

Outdoor Gear, Inc., family owned business in South Dakota. They are a wholesaler. Receives 95 percent of its inventory from West Coast ports, has been forced to miss deadlines, pay for late delivery penalties, and pass up important sales opportunities, including in December, which of course is the holiday peak season.

This is an issue that just really needs our focus. It is a huge drain on the economy. I just urge all sides to come to a resolution in this dispute to find a solution as soon as possible. We just cannot afford to drag this on and have our economy pay this kind of a price. If we can get this behind us, we can start focusing our energy and creativity on a lot of the other long term infrastructure challenges that desperately need our attention as well.

In that light, I wanted to ask a question. I think all of you have attempted to kind of quantify what some of the financial and economic impacts of this have been, but the question I would like to pose is once this is resolved, how long will it take to unwind this and to get those networks working in an efficient way again, and where things are sort of normalized. What are we talking about once we get hopefully—which will be very soon—a resolution to this issue?

Mr. BESSAC. Senator, I would answer from our side as the exporter, I think it is an excellent question. Our best estimate is on chilled shipments, it will take at least a month to get back into a normal flow when we can get those products moving through to the high value markets in Japan and Korea, at least a month.

If you move over to the frozen side, the products we would send to Japan, Korea, China, Mideast, all around the globe, our best estimate is three to four months before we are back to a normal flow, we have moved through the backlog of goods that we have. That number continues to increase every day.

Ms. FARMER. Senator Thune, from our perspective at the railroad, we certainly stand ready to be able to help the backlog, but what I would say is because of the challenges that we face with not being able to move freight, we have had to store locomotives and equipment across our network. There will be some period of time it will take for us to be able to go and get those assets, reposition them at the ports, be able to be in a position to handle that.

What I would tell you is that we are anxiously awaiting the ability to do that. We will be ready to do that. We have an unique opportunity, as I mentioned earlier before you stepped in, in that Chinese New Year is coming. When Chinese New Year hits, we will see less vessels that will be headed toward the West Coast. It would give us an opportunity if there was a speedy resolution to this current PMA/ILWU negotiations, that we could use that time then to work off the backlog that exists at the ports.

The CHAIRMAN. I guess I would just reiterate, Madam Chair, and again thank you for having this hearing, that this is not something that is confined to the West Coast. This has a ripple effect throughout our entire economy.

Having an efficient transportation system is really one of the keys to our advantage, our competitive advantage in the global economy. When you see this kind of thing happen and recognize the impacts that it has, I would just again encourage all the parties to create a new sense of urgency and build some intensity behind coming to a resolution.

We just cannot continue to keep this going on and not expect that it is going to have some very, very detrimental and adverse impacts on a whole range of sectors of our economy and all the jobs that go with it.

Madam Chair, thank you, and thank the panel for your great testimony today.

Senator FISCHER. Thank you, Chairman Thune. Senator Blunt?

**STATEMENT OF HON. ROY BLUNT,
U.S. SENATOR FROM MISSOURI**

Senator BLUNT. Thank you, Senator Fischer, for holding this hearing, and you and Senator Blumenthal for drawing attention to this issue.

I know a lot of questions have already been asked. Dr. Kemmsies, in your written testimony, you mentioned that the under investment in the Mississippi ports, the inland ports, indicates that we have been more import oriented than export oriented, expand for a few minutes on the significance of the inland ports, particularly with the Panama Canal development and agricultural opportunities and trade, as well as manufacturing.

Dr. KEMMSIES. Most of the growth in trade was on the import side, and when we look at the various segments of the freight movement industry in the U.S., the larger projects that were done by rail, by highway, and at the port level, they were focused on being able to handle the imports more efficiently.

A lot of the dredging, for instance, is not really done because we were trying to export more goods. Our goods are very heavy. They require deeper vessels.

The motivation, when you read the economic analysis or the cost/benefit analysis, was essentially focused on the import side. Maybe you can look at it from that side to say well, this is an import bias in our investments, but if we look at the projects or where we have not had funding for infrastructure, you get the same message.

That is what I meant in the testimony about the Mississippi waterway. We have seen chronic and consistent under funding and we have seen a deterioration of the infrastructure there.

Senator BLUNT. I think from the locks to the ports themselves, obviously, I would be very focused on the Mississippi River because of where I live and where I have grown up and where we are today, but the inland ports also serve a geographic area logically twice as big as the coastal ports. You serve a geographic area both ways. I hope we can begin to focus more on those ports.

The other question I had, Chairman, for Ms. Farmer, I think you all have been trying at BNSF for a long time to do a California project, the California International Gateway. Permitting delays have been a big problem there.

I am working on some legislation now to try to streamline permitting for railroad projects. Do you want to talk about how the kind of problems you have had trying to serve that market in a better way?

