

NATIONAL PRESS CLUB HEADLINERS LUNCHEON WITH
CEO OF UNION PACIFIC LANCE FRITZ

SUBJECT: TRADE, TECHNOLOGY AND THE ECONOMY

MODERATOR: DEREK WALLBANK OF THE NATIONAL PRESS CLUB

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DEREK WALLBANK: My name is Derek Wallbank. I'm chairman of the Board of Governors here at the National Press Club, and I run the US government breaking news desk for Bloomberg. So it's a very nice casual, quiet time in our office. I kid.

This is about a five/four-minute warning. If you have some last second things to do, now's the time to do it – wrap up conversations, things like that. If you have a cell phone with you, I'd ask that you put it on quiet or something similar. We don't want those going off while we're going.

We do encourage you to tweet, however. This nice, pretty face did not get this nice just on accident, so I would like you to use it. And if you do tweet, #NPCLive is where we're going. So please put that in as well.

If you need to use the restroom, now's probably a good time. If nature calls in the middle of the program, please be mindful there's two cameras back there and heads walking sideways through shots are bad things. So, duck.

We're going to start in about three-ish minutes now. John Gallagher over here – raise your hand, John – is going to help me out in terms of taking audience questions, if you would like. I actually have some already. There's cards at your table. Fill it out in a way that John and I can read; that's a really essential thing. And send them to John and we'll look through and we'll try and get some of those asked. I think this is going to be a really interesting thing. I've talked to many of you already. There are a lot of questions at the fore, both specific,

general, that we'll want to get to. We'll only have about one short hour. So I could go for a while, but I want to make sure that the things that you have to ask, we ask as well.

Anyhow, that's it. We're going to start in about two minutes. We will be starting on actual railroad time. In my world, 1:00 is 1:00, so we're going at 1:00.

Anyhow, we're circle back in two minutes and we'll have more to say then. Thank you.

Good afternoon. Welcome to the National Press Club, the place where news happens. My name is Derek Wallbank. I'm a news editor at Bloomberg News and I am chairman of the Board of Governors of the National Press Club. First of all, I'd like to ask you again to please silence all cell phones. If you're on Twitter, we do encourage you to tweet during the program, #NPCLive.

I'm going to introduce our guests at the head table. Please hold applause until all have been introduced. I would not want anyone to feel bad by somebody else getting more applause than they do. And as the head table's not linear, I sort of ask that you stand as I call your name.

First off, I have Mike Rock, vice president, external relations for Union Pacific; Jay Timmons, president and CEO, the National Association of Manufacturers; Lisa Matthews, assignment manager at the Associated Press and co-chair of the NPC's Headliners Team; John Gallagher, IHS Fairplay; Bill Cassidy, Journal of Commerce; Alan Kotok, Science and Enterprise; Joseph Morton, Omaha World Herald and a former board member here at the Club; Chuck Raasch, St. Louis Post-Dispatch; and Martin Di Caro from Bloomberg.

Please give them a round of applause. [applause] There's one name I didn't mention there; we'll get to him in just a second.

I'd also like to acknowledge the staff and additional members of the Headliners Team who made this possible today: Betsy Fischer Martin; Lisa Matthews, who's here with us, thank you; Lori Russo; Tamara Hinton; Press Club staff, especially Lindsay Underwood, Laura Cocker, and executive director Bill McCarren. Thank you very much. [applause]

I'd also like to thank our kitchen staff who bless us with very good food and themed cookies. If you haven't seen them yet, they are delicious and also topical. So that is a fun thing.

For our broadcast audiences watching on C-SPAN and elsewhere by live stream, please be aware that in the audience today are members of the general public. So any applause or reaction you hear is not necessarily from the working press today.

Now our lead guest. This week nearly 155 years ago, Union Pacific Railroad laid its first rails reaching the outskirts of Omaha. It was incorporated in 1862 through an act of Congress, signed into law by President Abraham Lincoln, one of the company's biggest

supporters. Union Pacific has since evolved into a freight-hauling giant that serves as a critical link connecting global supply chains with 40% of its overall traffic originating or terminating outside the United States.

And at the head of it all is our guest today, Union Pacific Chairman, President and CEO Lance Fritz. Mr. Fritz joins us at an interesting time for the US economy. While trade wars and automation were not a thing a century-and-a-half ago, these issues very much affect how Union Pacific and its competitors operate today. Weighing in on NAFTA, for example, Mr. Fritz recently wrote in an op-ed that pulling out of the agreement, an option President Trump has contemplated, could not only damage the US economy by raising consumer prices, it could also hurt many of the 14 million American workers whose jobs depend on trade with Canada and Mexico, including those in states that helped elect the President.

Mr. Fritz has a pretty strong horse in this race as well as he runs a railroad that handles approximately 70% of US rail cargo into and out of Mexico. In fact, as head of the nation's largest publicly trade railroad so vital to the distribution of both commodities and finished products, it's difficult to steer clear of many of the big debates shaping the country, whether it's the effect that fossil fuels such as coal have on climate change, or the mix between public and private investment in the nation's transportation infrastructure.

Mr. Fritz, the man currently up to the task, began his career at Union Pacific in 2000 as a vice president in marketing and sales. He was elected president and CEO in 2015, adding chairman to his title later that year. Mr. Fritz will trade and the economy at a time when both are dominating the news, as well as discuss how technology is making freight transport safer.

Please join me in a warm welcome to Lance Fritz to the National Press Club.
[applause]

LANCE FRITZ: Thank you very much, Derek. It's a great pleasure.

So with that being said, it's a real honor to be in front of the National Press Club's esteemed journalists. I see many friends, both new and old, so I'm very pleased to be able to join you here today.