Ms. FARMER. Absolutely. The Southern California International Gateway would be, as I mentioned, the greenest intermodal facility in the world when built. We have been working for a decade to try to do this. We have faced local opposition.

What I would say is that is indicative of projects that we see across our network. It is not just the Southern California International Gateway project.

We really are in favor of permitting reform, and I know and I appreciate your leadership in this area. As I spoke to earlier, we really believe extending the environmental review position of MAP-21 to the railroads would be a great first step. We believe it is important to shorten the timeframes.

We know we are not trying to eliminate the review process, we are just asking there be a reasonable time. We need to shorten the timeframes that the agencies could possibly look at the things concurrently as opposed to sequentially.

It is just important for us that we are able to move forward the projects that will add capacity to the supply chain.

Dr. KEMMSIES. May I make a comment on that?

Senator BLUNT. Yes.

Dr. KEMMSIES. We are the program managers for the Jasper Ocean Terminal on the Savannah River. In the report we gave the Board last year, we pointed out that if we were to start the application process then, it would be 13 years before the port could become actually turn key operational.

We have to justify this on the basis of analysis, so I had the unfortunate position of having to forecast what volumes will go through a port that does not exist in 13 years.

I think this is an example of how far the process has basically gotten off kilter.

Senator BLUNT. Do either of you want to comment on that topic? Mr. Greuling?

Mr. GREULING. Senator, thank you. What is interesting about this discussion about freight movement and the problems we have in this country, it is all about choke points, whether it be a problem at the ports, whether it be congestion on the highways, whether it be an at grade closing for a rail crossing, whether it be an extended period of time to get permitted for a project. Those are all choke points.

What is unfortunate about that is America has a distinct and very unique advantage in this global marketplace, and to think that our transportation system is one of the primary reasons that we are being held back on imports, but more importantly on exports, it is almost criminal. It is a shame.

I think there is a lot we can do better to help with that situation.

Senator BLUNT. Thank you. Thank you, Chairman.

Senator FISCHER. Thank you, Senator Blunt. Any other questions from the Senators?

[No response.]

Senator FISCHER. With that, I would say this hearing record will remain open for two weeks, and during this time, Senators are asked to submit any questions for the record. Upon receipt, the witnesses are requested to submit their written answers to the Committee as soon as possible.

With that, I conclude the hearing. I thank the witnesses for just great responses and the information you have provided us today. Thank you so much. The hearing is closed.

[Whereupon, at 11:22 a.m., the hearing was adjourned.]

A P P E N D I X

COMMENTS SUBMITTED BY WILLIAM J. RASE III, EXECUTIVE DIRECTOR,
LAKE CHARLES HARBOR AND TERMINAL DISTRICT

The Port of Lake Charles is the 13th largest port in the country by tonnage, 80 percent of which is energy related. In the past several years, \$68 billion in new facilities—most energy related—have been announced for the Calcasieu Ship Channel, which serves the Port. The construction on several facilities has begun.

Despite its current and future importance to the national economy—more fully explained below—Congress and successive Administrations have ignored the dredging needs of the Port of Lake Charles and other vital ports around the country.

Located on the U.S. Gulf along a 68 mile Federal channel on the Calcasieu River, the Port of Lake Charles extends 32 miles into the Gulf and 36 river miles inland from the Louisiana coast. The channel is located roughly half way between the ports of New Orleans and Houston. The channel's present configuration was completed in 1941. Since that time it has been widened and deepened to its present congressionally authorized dimensions of 400 feet wide by 40 feet deep on the inland reach and 800 feet wide and 42 feet deep in the Gulf of Mexico.

The Port of Lake Charles currently serves facilities engaged in international trade at which deep-draft ocean going vessels call. Some \$68 BILLION in new development has been announced along the channel. Major energy developments and others chose southwest Louisiana because of the Port's access to international markets, its access to domestic markets through the Gulf Intercoastal Waterway and the area's extensive pipeline infrastructure.

Figure 1 below shows that the Port of Lake Charles is at the confluence of the U.S. natural gas pipeline infrastructure. Figure 2 shows a more detailed view and illustrates why a major liquefied natural gas facility chose to locate on the Calcasieu Ship Channel.

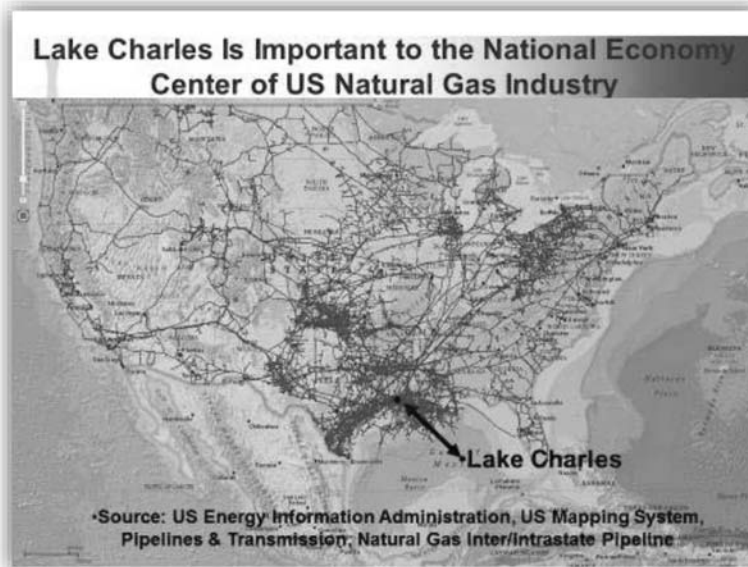


FIGURE 1

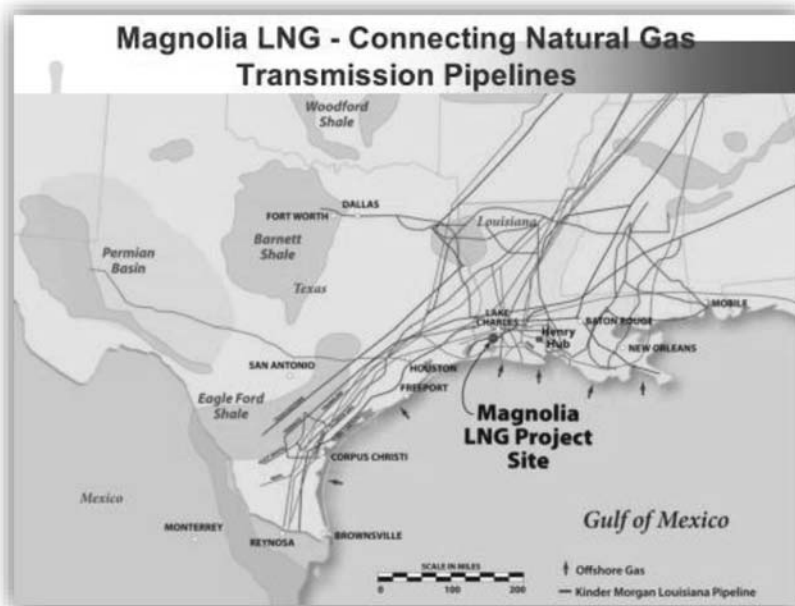


FIGURE 2

The national infrastructure for crude oil and refined products is shown on Figure 3.

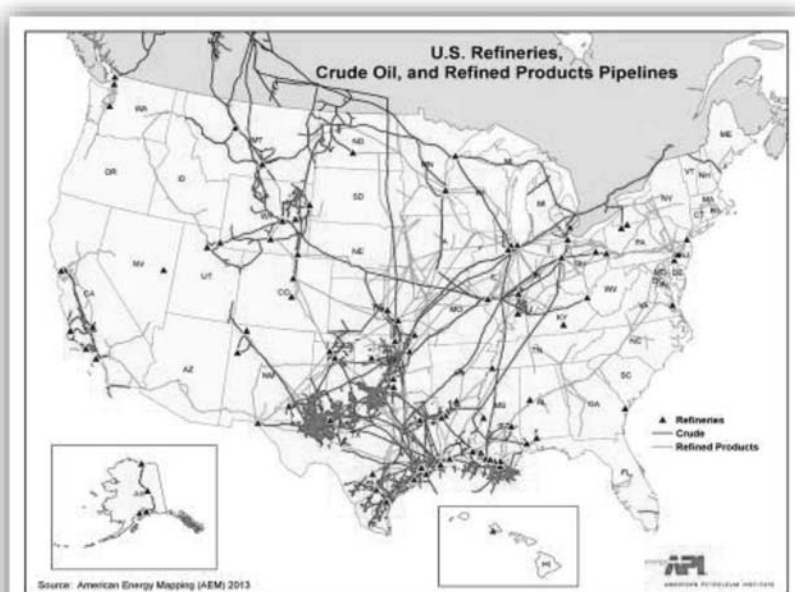


FIGURE 3

Please note that a product pipeline Figure 3 runs from Louisiana, through several southern states and into the northeastern part of the county. This is the Colonial Pipeline, shown in more detail in Figure 4.