The National Press Club's mission, to support professional journalism, has never been more important than it is today. More than ever, we need a vigorous, independent press to ensure that our public policy discussions, debates, are grounded in fact and reason. And one area of policy that could use more fact and reason today, maybe than ever before, is international trade, which is exactly why I'm here today.

In the past, an issue like trade policy might be pretty esoteric, it might be an abstract, but let me assure you, for Union Pacific Railroad and for the nation's freight railroads, it's anything but. The decisions made here in Washington about trade affect my hometown of Omaha, Nebraska, and all of our citizens; it affects the 7300 communities that Union Pacific serves and our 10,000-plus customers.

Today, I'm going to describe some of the impacts that I see and what I think is at stake for American workers, our consumers, our businesses and the communities that we serve if our government continues to see trade as a zero sum game.

I'd also like to briefly share with you some thoughts on the role of technology in the debate, how our industry can help workers adjust to technological disruption, and how we can use technology to provide a safer and more reliable service product.

So to understand how Union Pacific looks at trade and thinks about the future, it's helpful to know a little bit about our past. Derek mentioned we were started 156 years ago by President Lincoln when he signed us into existence with the Pacific Railway Labor Act in 1862. It always startles me when I say that because you just need to put yourself back in Lincoln's shoes. In 1862, the Union was losing the war badly. There were Southern troops within about 40 miles of the Capitol, within us right here. And it was all but a certain thing, and common knowledge, that the war would end soon; it would end in a divided nation. And a lot of the dialogue was about what's going to happen when we have two United States, not one. And what would they be called?

And yet, at that time, the President has the foresight, the intestinal fortitude to think, There is going to be one nation after this conflict. That nation is going to have to have something that stitches it back together. And he thought, what better than the exploration, the growth, the development of the West. And what better mechanism to do that at the time than to put a transcontinental railroad together. That's exactly what he was thinking when he took that action in signing that act.

And over time, we've played that vital role that he had in mind in helping the US freight railroad industry become the envy of the world. It's an irreplaceable national asset that enhances both our nation's standard of living and our competitiveness globally. Freight railroads are the bloodstream of the US economy. We support virtually every sector of our economy. In fact, we are so tightly linked to our economy that we are considered a bellwether of economic progress. Things show up in our carloads well in advance before they show up in statistics.

Today, we operate in about 23 states, over 32,000 miles of track. I have about 42,000 employees. And we serve, again, about 10,000 customers. Our market cap is over \$100 billion. As a matter of fact, between ourselves and UPS, we trade the title of being the world's most valuable publicly traded transportation company.

We have a long history of opening new frontiers and new markets, and we play a very important role in the supply chain and in international trade. Roughly, 40%, as Derek had mentioned, of our shipments originate or terminate outside the United States. That's before and after, into and out of Canada, Mexico, Asia, Europe, South America; literally, around the globe. And we are the only railroad with service to the six gateways to and from Mexico that are rail served. And we, as was mentioned, enjoy about 70% of that business. Increases in demand for autos, for grain, for plastics, beer, thousands of other products, they show up on us, again, before they show up in the statistics.

All of that means I see how international trade benefits our country every day in the stories of Americans that we serve and that we see and that are employees. So I see it in the Iowa farmers who raise soybeans as soybeans are shipped by us down to Mexico. They get crushed into oil and meal, and the oil comes back across the border as vegetable oil sold in our grocery stores.

I see it when an Iowa autoworker molds plastic dashboards. They're shipped down to Mexico or into Canada, built into a car and brought back across the border to be sold in our showrooms.

I see it in Texas. We serve a factory that makes glass bottles. We ship crushed scrap glass into the factory. It turns it into bottles. We ship those down into Mexico. They get filled with one of our favorite beers, and that gets shipped back into the United States for distribution in stores and in restaurants.

That cycle happens over and over and over every day, tens of thousands, hundreds of thousands of times a day. So from my vantage point, it's crystal clear that the US economy is quite strong. Doubtless, some part of that, maybe a large part of that is due to the corporate and individual tax reform that was passed. Some part of it is due to the sensible regulation that our government is approaching business with right now. I've heard very positive news from our customers that say that both tax reform and the sensible approach to regulation are generating strong consumer optimism, generating demand for them, and growing their confidence in capital investment.

But our potential exit from the North American Free Trade Agreement, or NAFTA, along with a growing list of tariffs and escalating trade tensions with our trade partners threaten to undo much of that progress. And what do I mean by that? So let me give you a few examples:

One of our key hubs that we serve is the Port of Long Beach, California. And because of new quotas, over the last few weeks we've been sitting— we haven't been sitting. A ship has been sitting outside the port with a shipment of steel that normally would land in the port and we'd ship it inland to our customer. The reason why it's been sitting offshore is that there's a dispute over who's going to pay that tariff.

We see it in our own consumption of steel. We buy a portion of our rail that we put into the railroad from Japan. It's premium steel and it's built to a dimension that we are having a hard time and cannot find in the United States. Our first shipment of that steel, post-tariff, happened in May, and the boat sat in San Francisco's harbor for four weeks while there was a dispute over who's going to pay the tariff, which was \$6 million for that boat. And ultimately, if we got an exemption, which we had filed with the Commerce Department, whether or not there would be a refund.

It happens in soybeans. I mentioned soybeans briefly, but that's a critical crop for the middle of the country for Midwestern farmers. And they use our rail lines to get those

soybeans to foreign markets. In the middle of the country, roughly one out of every two acres is planted for export. And you ask any soybean farmer today what they're worried about, they'll say retaliatory tariffs. Because China has imposed a 25% tariff on soybeans in retaliation of tariffs on Chinese goods. And that's sharply curtailed their purchases of soybeans in the United States. It also doesn't help that soybean prices right now are at a ten-year low.

As the president of the Arkansas Farm Bureau recently said, we're getting to a point now that it's going to be very difficult for a farmer to make a profit with prices down and an increase in prices for virtually everything else.