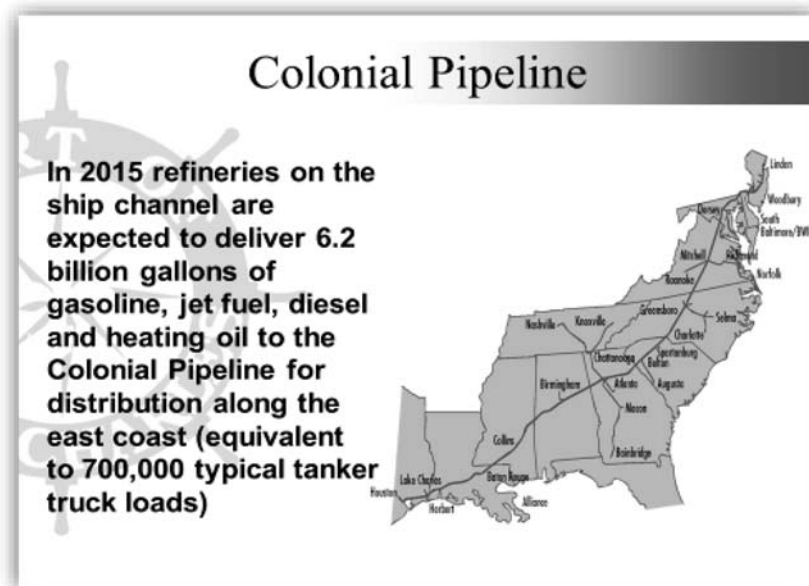


FIGURE 4

Current and future facilities on the Calcasieu Ship Channel expect the Port's Federal channel to be reliably maintained at its authorized width and depth as shown in the rendering in Figure 5.

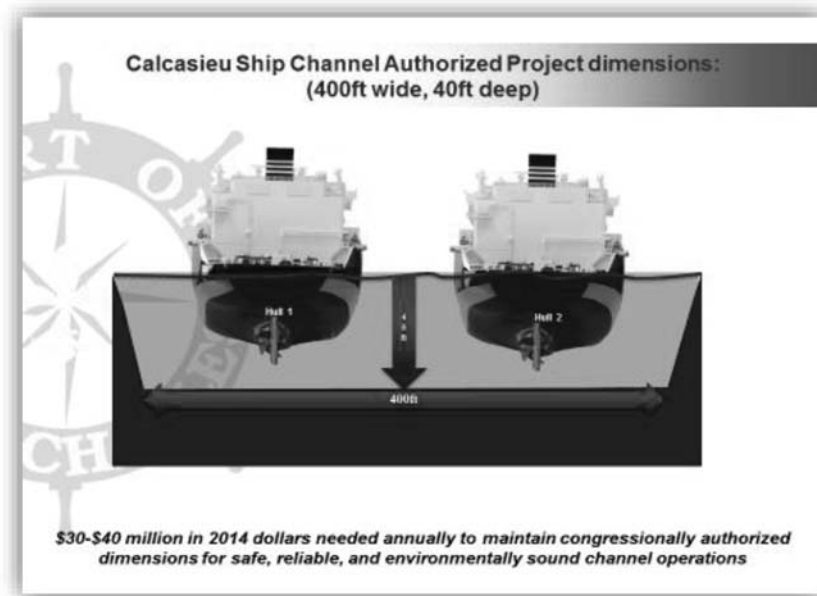


FIGURE 5

Otherwise operating costs increase dramatically. Because of shoaling, vessels on the main channel are currently limited to a 38 foot operating draft (rather than 40 feet). A major link between the main channel and existing/planned energy facilities has a 34 foot operating draft. The difference between the channel maintained at

congressionally authorized dimensions and a channel impacted by the current severe shoaling is shown by a comparison of the renderings in Figures 5 and 6.

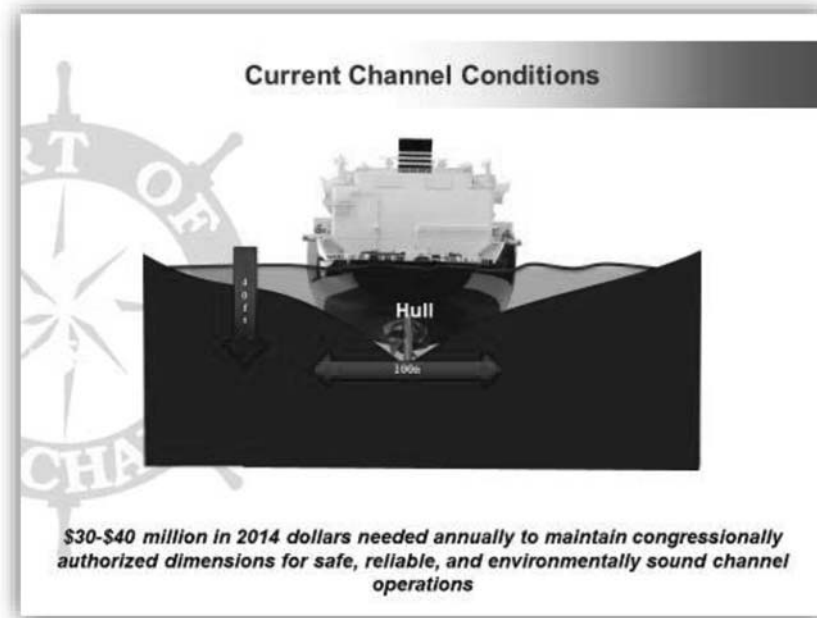


FIGURE 6

Historically, the Presidents have not budgeted and Congress has not appropriated sufficient funds for the Corps of Engineers to reliably maintain the channel at federally authorized dimensions. The difference between funding needs and budgeted amounts are shown in Table 1. While the channel has received both emergency supplemental and Corps discretionary funds, these sources are not dependable in timing or amount.

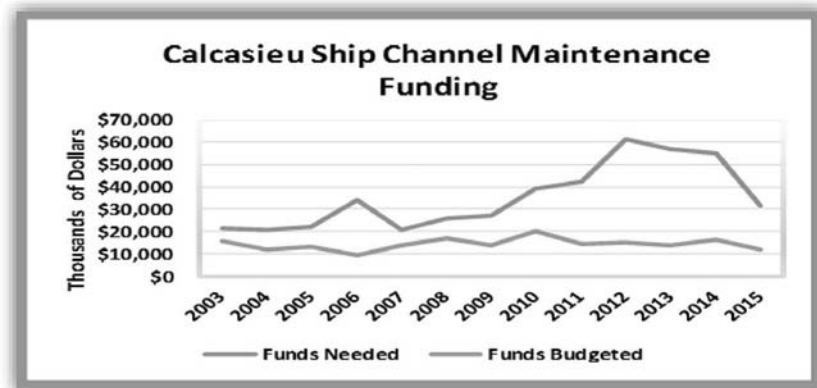


TABLE 1

Nor is underfunding the Corps O&M budget unique to the Port of Lake Charles. Most U.S. ports are not funded sufficiently to reliably maintain their congressionally authorized channel dimensions.

International trade through America's deep-draft ports accounts for 30 percent of the U.S. economy, and growing. To support this important and expanding economic sector, the country's deep-draft channel infrastructure must be a national priority with consistent, adequate funding. A national commitment to shipping, global trade

and navigation infrastructure is absolutely necessary as these factors are a key component of America's transportation system and indispensable for the country's energy development and job growth. Current O&M funding levels for deep draft channels are grossly inadequate. Congress and the Presidents must provide the necessary funds to maintain the Nation's deep-draft maritime infrastructure, which includes fully using Harbor Maintenance Fund collections for their intended purpose.

From a national perspective, the LNG developments planned for the Calcasieu Ship Channel support the Nation's economy by providing export facilities for the country's newfound natural gas resources. The export of LNG will reduce the Nation's balance of payments, support job growth in other areas of the country, contribute to an increase in Gross Domestic Product and help reduce the national debt. However, without a reliable shipping channel, these facilities may not locate in southwest Louisiana. They were attracted to the area by the substantial energy infrastructure of pipelines, shallow water shipping routes, access to international trade routes, refineries and existing LNG import facilities. Despite the abundance of inexpensive U.S. natural gas, these facilities will not simply relocate to another U.S. port if the Administration and Congress does not adequately maintain the Nation's deep-draft channels. The most likely candidate for relocation is Canada.

But the issue goes well beyond the Port of Lake Charles. The American Association of Port Authorities reports that in 2010, long before the country's natural gas boom, 7,579 oceangoing vessels made 62,747 calls at U.S. ports, of which 35 percent were by tankers carrying oil and gas used to power U.S. cars and heat U.S. homes. Those vessels calling at most U.S. ports transited Federal channel that were, and continue to be, inadequately maintained.

An independent traffic study commissioned by the Lake Charles Harbor and Terminal District has determined that by 2023 the Port of Lake Charles alone will add another 1,000 deep draft ships to the vessel count cited above, the majority of which will be carrying U.S. natural gas for export. But without adequate, reliable funding to maintain the Nation's strategic energy channels at authorized dimensions the promise of that growth may evaporate.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO
NORMAN BESSAC

Question 1. While the labor dispute at the Nation's West Coast ports continues, the consistent movement of cargo from these ports has stalled and slowed down dramatically. This issue has created a serious problem for perishable items that will expire if an agreement isn't soon reached.