And I see it in lumber. Union Pacific hauls lumber from Western Canada down into locations throughout the US. The tariffs on Canadian lumber, which were enacted last year, are driving up prices and hurting American business and American consumers. Lumber tariffs have added to the cost of living and housing in the US at a time when housing is already difficult to afford. The cost of 1000 board-feet of lumber from Western Canada is up nearly 80% over the last 12 months; about 40% of that has happened this year alone. And the record high lumber prices have added nearly \$9000 for a new single family home, according to the National Home Builders Association.

Those are just a few anecdotal examples. And they are hardly the only warning signs. Studies show that tariffs will hurt US jobs. According to a study from the Trade Partnership Worldwide, for every US steel or aluminum job protected by a tariff, 16 jobs in other sectors of the US economy would be lost. According to a study commissioned by the Consumer Technology Association and the National Retail Federation, 134,000 jobs are threatened by the first round of new tariffs on China. And that could be amplified if tariffs escalate. And according to studies cited by the US Chamber of Commerce, a combined 760,000 jobs could be lost from the tariffs already enacted and those being considered to be put in place on autos and auto parts.

Tariffs also have the potential to undo the benefits of tax reform by raising the prices for a range of goods. An economist at Moody's, named Mark Zandi, has estimated that US households gained about \$900 annually from last year's tax legislation, and the widespread tariffs could consume 80% of that, about \$720 of that amount, because of the drive-up in the cost of imports.

So I want to be clear. I, we, applaud the administration for its efforts at leveling the playing field for American workers when it comes to trade, particularly when it comes to addressing China's trade practices. That's absolutely the right goal. And I agree with the administration, that NAFTA needs to be modernized. But some of our administration's proposed changes look to me like they'll do more harm than good.

For example, on NAFTA, as you know, we're seeking a sunset clause that would automatically terminate NAFTA after five years unless all three countries agreed to continue. That causes significant uncertainty for long-term business planning, which would ultimately shrink investment both in the United States, as well as in our NAFTA trading partners. A

more straightforward alternative that maybe would achieve the same objective is to replace that sunset clause with a review mechanism that says: After a reasonable period of time, any party to the transaction, to the agreement could choose to prompt the review of a specific NAFTA element on an ongoing basis; ie, so you can force the other parties to get into a negotiation on something that, for instance, has aged and needs to be changed, like in the current agreement.

The United States has also taken aim at NAFTA's investor dispute settlement process, or ISDS, which requires the NAFTA governments treat investors and other property owners in accordance with the basic private property standards that are already guaranteed in the US Constitution and under US law. ISDS allows investors of one NAFTA country to bring claims directly against a government in the pact before an independent, international arbitration tribunal. When a government engages in discrimination or an unfair treatment of a property owner, or the outright seizure of property without recourse, scrapping or other undermining that process would raise questions globally about America's commitment to due process principles. Instead, we should find and focus on mending, not ending, the ISDS, so that investors in the United States, Canada and Mexico have a clear path to protecting their investments.

Make no mistake. Withdrawing from NAFTA would be disastrous. It could damage the US economy. It also could hurt many of the 14 million jobs that depend on trade with Mexico and Canada, including the five million that are directly attributable to NAFTA. The administration needs to find a better way to address trade challenges by strengthening and modernizing agreements like NAFTA, not ending them.

China's behavior for sure needs to change. But in order to make that happen, we need to work with our allies, not start trade wars with them. We need to get China to the table to negotiate enforceable new rules, not just impose tariffs and raise prices for everyone.

The business leaders that I've spoken to understand that global trade will continue with, or without, the US. And they're concerned that America could fall behind as other countries strike trade agreements of their own. They're particularly concerned that the 11 nations in the Trans-Pacific Partnership have decided to press ahead with a new pact, despite the US decision to withdraw from the deal. And if the United States of America doesn't write the rules of global trade, I'm sure China would be more than happy to write them for us.

I believe one of the biggest challenges our society faces isn't necessarily unfair or weak trade agreements, but how to provide meaningful work and decent wages for workers whose jobs are threatened by technological change. I'd like to return to the topic of trade's impact on jobs and the changing workforce landscape.

For sure, some job dislocation happens from trade. But to blame the loss of manufacturing jobs entirely on international trade is wrong. Even countries that export more than they import, like Germany and Japan, over time have lost substantial amounts of their manufacturing job base. In 2015, the Ball State University did a study on factors responsible for declining manufacturing employment in the United States. And what they found is that of

the 5.6 million jobs lost between 2000 and 2010, roughly 88% of that could be accounted for by productivity; 88% of the 5.6 million jobs lost in that decade, 12% could be accounted for by a negative trade balance.

Most economists believe that NAFTA's most significant impact on jobs has been the gradual move to more high skill, high wage jobs and fewer low skill, low wage jobs. All you've got to do is look to Silicon Valley and the growth there that is an important contributor to that job evolution.

And while manufacturing output has been trending up in the US due to increased productivity and advancements in technology, production is accomplished with fewer and fewer workers. The decline in manufacturing employment is global; it's not local, and it's not one unique just to us. And even with the decline in the US, our country remains the second-largest manufacturer in the world. Our value-added US manufacturing output reached an all-time high of \$2.25 trillion last year. Advancements in technology and automation mean that our economy will only become more productive over time, and that more of the jobs that we provide will be better paying and safer.

We're seeing significant changes in the railroad industry as well, and I'd like to tell you a little bit about that. When you think of big data, artificial intelligence, sophisticated ultrasonic sensors or drones, freight rails don't immediately come to mind, perhaps. But they should. We're building the world's premier transportation technology solutions right now. Over the last ten years, we've made substantial investments and progress in our technology platforms. We maintain advanced telecommunications systems for our own purpose. Across our system, we have 1300 cell towers and 700 microwave towers. As a matter of fact, a number of leading technology companies partner with us to use that infrastructure for their own use.