Commodities like liquid gases have a shelf life of forty days before they return to a gaseous state and can no longer be used. One example of a perishable gas, helium, has numerous and significant commercial applications, most notably for the biomedical industry; the gas being necessary for the operation of MRI machines. Any disruption in supply will have tremendously negative consequences. Companies that are a part of the liquid gas industry or the industry of any other perishable good are losing millions of dollars as delays continue.

While this dispute continues, are there any procedures in place to identify perishable items and route them by the delays and onward through the supply chain?

Answer. Thankfully, both sides reached agreement and we are starting to see goods flow at a more normal rate. Pork exporters certainly reviewed several options to serve our customers during the slowdown, but the only other alternative to serve Japan and S. Korea markets with chilled product was to air freight at significant premium that resulted in a loss. Mexico was able to take some of our chilled business by shipping from two Mexican ports that were not affected by the slowdown. So the only real alternative for the industry was to sell the product into the US, Mexico, or Canadian markets during the port slowdown, which increased available supply pushing prices for meat and hogs downward.

Question 2. The National Freight Advisory Committee (NFAC) recognized the importance of security to the movement of freight. Too often, however, conversations about homeland security revolve around threats to the aviation space. While that's certainly important—we can't have a thorough conversation about homeland security without discussing our Nation's surface transportation system as well—especially our railroads and our ports. These require our attention as much as any other form of movement.

An attack on our freight network could injure tens of thousands and disrupt an economy depended upon by millions.

Are there additional steps you suggest we take to ensure the security of goods moving across our country?

Answer. I believe the industry working with the railroads have come up with an appropriate level of measures to provide safe passage of cargo. The only suggestion I could make would be to have an independent safety audit group to review the railroad's measures to provide security. I would have them key in on the most hazardous products and the protocols that are currently in place. I think the railroads have done a pretty good job of providing security to date. However, an independent review might highlight deficiencies.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO
KATIE FARMER

Question 1. While the labor dispute at the Nation's West Coast ports continues, the consistent movement of cargo from these ports has stalled and slowed down dramatically. This issue has created a serious problem for perishable items that will expire if an agreement isn't soon reached.

Commodities like liquid gases have a shelf life of forty days before they return to a gaseous state and can no longer be used. One example of a perishable gas, helium, has numerous and significant commercial applications, most notably for the biomedical industry; the gas being necessary for the operation of MRI machines. Any disruption in supply will have tremendously negative consequences. Companies that are a part of the liquid gas industry or the industry of any other perishable good are losing millions of dollars as delays continue.

While this dispute continues, are there any procedures in place to identify perishable items and route them by the delays and onward through the supply chain?

Answer. The shipment of perishable gases on the BNSF network is negligible. The movement of perishable goods in intermodal service, for which I am responsible, is governed by the BNSF Intermodal Rules and Policies Guide found at <http://www.bnsf.com/customers/pdf/intermodal-r-and-pg.pdf>.

When confronted with challenges such as the recent West Coast port slowdown, BNSF's first priority is to communicate and work closely with all potentially impacted customers, perishable or otherwise, along with terminal operators to minimize delays and keep resources and freight moving. As port congestion began impacting the BNSF network last year, we regularly reviewed our transportation service plans and established controls as necessary to better manage freight flows. These controls included exercising caution in originating or accepting westbound traffic that could not be processed in a timely manner at certain marine terminals. These actions helped to mitigate potential bottlenecks in the network that could have rippled throughout the system creating slowdowns for all traffic flows. Importantly, each significant action taken by BNSF during this challenging time was accompanied by clear communication with our customers.

Question 2. The National Freight Advisory Committee (NFAC) recognized the importance of security to the movement of freight. Too often, however, conversations about homeland security revolve around threats to the aviation space. While that's certainly important—we can't have a thorough conversation about homeland security without discussing our Nation's surface transportation system as well—especially our railroads and our ports. These require our attention as much as any other form of movement.

An attack on our freight network could injure tens of thousands and disrupt an economy depended upon by millions.

Are there additional steps you suggest we take to ensure the security of goods moving across our country?

Answer. BNSF and the Nation's freight railroads take safety and security extremely seriously and work cooperatively with various federal, state and local agencies to help ensure the safe and secure transport of goods across the rail network. At the Federal level this includes the Pipeline and Hazardous Materials Safety Administration (PHMSA), the Federal Railroad Administration (FRA), the Transportation Security Administration (TSA), the Federal Bureau of Investigation (FBI) and the Federal Emergency Management Agency (FEMA).

BNSF employs a highly trained Resource Protection Team that is directly responsible for the security of BNSF personnel, property, and assets which include our customers' lading. Resource Protection is comprised of several components including Homeland Security and Police. Protecting the railroad relies on a multi layered approach, including:

- Collaboration with federal, state and local law enforcement agencies for intelligence and resource sharing.