One of our other areas of technology we call Net Control, which is a comprehensive logistics software platform that's built on something called microservices architecture. Today, we've implemented something like that 3000-plus microservices and 50 million lines of application code. We're aware of only one other company in the world that has a larger microservices implementation. The way you think about that is, that's the same kind of technology platform that is running the cloud, that Netflix uses. There's only one other company that has a larger application than ourselves.

Our technology platforms allow us to quickly deploy advanced automation, deep analytics that include AI solutions like machine learning, and to integrate quickly and effectively with our customers' operational logistics systems through things called APIs. We provide an Internet-of-Things capabilities, allowing us to leverage more sensor integration to streamline our process.

Several years ago, our engineering teams realized that lasers could be used to inspect trains instead of humans. The idea resulted in what's now called machine vision, which essentially is a big MRI for a train. It combines lasers, sophisticated high-speed digital cameras and wheel detectors into a system that can take a crystal clear 3D image of a train at

70 miles an hour. It takes 50,000 images a second that enhance and accelerate the train inspection and repair process. That reduces delays and improves our reliability and customer service.

We're using machine learning to improve our customer experience through a technology that we call Smart ETA that's built from scratch by our technology experts. And what Smart ETA does, it's an advanced machine learning model that incorporates GPS data, train speed, train schedule data, and it builds a model to make increasingly accurate estimated train arrival times. We've seen a 20% average ETA improvement since we've launched it in pilot. And in some areas, it's been as great as 80%. And we're in the process of rolling that out across our system right now.

We deploy gaming simulators to train engineers, and we're in the early stages of testing 3D printing to speed up the equipment repair and maintenance of some of our equipment. And we're using drones now to help us inspect bridges and some of those telecommunication towers I mentioned earlier.

We're aggressive also about recruiting top tier talent from all of the top universities. And we've even created a dedicated career path inside of our IT function so that if you're an individual contributor, but you're growing your skill base over time, you have a path forward that doesn't include having to get out of that work that you value, that we value, and going into a management job.

What we're trying to do isn't create one cool innovation or a series of cool innovations. We're trying to create a perpetual posture of constant innovation. That's what's necessary in the world of railroading.

As you're well aware, autonomous technology is also continuing to drive change in the transportation industry. And our competition isn't standing still. The auto and trucking industries have been pursuing autonomous operations for some time and continue to make advances, despite some initial setbacks. Pilots for autonomous trucking and platooning are active and underway right now around the world.

The rail industry is keeping pace with these trends, and we're finding ways to adopt similar technologies in a manner that makes sense in our operating environment and in our competitive environment. Last year, the world's first autonomous driver-free train completed a journey in Australia. Ultimately, it's a very long road to autonomous trains, but we have to be open-minded given the technology and the competitive challenges. And the platform already exists in the form of positive train control or PTC. PTC is a suite of technologies designed to automatically stop a train in four circumstances: before a train-to-train collision occurs, before a derailment occurs because of excessive train speed, before train movements go through a misaligned switch, or before a train enters into a work zone unauthorized. By the end of 2018, PTC is going to be installed on 100% of Union Pacific and about 75-80% of our required lines are going to be implemented with PTC.

I want to emphasize that 100% of our passenger lines are going to be equipped and available for passenger trains to use PTC by the end of this year. And as we're implementing PTC across our network, which is the largest PTC network in the United States, unanticipated operational issues have naturally developed. We're working diligently to resolve those while maintaining the health, safety and resiliency and fluidity of the rail network.

Obviously, technological change is an unstoppable force. If we want to protect American jobs, I believe we need to focus on enhancing America's ability to compete globally and helping US workers adapt to technological change. What we must do is to train our workforce for the jobs of now and the future, as opposed to looking longingly at the jobs of yesterday. Two examples of jobs that require a trained workforce are things like an automotive service bay or railroad diesel mechanics.

I've got a story. I have a friend in Omaha who owns about 20 car dealerships. And his service bays pay about \$70-80,000 for a skilled technician with a great benefits package, and there's quite a bit of job security in those jobs. He keeps about 10 or 12 bays empty because he can't find the workforce to fill it, and he's not big enough to be able to create a program to train his own.

At Union Pacific, we're big enough to train our own, but what we need is bigger pools to hire from. We're looking for technically trained employees or employees that have an aptitude towards being technical, and we'll run them through our own apprenticeship programs. But we've got to find ways as a nation to more effectively train our workers so that they can fill the gaps for us and other employers more readily, and they can compete better for today's jobs.

America spends about one-tenth of 1% of its GDP at a federal level on job retraining and job finding. That's about a sixth or a seventh of what other rich countries spend, and even that is probably not enough. We need to improve our educational system to train students to fill high skilled technical jobs across a variety of industries. We've got to stop teaching our kids that college is the only way to go, when if you work for a railroad, you can earn 70-80-90,000 a year with an excellent benefits package doing work that's very rewarding.

And we've got to protect the right of US workers and companies to compete on a level playing field by reducing unfair competition from state-owned enterprises and protecting intellectual property rights. The best thing we can do for American workers is to create new jobs. And the best way to create new jobs is trade. For every billion dollars of international trade, the United States creates 5800 new jobs. And on average, they pay about 18% more than other jobs.

I'm going to go back to the beginning. Our company was founded by Abraham Lincoln 156 years ago, and he did it so that we would connect America, east to west. Today, as our country's largest publicly traded freight railroad, we continue to provide means to American businesses to compete on a global scale. Our government has the chance to

continue creating economic opportunity for American workers and businesses, but only if we lead the world and maintain our longstanding commitment to international trade.

The best step our government can take is to create a climate in which businesses have the confidence to invest and to create jobs. But the recent trade policies have done the opposite by creating an uncertainty that's going to cause capital investment to slow down. We need to find a better way to address trade balances by modernizing agreements like NAFTA, not ending them, and by working with our allies constructively instead of starting trade wars with them.

So with that, I'd be very happy to take any of your questions. [applause]

MR. WALLBACK: Again, if you have questions, please feel free to hand them to my colleague right over there, and we'll jump right in.

You mentioned a lot on trade, a lot on tariffs and how they'll impact commodities, how they'll impact other sectors. How will they impact freight rail?

MR. FRITZ: So freight rail thrives when consumers consume things, when the industrial economy is healthy and producing, and when international trade is healthy. It'll impact all three of those sectors. Tariffs and disrupted trade tends to be a tax on consumption, for sure. It's going to drive up pricing. And so, we'll see consumption be less robust than it otherwise would be. Uncertainty, like what we see happening in NAFTA right now causes the industrial economy to slow down on its investments and be more cautious. And the industrial economy, the lifeblood of that is capital investment, so that'll be impacted.

And then when we start disrupting trade flows through either tariffs or other retaliatory mechanisms, whether it's by us or our trading partners, that disrupts trade flows. And the scariest part about that isn't the immediate impact; the scariest part for an industry participant like a freight railroad is that supply chains start altering. And once a customer has altered a supply chain and learned to live with it, and, even more, learned to optimize it, they never come back fully to the original supply chain.

And so, that'll change maybe where we've made investments. It'll change maybe where trade flows. So all of that could impact us.

MR. WALLBANK: How much more expensive is a mile of track?

MR. FRITZ: Takes about \$3 million to build a brand new mile of track. Sometimes a little more. And that's if you've got the land.

MR. WALLBANK: So steel tariffs, do they—?

MR. FRITZ: Let's talk about that a little bit. That boat that was out in the harbor, our rail bought from Japan, which we were already paying a premium to buy. The 25% tariff

on it cost us about \$6 million. So it's a pretty significant amount. Rail might be, call it three-quarters-of-a-million dollars a mile.

MR. WALLBANK: You had mentioned the tax cuts. And I want to get to that because the things that we're seeing across companies now is a great influx of cash. I'm sure you've seen that as well in your business. What are you doing with it?

MR. FRITZ: So we were a great beneficiary of corporate tax reform because we are a US-based big asset participant in the economy. Our asset base undepreciated is about \$70 billion, and we spend about 3.5 billion in capital a year. So what we've done with our incremental cash flow, we did uptick our capital spend this year. Our wages and wage base and benefits are very attractive. And we're increasing the amount of cash we're giving back to our shareholders. It's their cash to begin with.

MR. WALLBANK: We've seen a lot in the way of buybacks and in the way of other things that sort of raised share prices. Are you doing a lot of additional capital expenditures? Where's that going?

MR. FRITZ: So in your mind's eye think, this year's capital spending versus last year's is something like up 150 or \$200 million. That's a significant amount for any company. The benefit from corporate tax might have been in the neighborhood of a billion dollars in incremental annual cash flow. And the rest is both reflected in hopefully job growth as the economy percolates. So that's a bigger wage base for us. And then returning to shareholders in dividends and in buybacks.

MR. WALLBANK: One of the things that I know that you're working on is dwell time, train velocity, basic sort of the block-and-tackle statistics that you deal with. And right now, I know that you all have said that you're trying to increase capacity; it's one of the things you've been very clear on. Dwell time, at least over the last several quarters, keeps rising; train velocity falling. What's going on there?

MR. FRITZ: Good question. So dwell time actually, right now, we publish statistics weekly with the AAR, the Association of American Railroads, our dwell time's down pretty substantially; call it in the neighborhood of 29 hours a day. And when I say that, that's a measure of every rail car on the railroad and how long it sits in a terminal when it's not on a train running. And velocity is every mile of the railroad where trains move, even through terminals, how many miles you make in a given hour.

We had a little bit of congestion at the last end of last year and into the beginning of this year. That was caused by a number of events, some of them weather events like Hurricane Harvey, some of them some other catalysts. And we've been working to get those statistics back. Both of them are on the road and largely back to being kind of the way the railroad is designed.

So we're within kind of earshot, call it 20%, plus or minus, of being where we want to be. Now, where we want to be is where our customers want us to be, which is excellent

service, highly reliable, do what we say we're going to do. That's what they expect of us, that's what we deliver to them. And we're on the way to being that exactly.

MR. WALLBANK: If I matched you against other companies that are direct competitors, BNSF has slightly better rates right now, when are you going to catch them?

MR. FRITZ: So BNSF does not have slightly better rates right now.

MR. WALLBANK: No? [laughter]

MR. FRITZ: It depends on what you're looking at. So let's deconstruct the industry. We think winning in business is generating the most cash flow from operations and the most operating income. We're winning in the industry. We generate more than the second in operating income by three-quarters of a billion annually. Our shareholders appreciate that and applaud it, and they'd like us to continue to do better.

If winning is described more broadly as creating long-term shareholder value and doing it in a sustainable way, we're the most valuable transportation company in the world. So I think we're doing a pretty fair job there.

And when you broaden that even further, we like to talk about what we're creating for four key stakeholders, which are: our customers, who depend on us to win in their marketplace; our employees, who depend on us to fulfill themselves; the communities that we serve, who depend on us to be safe, reliable and build their economic fabric; and our shareholders, who depend on us to generate an attractive return for them. In all categories, we're making progress and I would consider us a market leader.

MR. WALLBANK: Two of the main things that I think any freight rail deals with, coal and oil. And these are two things that you talked about the President's policies and how they're having an effect. This President has made no secret of wanting more coal, wanting more shipping on coal. Are you seeing it yet? Are you expecting anything? Are you changing your business in a way that would allow you to carry more? Where are we going on that? Because I'm not sure that what we're necessarily seeing is matching the rhetoric.