- Community and employee security awareness programs to report crime and trespassing on railroad property.
- A BNSF police force consisting of 200 fully certified state law enforcement officers who carry full police and arrest powers in 28 states and which includes 26 K9 (police dog) teams.
- Facility security supplemented by more than 100 contract personnel.
- Automated gate systems, biometric fingerprint readers and site-specific security procedures, processes, and physical security deliver a high degree of protection at rail facilities.
- BNSF has been C-TPAT certified for more than a decade and continues to build beyond these measures to protect our customers' shipments.
- BNSF provides consistent specific information to first responders, who have the obligation to ensure that routing, consist and any other information related to key train operations does not compromise the public's interest in homeland security.

BNSF would ask for continued strong support from the various agencies with which we work closely on safety and security issues, including importantly in the area of threat analysis and information sharing. For further information and specific examples of rail industry cooperation with the Federal Government in the areas of safety and security, please see AAR President and CEO Ed Hamberger's June 19, 2013 testimony before the Committee (http://www.commerce.senate.gov/public/?a=Files.Serve&File_id=fc4fe590-9862-4121-843c-4783f5a2fdc6).

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. RICHARD BLUMENTHAL TO
DR. WALTER KEMMSIES

Question. The National Freight Advisory Committee (NFAC) recognized the importance of security to the movement of freight. Too often, however, conversations about homeland security revolve around threats to the aviation space. While that's certainly important—we can't have a thorough conversation about homeland security without discussing our Nation's surface transportation system as well—especially our railroads and our ports. These require our attention as much as any other form of movement.

An attack on our freight network could injure tens of thousands and disrupt an economy depended upon by millions.

Are there additional steps you suggest we take to ensure the security of goods moving across our country?

Answer. Thank you for the opportunity to expand on the points I sought to make in my recent testimony to the Subcommittee. In response to your question, I recommend focusing on steps surrounding the following three themes:

1. Continue and expand port security grants. In recent years there have been large cuts in the Federal Emergency Management Agency's (FEMA) preparedness grant programs, and in particular to the Port Security Grant Program. Natural disasters, terrorist attacks, and other crises cause billions of dollars in infrastructure damage and lost economic activity when they hit seaports. Programs at DHS and other Federal agencies, that include information sharing and training, increase port and therefore economic security and resiliency, by helping them create effective disaster implementation plans for restoring normal operations. The importance of this is particularly evident in light of the hurricanes and severe winter weather conditions that have impacted ports in the Northeast.

If ports have to impose additional fees to cover unfunded costs of these programs it will increase the cost of moving freight. If these programs are not sustained then the productivity of the freight movement industry, and therefore its ability to support economic activity will be diminished.

2. Ensure sustained and expanded freight movement security. Proper infrastructure maintenance means periodic inspections and repairs and aids the cause of homeland security and risk reduction. So standards and adequate funding for maintenance of existing infrastructure is important.

It is not clear if Customs and Border Protection and the Domestic Nuclear Detection Office do have a plan for continuing maintenance, replacement, or funding for these machines (*e.g.*, Radiation Portal Monitors, Vehicle and Cargo Inspection System—VACIS, etc.). Ports should not be required to fund this security program, initiated by the Federal Government in order to secure international borders.

A policy is needed to clarify how the agency should pay for the future use of scanning equipment, when such equipment must be modified and moved due to port facility expansion or reconfiguration, and for disposition of current scanning machines reaching the ends of their useful lives.

Additionally, a funded On-Dock Rail (ODR) radiation detection program, is also needed to efficiently scan containers moving directly from ships to rail.

3. Export security must also be considered. At some point, as global freight security standards are developed, it is likely that other nations will require 100 percent scanning of our exports. Scanning exports is also in our Nation's best interest, not just for security but also to protect our increasingly important food exports from contamination. It is well established that the U.S. needs to increase exports in order to regain economic prosperity. Policies and funding for port securities should thus focus on more than imports, but include exports as well. However, further costs imposed on the shipper makes our exports less competitive and supporting them is in our general economic interest, so there is a critical balance between security and the amount we spend to provide it.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO
JOHN E. GREULING

Question 1. While the labor dispute at the Nation's West Coast ports continues, the consistent movement of cargo from these ports has stalled and slowed down dramatically. This issue has created a serious problem for perishable items that will expire if an agreement isn't soon reached.

Commodities like liquid gases have a shelf life of forty days before they return to a gaseous state and can no longer be used. One example of a perishable gas, helium, has numerous and significant commercial applications, most notably for the biomedical industry; the gas being necessary for the operation of MRI machines. Any disruption in supply will have tremendously negative consequences. Companies that are a part of the liquid gas industry or the industry of any other perishable good are losing millions of dollars as delays continue.