MR. FRITZ: Derek, I think largely our experience is society has made a decision that they want to rebalance our electricity generation, and they want to rebalance away from coal. So we see coal as an industry in kind of a secular repositioning. It used to generate half the nation's electricity, if you go back 10 or 15 years. Today, it generates maybe 30%. I don't think that grows from where it is today as a percent of electricity generation. I think it is important for our economy to have a good, balanced support of multiple fuels generating our electricity. Coal's excellent because you can store the fuel source outside on property, and it's highly reliable, and we've got a lot of it.

MR. WALLBANK: Can I jump in right there? So sometimes when we're looking at growth, people are talking growth in absolute numbers, and sometimes it's just growth

against projections. So right now, if the projections are down and they go to flat, that's growth. Is that what you're saying that we could be hitting?

MR. FRITZ: It's hard to say that. I think as we look out in the future, maybe the best source is the EIA, which is a government entity that looks at the energy industry. Their projections are kind of short-term flattening out of the curve, but long-term that percentage is probably still going to drop to some degree. I don't think it goes away. I don't think that's good for the nation for it to go away. But I think it's probably got more downward pressure than upward pressure.

MR. WALLBANK: On oil, what price do we need to be at West Texas Intermediate for that to start coming up to where it was maybe a four or five years ago?

MR. FRITZ: So oil is really not terribly directly connected to coal consumption. Natural gas is directly connected to coal consumption. Natural gas and oil have some connectivity, but recently they've been kind of disconnected to a degree. That is, we've generated so much more incremental oil production in the United States that we're awash in natural gas. So our natural gas pricing right now has been pretty stable, and it's been in the \$3 plus-or-minus range, or even less, for quite a bit of time. That'll change over time because that'll prompt consumption of natural gas and the demand then will start consuming the excess supply.

But we're in a place that looks like, for a bit of time, we've got plenty of natural gas and that's what's going to really retard coal demand on the demand side.

MR. WALLBANK: One of the questions from the audience, you talked a little bit about cash influx and what you're doing with that, you have a long history of opening new markets, being in new places. What's new? Where are you going? Are there any new markets you're looking at opening now?

MR. FRITZ: Yeah, what's new in the world of railroads is the consumerization of our customer base. So if you think about our experience, regardless of your age right now, you've probably Uber'ed, you've probably Airbnb'ed or at least you know somebody that has. You certainly have used Amazon, probably Amazon Prime. You certainly have used UPS, probably UPS My Choice, or the FedEx equivalent. And so, what you see in that is instant pricing, lots of options, done your way, delivered your way, when you want it. Our customer base is looking at us like that. Because the buyers of our service have that personal experience and they think, In your industry, why not?

So what I think is happening, and it's happening rapidly, and we're driving it, is applying technology and innovation to that customer experience. So we're not only applying it on the inside of the business – I mentioned a lot of those examples today – but we're applying it to the outside of the business. All along the path that a customer interacts with us, making that experience rapid, easy, ridiculously easy, and something that they want to do more of, not less of. That's a sea change for us as an industry.

MR. WALLBANK: Another question from the audience had to do with what are you going to do with the money question. I think that's on a lot of people's minds. Mergers and acquisitions, that's a place that people always talk about. I do want to ask what you're looking at in terms of M&A, if there's anything going on. And then I have another question on that front, too.

MR. FRITZ: Sure. For us, right now, M&A has been relatively small. Think in terms of adjacencies to our core business. Within the last year-and-a-half we bought some cold storage warehouse business because it fit really well with a service product that we call Cold Connect, where we ship fruits and vegetables from the West Coast into the middle of the country and the East Coast. I think most of our M&A activity would be in areas like that, adjacencies that are value-adds for our customer base.

If you're thinking about industry consolidation, I don't anticipate that's going to be occurring any time soon.

MR. WALLBANK: You don't want to buy another railroad?

MR. FRITZ: We're not looking or interested.

MR. WALLBANK: Connecting east and west?

MR. FRITZ: Not right now, we're not. Thank you.

MR. WALLBANK: Do you think that's actually going to— it's a thing that I had multiple people ask me to ask you. Is there going to be that in the future, or is the industry pretty happy with where it is right now?

MR. FRITZ: So the industry has been in its current state for quite some time. And there could potentially be benefits of additional consolidation, right? You can always kind of take redundancies out. But the path forward is to go through the STB for authorization to acquire another Class I railroad or for two Class Is to merge. And in that process, they are committed to evaluate not just the competitive dynamics, but to enhance competition in the industry through acquisition. It's got to be more competitive, not less.

And also, they have full control of the remedies, and they've got to consider the downstream impacts of the first transcontinental merger, or Class I merger. All that being said, we think those economics mean more value destroyed than value created. And so, right now, we don't think that's the right path to go down.

MR. WALLBANK: Let's go back to trade. Put a fine point on it. You mentioned a lot of your business relationship with Mexico, with companies in Mexico, with servicio, which is very, very important, let's be clear.

MR. FRITZ: Hopefully to everybody. Buy more. [laughter]

MR. WALLBANK: Put a fine point on it. What would repealing NAFTA mean to Union Pacific?

MR. FRITZ: Again, I think it would be a disaster. And first and foremost, it would be bad for our economy. I truly believe that. I think it would have a downward pressure on job, a downward pressure on trade, and an upward pressure on price. And we thrive when the economy thrives. So right off the bat, that's the biggest concern I have. There are some other concerns that are more granular and specific to Union Pacific, but those are of less concern to me than the general impact on the economy.

MR. WALLBANK: Let me think about some of the safety things you had mentioned. Positive train control: goal, end of the year, I think you said? One to 100%, how confident are you that you hit that?