While this dispute continues, are there any procedures in place to identify perishable items and route them by the delays and onward through the supply chain?

Answer. The ripple of West Coast congestion is being felt, and will continue to be felt, across the supply chain and nation for many months as the backlog of delay is reduced over time. Thus, we will not know the full extent of the damage to various industries, including those involved with the movement of perishables, for a long time to come.

As you wisely point out, perishable goods are particularly vulnerable to the negative impacts of congestion and the consequence of delay cannot be undone. These instances illustrate the need for a national freight system that is strategic, redundant, and equipped with the most advanced technologies available to enhance the flow of goods.

While we are currently focused on West Coast ports, they are just a symptom of the larger congestion problem that we face in the United States in varying degrees as a result of insufficient and uncoordinated investment in our freight network. If left unaddressed, congestion will continue to worsen and spread across the country, while supply chain managers remain frustrated in the face of unnecessary risk and loss.

Question 2. The National Freight Advisory Committee (NFAC) recognized the importance of security to the movement of freight. Too often, however, conversations about homeland security revolve around threats to the aviation space. While that's certainly important—we can't have a thorough conversation about homeland security without discussing our Nation's surface transportation system as well—especially our railroads and our ports. These require our attention as much as any other form of movement.

An attack on our freight network could injure tens of thousands and disrupt an economy depended upon by millions.

Are there additional steps you suggest we take to ensure the security of goods moving across our country?

Answer. A sound freight transportation system, with consistent steady-state capacity, is fundamental to the Nation's security, economy, and prosperity. Both the threat of human attacks and natural disasters stand to disrupt the movement of American commerce.

Our national freight network is "a system of systems" that allows the efficient flow of goods across modes and large geographic areas. Within these systems, infra-

structure is owned and operated by a variety of both public and private interests with varying degrees of protection and defense. Identifying and reinforcing vulnerable aspects of this network should be a Federal priority with particular concern for potential “single points of failure” where disruptive events can be particularly devastating. The Department of Homeland Security and the Department of Transportation should work together in this effort.

However, it is clear from experience with recent events such as Superstorm Sandy, severe winter weather and the current West Coast congestion that our national freight transportation system lacks redundancy and is so thinly stretched that goods cannot pivot effectively in the event of disruption. To address this, we need a national, coordinated approach to build resiliency and redundancy into our transportation infrastructure. This resiliency principle—the ability to reduce the severity of disruptive impacts on service and allow rapid service recovery—should become a foundational precept in our planning, design, engineering and construction of new and rehabilitated transportation infrastructure. There is additional cost, a resiliency premium, so to speak, to this higher standard of design, but it is a very worthwhile investment compared with the cost of life, property and disruption of service during catastrophic events. This is particularly true for our multimodal freight infrastructure, whose interrelationship places entire supply chains at risk.

The Coalition for America’s Gateways and Trade Corridors has long advocated for a well-funded Federal freight infrastructure investment program and we believe that the resiliency premium, in addition to capacity enhancement, is part of the Federal responsibility to keep our Nation’s commerce moving.

Question 3. According to a 2010 study of the maritime industry in Connecticut, my state is one of just 12 states with three or more deepwater ports. Each of Connecticut’s ports handles tens of millions of dollars in trade and over 90 percent of shipping entering the Long Island Sound uses a Connecticut port as opposed to a New York port. But these Connecticut ports haven’t grown as much as there potential would allow.

A lot of the discussion here and the Administration’s freight proposal has centered on the Nation’s largest ports.

How can we ensure that some of the country’s smaller ports with very large regional economic benefits receive the attention and infrastructure investments they need?

Answer. According to USDOT, over the next 25 years U.S. freight volume will grow by 45 percent in tonnage. As this occurs, ports will continue to be our most important international gateways. However, ever-larger container ships and consolidation in the shipping industry means that smaller ports may be challenged to maintain regular service. Cargo owners are looking for routes that provide reliable, efficient service at the lowest “landed cost”—that is, the full cost of the trip, not just the maritime segment. Ports with good landside connections to final destinations will be most advantaged in future decades.

Further, the advent of megaships is a producing a cascading effect, whereby all ports are receiving calls from bigger vessels than they were previously and the smallest ships are being retired from fleets. Strong landside infrastructure at all ports—regardless of size—is required to ensure these efficiencies are realized. Our largest seaports are typically located in highly urbanized areas with limited room for growth.

Again, I would like to stress the importance of a freight network with built-in redundancy. We should recognize that ports that are smaller in size hold an important place in our transportation network. Even when the freight network is fully functional, smaller ports provide a relief valve for their larger counterparts. And, they provide alternative gateways to shippers and supplies in the event of disruption.