MR. FRITZ: 100%.

MR. WALLBANK: 100%?

MR. FRITZ: 100% that we're going to be 100% installed, everybody trained for it, all the bandwidth we need, and we'll have about 75% of our railroad implemented, lit up, working under PTC. We have 2019 and 2020 to do the rest. There's a lot of hard work there. I'm 100% confident by or before the end of 2020 it's all done for Union Pacific.

MR. WALLBANK: Another question from the audience, also dealing with safety: In your network area, you have, I don't even know what the number could possibly be of at-grade crossings.

MR. FRITZ: It's a lot.

MR. WALLBANK: A lot. At-grade crossings, something that other countries trying to minimize. It's a major source of accidents, vehicular, points where derailments might happen. Are you doing anything to try and reduce the number? Do you have a goal there?

MR. FRITZ: Yeah, absolutely. In your mind's eye, we've got 32,000 miles of railroad. We have about 30,000 grade crossings; it's about one a mile. But of course they're not spread out evenly. And the issue is, driver behavior accounts for virtually all of our crossing accidents.

MR. WALLBANK: Yeah, "I want to beat the barrier."

MR. FRITZ: And we have a crossing accident a day, on average, statistically. It's really discouraging. So what we're doing about that is a couple of things. One is big data and analytics. We enrolled the help of some smart PhDs on the outside, some of our own, and collectively they came up with a 27-factor model to determine relative risk of grade crossings. And then that drives our team on the riskiest crossings to go out, work with the

local community and come up with a game plan to mitigate the risk. So we're doing that all over the place right now.

MR. WALLBANK: Are you seeing, given the fact that a fair number of Republican legislators were in a train earlier this year, that hit a vehicle at an at-grade crossing, are you actually seeing any sort of legislative move towards anything?

MR. FRITZ: I'll tell you what, what I am seeing is those conversations are much more meaningful.

MR. WALLBANK: Yeah, they are.

MR. FRITZ: And we can drive to personal experience, which always helps. The other thing that's really important is fully 70% of the grade crossing accidents on our railroad happen where there's active warning devices, either gates or flashing lights. So I don't think it's about, let's add more flashing lights; I think it's about, we've got to harden the infrastructure to the greatest degree and shunt drivers to those places. And then the next thing we've got to do is, when we're developing autonomy, we have to build traffic law into the autonomous vehicle. And for a grade crossing that means stop. And if it's not clear, don't go. Right? So autonomy will help us tremendously in that way.

MR. WALLBANK: Are accidents up or down?

MR. FRITZ: Grade crossing accidents are marginally up. But what they're really doing is sawtoothed over the course of the last four or five years. It's very, very frustrating. For a company that cares deeply about safety, there's nothing more frustrating right now than grade crossing incidents and trespasser incidents.

MR. WALLBANK: Speaking of trespasser incidents, we've had a lot of talk about immigration, there's a big focus within the Trump administration on reducing illegal immigration. Are you seeing anything in terms of that connected with your freight rail network?

MR. FRITZ: Yeah. And the way we think about immigration is more about a job source. If you look at the United States, we've got labor participation rate of something like just below 63%. Historically, that was 67%. Economists will tell you there's some reason for it to drop. I will tell you there are some reasons for it to drop, and some of them are within our control. The opioid epidemic is creating felons at large number that become essentially unemployable. We've got a number of other issues going on in the younger population that we've got to deal with.

So we're going to need immigration to feed the workforce to keep the economy going. Our US citizens, there's not enough in the workforce to do the work necessarily. We saw a statistic, I think it was last month, for the first time in a forever, the number of open jobs exceeded the number of individuals seeking a job. So you've got just fundamental imbalance right out of the chute.

MR. WALLBANK: One of the things that we're tracking heavily is the folks that the President may or may not be listening to on this topic. Obviously, this is a President who's come out and had this Office of US Trade representative just the other day outline \$200 billion in possible tariffs from China, who's come out with aluminum tariffs, steel tariffs, washing machine tariffs, solar cell tariffs, et cetera, et cetera, et cetera. It seems like a lot of the free trade/more trade guys aren't there right now. So who do you go to? Who's the open door?

MR. FRITZ: Well, we'll speak to anybody. You don't have to be a friend—

MR. WALLBANK: Who speaks to you?

MR. FRITZ: [laughter] You don't have to be a friend to be part of our dialogue, right? I mean, if all we do is speak to the friendlies, you're probably not having an impact.

MR. WALLBANK: Let me ask it this way: Who's your biggest ally in the administration?

MR. FRITZ: [laughter] There are a number in the administration that I think fundamentally get the utility of trade and the end game right. Whether that's Wilbur Ross in Commerce or Larry Kudlow or Mnuchin. I mean, there's many. What I'm worried about is the tactics.

MR. WALLBANK: One of the questions from the audience I wanted to put to you: Do you think that the trade war is coming to an immediate climax some time soon? Or are you expecting this to endure throughout the Trump presidency and beyond?

MR. FRITZ: Either way is bad from my perspective. If you think about NAFTA, if we get into a place where we wake up this time next year, and there's still uncertainty about NAFTA, effectively we're retarding investment. That's essentially now two-and-a-half years of uncertainty shrouding NAFTA, and I'm sure that would start impacting people's decisions, businesses' decisions on where they're going to make their investment, and to what degree.

If something were to happen catastrophically today, negatively, that's a bad outcome because I'd prefer to tread water and be in dialogue than make a bad decision.

The best outcome is, let's close this baby up quickly. Let's stop picking fights with some of our trade partners. And let's focus our full attention and might on the issues at hand, which is fair and equitable trade and investment with China.

MR. WALLBANK: A question from the audience I'll read to you: Union Pacific recently had a non-agreement employee layoff in restructuring of company-wide non-agreement positions. In retrospect, anything you would have done differently?

MR. FRITZ: Ha, if you've ever led an organization, you'd be lying if you said "I'd do it exactly the same every time." And so, for sure, there are some things that I would do differently. The thing I wouldn't do differently is, those decisions were made for the right reason. Union Pacific has to be more agile. We have to be able to make decisions more quickly. We have to allow technology to do the work that's necessary. And we have to be able to compete both in our freight railroad market and against the outside world, whether it's barge or geographic competition or truck.

What I would do differently is, I would focus more attention on the change management process. That's an area that I think my leadership team and I did not do a particularly stellar job at. And given an opportunity to do it again, I'd spend more time and energy on that.

MR. WALLBANK: Let me ask you about some future technologies. It seems somewhat pie in the sky, but I think I've captured a bit of the imagination. What do you think about the Hyperloop? Is that realistic?

MR. FRITZ: We pay attention to the Hyperloop.

MR. WALLBANK: Are you going to build one?

MR. FRITZ: We were invited to participate and we chose not to, at this point. Hyperloop right now largely is defined around trying to move passengers. There is a context for trying to move freight. But the context for moving freight is pretty small quantity, and there's a lot of challenges there. I mean, big mass, accelerating rapidly and decelerating rapidly, there's a lot of physics to that, and it's not real obvious to us that that's an immediate, direct competitive threat. Autonomy, platooning, just the application of technology to our relationships with customers, much more immediate, much attention-grabbing right now.

MR. WALLBANK: There is movement underway to build a magnetic levitation train from Washington to Baltimore, and then eventually on to New York. Realistic? Not realistic?

MR. FRITZ: That's for you guys to decide out here on the East Coast. [laughter]

MR. WALLBANK: Do you want one in Texas?

MR. FRITZ: I do not need one in Texas.

MR. WALLBANK: Let me ask you about passenger rail though, because it runs on your tracks, I believe. And obviously, Amtrak has had well-publicized issues, especially with on-time rates; that's always a persistent thing. How do you rate Amtrak right now? Where is that going? And if you can sort of give us any idea of how it looks as a partner under the Trump administration versus previous years.

MR. FRITZ: Yeah, sure. I'm going to do the unconscionable; my communication team is starting to cringe.

MR. WALLBANK: This is a good idea.

MR. FRITZ: [laughter] I'll rate us in the context of Amtrak, and then talk about our relationship with Amtrak. So we have an obligation. Amtrak has a contract to run on us with authority, if you will, over our freight traffic. And we take that seriously. That's a contract that we entered into knowingly. It's one that we honor. And we're very proud of providing the best service level of long-haul Amtrak anywhere on any system. So we care about that. That service is on Union Pacific.

Now, having said that, we're not looking to run more Amtrak trains. We don't make money in that marketplace. And they have an outsized footprint on the railroad. I look at Amtrak and I think, so long as the United States wants passenger rail to exist and long-haul passenger rail to exist, the United States needs to figure out how to fund it adequately and reliably. We don't do that now. Amtrak begs for their subsidy every year, and it's going up and down. And that's a bad place to be.

So I would advocate that if we, as a country, think that we want long-haul passenger rail service and you want the Northeast Corridor and you want state-sponsored service on Amtrak, figure out reliable funding mechanisms, put them in place, and make it happen.

MR. WALLBANK: One of the best success stories, probably I think unquestionably the best Amtrak success story is the Northeast region, the Acela, the Northeast Regional, et cetera. There's talk about doing a little bit more like that in your footprint, your Houston-Dallas, et cetera. Do you see anything like that in the immediate future? Is that realistic? Would the marketplace support that? Or is everyone pretty well wedded to Southwest?

MR. FRITZ: One of those has already occurred on us. We run a line between Chicago and St. Louis, and we had a very long-term agreement with the state of Illinois, that under certain circumstances we would increase, or at least host a passenger service on that line. That's happened. And it is a higher speed rail line. It's built out to be, I want to say 120 miles an hour on certain segments. And it's hosted by Amtrak, and they're making significant capital investment, along with the state and the federal government. And so, we're already a participant in that.

Now, I'm going to tell you, I don't think that ridership is going to explode on that service and it's going to replace the air service between Chicago and St. Louis.

MR. WALLBANK: Well, we're coming to the end of this. I did promise to be prompt, and I like to respect everyone's time on that. I know you all are very used to promptness. Right before we close up, we do have one last question as a tradition, and I'll get to that in a moment. But before that, let me make some announcements while I have you all here as a captive audience.

Future National Press Club events with major speakers: July 16th, a luncheon with MLB Commissioner Rob Manfred; you can ask him about the All-Star Game. July 18th, a luncheon with Anthony Fauci, the Director of NIAID. And August 13th, a book event with Sean Spicer; I think that will be very well attended, just as the Anthony Scaramucci one was earlier this year.

And I'd also like to present you – this is a big deal – with a National Press Club mug.

MR. FRITZ: Wow!

MR. WALLBANK: It's a tradition that we do for speakers.

MR. FRITZ: Super cool! [applause] Thank you.

MR. WALLBANK: And I can confidently say it fits well within any possible gift limits.

MR. FRITZ: [laughter] There's only one to get it.

MR. WALLBANK: My final question to you is: As many people in this country, their familiarity with freight rail started at a very, very young age. Do you see yourself more as a Thomas or a Topham Hatt?

MR. FRITZ: [laughter] I'm definitely a Thomas, right? I try hard, I'm a grinder, will take on any challenge as a team, and succeed. We're Thomases.

MR. WALLBANK: Lance Fritz, a very useful engine, thank you for being here at the National Press Club. [applause]

MR. FRITZ: I appreciate it. Great job on the questions, those were good questions.

MR. WALLBANK: Thank you all for joining us here at the Press Club. That is a night. [sounds gavel]

END